

# MAHARASHTRA JEEVAN PRADHIKARAN



**STATE SCHEDULE OF RATES FOR 2023-24**

**W.E.F. Dt. 20/06/2023**



# महाराष्ट्र जीवन प्राधिकरण

मुख्य अभियंता, पुणे प्रादेशिक विभाग, पुणे  
नवीन प्रशासकीय इमारत, पुणे लष्कर पा.पु. केंद्र आवार,  
४६३ स्टेव्हली रोड, सेंट मेरी चर्च शेजारी, कॅम्प, पुणे-४११००१  
दूरध्वनी : कार्यालयीन ०२०- २९७०६०६४/२९७०६०६८



स्वातंत्र्याचा अमृत महोत्सव

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जा.क्र.: मु.अ.(पुणे)/तांशा-३/दरसूची २०२३-२४/७५८०

दि. २७/०६/२०२३

## परिपत्रक

विषय :- मजीप्राची राज्यस्तरीय दरसूची सन २०२३-२४ दि. २०/०६/२०२३ पासून लागू करणेबाबत

संदर्भ :- १) अधीक्षक अभियंता (मु), मजीप्रा मुंबई यांचे पत्र क्र. मजीप्रा/सस/तांशा३/५३८ दि. १९/०४/२०२३

२) मा. सदस्य सचिव, मजीप्रा मुंबई यांची कार्यालयीन टिप्पणी दि. १४/०६/२०२३ अन्वये दिलेले निर्देश.

३) अधीक्षक अभियंता (मु), मजीप्रा मुंबई यांचे पत्र क्र. मजीप्रा/सस/तांशा३/७३८ दि. १९/०६/२०२३

महाराष्ट्र जीवन प्राधिकरणाची सन २०२३-२४ ची राज्यस्तरीय दरसूची तयार करण्याचे मा. सदस्य सचिव मजीप्रा मुंबई यांनी निर्देश दिले आहेत. त्याअनुषंगाने दरसूची समितीने दरसूचीतील दराबाबतचा प्रस्ताव मा. सदस्य सचिव मजीप्रा मुंबई यांना धारिकेद्वारे सादर करण्यात आला. सदर धारिका, प्रस्ताव मंजूर करुन मा. सदस्य सचिव मजीप्रा मुंबई यांनी सन २०२३-२४ साठीची दरसूची दि. २०/०६/२०२३ पासून लागू करण्याचे निर्देश दिले आहेत.

सदर निर्देशाच्या अनुषंगाने मजीप्राची राज्यस्तरीय दरसूची सन २०२३-२४ दि. २०/०६/२०२३ पासून या परिपत्रकाद्वारे लागू करण्यात येत आहे. सदर दरसूची मजीप्राच्या <https://mjp.maharashtra.gov.in> या वेबसाईटवर उपलब्ध करण्यात येत आहे.

  
(रा.सा.राहाणे)

अध्यक्ष, दरसूची समिती तथा मुख्य अभियंता

प्रत : मा. सदस्य सचिव, मजीप्रा मुंबई यांना माहितीसाठी सविनय सादर.

सोबत : राज्यस्तरीय दरसूची सन २०२३-२४ ईमेल द्वारे

प्रत : मुख्य अभियंता, मजीप्रा प्रादेशिक विभाग, ठाणे, नाशिक, अमरावती, नागपूर, औरंगाबाद यांना माहितीस्तव सस्नेह अग्रेषित. सोबत : राज्यस्तरीय दरसूची सन २०२३-२४ ईमेल द्वारे

प्रत : मुख्य कार्यकारी अधिकारी, जि. प. पुणे/सातारा/सांगली/सोलापूर/कोल्हापूर माहितीसाठी सस्नेह अग्रेषित.

प्रत : आयुक्त महानगरपालिका पुणे/सातारा/सांगली/सोलापूर/कोल्हापूर यांना माहितीसाठी सस्नेह अग्रेषित.

प्रत : अधीक्षक अभियंता, महाराष्ट्र जीवन प्राधिकरण विभाग सांगली/पुणे यांना माहिती व कार्यवाहीसाठी.

प्रत : कार्यकारी अभियंता मजीप्रा मंडळ, पुणे १, २ सातारा/कराड/सांगली/सोलापूर/कोल्हापूर यांना माहितीसाठी.

प्रत : कार्यकारी अभियंता, ग्रा.पा.पू.विभाग जि.प पुणे/सातारा/सांगली/सोलापूर/कोल्हापूर यांना माहितीसाठी.

प्रत : उप अभियंता, अद्यावत तंत्रज्ञान कक्ष, मजीप्रा मुंबई यांना माहितीसाठी व मजीप्राच्या संकेतस्थळावर Upload करण्यासाठी. सोबत : राज्यस्तरीय दरसूची सन २०२३-२४ ईमेल द्वारे.

# MAHARASHTRA JEEVAN PRADHIKARAN



## STATE SCHEDULE OF RATES

**YEAR 2023 - 24**

(As per Approval given by Hon. Member Secretery,  
Maharashtra Jeevan Pradhikaran Mumbai,  
vide office note on 14/06/2023)

**w.e.f Dt. 20 / 06 / 2023**



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MJP SSR 2023-24

## **LIST OF HILLY AREA**



## शासन निर्णय, ग्राम विकास विभाग क्र.

ग्रापापु १०९०/सीआर-१६३/३९-अ, दि. ७ डिसेंबर १९९०

चे सहपत्र

परिशिष्ट - १

### राज्यातील डोंगरी विभागाचे क्षेत्र दर्शविणारे विवरणपत्र

जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५० टक्के पेक्षा जास्त क्षेत्र आहे तो पूर्ण गट	उपगट ज्या तालुक्यात २० टक्के पेक्षा जास्त व ५० टक्के पेक्षा कमी आहे तो उप गट	शेरा
१	२	३	४	५	६
१ ठाणे वसई	१. मोखाडा २. वाडा ३. शहापूर ४. मुरबाड ५. जव्हार ६. वसई ७. भिवंडी ८. कर्जत ९. खालापूर १०. सुधागड ११. रोहा १२. माणगांव १३. महाड १४. पोलादपूर १५. पेण १६. मुरुड	सहयाद्री पर्वत रांगा पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट पश्चिम घाट	पूर्ण गट (१) पूर्ण गट (२) पूर्ण गट (३) पूर्ण गट (४) पूर्ण गट (५) - - पूर्ण गट (६) पूर्ण गट (७) पूर्ण गट (८) पूर्ण गट (९) पूर्ण गट (१०) पूर्ण गट (११) पूर्ण गट (१२) पूर्ण गट (१३) पूर्ण गट (१४)	- उपगट (१) उपगट (२)	पूर्व भाग उत्तर पश्चिम भाग
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जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५० टक्के पेक्षा जास्त क्षेत्र आहे तो पूर्ण गट	उपगट ज्या तालुक्यात २० टक्के पेक्षा जास्त व ५० टक्के पेक्षा कमी आहे तो उप गट	शेरा	
१	२	३	४	५	६	
४. सिंधुदुर्ग	२५. कणकवली	पश्चिम घाट	पूर्ण गट (२१)		पूर्व भाग	
	२६. सावंतवाडी	पश्चिम घाट	पूर्ण गट (२२)			
	२७. देवगड	पश्चिम घाट	पूर्ण गट (२३)			
	२८. कुडाळ	पश्चिम घाट	पूर्ण गट (२४)			
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		३३. दिंडोरी	पश्चिम घाट	पूर्ण गट (२९)		
		३४. पेठ	पश्चिम घाट	पूर्ण गट (३०)		
		३५. सुरगाणा	पश्चिम घाट	पूर्ण गट (३१)		
		३६. कळवण	पश्चिम घाट	पूर्ण गट (३२)		
३७. बागलाण (सटाणा)		पश्चिम घाट	पूर्ण गट (३३)			
६. अहमदनगर	३८. सिन्नर	पश्चिम घाट	पूर्ण गट (३४)			
	३९. अकोला	पश्चिम घाट	पूर्ण गट (३५)			
	४०. संगमनेर	पश्चिम घाट	पूर्ण गट (३५)			
७. पुणे	४१. जुन्नर	सहयाद्री पर्वत रांगा	पूर्ण गट (३६)			
	४२. आंबेगांव	सहयाद्री पर्वत रांगा	पूर्ण गट (३७)			
	४३. खेड (राजगुरुनगर)	सहयाद्री पर्वत रांगा	पूर्ण गट (३८)			
	४४. मावळ	सहयाद्री पर्वत रांगा	पूर्ण गट (३९)			
	४५. हवेली	सहयाद्री पर्वत रांगा	पूर्ण गट (४०)			
	४६. मुळेशी	सहयाद्री पर्वत रांगा	पूर्ण गट (४१)			
	४७. वेल्हे	सहयाद्री पर्वत रांगा	पूर्ण गट (४२)			
८. सातारा	४८. भोर	सहयाद्री पर्वत रांगा	पूर्ण गट (४३)			
	४९. पुरंदर	सहयाद्री पर्वत रांगा	पूर्ण गट (४४)			
	५०. सातारा	सहयाद्री पर्वत रांगा	पूर्ण गट (४५)			
	५१. वाई	सहयाद्री पर्वत रांगा	पूर्ण गट (४६)			



जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५० टक्के पेक्षा जास्त क्षेत्र आहे तो पूर्ण गट	उपगट ज्या तालुक्यात २० टक्के पेक्षा जास्त व ५० टक्के पेक्षा कमी आहे तो उप गट	शेरा	
१	२	३	४	५	६	
९. सांगली १०. कोल्हापूर	५२. पाटणा	सहयाद्री पर्वत रांगा	पूर्ण गट (४७)		पूर्वेकडील पश्चिम भाग पूर्वेकडील काही भाग, दक्षिणेकडील व पूर्वेकडील भाग	
	५३. जावळी	सहयाद्री पर्वत रांगा	पूर्ण गट (४८)			
	५४. महाबळेश्वर	सहयाद्री पर्वत रांगा	पूर्ण गट (४९)			
	५५. खटाव	सहयाद्री पर्वत रांगा	पूर्ण गट (५०)			
	५६. खंडाळा	सहयाद्री पर्वत रांगा	पूर्ण गट (५१)			
	५७. कोरेगांव	सहयाद्री पर्वत रांगा	पूर्ण गट (५२)			
	५८. कराड	सहयाद्री पर्वत रांगा	पूर्ण गट	उपगट (६)		
	६०. फलटण	सहयाद्री पर्वत रांगा	पूर्ण गट	उपगट (७)		
	६१. शिराळा	सहयाद्री पर्वत रांगा	पूर्ण गट (५३)	उपगट (८)		
	६२. शाहूवाडी	सहयाद्री पर्वत रांगा	पूर्ण गट (५४)			
	६३. पन्हाळा	सहयाद्री पर्वत रांगा	पूर्ण गट (५५)			
	६४. करवीर	सहयाद्री पर्वत रांगा	पूर्ण गट (५६)			
	६५. गगनबावडा	सहयाद्री पर्वत रांगा	पूर्ण गट (५७)			
	६६. राधानगरी	सहयाद्री पर्वत रांगा	पूर्ण गट (५८)			
	६७. कागल	सहयाद्री पर्वत रांगा	पूर्ण गट (५९)			
	६८. भुदरगड	पश्चिम घाट	पूर्ण गट (६०)			
	६९. आजरा	पश्चिम घाट	पूर्ण गट (६१)			
	७०. चंदगड	पश्चिम घाट	पूर्ण गट (६२)			
	७१. धुळे	७१. गडहिंग्लज	पश्चिम घाट	पूर्ण गट (६३)		
		७२. साक्री	पश्चिम घाट	पूर्ण गट (६४)		
	७३. नवापुरी	पश्चिम घाट	पूर्ण गट (६५)			
	७४. अककलकुवा	सातपुडा डोंगर	पूर्ण गट (६६)			
	७५. अकाणी	सातपुडा डोंगर	पूर्ण गट (६७)			
१२. जळगांव	७६. शिरपूर	सातपुडा डोंगर	पूर्ण गट (६८)		पूर्वेकडील व थोडा उत्तरे - कडील भाग उत्तरेकडील भाग उत्तरेकडील भाग उत्तरेकडील भाग उत्तरेकडील भाग	
	७७. शहादा	सातपुडा डोंगर		उपगट (९)		
	७८. तळोदा	सातपुडा डोंगर		उपगट (१०)		
	७९. चोपडा	सातपुडा डोंगर		उपगट (११)		
	८०. यावल	सातपुडा डोंगर		उपगट (१२)		
	८१. रावेर	सातपुडा डोंगर		उपगट (१३)		





जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५० टक्के पेक्षा जास्त क्षेत्र आहे तो पूर्ण गट	उपगट ज्या तालुक्यात २० टक्के पेक्षा जास्त व ५० टक्के पेक्षा कमी आहे तो उप गट	शेरा	
१	२	३	४	५	६	
१३. अमरावती	८२. ऐदलाबाद	सातपुडा डोंगर		उपगट (१४)	काही भाग पूर्वेकडील व काही भाग उत्तरेकडील	
	८३. धारणी	सातपुडा डोंगर	पूर्णगट (६९)			
	८४. चिखलदरा	सातपुडा डोंगर	पूर्णगट (७०)			
	१४. यवतमाळ	८५. पुसद	सतमाळा रांगा	पूर्णगट	उपगट (१५)	उत्तर पश्चिमेकडील भाग, थोडा मध्यमभाग
		८६. अमरखेड	सतमाळा रांगा		उपगट (१६)	उत्तरेकडील व पूर्वेकडील भाग
	१५. नांदेड	८७. किनवट	सतमाळा रांगा	पूर्णगट (७१)		
	१६. अकोला	८८. पातूर	अजिंठाचे डोंगर	-	उपगट (१७)	दक्षिण व पूर्व
	१७. बुलढाणा	८९. खामगांव	अजिंठाचे डोंगर	-	उपगट (१८)	उत्तर व पूर्वेकडील भाग
	१८. औरंगाबाद	९०. कन्नड	अजिंठाचे डोंगर	-	उपगट (१९)	उत्तरे व पूर्वेकडील भाग
		९१. खुलताबाद	अजिंठाचे डोंगर	-	उपगट (२०)	मधला व दक्षिणेकडील भाग
९२. सोयगांव		अजिंठाचे डोंगर	पूर्णगट (७२)	-	-	
१९. परभणी	९३. सिल्लोड	अजिंठाचे डोंगर	-	उपगट (२१)	उत्तरेकडील व थोडा दक्षिण पश्चिमेकडील भाग	
	९४. हिंगोली	अजिंठाचे डोंगर	-	उपगट (२२)	दक्षिणेकडील भाग	
	९५. कलमनुरी	अजिंठाचे डोंगर	-	उपगट (२३)	दक्षिणेकडील भाग	



## शासन निर्णय, ग्राम विकास विभाग क्र.

ग्रापापु १०९०/सीआर-१६३/३९-अ, दि. ७ डिसेंबर १९९० चे सहपत्र

### परिशिष्ट - २

तालुकावार यादीतील उपगट म्हणून घोषित केलेल्या तालुक्यातील गावांची यादी  
दर्शविणारे विवरणपत्र

जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
१) ठाणे वसई	१) चांदज २) तिपलिया ३) शिवनासा ४) पानसा ५) उसगांव ६) पारोळ ७) शिरवली ८) जळक्रीया ९) वसई १०) सारवण ११) घाटेघर १२) भावखल १३) पेलाट १४) साजिवली १५) दापेवली १६) कार्जुरा १७) खाडेकर १८) भिडा १९) खोलसट २०) खैरे २१) संदा २२) चुडाल २३) तिल्हेस २४) सावट २५) मरतारी २६) बिलवूडा २७) गया २८) दडविरा २९) सातवली ३०) खाडी ३१) दैंडा ३२) दडीप ३३) वामन ३४) काजू ३५) कोल्ही ३६) कोळा ३७) चिंचाटी ३८) होवाऊन
२) भिवंडी	१) गणेशपूरी २) वडवली ३) उसगांव ४) धाडगांव ५) आंदीपाडा ६) गोबाटा ७) मोहिली ८) बावची ९) मालवियोर १०) बेलोली ११) उसपाडी पाडा १२) आंबराई पाडा १३) घ्यार १४) खडकी खुर्द १५) पिंपळशेत १६) खडकी बुद्रुक १७) भाऊपोळ १८) कुहापाडा १९) कुहा २०) आंबापाडा २१) देवपाडा कुलईपाडा २२) पायगांव ३०) पाया ३१) पेरुनपाडा ३२) भावडीपाडा ३३) खार भाव ३५) गाना ३६) लाकेवली ३७) चिंचपाडा ३८) गौरीपाडा ३९) डोकरपाडा ४०) अलकौअरी
३) रायगड पनवेल	१) माणिकघर २) घोडसावना ३) सावना ४) बामणोरी ५) नामदेवी ६) देवलोळी ७) छावना ८) कालेवली ९) सारसाई १०) आपटा ११) कासव १२) कारडा १३) देवटी १४) बुलसुडा १५) अकूवडी १६) घुराडाव १७) वावेघर १८) कोष्टी १९) दापोवली २०) देवतुला २१) सावला २२) करनाहा २३) कला २४) वंडाना २५) कारल २६) दुलघट २७) कासभाट २८) दिघारी २९) हातवंडी
४) रत्नागिरी मंडणगड	१) अंबावना बुद्रुक २) केंजालघर ३) लोरी ४) हेल्टी ५) गारीपाडा ६) पेवा ७) पांडेरी ८) पाडवा ९) अंबरसेट १०) टी व्हेसाई ११) टेरी १२) लोकरवन १३) महाप्रत १४) हडघर १५) तांभी १६) लोहरा १७) गौरज १८) कुंभार १९) गोवेळे २०) पन्हाली २१) धुरी २२) तारवली २३) आंबेगण २४) धनगर २५) सारळ २६) अडखळ २७) व्हेसाई २८) पाट २९) अंजला ३०) सोडली तफे व्हेसाई ३१) बुडळ ३२) खुर्द ३३) शिगाव ३४) साडा ३५) तळघर ३६) टाकेडी ३७) पाचरोल ३८) धामणी ३९) वोरखट ४०) गोवा ४१) धमणघर ४२) सामोटी ४३) निगडी
५) सिंधुदुर्ग मालवण	१) कुसीस २) असरुडी ३) भवानी ४) वंजकार ५) टाटारभाव ६) भाटपावणी ७) शिरावडे ८) राटीवडे ९) आजगणी १०) ब्राम्हण ११) हिवाळे १२) ओवलीये १३) खाटले १४) डुंडुल १५) वायंनगावडे १६) वाथरन १७) पोईप १८) नेसूरे १९) वाडेच्या पाट २०) नवापाट २१) गोलवणे २२) डीकवळ २३) चापेखोल २४) कुमामे २५) नांदोसा २६) तिरावडे २७) पारस २८) डेहूल



जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
सातारा ६) कराड	१) मरळी २) चोरजवाडी ३) कोरीवळे ४) बेलदारे ५) म्होप्रे ६) भोळेवाडी ७) साकुडी ८) येणके ९) कोळे १०) कुसूर ११) तुळवण १२) सवादे १३) लाटकेवाडी १४) हवेलवाडी १५) म्हासोळी १६) शेळके वाडी १७) मनु १८) येवती १९) घराळवाडी २०) हणमंतवाडी २१) टाळगांव २२) येळगांव २३) गौरेवाडी २४) गणेशवाडी २५) भरेवाडी २६) सोळशिरभे २७) महारगडेवाडी २८) जिती २९) अक्काईवाडी ३०) कासारशिरभे ३१) निगडी ३२) धोलपावाडी ३३) किवळ ३४) खोडताईवाडी ३५) मसूर ३६) हणबरवाडी ३७) वाण्याची वाडी ३८) मालवाडी ३९) कांबीखाडी ४०) शिरगाव ४१) तुळी ४२) पाल ४३) हरपळवाडी ४४) रिसवड ४५) वस्ती साकडी ४६) सांजूर ४७) ताबवे ४८) आरेवाडी ४९) गमेवाडी ५०) मोळवाडी ५१) डोळेवाडी ५२) पांढरीवाडी ५३) आणे ५४) अंबवडे ५५) तारुख ५६) भवानपाडा ५७) शितलवाडी ५८) चिरवली ५९) घरचुंद ६०) कामथी ६१) वाघेरी ६२) करवडी ६३) हजरार माची ६४) वानरमाची ६५) वनवासमाची ६६) राजमाची ६७) टेंभू ६८) भयापूर ६९) कोरेगाव ७०) कावे ७१) वडगांव हवलेली ७२) शेपोली कालवडे
सातारा ७) फलटण	१) सालपे २) आदकीखुर्द ३) आळजापूर ४) कोराळे ५) वाघोशी ६) लाथवडा ७) मानेवाडी ८) झाडकबाईवाडी ९) वेलोशी १०) उजलवे ११) दाववाडी १२) भीरेवाडी १३) गिरवी १४) धुमाळवाडी १५) बेडकेवाडी १६) साकळ १७) भाडळी खुर्द १८) दुधेभावी १९) जावली २०) आंदुड २१) कुरवाली बु.
सातारा ८) मान	१) कळसकर वाडी २) गाडेवाडी ३) भिंडी बुद्रुक ४) पाळवण ५) तोंडले ६) उगळेवाडी ७) शिंदी बुद्रुक ८) शिंगणापूर ९) भांडळी १०) इंजतात ११) कळचांडी १२) विरळी १३) वळई १४) कुक्कडवाड १५) मखणे १६) काळेवाडी १७) बोरगेवाडी १८) किरकसाड १९) हिमानगड २०) दिवडी २१) पांढरीवाडी २२) स्वरपवानवाडी २३) शिंदी बुद्रुक २४) बोथे
धुळे ९) शहादा	१) काकरेदे खुर्द २) काकरेदे बुद्रुक ३) कोंढावळ ४) चांदसेली ५) चिरडे ६) वरुड बुद्रुक ७) मळगाव ८) भुलाना ९) दरा १०) राणीपूरी ११) आकसपूर १२) मानमोडया १३) नागझरी १४) लंगडी भवसनी १५) कुक्कडवाड १६) मखणे १७) आभाडपूर खुर्द १८) टरबा १९) नायगांव २०) सिसुरा २१) पेटा २२) फोफाराळे २३) चांदपूर २४) गुदा २५) इकरास २६) काटघर २७) पिरपूर
धुळे १०) तळोदा	१) सोजूरवाडा २) माळखुर्द ३) चौगाव खुर्द ४) लाकुड शेट ५) खडी खुर्द ६) काठोर ७) बंधारा ८) खडी बुद्रुक ९) जुवाणी १०) लाखापूर ११) माळ १२) मोरामाळ १३) आंबा गव्हाण १४) सीत पावळी १५) बामनी १६) मलुवा १७) राजापूर
जळगांव ११) चोपडा	१) मराठा २) सत्रासेन ३) खांडरा ४) भोरचिडा ५) उमरटी ६) गोवापाडा ७) कृष्णापूर ८) खान्यापाडा ९) विजापूर १०) मुख्यावतार ११) शेतपाणी १२) बोअरअंनती १३) मालापूर १४) विषणापूर १५) बोरमळी १६) कर्जाणा १७) मेलाना १८) देव्हारी
जळगांव यावल	१) मनुबाई देवस्थान २) लंगडया आंबा ३) गढून्या ४) जामन्या ५) उसमळी ६) हरीपूरी ७) नागदेवी ८) वाघझीर ९) आसरा वारी



जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
जळगांव १३) रावेर	१) तिडया २) अंधारमाळी ३) मोहमोडी ४) चिचाडी ५) चिमडया ६) गारखेडा ७) मोहमांडली सून ८) पिंपट कुंड ९) पाल १०) मोरव्हाल ११) जिन्सी १२) गारखेड १३) सहस्मर्लिंग १४) लालमाती
जळगांव १४) ऐदलाबाद	१) दुई २) सुकली ३) सोमणगांव ४) डोलरखेड ५) नोंदवेल ६) वायल ७) चारटाणे ८) देवी मंदिर ९) मोरझिरा १०) जोनधखेड ११) लालगोडा १२) हलखेडा
बुलढाणा १५) खामगांव	१) गिरोळी २) इसालवाडी ३) चिचखेडनाथ ४) कठडेगांव ५) चिचखेडबंड ६) शेंद्री ७) मांडणी ८) बोथा ९) खेडी १०) वाकी ११) गारखेड १२) गारोडी १३) धार १४) माटरगांव १५) चिचखेड १६) कान्ठी १७) कझर १६) पिंपरी १७) धनगर १८) लाखनवाडी खुर्द १९) पत्तेपूर २०) निमखेडा २१) हिवरखेडा २२) निरोडा
अकोला १६) पातूर	१) अंबारी २) भानोसा ३) बेलवळ ४) बलकापूर ५) भोकद कंदोली ६) बडीआमराई ७) बोडसा ८) खानापूर ९) काकडदारी १०) कोठारी बुद्रुक ११) पासटल १२) कोसगांव १३) माळराजूरा १४) सावरखेड १५) चिचखेड पातूर १६) शेकापूर १७) कार्ला १८) चारमुळी १९) धरम २०) पांदुर्णा २१) सोनुना २२) चिखलपावळ २३) चोंडी २४) जांब २५) चिचखेड २६) गोळेगांव २७) आधार सावंगी २८) गावडगाव २९) सावरगांव
यवतमाळ १७) पुसद	१) पिंपळगांव २) हौसापूर ३) बामनवाडी ४) कोन्हेळ ५) गहूळी ६) चोडी ७) चिचघाट ८) देवगव्हाण ९) बेलगव्हाण १०) जामनी धुद ११) मोरगड १२) उडाणी १३) पारवा १४) पांदुर्णा खुर्द १५) खटकोला १६) पन्हाळा १७) मांजरजवळा खुर्दा १८) मांजरजवळा १९) सावतमाळ २०) हनवंतखेड २१) मारवाडी २२) अमृतनगर २३) धनतळ २४) अनजळ २५) उपवनवाडी २६) रामपूरनगर २७) दुधगिरी २८) अनसिंग २९) जांबनाइकर ३०) शिलोना
यवतमाळ १८) उमरखेड	१) दिडाळा २) पाडी ३) पिरजी ४) गोविंदपूर ५) कुरळी ६) जाम ७) अकोली ८) सातारा ९) मसळग १०) पाडी ११) जेवळी १२) पिंपळगांव १३) बोडखा १४) पेधा १५) उदापूर १६) सावरगांव १७) परोटी १८) नानी १९) बोरी २०) धेरडी २१) पवनाळा २२) सोनदामी २३) येकंबा २४) मोरचंडी २५) कोसंबी २६) चिखली २७) रामपूर २८) बोरागांव २९) डोंगरगाव ३०) धडोली ३१) भोईर ३२) नवेलालपूर ३३) दिग्रस ३४) काटी ३५) कवठा ३६) वहेली ३७) वानोरा ३८) शिवाजीनगर ३९) जवराळा ४०) उमरी ४१) असोली ४२) सेवालालनगर ४३) वडगांव ४४) दामसरी ४५) थार बु. ४६) सेरेंडी ४७) दरारी ४८) मधुरानगर
औरंगाबाद १९) सिल्लोड	१) धनशिगवाडी २) बाभुळगाव ३) पोखरी ४) बावरा ५) मोमोनाबाद ६) लेहा ७) बाधेगाव बु. ८) अंधारी ९) जातवा १०) अमरावती ११) घाटनांदा १२) परदेशीवाडी १३) चारनेर १४) धावडा १५) अंधारवाडी १६) कडेगाव १७) सिरसाम १८) नातेगाव १९) घाटमखेड २०) हालदा २१) पिंपळदरी २२) मुखबार २३) वाघरा २४) रांजणी २५) अजिठा २६) अनाड २७) आमसरी २८) नारवी २९) वडाळी



जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
परभणी २०) हिंगोली	१) नरसी २) लोहगांव ३) सेवली ४) पिंपळी ५) बोरळा ६) जळगांव ७) शेलेंगांव ८) सोनेगांव ९) पिंपरखेड १०) देवळा ११) अनपनवाडी १२) ससुळापूर १३) माथा १४) मूर्तिजापूर १५) केहरपिंपरी १६) सिध्देश्वर १७) दिघुळ १८) टुडचना १९) बडचुना २०) ओढा २१) हनुमानदरी २२) शिवकार २३) जामला २४) जामदन २५) बैजापूर २६) खंबाळा २७) फासेले २८) तबलीगव्हाण २९) मांडेंगांव ३०) राख ३१) जामरी खुर्द ३२) पांगरी ३३) बोरोळा ३४) नांदूरा ३५) कडवी ३६) आमनखेड ३७) ब्रम्हपूरी ३८) खळगांव ३९) जामसन ४०) पारडी ४१) खळगांव ४२) रिधोस ४३) तेजगांव ४४) कोळंब ४५) सूकली बु. ४६) सुकली ४७) शिंदेपळ ४८) धनगरवाडी ४९) सबळखेड ५०) बा भुळगांव ५१) गोरेगाव ५२) पोंडीखुर्द ५३) ब्रम्हणवाडी ५४) पिंपरी पाथबळ ५५) बोरखेड ५६) एकवा ५७) खंडाळा ५८) चिंचोळी ५९) बेलरा ६०) आडगांव ६१) देवठाण ६२) काळेगांव ६३) कलोखेड ६४) कपकुली ६५) चाटोना ६६) देवठाण
औरंगाबाद २१) कन्नड	१) तांदूळवाडी २) पेवली ३) मुमसापूर ४) पेकडवाडी ५) कोंडवाडी ६) कल्याणी ७) वडनेर ८) अंबाला ९) आंबा १०) जामडी ११) रेळ १२) कुंजखेड १३) नांदगिरवाडी १४) हिवरखेड १५) वडाळी १६) जेतखेड १७) मालेंगांव ढोंकळ १८) भारवा १९) मालेंगांव लाखोंडे २०) मोहाडी २१) हस्ता २२) माहेगांव २३) चेडसर २४) पळशी खुर्द २५) कांबळी २६) भिलदरी २७) गोर पिंपरी २८) सवखेड बु. २९) पिंपरखोडा ३०) सफीयाबाद ३१) खडकी ३२) पिशीर ३३) भातवाडी ३४) वासडी ३५) निभोरा ३६) उमरखेड ३७) सावरगांव ३८) धामणी ३९) आंबेवाडी बु. ४०) मेहुण ४१) हारेवाडी ४२) वडगांव ४३) लोझा ४४) पांगरी ४५) भापेवाडी ४६) सोनवाडी ४७) शिवघाट ४८) चिमणापूर ४९) नागापूर ५०) करंजखेड ५१) रेडळगांव ५२) नेवूपूर ५३) घाटशेंटा ५४) टाकळी ५५) अंतूर ५६) लोहगांव
औरंगाबाद २२) खुलाताबाद	१) वडगांव २) पाडळी ३) शिरोळ बु. ४) सावरखेडा ५) लोधी ६) बोडक ७) खुलताबाद ८) धामणगांव ९) अब्दुलापूर १०) निरगुडी बु. ११) पिंपरी १२) जमालवाडी १३) म्हैसमाळ १४) शिरसमाळ १५) टाकळी खुर्द १६) आखतवाड १७) वेरुळ १८) मंत्रापूर १९) खुलताबाद २०) सराई २१) बदलाबाई २२) नंदुबाद २३) मापसाळा २४) रसुलपूर २५) शंकरपूरवाडी २६) साबुखेडा २७) खिर्डी २८) सोनखेडा २९) भटजी ३०) लामनगांव ३१) खोतेनापूर ३२) विरमगांव
परभणी २३) कळमनुरी	१) खेड २) धानापूर ३) धोतरा ४) अमरखोजा ५) शिरसखुर्द ६) शिरस बुद्रुक ७) डिग्रस वापी ८) पिंपळी ९) सांडस १०) रेटकर ११) वराडी १२) खडकत बुद्रुक १३) खडकस खुर्द १४) मंदारी १५) गारखेड १६) महरी खुर्द १७) खडकेत १८) बैज १९) दुधेरी २०) चिंचोळी २१) खोडतला २२) पेडगांव २३) डोंगी २४) नांदुरा २५) बोलापूरी २६) तळेगांव २७) जावा २८) मिसे बुद्रुक २९) कापस ३०) शिपगी ३१) माळवाडी ३२) दाडेगांव ३३) मोतीचोर ३४) विठ्ठलवाडी ३५) पिंपरी खुर्द ३६) कानेगाव ३७) फाटणा ३८) दाभाडी ३९) पुंचा ४०) मोरगांव



MJP SSR 2023-24

## GENERAL NOTES



**MAHARASHTRA JEEVAN PRADHIKARAN**  
**STATE SCHEDULE OF RATES FOR THE YEAR 2023-24**  
**GENERAL NOTES**

1. These rates are applicable to all MJP works in the the Maharashtra State with effect from 20 /06/ 2023
- 2 Item of excavation is inclusive of normal manual dewatering, however, seperate item for dewatering shall be proposed in the estimate where underground water is anticipated in significant magnitude.
- 3 The rates of excavation for O & M works where limited working space is available and work is required to be carried out on emergency basis, the rate should be adopted as per the actual rate analysis which shall be approved by concerned S.E. for that particular work only.
- 4 All Material Rates are exclusive of GST(Goods and service Tax). Rates for completed items are also exclusive of GST. While preparation of estimates prevailing GST Percentage, provision should be made separately in recapitulation sheet.
- 5 For all completed items, initial lead of 5 kms. is considered for collection of materials like sand, bricks, metal, stone etc. Appropriate addition for lead charges excluding loading , materials shall be done while estimation. Following quantities shall be considered for additional lead charges beyond 5 Kms for materials required for concrete and reinforcement structures.

<b>RCC ESR</b>			
<b>Capacity (Lit)</b>	<b>Staging (M)</b>	<b>Concrete Qty (Cum)</b>	<b>Reinforcement Qty. (MT)</b>
20000	12	27.4	2.14
30000	12	32.7	2.55
40000	12	37.8	2.95
50000	12	41.9	3.27
60000	12	46.4	3.62
70000	12	51.2	3.99
75000	12	53	4.13
80000	12	56	4.37
90000	12	62.4	4.87
125000	25	107.4	8.38
150000	12	89.8	7.00
160000	12	94.3	7.36
175000	16	117.6	9.17
200000	20	143.6	11.20
200000	25	157	12.25
250000	25	177	13.81
300000	25	206	16.07

Note: Spiral staircase not considered. Above quantities shall be considered for all types of foundation (SBC) and all types of Seismic Zones.

<b>RCC GSR</b>		
<b>Capacity (Lit)</b>	<b>Concrete Qty</b>	<b>Reinforcement Qty. (MT )</b>
25000	13.58	0.9448
50000	18.45	1.5856
75000	30.45	2.0952
1,00,000	39.31	2.7072
1,50,000	54.699	3.778
2,00,000	73.313	6.577
3,00,000	95.092	9.874
5,00,000	143.277	11.90
10,00,000	222.441	15.418

( For WTP/STP works.quantities of completed/ongoing works shall be considered.)



6 These rates are applicable to water supply and sewerage schemes and its allied works only. Rates for Items required for general construction, buildings, roads, Irrigation Works etc. shall be adopted from the current schedule of rates of P.W.D. or Irrigation Deptt. in respective areas. For bore wells, DSR. of GSDA shall be followed. Increase in percentage over normal schedule of rates will also be as per norms of respective D.S.R

7 For mechanical and electrical items related to water supply and sewerage schemes, DSR for 2023-24 prepared by Superintending Engineer (Mechanical ), Maharashtra Jeevan Pradhikaran shall be adopted.

8 Following increase in % over normal schedule of rates of M.J.P. for 2023-24 will be applicable. (Ref. PWD GR. No. DSR/1091/CR-6577/Planning-3,dated 08/07/2003).

Sr. No	Area	% Increase
a	Works in Corporation area	5%
b	Works in Municipal areas	2%
c	Works in tribal area/ hilly and inaccessible areas / MMRDA	10%
d	Suger cane area (within 10.0 Km radius)	5%
e	Prison/ Jail area	15%
f	Defense area	20%
g	Excavation for pipeline work along National Highway	10%
h	Excavation for Dist. system pipe lines, Sewerage system in towns	10%
i	Rajbhavan	20%
j	Foe Naxalite Area (Notified)	10%

Note:-The superintending engineer should specify sugar factory areas.

9. In case more than one percentage increase on basic rates becomes admissible, instead of adding both, the higher percentage only be taken. (e.g. if any Municipal Council falls in hilly area, then additional percentage in rates will be only 10 % and not with 2 % +10 %). This additional percentage is only on completed item of work and not applicable to items of providing of materials like steel, pipes, valves, specials etc.

10 For hilly and inaccessible areas / tribal areas approved by Government, Planning Department's Circular Nos. (1) 1089/CR-66/Plan-19, dt.23/11/1990 and (2) 1094/P-36/K-1455 dt.02/09/1994, shall be followed. In addition to amendment notified by the Planning Deptt. from time to time.

11 For Action Plan Notified Area, Government's Circular in force from time to time shall be followed.

12 Whenever basic rates of completed items are increased by percentage given at Sr. No. 8, the issue rates of materials to be supplied by the Department (if any) shall be increased by same percentage.

13 This schedule of rates is based on following basic rates for important materials.

Sr. No	Material	Rate in Rs. Per MT.
a	Cement	6000/-
b	Mild Steel	56118/-
c	Tor Steel/CTD bars	60261/-
d	Structural Steel	59974/-
e	Corrosion Resistant Steel (Fe 500)	59533/-

14) Details of standard cement consumption are incorporated in this CSR .

15) Rates for supply of various types of pipes, specials and valves are exclusive of GST but inclusive of, third party inspection charges, storage charges, overhead charges and divisional stores and stacking.

16) Cost of carting of pipes and valves from departmental stores to site of work is not considered in rate analysis, hence this item must be incorporated in each scheme. While inviting tenders if supply is from departmental store, then this item shall appear in the tender, and if the supply is by contractor then this item shall not appear in the tender, even though same is provided in sanctioned scheme, because the contractor is supposed to bring the pipes and valves directly at site.

17) Though the contractor is required to do refilling before hydraulic testing to avoid traffic hurdle, no payment for refilling of the trenches of pipeline shall be payable till satisfactory hydraulic testing is given. Re-excavation required if any, during testing, shall be done by the contractor at his own cost.

18) 10 % of cost of items of water retaining structures, such as GSR/ESR/MBR shall be retained till satisfactory hydraulic testing is given as per IS code.





19) 10 % of cost of items included in pipeline subwork excluding supply items (Pipe , All types of Valves and Specials) shall be retained, till satisfactory hydraulic testing is given as per IS code or as per tender condition/specifications.

20) In case of supply of pipes / valves , Specials etc. by contractor, only 80% payment shall be released after supply and 10% after lowering , laying & jointing and 10% after satisfactory hydraulic testing or as per tender condition.

21) AC/PVC Pipes shall not be used in urban areas with respect to circular No. 130 Dtd. 09.03.2009 of MS MJP. HDPE Pipes may be used in distribution system of urban areas with diameter restricted upto 300 mm only provided that area where these pipes are to be laid shall not be rocky area. HDPE pipe shall be as per latest is specification, Also HDPE pipes upto 110 mm Dia. shall be in coil form.

22) For use of ready mix cement concrete prior permission of Chief Engineer must be obtained in writing.

23) For Dams , Balancing Tanks , Aerated Lagoons and similar structures, the rates for Film membranes as per prevailing rates for Irrigation Department will be followed

24) Capacity of ESR / GSR to be constructed shall be rounded to nearest 1000 litres always on higher side i.e. if required capacity is 1,23,570 litre, it shall be rounded to 1,24,000 litre. required capacity is 8,26,070 litre, it shall be rounded to 8,27,000 litre. Similarly, if

25) Capacity of Unconventional / conventional Treatment Plants shall be rounded to nearest 0.5 Mld- always on higher side i.e. if WTP of 2.37 Mld is required; it shall be rounded to 2.5 Mld. For WTP having capacity less than 0.5 mld, package type WTP should be considered.

26) Provision for insurance at 1% is considered in Rate analysis of SSR 2023-24. These rates are applicable only for tendered works, these rates should be reduced by 1 % of total rate when works are to be carried out on piecemeal works and other small works without tendering.

27) Rates given in this SSR are for estimation purpose only.

28) The makes of Sluice / Butterfly valves etc. to be used for inlet / outlets of ESRs / GSRs / MBRs / Pumping main / Rising main and WTP should be from approved makes of M.J.P .

29) Mechanical CSR rates for respective items shall be followed while estimation and the list of approved makes shall be given in the item.

30) Incase of Geo membrane sheet to be provided by the agency 50% payment against supply. 30% payment against lowering and 20% against Hydraulic testing is to be given.

31) The royalty charges are considered in the rate analysis of SSR 2023-24 As per Government of Maharashtra , Revenue and Forest Department Gazatte No. 67 Dt 155 May 2015.

32) As per Govt. circular no DSR-1090/CR 6453/PLN3 Dtd. 14.07.1992. 1% for labour amenities is considered while arriving the rates.

33) As per Govt. in Industries and Power GR No. BCA 2009/CR 108/Labour 7A Dtd. 17.06.2010. 1% cess on labour welfare is considered while arriving the rates.

34) (1) Item of hydraulic testing should be measured separately, as per detail item in respective sub work.

(2) In case of water Supplied by the MJP, amount of Water Supplied should be deducted from the Item of the hydraulic testing, with prevailing rates of Non Domestic (Bulk Supply)of the WSS, as per MJPs latest notification.



IP SSR 2023-24

**SECTION - A**

**MATERIALS**



Sr. No	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>MATERIAL</b>			
1	Acetylene Gas	No	812	
2	Alum Grade I First	MT	8630	
3	Alum Grade IV Ex-factory	MT	9057	
4	Binding Wire	Kg	83	
5	Black enamel paint Anti corrosive	Lit	229	
6	Bricks	No	7	
7	Bullies, Struts (125 mm dia 1.5 M long)	Rmt	211	
8	C.C.Teak wood planks(3" X 6")	Cum	80025	
9	Cement (Bags)	Bag	300	
10	Cement (M.T.)	MT	6000	
11	Cement Sulphar Resistant	MT	6636	
12	Charcoal	Kg	32	
13	Corrosion Resistant steel	MT	59533	
14	Diesel	Lit	93	
15	Epoxy paint	Kg	481	
16	Fuse	No	25	
17	Gun Powder	Kg	94	
18	Liquid chlorine 100 kg Deptt. Container	No	2753	
19	Liquid chlorine 100 kg supplier Container	No	17005	
20	Liquid chlorine 900 kg Supplier Container		2732	
21	Liquid chlorine 900 kg Deptt Container	No	16768	
22	Lubricant Oil	lit	295	
23	M.S.angle(50x50x6mm)	Kg	60	
24	M.S.Bars (Delivery at site)	MT	56118	
25	M.S.Bars (in kgs)	Kg		
26	M.S.Flats (40 mm x 3 mm)	Kg	57	
27	M.S.plate	Kg	66	
28	Magnafloc coagulant aid	MT	12353	
29	Mild steelGrill ready	Kg	87	
30	Mildsteel grill railing	Kg	88	
31	Mobile oil	Lit	338	
32	Murum	cum	360	
33	Nails	Kg	89	
34	Nutbolts	Kg	106	
35	Oxygen Gas (Refill)	Cylinder	355	
36	Polling board	cum	16238	
37	Quarry spalls	cum	303	



Sr. No	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
38	R.S.Joist channel etc	MT	60782	
39	Rapid sand Gravity filter sand At Source (Godhara, Gokak, Kanhan, Yesagi sand)	Cum	2185	
40	Rapid sand Gravity filter Gravel At Source	Cum	2185	
41	Ready mixed lead/zinc paint	Lit	254	
42	Ready mix oil paint	Lit	264	
43	Ready mix primer	Lit	173	
44	Ready mix primer for steel	Lit	183	
45	Rubber Gasket (6 mm thick)	Kg	93	
46	Sand	cum	2133	
47	Kasarde sand (for mortar lining work) @ source	cum	2424	
48	Spun Yarn	Kg	104	
49	Stone Aggregate 10 mm	cum	1009	
50	Stone Aggregate 20 mm	cum	1022	
51	Stone Aggregate 40 mm	cum	1038	
52	Rubble (Stone at quarry)	cum	506	
53	Structural Steel	MT	59974	
54	T.C.L.(bleaching powder Gr.I) (25kg pack)	Kg	27	
55	Teak wood	Cum	83775	
56	Tor Steel	MT	60261	
57	Walling ( 100x100mm)	cum	18208	
58	Welding Rod Having weight 5.25 kg	Box	1394	
59	White cement	Kg	32	
60	White lead	Kg	181	
61	Wire	Kg	90	
62	Plywood Commercial 12 mm thick Waterproof for centering (Taken in analysis for RCC items only)	Sqm	486	
63	Coarse Sand	Cum	1696	
64	PAC Powder High Basicity	MT	33750	
65	PAC Powder High Basicity Liquid	MT	11628	
66	Ready mixed Synthetic Enamel paint	Lit	195	
67	Ready mixed Aluminium paint	Lit	342	
68	GI SHEET	Kg.	89	
69	Turpentine	Ltr.	89	
70	Alumina Ferric (Liquid Alum) Grade 5	MT	11000	



MJP SSR 2023-24

**SECTION - B**  
**LABOUR & MACHINERY**



Sr. No	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b><u>LABOUR AND MACHINERY</u></b>			
1	Asst Fitter	No.	641	
2	Bhandhani	No.	641	
3	Bhisti with pakahal	No.	641	
4	Blacksmith IInd class	No.	641	
5	Breaker	No.	641	
6	Carpainter 1st class	No.	668	
7	Carpainter 2nd class	No.	668	
8	Chiseller	No.	641	
9	Excavator	No.	622	
10	Fitter 1st class	No.	668	
11	Glazier	No.	668	
12	Helper	No.	622	
13	Hole Driller	No.	641	
14	Mason 1st class	No.	668	
15	Mason 2nd class	No.	668	
16	MAZDOOR (FEMALE)	No.	622	
17	Mazdoor(Heavy)	No.	622	
18	Mazdoor (Light)	No.	622	
19	MAZDOOR (MALE)	No.	622	
20	Maistry	No.	668	
21	Mukadam	No.	668	
22	Painter (for coloring)	No.	668	
23	Painter	No.	668	
24	Polisher	No.	668	
25	Pump Driver	No.	641	
26	StoneCutter or dresser	No.	668	
27	Tile layer	No.	668	
28	Welder	No.	668	
29	Welder for pipe line	No.	668	
30	WhiteWasher	No.	641	
31	TileTurner	No.	668	
32	L.M.V. Driver	No.	668	
33	Electrician	No.	668	
34	Plumber (Building/Pipeline)	No.	668	
35	Painter for epoxy paint	No.	668	
36	Computer operator( data entry operator)	No.	1035	
37	Meter Reader	No.	668	
38	Filter Operator	No.	668	
39	Mali	No.	668	
40	Wireman	No.	668	
41	Site supervisor	No.	1172	
42	Surveyor	No.	1172	
43	Chemist	No.	1172	



Sr. No	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b><u>HIRE CHARGES OF MACHINERIES</u></b>			
1	Rent for polishing machine with crew	Day	1234	
2	Rent for chain pully block with tripod	Day	614	
3	Rent for pump including operator & excluding fuel	BHP-Day	250	
4	Rent for Mech.Mixer with fuel & crew	Day	3401	
5	Rent for vibrator with fuel and crew	Day	1295	
6	Plate Bender	Day	1213	
7	Rent for welding set with Electric set	Day	1753	
8	Rent for welding set with Generator	Day	3130	
9	Rent for Compressor with fuel	Day	3321	
10	Rent for Concrete breaker & Compressor	Day	3495	
11	Rent for poclairn	Hour	2862	
12	Rent for Crane	Hour	1879	
13	Rent for JCB	Hour	1401	
14	Truck hire charges upto 20 km	Day	3243	
15	Truck hire charges for 20 km to 50 km	Day	3019	
16	Truck hire charges for 50 km & above	Day	3000	
17	Pipe cutter with operator	Day	1681	
18	Desludging / Desilting mud Pump with Operator	Day	3118	
19	Jeep hire Charges with driver (Upto 300 Km)& fuel	Day	4243	
20	Plumber (Building/Pipeline)	Day	668	
21	Painter for epoxy paint	Day	668	



MJP SSR 2023-24

**SECTION - C**

**TRANSPORTATION**





**STATEMENT I**

Rate (Rs.) 2023-24

Sr.No.	Item of work	Unit	Collecting the railway receipt etc & unloading the consignment from railway wagon & keeping on railway platform consignment booked in.	Lifting the material from railway platform, loading Unloading into truck.	Loading the material into truck from departmental store or site of work.	Unloading the material from truck including stacking in departmental stores or site of work.
1	2	3	4	5	6	7
<b>(A)</b>	<b>MANUAL HANDLING</b> (Weight upto & including 300 kg.)					
1	C.I. / D.I. /M.S./H.D.P.E. pipes of all classes upto & including 200 mm dia. Pipes of any length.	M.T.	384	469	121	121
2	R.C.C. pipes of all classes upto & including 350 mm dia.	M.T.	384	476	121	121
3	A.C. pipes of all classes & dia.	M.T.	202	283	73	73
4	P.V.C. pipes of all classes & dia.	M.T.	202	283	73	73
5	All other materials such as C.I. Specials of individual weight upto 300 kg.	M.T.	384	476	121	121
6	Mild steel / for steel / R.S.J.	M.T.	242	326	182	182
7	Cement / bleaching powder / alum.	M.T.	116	177	92	92
<b>(B)</b>	<b>CRANE HANDLING</b> (Materials having individual weight above 300					
1	C.I./D.I./B.W.S.C./ M.S./ R.C.C. pipes of all classes having individual weight more than 300 kg. & alsoother heavy materials, valves, machinery having individual weight more than 300 kg.	M.T.	228	296	212	212
1)The above rates in col. 1 to 5 are applicable only for Railway clearence purpose and not for other carting.						
2) The rates given in col. 6 to 7 shall be adopted for estimate purpose only, however actual quotations / D- tender will prevail.						
3) Irrespective of supply of C.I./D.I. Pipes as per rate contract when pipes are directly supplied by the firms by road railway freight upto destination station and carting as per schedule from Railway Station to work site is allowed In such cases rate of Mathadi Kamgar shall not be applicable for carting and normal loading, unloading carting shall be allowed.						

**STATEMENT II**

Including loading, unloading and stacking

Lead in km	Av. Speed	No. of Trips(N)= 8/((2L/S)+1)	Km. Done (2NL+6)	Litres of diesel consumed	cost of diesel @ Rs. 93 / LIT	Lit. of Mobile oil consumed	cost of M.Oil @ Rs. 338 / lit	cost of 6 mazdoor	Hire charges of truck Rs. Per day	Total cost (6+8+9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.5	15	7.5	13.50	4.50	418.50	0.096	32.45	4198.50	3243	7892.45	789.25	8681.70	1157.56
1	16	7.11	20.22	6.74	626.82	0.144	48.67	4198.50	3243	8116.99	811.7	8928.69	1255.79
1.5	16.5	6.77	26.31	8.77	815.61	0.188	63.54	4198.50	3243	8320.65	832.07	9152.72	1351.95
2	17	6.48	31.92	10.64	989.52	0.228	77.06	4198.50	3243	8508.08	850.81	9358.89	1444.27
2.5	17.25	6.2	37.00	12.33	1146.69	0.264	89.23	4198.50	3243	8677.42	867.74	9545.16	1539.54
3	17.5	5.96	41.76	13.92	1294.56	0.298	100.72	4198.50	3243	8836.78	883.68	9720.46	1630.95
3.5	17.75	5.74	46.18	15.39	1431.27	0.330	111.54	4198.50	3243	8984.31	898.43	9882.74	1721.73
4	18	5.54	50.32	16.77	1559.61	0.359	121.34	4198.50	3243	9122.45	912.25	10034.70	1811.32
4.5	18.25	5.36	54.24	18.08	1681.44	0.387	130.81	4198.50	3243	9259.75	925.38	10179.13	1899.09
5	18.5	5.19	57.90	19.30	1794.90	0.414	139.93	4198.50	3243	9376.33	937.63	10313.96	1987.28
6	18.75	4.88	64.56	21.52	2001.36	0.461	155.82	4198.50	3243	9598.68	959.87	10558.55	2163.64
7	19	4.61	70.54	23.51	2186.43	0.504	170.35	4198.50	3243	9798.28	979.83	10778.11	2337.98
8	19.183	4.36	75.76	25.25	2348.25	0.541	182.86	4198.50	3243	9972.61	997.26	10969.87	2516.03
9	19.6	4.17	81.06	27.02	2512.86	0.579	195.70	4198.50	3243	10150.06	1015.01	11165.07	2677.47
10	20	4	86.00	28.67	2666.31	0.614	207.53	4198.50	3243	10315.34	1031.53	11346.87	2836.72
15	25	3.64	115.20	38.40	3571.20	0.823	278.17	4198.50	3243	11290.87	1129.09	12419.96	3412.08
20	25	3.08	129.20	43.07	4005.51	0.923	311.97	4198.50	3243	11758.98	1175.9	12934.88	4199.64
25	25	2.67	139.50	46.50	4324.50	0.996	336.65	4198.50	3019	11878.65	1187.87	13066.52	4893.83
30	25	2.35	147.00	49.00	4557.00	1.050	354.90	4198.50	3019	12129.40	1212.94	13342.34	5677.59
35	30	2.4	174.00	58.00	5394.00	1.243	420.13	4198.50	3019	13031.63	1303.16	14334.79	5972.83
40	30	2.18	180.40	60.13	5592.09	1.289	435.68	4198.50	3019	13245.27	1324.53	14569.80	6683.39
45	30	2	186.00	62.00	5766.00	1.329	449.20	4198.50	3019	13432.70	1343.27	14775.97	7387.99
50	30	1.85	191.00	63.67	5921.31	1.364	461.03	4198.50	3019	13599.84	1359.98	14959.82	8086.39
60	30	1.6	198.00	66.00	6138.00	1.414	477.93	4198.50	3000	13814.43	1381.44	15195.87	9497.42
70	30	1.41	203.40	67.80	6305.40	1.453	491.11	4198.50	3000	13995.01	1399.5	15394.51	10918.09



Lead in km	Av. Speed	No. of Trips(N)= $\frac{8}{(2L/S)+1}$	Km. Done (2NL+6)	Litres of diesel consumed	cost of diesel @ Rs. 93 / LIT	Lit. of Mobile oil consumed	M.Oil @ Rs. 338 / lit	cost of 6 mazdoor	Hire charges of truck Rs. Per day	Total cost (6+8+9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
80	30	1.26	207.60	69.20	6435.60	1.483	501.25	4198.50	3000	14135.35	1413.54	15548.89	12340.39
90	30	1.14	211.20	70.40	6547.20	1.509	510.04	4198.50	3000	14255.74	1425.57	15681.31	13755.54
100	40	1.12	230.00	76.67	7130.31	1.643	555.33	4198.50	3000	14884.14	1488.41	16372.55	14618.35
125	40	1.1	281.00	93.67	8711.31	2.007	678.37	4198.50	3000	16588.18	1658.82	18247.00	16588.18
150	40	0.94	288.00	96.00	8928.00	2.057	695.27	4198.50	3000	16821.77	1682.18	18503.95	19685.05
175	40	0.82	293.00	97.67	9083.31	2.093	707.43	4198.50	3000	16989.24	1698.92	18688.16	22790.44
200	40	0.73	298.00	99.33	9237.69	2.129	719.60	4198.50	3000	17155.79	1715.58	18871.37	25851.19
250	40	0.59	301.00	100.33	9330.69	2.150	726.70	4198.50	3000	17255.89	1725.59	18981.48	32172
300	45	0.56	342.00	114.00	10602.00	2.443	825.73	4198.50	3000	18626.23	1862.62	20488.85	36587.23
420	45	0.41	350.40	116.80	10862.40	2.503	846.01	4198.50	3000	18906.91	1890.69	20797.60	50725.85
540	45	0.32	351.60	117.20	10899.60	2.511	848.72	4198.50	3000	18946.82	1894.68	20841.50	65129.69
660	45	0.26	349.20	116.40	10825.20	2.494	842.97	4198.50	3000	18866.67	1886.67	20753.34	79820.54
780	45	0.22	349.20	116.40	10825.20	2.494	842.97	4198.50	3000	18866.67	1886.67	20753.34	94333.36
900	45	0.2	366.00	122.00	11346.00	2.614	883.53	4198.50	3000	19428.03	1942.8	21370.83	106854.15
1020	45	0.17	352.80	117.60	10936.80	2.520	851.76	4198.50	3000	18987.06	1898.71	20885.77	122857.47
1140	45	0.15	348.00	116.00	10788.00	2.486	840.27	4198.50	3000	18826.77	1882.68	20709.45	138063.00

Note: 1) No. of trips in a working of 8 hours  $N=8 / (2(L+S) + 1)$  where L = Lead in km and S = speed, 1 hour is allowed for loading

2) Consumption of diesel taken as 3 km / litre

3) Consumption of Mobile oil taken as 140 km / litre

4) In col. 4 & 6 hours has been added for movement from parking place to duty and back

5) Hire charges will remain Rs. 1500.00 for 1200 and above km lead

6) Labour required for loading unloading and stacking after the

No. of trips reduced below 1 is factorised with actual number of trip.



**STATEMENT III**

Excluding loading, unloading and stacking

Lead in km	Av. Speed	No. of Trips(N)= 8/((2L/S)+1)	Km. Done (2NL+6)	Litres of diesel cons	cost of diesel @ Rs. 93 / LIT	Lit. of Mobile oil con-sumed	cost of M.Oil @ Rs. 338 / lit	cost of mazdoor	Hire charges of truck Rs. Per day	Total cost (6+8+9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.5	15	7.5	13.50	4.50	418.50	0.096	32.45	0.00	3243	3693.95	369.4	4063.35	541.78
1	16	7.11	20.22	6.74	626.82	0.144	48.67	0.00	3243	3918.49	391.85	4310.34	606.24
1.5	16.5	6.77	26.31	8.77	815.61	0.188	63.54	0.00	3243	4122.15	412.22	4534.37	669.77
2	17	6.48	31.92	10.64	989.52	0.228	77.06	0.00	3243	4309.58	430.96	4740.54	731.56
2.5	17.25	6.2	37.00	12.33	1146.69	0.264	89.23	0.00	3243	4478.92	447.89	4926.81	794.65
3	17.5	5.96	41.76	13.92	1294.56	0.298	100.72	0.00	3243	4638.28	463.83	5102.11	856.06
3.5	17.75	5.74	46.18	15.39	1431.27	0.330	111.54	0.00	3243	4785.81	478.58	5264.39	917.14
4	18	5.54	50.32	16.77	1559.61	0.359	121.34	0.00	3243	4923.95	492.4	5416.35	977.68
4.5	18.25	5.36	54.24	18.08	1681.44	0.387	130.81	0.00	3243	5055.25	505.53	5560.78	1037.46
5	18.5	5.19	57.90	19.30	1794.90	0.414	139.93	0.00	3243	5177.83	517.78	5695.61	1097.42
6	18.75	4.88	64.56	21.52	2001.36	0.461	155.82	0.00	3243	5400.18	540.02	5940.20	1217.25
7	19	4.61	70.54	23.51	2186.43	0.504	170.35	0.00	3243	5599.78	559.98	6159.76	1336.17
8	19.183	4.36	75.76	25.25	2348.25	0.541	182.86	0.00	3243	5774.11	577.41	6351.52	1456.77
9	19.6	4.17	81.06	27.02	2512.86	0.579	195.70	0.00	3243	5951.56	595.16	6546.72	1569.96
10	20	4	86.00	28.67	2666.31	0.614	207.53	0.00	3243	6116.84	611.68	6728.52	1682.13
15	25	3.64	115.20	38.40	3571.20	0.823	278.17	0.00	3243	7092.37	709.24	7801.61	2143.3
20	25	3.08	129.20	43.07	4005.51	0.923	311.97	0.00	3243	7560.48	756.05	8316.53	2700.17
25	25	2.67	139.50	46.50	4324.50	0.996	336.65	0.00	3019	7680.15	768.02	8448.17	3164.11
30	25	2.35	147.00	49.00	4557.00	1.050	354.90	0.00	3019	7930.90	793.09	8723.99	3712.34
35	30	2.4	174.00	58.00	5394.00	1.243	420.13	0.00	3019	8833.13	883.31	9716.44	4048.52
40	30	2.18	180.40	60.13	5592.09	1.289	435.68	0.00	3019	9046.77	904.68	9951.45	4564.89
45	30	2	186.00	62.00	5766.00	1.329	449.20	0.00	3019	9234.20	923.42	10157.62	5078.81
50	30	1.85	191.00	63.67	5921.31	1.364	461.03	0.00	3019	9401.34	940.13	10341.47	5589.98
55	30	1.71	194.10	64.70	6017.10	1.386	468.47	0.00	3019	9504.57	950.46	10455.03	6114.05



Lead	Av.	No. of Trips(N)= 8/((2L/S)+1)	Km. Done (2NL+6)	Litres of diesel cons urred	cost of diesel @ Rs. 93 / LIT	Lit. of Mobile oil con-sumed	cost of M.Oil @ Rs. 338 / lit	cost of 6 mazdoor	Hire charges of truck Rs. Per day	Total cost (6+8+9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
65	30	1.5	201.00	67.00	6231.00	1.436	485.37	0.00	3019	9735.37	973.54	10708.91	7139.27
75	30	1.33	205.50	68.50	6370.50	1.468	496.18	0.00	3019	9885.68	988.57	10874.25	8176.13
85	30	1.2	210.00	70.00	6510.00	1.500	507.00	0.00	3019	10036.00	1003.6	11039.60	9199.67
95	40	1.39	270.10	90.03	8372.79	1.929	652.00	0.00	3019	12043.79	1204.38	13248.17	9531.06
105	40	1.28	274.80	91.60	8518.80	1.963	663.49	0.00	3019	12201.29	1220.13	13421.42	10485.48
130	40	1.07	284.20	94.73	8809.89	2.030	686.14	0.00	3019	12515.03	1251.5	13766.53	12865.92
155	40	0.91	288.10	96.03	8930.79	2.058	695.60	0.00	3019	12645.39	1264.54	13909.93	15285.64
180	40	0.8	294.00	98.00	9114.00	2.100	709.80	0.00	3019	12842.80	1284.28	14127.08	17658.85
230	40	0.64	300.40	100.13	9312.09	2.146	725.35	0.00	3019	13056.44	1305.64	14362.08	22440.75
280	45	0.6	342.00	114.00	10602.00	2.443	825.73	0.00	3019	14446.73	1444.67	15891.40	26485.67
400	45	0.43	350.00	116.67	10850.31	2.500	845.00	0.00	3019	14714.31	1471.43	16185.74	37641.26
520	45	0.33	349.20	116.40	10825.20	2.494	842.97	0.00	3019	14687.17	1468.72	16155.89	48957.24
640	45	0.27	351.60	117.20	10899.60	2.511	848.72	0.00	3019	14767.32	1476.73	16244.05	60163.15
760	45	0.23	355.60	118.53	11023.29	2.540	858.52	0.00	3019	14900.81	1490.08	16390.89	71264.74
880	45	0.2	358.00	119.33	11097.69	2.557	864.27	0.00	3019	14980.96	1498.1	16479.06	82395.3
1000	45	0.18	366.00	122.00	11346.00	2.614	883.53	0.00	3019	15248.53	1524.85	16773.38	93185.44
1120	45	0.16	364.40	121.47	11296.71	2.603	879.81	0.00	3019	15195.52	1519.55	16715.07	104469.19



**STATEMENT VI**

Including loading, unloading and stacking

Lead in km	Cost / trip	Lime mumm building rubbish	Earth	Manure or sludge	Excavated rock	Sand stone aggregate 40 mm & below	Aggregate 40 mm & above	Soiling stone	Concrete block (form)	Timber
1	2	3	4	5	6	7	8	9	10	11
	Pay load	6.0 cum	4.8 cum	5.52 cum	3.0 cum	5.75 cum	5.5 cum	4.7 cum	6.0 cum	5.75 cum
0.5	1157.56	192.93	241.16	209.70	385.85	201.31	210.47	246.29	192.93	201.31
1	1255.79	209.3	261.62	227.50	418.60	218.40	228.33	267.19	209.30	218.40
1.5	1351.95	225.33	281.66	244.92	450.65	235.12	245.81	287.65	225.33	235.12
2	1444.27	240.71	300.89	261.64	481.42	251.18	262.59	307.29	240.71	251.18
2.5	1539.54	256.59	320.74	278.90	513.18	267.75	279.92	327.56	256.59	267.75
3	1630.95	271.83	339.78	295.46	543.65	283.64	296.54	347.01	271.83	283.64
3.5	1721.73	286.96	358.69	311.91	573.91	299.43	313.04	366.33	286.96	299.43
4	1811.32	301.89	377.36	328.14	603.77	315.01	329.33	385.39	301.89	315.01
4.5	1899.09	316.52	395.64	344.04	633.03	330.28	345.29	404.06	316.52	330.28
5	1987.28	331.21	414.02	360.01	662.43	345.61	361.32	422.83	331.21	345.61
6	2163.64	360.61	450.76	391.96	721.21	376.29	393.39	460.35	360.61	376.29
7	2337.98	389.66	487.08	423.55	779.33	406.61	425.09	497.44	389.66	406.61
8	2516.03	419.34	524.17	455.80	838.68	437.57	457.46	535.33	419.34	437.57
9	2677.47	446.25	557.81	485.05	892.49	465.65	486.81	569.67	446.25	465.65
10	2836.72	472.79	590.98	513.90	945.57	493.34	515.77	603.56	472.79	493.34
15	3412.08	568.68	710.85	618.13	1137.36	593.41	620.38	725.97	568.68	593.41
20	4199.64	699.94	874.93	760.80	1399.88	730.37	763.57	893.54	699.94	730.37
25	4893.83	815.64	1019.55	886.56	1631.28	851.10	889.79	1041.24	815.64	851.10
30	5677.59	946.27	1182.83	1028.55	1892.53	987.41	1032.29	1208.00	946.27	987.41
35	5972.83	995.47	1244.34	1082.03	1990.94	1038.75	1085.97	1270.81	995.47	1038.75
40	6683.39	1113.9	1392.37	1210.76	2227.80	1162.33	1215.16	1422.00	1113.90	1162.33
45	7387.99	1231.33	1539.16	1338.40	2462.66	1284.87	1343.27	1571.91	1231.33	1284.87
50	8086.39	1347.73	1684.66	1464.93	2695.46	1406.33	1470.25	1720.51	1347.73	1406.33
60	9497.42	1582.9	1978.63	1720.55	3165.81	1651.73	1726.80	2020.73	1582.90	1651.73
70	10918.09	1819.68	2274.6	1977.91	3639.36	1898.80	1985.11	2323.00	1819.68	1898.80
80	12340.39	2056.73	2570.91	2235.58	4113.46	2146.15	2243.71	2625.61	2056.73	2146.15



Lead in km	Cost / trip	Lime morum building rubbish	Earth	Manure or sludge	Excavated rock	Sand stone aggregate 40 mm & below	Aggregate 40 mm & above	Soling stone	Concrete block (form)	Timber
1	2	3	4	5	6	7	8	9	10	11
90	13755.54	2292.59	2865.74	2491.95	4585.18	2392.27	2501.01	2926.71	2292.59	2392.27
100	14618.35	2436.39	3045.49	2648.25	4872.78	2542.32	2657.88	3110.29	2436.39	2542.32
125	16588.18	2764.7	3455.87	3005.11	5529.39	2884.90	3016.03	3529.40	2764.70	2884.90
150	19685.05	3280.84	4101.05	3566.13	6561.68	3423.49	3579.10	4188.31	3280.84	3423.49
175	22790.44	3798.41	4748.01	4128.70	7596.81	3963.55	4143.72	4849.03	3798.41	3963.55
200	25851.19	4308.53	5385.66	4683.19	8617.06	4495.86	4700.22	5500.25	4308.53	4495.86
250	32172	5362	6702.5	5828.26	10724.00	5595.13	5849.45	6845.11	5362.00	5595.13
300	36587.23	6097.87	7622.34	6628.12	12195.74	6363.00	6652.22	7784.52	6097.87	6363.00
420	50725.85	8454.31	10567.89	9189.47	16908.62	8821.89	9222.88	10792.73	8454.31	8821.89
540	65129.69	10854.95	13568.69	11798.86	21709.90	11326.90	11841.76	13857.38	10854.95	11326.90
660	79820.54	13303.42	16629.28	14460.24	26606.85	13881.83	14512.83	16983.09	13303.42	13881.83
780	94333.36	15722.23	19652.78	17089.38	31444.45	16405.80	17151.52	20070.93	15722.23	16405.80
900	106854.15	17809.03	22261.28	19357.64	35618.05	18583.33	19428.03	22734.93	17809.03	18583.33
1020	122857.47	20476.25	25595.31	22256.79	40952.49	21366.52	22337.72	26139.89	20476.25	21366.52
1140	138063	23010.5	28763.13	25011.41	46021.00	24010.96	25102.36	29375.11	23010.50	24010.96



**STATEMENT VII**

Including loading, unloading and stacking

Lead in km	Cost / trip	Cement stone block, GI CC AC Pipes below 120 mm dia	Tar bitumenn Asphalt roofing felt & Flooring Asphalt etc.	Steam coal	Matting thatching bambu ceiling board rubber PVC pipes fittings	Sheet & plate glass in packs Paints & Distempers AC Sheets & fittings iron fittings and iron sheets	Bricks modular bricks & Traditional bricks	Tiles half round tiles & Roofing tiles cement flooring tiles	Glass blocks (hollow) 200x200 x120 mm	Empty cement bags
1	2	3	4	5	6	7	8	9	10	11
	Pay load	7.0 Mt	4.5 MT per 1 M.T.	5.5 MT per 1 M.T.	3.0 MT per 1 M.T.	7.0 MT per 1 M.T.	3500 No. per 1000 Nos.	3200 No. per 1000 Nos.	1000 No. per 1000 Nos.	2000 No. per 1000 Nos.
0.5	1157.56	165.37	257.24	210.47	385.85	165.37	330.73	361.74	115.76	578.78
1	1255.79	179.40	279.06	228.33	418.60	179.40	358.80	392.43	125.58	627.90
1.5	1351.95	193.14	300.43	245.81	450.65	193.14	386.27	422.48	135.20	675.98
2	1444.27	206.32	320.95	262.59	481.42	206.32	412.65	451.33	144.43	722.14
2.5	1539.54	219.93	342.12	279.92	513.18	219.93	439.87	481.11	153.95	769.77
3	1630.95	232.99	362.43	296.54	543.65	232.99	465.99	509.67	163.10	815.48
3.5	1721.73	245.96	382.61	313.04	573.91	245.96	491.92	538.04	172.17	860.87
4	1811.32	258.76	402.52	329.33	603.77	258.76	517.52	566.04	181.13	905.66
4.5	1899.09	271.30	422.02	345.29	633.03	271.30	542.60	593.47	189.91	949.55
5	1987.28	283.90	441.62	361.32	662.43	283.90	567.79	621.03	198.73	993.64
6	2163.64	309.09	480.81	393.39	721.21	309.09	618.18	676.14	216.36	1081.82
7	2337.98	334.00	519.55	425.09	779.33	334.00	667.99	730.62	233.80	1168.99
8	2516.03	359.43	569.12	457.46	838.68	359.43	718.87	786.26	251.60	1258.02
9	2677.47	382.50	594.99	486.81	892.49	382.50	764.99	836.71	267.75	1338.74
10	2836.72	405.25	630.38	515.77	945.57	405.25	810.49	886.48	283.67	1418.36
15	3412.08	487.44	758.24	620.38	1137.36	487.44	974.88	1066.28	341.21	1706.04
20	4199.64	599.95	933.25	763.57	1399.88	599.95	1199.90	1312.39	419.96	2099.82
25	4893.83	699.12	1087.52	889.79	1631.28	699.12	1398.24	1529.32	489.38	2446.92
30	5677.59	811.08	1261.69	1032.29	1892.53	811.08	1622.17	1774.25	567.76	2838.80
35	5972.83	853.26	1327.30	1085.97	1990.94	853.26	1706.52	1866.51	597.28	2986.42





Lead in km	Cost / trip	Cement stone block, GI CI CC AC Pipes below 120 mm dia	Tar bitumenn Asphalt roofing felt & Flooring Asphalt etc.	Steam coal	Matting thatching bambu ceiling board rubber PVC pipes fittings	Sheet & plate glass in packs Paints & Distempers AC Sheets & fittings iron fittings and iron sheets	Bricks modular bricks & Traditional bricks	Tiles half round tiles & Roofing tiles cement flooring tiles	Glass blocks (hollow) 200x200 x120 mm	Empty cement bags
1	2	3	4	5	6	7	8	9	10	11
40	6683.39	954.77	1485.20	1215.16	2227.80	954.77	1909.54	2088.56	668.34	3341.70
45	7387.99	1055.43	1641.78	1343.27	2462.66	1055.43	2110.85	2308.75	738.80	3694.00
50	8086.39	1155.20	1796.98	1470.25	2695.46	1155.20	2310.40	2527.00	808.64	4043.20
60	9497.42	1356.77	2110.54	1726.80	3165.81	1356.77	2713.55	2967.94	949.74	4748.71
70	10918.09	1559.73	2426.24	1985.11	3639.36	1559.73	3119.45	3411.90	1091.81	5459.05
80	12340.39	1762.91	2742.31	2243.71	4113.46	1762.91	3525.83	3856.37	1234.04	6170.20
90	13755.54	1965.08	3056.79	2501.01	4585.18	1965.08	3930.15	4298.61	1375.55	6877.77
100	14618.35	2088.34	3248.52	2657.88	4872.78	2088.34	4176.67	4568.23	1461.84	7309.18
125	16588.18	2369.74	3686.26	3016.03	5529.39	2369.74	4739.48	5183.81	1658.82	8294.09
150	19685.05	2812.15	4374.46	3579.10	6561.68	2812.15	5624.30	6151.58	1968.51	9842.53
175	22790.44	3255.78	5064.54	4143.72	7596.81	3255.78	6511.55	7122.01	2279.04	11395.22
200	25851.19	3693.03	5744.71	4700.22	8617.06	3693.03	7386.05	8078.50	2585.12	12925.60
250	32172.00	4596.00	7149.33	5849.45	10724.00	4596.00	9192.00	10053.75	3217.20	16086.00
300	36587.23	5226.75	8130.50	6652.22	12195.74	5226.75	10453.49	11433.51	3658.72	18293.62
420	50725.85	7246.55	11272.41	9222.88	16908.62	7246.55	14493.10	15851.83	5072.59	25362.93
540	65129.69	9304.24	14473.26	11841.76	21709.90	9304.24	18608.48	20353.03	6512.97	32564.85
660	79820.54	11402.93	17737.90	14512.83	26606.85	11402.93	22805.87	24943.92	7982.05	39910.27
780	94333.36	13476.19	20962.97	17151.52	31444.45	13476.19	26952.39	29479.18	9433.34	47166.68
900	106854.15	15264.88	23745.37	19428.03	35618.05	15264.88	30529.76	33391.92	10685.42	53427.08
1020	122857.47	17551.07	27301.66	22337.72	40952.49	17551.07	35102.13	38392.96	12285.75	61428.74
1140	138063.00	19723.29	30680.67	25102.36	46021.00	19723.29	39446.57	43144.69	13806.30	69031.50



**STATEMENT VIII**

Including loading, unloading and stacking

**STEEL CYLINDER REINFORCED CEMENT PIPES, UNREINFORCED CEMENT PIPES, PRECAST CONCRETE PIPES**

	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm	300 & 400 mm	450 & 500 mm	600, 700 & 750 mm	800, 900 & 1000 mm	1200 & 1800 MM	
	292.8	219.6	183	109.8	80.52	62.22	54.9	29.28	18.183	15	5	
Pay load in Rmt.												
1	2	3	4	5	6	7	8	9	10	11	12	
1	2	3	4	5	6	7	8	9	10	11	12	
13												
<b>UNIT PER 100 RMT</b>												
0.5	1157.56	395.34	527.12	632.55	1054.24	1437.61	1860.43	2108.49	3953.42	6325.46	7717.07	23151.2
1	1255.79	428.89	571.85	686.22	1143.71	1559.6	2018.31	2287.41	4288.9	6862.24	8371.93	25115.8
1.5	1351.95	461.73	615.64	738.77	1231.28	1679.02	2172.85	2462.57	4617.32	7387.7	9013	27039
2	1444.27	493.26	657.68	789.22	1315.36	1793.68	2321.23	2630.73	4932.62	7892.19	9628.47	28885.4
2.5	1539.54	525.8	701.07	841.28	1402.13	1912	2474.35	2804.26	5257.99	8412.79	10263.6	30790.8
3	1630.95	557.02	742.69	891.23	1485.38	2025.52	2621.26	2970.77	5570.18	8912.3	10873	32619
3.5	1721.73	588.02	784.03	940.84	1568.06	2138.26	2767.16	3136.12	5880.23	9408.36	11478.2	34434.6
4	1811.32	618.62	824.83	989.79	1649.65	2249.53	2911.15	3299.31	6186.2	9897.92	12075.47	36226.4
4.5	1899.09	648.6	864.8	1037.75	1729.59	2358.53	3052.22	3459.18	6485.96	10377.54	12660.6	37981.8
5	1987.28	678.72	904.95	1085.95	1809.91	2468.06	3193.96	3619.82	6787.16	10859.45	13248.53	39745.6
6	2163.64	738.95	985.26	1182.32	1970.53	2687.08	3477.4	3941.06	7389.48	11823.17	14424.27	43272.8
7	2337.98	798.49	1064.65	1277.58	2129.31	2903.6	3757.6	4258.62	7984.9	12775.85	15586.53	46759.6
8	2516.03	859.3	1145.73	1374.88	2291.47	3124.73	4043.76	4582.93	8593	13748.8	16773.53	50320.6
9	2677.47	914.44	1219.25	1463.1	2438.5	3325.22	4303.23	4876.99	9144.36	14630.98	17849.8	53549.4
10	2836.72	968.83	1291.77	1550.12	2583.53	3523	4559.18	5167.07	9688.25	15501.2	18911.47	56734.4
15	3412.08	1165.33	1553.77	1864.52	3107.54	4237.56	5483.9	6215.08	11653.28	18645.25	22747.2	68241.6
20	4199.64	1434.3	1912.4	2294.89	3824.81	5215.65	6749.66	7649.62	14343.03	22948.85	27997.6	83992.8
25	4893.83	1671.39	2228.52	2674.22	4457.04	6077.78	7865.36	8914.08	16713.9	26742.24	32625.53	97876.6
30	5677.59	1939.07	2585.42	3102.51	5170.85	7051.15	9125.02	10341.69	19390.68	31025.08	37850.6	113551.8
35	5972.83	2039.9	2719.87	3263.84	5439.74	7417.82	9599.53	10879.47	20399.01	32638.42	39818.87	119456.6
40	6683.39	2282.58	3043.44	3652.13	6086.88	8300.29	10741.55	12173.75	22825.79	36521.26	44555.93	133667.8
45	7387.99	2523.22	3364.29	4037.15	6728.59	9175.35	11873.98	13457.18	25232.21	40371.53	49253.27	147759.8
50	8086.39	2761.75	3682.33	4418.79	7364.65	10042.71	12996.45	14729.31	27617.45	44187.92	53909.27	161727.8
60	9497.42	3243.65	4324.87	5189.85	8649.74	11795.11	15264.26	17299.49	32436.54	51898.47	63316.13	189948.4



	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm	300 & 400 mm	450 & 500 mm	600, 700 & 750 mm	800, 900 & 1000 mm	1200 & 1800 MM	
Pay load in Rmt	292.8	219.6	183	109.8	80.52	62.22	54.9	29.28	18.183	15	5	
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>UNIT PER 100 RMT</b>												
70	3728.86	4971.81	5966.17	9943.62	13559.48	17547.56	19887.23	37288.56	59661.69	72787.27	218361.8	
80	12340.39	4214.61	5619.49	11238.97	15325.87	19833.48	22477.94	42146.14	67433.83	82269.27	246807.8	
90	13755.54	4697.93	6263.91	12527.81	17083.38	22107.91	25055.63	46979.3	75166.89	91703.6	275110.8	
100	14618.35	4992.61	6656.81	13313.62	18154.93	23494.62	26627.23	49926.06	79881.69	97455.67	292367	
125	16588.18	5665.36	7553.82	15107.63	20601.32	26660.53	30215.26	56653.62	90645.79	110587.87	331763.6	
150	19685.05	6723.04	8964.05	17928.1	24447.4	31637.82	35856.19	67230.36	107568.58	131233.67	393701	
175	22790.44	7783.62	10378.16	20756.32	28304.07	36628.8	41512.64	77836.2	124537.92	151936.27	455808.8	
200	25851.19	8828.96	11771.94	23543.89	32105.3	41548.04	47087.78	88289.58	141263.33	172341.27	517023.8	
250	32172	10987.7	14650.27	29300.55	39955.29	51706.85	58601.09	109877.05	175803.28	214480	643440	
300	36587.23	12495.64	16660.85	33321.7	45438.69	58803.01	66643.41	124956.39	199830.22	243914.87	731744.6	
420	50725.85	17324.4	23099.2	46198.41	62997.83	81526.6	92396.81	173244.02	277190.44	338172.33	1014517	
540	65129.69	22243.75	29658.33	59316.66	80886.35	104676.45	118633.32	222437.47	355899.95	434197.93	1302593.8	
660	79820.54	27261.11	36348.15	72696.3	99131.32	128287.59	145392.6	272611.13	436177.81	532136.93	1596410.8	
780	94333.36	32217.68	42956.9	85913.81	117155.19	151612.6	171827.61	322176.78	515482.84	628889.07	1886667.2	
900	106854.15	36493.9	48658.54	97317.08	132705.1	171736.02	194634.15	364939.04	583902.46	712361	2137083	
1020	122857.47	41959.52	55946.02	111892.05	152580.07	197456.56	223784.1	419595.18	671352.3	819049.8	2457149.4	
1140	138063	47152.66	62870.22	125740.44	171464.23	221894.89	251480.87	471526.64	754442.62	920420	2761260	



**STATEMENT IX**

Including loading, unloading and stacking

**STONEWARE PIPES**

Lead in km	Cost/trip Pay Load	100 mm	150 mm	200 mm	230 mm	250 mm	300 mm	350 mm	400 mm
		480 m	240 m	135 m	105 m	84 m	66 m	43 m	27 m
1	2	3	4	5	6	7	8	9	10
<b>Unit Per 100 Rmt</b>									
0.5	1157.56	241.16	482.32	857.45	1102.44	1378.05	1753.88	2692	4287.26
1	1255.79	261.62	523.25	930.21	1195.99	1494.99	1902.71	2920.44	4651.07
1.5	1351.95	281.66	563.31	1001.44	1287.57	1609.46	2048.41	3144.07	5007.22
2	1444.27	300.89	601.78	1069.83	1375.5	1719.37	2188.29	3358.77	5349.15
2.5	1539.54	320.74	641.48	1140.4	1466.23	1832.79	2332.64	3580.33	5702
3	1630.95	339.78	679.56	1208.11	1553.29	1941.61	2471.14	3792.91	6040.56
3.5	1721.73	358.69	717.39	1275.36	1639.74	2049.68	2608.68	4004.02	6376.78
4	1811.32	377.36	754.72	1341.72	1725.07	2156.33	2744.42	4212.37	6708.59
4.5	1899.09	395.64	791.29	1406.73	1808.66	2260.82	2877.41	4416.49	7033.67
5	1987.28	414.02	828.03	1472.06	1892.65	2365.81	3011.03	4621.58	7360.3
6	2163.64	450.76	901.52	1602.7	2060.61	2575.76	3278.24	5031.72	8013.48
7	2337.98	487.08	974.16	1731.84	2226.65	2783.31	3542.39	5437.16	8659.19
8	2516.03	524.17	1048.35	1863.73	2396.22	2995.27	3812.17	5851.23	9318.63
9	2677.47	557.81	1115.61	1983.31	2549.97	3187.46	4056.77	6226.67	9916.56
10	2836.72	590.98	1181.97	2101.27	2701.64	3377.05	4298.06	6597.02	10506.37
15	3412.08	710.85	1421.7	2527.47	3249.6	4062	5169.82	7935.07	12637.33
20	4199.64	874.93	1749.85	3110.84	3999.66	4999.57	6363.09	9766.6	15554.22
25	4893.83	1019.55	2039.1	3625.06	4660.79	5825.99	7414.89	11381	18125.3
30	5677.59	1182.83	2365.66	4205.62	5407.23	6759.04	8602.41	13203.7	21028.11
35	5972.83	1244.34	2488.68	4424.32	5688.41	7110.51	9049.74	13890.3	22121.59
40	6683.39	1392.37	2784.75	4950.66	6365.13	7956.42	10126.35	15542.77	24753.3
45	7387.99	1539.16	3078.33	5472.59	7036.18	8795.23	11193.92	17181.37	27362.93
50	8086.39	1684.66	3369.33	5989.92	7701.32	9626.65	12252.11	18805.56	29949.59
60	9497.42	1978.63	3957.26	7035.13	9045.16	11306.45	14390.03	22087.02	35175.63
70	10918.09	2274.6	4549.2	8087.47	10398.18	12997.73	16542.56	25390.91	40437.37



Lead in km	Cost/trip	100 mm 480 m	150 mm 240 m	200 mm 135 m	230 mm 105 m	250 mm 84 m	300 mm 66 m	350 mm 43 m	400 mm 27 m
1	2	3	4	5	6	7	8	9	10
<b>Unit Per 100 Rmt</b>									
80	12340.39	2570.91	5141.83	9141.03	11752.75	14690.94	18697.56	28698.58	45705.15
90	13755.54	2865.74	5731.48	10189.29	13100.51	16375.64	20841.73	31989.63	50946.44
100	14618.35	3045.49	6090.98	10828.41	13922.24	17402.8	22149.02	33996.16	54142.04
125	16588.18	3455.87	6911.74	12287.54	15798.27	19747.83	25133.61	38577.16	61437.7
150	19685.05	4101.05	8202.1	14581.52	18747.67	23434.58	29825.83	45779.19	72907.59
175	22790.44	4748.01	9496.02	16881.81	21705.18	27131.48	34530.97	53001.02	84409.04
200	25851.19	5385.66	10771.33	19149.03	24620.18	30775.23	39168.47	60119.05	95745.15
250	32172	6702.5	13405	23831.11	30640	38300	48745.45	74818.6	119155.56
300	36587.23	7622.34	15244.68	27101.65	34844.98	43556.23	55435.2	85086.58	135508.26
420	50725.85	10567.89	21135.77	37574.7	48310.33	60387.92	76857.35	117967.09	187873.52
540	65129.69	13568.69	27137.37	48244.21	62028.28	77535.35	98681.35	151464.4	241221.07
660	79820.54	16629.28	33258.56	59126.33	76019.56	95024.45	120940.21	185629.16	295631.63
780	94333.36	19652.78	39305.57	69876.56	89841.3	112301.62	142929.33	219379.91	349382.81
900	106854.15	22261.28	44522.56	79151.22	101765.86	127207.32	161900.23	248498.02	395756.11
1020	122857.47	25595.31	51190.61	91005.53	117007.11	146258.89	186147.68	285715.05	455027.67
1140	138063	28763.13	57526.25	102268.89	131488.57	164360.71	209186.36	321076.74	511344.44





**STATEMENT IV**

Including loading, unloading and stacking

Lead in km	Cost per trip	Cement pay load 9.00 MT	Steel pay load 9.00 MT	Bulk Asphalt in Bouzer pay load 4.50 MT	M.S.Bar 9.0 MT	Sand 5.75 cum
1	2	3	4	5	6	7
0.50	1157.56	128.62	128.62	257.24	128.62	201.31
1.00	1255.79	139.53	139.53	279.06	139.53	218.40
1.50	1351.95	150.22	150.22	300.43	150.22	235.12
2.00	1444.27	160.47	160.47	320.95	160.47	251.18
2.50	1539.54	171.06	171.06	342.12	171.06	267.75
3.00	1630.95	171.06	171.06	342.12	181.22	283.64
3.50	1721.73	191.30	191.30	382.61	191.30	299.43
4.00	1811.32	201.26	201.26	402.52	201.26	315.01
4.50	1899.09	211.01	211.01	422.02	211.01	330.28
5.00	1987.28	220.81	220.81	441.62	220.81	345.61
6.00	2163.64	240.40	240.40	480.81	240.40	376.29
7.00	2337.98	259.78	259.78	519.55	259.78	406.61
8.00	2516.03	279.56	279.56	559.12	279.56	437.57
9.00	2677.47	297.50	297.50	594.99	297.50	465.65
10.00	2836.72	315.19	315.19	630.38	315.19	493.34
15.00	3412.08	379.12	379.12	758.24	379.12	593.41
20.00	4199.64	466.63	466.63	933.25	466.63	730.37
25.00	4893.83	543.76	543.76	1087.52	543.76	851.10
30.00	5677.59	630.84	630.84	1261.69	630.84	987.41
35.00	5972.83	663.65	663.65	1327.30	663.65	1038.75
40.00	6683.39	742.60	742.60	1485.20	742.60	1162.33
45.00	7387.99	820.89	820.89	1641.78	820.89	1284.87
50.00	8086.39	898.49	898.49	1796.98	898.49	1406.33
60.00	9497.42	1055.27	1055.27	2110.54	1055.27	1651.73
70.00	10918.09	1213.12	1213.12	2426.24	1213.12	1898.80
80.00	12340.39	1371.15	1371.15	2742.31	1371.15	2146.15
90.00	13755.54	1528.39	1528.39	3056.79	1528.39	2392.27
100.00	14618.35	1624.26	1624.26	3248.52	1624.26	2542.32
125.00	16588.18	1843.13	1843.13	3686.26	1843.13	2884.90
150.00	19685.05	2187.23	2187.23	4374.46	2187.23	3423.49
175.00	22790.44	2532.27	2532.27	5064.54	2532.27	3963.55
200.00	25851.19	2872.35	2872.35	5744.71	2872.35	4495.86
250.00	32172	3574.67	3574.67	7149.33	3574.67	5595.13
300.00	36587.23	4065.25	4065.25	8130.50	4065.25	6363.00
420.00	50725.85	5636.21	5636.21	11272.41	5636.21	8821.89
540.00	65129.69	7236.63	7236.63	14473.26	7236.63	11326.90
660.00	79820.54	8868.95	8868.95	17737.90	8868.95	13881.83
780.00	94333.36	10481.48	10481.48	20962.97	10481.48	16405.80
900.00	106854.15	11872.68	11872.68	23745.37	11872.68	18583.33
1020.00	122857.47	13650.83	13650.83	27301.66	13650.83	21366.52
1140.00	138063	15340.33	15340.33	30680.67	15340.33	24010.96



**STATEMENT V**

Excluding loading, unloading and stacking

Lead in km	Cost per trip	Cement pay load 9.00 MT	Steel pay load 9.00 MT	Bulk Asphalt in Bouzer pay load 4.50 MT
1	2	3	4	5
0.5	541.78	60.20	60.20	120.40
1	606.24	67.36	67.36	134.72
1.5	669.77	74.42	74.42	148.84
2	731.56	81.28	81.28	162.57
2.5	794.65	88.29	88.29	176.59
3	856.06	88.29	88.29	176.59
3.5	917.14	101.90	101.90	203.81
4	977.68	108.63	108.63	217.26
4.5	1037.46	115.27	115.27	230.55
5	1097.42	121.94	121.94	243.87
6	1217.25	135.25	135.25	270.50
7	1336.17	148.46	148.46	296.93
8	1456.77	161.86	161.86	323.73
9	1569.96	174.44	174.44	348.88
10	1682.13	186.90	186.90	373.81
15	2143.3	238.14	238.14	476.29
20	2700.17	300.02	300.02	600.04
25	3164.11	351.57	351.57	703.14
30	3712.34	412.48	412.48	824.96
35	4048.52	449.84	449.84	899.67
40	4564.89	507.21	507.21	1014.42
45	5078.81	564.31	564.31	1128.62
50	5589.98	621.11	621.11	1242.22
55	6114.05	679.34	679.34	1358.68
65	7139.27	793.25	793.25	1586.50
75	8176.13	908.46	908.46	1816.92
85	9199.67	1022.19	1022.19	2044.37
95	9531.06	1059.01	1059.01	2118.01
105	10485.48	1165.05	1165.05	2330.11
130	12865.92	1429.55	1429.55	2859.09
155	15285.64	1698.40	1698.40	3396.81
180	17658.85	1962.09	1962.09	3924.19
230	22440.75	2493.42	2493.42	4986.83
280	26485.67	2942.85	2942.85	5885.70
400	37641.26	4182.36	4182.36	8364.72
520	48957.24	5439.69	5439.69	10879.39
640	60163.15	6684.79	6684.79	13369.59
760	71264.74	7918.30	7918.30	15836.61
880	82395.3	9155.03	9155.03	18310.07
1000	93185.44	10353.94	10353.94	20707.88
1120	104469.19	11607.69	11607.69	23215.38



**STATEMENT 'E'**  
Including loading, unloading & stacking.

Lead in km	Cost per trip.	Asbestos cement pipes			
	Pay Load. M	50mm dia. 960.00	80mm dia. 576.00	100mm dia. 512.00	150mm dia. 288.00
1	2	3	4	5	6
<b>Unit : Per 100 RMT.</b>					
0.50	1157.56	120.58	200.97	226.09	401.93
1.00	1255.79	130.81	218.02	245.27	436.04
1.50	1351.95	140.83	234.71	264.05	469.43
2.00	1444.27	150.44	250.74	282.08	501.48
2.50	1539.54	160.37	267.28	300.69	534.56
3.00	1630.95	169.89	283.15	318.54	566.30
3.50	1721.73	179.35	298.91	336.28	597.82
4.00	1811.32	188.68	314.47	353.77	628.93
4.50	1899.09	197.82	329.70	370.92	659.41
5.00	1987.28	207.01	345.01	388.14	690.03
6.00	2163.64	225.38	375.63	422.59	751.26
7.00	2337.98	243.54	405.90	456.64	811.80
8.00	2516.03	262.09	436.81	491.41	873.62
9.00	2677.47	278.90	464.84	522.94	929.68
10.00	2836.72	295.49	492.49	554.05	984.97
15.00	3412.08	355.43	592.38	666.42	1184.75
20.00	4199.64	437.46	729.10	820.24	1458.21
25.00	4893.83	509.77	849.62	955.83	1699.25
30.00	5677.59	591.42	985.69	1108.90	1971.39
35.00	5972.83	622.17	1036.95	1166.57	2073.90
40.00	6683.39	696.19	1160.31	1305.35	2320.62
45.00	7387.99	769.58	1282.64	1442.97	2565.27
50.00	8086.39	842.33	1403.89	1579.37	2807.77
60.00	9497.42	989.31	1648.86	1854.96	3297.72
70.00	10918.09	1137.30	1895.50	2132.44	3791.00
80.00	12340.39	1285.46	2142.43	2410.23	4284.86
90.00	13755.54	1432.87	2388.11	2686.63	4776.23
100.00	14618.35	1522.74	2537.91	2855.15	5075.82
125.00	16588.18	1727.94	2879.89	3239.88	5759.78
150.00	19685.05	2050.53	3417.54	3844.74	6835.09
175.00	22790.44	2374.00	3956.67	4451.26	7913.35
200.00	25851.19	2692.83	4488.05	5049.06	8976.11
250.00	32172.00	3351.25	5585.42	6283.59	11170.83
300.00	36587.23	3811.17	6351.95	7145.94	12703.90
420.00	50725.85	5283.94	8806.57	9907.39	17613.14
540.00	65129.69	6784.34	11307.24	12720.64	22614.48
660.00	79820.54	8314.64	13857.73	15589.95	27715.47
780.00	94333.36	9826.39	16377.32	18424.48	32754.64
900.00	106854.15	11130.64	18551.07	20869.95	37102.14
1020.00	122857.47	12797.65	21329.42	23995.60	42658.84
1140.00	138063.00	14381.56	23969.27	26965.43	47938.54





**STATEMENT SHOWING STANDARD WEIGHT OF PIPES TO BE FOLLOWED  
FOR CARTING OF VARIOUS DIAMETERS AND TYPES OF PIPES**

**I) C.I. Pipes ( IS : 1536-1989 )**

Diameter of Pipe in mm	Class of Pipes and Its Weight in Kg. per Metre Length		
	LA	A	B
80	16.00	17.38	18.46
100	19.82	21.82	23.27
125	25.82	28.18	30.36
150	32.10	35.27	38.00
200	47.09	51.09	55.27
250	63.45	69.09	74.73
300	81.82	89.45	96.91
350	103.09	111.82	121.27
400	125.45	137.09	140.00
450	151.27	166.10	179.27
500	177.09	192.91	208.73
600	236.00	257.64	335.01
700	304.55	335.73	359.45
750	341.09	372.91	404.55
800	381.00	416.00	450.00
900	465.09	507.45	549.80
1000	558.73	610.36	659.64

**II) M.S. Pipes**

Note : Weight of M.S. Pipes is to be computed by considering density of steel as 7850 Kg./Cum considering the diameter and thickness of plate used for manufacturing of M.S. Pipes.

**III) A.C. Pressure Pipes ( ISO-160 )**

Diameter of Pipe in mm	Class of pipes and its weight in Kg. per meter length			
	Class - 5	Class - 10	Class - 15	Class - 20
80	6.00	6.20	6.40	6.80
100	7.60	7.70	8.20	10.30
125	9.57	9.80	11.00	13.30
150	11.87	12.20	15.30	19.00
200	15.57	19.30	25.60	32.70
250	19.25	25.20	32.70	41.50
300	24.97	32.30	45.10	58.10
350	39.77	47.52	55.27	71.42
400	49.20	60.20	71.36	93.10
450	56.92	70.27	83.63	111.37
500	72.84	89.54	104.25	136.52
600	102.50	137.32	148.35	193.16



#### IV) D.I. K-9 PIPES INCLUDING WEIGHT OF MORTAR LINING PER M LENGTH

(1) Barrel Mass as per IS-8329-1994 (2) Socket Mass as per IS-8329-1994 (3) Cement Mortar Lining Wt as per ISO-4179-1985

Nominal Diameter	Weight / M Length of D.I. K-9 Pipes of			
	4 M	5 M	5.50 M	6 M
80 mm wt. of DI pipe / M	13.00	13.00	12.91	12.67
Weight Mortar / M	1.56	1.56	1.56	1.56
Total Weight / M	14.56	14.56	14.47	14.23
100 mm wt. of DI pipe / M	16.25	16.00	16.00	15.86
Weight Mortar / M	1.93	1.93	1.93	1.93
Total Weight / M	18.18	17.93	17.93	17.79
125 mm wt. of DI pipe / M	20.50	20.00	20.00	19.83
Weight Mortar / M	2.42	2.42	2.42	2.42
Total Weight / M	22.92	22.42	22.42	22.25
150 mm wt. of DI pipe / M	24.75	24.20	24.18	24.00
Weight Mortar / M	2.90	2.90	2.90	2.90
Total Weight / M	27.65	27.10	27.08	26.90
200 mm wt. of DI pipe / M	33.25	32.60	32.54	32.33
Weight Mortar / M	3.88	3.88	3.88	3.88
Total Weight / M	37.13	36.48	36.42	36.21
250 mm wt. of DI pipe / M	43.75	43.00	42.73	42.50
Weight Mortar / M	4.84	4.84	4.84	4.84
Total Weight / M	48.59	47.84	47.57	47.34
300 mm wt. of DI pipe / M	55.50	54.60	54.18	53.83
Weight Mortar / M	5.80	5.80	5.80	5.80
Total Weight / M	61.30	60.40	59.98	59.63
350 mm wt. of DI pipe / M	69.25	68.00	67.45	67.17
Weight Mortar / M	12.12	12.12	12.12	12.12
Total Weight / M	81.37	80.12	79.57	79.29
400 mm wt. of DI pipe / M	82.75	81.40	80.91	80.33
Weight Mortar / M	13.82	13.82	13.82	13.82
Total Weight / M	96.57	95.22	94.73	94.15
450 mm wt. of DI pipe / M	98.75	97.00	96.36	95.83
Weight Mortar / M	15.53	15.53	15.53	15.53
Total Weight / M	114.28	112.53	111.89	111.36
500 mm wt. of DI pipe / M	115.00	112.80	112.00	111.50
Weight Mortar / M	17.26	17.26	17.26	17.26
Total Weight / M	132.26	130.06	129.26	128.76
600 mm wt. of DI pipe / M	152.00	149.00	147.82	147.00
Weight Mortar / M	20.75	20.75	20.75	20.75
Total Weight / M	172.75	169.73	168.57	167.75
700 mm wt. of DI pipe / M	193.75	189.80	188.36	187.70
Weight Mortar / M	29.45	29.45	29.45	29.45
Total Weight / M	223.20	219.25	217.81	211.15
750 mm wt. of DI pipe / M	217.50	213.00	211.45	210.00
Weight Mortar / M	31.56	31.56	31.56	31.56
Total Weight / M	249.06	244.56	243.01	241.56
800 mm wt. of DI pipe / M	240.75	235.80	233.82	232.33
Weight Mortar / M	33.69	33.69	33.69	33.69
Total Weight / M	274.44	269.49	267.51	266.02
900 mm wt. of DI pipe / M	292.75	286.20	283.82	281.83
Weight Mortar / M	37.89	37.89	37.89	37.89
Total Weight / M	330.64	324.09	321.71	319.72
1000 mm wt. of DI pipe / M	349.75	341.60	338.55	336.17
Weight Mortar / M	42.08	42.08	42.08	42.08
Total Weight / M	391.83	383.68	380.63	378.25

Note : These weights are as per the circular issued by Superintending Engineer (HQ) vide Lt No. MJ/P / 10 - 2000 / SE (H/Q) / DI / 15 / AMDT / Stores / 255 dt. 26.06.2000



**V) P.V.C. Pipes ( IS : 4985-1988 )**

Diameter of Pipe in mm	Class of Pipes and its weight in Kg. per meter length		
	4.00	6.00 Kg./Sq.cm.	10.00
63	0.47	0.67	1.01
75	0.67	0.93	1.44
90	0.92	1.33	2.05
110	1.32	1.89	3.08
140	2.13	3.10	4.99
160	2.78	3.92	6.56
180	3.56	5.07	8.10
200	4.26	7.00	10.20
225	5.48	7.84	12.56
250	6.63	10.19	15.31
280	8.34	12.16	19.80
315	10.55	15.37	25.00

**VI) R.C.C. Pipes**

Diameter of Pipe in mm	Class of Pipes and its weight in Kg. per meter length					
	P - 1	P - 2	P - 3	NP - 2	NP - 3	NP - 4
100	23.56	23.56	23.56	21.20	21.20	21.20
150	33.00	33.00	33.00	29.40	29.40	29.40
200	42.10	42.10	42.10	37.90	37.90	37.90
250	51.84	63.40	75.18	57.10	67.60	77.20
300	74.64	102.50	117.10	92.25	105.40	119.10
350	92.28	134.30	168.10	120.80	151.30	170.20
400	104.16	169.60	208.10	152.60	187.30	212.40
450	127.92	188.70	235.23	169.90	211.70	240.80
500	141.36	229.90	261.37	206.90	235.23	270.50
600	192.96	305.70	313.64	275.10	282.27	320.20
700	225.59	325.80	365.92	293.20	329.32	370.90
800	257.82	345.19	418.19	310.60	376.30	425.40
900	290.00	389.58	470.47	350.60	423.00	482.30
1000	322.28	443.98	510.00	399.80	459.00	531.40

**VII) P.S.C. Pipes of all classes and B.W.S.C. Pipes of all classes**

Diameter of Pipe in	Weight of pipe per meter length for	Diameter of Pipe in mm	Weight of pipe per meter
350	197.50	1100	947.50
400	240.00	1200	1115.00
450	257.50	1300	1190.00
500	292.50	1400	1370.00
600	375.00	1500	1560.00
700	432.50	1600	1767.50
800	582.50	1700	1987.50
900	705.00	1800	2205.50
1000	825.00		



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**SECTION - D**  
**CEMENT CONSUMPTION**



Sr. No	Description	Unit	CONSUMPTION	
	<b><u>STANDARD CEMENT CONSUMPTION TO BE FOLLOWED FOR VARIOUS ITEMS OF WORK</u></b>			
<b>A</b>	<b><u>P.C.C. / R.C.C. Works</u></b>			
1	1 : 1% : 1 (M-300) with finishing in CM 1:3 proportion	Cum	9.20	bags
2	1: 1: 2 (M-250) with finishing in CM 1:3 proportion	Cum	8.50	bags
3	1: 1% : 3 (M-200) with finishing in CM 1:3 proportion	Cum	6.90	bags
4	1: 1% : 3 (M-200) without finishing	Cum	6.80	bags
5	1 : 2 : 4 (M-150) with finishing in CM 1:3 proportion	Cum	5.90	bags
6	1 : 2 : 4 (M-150) without finishing	Cum	5.80	bags
<b>B</b>	<b><u>Brick Masonry Works</u></b>			
1	BB Masonry - IInd sort in CM 1:6 proportion	Cum	1.44	bags
2	BB Masonry - IInd sort in CM 1:5 proportion	Cum	1.62	bags
3	BB Masonry - IInd sort in CM 1:4 proportion	Cum	2.30	bags
4	Half brick walls in CM 1:4 proportion	Cum	0.22	bags
<b>C</b>	<b><u>Stone Masonry Works</u></b>			
1	U.C.R. Masonry - IInd sort in CM 1:6 proportion	Cum	1.77	bags
2	U.C.R. Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
3	Random Rubble Masonry - IInd sort in CM 1:6 proportion	Cum	1.77	bags
4	Random Rubble Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
5	C.R. Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
6	C.R. Masonry - IInd sort in CM 1:6 proportion	Cum	1.50	bags
<b>D</b>	<b><u>Waterproofing Works</u></b>			
1	Damp-proof course 50 mm thick in 1:2:4 proportion with bitumen layer W.P. compound.	Sqm	0.35	bags
2	Integral finishing to newly laid slab in CM 1:3 proportion with W.P. compound.	Sqm	0.06	bags
3	Waterproofing treatment over old slab with W.P. cement slurry as tack coat 12 mm thick, W.P. plaster in CM 1:3 proportion, brickbat coba average 9.50 cm thick in CM 1:6 proportion and 20 mm thick W.P. cement plaster over it in CM 1:3 proportion and finishing with cement slurry with novelling.	Sqm.	0.37	bags
<b>E</b>	<b><u>Plastering and Pointing Works</u></b>			
1	<b><u>12 mm thick plaster</u></b>			
	a) CM 1:2 proportion	Sqm	0.16	bags
	b) CM 1:3 proportion	Sqm	0.12	bags
	c) CM 1:4 proportion	Sqm	0.10	bags



Sr. No	Description	Unit	CONSUMPTION	
2	<b>20 mm thick plaster</b>			
	a) CM 1:2 proportion	Sqm	0.27	bags
	b) CM 1:3 proportion	Sqm	0.19	bags
	c) CM 1:4 proportion	Sqm	0.15	bags
3	<b>25 mm thick plaster</b>			
	a) CM 1:2 proportion	Sqm	0.34	bags
	b) CM 1:3 proportion	Sqm	0.25	bags
	c) CM 1:4 proportion	Sqm	0.19	bags
4	Cement pointing in CM 1:3 proportion	Sqm	0.03	bags
5	Tuck cement pointing in CM 1:3 proportion	Sqm	0.05	bags
6	Sand faced plaster in CM 1:4 proportion including base coat 15 mm thick in CM 1:4 proportion with W.P. compound.	Sqm	0.22	bags
7	Rough cast cement plaster in CM 1:4 proportion in two coats.	Sqm	0.22	bags
<b>F</b>	<b>Flooring Works</b>			
1	I.P.S. flooring - 40 mm thick	Sqm	0.30	bags
2	I.P.S. flooring - 50 mm thick	Sqm	0.37	bags
3	Rough Shahabad - any other similar flooring in CM 1:4 proportion bedding	Sqm	0.15	bags
4	All types of cement / kadappa / polished / mosaic tiles flooring or skirting / dado set on CM 1:4 proportion bedding	Sqm	0.18	bags
5	Glazed / ceramic tiles flooring or skirting / dado fixed with plain cement slurry	Sqm	0.22	bags



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**SECTION - E**

**EXCAVATION**



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	Excavation for foundation / pipe trenches in earth, <b><u>soils of all types, sand, gravel and soft murum</u></b> , including removing the excavated material upto a distance of 50 metres and lifts as below, stacking and spreading as directed, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-1/259)					
	Lift 0 to 1.5 M	Cum	165	162		
2	Excavation for foundation / pipe trenches in <b><u>hard murum</u></b> including removing the excavated material upto a distance of 50 M and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-2/259)					
	Lift 0 to 1.5 M	Cum	187	182		
3	Excavation for foundation / pipe trenches in <b><u>hard murum and boulders, W.B.M. road</u></b> including removing the excavated material upto a distance of 50 M beyond the area and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-3/259)					
	Lift 0 to 1.5 M	Cum	211	202		
4	Add for every <b><u>additional lift of 1.5 M</u></b> beyond initial lift of 1.5 M for Item Nos. 1 to 3	Cum	15	15		
5	Excavation for foundation / pipe trenches in <b><u>soft rock and old cement and lime masonry foundation asphalt road</u></b> including removing the excavated material upto a distance of 50 M beyond the area and lifts as below, stacking as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-4/259)					
	Lift 0 to 1.5 M	Cum	629	562		





No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
6	Excavation for foundation / pipe trenches in <b>hard rock by controlled blasting</b> , including trimming and levelling the bed by chiselling where necessary and removing the excavated material and stacking it in measurable heaps within a distance of 50 metres from the area and lifts as below, normal dewatering, excluding backfilling, etc. complete. (Bd-A-5/259)					
	Lift 0 to 1.5 M	Cum	831	704		
7	Excavation for foundation / pipe trenches in <b>hard rock and concrete road by chiselling, wedging, line drilling by mechanical means or by all means other than blasting</b> including trimming and levelling the bed, removing the excavated material upto a distance of 50 metres beyond the area and lifts as below, stacking as directed by Engineer-in-charge, normal dewatering, excluding backfilling, etc. complete by all means. (Bd-A-6/259)					
	Lift 0 to 1.5 M	Cum	1119	1097		
8	Excavation in <b>laterite rock masses mechanically</b> , including lift upto 1.5 M including trimming and levelling the bed removing the excavated material upto a distance of 50 metres beyond the area and lift as below stacking by as directed by Engineer-in-charge, normal dewatering <b>excluding backfilling</b> , etc. complete. .					
	Lift 0 to 1.5 M	Cum	1321			
8	Excavation for foundation / pipe trenches in <b>slush muddy / marshy / slushy / soil including use of poclain</b> , labour for dewatering during execution including removing the excavated material upto a distance of 50 metres and lifts as below, stacking and spreading as directed, preparing the bed by cleaning the mud, labour required for execution for shuttering item but excluding backfilling, etc. complete. Providing and fixing shuttering shall be paid separately.					
	Lift 0 to 1.5 M	Cum	407	243		
9	Add for every <b>additional lift beyond initial lift of 1.5 M</b> for Item Nos. 5 to 10	Cum	28	28		



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b>HEAD WORKS</b>					
10	Excavation in general in <b>soft material comprising of soft soil, soft murum, sand, hard murum with boulders in wet or dry condition</b> for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, Supply Well, etc. for lift 0 to 1.5M and lead of 150 M including barricading, guarding, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in-charge, etc. complete excluding refilling.					
a)	For Head Works on <b>river or dam submergence</b> for initial lift of 0 to 1.5 M	Cum	510	491		
b)	For Head Works on nalla <b>or any other site of GSDA</b> for initial lift of 0 to 1.5 M	Cum	334	329		
c)	Add for each <b>additional lift of 1.5 M</b> beyond initial lift 1.5 M	Cum	30	25		
11	Excavation in general in <b>hard material comprising of soft rock, hard rock, Manjara rock, etc. by blasting / controlled blasting, chiselling</b> as required in wet or dry condition for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, Supply Well, etc. for lift 0 to 1.5 M and lead of 150 M including barricading, guarding, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in-charge, excluding refilling.					
a)	For Head Works <b>on river or dam submergence</b> for initial lift of 0 to 1.5 M	Cum	1118	899		
b)	For Head Works <b>on nalla or any other site of GSDA</b> for initial lift of 0 to 1.5 M	Cum	778	589		
c)	Add for each <b>additional lift of 1.5 M</b> beyond initial lift 1.5 M	Cum	31	26		
12	Excavation in general in <b>soft material comprising of soft soil, soft murum, sand, hard murum with boulders</b> in wet or dry condition for Head Works and allied works by <b>well sinking process</b> for average depth of 12 M and lead of 150 M including shoring, barricading, guarding, refilling, disposing off surplus excavated stuff as directed by Engineer-in-charge, etc. complete.					



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
a)	Diameter <b>upto and including 3 M</b>	Cum	1016	965		
b)	Diameter <b>more than 3 M</b>	Cum	853	801		
13	<b>Desilting</b> the Supply Well, Intake Well / Head Works, Sump of water supply / sewerage works etc. in wet or dry condition including <b>lifts upto 9 M</b> and lead upto 150 M as required beyond the work site, stacking, spreading, including necessary guarding, etc. complete, as directed by Engineer-in-charge.	Cum	781	739		
	Add for each <b>additional lift of 1.5 M beyond initial lift 9.0 M</b>	Cum	26	25		
14	<b>Dewatering</b> the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in-charge (including cost of machinery, labour, fuel), etc. complete. (Bd-A-9/261)	HP/ Hr.	89	15		
	(i) The Contractor at his request may be allowed to start construction of masonry steining so as not to allow silting of well in oncoming monsoon and while paying masonry, <b>25% amount shall be withheld and released only when excavation</b> to the full depth is completed.					
	(ii) <b>Dewatering</b> : Total dewatering charges are to be proposed in the tender as lumpsum amount and 75% is payable for excavation and 25% is payable for construction of well / gallery. Out of 75% excavation, break-up shall be as under					
	<b>25% for last 1 M depth.</b>					
	<b>20% for 2 M depth which is just above last 1 M depth.</b>					
	<b>15% for 2 M depth which is just above last 3 M depth.</b>					
	<b>15% for the rest of depth from water table level.</b>					
	The above conditions will restrict the tendencies of agencies to avoid deepening of wells, etc. to the required depth.					
15	<b>Refilling the trenches with available excavated stuff</b> with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging, etc. complete.	Cum	92	89		



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
16	Filling in plinth and floors <b>murum bedding</b> in trenches with <b>approved murum from excavated materials</b> from foundation in 15 cm to 20 cm layers including watering and compaction, etc. complete. (Bd-A-10/263)	Cum	92	89		
17	Filling in plinth and floors / trenches with <b>contractor's murum</b> for bedding in 15 cm to 20 cm layers including watering and compaction, etc. complete. (Bd-A-11/263)	Cum	912	145		
18	Providing dry trap/ granite/ quartzite/ gneiss, <b>rubble stone soling</b> in 15 cm to 20 cm thick layers including hand packing and compacting, etc. complete. (Bd-A-12/264)	Cum	1316	386		
19	Providing and filling in <b>sand boxing</b> in pipeline or for foundation with sand of approved quality including watering and compaction, etc. complete. (Bd-A-13/264)	Cum	1227	201		
20	<b>Open timbering in trenches</b> of depth more than 1.5 M for shoring and strutting including use of and waste of all necessary timber works including walling, struts, open polling boards / horizontal sheeting, runners, etc. as may be necessary and fixing and removal complete. (Measurements to be taken of the face area timbered) (N.B.O. Item No. 4-15, P.No. 59)					
	a) Lift 0 to 1.5 M for non-water logged area	Sqm	212	9		
	Additional per Sqm for further lifts of 1.5 M each	Sqm	39	22		
	b) Lift 0 to 1.5 for water logged area	Sqm	225	20		
	Additional per Sqm for further lifts of 1.5 M each	Sqm	32	18		
	<b>Note</b> : For the trenches with more than 1.5 M depth, shoring if required from GL is to be done and is payable from GL.					



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b>Exavation Items for Balancing Tank</b>					
21	Excavation in all kinds of soils, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition tor Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.50 M	Cum	102			
22	Excavation in all kinds of soils, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition tor Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.5 M	Cum	120			
23	Excavation in all kinds of <i>soft</i> rock, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition for Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.5 M	Cum	156			



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
24	Excavation in all kinds of hard rock of all toughness by ordinary blasting method, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition for Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.5 M	Cum	625			
25	Excavation in all kinds of hard rock of all toughness by controlled <sup>blasting</sup> methods, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition for Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.5 M	Cum	781			
26	Excavation in all kinds of hard rock of all toughness by breaker, including boulders upto 0.6 m dia.(0.113 cum) in wet or dry condition for Balancing tank including removing, placing the excavated material neatly in dump area or for formation stacking and spreading, and disposing off surplus excavated stuff as directed by engineer in charge, normal dewatering, preparing and dressing the bed and side to required level and profile for foundation etc. including cost of all materials, machinery, labour, excluding backfilling etc. complete. with lead upto 1 km and all lifts as directed.					
	Lift 0 to 1.5 M	Cum	651			



No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
27	Providing Hearting embankment using selected impervious material from approved borrow areas (Private land- contractors own material) in layers including cost of all materials , machinery , labour, all other operation such as collection of soil, spreading soil in layer of specified thickness , sorting out , breaking clods , levelling , sectioning edges sides , waering , compacting each layer to density control of not less than 95% of proctor density using vibretary compactor including cost of water etc. complete with lead upto 1 km for water and all lifts as directed (Specifications as per "sections Em"					
	Lift 0 to 1.5 M	Cum	205			

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**SECTION - F**  
**IRON & STRUCTURAL STEEL WORK**





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	Providing and fixing <b>mild steel grill</b> work for windows/ ventilators of 20 Kg/Sqm. as per drawings including necessary welding and painting with one coat of anticorrosive paint and two coats of oil painting, etc. complete. (Bd-U-1/537)	Sqm	2274	178		
2	Providing and fixing <b>mild steel grill railing</b> of 20 Kg/Sqm with teak wood hand railing, still and newel posts for staircase and including fabricating, fixtures, erecting, painting the grill work with approved oil paint and polishing the hand rail and newel posts with French polish two coats, etc. complete. (Bd-U-2/537)	Sqm	3427	452		
3	Providing <b>structural steel work in rolled stanchions fixed with connecting plates or angle cleats</b> as in main and cross beams, hip and jack rafters, purlins connecting to truss members and like as per detailed designs and drawings or as directed by Engineer-in-charge including cutting, fabricating, hoisting, erecting, fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-3/275)	MT	85543	11563		
4	Providing structural steel work in single stanchions composed of RSJ, channel, etc. with caps, bases, mild steel plates, angles, brackets, cleats, gusset plates, anchor bolts, etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabrication, hoisting, erecting, fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-6/277)	MT	84020	10818		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
5	Providing <b>structural steel work in rolled sections like joists, channels, angles, tees</b> , etc. as per detailed designs and drawings including fixing in position without connecting plates, braces, etc. and one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade, etc. complete. (Bd-C-2/275)	MT	89542	12283		
6	Providing <b>structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates</b> , etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabricating, hoisting, erecting and fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-8/278)	MT	114390	28375		



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**SECTION - G**  
**PLAIN, REINFORCED**  
**AND READY MIX CONCRETE**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Providing and laying in situ Cement Concrete M-15</b> of trap/ granite / quartzite / gneiss metal for <b>foundation and bedding</b> including bailing out water, form work, compaction, curing, etc. complete. (Cement 5.90 bags / cum)					
	Spec. No. - Bd E /1 Page No. 287 and B-7, Page No. 38					
	a) In PCC M-100	Cum	5478	1660		
	b) In PCC M-150	Cum	5881	1640		
2	<b>Providing and laying in situ Cement Concrete</b> of trap/ granite / quartzite / gneiss metal <b>for RCC work in foundation like raft, grillage, strip foundation and footing of RCC columns</b> and steel stanchions including normal dewatering, form work, compaction, finishing and curing, etc. complete. (By weigh batching and mix design for M250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	a) In RCC M-150	Cum	7264	1874		
	b) In RCC M-200	Cum	7318	1861		
	c) In RCC M-250	Cum	7927	1862		
	d) In RCC M-300	Cum	8193	1792		
3	<b>Providing and casting in situ Cement Concrete</b> of trap/ granite / quartzite / gneiss metal of approved quality <b>for RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	<b>For all types of Columns</b>					
	a) In RCC M-150	Cum	8223	3243		
	b) In RCC M-200	Cum	8815	1768		
	c) In RCC M-250	Cum	9404	1789		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	d) In RCC M-300	Cum	9651	1989		
4	Providing and casting in situ C.C. of trap / granite/ quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	For Beams / Braces / Lintels					
	a) In RCC M-150	Cum	8297	1493		
	b) In RCC M-200	Cum	8674	1684		
	c) In RCC M-250	Cum	9240	1689		
	d) In RCC M-300	Cum	9486	1689		
5	<b>Providing and casting in situ C.C.</b> of trap / granite/ quartzite / gneiss metal of approved quality for <b>RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	<b><u>Slabs / Landings / Vertical Walls / Waist Slabs / Steps for Staircase</u></b>					
	a) In RCC M-150	Cum	8851	1602		
	b) In RCC M-200	Cum	9313	1670		
	c) In RCC M-250	Cum	9910	1673		
	d) In RCC M-300	Cum	10172	1673		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
6	<b>Providing and casting in situ C.C.</b> of trap / granite/ quartzite / gneiss metal of approved quality <b>for RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	<b><u>Chajjas / Parapets / Curtain Walls /Partition Walls / Pardies</u></b>					
	a) In RCC M-150	Cum	8971	1642		
	b) In RCC M-200	Cum	9273	1668		
	c) In RCC M-250	Cum	9919	1687		
	d) In RCC M-300	Cum	10140	1687		
7	<b>Providing and laying in situ R.C.C.</b> of trap / granite/ quartzite / gneiss metal of approved quality <b>for RCC works</b> of domes as per detailed drawings and designs approved by Engineer-in-charge including centering, finishing, roughening the surfaces with special finish or plaster to be provided separately, curing, etc. complete. (By weigh batching and mix design for M250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	<b><u>Domes</u></b>					
	a) In RCC M-150	Cum	9368	1648		
	b) In RCC M-200	Cum	9645	1662		
	c) In RCC M-250 - Bottom Domes only	Cum	10188	1653		
	d) In RCC M-300 - Bottom Domes only	Cum	10386	1653		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
8	Providing and fixing in position <b>steel bar reinforcement</b> of various diameters for RCC piles, caps, footings, foundations, slabs, beams, columns, canopies, staircases, newels, chajjas, lintels, pardies, copings, fins, arches, etc. as per detailed designs, drawings and schedules; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete <b>(including cost of binding wire)</b> . (Bd-F-17/306)					
	a) Mild Steel	MT	78127	8975		
	b) Tor Steel	MT	80681	8966		
	c) Corrosion Resistant Steel (Fe 500)	MT	86091	10719		
	d) Only fabrication (Labour) (For all types of steel)	MT				
9	Providing <b>fusion bonded epoxy coating</b> to reinforcement bars as per IS-13620/1993 specification for a thickness of 175 ( $\pm 50$ ) microns including extra cost on account of careful handling, extra cost on account of using PVC coated binding wire instead of G.I. wire, extra cost on account of touch-up material supplied by coating agency and repair work, extra cost on account of transportation to and fro from steel yard at Regional Centre to plant at Daman and plant at Daman to work site by trailer, loading, unloading, including all taxes (Central and local), etc. complete.					
A	<b><u>For Reinforcement Diameterwise Rates</u></b>					
	1) 8 mm dia	MT	24241			
	2) 10 mm dia	MT	21493			
	3) 12 mm dia	MT	19685			
	4) 16 mm dia	MT	18993			
	5) 20 mm dia	MT	17504			
	6) 25 mm dia	MT	15948			
	7) 28 mm dia	MT	15221			
	8) 32 mm dia	MT	14101			
B	<b><u>Average Rates ( For estimation only)</u></b>					
	1) For 8 mm to 20 mm dia	MT	20203			
	2) For above 20 mm dia	MT	14701			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b>Notes for Estimation</b>					
	1) All the rates of Reinforced Cement Concrete Items from 1 to 6 shall be increased by 10% for each brace height above 1st brace for R.C.C. E.S.R.s. e.g. For a R.C.C. E.S.R. with 7 M staging and first brace at 3.50 M above ground, the concrete in columns above first brace, concrete of ring beam and bottom slab is entitled for 10% increase, concrete of vertical wall, roof slab and roof beams, columns in container are entitled for 20% increase.					
	2) All the rates of Reinforced Cement Concrete Items from 1 to 6 shall be increased by 2% for every floor height above ground floor for building works.					
	3) These rates are applicable for R.C.C. well works also. These rates shall be increased by 10% for every 5 M depth below initial 5 M depth.					
	4) Rates for Item Nos. 7 and 8 shall be increased by 5% for each brace height above first brace for R.C.C. E.S.R.s. By 5% for every ring beam below first ring beam for R.C.C. wells. By 1% building works for every floor height.					
	5) Volumetric mix as per 1:1%:3 shall be adopted with 56.5 kg of cement for RCC-250 and 59.5 kg of cement for RCC-300, per load of mixer of 1 bag capacity.					
	6) Fusion bonded epoxy coating to be proposed only in Coastal Area with prior approval of the Chief Engineer.					
	7) For estimation purpose, average rates as per Item No. 8b shall be considered wherever necessary.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b><u>READY MIX CONCRETE</u></b>					
10	Providing and laying in situ <b><u>Ready Mix Cement Concrete</u></b> grade of trap / granite / quartzite / gneiss metal for <b><u>RCC works in foundation</u></b> like raft, grillage, strip foundation and footing of RCC column and steel stanchions including normal dewatering, form work, compaction, finishing and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b><u>(Excluding reinforcement and structural steel)</u></b>					
	<b><u>For Foundation</u></b>					
	a) In RCC M-150	Cum	5782	1157		
	b) In RCC M-200	Cum	6198	1016		
	c) In RCC M-250	Cum	6629	1067		
	d) In RCC M-300	Cum	6949	1109		
11	<b><u>Providing and casting in situ Ready Mix Cement Concrete</u></b> grade of trap / granite / quartzite / gneiss metal of approved quality for <b><u>RCC works</u></b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b><u>(Excluding reinforcement and structural steel)</u></b>					
	<b><u>For all types of Columns</u></b>					
	a) In RCC M-150	Cum	7009	1907		
	b) In RCC M-200	Cum	7457	2246		
	c) In RCC M-250	Cum	7883	2253		
	d) In RCC M-300	Cum	8150	1886		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
12	Providing and casting in situ <b>Ready Mix Cement Concrete</b> grade of trap / granite / quartzite / gneiss metal of approved quality for <b>RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b>(Excluding reinforcement and structural steel)</b>					
	<b><u>For Beams / Braces / Lintels</u></b>					
	a) In RCC M-150	Cum	6994	1017		
	b) In RCC M-200	Cum	7374	1993		
	c) In RCC M-250	Cum	7442	2031		
	d) In RCC M-300	Cum	8067	2070		
13	Providing and casting in situ <b>Ready Mix Cement Concrete</b> grade of trap / granite / quartzite / gneiss metal of approved quality for <b>RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b>(Excluding reinforcement and structural steel)</b>					
	<b><u>Slabs / Landings / Vertical Walls / Waist Slabs / Steps for Staircase</u></b>					
	a) In RCC M-150	Cum	7424	1065		
	b) In RCC M-200	Cum	8011	2579		
	c) In RCC M-250	Cum	8436	2678		
	d) In RCC M-300	Cum	8702	2667		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
14	Providing and casting in situ <b>Ready Mix Cement Concrete</b> grade of trap / granite / quartzite / gneiss metal of approved quality for <b>RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b>(Excluding reinforcement and structural steel)</b>					
	<b>Chajjas / Parapets / Curtain Walls / Partition Walls / Pardies</b>					
	a) In RCC M-150	Cum	7511	1126		
	b) In RCC M-200	Cum	7912	2524		
	c) In RCC M-250	Cum	8337	2640		
	d) In RCC M-300	Cum	8658	2667		
15	Providing and casting in situ <b>Ready Mix Cement Concrete</b> grade of trap / granite / quartzite / gneiss metal of approved quality for <b>RCC works</b> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <b>(Excluding reinforcement and structural steel)</b>					
	<b>Domes</b>					
	a) In RCC M-150	Cum	7757	1092		
	b) In RCC M-200	Cum	8208	2832		
	c) In RCC M-250	Cum	8632	2960		
	d) In RCC M-300	Cum	8898	2947		
	<b>Notes</b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	1) Add Rs. 10/- per Cum for transportation beyond 25 km. for every additional lead of 1 km.					
	2) Beyond 1.5 M above G.L. and 5.0 M below G.L., concreting is to be done by pumping by the Company.					
	3) Additional rate of pumping is					
	a) Static Pump : Rs. 175/- per Cum					
	b) Mobile Pump : Rs. 250/- per Cum					
	4) For Ready Mix Concrete, prior permission from Chief Engineer must be obtained.					
	Note : Completed rates are inclusive of 12.5% EPF and 1% Insurance Charges.					

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**SECTION - H**

**MISCELLANEOUS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Providing and fixing G.I. pipe railing</b> having 1.0 M height consisting 50 x 50 x 6 mm thick M.S. angles as verticals at 1.5 M c/c and additional posts at every corner with 3 rows of 25 mm dia G.I. pipes of medium class variety as horizontal and painting 3 coats of oil paint over 1 coat of anticorrosive paint of approved colour and shade including cost of all labour, transporting bends to curved shape, etc. complete.	RM	1191	111		
A	As above but with only 2 rows.	RM	898	74		
2	<b>Dismantling of ESRs</b> of various capacities and heights using crane (10 MT capacity) and handing over M.S./ C.I./G.I. pipes, valves, bends, etc. to the Department. However taking steel reinforcement by the dismantling agency including removing dismantled materials from site and disposing them at suitable place as directed, etc. complete.					
A	Capacity of E.S.R. upto 2 lakh litres and staging upto 12 M height.					
	i) Congested Area	Lit	2.65	2.42		
	ii) Open Area	Lit	1.35	1.20		
B	Capacity of E.S.R. above 2 lakh litres and staging upto 12 M height.					
	i) Congested Area	Lit	2.33	1.35		
	ii) Open Area	Lit	1.33	1.20		
	Note : Above 12 M staging height, add 5% per metre staging of E.S.R. of any capacity.					
3	<b>Providing and fixing M.S. gate 2.5 M wide</b> for compound with 40 mm dia G.I. pipe, approved grill work, RCC M-150 side pillars of 25 cm x 40 cm x 2.5 M height, its foundation, finishing, painting, etc. complete.	No.	33136	4179		
4	<b>Providing and fixing Wicket gate 1.0 M wide</b> for compound with 40 mm dia G.I. pipe, approved grill work, RCC M-150 side pillars of 25 cm x 40 cm x 2.5 M height, its foundation, finishing, painting, etc. complete.	No.	20732	2740		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
5	<b><u>Taking trial bore (Core Bore Sampling) by Callyx machine with TCT/NX bits to gather undisturbed strata samples</u></b> for investigation in all types of strata, soft soil, murum, hard murum with boulders, soft rock, hard rock and quartzite, etc. The item includes all hire and running cost of Callyx machine, conveying all materials to site of work excluding conveyance of callyx machine and back sampling all over burden strata in glass jar and core samples serially numbered at site in a wooden core box, samples to be taken at 1.0 M interval and conveying to the place as directed by Engineer-in-charge. The diameter of bore in overburden shall be 100 mm and of NX size (50 mm) in other strata. The item shall also include M.S. casing pipe of 2.5 mm thick plate in overburden only and shall be 1.0 M above GL with cap over it.					
	a) In overburden (soft soil, murum)	RMT	1702	257		
	b) In weathered rock with boulders	RMT	6300	1370		
	c) In weathered rock / soft rock	RMT	3216	695		
	d) In hard rock other than quartzite	RMT	4638	1023		
	e) In hard rock quartzite	RMT	9197	1960		
6	Providing <b><u>pressure grouting at a pressure of 5.6 kg/sqcm</u></b> in required row / zigzag fashion as specified at 1.5 M interval as per site conditions to stop leakages through water retaining structures to the entire satisfaction of the Engineer-in-charge including material compound, hardening materials, compressor equipment including scaffolding, smooth finishing, etc. complete.					
	i) For masonry structure	Bag	1185	158		
	ii) For concrete structure	Bag	1176	166		
7	<b><u>Drilling 40 mm dia holes</u></b> in masonry or concrete structure with providing and fixing 0.5 M long G.I. pipeline for pressure grouting including all material, labour cost and machinery charges, etc. complete.	RM	1205	152		
8	<b><u>Providing and casting ferrocrete water tank</u></b> at site including all cost of labour and material, etc. complete upto 25,000 litres (for foundation and providing and fixing taps, etc. shall be considered separately).	Lit	10	2		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
9	<b>Providing and applying one coat of gamma coating</b> or equivalent such as Dr.Bake, Krishna Conchem, Asian Paint, Atul Limited, Burger Paint, epoxy primer 50 to 60 microns thick and covering two coats of gamma coatings or equivalent such as Dr. Bake, Krishna Conchem, Asian Paint, Atul Limited, Burger Paints 30 microns thick each to new M.S. pipes and structural steel or concrete surface including repainting the surface by finishing by solvent degreasing and de-rusting by applying chemical method and scaffolding if necessary, etc. complete as per manufacturer's specifications.	Sqm	366	165		
10	Making cross connection to existing distribution main of any type including excavation, breaking and removing existing pipes, lowering, laying of specials and pipes in their position, refilling, closing the water supply in that area, dewatering and restarting the water supply, etc. complete as directed by Engineer-in-charge for following diameters of existing pipeline, irrespective of diameter of branch line. (The number of joints involved will be paid separately depending upon the nature of joints and required pipes, valves and specials will be supplied free of cost at stores.)					
i)	80 mm	No	2990	2506		
ii)	100 mm	No	3407	2843		
iii)	125 mm	No	3739	3131		
iv)	150 mm	No	4182	3540		
v)	200 mm	No	4378	3730		
vi)	250 mm	No	5200	4428		
vii)	300 mm	No	6197	5218		
viii)	350 mm	No	7302	6215		
ix)	400 mm	No	8803	7440		
x)	450 mm	No	9860	8364		
xi)	500 mm	No	11810	10310		
xii)	600 mm	No	19875	16605		
xiii)	700 mm	No	24532	20466		
xiv)	750 mm	No	30844	25735		
xv)	800 mm	No	39658	33022		
xvi)	900 mm	No	52114	43269		
xvii)	1000 mm	No	72794	60236		
	Note : Only 75% rate shall be payable till satisfactory hydraulic testing is given.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
11	<u>Dismantling dead pipeline</u> of M.S./ R.C.C./ C.I./ P.S.C. and G.I./ A.C./ P.V.C./ S.W./ H.D.P.E. pipe including cost of necessary excavation and refilling of trenches, breaking the joints, lifting the pipes and stacking to the place as directed by Engineer-in-charge with all leads and lifts including cleaning the surface, etc. complete.					
A	For M.S. / R.C.C. / C.I. / P.S.C.					
i)	80 mm	RMT	216	46		
ii)	100 mm	RMT	239	68		
iii)	125 mm	RMT	244	73		
iv)	150 mm	RMT	248	77		
v)	200 mm	RMT	274	91		
vi)	250 mm	RMT	302	108		
vii)	300 mm	RMT	329	124		
viii)	350 mm	RMT	368	152		
ix)	400 mm	RMT	401	172		
x)	450 mm	RMT	455	190		
xi)	500 mm	RMT	478	193		
xii)	600 mm	RMT	584	252		
xiii)	700 mm	RMT	682	294		
xiv)	750 mm	RMT	768	332		
B	For G.I. / A.C. / P.V.C. / S.W. / H.D.P.E.					
i)	80 mm	RMT	130	29		
ii)	100 mm	RMT	143	41		
iii)	125 mm	RMT	145	43		
iv)	150 mm	RMT	148	46		
v)	200 mm	RMT	164	55		
vi)	250 mm	RMT	182	66		
vii)	300 mm	RMT	196	73		
viii)	350 mm	RMT	221	91		
ix)	400 mm	RMT	241	104		
x)	450 mm	RMT	272	114		
xi)	500 mm	RMT	287	119		
xii)	600 mm	RMT	350	152		
xiii)	700 mm	RMT	410	176		
xiv)	750 mm	RMT	461	199		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
12	<b>Providing and constructing two taps standpost</b> as per type design with excavation 15 cm thick PCC 1:3:6 bedding 20 mm thick PCC 1:2:4 concrete for platform of 1.75 M dia. with side curb and bucket rest, 80 mm dia, heavy duty GI pipe central post duly filled therein with C.C. 1:2:4, 5 M long, 20 mm dia. medium G.I. pipe from point of tapping to standpost, additional 20 mm dia G.I. pipe fixed vertically upto 15 mm dia self closing water taps, one brass ferrule, etc. complete together with all labour and material charges as per drawing and as directed by Engineer-in-charge when good foundation is available. Rate includes draining arrangement by excavating open gutters.	No	9609	1258		
A	As above but when precast RCC platform or precast standpost is issued free of cost at departmental stores including cost of transportation and fixing, etc. complete.	No	5271	544		
13	<b>Providing and constructing two taps standpost</b> as per type design with excavation 30 cm thick boulder filling 15 cm thick PCC in 1:3:6, 20 mm thick RCC, 1:2:4 platform of 1.75 M dia. with side curb and bucket rest, 80 mm dia, heavy duty GI pipe central post duly filled therein with C.C. 1:2:4, 5 M long, 20 mm dia. medium G.I. pipe from point of tapping to standpost, additional 20 mm dia G.I. pipe fixed horizontally and providing and fixing two 15 mm dia GI self closing water taps, one brass ferrule, etc. complete together with all labour and material charges as per drawing and as directed by Engineer-in-charge when B.C. soil is available. Rate includes draining arrangement by excavating open gutters.	No	10291	1281		
A	As above but when precast RCC platform or precast standpost is issued free of cost at departmental stores including cost of transportation and fixing, etc. complete.	No	6190	693		
14	<b>Pushing of M.S. pipes</b> of following dia for road crossing and railway crossing by push through method in all types of strata by using hydraulic jack and drilling machine of required diameter of below M.S. casing pipes, lowering, laying, jointing of material, required welding machinery, tripod, shain-pulley block crain, blower, compressor, loading and unloading of machinery into the trench, etc. transportation and dewatering, etc complete, as directed by engineer-in-charge but excluding the cost of M.S. pipes.					
	a) 200 mm to 499 mm dia MS pipe	RMT	27618			
	b) 500 mm to 1000 mm dia MS pipe	RMT	34522			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
15	<p><b><u>Providing and erecting slip form shuttering</u></b> including dismantling after completion for constructing vertical shutters, such as jackwell, balancing tank, bridge column and for horizontal structure in R.C.C. The item includes lifting arrangement, centering, form work, normal dewatering, electrical arrangement with generator set and with all equipments for slip form shuttering work with labour, material and machinery, all rents, fuels, insurance charges. The rate is for various dia, depth and various sizes of structures, etc. complete. Note : A) All risks and costs lie with the contractor itself. B) The arrangement for lighting with cables till top height to be provided by the contractor. C) Any accident arising out of the work will be responsibility of the contractor. D) No idle charges for machinery and labour will be paid. E) Insurance for all types of machinery and workers will be borne by contractor.</p>	Sq.M.	3629			
16	<p><b><u>Providing and Laying HDPE Geomembrane sheet</u></b> of following thickness 100% acid, alkali proof, 100% reinforced sealing quality, every joint electronically welded, as per relevant IS specification and placing in proper position on prepared bed on foundation/ embankment with welding the joints of sheet using hot sedge and extrusion welding techniques according to the leanier manufacturers specifications at ambient temperaturesnof 5qC to 45qC including all taxes and labour for jointing and placing etc. complete.</p>					
	500 micron	Sq.M.	307	77		
	250 micron	Sq.M.	212	53		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
17	Providing and making <b>UPVC/MDPE pipe consumer service</b> connection on Distribution main by drilling hole with suitable means , including all labour , <b>UPVC/MDPE</b> Pipe of required length with or without Road crossing as described below, including cost of specials like Saddle/Clamp Saddle of suitable material, and diameter suitable for Distribution main, <b>15mm /20mm/ 25mm respective</b> Dia Heavy duty Brass/Polypropylyne(Twin Jacketed ) Ferrule , Male and Female thread adapter Elbow, Bends,couplers ,Tees, Clamps of suitable material and sundry materials as per requirment, including providing and fixing medium duty 15.mm brass bib tap, <b>GI casing pipe of suitable diameter of 32mm/ 40mm/ 50mm respectively of required length for Road crossing</b> , including requird labour for excavation in all types of strata up to the depth of 0.75m or as per site requirement,all types of plumbing fittings, refilling , Closing the water supply in that area, dewatering, hydraulic testing and restarting the water supply ,transportation of material etc. complete as directed by Engineer in charge.					
	A) Household Connection without water meter (Comression Saddle+ISI Mark Ferrul) for HDPE & PVC pipe					
	For <b>MDPE/UPVC Pipe</b> Service Connection on Disribution main					
	<b>(With Road Crossing)</b>					
	For 15 mm Service connection	No	4020			
	For 20 mm Service connection	No	5015			
	For 25 mm Service connection	No	6636			
	<b>(Without Road Crossing)</b>					
	For 15 mm Service connection	No	2890			
	For 20 mm Service connection	No	3670			
	For 25 mm Service connection	No	4994			
	B)Household Connection without water meter (With Integrated Saddle & compression Specials) For HDPE/PVC pipe					
	<b>(With Road Crossing)</b>					
	For 15 mm Service connection	No	3406			
	For 20 mm Service connection	No	4540			
	For 25 mm Service connection	No	6451			
	<b>(Without Road Crossing)</b>					
	For 15 mm Service connection	No	2276			
	For 20 mm Service connection	No	3194			
	For 25 mm Service connection	No	4809			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
18	Providing and making GI pipe consumer service connection on GI Distribution main by drilling hole with suitable means , including all labour ,GI Pipe of required length with or without Road crossing as described below, including cost of specials like Saddle/Clamp Saddle of suitable material, and diameter suitable for Distribution main, 15mm/20mm/25mm respective Dia. Heavy duty Brass/ Polypropylyne (Twin Jacketed ) Ferrule, Male and Female thread adapter Elbow, Bends, couplers ,Tees, Clamps of suitable material and sundry materials as per requirment, including providing and fixing medium duty 15.mm brass bib tap, GI casing pipe of minimum 32mm/40mm/50mm respective dia of required length for Road crossing, including requird labour for excavation in all types of strata up to the depth of 0.75m or as per site requirement,all types of plumbing fitting, refilling , Closing the water supply in that area, dewatering, hydraulic testing and restarting the water supply ,transportation of material etc. complete as directed by Engineer in charge. 1) With Road crossing ,					
	<b>(With Road Crossing)</b>					
	For 15 mm Service connection	No	4357			
	For 20 mm Service connection	No	5500			
	For 25 mm Service connection	No	7532			
	<b>(Without Road Crossing)</b>					
	For 15 mm Service connection	No	2931			
	For 20 mm Service connection	No	3783			
	For 25 mm Service connection	No	5342			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
19	Providing and applying externally 3 layer fusion bonded polyethylene (3LPE) lining to mild steel pipes of minimum 3000 micron confirming to DIN-30670 standards and internally fusion bonded epoxy lining as per IS-3589-2001 annexure "C" of 400 micron thickness, 150 mm space shall be left uncoated (cutback) on both ends of mild steel pipes for welding purpose & same shall be coated after completion of welding at site with 100% solid, cold applied, polymeric coating as specified in the standards. The rate shall include the cost of material, coating and wrapping over the pipes, handling changes cleaning of pipe internally and externally with proper blasting preparation of pipes surface dust free as per specifications transportation of pipes from site to works to factory and back to site of works after coating etc complete. Note- Pipe coating shall be done at factory only and in any case the 3LPE coated pipes shall not be used for laying above ground and for making bends or specials.					
	Note :- Dual layer polyester coating from outside is not popular and has limited facility, hence proposed to be deleted.					
20	<b>External Coating</b> Providing and applying 100% Solids <b>Polyurethane Coating</b> meeting BIS16719 & Rigid, Direct to Metal, 100% Solids Polyurethane Coating meeting AWWA C-222 of minimum 1000 micron thickness on the external surface of MS Pipe after blast cleaning to SA 2½ with Anchor profile of >75Microns using angular Steel Grit. Pipe blast cleaning and coating shall only be permitted in the pipe manufacturer's facility, preferably on rolling conveyor using fast set materials. The rates are including loading, unloading, handling and transportation of Pipe etc complete.	Sqm	695			
	Product shall be supplied and applied as per detailed specification provided by the department.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
21	<p><b><u>Internal Lining</u></b>            Providing and applying 100% Solids <b><u>Polyurethane Coating</u></b> meeting BIS 16719 &amp; Rigid, Directto Metal,100% Solids Polyurethane Coating meeting AWWA C-222 and satisfying the criterionfordrinking water as per WRAS-BS 6920 to a thickness of 500 Microns (SSPC PA2) on theinternal surface of MS Pipe afterblast cleaning to SA 2½ with Anchor Profile of &gt;75 Microns Using angular Steel Grit.The Coating should meetTotal Organic Carbon (TOC) as per APHA-AWWAWEF5310C &lt; 2.00 milligram/ Litre. Pipe lining shall only be permitted in the pipe manufacturer's facility. Site application shall not be permitted. The rates are including loading, unloading, handling and transportation of Pipe etc complete.</p>	Sqm	494			
	Product shall be supplied and applied as per detailed specification provided by the department.					
22	<p><b><u>Internal Lining (food grade Epoxy)</u></b>            Providing and applying two part food grade polyamide cured solvent less <b><u>epoxy lining</u></b>, meeting BIS 16676on the internal surface of MS Pipe afterblast cleaning to SA 2½ with Anchor Profile of &gt;75 Microns Using angular Steel Grit.The minimum dry film thickness (DFT) of internal lining shall be 400 micron (SSPC PA2). The epoxy coating should offer highest resistance to cathodic disbondment and provide excellent adhesion to steel. The manufacturer shall have the certificate issued in support of portable water service for tests of pH, turbidity, total hardness, chloride nitrate, iron, arsenic &amp; fluoride as per IS 10500 : 2003 and IS 16676 : 2017. Site application shall not be permitted.The rates are including loading, unloading, handling and transportation of Pipe etc complete.</p>	Sqm	415			
	Product shall be supplied and applied as per detailed specification provided by the department.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
23	Supply and installation of prefabricated ground water storage bolted tanks, a complete package in knockdown, ready to assemble construction consisting of outer wall surface mad out of special grade hot dip aluminum – Zink alloy, metallic factory coated steel confirming to IS-15961-2012 minimum thickness of 0.6 mm = The inner surface should be provided with liners of minimum 0.6 mm thickness of reinforce polyethylene or polypropylene or metallocene material suitable for drinking water purpose. Top cover shall be of polyethene tape monophylament yarn or woven polypropylene or corrugated G.I. Sheets Rate include cost of inlet, outlet, overflow Pipes up to 5 m from periphery of tank including ball valves of standard quality , aluminum ladder, level indicater, water tightness test, transportation up to site of work excluding GST levied by GOI & GOM in all respect etc.complete.					
	Above tanks can be installed on elevated platform. ( ESR ) the rate of tank does not include the cost of elevated platform. 2% extra to be considered for installation of tank on elevated platform.The elevated platform needs to be designed as per requirement & which will be paid separately. The elevated platform must be of steel framed structure.					
	For the dome type GI corrugated roof structure with hot dip galvanized trusses with GI manhole for access for cleaning and maintainance, 10 % extra shall be added.					
	For heavy duty five layer polypropylene reinforced liner with mettallocene contact layer having a minimum thickness of 1 mm- 10 % extra shall be added.					
	Incase Rain water harvesting filters & system to catch the rain form the GI Tank roofs mounted on the Tank roof and supplied with tank then 10 % extra shall be added.		With RCC Foundation	Without RCC Foundation		
	25000	Lit	15.51	14.72		
	30000	Lit	14.08	13.28		
	50000	Lit	12.87	12.07		
	75000	Lit	10.95	10.15		
	100000	Lit	9.45	8.66		
	150000	Lit	8.44	7.69		
	200000	Lit	7.87	7.06		
	250000	Lit	7.13	6.34		
	300000	Lit	6.91	6.11		
	375000	Lit	6.05	5.25		
	500000	Lit	5.56	4.41		
	750000	Lit	5.19	4.39		
	1000000	Lit	4.99	4.19		
	1500000	Lit	4.62	3.82		





PIP SSR 2023-24

**SECTION - I (I)**

**C.I./D.I. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
	<b>1. C.I. PIPES</b>			
1.	Providing and supplying ISI mark <b>C.I. S&amp;S pipes</b> (push on joints pressure pipes of C.I of following class and diameters confirming to the I.S.specification inclusive cost of jointing materials(Rubber gasket of EPDM Quality) excluding GST levied by Gol and GoM in all respect, Third party inspection charges of TPI Agency approved by MJP including Transit insurance, Railway Freight, Unloading from railway wagon, Loading into Truck, Transportation to departmental store/site of work,unloading, stacking etc. completed as directed by Engineer –in-charge (IS 1536/2001 for pipes and IS 158/1969 and IS 12820/1989 or latest edition / revision with amendments for Rubber Gaskets.			
	<b>(Suitable for Tyton / Pig lead joints)</b>			
	<b>a) Class 'LA'</b>			
	i) 80 mm	Rmt	1052	
	ii) 100 mm	Rmt	1319	
	iii) 150 mm	Rmt	2141	
	iv) 200 mm	Rmt	3083	
	v) 250 mm	Rmt	4154	
	vi) 300 mm	Rmt	5357	
	<b>1. C.I. PIPES 'A' Class Continued</b>			
	<b>B) Class 'A'</b>			
	i) 80 mm	Rmt	1086	
	ii) 100 mm	Rmt	1357	
	iii) 125 mm	Rmt	1766	
	iv) 150 mm	Rmt	2174	
	v) 200 mm	Rmt	3142	
	vi) 250 mm	Rmt	4246	
	vii) 300 mm	Rmt	5495	
	viii) 350 mm	Rmt	6869	
	ix) 400 mm	Rmt	8425	
	x) 450 mm	Rmt	10206	
	xi) 500 mm	Rmt	11702	
	xii) 600 mm	Rmt	15625	
	xiii) 700 mm	Rmt	20364	
	xiv) 750 mm	Rmt	22619	
	xv) 800 mm	Rmt	25286	
	xvi) 900 mm	Rmt	30778	
	xvii) 1000 mm	Rmt	37021	
	<b>c) Class 'B'</b>			
	i) 80 mm	Rmt	1156	
	ii) 100 mm	Rmt	1447	
	iii) 125 mm	Rmt	1901	
	iv) 150 mm	Rmt	2340	
	v) 200 mm	Rmt	3395	
	vi) 250 mm	Rmt	4591	
	vii) 300 mm	Rmt	5953	
	viii) 350 mm	Rmt	7452	
	ix) 400 mm	Rmt	8604	
	x) 450 mm	Rmt	11012	
	xi) 500 mm	Rmt	12659	
	xii) 600 mm	Rmt	16680	
	xiii) 700 mm	Rmt	21803	
	xiv) 750 mm	Rmt	24539	
	xv) 800 mm	Rmt	27353	
	xvi) 900 mm	Rmt	33346	
	xvii) 1000 mm	Rmt	40007	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	5			
2.	<b>Lowering laying and jointing with SBR rubber gaskets C.I. S/S pipes</b> of various classes with CI / MS specials of following diameter in proper position, grade and alignment as directed by Engineer-in-charge including conveyance of material from stores to site of work, <b>including cost of jointing materials and rubber rings labour</b> etc. complete.		Without Rubber Rings	With Rubber Rings		
	<b>Note : Only SBR Rubber gaskets to be used as per</b>					
<b>a)</b>	<b>C.I. 'L.A.' Class / Mortar inlined DI K-9/K-7</b>					
i)	80 mm.	Rmt	59	68		
ii)	100 mm.	Rmt	72	78		
iii)	125 mm.	Rmt	90	99		
iv)	150 mm.	Rmt	96	108		
v)	200 mm.	Rmt	127	140		
vi)	250 mm.	Rmt	167	184		
vii)	300 mm.	Rmt	180	206		
viii)	350 mm.	Rmt	224	253		
ix)	400 mm.	Rmt	270	311		
x)	450 mm.	Rmt	270	328		
xi)	500 mm.	Rmt	311	380		
xii)	600 mm.	Rmt	409	504		
xiii)	700 mm.	Rmt	529	710		
xiv)	750 mm.	Rmt	591	776		
xv)	800 mm.	Rmt	724	911		
xvi)	900 mm.	Rmt	865	1144		
xvii)	1000 mm.	Rmt	1021	1387		
<b>B)</b>	<b>C.I. 'A' Class</b>					
i)	80 mm.	Rmt	62	76		
ii)	100 mm.	Rmt	76	90		
iii)	125 mm.	Rmt	97	108		
iv)	150 mm.	Rmt	106	115		
v)	200 mm.	Rmt	137	150		
vii)	250 mm.	Rmt	180	198		
viii)	300 mm.	Rmt	197	221		
viii)	350 mm.	Rmt	242	271		
ix)	400 mm.	Rmt	272	312		
x)	450 mm.	Rmt	286	330		
xi)	500 mm.	Rmt	336	403		
xii)	600 mm.	Rmt	445	539		
xiii)	700 mm.	Rmt	571	753		
xiv)	750 mm.	Rmt	644	825		
xv)	800 mm.	Rmt	759	944		
xvi)	900 mm.	Rmt	913	1192		
xvii)	1000 mm.	Rmt	1067	1431		
<b>c)</b>	<b>CI 'B' Class</b>					
i)	80 mm.	Rmt	68	78		
ii)	100 mm.	Rmt	81	97		
iii)	125 mm.	Rmt	105	115		
iv)	150 mm.	Rmt	118	131		
v)	200 mm.	Rmt	150	168		
vi)	250 mm.	Rmt	195	221		
vii)	300 mm.	Rmt	213	237		
viii)	350 mm.	Rmt	261	304		
ix)	400 mm.	Rmt	304	344		
x)	450 mm.	Rmt	309	354		
xi)	500 mm.	Rmt	362	429		
xii)	600 mm.	Rmt	482	571		
xiii)	700 mm.	Rmt	618	795		
xiv)	750 mm.	Rmt	699	879		
xv)	800 mm.	Rmt	814	997		
xvi)	900 mm.	Rmt	964	1242		
xvii)	1000 mm.	Rmt	1101	1463		
	<b>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	5			
3.	<b>Providing D.I. pipes</b> (push on joints pressure pipes of D. I. of following class and diameters conforming to the I. S. specification inclusive cost of jointing materials (Rubber gasket of EPDM Quality ) excluding GST levied by GOI & GOM in all respect including Third party inspection charges of TPI Agency approved by MJP including Transit insurance, Railway Freight, Unloading from railway wagon, Loading into Truck, Transportation to departmental store, unloading, stacking etc. completed as directed by Engineer in charges (IS 1536/2001 for pipes and IS 158/1969 and IS 12820/1989 or latest edition/revision with amendments for Rubber Gaskets.					
	<b>(IS:8329-2000 Latest Version)</b>		D.I. K-7	D.I. K-9		
i)	100mm	Rmt	1209	1455		
ii)	150mm	Rmt	1686	1919		
iii)	200mm	Rmt	2236	2607		
iv)	250mm	Rmt	2906	3511		
v)	300mm	Rmt	3571	4349		
vi)	350 mm	Rmt	4465	5359		
vii)	400 mm	Rmt	5328	6423		
viii)	450 mm	Rmt	6346	7817		
ix)	500 mm	Rmt	7392	9095		
x)	600 mm	Rmt	9765	11896		
xi)	700 mm	Rmt	13246	15337		
xii)	750 mm	Rmt	15296	17254		
xiii)	800 mm	Rmt	17405	18777		
xiv)	900 mm	Rmt	21103	22950		
xv)	1000 mm	Rmt	25261	27750		
xvi)	1100 mm	Rmt	33427	33193		
xvii)	1200 mm	Rmt	38818	38427		
	<b>Note:</b> For DI pipe supply from MJP 18% GST would be applicable. <b>Same should be considered for estimation purpose.</b>					
4.	<b>Providing and making lead caulked joint with molten lead to Cast Iron pipes</b> and / or specials of all classes and fitting of following dia including cost of lead and all jointing material, labour, hydraulic testing etc. complete.					
i)	80 mm.	Joint	1045			
ii)	100 mm.	Joint	1294			
iii)	125 mm.	Joint	1540			
iv)	150 mm.	Joint	1912			
v)	200 mm.	Joint	2786			
vi)	250 mm.	Joint	3383			
vii)	300 mm.	Joint	4080			
viii)	350 mm.	Joint	4625			
ix)	400 mm.	Joint	5395			
x)	450 mm.	Joint	7492			
xi)	500 mm.	Joint	8053			
xii)	600 mm.	Joint	10348			
xiii)	700 mm.	Joint	12156			
xiv)	750 mm.	Joint	13806			
xv)	800 mm.	Joint	14826			
xvi)	900 mm.	Joint	15814			
xvii)	1000 mm.	Joint	16861			
	<b>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
5.	<b>Providing and supplying ISI standard CI double flanged pipes</b> excluding GST levied by GOI & GOM in all respect including railway freight, insurance, unloading from railway wagon, loading into truck transport to stores, unloading etc. complete as directed by Engineer-in-charge.			
i)	80 mm.	Rmt	1759	
ii)	100 mm.	Rmt	2176	
iii)	125 mm.	Rmt	2832	
iv)	150 mm.	Rmt	3534	
v)	200 mm.	Rmt	5423	
vi)	250 mm.	Rmt	7307	
vii)	300 mm.	Rmt	9395	
viii)	350 mm.	Rmt	12262	
ix)	400 mm.	Rmt	14951	
x)	450 mm.	Rmt	17952	
xi)	500 mm.	Rmt	21068	
xii)	600 mm.	Rmt	29971	
xiii)	700 mm.	Rmt	40153	
xix)	750 mm.	Rmt	43688	
6.	<b>Providing and supplying ISI standard CI flanged / S &amp; S specials</b> excluding GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to departmental store /site, unloading stacking etc. complete.			
a)	<b>D/F Specials</b>			
i)	80 to 300 mm dia	Kg.	88	
ii)	350 to 600 mm dia	Kg.	94	
iii)	Above 600 mm dia	Kg.	101	
b)	<b>S/S Specials / Socketed Branch Flanged Specials</b>			
i)	80 to 300 mm dia	Kg.	84	
ii)	350 to 600 mm dia	Kg.	90	
iii)	Above 600 mm dia	Kg.	96	
	<b>C) Plain ended/ plain ended branch flanged specials</b>			
i)	80 to 300 mm dia	Kg.	82	
ii)	350 to 600 mm dia	Kg.	90	
iii)	Above 600 mm dia	Kg.	96	
7.	<b>Providing and supplying ISI standard MS specials</b> of required thickness with 3 coats of approved make epoxy paint (Shalimar, Ciba or Mahindra & Mahindra make) from inside and outside excluding all statutory duties & taxes such as GST levied by GOI & GOM in all respect, inspection charges, transportation to stores / site, and stacking, etc. complete.			
a)	Machine ends suitable for PSC pipes of all diameters as per detailed drawing with 10 mm thick x 0.7 M long barrel welded to it.	Kg.	101	
b)	Only flanges with machining and drilling holes, etc. complete more than 40 mm thick.	Kg.	98	
c)	Double flanged specials of all diameters	Kg.	95	
d)	All socketed specials or socketed branch flanged specials of all diameters.	Kg.	95	
e)	Plain ended specials or plain ended branch flanged specials of all diameters.	Kg.	95	
f)	MS barrels (pipe pieces) locally manufactured (for small quantities)	Kg.	92	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
8.	<b>Providing and making flanged joints to flanged C.I./M.S. pipes</b> of all classes/specials etc. including cost of all jointing materials (rubber packing, nut bolts, etc.), labour, hydraulic testing etc. complete.			
i)	80 mm.	Joint	316	
ii)	100 mm.	Joint	544	
iii)	125 mm.	Joint	569	
iv)	150 mm.	Joint	1092	
v)	200 mm.	Joint	1132	
vi)	250 mm.	Joint	1622	
vii)	300 mm.	Joint	1685	
viii)	350 mm.	Joint	2194	
ix)	400 mm.	Joint	2734	
x)	450 mm.	Joint	3341	
xi)	500 mm.	Joint	3458	
xii)	600 mm.	Joint	3713	
xiii)	700 mm.	Joint	5593	
xiv)	750 mm.	Joint	5750	
xv)	800 mm.	Joint	7957	
xvi)	900 mm.	Joint	8248	
xvii)	1000 mm.	Joint	8538	
	<b>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</b>			
9.	<b>Erecting and hoisting in position and jointing, testing M.S./ C.I. D/F pipes and specials</b> in vertical position including cost of all jointing materials (rubber packing, nut bolts, etc.) labour, scaffolding, hydraulic testing etc. complete.			
i)	80 mm.	Joint	319	
ii)	100 mm.	Joint	540	
iii)	125 mm.	Joint	570	
iv)	150 mm.	Joint	1061	
v)	200 mm.	Joint	1127	
vi)	250 mm.	Joint	1610	
vii)	300 mm.	Joint	1699	
viii)	350 mm.	Joint	2207	
ix)	400 mm.	Joint	2744	
x)	450 mm.	Joint	3353	
xi)	500 mm.	Joint	3509	
xii)	600 mm.	Joint	3851	
xiii)	700 mm.	Joint	5712	
xiv)	750 mm.	Joint	5929	
xv)	800 mm.	Joint	8029	
xvi)	900 mm.	Joint	8452	
xvii)	1000 mm.	Joint	8909	
	<b>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</b>			
10.	Providing and supplying ISI standard D. I. specials & fitting with sealing rubber gasket of S.B.R, complete with cast iron follower gland and M. S. nut bolts coated or otherwise protected from rusting and suitable for D.I.pipes including cost of labour ,materials, and transportation to stores / site, loading and unloading excluding GST levied by GOI & GOM in all respect, complete as per IS-9523. <b>For all types of specials, bends tees etc.</b>			
a)	80 to 300 mm dia.	Kg.	153	
b)	350 mm & above dia.	Kg.	186	
	Providing and supplying ISI standard welded DI double			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	5			
11.	Providing and supplying ISI standard welded <b>DI double flanged pipe</b> excluding GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to store / site, unloading, stacking etc. complete as directed by Engineer - in- charge. (for 2.75 m bare pipe)					
	i) 100 mm	Rmt.	2738			
	ii) 150 mm	Rmt.	3718			
	iii) 200 mm	Rmt.	4757			
	iv) 250 mm	Rmt.	6457			
	v) 300 mm	Rmt.	8125			
	vi) 350 mm	Rmt.	10583			
	vii) 400 mm	Rmt.	12811			
	viii) 450 mm	Rmt.	15308			
	ix) 500 mm	Rmt.	17794			
	x) 600 mm	Rmt.	23427			
	xi) 700 mm	Rmt.	31525			
	xii) 800 mm	Rmt.	38534			
	xiii) 900 mm	Rmt.	47831			
	xiv) 1000 mm	Rmt.	56160			
12.	<b>Hydraulic testing of C.I./D.I. pipe line</b> to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position using water supplied by the contractor.					
			Without Rubber Rings	With Rubber Rings		
	i) 80 mm.	KM	6581	7584		
	ii) 100 mm.	KM	8011	8872		
	iii) 125 mm.	KM	9873	11016		
	iv) 150 mm.	KM	10587	11875		
	v) 200 mm.	KM	14165	15596		
	vii) 250 mm.	KM	18456	20317		
	vii) 300 mm.	KM	20031	22892		
	viii) 350 mm.	KM	24895	27900		
	ix) 400 mm.	KM	29903	34624		
	x) 450 mm.	KM	29903	36484		
	xi) 500 mm.	KM	34624	42064		
	xii) 600 mm.	KM	45498	56085		
	xiii) 700 mm.	KM	58662	78831		
	xiv) 750 mm.	KM	65672	86275		
	xv) 800 mm.	KM	80408	101297		
	xvi) 900 mm.	KM	96004	127052		
	xvii) 1000 mm.	KM	113603	154091		
	<b>B) C.I."A" Class</b>					
	i) 80 mm.	KM	6869	8441		
	ii) 100 mm.	KM	8441	9873		
	iii) 125 mm.	KM	10731	11875		
	iv) 150 mm.	KM	11732	12877		
	v) 200 mm.	KM	15310	16597		
	vii) 250 mm.	KM	20031	21890		
	vii) 300 mm.	KM	21747	24465		
	viii) 350 mm.	KM	26898	30046		
	ix) 400 mm.	KM	30188	34768		
	x) 450 mm.	KM	31763	36771		
	xi) 500 mm.	KM	37343	44783		
	xii) 600 mm.	KM	49361	59805		
	xiii) 700 mm.	KM	63525	83556		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	5			
xiv)	750 mm.	KM	71394	91711		
xv)	800 mm.	KM	84271	104875		
xvi)	900 mm.	KM	101583	132487		
xvii)	1000 mm.	KM	118467	158956		
	<b>C) C.I."B" Class</b>					
i) ii)	80	KM	7584	8872		
	100 mm.	KM	9014	10731		
iii)	125 mm.	KM	11590	12877		
iv)	150 mm.	KM	13020	14450		
v)	200 mm.	KM	16597	18601		
vii)	250 mm.	KM	21605	24610		
vii)	300 mm.	KM	23607	26327		
viii)	350 mm.	KM	29045	33767		
ix)	400 mm.	KM	33767	38343		
x)	450 mm.	KM	34195	39346		
xi)	500 mm.	KM	40205	47501		
xii)	600 mm.	KM	53367	63525		
xiii)	700 mm.	KM	68676	88277		
xiv)	750 mm.	KM	77547	97721		
xv)	800 mm.	KM	90423	110741		
xvi)	900 mm.	KM	107306	137924		
xvii)	1000 mm.	KM	122330	162533		
13.	<b>Providing and supplying C.I. detachable joints</b> suitable for A. C. pressure pipes manufactured as per IS-1538-1993 standards of following calass and diameter including cost of insurance, railway freight, inspection charges, unloading from railway wagon, loding into truck, transporting to departmental store, unloading, stacking and cost of rubber rings, nut bolts. excluding GST levied by GOI & GOM in all respect etc. complete (IS-1538-1993)					
	<b>Class 10/15</b>					
i)	80 mm.	No.	335			
ii)	100 mm.	No.	424			
iii)	125 mm.	No.	570			
iv)	150 mm.	No.	710			
v)	200 mm.	No.	1072			
vii)	250 mm.	No.	1343			
vii)	300 mm.	No.	1842			
	<b>Class 20</b>					
i)	80 mm.	No.	517			
ii)	100 mm.	No.	539			
iii)	125 mm.	No.	670			
iv)	150 mm.	No.	803			
v)	200 mm.	No.	1079			
vii)	250 mm.	No.	1522			
vii)	300 mm.	No.	2179			





PIP SSR 2023-24

**SECTION - I (II)**

**P.V.C. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>II.</b>	<b>P. V. C. PIPES</b>			
<b>1.</b>	Providing and supplying in <u>standard lengths ISI mark rigid unplasticised PVC pipes</u> suitable for potable water with solvent cement joints including cost of couplers, as per IS specification no. 4985 / 1988 excluding GST levied by GOI and GOM in all respect, including transportation, freight charges, inspection charges, loading, unloading, conveyance to the departmental stores and stacking the same in closed shed duly protected from sun rays and rains including cost of jointing material i.e. solvent cement, etc. complete (selffit type to be jointed with cement solvent).			
<b>Note</b>	<b>: 1) 10% of cost of pipes shall be considered for cost of PVC specials for estimate purpose only.</b>			
	<b>2) One coupler and required cement solvent shall be provided with each full length pipe cost of which is included in rates below.</b>			
<b>a)</b>	<b>Working Pressure 4 Kg./Sq.cm</b>			
i)	63 mm.	Rmt	81	
ii)	75 mm.	Rmt	115	
iii)	90 mm.	Rmt	160	
iv)	110 mm.	Rmt	219	
v)	140 mm.	Rmt	367	
vi)	160 mm.	Rmt	480	
vii)	180 mm.	Rmt	658	
viii)	200 mm.	Rmt	811	
ix)	225 mm.	Rmt	1037	
x)	250 mm.	Rmt	1267	
xi)	280 mm.	Rmt	1684	
xii)	315 mm.	Rmt	2143	
<b>b)</b>	<b>Working Pressure 6 Kg. / Sq.cm</b>			
i)	63 mm.	Rmt	115	
ii)	75 mm.	Rmt	163	
iii)	90 mm.	Rmt	238	
iv)	110 mm.	Rmt	325	
v)	140 mm.	Rmt	542	
vi)	160 mm.	Rmt	700	
vii)	180 mm.	Rmt	931	
viii)	200 mm.	Rmt	1192	
ix)	225 mm.	Rmt	1502	
x)	250 mm.	Rmt	1875	
xi)	280 mm.	Rmt	2473	
xii)	315 mm.	Rmt	3154	
<b>C</b>	<b>Working Pressure 8 Kg/Sq.cm</b>			
i)	63 mm.	Rmt	159	
ii)	75 mm.	Rmt	227	
iii)	90 mm.	Rmt	322	
iv)	110 mm.	Rmt	454	
v)	140 mm.	Rmt	753	
vi)	160 mm.	Rmt	988	
vii)	180 mm.	Rmt	1307	
viii)	200 mm.	Rmt	1643	
ix)	225 mm.	Rmt	2086	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
x)	250 mm.	Rmt	2609	
xi)	280 mm.	Rmt	3437	
xii)	315 mm.	Rmt	4352	
	<b>d) Working Pressure 10 Kg./Sq.cm</b>			
ii)	63 mm.	Rmt	193	
ii)	75 mm.	Rmt	273	
iii)	90 mm.	Rmt	393	
iv)	110 mm.	Rmt	554	
v)	140 mm.	Rmt	897	
vi)	160 mm.	Rmt	1173	
vii)	180 mm.	Rmt	1617	
viii)	200 mm.	Rmt	1999	
ix)	225 mm.	Rmt	2549	
x)	250 mm.	Rmt	3222	
xi)	280 mm.	Rmt	4051	
xii)	315 mm.	Rmt	5145	
	<b>e) Working Pressure 12.50 Kg./Sq.cm</b>			
ii)	63 mm.	Rmt	245	
ii)	75 mm.	Rmt	344	
iii)	90 mm.	Rmt	497	
iv)	110 mm.	Rmt	703	
v)	140 mm.	Rmt	1144	
vi)	160 mm.	Rmt	1505	
vii)	180 mm.	Rmt	2057	
viii)	200 mm.	Rmt	2551	
ix)	225 mm.	Rmt	3242	
x)	250 mm.	Rmt	4100	
xi)	280 mm.	Rmt	5160	
xii)	315 mm.	Rmt	6577	
	<b>2. Providing and supplying in standard lengths ISI mark rigid unplasticised PVC for potable water with rubber ring joints including cost of rubber ring as per IS-4985-1998, excluding GST levied by GOI and GOM in all respect, including transportation, freight charges, transit insurance, inspection charges, loading, unloading, conveyance to store and stacking the same in closed shed duly protected from sun rays and rains, etc. complete (with third party inspection) (socketed)</b>			
	<b>a) Working Pressure 4 Kg/Sq.cm</b>			
i)	63 mm.	Rmt	89	
ii)	75 mm.	Rmt	124	
iii)	90 mm.	Rmt	179	
iv)	110 mm.	Rmt	245	
v)	125 mm.	Rmt	336	
vi)	140 mm.	Rmt	407	
vii)	160 mm.	Rmt	536	
viii)	180 mm.	Rmt	728	
ix)	200 mm.	Rmt	897	
x)	225 mm.	Rmt	1153	
xi)	250 mm.	Rmt	1411	
xii)	280 mm.	Rmt	1871	
xiii)	315 mm.	Rmt	2377	

Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b><u>b) Working Pressure 6 Kg/Sq.cm</u></b>			
i)	63 mm.	Rmt	128	
ii)	75 mm.	Rmt	182	
iii)	90 mm.	Rmt	264	
iv)	110 mm.	Rmt	360	
v)	125 mm.	Rmt	497	
vi)	140 mm.	Rmt	604	
vii)	160 mm.	Rmt	777	
viii)	180 mm.	Rmt	1037	
ix)	200 mm.	Rmt	1319	
x)	225 mm.	Rmt	1668	
xi)	250 mm.	Rmt	2084	
xii)	280 mm.	Rmt	2746	
xiii)	315 mm.	Rmt	3502	
	<b><u>c) Working Pressure 8 Kg./Sq.cm</u></b>			
i)	63 mm.	Rmt	173	
ii)	75 mm.	Rmt	254	
iii)	90 mm.	Rmt	357	
iv)	110 mm.	Rmt	504	
v)	125 mm.	Rmt	693	
vi)	140 mm.	Rmt	835	
vii)	160 mm.	Rmt	1095	
viii)	180 mm.	Rmt	1454	
ix)	200 mm.	Rmt	1826	
x)	225 mm.	Rmt	2316	
xi)	250 mm.	Rmt	2894	
xii)	280 mm.	Rmt	3818	
xiii)	315 mm.	Rmt	4835	
	<b><u>d) Working Pressure 10 Kg./Sq.cm</u></b>			
i)	63 mm.	Rmt	214	
ii)	75 mm.	Rmt	304	
iii)	90 mm.	Rmt	433	
iv)	110 mm.	Rmt	617	
v)	125 mm.	Rmt	847	
vi)	140 mm.	Rmt	995	
vii)	160 mm.	Rmt	1302	
viii)	180 mm.	Rmt	1794	
ix)	200 mm.	Rmt	2220	
x)	225 mm.	Rmt	2830	
xi)	250 mm.	Rmt	3580	
xii)	280 mm.	Rmt	4500	
xiii)	315 mm.	Rmt	5717	
	<b><u>e) Working Pressure 12.5 Kg./Sq.cm</u></b>			
i)	63 mm.	Rmt	269	
ii)	75 mm.	Rmt	380	
iii)	90 mm.	Rmt	552	
iv)	110 mm.	Rmt	784	
v)	125 mm.	Rmt	1079	
vi)	140 mm.	Rmt	1270	
vii)	160 mm.	Rmt	1669	
viii)	180 mm.	Rmt	2285	
ix)	200 mm.	Rmt	2833	
x)	225 mm.	Rmt	3602	
xi)	250 mm.	Rmt	4552	
xii)	280 mm.	Rmt	5728	
xiii)	315 mm.	Rmt	7301	





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>3.</b>	Providing and supplying in <b>ISI mark rigid PVC-O class-500</b> s/s pipe (push on joints) pressure pipes confirming to IS specifications no 16647-2017 inclusive cost of EPDM gasket seals on joints including all statutory duties excluding GST levied by Government of India and Government of Maharashtra in all respect including third party inspection charges of agency approved by MJP, transit insurance loading, unloading charges conveyance to the departmental store / site and stacking the same in closed shade duly protected from sunrays etc complete.			
	<b>Note :-</b> <u>a) 10% cost of pipe shall be considered for the cost of O-PVC/DI compatible specials for estimate purpose</u> <u>b) Diameter wise overlapping lengths are respectively, 110mm 2.92%, 160mm- 3.33%, 200mm 3.75%, 250mm 4.5%, 315mm 5.42%, 400mm 6.25%</u>			
	<b>a) Class - 500 PN - 12.5</b>			
i)	110 mm.	Rmt	565	
ii)	160 mm.	Rmt	976	
iii)	200 mm.	Rmt	1336	
iv)	250 mm.	Rmt	1831	
v)	315 mm.	Rmt	2374	
vi)	400 mm.	Rmt	3659	
vii)	450 mm.	Rmt	4303	
viii)	500 mm.	Rmt	4965	
ix)	560 mm.	Rmt	6619	
x)	630 mm.	Rmt	8418	
	<b>b) Class - 500 PN - 16</b>			
i)	110 mm.	Rmt	677	
ii)	160 mm.	Rmt	1135	
iii)	200 mm.	Rmt	1407	
iv)	250 mm.	Rmt	1980	
v)	315 mm.	Rmt	2495	
vi)	400 mm.	Rmt	3807	
vii)	450 mm.	Rmt	4883	
viii)	500 mm.	Rmt	6092	
ix)	560 mm.	Rmt	7585	
x)	630 mm.	Rmt	9609	
	<b>c) Class - 500 PN - 25</b>			
i)	110 mm.	Rmt	844	
ii)	160 mm.	Rmt	1227	
iii)	200 mm.	Rmt	1669	
iv)	250 mm.	Rmt	2335	
v)	315 mm.	Rmt	3641	
vi)	400 mm.	Rmt	5523	
vii)	450 mm.	Rmt	6881	
viii)	500 mm.	Rmt	8517	
ix)	560 mm.	Rmt	10664	
x)	630 mm.	Rmt	13485	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
4.	<b><u>Lowering, laying and jointing with P.V.C. pipes and specials</u></b> of following class and diameter including cost of conveyance from stores to site of works including cost of all labour, material, except cement solvent, rubber ring, as per IS code, etc. complete (with cement solvent joint / ring fit joint).			
	<b><u>a) Working Pressure 4 Kg/Sq.cm</u></b>			
i)	63 mm.	Rmt	22	
ii)	75 mm.	Rmt	28	
iii)	90 mm.	Rmt	35	
iv)	110 mm.	Rmt	39	
v)	125 mm.	Rmt	41	
vi)	140 mm.	Rmt	46	
vii)	160 mm.	Rmt	52	
viii)	180 mm.	Rmt	57	
xi)	200 mm	Rmt	62	
x)	225 mm	Rmt	72	
xi)	250 mm	Rmt	77	
xii)	280 mm	Rmt	85	
xiii)	315 mm	Rmt	96	
	<b><u>b) Working Pressure 6 to 12.5 Kg./Sq.cm.</u></b>			
i)	63 mm.	Rmt	29	
ii)	75 mm.	Rmt	39	
iii)	90 mm.	Rmt	45	
iv)	110 mm.	Rmt	50	
v)	125 mm.	Rmt	54	
vi)	140 mm.	Rmt	59	
vii)	160 mm.	Rmt	63	
viii)	180 mm.	Rmt	72	
xi)	200 mm	Rmt	78	
x)	225 mm	Rmt	85	
xi)	250 mm	Rmt	94	
xii)	280 mm	Rmt	106	
xiii)	315 mm	Rmt	118	
xiv)	400 mm	Rmt	130	
xv)	450 mm	Rmt	140	
xvi)	500 mm	Rmt	155	
xvii)	560 mm	Rmt	168	
xviii)	630 mm	Rmt	184	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>5.</b>	<b>Hydraulic testing of PVC pipe line</b> to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position.			
	<b>a) Working Pressure 4 Kg/Sq.cm</b>			
i)	63 mm.	Km	2779	
ii)	75 mm.	Km	2779	
iii)	90 mm.	Km	4168	
iv)	110 mm.	Km	4168	
v)	125 mm	Km	4863	
vi)	140 mm.	Km	5556	
vii)	160 mm.	Km	5556	
viii)	180 mm.	Km	6946	
ix)	200 mm	Km	6946	
x)	225 mm	Km	8335	
xi)	250 mm	Km	8335	
xii)	280 mm	Km	9724	
xiii)	315 mm	Km	11113	
	<b>b) Working Pressure 6 to 12.5 Kg./Sq.cm.</b>			
i)	63 mm.	Km	2779	
ii)	75 mm.	Km	4168	
iii)	90 mm.	Km	5556	
iv)	110 mm.	Km	5556	
v)	125 mm	Km	6251	
vi)	140 mm.	Km	6946	
vii)	160 mm.	Km	6946	
viii)	180 mm.	Km	8335	
ix)	200 mm	Km	8335	
x)	225 mm	Km	9724	
xi)	250 mm	Km	9724	
xii)	280 mm	Km	11113	
xiii)	315 mm	Km	12503	
xiv)	400 mm	Km	12503	
xv)	450 mm	Km	13891	
xvi)	500 mm	Km	13891	
xvii)	560 mm	Km	15280	
xviii)	630 mm	Km	16669	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<p><u>1) Only 85% rate shall be payable till satisfactory hydraulic testing is given.</u></p> <p><u>2) Third party inspecting agency shall invariably carry out. I) Specific Gravity Test. II) Weight / Rmt. III) Ash Content Test and confirm in writing that those are within prescribed limits. This condition shall appear in tender conditions.</u></p> <p><u>3) After receipt of pipes at site, concerned Deputy Engineer shall confirm that weight of pipe for every class and diameter is not less than the prescribed standard weight as per IS-4985/1998 (Which is given in CSR). Under weight pipes shall be rejected. This condition shall appear in the tender conditions.</u></p>			
6	<b>Providing &amp; Supply of PVC pipe specials for all class pipes.</b>			
A	Tee 4 kg/Cm2			
	63 mm		48	
	75 mm		57	
	90 mm		112	
	110 mm		174	
	140 mm		374	
	160 mm		532	
	200 mm		1346	
B	Tee 6 kg/Cm2			
	63 mm		29	
	75 mm		39	
	90 mm		55	
	110 mm		84	
	140 mm		456	
	160 mm		746	
	180 mm		1158	
	200 mm		3359	
C	Tee 10 kg/Cm2			
	63 mm		34	
	75 mm		53	
	90 mm		94	
	110 mm		167	
	140 mm		1248	
	160 mm		2891	
	180 mm		4008	
	200 mm		4030	
D	Elbow 4 kg/Cm2			
	63 mm		24	
	75 mm		33	
	90 mm		45	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	110 mm		70	
	140 mm		264	
	160 mm		408	
	180 mm		706	
	200 mm		1147	
E	Elbow 6 kg/Cm <sup>2</sup>			
	63 mm		24	
	75 mm		33	
	90 mm		45	
	110 mm		70	
	140 mm		332	
	160 mm		471	
	180 mm		893	
F	Elbow 10 kg/Cm <sup>2</sup>			
	63 mm		26	
	75 mm		40	
	90 mm		71	
	110 mm		126	
G	S.Saddle			
	63 x20mm		43	
	75x20 mm		51	
	90x20 mm		61	
	110 x20 mm		70	
	140 x20 mm		227	
	160 x20 mm		254	
H	End cap( plain)			
	63 mm		9	
	75 mm		12	
	90 mm		19	
	110 mm		25	
	140 mm		119	
	160 mm		144	
	180 mm		201	
	200 mm		381	
I	Reducer			
	75 x63		18	
	90 x 75		24	
	63 x 90		26	
	75 x 110		37	
	90 x 110		32	
	140 x 110		58	
	140 x 75		139	
	140 x 90		150	
	160 x 75		188	
	160 x 90		190	
	160 x 110		205	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	160 x 140		221	
	200 x 110		456	
	200 x 160		468	
J	PVC Coupler 4 Kg/Cm2			
	63 mm		9	
	75 mm		14	
	90 mm		23	
	110 mm		35	
	140 mm		74	
	160 mm		105	
	180 mm		153	
	200 mm		218	
K	PVC Coupler 6 Kg/Cm2			
	63 mm		14	
	75 mm		20	
	90 mm		33	
	110 mm		54	
	140 mm		107	
	160 mm		150	
	180 mm		217	
	200 mm		300	
L	PVC Coupler 10 Kg/Cm2			
	63 mm		38	
	75 mm		60	
	90 mm		97	
	110 mm		150	
	140 mm		317	
	160 mm		444	
	180 mm		570	
	200 mm		839	
M	PVC Bend 4 Kg/Cm2			
	63 mm		27	
	75 mm		43	
	90 mm		68	
	110 mm		122	
	140 mm		331	
	160 mm		550	
	180 mm		777	
	200 mm		1028	
N	PVC Bend 6 Kg/Cm2			
	63 mm		38	
	75 mm		63	
	90 mm		102	
	110 mm		183	
	140 mm		474	
	160 mm		724	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	180 mm		1083	
	200 mm		1442	
O	PVC Bend 10 Kg/Cm2			
	63 mm		103	
	75 mm		156	
	90 mm		269	
	110 mm		437	
	140 mm		1173	
	160 mm		1666	
	180 mm		2455	
	200 mm		3563	
P	PVC Tail Piece without flange 4 Kg/Cm2			
	63 mm		19	
	75 mm		31	
	90 mm		48	
	110 mm		80	
	140 mm		159	
	160 mm		229	
	180 mm		306	
	200 mm		430	
Q	PVC Tail Piece without flange 6 Kg/Cm2			
	63 mm		14	
	75 mm		24	
	90 mm		31	
	110 mm		44	
	140 mm		68	
	160 mm		85	
	180 mm		252	
	200 mm		316	
R	PVC Tail Piece without flange 10 Kg/Cm2			
	63 mm		25	
	75 mm		37	
	90 mm		56	
	110 mm		103	
	140 mm		187	
	160 mm		251	
	180 mm		380	
	200 mm		524	



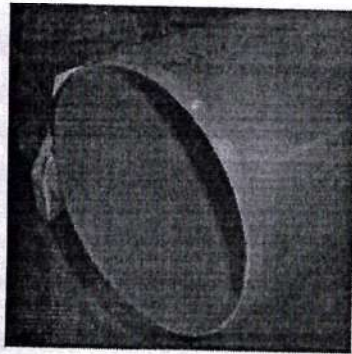
**Item No 3 : ORIENTED PVC PIPE (O-PVC)**  
**RECEPTION, STORAGE, INSTALLATION AND TEST INSTRUCTIONS**  
*IS 16647-201, ISO16442-2014*

**RECEPTION**

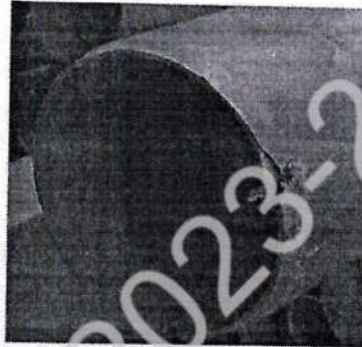
After the reception of the pipes, it is necessary to check their state. Before its installation, you should remove the caps and make a sampling to verify that all the pipes are correct.

Checking the next points is particularly important:

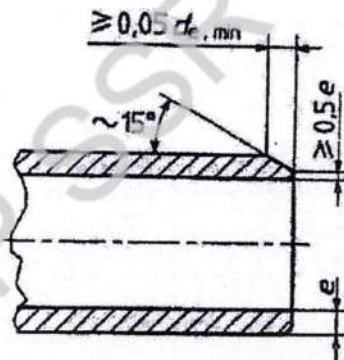
- The pipes should be free of dirt.
- The chamfer in the spigot end should not be damaged.



CORRECT



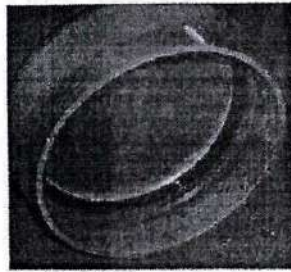
INCORRECT



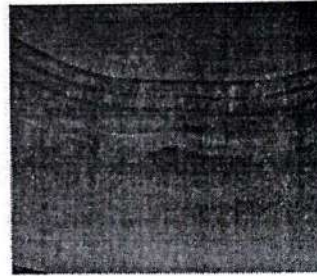
Technical Sheet - Installation instructions



- The seals should be placed correctly in their housings.



CORRECT



INCORRECT

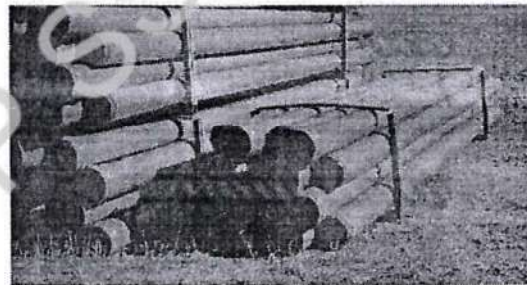


- The surface and the inner part of the pipes and sockets should not be damaged.

### STORAGE

We suggest the following guidelines:

- Store the pipes horizontally on a flat surface and place supports every 1.5 meters to avoid the bending of the product.
- Avoid scratches especially in the crest of the socket, due to dragging the pipe on the ground, mainly if the surface is made of stone, concrete or asphalt.
- Do not stack more than 1.5 meters high, as this can damage lower pipes or even the upper pipes could fall.
- The sockets should be free, alternating sockets and ends.
- In case of prolonged sun exposure, protect pallets with an opaque material. White colour is preferable because it avoids the over-heating of the pipes.



Technical Sheet - Installation instructions



## REALIZATION OF THE TRENCH

The trench must be free of stones at the bottom and at the sides.  
Stones smaller than 10-20 mm are allowed, but they cannot be the main size of the ground particles.

Minimum trench width:

DN (mm)	Minimum width of trench B(m)	Depth of trench H(m)	Minimum width of trench B(m)
90-250	0.60	$h < 1.00$	0.60
315	0.85	$1.00 < h < 1.75$	0.80
355	1.00	$1.75 < h < 4.00$	0.90
400	1.10	$H > 4.00$	1.00
450	1.15		
500	1.20		
630	1.35		
800	1.65		

As a rule of thumb, when there is no road traffic involved, the pipes' crown will be at a minimum depth of 0.6 meters; with road traffic, the minimum depth is 1 meter.

## BEDDING AND FILLING THE TRENCH

Pipe must be installed in the following circumstances:

1. Before placing the pipe, a sand bed should be prepared (a fine granular material could be used instead of sand) with a thickness from 10 cm to 15 cm. The pipe should be well aligned and levelled.
2. The pipe must lie on the sand bed. It must be ensured that all the lower part of the pipe is settled on the sand bed trying to soak as much as possible in order to make the angle of sand that supports the kidneys of the pipe as big as possible.
3. Once the pipe is placed, chamber in sides must be filled with the selected material and compacted to achieve >95% Proctor Normal.
4. The trench must be filled with the selected material and compacted laterally until the upper part of the pipe is buried at least 30 cm.
5. Steps 3 and 4 can be done with the same natural material obtained from the excavation, trying to avoid rocks and large stones, and checking that this natural material can support the forces produced by the pressure inside of the pipe.

Technical Sheet - Installation instructions



Natural soil can be used as the selected filler material whenever it fulfills the following criteria:

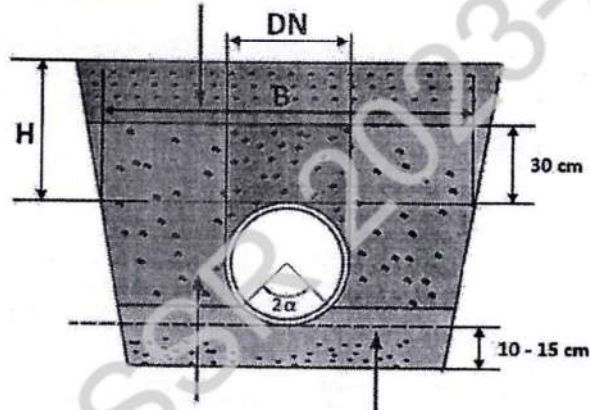
- The material cannot consist of angular stones or similar material.
- Filler material should not contain bigger particles than the ones shown in the following table.
- Filler material should not contain blocks of soil twice the size of the maximum dimensions of the particles given in the table.

Maximum particle size

Nominal diameter DN	Maximum size mm
DN < 100	15
100 ≤ DN < 300	20
300 ≤ DN < 600	30
600 ≤ DN	40

- From the 30 cm above the pipe until the surface of the ground, the trench can be filled with natural material not specifically selected and compacting directly over the whole surface of the trench.

Natural, tightly-packed  
filling 100% P.N.



Selected,  
tightly-packed  
filling  
>95% P.N.

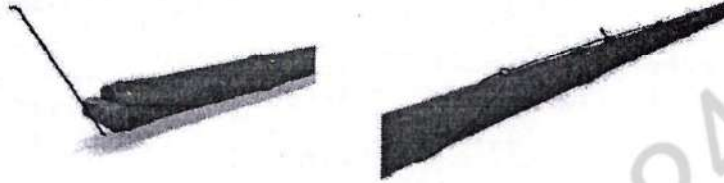
Granular  
tightly-packed  
material  
>95% P.N.

Technical Sheet - Installation instructions



## ASSEMBLY

- Remove the protection caps.
- Verify that the pipe is clean and in good condition. Paying attention to the sockets and spigot ends. Check that the chamfer is correct and free of cracks.
- Verify that the seal is in its place, clean and free of foreign materials (stones, sand, etc.).
- Lubricate the chamfer of the spigot and the seal with joint lubricant.
- Line up the pipe as much as possible horizontal and vertically.
- Insert only the chamfer edge of the socket, just to support the pipe but leaving the socket lip free.
- In the case of pipes with nominal diameter  $\leq 250$  mm, a firm and dry push should be given to seize the momentum produced by the free movement in the lip of the socket and introduce it until the mark is hidden into the socket.
- When installing diameters  $>250$ mm, one should use mechanical means to introduce the pipe using materials such as wood, hoists, tackles or slings.



In the next table, you can find an approximated number of assemblies per diameter with 1kg of lubricant.

DN (mm)	90	110	140	160	200	225	250	315	355	400	450	500	630	800
Assemblies	87	76	54	46	34	32	30	25	21	17	16	14	12	9

## PIPE CUTTING

Pipes can be cut transversally using a circular saw or a hacksaw. The resulting male cut ends should be chamfered in order to be entered manually in another socket pipe or fitting. The chamfer can be made with a circular saw and be reviewed later with a file. The chamfer should be approximately of 15°.

A mask must be worn to prevent dust inhalation and protections and safety measures must to be taken for cutting machines.

Pipes chamfered on-site are less accurate than those made at the factory. Because of that, they could require higher introduction efforts or even require simple mechanical means to place the spigot inside the socket.

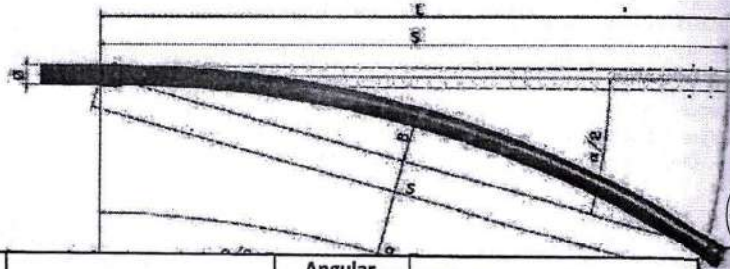
Technical Sheet - Installation instructions





## COLD BENDING OF PIPE (23°C)

The pipe can bend at room temperatures ( $\pm 23^\circ\text{C}$ ) in the trench up to the limits defined in the next table. These curves must to be done always in cold (don't heat any part of the pipe or socket) by manual efforts (you can use simple items to help in case of pipes DN > 250mm) and without damaging the geometry of the plugs.



		Pipe curvature			Angular deviation of the socket	Curvature + angular deviation (full angle) angular		
DN	L	R	$\alpha/2$	A	angle	R'	$\alpha'/2$	A'
mm	m	m	degrees		degrees		degrees	m
90	5,78	18	9,2	0,92	2	15	11,2	1,12
110	5,78	22	7,5	0,75	2	17	9,5	0,95
140	5,76	28	5,9	0,59	2	21	7,9	0,79
160	5,75	32	5,1	0,52	2	23	7,1	0,71
200	5,73	40	4,1	0,41	2	27	6,1	0,61
225	5,70	45	3,6	0,36	2	29	5,6	0,56
250	5,68	50	3,3	0,32	2	31	5,3	0,52
315	5,63	63	2,6	0,25	2	35	4,6	0,45
355	5,61	71	2,3	0,22	2	38	4,3	0,42
400	5,58	80	2,0	0,19	2	40	4,0	0,39
450	5,56	90	1,8	0,17	2	42	3,8	0,37
500	5,58	100	1,6	0,16	2	44	3,6	0,35
630	5,53	126	1,3	0,12	2	49	3,3	0,31
800	5,42	160	1,0	0,09	2	52	3,0	0,28

The pipes may be subjected to greater curvatures with high efforts, but it is not recommended to overcome these limits to avoid compromising the safety coefficient of the pipe.

Technical Sheet - Installation instructions



## ANGULAR DEVIATION ALLOWED IN THE SOCKET

In addition to the curvature of the pipe, an angular deviation is allowed at the junction between pipes. Therefore in the final layout of the pipes, one can add both effects.

It is important not to exceed the established values of angular deviation in the socket-end when bending the pipe.



(1) Total length of the pipe: 5.95 meters.

DN	Maximum angular deviation	Displacement in the socket (D)
mm	angle (°)	D(mm) <sup>(1)</sup>
90-800	2°	200

The pipe connections can be subject to greater angular deviations if subjected to high stresses. It's recommended not to exceed those limits in order to avoid endangering the safety coefficients of the assembly under pressure.

## FORCES PRODUCED BY THE BENDING OF THE PIPE

The bent pipeline behaves like a narrow-angle curve; this means that there is some backpressure on the ground as the table below shows. These cross-pressures, under normal conditions, can be supported by a sufficiently compacted soil, otherwise, if necessary, they should be supported with anchors in excessive curvatures.

Forces in a curved pipe ( $\alpha / 2$ ) <sup>(2)</sup>

	bar	bar	bar	bar	bar	bar
DN	1	5	10	15	20	25
mm	kN	kN	kN	kN	kN	kN
90°	0,10	0,51	1,02	1,53	2,04	2,55
110	0,12	0,62	1,25	1,87	2,49	3,12
140	0,16	0,79	1,58	2,37	3,17	3,96
160	0,18	0,90	1,81	2,71	3,61	4,51
200	0,22	1,12	2,25	3,37	4,50	5,62
225	0,25	1,26	2,52	3,78	5,04	6,29
250	0,28	1,39	2,79	4,18	5,58	6,97
315	0,35	1,74	3,48	5,22	6,96	8,70
355	0,39	1,96	3,91	5,87	7,82	9,78
400	0,44	2,19	4,38	6,57	8,76	10,96
450	0,49	2,46	4,91	7,37	9,82	12,28
500	0,55	2,74	5,48	8,22	10,96	13,69
630	0,68	3,42	6,84	10,26	13,68	17,10
800	0,85	4,26	8,51	12,77	17,03	21,28

(2) Resultant forces in a pipe 5.95 meters long.

Technical Sheet Installation Instructions



## PRESSURE TEST AT WORKS

On-site testing should be performed according to local regulations and instructions laid down in the project.

During the assembly, the pipe installed should be tested in sections fully executed (the length may vary between 500 and 1.000 meters). The ends of the sections should be closed with appropriate fittings when being tested.

- Two main aspects must be taken into account: When the assembly are exposed, the water-tightness of the network should be checked, to see if there is any leak in such unions and locate them in case they exist. Except the cases of seal expulsion due to over-pressures or excessive angular deflections, leaks are manifested especially at very low pressures.
- On the other hand, for testing high-pressure pipes and fittings, they must be properly anchored (reductions, changes in direction, junctions, valves, cutting, etc.) and the pipes should be conveniently set in the trench (burial and compaction landfill). Otherwise, pipes and fittings could be unplugged by landslides in the field.

Therefore, it is recommended to test one of the following methods:

### Method A:

Burying the pipe conveniently with enough compaction to be able to withstand the stresses caused by the pressure of the test, but leaving assemblies uncovered (in some circumstances it is difficult to anchor pipes and fittings, leaving the unions visible). Any reductions, changes in direction, junctions and shutoff valves must be properly anchored.

Under these conditions, all pressure and leakage tests can be performed observing the uncovered unions and spot the appearance of leaks.

### Method B:

Perform a shallower anchorage of pipes and fittings, leaving assemblies out of any possible problems. Doing a first leak test by filling the line with water and observe that there are no water losses at the unions (most of the leaks occur at low pressures). In case of leaks, the reparation would be easier than with the fully anchored and buried pipes.

If required by local regulations, you could anchor the pipes and accessories conveniently for testing high pressure, keeping the assemblies exposed. If not, you can complete the burial of pipes and fittings with the correct compaction, thus facilitating the necessary anchorage for the high pressure test.

The pressures and time limits to test the pipes on-site are:

	Pressure	Maximum Time	Pressure	Maximum Time
PN16	Up to 21 bars	120 minutes	21 – 22.4 bars	60 minutes
PN20	Up to 25 bars	120 minutes	25 – 28 bars	60 minutes
PN25	Up to 30 bars	120 minutes	30 - 35 bars	60 minutes

Technical Sheet - Installation instructions



## PIPE OVERLAPE

Pipes are of standard length of 6.00 m length, but during laying the following overlaps have to be considered for net reduction in standard pipe length. The standard overlaps are defined in the next table and may be considered for estimating actual pipe lengths as below:

DN (mm)	110	160	200	250	315	400	450	500	560	630
Overlap %	2.92	3.35	3.75	4.50	5.42	6.25	6.4	6.5	7.15	7.75

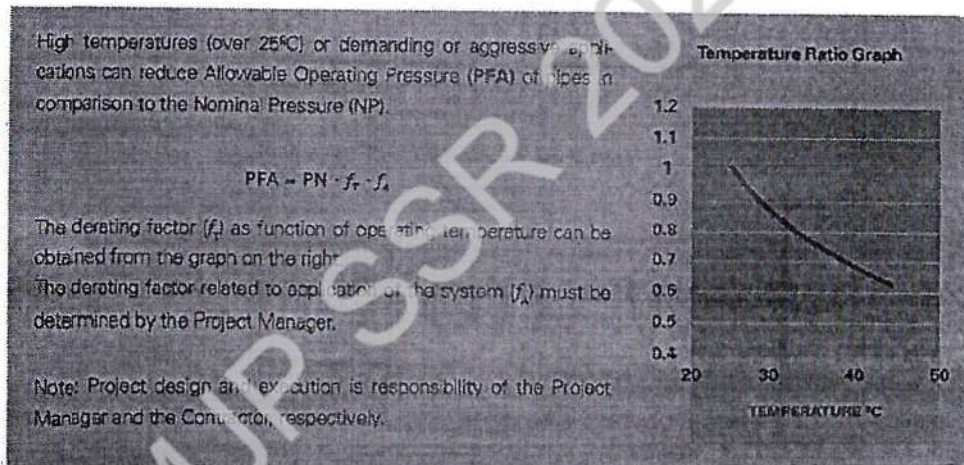
## EFFECT OF TEMPERATURE

When the temperature is high, plastic pipes undergo a loss of mechanical properties and we must take this into account. Because of that, we must avoid the following conditions during pressure tests:

- Pipe partially or fully exposed to weathering (line uncovered).
- High outside temperature.
- Standing water inside the pipe.
- Prolonged sun exposure prior to the test.

All these circumstances may increase the temperature of the pipe above its operating temperature, so the overpressure test can damage the pipeline. In order to avoid that, it is recommended to:

- Cover the pipe once the tightness of the network is verified.
- Wait for pressure testing when the pipe has been exposed to sunlight.



Technical Sheet - Installation instructions





G.I.P SSR 2023-24

**SECTION - I (III)**

**G.I. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
<b>III.</b>	<b>G. I. PIPES</b>			
1.	Providing <b>ISI mark G.I. pipe</b> of following class and dia. excluding GST levied by GOI & GOM in all respect, inspection charges, transportation to stores, etc. complete as per IS-1239/2004. <b>Note : One coupler shall be provided with each full length of pipe cost of which is included in rates below.</b>			
<b>a)</b>	<b>LIGHT</b>			
i)	15 mm. ( 0.96 kg./m )	Rmt	88	
ii)	20 mm. ( 1.42 kg./m )	Rmt	131	
iii)	25 mm. ( 2.03 kg./m )	Rmt	179	
iv)	32 mm. ( 2.61 kg./m )	Rmt	228	
v)	40 mm. ( 3.29 kg./m )	Rmt	285	
vi)	50 mm. ( 4.18 kg./m )	Rmt	348	
vii)	65 mm. ( 5.92 kg./m )	Rmt	479	
viii)	80 mm. ( 6.98 kg./m )	Rmt	575	
ix)	100 mm. ( 10.20 kg./m )	Rmt	815	
<b>b)</b>	<b>MEDIUM</b>			
i)	15 mm. ( 1.23 kg./m )	Rmt	105	
ii)	20 mm. ( 1.59 kg./m )	Rmt	135	
iii)	25 mm. ( 2.40 kg./m )	Rmt	206	
iv)	32 mm. ( 3.17 kg./m )	Rmt	259	
v)	40 mm. ( 3.65 kg./m )	Rmt	299	
vi)	50 mm. ( 5.16 kg./m )	Rmt	413	
vii)	65 mm. ( 6.63 kg./m )	Rmt	524	
viii)	80 mm. ( 8.64 kg./m )	Rmt	689	
ix)	100 mm. ( 12.40 kg./m )	Rmt	981	
xx)	125 mm ( 16.70 kg/m )	Rmt	1336	
xxi)	150 mm.( 19.70 kg./m )	Rmt	1571	
<b>c)</b>	<b>HEAVY</b>			
i)	15 mm. ( 1.46 kg./m )	Rmt	120	
ii)	20 mm. ( 1.91 kg./m )	Rmt	154	
iii)	25 mm. ( 2.99 kg./m )	Rmt	241	
iv)	32 mm. ( 3.97 kg./m )	Rmt	305	
v)	40 mm. ( 4.47 kg./m )	Rmt	354	
vi)	50 mm. ( 6.24 kg./m )	Rmt	490	
vii)	65 mm. ( 8.02 kg./m )	Rmt	630	
viii)	80 mm. ( 10.30 kg./m )	Rmt	805	
ix)	100 mm. ( 14.70 kg./m )	Rmt	1163	
x)	125 mm ( 18.30 kg/m )	Rmt	1439	
xi)	150 mm ( 21.80 kg./m )	Rmt	1729	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
<b>2.</b>	<b><u>Lowering, laying and jointing G. I. pipes and specials</u></b> of following class and diameter including conveyance from stores to site of works, all labour, etc. complete either underground or in vertical position, as directed by Engineer-in-charge.			
<b>a)</b>	<b><u>LIGHT</u></b>			
i)	15 mm. ( 0.96 kg./m )	Rmt	32	
ii)	20 mm. ( 1.42 kg./m )	Rmt	36	
iii)	25 mm. ( 2.03 kg./m )	Rmt	45	
iv)	32 mm. ( 2.61 kg./m )	Rmt	50	
v)	40 mm. ( 3.29 kg./m )	Rmt	62	
vi)	50 mm. ( 4.18 kg./m )	Rmt	75	
vii)	65 mm. ( 5.92 kg./m )	Rmt	109	
viii)	80 mm. ( 6.98 kg./m )	Rmt	120	
ix)	100 mm. ( 10.20 kg./m )	Rmt	144	
<b>b)</b>	<b><u>MEDIUM</u></b>			
i)	15 mm. ( 1.23 kg./m )	Rmt	35	
ii)	20 mm. ( 1.59 kg./m )	Rmt	38	
iii)	25 mm. ( 2.40 kg./m )	Rmt	46	
iv)	32 mm. ( 3.17 kg./m )	Rmt	53	
v)	40 mm. ( 3.65 kg./m )	Rmt	69	
vi)	50 mm. ( 5.16 kg./m )	Rmt	81	
vii)	65 mm. ( 6.63 kg./m )	Rmt	118	
viii)	80 mm. ( 8.64 kg./m )	Rmt	132	
ix)	100 mm. ( 12.40 kg./m )	Rmt	144	
x)	125 mm ( 16.70 kg/m )	Rmt	155	
xi)	150 mm.( 19.70 kg./m )	Rmt	161	
<b>c)</b>	<b><u>HEAVY</u></b>			
i)	15 mm. ( 1.46 kg./m )	Rmt	37	
ii)	20 mm. ( 1.91 kg./m )	Rmt	41	
iii)	25 mm. ( 2.99 kg./m )	Rmt	49	
iv)	32 mm. ( 3.97 kg./m )	Rmt	57	
v)	40 mm. ( 4.47 kg./m )	Rmt	73	
vi)	50 mm. ( 6.24 kg./m )	Rmt	91	
vii)	65 mm. ( 8.02 kg./m )	Rmt	127	
viii)	80 mm. ( 10.30 kg./m )	Rmt	155	
ix)	100 mm. ( 14.70 kg./m )	Rmt	144	
x)	125 mm ( 18.30 kg/m )	Rmt	160	
xi)	150 mm ( 21.80 kg./m )	Rmt	172	
	<b><u>Note : Only 85% rate shall be payable till satisfactory hydraulic testing is given.</u></b>			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	5	
<b>3</b>	<b>Hydraulic testing of G. I. pipe line</b> to specified pressure including cost of all materials and labour and water for testing for the length upto 1km using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour operation charges etc. required for testing, The rates under this item shall also include cost of retesting if necessary and reinstating to original position.			
<b>a)</b>	<b>LIGHT</b>			
i)	15 mm. ( 0.96 kg./m )	Km	2779	
ii)	20 mm. ( 1.42 kg./m )	Km	4168	
iii)	25 mm. ( 2.03 kg./m )	Km	4168	
iv)	32 mm. ( 2.61 kg./m )	Km	5556	
v)	40 mm. ( 3.29 kg./m )	Km	6946	
vi)	50 mm. ( 4.18 kg./m )	Km	8335	
vii)	65 mm. ( 5.92 kg./m )	Km	12503	
viii)	80 mm. ( 6.98 kg./m )	Km	13891	
ix)	100 mm. ( 10.20 kg./m )	Km	15280	
<b>b)</b>	<b>MEDIUM</b>			
i)	15 mm. ( 1.23 kg./m )	Km	4168	
ii)	20 mm. ( 1.59 kg./m )	Km	4168	
iii)	25 mm. ( 2.40 kg./m )	Km	5556	
iv)	32 mm. ( 3.17 kg./m )	Km	5556	
v)	40 mm. ( 3.65 kg./m )	Km	6946	
vi)	50 mm. ( 5.16 kg./m )	Km	8335	
vii)	65 mm. ( 6.63 kg./m )	Km	12503	
viii)	80 mm. ( 8.64 kg./m )	Km	13891	
ix)	100 mm. ( 12.40 kg./m )	Km	15280	
x)	125 mm ( 16.70 kg/m )	Km	16669	
xi)	150 mm.( 19.70 kg./m )	Km	18059	
<b>c)</b>	<b>HEAVY</b>			
i)	15 mm. ( 1.46 kg./m )	Km	4168	
ii)	20 mm. ( 1.91 kg./m )	Km	4168	
iii)	25 mm. ( 2.99 kg./m )	Km	5556	
iv)	32 mm. ( 3.97 kg./m )	Km	6946	
v)	40 mm. ( 4.47 kg./m )	Km	8335	
vi)	50 mm. ( 6.24 kg./m )	Km	9724	
vii)	65 mm. ( 8.02 kg./m )	Km	13891	
viii)	80 mm. ( 10.30 kg./m )	Km	16669	
ix)	100 mm. ( 14.70 kg./m )	Km	15280	
x)	125 mm ( 18.30 kg/m )	Km	18059	
xi)	150 mm ( 21.80 kg./m )	Km	19448	





SSR 2023-24

**SECTION - I (IV)**

**D.I. SPECIALS & D.I.  
MECHANICAL JOINTS**



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	<b><u>(IV) D.I. Specials &amp; D.I. Mechanical Joints :</u></b>			
<b>1</b>	D.I. Socket and flanged fittings :-Providing and supplying <b>D.I. fitting with ISI mark</b> socket pushon joints or flanged joints confirming to table 12 to 31 of IS 9523/2000 upto latest amendments including cost of SBR/ EDPM tyton rings. Fittings should be with internally ordinary portland cement mortar lined and externally metallic zinc coating/zinc rich paint with finishing layer of black bitumen coating including transportation & excluding all statutory duties and taxes such as GST levied by Gol and GoM in all respect etc. complete.			
	Diameter in mm	Unit		
<b>I</b>	<b>Double socket bend 90 degree</b>			
	80 mm dia	Nos	1423	
	100 mm dia	Nos	1774	
	150 mm dia	Nos	3196	
	200 mm dia	Nos	4064	
	250 mm dia	Nos	7770	
	300 mm dia	Nos	10783	
	350 mm dia	Nos	15231	
	400 mm dia	Nos	20133	
	450 mm dia	Nos	26259	
	500 mm dia	Nos	33107	
	600 mm dia	Nos	53755	
	700 mm dia	Nos	83537	
<b>II</b>	<b>Double socket bend 45 degree</b>			
	80 mm dia	Nos	1318	
	100 mm dia	Nos	1598	
	150 mm dia	Nos	2471	
	200 mm dia	Nos	4200	
	250 mm dia	Nos	5912	
	300 mm dia	Nos	8276	
	350 mm dia	Nos	11380	
	400 mm dia	Nos	14881	
	450 mm dia	Nos	18905	
	500 mm dia	Nos	23265	
	600 mm dia	Nos	35434	
	700 mm dia	Nos	54124	
<b>III</b>	<b>Double socket bend 22.50 degree</b>			
	80 mm dia	Nos	1153	
	100 mm dia	Nos	1481	
	150 mm dia	Nos	2297	
	200 mm dia	Nos	3545	
	250 mm dia	Nos	4814	
	300 mm dia	Nos	7095	
	350 mm dia	Nos	9356	
	400 mm dia	Nos	11604	
	450 mm dia	Nos	14881	
	500 mm dia	Nos	18254	
	600 mm dia	Nos	28274	
	700 mm dia	Nos	42447	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>IV</b>	<b>Double socket bend 11.25 degree</b>			
	80 mm dia	Nos	1153	
	100 mm dia	Nos	1423	
	150 mm dia	Nos	2122	
	200 mm dia	Nos	3370	
	250 mm dia	Nos	4670	
	300 mm dia	Nos	6289	
	350 mm dia	Nos	7459	
	400 mm dia	Nos	10066	
	450 mm dia	Nos	13305	
	500 mm dia	Nos	16106	
	600 mm dia	Nos	23623	
	700 mm dia	Nos	34110	
<b>V</b>	<b>Double socket concentric reducer</b>			
	100 x 80 mm dia	Nos	1318	
	150 x 80 mm dia	Nos	2122	
	150 x 100 mm dia	Nos	2297	
	200 x 80 mm dia	Nos	3294	
	200 x 100 mm dia	Nos	3294	
	200 x 150 mm dia	Nos	3495	
	250 x 80 mm dia	Nos	4560	
	250 x 100 mm dia	Nos	4389	
	250 x 150 mm dia	Nos	4843	
	250 x 200 mm dia	Nos	4670	
	300 x 100 mm dia	Nos	6417	
	300 x 150 mm dia	Nos	6589	
	300 x 200 mm dia	Nos	6465	
	300 x 250 mm dia	Nos	6080	
	350 x 200 mm dia	Nos	8998	
	350 x 250 mm dia	Nos	8762	
	350 x 300 mm dia	Nos	8643	
	400 x 200 mm dia	Nos	11904	
	400 x 250 mm dia	Nos	10852	
	400 x 300 mm dia	Nos	10505	
	400 x 350 mm dia	Nos	9356	
	450 x 350 mm dia	Nos	12604	
	450 x 400 mm dia	Nos	11604	
	500 x 350 mm dia	Nos	17022	
	500 x 400 mm dia	Nos	16106	
	500 x 450 mm dia	Nos	15209	
	600 x 300 mm dia	Nos	25769	
	600 x 350 mm dia	Nos	26522	
	600 x 400 mm dia	Nos	25053	
	600 x 450 mm dia	Nos	24338	
	600 x 500 mm dia	Nos	22190	
	700 x 450 mm dia	Nos	42237	
	700 x 500 mm dia	Nos	37581	
	700 x 600 mm dia	Nos	40032	
	800 x 600 mm dia	Nos	52422	
	800 x 700 mm dia	Nos	39307	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>VI</b>	<b>All Socket Tee</b>			
	80 x 80 mm dia	Nos	1948	
	100 x 80 mm dia	Nos	2297	
	100 x 100 mm dia	Nos	2471	
	150 x 80 mm dia	Nos	3294	
	150 x 100 mm dia	Nos	3545	
	150 x 150 mm dia	Nos	4070	
	200 x 80 mm dia	Nos	4619	
	200 x 100 mm dia	Nos	4967	
	200 x 150 mm dia	Nos	5667	
	200 x 200 mm dia	Nos	6593	
	250 x 80 mm dia	Nos	6250	
	250 x 100 mm dia	Nos	6639	
	250 x 150 mm dia	Nos	7190	
	250 x 200 mm dia	Nos	8446	
	250 x 250 mm dia	Nos	9628	
	300 x 80 mm dia	Nos	7913	
	300 x 100 mm dia	Nos	8087	
	300 x 150 mm dia	Nos	9711	
	300 x 200 mm dia	Nos	10783	
	300 x 250 mm dia	Nos	11824	
	300 x 300 mm dia	Nos	13174	
	350 x 80 mm dia	Nos	10152	
	350 x 100 mm dia	Nos	10328	
	350 x 150 mm dia	Nos	11904	
	350 x 200 mm dia	Nos	13128	
	350 x 250 mm dia	Nos	15756	
	350 x 300 mm dia	Nos	17506	
	350 x 350 mm dia	Nos	17856	
	400 x 80 mm dia	Nos	12780	
	400 x 100 mm dia	Nos	12604	
	400 x 150 mm dia	Nos	15756	
	400 x 200 mm dia	Nos	16106	
	400 x 250 mm dia	Nos	18382	
	400 x 300 mm dia	Nos	20601	
	400 x 400 mm dia	Nos	22760	
	450 x 100 mm dia	Nos	15756	
	450 x 150 mm dia	Nos	18382	
	450 x 200 mm dia	Nos	20133	
	450 x 250 mm dia	Nos	20957	
	450 x 300 mm dia	Nos	23444	
	450 x 350 mm dia	Nos	26259	
	450 x 400 mm dia	Nos	28887	
	450 x 450 mm dia	Nos	29412	
	500 x 100 mm dia	Nos	19226	
	500 x 150 mm dia	Nos	22370	
	500 x 200 mm dia	Nos	23265	
	500 x 250 mm dia	Nos	26843	
	500 x 300 mm dia	Nos	28634	
	500 x 400 mm dia	Nos	33107	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>VII</b>	<b><u>Double Socket Tee with Flange branch-PN-10</u></b>			
	80 x 80 mm dia	Nos	2418	
	100 x 80 mm dia	Nos	2589	
	100 x 100 mm dia	Nos	2762	
	150 x 80 mm dia	Nos	3625	
	150 x 100 mm dia	Nos	3711	
	150 x 150 mm dia	Nos	4661	
	200 x 80 mm dia	Nos	5005	
	200 x 100 mm dia	Nos	5350	
	200 x 150 mm dia	Nos	6214	
	200 x 200 mm dia	Nos	7164	
	250 x 80 mm dia	Nos	6547	
	250 x 100 mm dia	Nos	6636	
	250 x 150 mm dia	Nos	8139	
	250 x 200 mm dia	Nos	9201	
	250 x 250 mm dia	Nos	10616	
	300 x 80 mm dia	Nos	8494	
	300 x 100 mm dia	Nos	8848	
	300 x 150 mm dia	Nos	10086	
	300 x 200 mm dia	Nos	11502	
	300 x 250 mm dia	Nos	13096	
	300 x 300 mm dia	Nos	14156	
	350 x 80 mm dia	Nos	10635	
	350 x 100 mm dia	Nos	10821	
	350 x 150 mm dia	Nos	12836	
	350 x 200 mm dia	Nos	13937	
	350 x 250 mm dia	Nos	16508	
	350 x 300 mm dia	Nos	20173	
	350 x 350 mm dia	Nos	20907	
	400 x 80 mm dia	Nos	12836	
	400 x 100 mm dia	Nos	13388	
	400 x 150 mm dia	Nos	14673	
	400 x 200 mm dia	Nos	16872	
	400 x 250 mm dia	Nos	20173	
	400 x 300 mm dia	Nos	20907	
	400 x 400 mm dia	Nos	26594	
	450 x 80 mm dia	Nos	15956	
	450 x 100 mm dia	Nos	16139	
	450 x 150 mm dia	Nos	17973	
	450 x 200 mm dia	Nos	19806	
	450 x 250 mm dia	Nos	22009	
	450 x 300 mm dia	Nos	24575	
	450 x 350 mm dia	Nos	31177	
	450 x 400 mm dia	Nos	31361	
	450 x 450 mm dia	Nos	31932	
	500 x 80 mm dia	Nos	19121	
	500 x 100 mm dia	Nos	19310	
	500 x 150 mm dia	Nos	23060	
	500 x 200 mm dia	Nos	23623	
	500 x 250 mm dia	Nos	28121	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	500 x 300 mm dia	Nos	28871	
	500 x 400 mm dia	Nos	33934	
<b>VIII</b>	<b><u>Flange Socket-PN-10</u></b>			
	80 mm dia	Nos	1243	
	100 mm dia	Nos	1398	
	150 mm dia	Nos	2174	
	200 mm dia	Nos	3259	
	250 mm dia	Nos	4286	
	300 mm dia	Nos	5626	
	350 mm dia	Nos	7538	
	400 mm dia	Nos	9252	
	450 mm dia	Nos	10365	
	500 mm dia	Nos	12612	
	600 mm dia	Nos	18392	
	700 mm dia	Nos	31784	
<b>IX</b>	<b><u>Flange Spigot-PN-10</u></b>			
	80 mm dia	Nos	1225	
	100 mm dia	Nos	1543	
	150 mm dia	Nos	2471	
	200 mm dia	Nos	3547	
	250 mm dia	Nos	5007	
	300 mm dia	Nos	6400	
	350 mm dia	Nos	9409	
	400 mm dia	Nos	10728	
	450 mm dia	Nos	13698	
	500 mm dia	Nos	12567	
	600 mm dia	Nos	26321	
	700 mm dia	Nos	39669	
<b>X</b>	<b><u>Blank Flange -PN-1</u></b>			
	80 mm dia	Nos	636	
	100 mm dia	Nos	770	
	150 mm dia	Nos	1274	
	200 mm dia	Nos	1750	
	250 mm dia	Nos	2772	
	300 mm dia	Nos	3982	
	350 mm dia	Nos	5690	
	400 mm dia	Nos	7069	
	450 mm dia	Nos	9654	
	500 mm dia	Nos	11444	
	600 mm dia	Nos	16551	
	700 mm dia	Nos	34427	
<b>XI</b>	<b><u>Double Flange Bend 90 Deg -PN-'10</u></b>			
	80 mm dia	Nos	1579	
	100 mm dia	Nos	1895	
	150 mm dia	Nos	3409	
	200 mm dia	Nos	4968	
	250 mm dia	Nos	8832	
	300 mm dia	Nos	11949	
	350 mm dia	Nos	15718	
	400 mm dia	Nos	20157	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	450 mm dia	Nos	29043	
	500 mm dia	Nos	32102	
	600 mm dia	Nos	51644	
	700 mm dia	Nos	98958	
<b>XII</b>	<b><u>Double Flange Bend 45 Deg -PN-10</u></b>			
	80 mm dia	Nos	1499	
	100 mm dia	Nos	1895	
	150 mm dia	Nos	2997	
	200 mm dia	Nos	4341	
	250 mm dia	Nos	6605	
	300 mm dia	Nos	12415	
	350 mm dia	Nos	13155	
	400 mm dia	Nos	16742	
	450 mm dia	Nos	20499	
	500 mm dia	Nos	32230	
	600 mm dia	Nos	47926	
	700 mm dia	Nos	68369	
<b>XIII</b>	<b><u>Double Flange Duck Foot Bend -PN-10</u></b>			
	80 mm dia	Nos	2513	
	100 mm dia	Nos	3140	
	150 mm dia	Nos	5415	
	200 mm dia	Nos	8497	
	250 mm dia	Nos	13577	
	300 mm dia	Nos	18888	
	350 mm dia	Nos	27539	
	400 mm dia	Nos	34005	
	450 mm dia	Nos	48170	
	500 mm dia	Nos	61349	
	600 mm dia	Nos	85914	
	700 mm dia	Nos	150049	
<b>XIV</b>	<b><u>All Flange Tee -PN-10</u></b>			
	80 x 80 mm dia	Nos	2525	
	100 x 80 mm dia	Nos	2840	
	100 x 100 mm dia	Nos	2997	
	150 x 80 mm dia	Nos	4418	
	150 x 100 mm dia	Nos	4576	
	150 x 150 mm dia	Nos	5050	
	200 x 80 mm dia	Nos	6469	
	200 x 100 mm dia	Nos	6818	
	200 x 150 mm dia	Nos	7102	
	200 x 200 mm dia	Nos	7733	
	250 x 80 mm dia	Nos	8781	
	250 x 100 mm dia	Nos	10508	
	250 x 150 mm dia	Nos	9968	
	250 x 200 mm dia	Nos	12286	
	250 x 250 mm dia	Nos	12449	
	300 x 80 mm dia	Nos	10528	
	300 x 100 mm dia	Nos	13999	
	300 x 150 mm dia	Nos	12292	
	300 x 200 mm dia	Nos	15356	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	300 x 250 mm dia	Nos	15039	
	300 x 300 mm dia	Nos	18267	
	350 x 80 mm dia	Nos	15575	
	350 x 100 mm dia	Nos	19133	
	350 x 150 mm dia	Nos	17856	
	350 x 200 mm dia	Nos	20090	
	350 x 250 mm dia	Nos	21605	
	350 x 300 mm dia	Nos	23401	
	350 x 350 mm dia	Nos	26137	
	400 x 80 mm dia	Nos	18732	
	400 x 100 mm dia	Nos	23807	
	400 x 150 mm dia	Nos	21386	
	400 x 200 mm dia	Nos	24771	
	400 x 250 mm dia	Nos	25808	
	400 x 300 mm dia	Nos	26990	
	400 x 400 mm dia	Nos	29043	
	450 x 100	Nos	30248	
	450 x 150 mm dia	Nos	24209	
	450 x 200 mm dia	Nos	31775	
	450 x 250 mm dia	Nos	28671	
	450 x 300 mm dia	Nos	29799	
	450 x 350 mm dia	Nos	34165	
	450 x 400 mm dia	Nos	34074	
	450 x 450 mm dia	Nos	38437	
	500 x 100 mm dia	Nos	36639	
	500 x 150 mm dia	Nos	37162	
	500 x 200 mm dia	Nos	37511	
	500 x 250 mm dia	Nos	38383	
	500 x 300 mm dia	Nos	46053	
	500 x 400 mm dia	Nos	46733	
	500 x 500 mm dia	Nos	50921	
	600 x 100 mm dia	Nos	60485	
	600 x 150 mm dia	Nos	61112	
	600 x 200 mm dia	Nos	60620	
	600 x 250 mm dia	Nos	64902	
	600 x 300 mm dia	Nos	62906	
	600 x 400 mm dia	Nos	65354	
	600 x 500 mm dia	Nos	65404	
	600 x 600 mm dia	Nos	72301	
<b>XV</b>	<b><u>Double Socket Level Invert Flange Branch Tee PN10</u></b>			
	200 x 80 mm dia	Nos	4762	
	250 x 80 mm dia	Nos	6209	
	300 x 80 mm dia	Nos	8286	
	350 x 80 mm dia	Nos	10354	
	350 x 100 mm dia	Nos	11321	
	400 x 100 mm dia	Nos	13538	
	450 x 80 mm dia	Nos	16457	
	450 x 100 mm dia	Nos	16806	
	500 x 80 mm dia	Nos	18873	
	500 x 100 mm dia	Nos	20660	





Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>XVI</b>	<b>Cap</b>			
	80 mm dia	Nos	602	
	100 mm dia	Nos	777	
	150 mm dia	Nos	1377	
	200 mm dia	Nos	2453	
	250 mm dia	Nos	2950	
	300 mm dia	Nos	4650	
	350 mm dia	Nos	7523	
	400 mm dia	Nos	9813	
	450 mm dia	Nos	12429	
	500 mm dia	Nos	15214	
	600 mm dia	Nos	21233	
	700 mm dia	Nos	37671	
<b>XVII</b>	<b>Plug</b>			
	80 mm dia	Nos	441	
	100 mm dia	Nos	754	
	150 mm dia	Nos	1339	
	200 mm dia	Nos	2073	
	250 mm dia	Nos	2867	
	300 mm dia	Nos	4521	
	350 mm dia	Nos	7195	
	400 mm dia	Nos	8504	
	450 mm dia	Nos	11261	
	500 mm dia	Nos	13709	
	600 mm dia	Nos	20300	
	<b>D.I. FITTINGS (Mechanical Joints)</b>			
<b>1.</b>	Providing and supplying D.I. fittings with <b>ISI mark Mechanical joint</b> confirming to tables 12 to table 31 of IS 9523/2000 upto latest amendments including cost of SBR/ EDPM gaskets, Nuts, Bolts, Washers and Ductile iron follower glands. Fittings should be with internally Ordinary portland cement mortar lined and externally metallic zinc coating/zinc rich paint with finishing layer of black bitumen coating including transportation and excluding all statutory duties and taxes such as GST levied by Gol and GoM in all respect etc. complete.			
<b>I</b>	<b>MJ Collar/Coupling</b>			
	80 mm dia	Nos	2736	
	100 mm dia	Nos	2990	
	150 mm dia	Nos	3658	
	200 mm dia	Nos	6540	
	250 mm dia	Nos	8653	
	300 mm dia	Nos	11215	
	350 mm dia	Nos	15867	
	400 mm dia	Nos	19852	
	450 mm dia	Nos	22977	
	500 mm dia	Nos	29696	
	600 mm dia	Nos	37508	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>II</b>	<b><u>Double Socket Bend 90 degree</u></b>			
	80 mm dia	Nos	1608	
	100 mm dia	Nos	2026	
	150 mm dia	Nos	3493	
	200 mm dia	Nos	5240	
	250 mm dia	Nos	7427	
	300 mm dia	Nos	9925	
	350 mm dia	Nos	14446	
	400 mm dia	Nos	18600	
	450 mm dia	Nos	24059	
	500 mm dia	Nos	27439	
	600 mm dia	Nos	40078	
<b>III</b>	<b><u>Double Socket Bend 45 degree</u></b>			
	80 mm dia	Nos	1608	
	100 mm dia	Nos	1886	
	150 mm dia	Nos	2951	
	200 mm dia	Nos	4505	
	250 mm dia	Nos	6059	
	300 mm dia	Nos	8471	
	350 mm dia	Nos	12596	
	400 mm dia	Nos	16074	
	450 mm dia	Nos	18378	
	500 mm dia	Nos	21406	
	600 mm dia	Nos	30743	
<b>IV</b>	<b><u>Double Socket Bend 22.5 degree</u></b>			
	80 mm dia	Nos	1485	
	100 mm dia	Nos	1886	
	150 mm dia	Nos	2828	
	200 mm dia	Nos	4036	
	250 mm dia	Nos	5379	
	300 mm dia	Nos	7528	
	350 mm dia	Nos	10896	
	400 mm dia	Nos	13292	
	450 mm dia	Nos	16692	
	500 mm dia	Nos	19925	
	600 mm dia	Nos	25730	
<b>V</b>	<b><u>Double Socket Bend 11.25 degree</u></b>			
	80 mm dia	Nos	1485	
	100 mm dia	Nos	1950	
	150 mm dia	Nos	2689	
	200 mm dia	Nos	3895	
	250 mm dia	Nos	5116	
	300 mm dia	Nos	6863	
	350 mm dia	Nos	9428	
	400 mm dia	Nos	12133	
	450 mm dia	Nos	15714	
	500 mm dia	Nos	18779	
	600 mm dia	Nos	23340	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	<b><u>VI Double socket concentric reducer</u></b>			
	100 x 80 mm dia	Nos	2417	
	150 x 80 mm dia	Nos	3483	
	150 x 100 mm dia	Nos	3795	
	200 x 80 mm dia	Nos	4900	
	200 x 100 mm dia	Nos	4917	
	200 x 150 mm dia	Nos	5470	
	250 x 80 mm dia	Nos	6407	
	250 x 100 mm dia	Nos	6698	
	250 x 150 mm dia	Nos	7141	
	250 x 200 mm dia	Nos	7141	
	300 x 100 mm dia	Nos	8881	
	300 x 150 mm dia	Nos	9318	
	300 x 200 mm dia	Nos	8955	
	300 x 250 mm dia	Nos	9609	
	350 x 200 mm dia	Nos	13535	
	350 x 300 mm dia	Nos	14081	
	400 x 200 mm dia	Nos	16781	
	400 x 300 mm dia	Nos	17098	
	400 x 350 mm dia	Nos	16077	
	450 x 400 mm dia	Nos	19516	
	500 x 300 mm dia	Nos	26056	
	500 x 350 mm dia	Nos	24178	
	500 x 400 mm dia	Nos	23853	
	600 x 350 mm dia	Nos	33524	
	600 x 400 mm dia	Nos	33164	
	600 x 500 mm dia	Nos	30874	
	<b><u>VII All Socket Tee</u></b>			
	80 x 80 mm dia	Nos	3409	
	100 x 80 mm dia	Nos	4006	
	100 x 100 mm dia	Nos	4305	
	150 x 80 mm dia	Nos	5801	
	150 x 100 mm dia	Nos	6102	
	150 x 150 mm dia	Nos	7021	
	200 x 80 mm dia	Nos	7550	
	200 x 100 mm dia	Nos	8105	
	200 x 150 mm dia	Nos	9208	
	200 x 200 mm dia	Nos	10766	
	250 x 80 mm dia	Nos	9806	
	250 x 100 mm dia	Nos	10315	
	250 x 150 mm dia	Nos	11210	
	250 x 200 mm dia	Nos	13030	
	250 x 250 mm dia	Nos	14411	
	300 x 80 mm dia	Nos	12410	
	300 x 100 mm dia	Nos	12708	
	300 x 150 mm dia	Nos	14827	
	300 x 200 mm dia	Nos	16231	
	300 x 250 mm dia	Nos	18024	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	300 x 300 mm dia	Nos	19636	
	350 x 80 mm dia	Nos	17842	
	350 x 100 mm dia	Nos	18186	
	350 x 150 mm dia	Nos	20260	
	350 x 200 mm dia	Nos	21869	
	350 x 250 mm dia	Nos	25439	
	350 x 300 mm dia	Nos	28201	
	350 x 350 mm dia	Nos	30043	
	400 x 80 mm dia	Nos	22791	
	400 x 100 mm dia	Nos	22676	
	400 x 150 mm dia	Nos	26676	
	400 x 200 mm dia	Nos	27508	
	400 x 250 mm dia	Nos	29812	
	400 x 300 mm dia	Nos	32461	
	400 x 400 mm dia	Nos	38100	
	450 x 100 mm dia	Nos	27539	
	450 x 150 mm dia	Nos	31188	
	450 x 200 mm dia	Nos	31852	
	450 x 250 mm dia	Nos	33381	
	450 x 300 mm dia	Nos	36718	
	450 x 350 mm dia	Nos	43798	
	450 x 400 mm dia	Nos	44669	
	450 x 450 mm dia	Nos	46274	
	500 x 100 mm dia	Nos	28830	
	500 x 150 mm dia	Nos	33067	
	500 x 200 mm dia	Nos	33747	
	500 x 250 mm dia	Nos	40604	
	500 x 300 mm dia	Nos	41887	
	500 x 400	Nos	46805	
	<b><u>VIII Double Socket Tee with Flange branch-PN-10</u></b>			
	80 x 80 mm dia	Nos	3581	
	100 x 80 mm dia	Nos	4209	
	100 x 100	Nos	4523	
	150 x 80 mm dia	Nos	6097	
	150 x 100 mm dia	Nos	6412	
	150 x 150 mm dia	Nos	7377	
	200 x 80 mm dia	Nos	7934	
	200 x 100 mm dia	Nos	8517	
	200 x 150 mm dia	Nos	9677	
	200 x 200 mm dia	Nos	11313	
	250 x 80 mm dia	Nos	10306	
	250 x 100	Nos	10839	
	250 x 150 mm dia	Nos	11782	
	250 x 200 mm dia	Nos	13694	
	250 x 250 mm dia	Nos	15145	
	300 x 80 mm dia	Nos	13040	
	300 x 100 mm dia	Nos	13354	
	300 x 150 mm dia	Nos	15580	
	300 x 200 mm dia	Nos	17055	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	300 x 250 mm dia	Nos	18941	
	300 x 300 mm dia	Nos	20636	
	350 x 80 mm dia	Nos	18749	
	350 x 100 mm dia	Nos	19112	
	350 x 150 mm dia	Nos	21288	
	350 x 200 mm dia	Nos	22982	
	350 x 250 mm dia	Nos	26733	
	350 x 300 mm dia	Nos	29634	
	350 x 350 mm dia	Nos	31570	
	400 x 80 mm dia	Nos	23909	
	400 x 100 mm dia	Nos	23829	
	400 x 150 mm dia	Nos	28034	
	400 x 200 mm dia	Nos	28906	
	400 x 250 mm dia	Nos	31328	
	400 x 300 mm dia	Nos	34113	
	400 x 400 mm dia	Nos	40038	
	450 x 80	Nos	28940	
	450 x 100 mm dia	Nos	32776	
	450 x 150 mm dia	Nos	33473	
	450 x 200 mm dia	Nos	35079	
	450 x 250 mm dia	Nos	38587	
	450 x 300 mm dia	Nos	46026	
	450 x 350 mm dia	Nos	46941	
	450 x 400 mm dia	Nos	48628	
	450 x 450 mm dia	Nos	30296	
	500 x 80 mm dia	Nos	34750	
	500 x 100 mm dia	Nos	35465	
	500 x 150 mm dia	Nos	42669	
	500 x 200 mm dia	Nos	44018	
	500 x 250 mm dia	Nos	49186	
	500 x 300 mm dia	Nos	41892	
	500 x 400 mm dia	Nos	47226	
	500 x 500 mm dia	Nos	55425	
	<b><u>IX Flange Socket-PN-10</u></b>			
	80 mm dia	Nos	1967	
	100 mm dia	Nos	2157	
	150 mm dia	Nos	3272	
	200 mm dia	Nos	4560	
	250 mm dia	Nos	6285	
	300 mm dia	Nos	8222	
	350 mm dia	Nos	12205	
	400 mm dia	Nos	14805	
	450 mm dia	Nos	16610	
	500 mm dia	Nos	19889	
	600 mm dia	Nos	27688	



PIP SSR 2023-24

**SECTION - I (V)**

**R.C.C. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
	<b>V. R.C.C. PIPES</b>					
1.	<b>Providing ISI standard R.C.C. pipes</b> in standard lengths of following class and diameter suitable for either collar joints or rubber ring joints, excluding GST levied by GOI & GOM in all respect including inspection charges, transport to departmental stores, unloading and stacking etc. complete as per IS-458/1988.					
	<b>Note :One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates below.</b>					
<b>a)</b>	<b>Class 'P-I'</b>		<b>Collar Joints</b>	<b>Rubber Ring Joints</b>		
i)	80 mm.	Rmt	347	306		
ii)	100 mm.	Rmt	362	329		
iii)	150 mm.	Rmt	421	374		
iv)	200 mm.	Rmt	488	437		
v)	225 mm.	Rmt	557	501		
vi)	250 mm.	Rmt	611	547		
vii)	300 mm.	Rmt	780	697		
viii)	350 mm.	Rmt	840	755		
ix)	400 mm.	Rmt	1066	964		
x)	450 mm.	Rmt	1312	1183		
xi)	500 mm.	Rmt	1580	1420		
xii)	600 mm.	Rmt	1990	1795		
xiii)	700 mm.	Rmt	2593	2332		
xiv)	800 mm.	Rmt	2992	2692		
xv)	900 mm.	Rmt	3766	3390		
xvi)	1000 mm.	Rmt	4414	3974		
xvii)	1100 mm.	Rmt	5012	4514		
xviii)	1200 mm.	Rmt	6022	5426		
			<b>Collar Joints</b>	<b>Rubber Ring Joints</b>		
<b>b)</b>	<b>Class 'P-II'</b>					
i)	80 mm.	Rmt	370	326		
ii)	100 mm.	Rmt	393	353		
iii)	150 mm.	Rmt	518	467		
iv)	200 mm.	Rmt	696	631		
v)	225 mm.	Rmt	825	743		
vi)	250 mm.	Rmt	894	812		
vii)	300 mm.	Rmt	1179	1125		
viii)	350 mm.	Rmt	1473	1332		
ix)	400 mm.	Rmt	1642	1496		
x)	450 mm.	Rmt	1992	1786		
xi)	500 mm.	Rmt	2781	2535		
xii)	600 mm.	Rmt	3449	3110		
xiii)	700 mm.	Rmt	4698	4274		
xiv)	800 mm.	Rmt	5650	5148		
xv)	900 mm.	Rmt	6365	6412		
xvi)	1000 mm.	Rmt	7701	6933		
<b>c)</b>	<b>Class 'P-III'</b>		<b>Collar Joints</b>	<b>Rubber Ring Joints</b>		
i)	80 mm.	Rmt	398	391		
ii)	100 mm.	Rmt	431	423		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25
1	2	3	4		5
iii)	150 mm.	Rmt	490	490	
iv)	200 mm.	Rmt	699	699	
v)	225 mm.	Rmt	833	833	
vi)	250 mm.	Rmt	974	973	
vii)	300 mm.	Rmt	1357	1355	
viii)	350 mm.	Rmt	1767	1767	
ix)	400 mm.	Rmt	2433	2433	
x)	450 mm.	Rmt	2828	2792	
xi)	500 mm.	Rmt	3407	3406	
xii)	600 mm.	Rmt	4375	4375	
xiii)	700 mm.	Rmt	6242	6241	
xiv)	800 mm.	Rmt	7927	7927	
<b>d)</b>	<b>Class 'NP-II' ( For 2.00 m. length )</b>		<b>Coller Joints</b>	<b>Rubber Ring Joints</b>	
i)	80 mm.	Rmt	298	301	
ii)	100 mm.	Rmt	306	312	
iii)	150 mm.	Rmt	334	334	
iv)	200 mm.	Rmt	417	417	
v)	225 mm.	Rmt	467	476	
vi)	250 mm.	Rmt	502	513	
vii)	300 mm.	Rmt	650	650	
	<b>( For 2.50 m. length )</b>		<b>Coller Joints</b>	<b>Rubber Ring Joints</b>	
viii)	350 mm.	Rmt	903	922	
ix)	400 mm.	Rmt	1042	1042	
x)	450 mm.	Rmt	1232	1250	
xi)	500 mm.	Rmt	1320	1320	
xii)	600 mm.	Rmt	1666	1666	
xiii)	700 mm.	Rmt	2221	2221	
xiv)	800 mm.	Rmt	2499	2499	
xv)	900 mm.	Rmt	3194	3194	
xvi)	1000 mm.	Rmt	3887	3887	
xvii)	1100 mm.	Rmt	5301	5301	
xviii)	1200 mm.	Rmt	6328	6328	
xix)	1400 mm.	Rmt	7665	7817	
xx)	1600 mm.	Rmt	8801	8976	
xxi)	1800 mm.	Rmt	12327	12574	
<b>e)</b>	<b>Class NP-III (For 2.00 m. length)</b>		<b>Coller Joints</b>	<b>Rubber Ring Joints</b>	
i)	80 mm	Rmt	338	343	
ii)	100 mm	Rmt	371	390	
iii)	150 mm	Rmt	422	430	
iv)	200 mm	Rmt	580	474	
v)	225 mm	Rmt	650	553	
vi)	250 mm	Rmt	689	650	
vii)	300 mm.	Rmt	894	910	
viii)	350 mm.	Rmt	1580	1515	
ix)	400 mm.	Rmt	1770	1615	
x)	450 mm.	Rmt	2105	1742	
xi)	500 mm.	Rmt	2337	2146	
xii)	600 mm.	Rmt	3079	2525	
xiii)	700 mm.	Rmt	4103	3534	
xiv)	800 mm.	Rmt	4987	3787	
xv)	900 mm.	Rmt	5760	4419	
xvi)	1000 mm.	Rmt	6564	4924	
xvii)	1100 mm.	Rmt	8152	8316	
xviii)	1200 mm.	Rmt	9480	9480	





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25
1	2	3	4		5
xix)	1400 mm	Rmt	11146	11146	
xx)	1600 mm	Rmt	16747	16910	
xxi)	1800 mm	Rmt	20697	20697	
f)	<b>Class 'NP-IV'</b>		<b>Coller Joints</b>	<b>Rubber Ring Joints</b>	
i)	80 mm.	Rmt	363	370	
ii)	100 mm.	Rmt	426	434	
iii)	150 mm.	Rmt	482	492	
iv)	200 mm.	Rmt	673	537	
v)	225 mm.	Rmt	742	631	
vi)	250 mm.	Rmt	815	742	
vii)	300 mm.	Rmt	1142	1136	
viii)	350 mm.	Rmt	1735	1615	
ix)	400 mm.	Rmt	1858	1767	
x)	450 mm.	Rmt	2190	1893	
xi)	500 mm.	Rmt	2678	2336	
xii)	600 mm.	Rmt	3274	3029	
xiii)	700 mm.	Rmt	4901	3787	
xiv)	800 mm.	Rmt	5597	4103	
xv)	900 mm.	Rmt	6554	4798	
xvi)	1000 mm.	Rmt	9279	5303	
xvii)	1100 mm.	Rmt	10066	10176	
xviii)	1200 mm.	Rmt	10112	10313	
xix)	1400 mm.	Rmt	15788	14691	
xx)	1600 mm.	Rmt	19685	19738	
xxi)	1800 mm.	Rmt	26984	25475	
	<b>Note :Only 85% rate is payable till satisfactory hydraulic testing is given.</b>				
2.	<b>Lowering, laying and jointing</b> in proper grade and alignment <b>R.C.C. pipes</b> with collar joints in C.M.1:1 proportion or socketed R.C.C. pipes with rubber joints (excluding cost of rubber ring or R.C.C. collar,) including cost of conveyance from stores to site of work, cost of jointing material, labour, etc. complete as directed by Engineerin- charge <b>(For all class of pipes.) as per IS- 783-1985.</b>		<b>Coller Joints</b>	<b>Rubber Ring Joints</b>	
i)	80 mm.	Rmt	59	44	
ii)	100 mm.	Rmt	71	50	
iii)	150 mm.	Rmt	109	76	
iv)	200 mm.	Rmt	144	102	
v)	225 mm.	Rmt	168	119	
vi)	250 mm.	Rmt	188	132	
vii)	300 mm.	Rmt	228	160	
viii)	350 mm.	Rmt	233	164	
ix)	400 mm.	Rmt	297	211	
x)	450 mm.	Rmt	362	251	
xi)	500 mm.	Rmt	393	273	
xii)	600 mm.	Rmt	497	344	
xiii)	700 mm.	Rmt	563	391	
xiv)	800 mm.	Rmt	652	451	
xv)	900 mm.	Rmt	717	500	
xvi)	1000 mm.	Rmt	785	545	
xvii)	1100 mm.	Rmt	1092	739	
xviii)	1200 mm.	Rmt	1157	786	
xix)	1400 mm.	Rmt	1289	883	
xx)	1600 mm.	Rmt	1421	977	
xxi)	1800 mm.	Rmt	1555	1071	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
3.	<b>Hydraulic testing of RCC pipe line</b> to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide speci-fied test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position.					
			<b>Coller Joints</b>	<b>Rubber Ring Joints</b>		
i)	80 mm.	Km	6946	4168		
ii)	100 mm.	Km	8335	5556		
iii)	150 mm.	Km	12503	8335		
iv)	200 mm.	Km	15280	11113		
v)	225 mm.	Km	18059	12503		
vi)	250 mm.	Km	20836	15280		
vii)	300 mm.	Km	25004	18059		
viii)	350 mm.	Km	26393	18059		
ix)	400 mm.	Km	33338	23615		
x)	450 mm.	Km	40284	27782		
xi)	500 mm.	Km	43062	30560		
xii)	600 mm.	Km	55563	38894		
xiii)	700 mm.	Km	62509	43062		
xiv)	800 mm.	Km	72232	50007		
xv)	900 mm.	Km	79178	55563		
xvi)	1000 mm.	Km	87512	61120		
xvii)	1100 mm.	Km	120850	81956		
xviii)	1200 mm.	Km	129185	87512		
xix)	1400 mm.	Km	143076	98625		
xx)	1600 mm.	Km	158356	108349		
xxi)	1800 mm.	Km	172246	119461		



PIP SSR 2023-24

**SECTION - I (VI)**

**P.S.C. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b><u>VI. P. S. C. PIPES</u></b>			
<b>1.</b>	<b><u>Providing ISI standard Pre - stressed Cement concrete pipes</u></b> of following class and diameter including cost of all material and labour required, cost, inspection charges, transportation to stores, unloading and stacking excluding GST levied by GI & GOM in all respect etc. complete as per IS-784-2001.			
	<b><u>i) Factory test pressure</u></b>			
	a) Site test pressure + 01N/mm <sup>2</sup> , For working pressure upto 1 N/mm <sup>2</sup>			
	b) Site test pressure + 02N/mm <sup>2</sup> , For working pressure upto 1 N/mm <sup>2</sup>			
	<b><u>ii) Site test pressure</u></b> : 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main)			
	<b><u>iii) Working pressure</u></b> : The maximum sustained internal pressure excluding surge to which each portion of pipeline may be subjected when installed.			
	<b><u>Note : One rubber ring should be supplied with each pipe, cost included in rates below.</u></b>			
	<b><u>a) Factory Test Pressure 2 kg/Sqcm</u></b>			
	i) 350 mm.	Rmt	3417	
	ii) 400 mm.	Rmt	3677	
	iii) 450 mm.	Rmt	3857	
	iv) 500 mm.	Rmt	4245	
	v) 600 mm.	Rmt	5104	
	vi) 700 mm.	Rmt	5682	
	vii) 800 mm.	Rmt	7019	
	viii) 900 mm.	Rmt	8728	
	ix) 1000 mm.	Rmt	10176	
	x) 1100 mm.	Rmt	11620	
	xi) 1200 mm.	Rmt	13426	
	xii) 1300 mm.	Rmt	15525	
	xiii) 1400 mm.	Rmt	1783	
	xiv) 1500 mm.	Rmt	19551	
	xv) 1600 mm.	Rmt	21685	
	xvi) 1700 mm.	Rmt	23820	
	xvii) 1800 mm.	Rmt	25955	
	<b><u>b) Factory Test Pressure 4 kg/Sqcm</u></b>			
	i) 350 mm.	Rmt	3417	
	ii) 400 mm.	Rmt	3678	
	iii) 450 mm.	Rmt	3857	
	iv) 500 mm.	Rmt	4245	
	v) 600 mm.	Rmt	5105	
	vi) 700 mm.	Rmt	5685	
	vii) 800 mm.	Rmt	7019	
	viii) 900 mm.	Rmt	8729	
	ix) 1000 mm.	Rmt	10179	
	x) 1100 mm.	Rmt	11622	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xi)	1200 mm.	Rmt	13427	
xii)	1300 mm.	Rmt	15530	
xiii)	1400 mm.	Rmt	17084	
xiv)	1500 mm.	Rmt	19555	
xv)	1600 mm.	Rmt	21688	
xvi)	1700 mm.	Rmt	23824	
xvii)	1800 mm.	Rmt	25958	
<b>c)</b>	<b><u>Factory Test Pressure 6 kg/Sqcm</u></b>			
i)	350 mm.	Rmt	3424	
ii)	400 mm.	Rmt	3698	
iii)	450 mm.	Rmt	3868	
iv)	500 mm.	Rmt	4277	
v)	600 mm.	Rmt	5173	
vi)	700 mm.	Rmt	5882	
vii)	800 mm.	Rmt	7278	
viii)	900 mm.	Rmt	9074	
ix)	1000 mm.	Rmt	10584	
x)	1100 mm.	Rmt	12050	
xi)	1200 mm.	Rmt	13958	
xii)	1300 mm.	Rmt	16125	
xiii)	1400 mm.	Rmt	17742	
xiv)	1500 mm.	Rmt	20322	
xv)	1600 mm.	Rmt	22572	
xvi)	1700 mm.	Rmt	24820	
xvii)	1800 mm.	Rmt	27067	
<b>d)</b>	<b><u>Factory Test Pressure 8 kg/Sqcm</u></b>			
i)	350 mm.	Rmt	3427	
ii)	400 mm.	Rmt	3725	
iii)	450 mm.	Rmt	3892	
iv)	500 mm.	Rmt	4337	
v)	600 mm.	Rmt	5348	
vi)	700 mm.	Rmt	6179	
vii)	800 mm.	Rmt	7587	
viii)	900 mm.	Rmt	9459	
ix)	1000 mm.	Rmt	11059	
x)	1100 mm.	Rmt	12655	
xi)	1200 mm.	Rmt	14653	
xii)	1300 mm.	Rmt	16948	
xiii)	1400 mm.	Rmt	18731	
xiv)	1500 mm.	Rmt	21465	
xv)	1600 mm.	Rmt	24218	
xvi)	1700 mm.	Rmt	26973	
xvii)	1800 mm.	Rmt	29731	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>e)</b>	<b>Factory Test Pressure 10 kg/Sqcm</b>			
i)	350 mm.	Rmt	3446	
ii)	400 mm.	Rmt	3774	
iii)	450 mm.	Rmt	4027	
iv)	500 mm.	Rmt	4510	
v)	600 mm.	Rmt	5578	
vi)	700 mm.	Rmt	6427	
vii)	800 mm.	Rmt	7973	
viii)	900 mm.	Rmt	9936	
ix)	1000 mm.	Rmt	11637	
x)	1100 mm.	Rmt	13355	
xi)	1200 mm.	Rmt	15470	
xii)	1300 mm.	Rmt	17912	
xiii)	1400 mm.	Rmt	20247	
xiv)	1500 mm.	Rmt	23212	
xv)	1600 mm.	Rmt	25864	
xvi)	1700 mm.	Rmt	28519	
xvii)	1800 mm.	Rmt	31173	
<b>f)</b>	<b>Factory Test Pressure 12 kg/Sqcm</b>			
i)	350 mm.	Rmt	3474	
ii)	400 mm.	Rmt	3815	
iii)	450 mm.	Rmt	4091	
iv)	500 mm.	Rmt	4593	
v)	600 mm.	Rmt	5709	
vi)	700 mm.	Rmt	6613	
vii)	800 mm.	Rmt	8224	
viii)	900 mm.	Rmt	10225	
ix)	1000 mm.	Rmt	11981	
x)	1100 mm.	Rmt	13734	
xi)	1200 mm.	Rmt	16187	
xii)	1300 mm.	Rmt	18640	
xiii)	1400 mm.	Rmt	20742	
xiv)	1500 mm.	Rmt	23750	
xv)	1600 mm.	Rmt	26466	
xvi)	1700 mm.	Rmt	29179	
xvii)	1800 mm.	Rmt	31893	
<b>g)</b>	<b>Factory Test Pressure 14 kg./Sqcm.</b>			
i)	350 mm.	Rmt	3560	
ii)	400 mm.	Rmt	3917	
iii)	450 mm.	Rmt	4216	
iv)	500 mm.	Rmt	4741	
v)	600 mm.	Rmt	5930	
vi)	700 mm.	Rmt	6899	
vii)	800 mm.	Rmt	8595	
viii)	900 mm.	Rmt	10713	
ix)	1000 mm.	Rmt	12779	
x)	1100 mm.	Rmt	14685	
xi)	1200 mm.	Rmt	17024	
xii)	1300 mm.	Rmt	19653	
xiii)	1400 mm.	Rmt	22396	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xiv)	1500 mm.	Rmt	25663	
xv)	1600 mm.	Rmt	28699	
xvi)	1700 mm.	Rmt	31736	
xvii)	1800 mm.	Rmt	34771	
<b>h)</b>	<b>Factory Test Pressure 16 kg./Sqcm.</b>			
i)	350 mm.	Rmt	3682	
ii)	400 mm.	Rmt	4068	
iii)	450 mm.	Rmt	4398	
iv)	500 mm.	Rmt	4957	
v)	600 mm.	Rmt	6218	
vi)	700 mm.	Rmt	7274	
vii)	800 mm.	Rmt	9072	
viii)	900 mm.	Rmt	12041	
ix)	1000 mm.	Rmt	13551	
x)	1100 mm.	Rmt	16264	
xi)	1200 mm.	Rmt	18773	
xii)	1300 mm.	Rmt	21608	
xiii)	1400 mm.	Rmt	23850	
xiv)	1500 mm.	Rmt	28329	
xv)	1600 mm.	Rmt	31776	
xvi)	1700 mm.	Rmt	35222	
xvii)	1800 mm.	Rmt	38665	
<b>i)</b>	<b>Factory Test Pressure 18 kg/Sqcm</b>			
i)	350 mm.	Rmt	3765	
ii)	400 mm.	Rmt	4181	
iii)	450 mm.	Rmt	4524	
iv)	500 mm.	Rmt	5110	
v)	600 mm.	Rmt	6441	
vi)	700 mm.	Rmt	7954	
vii)	800 mm.	Rmt	9926	
viii)	900 mm.	Rmt	12554	
ix)	1000 mm.	Rmt	14752	
x)	1100 mm.	Rmt	17025	
xi)	1200 mm.	Rmt	19678	
xii)	1300 mm.	Rmt	22665	
xiii)	1400 mm.	Rmt	29907	
xiv)	1500 mm.	Rmt	33722	
xv)	1600 mm.	Rmt	38011	
xvi)	1700 mm.	Rmt	42296	
xvii)	1800 mm.	Rmt	46581	
<b>J)</b>	<b>Factory Test pressure 20 kg/Sqcm.</b>			
i)	350 mm.	Rmt	3852	
ii)	400 mm.	Rmt	4281	
iii)	450 mm.	Rmt	4655	
iv)	500 mm.	Rmt	5268	
v)	600 mm.	Rmt	6667	
vi)	700 mm.	Rmt	8811	
vii)	800 mm.	Rmt	11723	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
viii)	900 mm.	Rmt	13857			
ix)	1000 mm.	Rmt	16670			
x)	1100 mm.	Rmt	19817			
xi)	1200 mm.	Rmt	24922			
xii)	1300 mm.	Rmt	27421			
xiii)	1400 mm.	Rmt	32034			
xiv)	1500 mm.	Rmt	36315			
xv)	1600 mm.	Rmt	40615			
xvi)	1700 mm.	Rmt	44913			
xvii)	1800 mm.	Rmt	49214			
	<b>Note :1) Only 85% rates of providing item shall be payable till satisfactory hydraulic testing is given.</b>					
	<b>2. Lowering, laying and jointing in proper grade and alignment Pre-Stressed Cement Concrete Pipes</b> with rubber ring joints including cost of conveyance from stores to site of works, all labour involved, etc. complete but excluding cost of rubber rings (for all class of pipes)					
i)	350 mm.	Rmt	143			
ii)	400 mm.	Rmt	200			
iii)	450 mm.	Rmt	243			
iv)	500 mm.	Rmt	273			
v)	600 mm.	Rmt	367			
vi)	700 mm.	Rmt	402			
vii)	800 mm.	Rmt	452			
viii)	900 mm.	Rmt	466			
ix)	1000 mm.	Rmt	601			
x)	1100 mm	Rmt	790			
xi)	1200 mm	Rmt	846			
xii)	1300 mm	Rmt	1005			
xiii)	1400 mm	Rmt	1060			
xiv)	1500 mm	Rmt	1337			
xv)	1600 mm	Rmt	1504			
xvi)	1700 mm.	Rmt	1676			
xvii)	1800 mm.	Rmt	1628			





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
3.	<b>Hydraulic testing of Pre-Stressed Cement Concrete Pipes</b> with rubber ring joints to specified pressure including cost of all materials and labour and water for testing for the length upto 1 km., using reciprocating type pumps which should be able to provide specified test pressure guages and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary.			
i)	350 mm.	Km	15280	
ii)	400 mm.	Km	22225	
iii)	450 mm.	Km	26393	
iv)	500 mm.	Km	30560	
v)	600 mm.	Km	40284	
vi)	700 mm.	Km	44451	
vii)	800 mm.	Km	50007	
viii)	900 mm.	Km	51397	
ix)	1000 mm.	Km	66676	
x)	1100 mm	Km	87512	
xi)	1200 mm	Km	94457	
xii)	1300 mm	Km	111126	
xiii)	1400 mm	Km	118073	
xiv)	1500 mm	Km	148632	
xv)	1600 mm	Km	166690	
xvi)	1700 mm.	Km	186137	
xvii)	1800 mm.	Km	197250	



DSSR 2023-24

**SECTION - I (VII)  
BAR WRAPPED STEEL  
CYLINDER PIPES (BWSC)**



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	5	
	<b><u>VII. BAR WRAPPED STEEL CYLINDER PIPES (BWSC)</u></b>			
<b>1.</b>	<p><b><u>Providing and supplying European Standard EN 639/1994 and EN 641/1994 or AWWA C-303 standard and reinforced concrete pressure pipes cylinder type or IS-15155-2002</u></b> (Bar wrapped steel cylinder pipes suitable for overlapping steel welded joint or butt welded steel joints) of following class and diameter including cost of all material and labour required, inspection charges, transportation to stores, transit insurance, loading, unloading and stacking excluding GST levied by GOI &amp; GOM in all respect, etc. complete.</p> <p><b><u>i) Factory test pressure</u></b> a) Site test pressure + 01N/mm<sup>2</sup>, For working pressure upto 1 N/mm<sup>2</sup> b) Site test pressure + 02N/mm<sup>2</sup>, For working pressure upto 1 N/mm<sup>2</sup></p> <p><b><u>ii) Site test pressure</u></b> - 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main)</p> <p><b><u>iii) Working pressure</u></b> - The maximum sustained internal pressure excluding surge to which each portion of pipeline may be subjected when installed.</p>			
	<b><u>Note : 1) Class mentioned below represents the working pressure of pipe. 2) For external coating at site to the joints, necessary polythene wrap ping for pouring cement slurry shall also be given free with each pipe.</u></b>			
	<b><u>a) Factory Test Pressure 4 kg / Sqcm</u></b>			
i)	300 mm	Rmt	4041	
ii)	350 mm.	Rmt	4545	
iii)	400 mm.	Rmt	4986	
iv)	450 mm.	Rmt	5519	
v)	500 mm.	Rmt	6140	
vi)	600 mm.	Rmt	7984	
vii)	700 mm.	Rmt	9226	
viii)	800 mm.	Rmt	10020	
ix)	900 mm.	Rmt	14002	
x)	1000 mm.	Rmt	16136	
xi)	1100 mm.	Rmt	24294	
xii)	1200 mm.	Rmt	27094	
xiii)	1300 mm.	Rmt	31641	
xiv)	1400 mm.	Rmt	33937	
xv)	1500 mm.	Rmt	36218	
xvi)	1600 mm.	Rmt	39017	
xvii)	1700 mm.	Rmt	41395	
xviii)	1800 mm.	Rmt	44197	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	5	
	<b>b) Factory Test Pressure 6 kg / Sqcm</b>			
i)	300 mm	Rmt	4046	
ii)	350 mm.	Rmt	4549	
iii)	400 mm.	Rmt	4991	
iv)	450 mm.	Rmt	5523	
v)	500 mm.	Rmt	6151	
vi)	600 mm.	Rmt	7995	
vii)	700 mm.	Rmt	9234	
viii)	800 mm.	Rmt	10027	
ix)	900 mm.	Rmt	14009	
x)	1000 mm.	Rmt	16143	
xi)	1100 mm.	Rmt	24306	
xii)	1200 mm.	Rmt	27105	
xiii)	1300 mm.	Rmt	31647	
xiv)	1400 mm.	Rmt	33948	
xv)	1500 mm.	Rmt	36228	
xvi)	1600 mm.	Rmt	39029	
xvii)	1700 mm.	Rmt	41402	
xviii)	1800 mm.	Rmt	44204	
	<b>c) Factory Test Pressure 8 kg / Sqcm</b>			
i)	300 mm	Rmt	4049	
ii)	350 mm.	Rmt	4557	
iii)	400 mm.	Rmt	4995	
iv)	450 mm.	Rmt	5527	
v)	500 mm.	Rmt	6165	
vi)	600 mm.	Rmt	8007	
vii)	700 mm.	Rmt	9246	
viii)	800 mm.	Rmt	10041	
ix)	900 mm.	Rmt	14023	
x)	1000 mm.	Rmt	16158	
xi)	1100 mm.	Rmt	24319	
xii)	1200 mm.	Rmt	27117	
xiii)	1300 mm.	Rmt	31660	
xiv)	1400 mm.	Rmt	33957	
xv)	1500 mm.	Rmt	36241	
xvi)	1600 mm.	Rmt	39042	
xvii)	1700 mm.	Rmt	41415	
xviii)	1800 mm.	Rmt	44220	
	<b>d) Factory Test Pressure 10 kg / Sqcm</b>			
i)	300 mm.	Rmt	4050	
ii)	350 mm.	Rmt	4558	
iii)	400 mm.	Rmt	5000	
iv)	450 mm.	Rmt	5529	
v)	500 mm.	Rmt	6182	
vi)	600 mm.	Rmt	8026	
vii)	700 mm.	Rmt	9267	
viii)	800 mm.	Rmt	10061	
ix)	900 mm.	Rmt	14042	
x)	1000 mm.	Rmt	16175	
xi)	1100 mm.	Rmt	24338	
xii)	1200 mm.	Rmt	27138	
xiii)	1300 mm.	Rmt	31682	
xiv)	1400 mm.	Rmt	33977	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	5	
xv)	1500 mm.	Rmt	36261	
xvi)	1600 mm.	Rmt	39061	
xvii)	1700 mm.	Rmt	41437	
xviii)	1800 mm.	Rmt	44241	
<b>e)</b>	<b>Factory Test Pressure 12 kg / Sqcm</b>			
i)	300 mm	Rmt	4076	
ii)	350 mm.	Rmt	4588	
iii)	400 mm.	Rmt	5031	
iv)	450 mm.	Rmt	5566	
v)	500 mm.	Rmt	6244	
vi)	600 mm.	Rmt	8094	
vii)	700 mm.	Rmt	9341	
viii)	800 mm.	Rmt	11551	
ix)	900 mm.	Rmt	14119	
x)	1000 mm.	Rmt	17553	
xi)	1100 mm.	Rmt	24498	
xii)	1200 mm.	Rmt	27291	
xiii)	1300 mm.	Rmt	31881	
xiv)	1400 mm.	Rmt	34193	
xv)	1500 mm.	Rmt	36875	
xvi)	1600 mm.	Rmt	40791	
xvii)	1700 mm.	Rmt	44150	
xviii)	1800 mm.	Rmt	49100	
<b>f)</b>	<b>Factory Test Pressure 14 kg / Sqcm</b>			
i)	300 mm	Rmt	4084	
ii)	350 mm.	Rmt	4595	
iii)	400 mm.	Rmt	5035	
iv)	450 mm.	Rmt	5583	
v)	500 mm.	Rmt	6354	
vi)	600 mm.	Rmt	8241	
vii)	700 mm.	Rmt	10725	
viii)	800 mm.	Rmt	12573	
ix)	900 mm.	Rmt	15509	
x)	1000 mm.	Rmt	18671	
xi)	1100 mm.	Rmt	24599	
xii)	1200 mm.	Rmt	27303	
xiii)	1300 mm.	Rmt	32669	
xiv)	1400 mm.	Rmt	36918	
xv)	1500 mm.	Rmt	41075	
xvi)	1600 mm.	Rmt	45803	
xvii)	1700 mm.	Rmt	50291	
xviii)	1800 mm.	Rmt	55019	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	5	
	<b>g) Factory Test Pressure 16 kg / Sqcm</b>			
i)	300 mm	Rmt	4086	
ii)	350 mm.	Rmt	4599	
iii)	400 mm.	Rmt	5041	
iv)	450 mm.	Rmt	5779	
v)	500 mm.	Rmt	6815	
vi)	600 mm.	Rmt	8846	
vii)	700 mm.	Rmt	11415	
viii)	800 mm.	Rmt	13679	
ix)	900 mm.	Rmt	16916	
x)	1000 mm.	Rmt	20561	
xi)	1100 mm.	Rmt	25946	
xii)	1200 mm.	Rmt	30255	
xiii)	1300 mm.	Rmt	36043	
xiv)	1400 mm.	Rmt	40686	
xv)	1500 mm.	Rmt	45374	
xvi)	1600 mm.	Rmt	50460	
xvii)	1700 mm.	Rmt	56008	
xviii)	1800 mm.	Rmt	62495	
	<b>h) Factory Test Pressure 18 kg / Sqcm</b>			
i)	300 mm.	Rmt	4288	
ii)	350 mm.	Rmt	4800	
iii)	400 mm.	Rmt	5359	
iv)	450 mm.	Rmt	6245	
v)	500 mm.	Rmt	7351	
vi)	600 mm.	Rmt	9619	
vii)	700 mm.	Rmt	12646	
viii)	800 mm.	Rmt	14925	
ix)	900 mm.	Rmt	18446	
x)	1000 mm.	Rmt	22503	
xi)	1100 mm.	Rmt	28365	
xii)	1200 mm.	Rmt	33051	
xiii)	1300 mm.	Rmt	39245	
xiv)	1400 mm.	Rmt	44848	
xv)	1500 mm.	Rmt	49533	
xvi)	1600 mm.	Rmt	56190	
xvii)	1700 mm.	Rmt	62318	
xviii)	1800 mm.	Rmt	68974	
	<b>i) Factory Test Pressure 20 kg / Sqcm</b>			
i)	300 mm.	Rmt	4375	
ii)	350 mm.	Rmt	4806	
iii)	400 mm.	Rmt	5660	
iv)	450 mm.	Rmt	6464	
v)	500 mm.	Rmt	7839	
vi)	600 mm.	Rmt	10254	
vii)	700 mm.	Rmt	13331	
viii)	800 mm.	Rmt	16273	
ix)	900 mm.	Rmt	20095	
x)	1000 mm.	Rmt	24585	
xi)	1100 mm.	Rmt	30911	
xii)	1200 mm.	Rmt	35938	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	5	
xiii)	1300 mm.	Rmt	42689	
xiv)	1400 mm.	Rmt	49198	
xv)	1500 mm.	Rmt	55408	
xvi)	1600 mm.	Rmt	61886	
xvii)	1700 mm.	Rmt	69135	
xviii)	1800 mm.	Rmt	76530	
<b>Notes</b>				
1) For lowering, laying & pouring of cement mortar in the field on joints ( after laying and welding ), rates as per P. S. C. pipes lowering, laying and jointing shall be adopted.				
2) For field welding rates applicable for similar welding in M. S. pipes given in that section shall be adopted.				
3) Whenever manufacturer is separate and contractor for lowering laying, jointing and testing is separate, the principal contractor shall be enter into an agreement with B. W. S. C. pipe manufacturer for satisfactory manufacturing transporting, lowering, laying, jointing and testing of pipes.				
<b><u>This footnote shall appear into the tender condition.</u></b>				
4) Only 85% providing rates shall be payable till satisfactory Hydraulic testing is given.				
5) No negative tolerance shall be accepted for the M. S. Shell thickness of B. W. S. C. pipes over the thickness mentioned in E. N. 641 of AWWA AC 303.				



DELETED

**SECTION - I (VIII)  
GLASS REINFORCED  
PLASTIC PIPES (GRP)**





IP SSR 2023-24

**SECTION - I (IX)**

**H.D.P.E. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b>IX. H. D. P. E. PIPES</b>			
<b>1.</b>	<b><u>Providing and supplying in standard lengths Polyethelene Pipes</u></b> , confirming to IS 4984 / 14151 / 12786 / 13488 with necessary jointing material like mechanical connector i. e. thread / insert joint / quick release coupler joint / compression fitting joint or flanged joint excluding coupler/specials, including transportation and freight charges, inspection charges, loading / unloading charges, conveyance to the departmental stores & stacking the same in closed shade duly protecting from sunrays & rains, excluding GST levied by GI & GOM in all respect etc. complete.			
	<b><u>Note:- H.D.P.E. Pipes shall be as per latest IS Specifications Also HDPE pipes upto 110 mm Dia shall be in coil form</u></b>			
<b>A.)</b>	<b>PE-100, 6 Kg/Sq. cm :</b>			
i)	63 mm	Rmt	112	
ii)	75 mm	Rmt	155	
iii)	90 mm	Rmt	220	
iv)	110 mm	Rmt	319	
v)	125 mm	Rmt	437	
vi)	140 mm	Rmt	549	
vii)	160 mm	Rmt	711	
viii)	180 mm	Rmt	895	
ix)	200 mm	Rmt	1049	
x)	225 mm	Rmt	1351	
xi)	250 mm	Rmt	1662	
xii)	280 mm	Rmt	2081	
xiii)	315 mm	Rmt	2636	
xiv)	355 mm	Rmt	3341	
xv)	400 mm	Rmt	4376	
xvi)	450 mm	Rmt	5766	
xvii)	500 mm	Rmt	7130	
xviii)	560 mm	Rmt	8925	
xix)	630 mm	Rmt	11232	
xx)	710 mm	Rmt	14504	
xxi)	800 mm	Rmt	17483	
xxii)	900 mm	Rmt	22151	
xxiii)	1000 mm	Rmt	27314	
<b>B)</b>	<b>PE-100, 8 Kg/Sq. cm :</b>			
i)	63 mm	Rmt	140	
ii)	75 mm	Rmt	187	
iii)	90 mm	Rmt	266	
iv)	110 mm	Rmt	391	
v)	125 mm	Rmt	507	
vi)	140 mm	Rmt	693	
vii)	160 mm	Rmt	897	
viii)	180 mm	Rmt	1133	
ix)	200 mm	Rmt	1333	
x)	225 mm	Rmt	1712	
xi)	250 mm	Rmt	2110	
xii)	280 mm	Rmt	2644	
xiii)	315 mm	Rmt	3350	
xiv)	355 mm	Rmt	4238	
xv)	400 mm	Rmt	5564	
xvi)	450 mm	Rmt	7439	
xvii)	500 mm	Rmt	9176	
xviii)	560 mm	Rmt	11519	
xix)	630 mm	Rmt	14494	
xx)	710 mm	Rmt	18715	
xxi)	800 mm	Rmt	22577	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xxii)	900 mm	Rmt	27892	
xxiii)	1000 mm	Rmt	28577	
<b>C) PE-100, 10 Kg/Sq. cm :</b>				
i)	63 mm	Rmt	172	
ii)	75 mm	Rmt	243	
iii)	90 mm	Rmt	350	
iv)	110 mm	Rmt	515	
v)	125 mm	Rmt	661	
vi)	140 mm	Rmt	826	
vii)	160 mm	Rmt	1075	
viii)	180 mm	Rmt	1360	
ix)	200 mm	Rmt	1597	
x)	225 mm	Rmt	2043	
xi)	250 mm	Rmt	2549	
xii)	280 mm	Rmt	3149	
xiii)	315 mm	Rmt	4043	
xiv)	355 mm	Rmt	5072	
xv)	400 mm	Rmt	6757	
xvi)	450 mm	Rmt	8991	
xvii)	500 mm	Rmt	11113	
xviii)	560 mm	Rmt	13367	
xix)	630 mm	Rmt	17545	
xx)	710 mm	Rmt	22286	
xxi)	800 mm	Rmt	26861	
xxii)	900 mm	Rmt	27180	
xxiii)	1000 mm	Rmt	30538	
<b>D) PE-100, 12.5 Kg/Sq. cm :</b>				
i)	63 mm	Rmt	204	
ii)	75 mm	Rmt	287	
iii)	90 mm	Rmt	414	
iv)	110 mm	Rmt	609	
v)	125 mm	Rmt	787	
vi)	140 mm	Rmt	987	
vii)	160 mm	Rmt	1283	
viii)	180 mm	Rmt	1621	
ix)	200 mm	Rmt	1905	
x)	225 mm	Rmt	2458	
xi)	250 mm	Rmt	3023	
xii)	280 mm	Rmt	3792	
xiii)	315 mm	Rmt	4801	
xiv)	355 mm	Rmt	6096	
xv)	400 mm	Rmt	8010	
xvi)	450 mm	Rmt	10705	
xvii)	500 mm	Rmt	13194	
xviii)	560 mm	Rmt	16060	
xix)	630 mm	Rmt	21096	
xx)	710 mm	Rmt	21755	
xxi)	800 mm	Rmt	23831	
xxii)	900 mm	Rmt	30191	
xxiii)	1000 mm	Rmt	36770	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>E)</b>	<b>PE-100, 16 Kg/Sq. cm :</b>			
i)	63 mm	Rmt	232	
ii)	75 mm	Rmt	330	
iii)	90 mm	Rmt	473	
iv)	110 mm	Rmt	698	
v)	125 mm	Rmt	904	
vi)	140 mm	Rmt	1127	
vii)	160 mm	Rmt	1479	
viii)	180 mm	Rmt	1859	
ix)	200 mm	Rmt	2921	
x)	225 mm	Rmt	3690	
xi)	250 mm	Rmt	4552	
xii)	280 mm	Rmt	5709	
xiii)	315 mm	Rmt	7216	
xiv)	355 mm	Rmt	9152	
xv)	400 mm	Rmt	11858	
xvi)	450 mm	Rmt	15029	
xvii)	500 mm	Rmt	18535	
xviii)	560 mm	Rmt	20390	
xix)	630 mm	Rmt	21409	
xx)	710 mm	Rmt	22855	
xxi)	800 mm	Rmt	27536	
xxii)	900 mm	Rmt	34853	
xxiii)	1000 mm	Rmt	42791	
<b>2.</b>	<b><u>Lowering, Laying and Jointing H. D. P. E./ M. D. P. E. pipes</u></b> in proper position including all specials by compression fitting/electrofusion and butt fusion jointing procedure as per relevent IS Code complete with all materials for jointing procedure like Electrofusion machine, Electric heater/butt fusion welding machine with hydraulic jack, top loading clamp etc. and all labours as directed by engineer in charge as per IS-7634 Part II			
	<b>For all classes.</b>			
i)	20 mm	Rmt.	13	
ii)	25 mm	Rmt.	21	
iii)	32 mm	Rmt.	26	
iv)	40 mm	Rmt.	35	
v)	50 mm	Rmt.	41	
vi)	63 mm	Rmt.	50	
vii)	75 mm	Rmt.	54	
viii)	90 mm	Rmt.	75	
ix)	110 mm	Rmt.	78	
x)	125 mm	Rmt.	90	
xi)	140 mm	Rmt.	120	
xii)	160 mm	Rmt.	130	
xiii)	180 mm	Rmt.	130	
xiv)	200 mm	Rmt.	144	
xv)	225 mm	Rmt.	185	
xvi)	250 mm	Rmt.	189	
xvii)	280 mm	Rmt.	235	
xviii)	315 mm	Rmt.	259	
xix)	355 mm	Rmt.	282	
xx)	400 mm	Rmt.	286	
xxi)	450 mm	Rmt.	323	
xxii)	500 mm	Rmt.	416	
xxiii)	560 mm	Rmt.	466	
xxiv)	630 mm	Rmt.	524	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>3.</b>	<b>Hydraulic testing of H. D. P. E./ M. D. P. E. pipe line</b> to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position..			
i)	20 mm dia	Km.	1390	
ii)	25 mm dia	Km.	2779	
iii)	32 mm dia	Km.	2779	
iv)	40 mm dia	Km.	4168	
v)	50 mm dia	Km.	4168	
vi)	63 mm dia	Km.	5556	
vii)	75 mm dia	Km.	5556	
viii)	90 mm dia	Km.	8335	
ix)	110 mm dia	Km.	8335	
x)	125 mm dia	Km.	9724	
xi)	140 mm dia	Km.	13891	
xii)	160 mm dia	Km.	13891	
xiii)	180 mm dia	Km.	13891	
xiv)	200 mm dia	Km.	15280	
xv)	225 mm dia	Km.	20836	
xvi)	250 mm dia	Km.	20836	
xvii)	280 mm dia	Km.	26393	
xviii)	315 mm dia	Km.	29172	
xix)	355 mm dia	Km.	31949	
xx)	400 mm dia	Km.	31949	
xxi)	450 mm dia	Km.	36117	
xxii)	500 mm dia	Km.	45840	
xxiii)	560 mm dia	Km.	51397	
xxiv)	630 mm dia	Km.	58342	
<b>4.</b>	<b>Providing supplying in standard length (PE material) Structured-Wall plastic piping system</b> for non pressure underground drainage and sewerage with smooth internal & corrugated external surface confirming to IS 16098:Part-2 2013 with spigot or plain end with necessary jointing material coupler including transportation and freight charges, inspection charges, loading and unloading charges, conveyance to departmental store and stacking the same in closed shade duly protecting from direct sun ray and rains excluding GST levied by Gol and GoM in all respect, etc. complete.			
	<b>Rate for SN 4 and SN 8</b>		<b>SN 4</b>	<b>SN 8</b>
i)	ID 135 mm dia	Rmt.	271	358
ii)	ID 150 mm dia	Rmt.	347	457
iii)	ID 170 mm dia	Rmt.	404	531
iv)	ID 200 mm dia	Rmt.	552	730
v)	ID 250 mm dia	Rmt.	911	1203
vi)	ID 300 mm dia	Rmt.	1407	1858
vii)	ID 400 mm dia	Rmt.	1899	2508
viii)	ID 500 mm dia	Rmt.	3137	4141
ix)	ID 600 mm dia	Rmt.	4774	6302
x)	ID 800 mm dia	Rmt.	7742	10216



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
5.	<b>Lowering, Laying and Jointing</b> (PE material) <b>Structured-Wall plastic piping system</b> for non pressure underground by heating to the ends of pipes with the help of teflon coated electric heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. The pressing may be required to be done with Jacks/ Hydraulic Jacks/Butt fusion machine etc. complete with all materials labours as directed by Engineer - in -charge.			
	<b>Rate for SN 4 and SN 8</b>			
	i) ID 135 mm dia	Rmt.	41	
	ii) ID 150 mm dia	Rmt.	45	
	iii) ID 170 mm dia	Rmt.	49	
	iv) ID 200 mm dia	Rmt.	53	
	v) ID 250 mm dia	Rmt.	65	
	vi) ID 300 mm dia	Rmt.	81	
	vii) ID 400 mm dia	Rmt.	97	
	viii) ID 500 mm dia	Rmt.	115	
	ix) ID 600 mm dia	Rmt.	133	
	x) ID 800 mm dia	Rmt.	155	
6.	<b>Hydraulic testing of HDPE</b> (PE material) <b>Structured-Wall plastic piping system</b> for non pressure underground line to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position			
	<b>Rate for SN 4 and SN 8</b>			
	i) ID 135 mm dia	Km.	4168	
	ii) ID 150 mm dia	Km.	4168	
	iii) ID 170 mm dia	Km.	5556	
	iv) ID 200 mm dia	Km.	5556	
	v) ID 250 mm dia	Km.	6946	
	vi) ID 300 mm dia	Km.	8335	
	vii) ID 400 mm dia	Km.	9724	
	viii) ID 500 mm dia	Km.	11113	
	ix) ID 600 mm dia	Km.	13891	
	x) ID 800 mm dia	Km.	15280	
	<b>Only 85% rates of providing item shall be payable till satisfactory hydraulic testing is given.</b>			



PIP SSR 2023-24

**SECTION - I (X)**

**M.D.P.E. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	<b>X. M. D. P. E. PIPES</b>			
<b>1.</b>	<b><u>Providing and Supplying Blue MDPE pipes</u></b> conforming to ISO 4427:1996 manufactured from virgin resin PE 80 Food grade compounded Raw Material having Blue Colour only with quality assurance certificate from quality agencies like WRC / CIPET (India) / DVGM / KIWA / SPGN etc. for usage in Drinking Water system. The cost shall include testing of all materials, Inspection charges, transportation up to store, transit insurance, loading, as specified and directed, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete as specified and directed.			
<b>a)</b>	<b><u>PN 16 (SDR 9)</u></b>			
i)	20 mm	Rmt	29	
ii)	25 mm	Rmt	39	
iii)	32 mm	Rmt	64	
iv)	40 mm	Rmt	95	
v)	50 mm	Rmt	143	
vi)	63 mm	Rmt	212	
vii)	75 mm	Rmt	285	
viii)	90 mm	Rmt	413	
ix)	110 mm	Rmt	611	
x)	125 mm	Rmt	789	
xi)	140 mm	Rmt	991	
xii)	160 mm	Rmt	1314	
xiii)	180 mm	Rmt	1665	
xiv)	200 mm	Rmt	2059	
xv)	225 mm	Rmt	2606	
xvi)	250 mm	Rmt	3205	
xvii)	280 mm	Rmt	4027	
xviii)	315 mm	Rmt	5181	
<b>b)</b>	<b><u>PN 12.5 (SDR 11)</u></b>			
i)	25 mm	Rmt	37	
ii)	32 mm	Rmt	61	
iii)	40 mm	Rmt	90	
iv)	50 mm	Rmt	127	
v)	63 mm	Rmt	171	
vi)	75 mm	Rmt	238	
vii)	90 mm	Rmt	345	
viii)	110 mm	Rmt	507	
ix)	125 mm	Rmt	661	
x)	140 mm	Rmt	825	
xi)	160 mm	Rmt	1080	
xii)	180 mm	Rmt	1402	
xiii)	200 mm	Rmt	1717	
xiv)	225 mm	Rmt	2174	
xv)	250 mm	Rmt	2692	
xvi)	280 mm	Rmt	3355	
xvii)	315 mm	Rmt	4253	





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
<b>c)</b>	<b>PN 10 (SDR 13.6)</b>			
i)	63 mm	Rmt	146	
ii)	75 mm	Rmt	205	
iii)	90 mm	Rmt	294	
iv)	110 mm	Rmt	435	
v)	125 mm	Rmt	560	
vi)	140 mm	Rmt	704	
vii)	160 mm	Rmt	919	
viii)	180 mm	Rmt	1163	
ix)	200 mm	Rmt	1433	
x)	225 mm	Rmt	1817	
xi)	250 mm	Rmt	2236	
xii)	280 mm	Rmt	2803	
xiii)	315 mm	Rmt	3540	
<b>d)</b>	<b>PN 8 (SDR 17)</b>			
i)	63 mm.	Rmt	116	
ii)	75 mm	Rmt	166	
iii)	90 mm	Rmt	239	
iv)	110 mm	Rmt	354	
v)	125 mm	Rmt	453	
vi)	140 mm	Rmt	569	
vii)	160 mm	Rmt	744	
viii)	180 mm	Rmt	945	
ix)	200 mm	Rmt	1163	
x)	225 mm	Rmt	1477	
xi)	250 mm	Rmt	1850	
xii)	280 mm	Rmt	2317	
xiii)	315 mm	Rmt	2936	
<b>e)</b>	<b>PN 6 (SDR 21)</b>			
i)	63 mm.	Rmt	90	
ii)	75 mm.	Rmt	131	
iii)	90 mm	Rmt	185	
iv)	110 mm	Rmt	279	
v)	125 mm	Rmt	353	
vi)	140 mm	Rmt	446	
vii)	160 mm	Rmt	583	
viii)	180 mm	Rmt	729	
ix)	200 mm	Rmt	907	
x)	225 mm	Rmt	1148	
xi)	250 mm	Rmt	1404	
xii)	280 mm	Rmt	1774	
xiii)	315 mm	Rmt	2231	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
<b>2.</b>	<b><u>Providing &amp; Supply of Electro Fusion Fittings in accordance with BS EN12201: Part-3</u></b> suitable for drinking water with in black/ blue colour manufactured from compounded PE80/ PE100 virgin polymer and compatible with PE80/PE100 pipes, in pressure rating SDR11 with min PN12.5 rated for water application and shall be inclusive of all cost such as testing, inspection charges, transportation up to store, transit insurance, loading, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete.			
	Couplers 20	No.	49	
	Couplers 25	No.	54	
	Couplers 32	No.	59	
	Couplers 40	No.	68	
	Couplers 50	No.	83	
	Couplers 63	No.	146	
	Couplers 75	No.	195	
	Couplers 90	No.	254	
	Couplers 110	No.	293	
	Couplers 125	No.	371	
	Couplers 140	No.	488	
	Couplers 160	No.	585	
	Couplers 180	No.	878	
	Couplers 200	No.	1073	
	Couplers 225	No.	1366	
	Couplers 250	No.	1756	
	Couplers 280	No.	2634	
	Couplers 315	No.	3414	
	Couplers 355	No.	5664	
	Couplers 400	No.	7303	
	Couplers 450	No.	13369	
	Couplers 500	No.	13621	
	<b><u>Equal Tee</u></b>			
	Equal Tee 20	No.	143	
	Equal Tee 25	No.	151	
	Equal Tee 32	No.	157	
	Equal Tee 40	No.	283	
	Equal Tee 50	No.	337	
	Equal Tee 63	No.	341	
	Equal Tee 75	No.	458	
	Equal Tee 90	No.	624	
	Equal Tee 110	No.	852	
	Equal Tee 125	No.	1366	
	Equal Tee 140	No.	1951	
	Equal Tee 160	No.	2439	
	Equal Tee 180	No.	2927	
	Equal Tee 200	No.	3512	
	Equal Tee 225	No.	5853	
	Equal Tee 250	No.	11706	
	Equal Tee 280	No.	16237	
	Equal Tee 315	No.	14712	
	Equal Tee 400	No.	20503	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	<b>Elbow 90 Deg.</b>			
	Elbow 90 Deg. 20	No.	118	
	Elbow 90 Deg. 25	No.	118	
	Elbow 90 Deg. 32	No.	120	
	Elbow 90 Deg. 40	No.	162	
	Elbow 90 Deg. 50	No.	192	
	Elbow 90 Deg. 63	No.	267	
	Elbow 90 Deg. 75	No.	419	
	Elbow 90 Deg. 90	No.	493	
	Elbow 90 Deg. 110	No.	679	
	Elbow 90 Deg. 125	No.	866	
	Elbow 90 Deg. 140	No.	1439	
	Elbow 90 Deg. 160	No.	1894	
	Elbow 90 Deg. 180	No.	2195	
	Elbow 90 Deg. 200	No.	2842	
	Elbow 90 Deg. 225	No.	6193	
	Elbow 90 Deg. 250	No.	11604	
	Elbow 90 Deg. 280	No.	12207	
	Elbow 90 Deg. 315	No.	11807	
	Elbow 90 Deg. 400	No.	15994	
	<b>Elbow 45 Deg.</b>			
	Elbow 45 Deg. 32	No.	127	
	Elbow 45 Deg. 40	No.	154	
	Elbow 45 Deg. 50	No.	183	
	Elbow 45 Deg. 63	No.	255	
	Elbow 45 Deg. 75	No.	398	
	Elbow 45 Deg. 90	No.	469	
	Elbow 45 Deg. 110	No.	679	
	Elbow 45 Deg. 125	No.	866	
	Elbow 45 Deg. 140	No.	1283	
	Elbow 45 Deg. 160	No.	1594	
	Elbow 45 Deg. 180	No.	2090	
	Elbow 45 Deg. 200	No.	2195	
	Elbow 45 Deg. 225	No.	2842	
	Elbow 45 Deg. 250	No.	6193	
	Elbow 45 Deg. 280	No.	9368	
	Elbow 45 Deg. 315	No.	11773	
	Elbow 45 Deg. 400	No.	15968	
	<b>Reducer</b>			
	Reducer 25X20	No.	160	
	Reducer 32X20	No.	167	
	Reducer 32X25	No.	176	
	Reducer 40X32	No.	190	
	Reducer 50X32	No.	190	
	Reducer 50X40	No.	190	
	Reducer 63X32	No.	229	
	Reducer 63X40	No.	229	
	Reducer 63X50	No.	229	
	Reducer 75 x 63	No.	519	
	Reducer 90X63	No.	569	
	Reducer 90X75	No.	577	
	Reducer 110X50	No.	703	
	Reducer 110X63	No.	703	
	Reducer 110X75	No.	738	
	Reducer 110X90	No.	738	
	Reducer 125X90	No.	820	
	Reducer 125X110	No.	952	
	Reducer 140X75	No.	1049	
	Reducer 140X90	No.	1147	
	Reducer 140X110	No.	1244	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	Reducer 140X125	No.	1341	
	Reducer 160X90	No.	1377	
	Reducer 160X110	No.	1451	
	Reducer 160X125	No.	1607	
	Reducer 160X140	No.	1699	
	Reducer 180X110	No.	1792	
	Reducer 180X125	No.	1808	
	Reducer 180X140	No.	1958	
	Reducer 180x160	No.	2032	
	Reducer 200X63	No.	2087	
	Reducer 200X90	No.	2229	
	Reducer 200X110	No.	2588	
	Reducer 200X140	No.	2467	
	Reducer 200X160	No.	2142	
	Reducer 200x180	No.	2493	
	Reducer 225X140	No.	2751	
	Reducer 225X160	No.	3134	
	Reducer 250X110	No.	4019	
	Reducer 250X140	No.	4352	
	Reducer 250X160	No.	4329	
	Reducer 250X200	No.	4733	
	Reducer 315X140	No.	7159	
	Reducer 315 x 200	No.	8995	
	Reducer 315 x 250	No.	9120	
	Reducer 400 x 200	No.	9688	
	Reducer 400 x 315	No.	10404	
	<b>End Cap</b>			
	End Cap 20	No.	41	
	End Cap 25	No.	41	
	End Cap 32	No.	59	
	End Cap 40	No.	63	
	End Cap 50	No.	67	
	End Cap 63	No.	89	
	End Cap 75	No.	327	
	End Cap 90	No.	371	
	End Cap 110	No.	522	
	End Cap 125	No.	662	
	End Cap 140	No.	1082	
	End Cap 160	No.	1173	
	End Cap 180	No.	1286	
	End Cap 200	No.	2179	
	End Cap 225	No.	3743	
	End Cap 250	No.	4824	
	End Cap 315	No.	7982	
	<b>Ferrule Tapping Tee</b>			
	Ferrule tapping tee 63 x 1/2"	No.	390	
	Ferrule tapping tee 63 x 3/4"	No.	439	
	Ferrule tapping tee 63 x 1"	No.	488	
	Ferrule tapping tee 75 x 1/2"	No.	439	
	Ferrule tapping tee 75 x 3/4"	No.	488	
	Ferrule tapping tee 75 x 1"	No.	537	
	Ferrule tapping tee 90 x 1/2"	No.	439	
	Ferrule tapping tee 90 x 3/4"	No.	488	
	Ferrule tapping tee 90 x 1"	No.	537	
	Ferrule tapping tee 90 x 1 1/2"	No.	792	
	Ferrule tapping tee 90 x 1 1/4"	No.	801	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	Ferrule tapping tee 90 x 2"	No.	801	
	Ferrule tapping tee 110 x 1/2"	No.	488	
	Ferrule tapping tee 110 x 3/4"	No.	537	
	Ferrule tapping tee 110 x 1"	No.	585	
	Ferrule tapping tee 110 x 1 1/2"	No.	801	
	Ferrule tapping tee 100 x 1"	No.	801	
	Ferrule tapping tee 110 x 2"	No.	801	
	Ferrule tapping tee 160 x 1/2"	No.	616	
	Ferrule tapping tee 160 x 3/4"	No.	616	
	Ferrule tapping tee 160 x 1 "	No.	616	
	Ferrule tapping tee 160 x 1 1/2"	No.	872	
	Ferrule tapping tee 160 x 1"	No.	872	
	Ferrule tapping tee 160 x 2"	No.	872	
	Ferrule tapping tee 200 x 1/2"	No.	585	
	Ferrule tapping tee 200 x 3/4"	No.	683	
	Ferrule tapping tee 200 x 1"	No.	780	
	Ferrule tapping tee 200 x 1 1/2"	No.	1255	
	Ferrule tapping tee 200 x 1	No.	1255	
	Ferrule tapping tee 200 x 2"	No.	1255	
	Ferrule tapping tee 250 x 1/2"	No.	870	
	Ferrule tapping tee 250 x 3/4"	No.	870	
	Ferrule tapping tee 250 x 1 "	No.	870	
	Ferrule tapping tee 250 x 1 1/2"	No.	1255	
	Ferrule tapping tee 250 x 1	No.	1255	
	Ferrule tapping tee 250 x 2"	No.	1255	
	Ferrule tapping tee 315 x 1/2"	No.	1036	
	Ferrule tapping tee 315 x 3/4"	No.	1036	
	Ferrule tapping tee 315 x 1 "	No.	1036	
	Ferrule tapping tee 315 x 1 1/2"	No.	1407	
	Ferrule tapping tee 315 x 1	No.	1407	
	Ferrule tapping tee 315 x 2"	No.	1407	
	<b>Electrofusion Reducing Tee</b>			
	Reducing Tee 32 x 32 x 20	No.	139	
	Reducing Tee 32 x 32 x 25	No.	138	
	Reducing Tee 40 x 40 x 20	No.	313	
	Reducing Tee 40 x 40 x 25	No.	307	
	Reducing Tee 40 x 40 x 32	No.	339	
	Reducing Tee 50 x 50 x 20	No.	348	
	Reducing Tee 50 x 50 x 25	No.	357	
	Reducing Tee 50 x 50 x 32	No.	370	
	Reducing Tee 50 x 50 x 40	No.	388	
	Reducing Tee 63 x 63 x 20	No.	558	
	Reducing Tee 63 x 63 x 25	No.	571	
	Reducing Tee 63 x 63 x 32	No.	584	
	Reducing Tee 63 x 63 x 40	No.	599	
	Reducing Tee 63 x 63 x 50	No.	620	
	Reducing Tee 75 x 75 x 40	No.	793	
	Reducing Tee 75 x 75 x 50	No.	805	
	Reducing Tee 75 x 75 x 63	No.	823	
	Reducing Tee 90 x 90 x 50	No.	1155	
	Reducing Tee 90 x 90 x 63	No.	1180	
	Reducing Tee 90 x 90 x 75	No.	1200	
	Reducing Tee 110 x 110 x 50	No.	1595	
	Reducing Tee 110 x 110 x 63	No.	1621	
	Reducing Tee 110 x 110 x 75	No.	1594	
	Reducing Tee 110 x 110 x 90	No.	1675	
	Reducing Tee 125 x 125 x 63	No.	2150	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	Reducing Tee 125 x 125 x 75	No.	2174	
	Reducing Tee 125 x 125 x 90	No.	2202	
	Reducing Tee 125 x 125 x 110	No.	2228	
	Reducing Tee 140 x 140 x 75	No.	2617	
	Reducing Tee 140 x 140 x 90	No.	2694	
	Reducing Tee 140 x 140 x 110	No.	2992	
	Reducing Tee 140 x 140 x 125	No.	3056	
	Reducing Tee 160 x 160 x 50	No.	3707	
	Reducing Tee 160 x 160 x 63	No.	3765	
	Reducing Tee 160 x 160 x 75	No.	3784	
	Reducing Tee 160 x 160 x 90	No.	3875	
	Reducing Tee 160 x 160 x 110	No.	3961	
	Reducing Tee 180 x 180 x 160	No.	4208	
	Reducing Tee 160 x 160 x 140	No.	4376	
	Reducing Tee 180 x 180 x 140	No.	4516	
	Reducing Tee 180 x 180 x 160	No.	4097	
	Reducing Tee 200 x 200 x 63	No.	3414	
	Reducing Tee 200 x 200 x 75	No.	4195	
	Reducing Tee 200 x 200 x 90	No.	6926	
	Reducing Tee 200 x 200 x 110	No.	7121	
	Reducing Tee 200 x 200 x 140	No.	7414	
	Reducing Tee 200 x 200 x 160	No.	7511	
	Reducing Tee 250 x 250 x 63	No.	7804	
	Reducing Tee 250 x 250 x 75	No.	8292	
	Reducing Tee 250 x 250 x 90	No.	8780	
	Reducing Tee 250 x 250 x 110	No.	10731	
	Reducing Tee 250 x 250 x 140	No.	12123	
	Reducing Tee 250 x 250 x 160	No.	3902	
	Reducing Tee 250 x 250 x 200	No.	3902	
	Reducing Tee 315 x 315 x 200	No.	4780	
	Reducing Tee 315 x 315 x 250	No.	4780	
	Reducing Tee 400 x 400 x 110	No.	20917	
	Reducing Tee 400 x 400 x 160	No.	21385	
	Reducing Tee 400 x 400 x 200	No.	21841	
	Reducing Tee 400 x 400 x 250	No.	22169	
	Reducing Tee 400 x 400 x 315	No.	22518	
	<b>Spigot Long Neck Pipe End (Stub End) for Electro Fusion joint</b>			
	LNPE 63	No.	195	
	LNPE 75	No.	293	
	LNPE 90	No.	390	
	LNPE 110	No.	516	
	LNPE 125	No.	1166	
	LNPE 140	No.	1328	
	LNPE 160	No.	1900	
	LNPE 180	No.	2146	
	LNPE 200	No.	3012	
	LNPE 225	No.	3317	
	LNPE 250	No.	4097	
	LNPE 280	No.	4643	
	LNPE 315	No.	6035	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
3.	<b>Providing &amp; Supply of Compression fittings.</b> PN16 rated in conformation to ISO:14236-2000 and shall be tested as per ISO:3459, ISO:3501 & ISO:3503, suitable for drinking water & approved by WRAS, UK/ KIWA etc, in food grade polypropylene and shall be inclusive of all cost such as testing, inspection charges, transportation up to store, transit insurance, loading, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete.			
	<b>Male Adaptor</b>			
	Male Adaptor 20 x 1/2"	No.	66	
	Male Adaptor 25 x 3/4"	No.	76	
	Male Adaptor 32 x 1"	No.	98	
	Male Adaptor 40 x 1 1/2"	No.	178	
	Male Adaptor 50 x 1 1/2"	No.	235	
	Male Adaptor 63 x 2"	No.	332	
	<b>Female Adaptor</b>			
	Female Adaptor 20 x 1/2"	No.	70	
	Female Adaptor 25 x 3/4"	No.	83	
	Female Adaptor 32 x 1 "	No.	105	
	Female Adaptor 40 x 1 1/2"	No.	197	
	Female Adaptor 50 x 2"	No.	250	
	Female Adaptor 63 x 2"	No.	353	
	<b>Coupling</b>			
	Coupling 20 x 20	No.	58	
	Coupling 25 x 25	No.	57	
	Coupling 32 x 32	No.	71	
	Coupling 40 x 40	No.	139	
	Coupling 50 x 50	No.	177	
	Coupling 63 x 63	No.	261	
	<b>Reducing Coupling</b>			
	Reducing Coupling 25 x 20	No.	110	
	Reducing Coupling 32 x 20	No.	128	
	Reducing Coupling 32 x 25	No.	128	
	Reducing Coupling 40 x 25	No.	218	
	Reducing Coupling 40 x 32	No.	218	
	Reducing Coupling 50 x 32	No.	281	
	Reducing Coupling 50 x 40	No.	281	
	Reducing Coupling 63 x 50	No.	400	
	<b>90 Deg. Bothside compression Elbow</b>			
	90 Deg. Elbow 20	No.	59	
	90 Deg. Elbow 25	No.	68	
	90 Deg. Elbow 32	No.	98	
	90 Deg. Elbow 40	No.	200	
	90 Deg. Elbow 50	No.	257	
	90 Deg. Elbow 63	No.	437	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2023-25
1	2	3	4	5
	<b>90 Deg. Elbow threaded male off take.</b>			
	90 Deg. Elbow threaded male off take 20 x 1/2"	No.	44	
	90 Deg. Elbow threaded male off take 25 x 3/4"	No.	54	
	90 Deg. Elbow threaded male off take 32 x 1"	No.	68	
	90 Deg. Elbow threaded male off take 40 x 1/4"	No.	98	
	90 Deg. Elbow threaded male off take 50 x 1/2"	No.	176	
	90 Deg. Elbow threaded male off take 63 x 2"	No.	283	
	<b>90 Deg. Elbow threaded female off take</b>			
	90 Deg. Elbow threaded Female off take 20 x 1/2"	No.	44	
	90 Deg. Elbow threaded Female off take 25 x 3/4"	No.	54	
	90 Deg. Elbow threaded Female off take 32 x 1"	No.	68	
	90 Deg. Elbow threaded Female off take 40 x 1/2"	No.	156	
	90 Deg. Elbow threaded Female off take 50 x 1/2"	No.	224	
	90 Deg. Elbow threaded Female off take 63 x 2"	No.	341	
	<b>Equal Tee</b>			
	Equal Tee 20 x 20 x 20	No.	124	
	Equal Tee 25 x 25 x 25	No.	162	
	Equal Tee 32 x 32 x 32	No.	209	
	Equal Tee 40 x 40 x 40	No.	347	
	Equal Tee 50 x 50 x 50	No.	469	
	Equal Tee 63 x 63 x 63	No.	667	
	<b>End Cap</b>			
	End Cap 20	No.	30	
	End Cap 25	No.	30	
	End Cap 32	No.	43	
	End Cap 40	No.	47	
	End Cap 50	No.	48	
	End Cap 63	No.		





IP SSR 2023-24

**SECTION - I (XI)**

**P.C.C. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b><u>XI. P. C. C. PIPES Providing and Supplying</u></b>			
<b>1.</b>	<b><u>Prestressed Concrete Cylinder Pipes</u></b> suitable for sliding overlap weld joint or confined rubber ring joint with necessary rubber ring of following class and diameter including cost of transportation, inspection charges to store, transit insurance, unloading and stacking excluding GST levied by GOI & GOM in all respect etc. complete. <b><u>i) Factory test pressure</u></b> a) Site test pressure + 01N/mm <sup>2</sup> , For working pressure upto 1 N/mm <sup>2</sup> b) Site test pressure + 02N/mm <sup>2</sup> , For working pressure upto 1 N/mm <sup>2</sup> <b><u>ii) Site test pressure</u></b> - 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main) <b><u>iii) Working pessure</u></b> - The maximum sustained internal pressure excluding surge to which each portion of pipeline my be subjected when installed. <b><u>As Per 784 : 2001 a) F T P - 4 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5624	
ii)	400 mm	Rmt	6181	
iii)	450 mm	Rmt	6791	
iv)	500 mm	Rmt	7514	
v)	600 mm	Rmt	9086	
vi)	700 mm	Rmt	10497	
vii)	800 mm	Rmt	11822	
viii)	900 mm	Rmt	14487	
ix)	1000 mm	Rmt	16730	
x)	1100 mm	Rmt	18731	
xi)	1200 mm	Rmt	20593	
xii)	1300 mm	Rmt	23794	
xiii)	1400 mm	Rmt	25838	
xiv)	1500 mm	Rmt	28909	
xv)	1600 mm	Rmt	32198	
xvi)	1700 mm.	Rmt	34235	
xvii)	1800 mm.	Rmt	36264	
	<b><u>b) T P - 5.5 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5624	
ii)	400 mm	Rmt	6210	
iii)	450 mm	Rmt	6828	
iv)	500 mm	Rmt	7557	
v)	600 mm	Rmt	9149	
vi)	700 mm	Rmt	10580	
vii)	800 mm	Rmt	11958	
viii)	900 mm	Rmt	14621	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
ix)	1000 mm	Rmt	16895			
x)	1100 mm	Rmt	18947			
xi)	1200 mm	Rmt	21614			
xii)	1300 mm	Rmt	24144			
xiii)	1400 mm	Rmt	26286			
xiv)	1500 mm	Rmt	29377			
xv)	1600 mm	Rmt	32688			
xvi)	1700 mm.	Rmt	34721			
xvii)	1800 mm.	Rmt	36756			
<b>c) F T P - 7 Kg/Sq. cm</b>						
i)	350 mm	Rmt	5636			
ii)	400 mm	Rmt	6235			
iii)	450 mm	Rmt	6857			
iv)	500 mm	Rmt	7598			
v)	600 mm	Rmt	9210			
vi)	700 mm	Rmt	10680			
vii)	800 mm	Rmt	12129			
viii)	900 mm	Rmt	14809			
ix)	1000 mm	Rmt	17151			
x)	1100 mm	Rmt	19260			
xi)	1200 mm	Rmt	21988			
xii)	1300 mm	Rmt	24588			
xiii)	1400 mm	Rmt	27022			
xiv)	1500 mm	Rmt	29420			
xv)	1600 mm	Rmt	32734			
xvi)	1700 mm.	Rmt	34770			
xvii)	1800 mm.	Rmt	36802			
<b>d) F T P - 8.5 Kg/Sq. cm</b>						
i)	350 mm	Rmt	5658			
ii)	400 mm	Rmt	6271			
iii)	450 mm	Rmt	6893			
iv)	500 mm	Rmt	7641			
v)	600 mm	Rmt	9293			
vi)	700 mm	Rmt	10805			
vii)	800 mm	Rmt	12300			
viii)	900 mm	Rmt	15018			
ix)	1000 mm	Rmt	17408			
x)	1100 mm	Rmt	19572			
xi)	1200 mm	Rmt	22554			
xii)	1300 mm	Rmt	25236			
xiii)	1400 mm	Rmt	27537			
xiv)	1500 mm	Rmt	29956			
xv)	1600 mm	Rmt	33292			
xvi)	1700 mm.	Rmt	35326			
xvii)	1800 mm.	Rmt	37358			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>e)</b>	<b><u>F T P - 10 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5679	
ii)	400 mm	Rmt	6295	
iii)	450 mm	Rmt	6937	
iv)	500 mm	Rmt	7705	
v)	600 mm	Rmt	9382	
vi)	700 mm	Rmt	10927	
vii)	800 mm	Rmt	12486	
viii)	900 mm	Rmt	15227	
ix)	1000 mm	Rmt	17663	
x)	1100 mm	Rmt	20063	
xi)	1200 mm	Rmt	22934	
xii)	1300 mm	Rmt	25686	
xiii)	1400 mm	Rmt	28062	
xiv)	1500 mm	Rmt	30506	
xv)	1600 mm	Rmt	33870	
xvi)	1700 mm.	Rmt	35903	
xvii)	1800 mm.	Rmt	37936	
<b>f)</b>	<b><u>F T P - 11.5 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5702	
ii)	400 mm	Rmt	6334	
iii)	450 mm	Rmt	6987	
iv)	500 mm	Rmt	7769	
v)	600 mm	Rmt	9476	
vi)	700 mm	Rmt	11052	
vii)	800 mm	Rmt	12834	
viii)	900 mm	Rmt	14092	
ix)	1000 mm	Rmt	17923	
x)	1100 mm	Rmt	20383	
xi)	1200 mm	Rmt	23319	
xii)	1300 mm	Rmt	26142	
xiii)	1400 mm	Rmt	28596	
xiv)	1500 mm	Rmt	31060	
xv)	1600 mm	Rmt	34444	
xvi)	1700 mm.	Rmt	36479	
xvii)	1800 mm.	Rmt	38513	
<b>g)</b>	<b><u>F T P - 13 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5745	
ii)	400 mm	Rmt	6386	
iii)	450 mm	Rmt	7046	
iv)	500 mm	Rmt	7834	
v)	600 mm	Rmt	9567	
vi)	700 mm	Rmt	11177	
vii)	800 mm	Rmt	13047	
viii)	900 mm	Rmt	15645	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
ix)	1000 mm	Rmt	18299			
x)	1100 mm	Rmt	20707			
xi)	1200 mm	Rmt	23711			
xii)	1300 mm	Rmt	26602			
xiii)	1400 mm	Rmt	29120			
xiv)	1500 mm	Rmt	31610			
xv)	1600 mm	Rmt	35020			
xvi)	1700 mm.	Rmt	37051			
xvii)	1800 mm.	Rmt	39070			
<b>h)</b>	<b><u>F T P - 14.5 Kg/Sq. cm</u></b>					
i)	350 mm	Rmt	5796			
ii)	400 mm	Rmt	6443			
iii)	450 mm	Rmt	7119			
iv)	500 mm	Rmt	7909			
v)	600 mm	Rmt	9665			
vi)	700 mm	Rmt	11913			
vii)	800 mm	Rmt	13258			
viii)	900 mm	Rmt	16007			
ix)	1000 mm	Rmt	18567			
x)	1100 mm	Rmt	21029			
xi)	1200 mm	Rmt	24096			
xii)	1300 mm	Rmt	27055			
xiii)	1400 mm	Rmt	30435			
xiv)	1500 mm	Rmt	32981			
xv)	1600 mm	Rmt	36450			
xvi)	1700 mm.	Rmt	38483			
xvii)	1800 mm.	Rmt	40516			
<b>i)</b>	<b><u>F T P - 17 Kg/Sq. cm</u></b>					
i)	350 mm	Rmt	5842			
ii)	400 mm	Rmt	6503			
iii)	450 mm	Rmt	7189			
iv)	500 mm	Rmt	7996			
v)	600 mm	Rmt	9790			
vi)	700 mm	Rmt	11433			
vii)	800 mm	Rmt	13515			
viii)	900 mm	Rmt	16235			
ix)	1000 mm	Rmt	18837			
x)	1100 mm	Rmt	21370			
xi)	1200 mm	Rmt	24489			
xii)	1300 mm	Rmt	27517			
xiii)	1400 mm	Rmt	31020			
xiv)	1500 mm	Rmt	33596			
xv)	1600 mm	Rmt	37090			
xvi)	1700 mm.	Rmt	39125			
xvii)	1800 mm.	Rmt	41158			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>j)</b>	<b><u>F T P - 18.5 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5886	
ii)	400 mm	Rmt	6562	
iii)	450 mm	Rmt	7262	
iv)	500 mm	Rmt	8083	
v)	600 mm	Rmt	9913	
vi)	700 mm	Rmt	11576	
vii)	800 mm	Rmt	13960	
viii)	900 mm	Rmt	16519	
ix)	1000 mm	Rmt	19160	
x)	1100 mm	Rmt	21704	
xi)	1200 mm	Rmt	24881	
xii)	1300 mm	Rmt	28840	
xiii)	1400 mm	Rmt	31826	
xiv)	1500 mm	Rmt	33741	
xv)	1600 mm	Rmt	37244	
xvi)	1700 mm.	Rmt	39278	
xvii)	1800 mm.	Rmt	41311	
<b>k)</b>	<b><u>F T P - 20 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5933	
ii)	400 mm	Rmt	6623	
iii)	450 mm	Rmt	7335	
iv)	500 mm	Rmt	8175	
v)	600 mm	Rmt	10036	
vi)	700 mm	Rmt	11863	
vii)	800 mm	Rmt	14293	
viii)	900 mm	Rmt	16896	
ix)	1000 mm	Rmt	19604	
x)	1100 mm	Rmt	22218	
xi)	1200 mm	Rmt	26183	
xii)	1300 mm	Rmt	29460	
xiii)	1400 mm	Rmt	32530	
xiv)	1500 mm	Rmt	34475	
xv)	1600 mm	Rmt	38008	
xvi)	1700 mm.	Rmt	40043	
xvii)	1800 mm.	Rmt	42076	
<b>l)</b>	<b><u>F T P - 21.5 Kg/Sq. cm</u></b>			
i)	350 mm	Rmt	5986	
ii)	400 mm	Rmt	6682	
iii)	450 mm	Rmt	7405	
iv)	500 mm	Rmt	8262	
v)	600 mm	Rmt	10183	
vi)	700 mm	Rmt	12444	
vii)	800 mm	Rmt	14521	
viii)	900 mm	Rmt	17272	
ix)	1000 mm	Rmt	20051	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
x)	1100 mm	Rmt	23337			
xi)	1200 mm	Rmt	26832			
xii)	1300 mm	Rmt	30144			
xiii)	1400 mm	Rmt	34315			
xiv)	1500 mm	Rmt	36338			
xv)	1600 mm	Rmt	39955			
xvi)	1700 mm.	Rmt	41988			
xvii)	1800 mm.	Rmt	44023			
<b>m)</b>	<b>F T P - 23 Kg/Sq. cm</b>					
i)	350 mm	Rmt	6031			
ii)	400 mm	Rmt	6739			
ii)	450 mm	Rmt	7481			
iv)	500 mm	Rmt	8349			
v)	600 mm	Rmt	10397			
vi)	700 mm	Rmt	12837			
vii)	800 mm	Rmt	14966			
viii)	900 mm	Rmt	17646			
ix)	1000 mm	Rmt	20496			
x)	1100 mm	Rmt	23956			
xi)	1200 mm	Rmt	27495			
xii)	1300 mm	Rmt	30999			
xiii)	1400 mm	Rmt	34952			
xiv)	1500 mm	Rmt	37001			
xv)	1600 mm	Rmt	40645			
xvi)	1700 mm.	Rmt	42679			
xvii)	1800 mm.	Rmt	44710			
<b>n)</b>	<b>F T P - 24.5 Kg/Sq. cm</b>					
i)	350 mm	Rmt	6077			
ii)	400 mm	Rmt	6801			
iii)	450 mm	Rmt	7554			
iv)	500 mm	Rmt	8440			
v)	600 mm	Rmt	10815			
vi)	700 mm	Rmt	13013			
vii)	800 mm	Rmt	14982			
viii)	900 mm	Rmt	17946			
ix)	1000 mm	Rmt	21458			
x)	1100 mm	Rmt	24576			
xi)	1200 mm	Rmt	28161			
xii)	1300 mm	Rmt	33457			
xiii)	1400 mm	Rmt	35619			
xiv)	1500 mm	Rmt	37695			
xv)	1600 mm	Rmt	41368			
xvi)	1700 mm.	Rmt	43399			
xvii)	1800 mm.	Rmt	45434			
	<b>Note</b>	:				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
1)	For PCCP pipes lowering, laying, and pouring of cement mortar in the field on joints (after laying and welding), rates as per PSC pipes lowering, laying and jointing shall be adopted.					
2)	For field welding rates applicable for similar welding in MS pipes given in that section shall be adopted.					
3)	Whenever manufacturer is separate and contractor for lowering, laying, jointing and testing is separate the principal contractor shall enter into an agreement with PCCP pipe manufacturer for satisfactory manufacturing transporting, lowering, laying, jointing and testing of pipes.					
	<b>This foot notes shall appear in the tender conditions.</b>					
4)	Only 85% providing rates shall be payable til satisfactory Hydraulic testing is given.					





IP SSR 2023-24

**SECTION - I (XII)**

**PIPE APPURTENANCES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b>XII. PIPES APPURTENANCES</b>			
1.	Providing and supplying <u>ISI mark CI D/F reflux valves</u> (non-return valves ) of following dia including railway freight, inspection charges, unloading from railway wagon, loading into truck, transportation upto departmental stores, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. complete. Reflux valves as per I.S.5312 Part I (1984)			
	<b>a) Without by pass arrangement -PN -1</b>			
i)	50 mm.	No.	3983	
ii)	65 mm.	No.	4662	
iii)	80 mm.	No.	4910	
iv)	100 mm.	No.	6856	
v)	125 mm.	No.	9788	
vi)	150 mm.	No.	11851	
vii)	200 mm.	No.	21301	
viii)	250 mm.	No.	36353	
ix)	300 mm.	No.	49812	
x)	350 mm.	No.	77480	
xi)	400 mm.	No.	92161	
xii)	450 mm.	No.	132523	
xiii)	500 mm.	No.	196361	
xiv)	600 mm.	No.	240456	
xv)	700 mm.	No.	564029	
	<b>b) With by pass arrangement - PN -1</b>			
i)	80 mm.	No.	5669	
ii)	100 mm.	No.	8076	
iii)	125 mm.	No.	10998	
iv)	150 mm.	No.	13060	
v)	200 mm.	No.	24348	
vi)	250 mm.	No.	39799	
vii)	300 mm.	No.	53422	
viii)	350 mm.	No.	87587	
ix)	400 mm.	No.	105988	
x)	450 mm.	No.	137514	
xi)	500 mm.	No.	223175	
xii)	600 mm.	No.	276523	
xiii)	700 mm.	No.	853841	
xiv)	750 mm.	No.	934608	
xv)	800 mm.	No.	1015376	
xvi)	900 mm.	No.		
xvii)	1000 mm.	No.		
	<b>c) Without by pass arrangement - PN -1.6</b>			
i)	50 mm.	No.	3884	
ii)	65 mm.	No.	4196	
iii)	80 mm.	No.	6883	
iv)	100 mm.	No.	8818	
v)	125 mm.	No.	12284	
vi)	150 mm.	No.	16698	
vii)	200 mm.	No.	29237	
viii)	250 mm.	No.	46936	
ix)	300 mm.	No.	63455	
x)	350 mm.	No.	96851	
xi)	400 mm.	No.	115204	
xii)	450 mm.	No.	154013	
xiii)	500 mm.	No.	245449	
xiv)	600 mm.	No.	300569	
xv)	700 mm.	No.	444257	
xvi)	750 mm.	No.	509988	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xvii)	800 mm.	No.	580255	
xviii)	900 mm.	No.	734382	
xix)	1000 mm.	No.	906647	
xx)	1100 mm	No.	1097039	
xxi)	1200 mm	No.	1306050	
<b>d)</b>	<b>With by pass arrangement - PN -1.6</b>			
i)	50 mm.	No.	3986	
ii)	65 mm	No.	4488	
iii)	80 mm.	No.	6604	
iv)	100 mm.	No.	8539	
v)	125 mm.	No.	11933	
vi)	150 mm	No.	14483	
vii)	200 mm.	No.	29252	
viii)	250 mm.	No.	44203	
ix)	300 mm.	No.	66784	
x)	350 mm.	No.	103192	
xi)	400 mm.	No.	132485	
xii)	450 mm.	No.	158141	
xiii)	500 mm.	No.	256693	
xiv)	600 mm.	No.	345654	
xv)	700 mm.	No.	452495	
xvi)	750 mm.	No.	519446	
xvii)	800 mm.	No.	591014	
xviii)	900 mm.	No.	748003	
xix)	1000 mm.	No.	923458	
xx)	1100 mm	No.	1117386	
xxi)	1200 mm	No.	1329780	
<b>2.</b>	Providing <b>double flange sluice valve</b> confirming for IS- 14846 including worn gear arrangements as per test pressure, stainless steel spindle, caps, including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b>Sluice valves - PN -1 (Without by pass)</b>			
i)	50 mm.	No.	5038	
ii)	65 mm.	No.	5959	
iii)	80 mm.	No.	6158	
iv)	100 mm.	No.	8202	
v)	125 mm.	No.	10258	
vi)	150 mm.	No.	12301	
vii)	200 mm.	No.	22297	
viii)	250 mm.	No.	34472	
ix)	300 mm.	No.	43765	
x)	350 mm.	No.	64381	
xi)	400 mm.	No.	84762	
xii)	450 mm.	No.	91128	
xiii)	500 mm.	No.	131340	
xiv)	600 mm.	No.	194586	
xv)	700 mm.	No.	361691	
xvi)	750 mm.	No.	409742	
xvii)	800 mm.	No.	499825	
xviii)	900 mm.	No.	655400	
xix)	1000 mm.	No.	980216	
xx)	1100 mm	No.	1256654	
xxi)	1200 mm.	No.	1485761	
<b>b)</b>	<b>Sluice valves - PN -1.0 (With by pass arrangement)</b>			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
i)	50 mm.	No.	5286	
ii)	65 mm.	No.	5972	
iii)	80 mm.	No.	6158	
iv)	100 mm.	No.	8202	
v)	125 mm.	No.	10258	
vi)	150 mm.	No.	12954	
vii)	200 mm.	No.	22338	
viii)	250 mm.	No.	34513	
ix)	300 mm.	No.	43804	
x)	350 mm.	No.	66774	
xi)	400 mm.	No.	84888	
xii)	450 mm.	No.	104660	
xiii)	500 mm.	No.	131537	
xiv)	600 mm.	No.	194874	
xv)	700 mm.	No.	367786	
xvi)	750 mm.	No.	410149	
xvii)	800 mm.	No.	500318	
xviii)	900 mm.	No.	656048	
xix)	1000 mm.	No.	995176	
xx)	1100 mm.	No.	1257899	
xxi)	1200 mm.	No.	1487180	
<b>c)</b>	<b>Sluice valve - PN - 1.6 (Without by pass arrangement)</b>			
i)	50 mm.	No.	6313	
ii)	65 mm.	No.	7447	
iii)	80 mm.	No.	8110	
iv)	100 mm.	No.	10806	
v)	125 mm.	No.	13501	
vi)	150 mm.	No.	14320	
vii)	200 mm.	No.	27877	
viii)	250 mm.	No.	43103	
ix)	300 mm.	No.	54736	
x)	350 mm.	No.	83345	
xi)	400 mm.	No.	105805	
xii)	450 mm.	No.	130748	
xiii)	500 mm.	No.	164088	
xiv)	600 mm.	No.	243174	
xv)	700 mm.	No.	368329	
xvi)	750 mm.	No.	410756	
xvii)	800 mm.	No.	501061	
xviii)	900 mm.	No.	657022	
xix)	1000 mm.	No.	1013501	
xx)	1100 mm.	No.	1259767	
xxi)	1200 mm.	No.	1489438	
<b>d)</b>	<b>Sluice valve - PN - 1.6 (With by pass arrangement)</b>			
i)	50 mm.	No.	6988	
ii)	65 mm.	No.	7462	
iii)	80 mm.	No.	8124	
iv)	100 mm.	No.	10826	
v)	125 mm.	No.	13520	
vi)	150 mm.	No.	16192	
vii)	200 mm.	No.	27917	
viii)	250 mm.	No.	43144	
ix)	300 mm.	No.	54774	
x)	350 mm.	No.	83467	
xi)	400 mm.	No.	105964	
xii)	450 mm.	No.	130943	
xiii)	500 mm.	No.	164330	
xiv)	600 mm.	No.	243536	
xv)	700 mm.	No.	368785	
xvi)	750 mm.	No.	411264	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xvii)	800 mm.	No.	501682	
xviii)	900 mm.	No.	657834	
xix)	1000 mm.	No.	1014751	
xx)	1100 mm	No.	1261321	
xxi)	1200 mm.	No.	1491278	
<b>3</b>	Providing, <b>double flanged short body pattern type manually operated Butterfly Valve</b> having body, disc and end cover in graded cast iron to IS-210 Gr.CF 200 generally confirming to IS-13095-1991, Synthetic rubber faced ring secured on disc by retaining ring with stainless steel screw stub shaft of stainless steel riding in teflon bearing including inspection charges, transportation up to departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. excluding C.C. foundation /structural steel support.			
<b>a)</b>	<b>Butterfly valve - PN - 1 (With by pass arrangement)</b>			
i)	80 mm.	No.	6991	
ii)	100 mm.	No.	8938	
iii)	125 mm.	No.	10194	
iv)	150 mm.	No.	13176	
v)	200 mm.	No.	17558	
vi)	250 mm.	No.	21948	
vii)	300 mm.	No.	34727	
viii)	350 mm.	No.	56981	
ix)	400 mm.	No.	70693	
x)	450 mm.	No.	82517	
xi)	500 mm.	No.	89136	
xii)	600 mm.	No.	104388	
xiii)	700 mm.	No.	156521	
xiv)	750 mm.	No.	185366	
xv)	800 mm.	No.	197423	
xvi)	900 mm.	No.	253459	
xvii)	1000 mm.	No.	326755	
xviii)	1100 mm	No.	700386	
xix)	1200 mm.	No.	662753	
xx)	1400 mm	No.	1010527	
xxi)	1500 mm	No.	1255628	
<b>b)</b>	<b>Butterfly valve - PN - 1.6 (With by pass arrangement)</b>			
i)	80 mm.	No.	7758	
ii)	100 mm.	No.	10158	
iii)	125 mm.	No.	11215	
iv)	150 mm.	No.	15151	
v)	200 mm.	No.	20196	
vii)	250 mm.	No.	25240	
viii)	300 mm.	No.	39936	
viii)	350 mm.	No.	71226	
ix)	400 mm.	No.	87254	
x)	450 mm.	No.	100807	
xi)	500 mm.	No.	110687	
xii)	600 mm	No.	130486	
xiii)	700 mm	No.	195650	
xiv)	750 mm	No.	231707	
xv)	800 mm	No.	246780	
xvi)	900 mm	No.	316824	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
xvii)	1000 mm	No.	408443	
xviii)	1100 mm	No.	828445	
xix)	1200 mm	No.	875472	
xx)	1400 mm	No.	1263160	
xxi)	1500 mm	No.	1558924	
<b>4.</b>	Lowering, laying and jointing in position following <b>C.I.D/F Reflex valves, Butterfly valves and Sluice valves</b> including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc. complete. (Rate for all class of valves.)			
i)	50 mm.	No.	933	
ii)	65 mm.	No.	1401	
iii)	80 mm.	No.	1947	
iv)	100 mm.	No.	2545	
v)	125 mm.	No.	3167	
vi)	150 mm.	No.	3998	
vii)	200 mm.	No.	4160	
viii)	250 mm.	No.	5420	
ix)	300 mm.	No.	5621	
x)	350 mm.	No.	6927	
xi)	400 mm.	No.	8357	
xii)	450 mm.	No.	9944	
xiii)	500 mm.	No.	10297	
xiv)	600 mm.	No.	10930	
xv)	700 mm.	No.	11785	
xvi)	750 mm.	No.	12977	
xvii)	800 mm.	No.	15464	
xviii)	900 mm.	No.	16409	
xix)	1000 mm.	No.	19344	
xx)	1100 mm.	No.	22336	
xxi)	1200 mm.	No.	24545	
<b>b.</b>	Giving satisfactory <b>hydraulic testing of following C. I. D / F Reflex valves, Butterfly valves and Sluice valves.</b>			
i)	50 mm.	No.	105	
ii)	65 mm.	No.	157	
iii)	80 mm.	No.	217	
iv)	100 mm.	No.	282	
v)	125 mm.	No.	352	
vi)	150 mm.	No.	445	
vii)	200 mm.	No.	463	
viii)	250 mm.	No.	601	
ix)	300 mm.	No.	625	
x)	350 mm.	No.	771	
xi)	400 mm.	No.	931	
xii)	450 mm.	No.	1105	
xiii)	500 mm.	No.	1146	
xiv)	600 mm.	No.	1215	
xv)	700 mm.	No.	1310	
xvi)	750 mm.	No.	1441	
xvii)	800 mm.	No.	1719	
xviii)	900 mm.	No.	1824	
xix)	1000 mm.	No.	2150	
xx)	1100 mm.	No.	2483	
xxi)	1200 mm. to 1500 mm	No.	2726	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>5.</b>	Providing and <b>supplying Air Valves</b> as per IS-14845-2000 and MJP's standard specifications of approved make and quality of following diameters including railway freight, inspection charges, unloading from railway wagons, loading into truck, transportation upto departmental stores, unloading and stacking excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b><u>Air Valve Single Ball Flanged / Screwed Type - PN -1</u></b>			
i)	12/15 mm.	No.	760	
ii)	20 mm.	No.	917	
iii)	25 mm.	No.	1265	
iv)	32 mm.	No.	1381	
v)	40 mm.	No.	1520	
vi)	50 mm.	No.	1669	
<b>b)</b>	<b><u>Air Valve Single Ball Flanged / Screwed Type - PN -1.6</u></b>			
i)	12/15 mm.	No.	890	
ii)	20 mm.	No.	1265	
iii)	25 mm.	No.	1520	
iv)	32 mm.	No.	1638	
v)	40 mm.	No.	1756	
vi)	50 mm.	No.	2291	
<b>6.</b>	Providing and <b>supplying Air Valves</b> as per IS-14845 and MJP's standard specifications double orifice type combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b><u>Air Valve Double Ball Flanged Type - PN -1</u></b>			
i)	50 mm.	No.	7020	
ii)	65 mm.	No.	8191	
iii)	80 mm.	No.	9355	
<b>b)</b>	<b><u>Air Valve Double Ball Flanged Type - PN -1.6</u></b>			
i)	50 mm.	No.	9299	
ii)	65 mm.	No.	10530	
iii)	80 mm.	No.	13030	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>7.</b>	Providing and <b>supplying Air Valves</b> as per IS-14845-2000 and MJP's standard specifications double orifice type combined with isolating sluice valve, mounted in horizontal position and operated by wheel gearing, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental store, excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b><u>Air Valve Double Ball Flanged Type - PN -1</u></b>			
i)	100 mm.	No.	11831	
ii)	150 mm.	No.	21560	
iii)	200 mm.	No.	36259	
<b>b)</b>	<b><u>Air Valve Double Ball Flanged Type - PN - 1.6</u></b>			
i)	100 mm.	No.	18088	
ii)	150 mm.	No.	25481	
iii)	200 mm.	No.	42853	
<b>8.</b>	Providing and <b>supplying Kinetic Double Orifice type Air Valves</b> confirming to IS 14845 as per MJP's standard specifications combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b><u>Kinetic Air Valve Flanged Type - PN -1</u></b>			
i)	40 mm.	No.	10877	
ii)	50 mm.	No.	12295	
iii)	80 mm.	No.	14423	
<b>b)</b>	<b><u>Kinetic Air Valve Flanged Type - PN -1.6</u></b>			
i)	40 mm.	No.	13595	
ii)	50 mm.	No.	15368	
iii)	80 mm.	No.	18028	





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>9.</b>	Providing and <b>supplying Kinetic Double Orifice type Air Valves</b> confirming to IS 14845 as per MJP's standard specifications having small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, with built-in Kinetic features, isolating sluice valve mounted in horizontal position and operated by wheel gearing, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.			
	<b><u>a) Kinetic Air Valve Flanged Type - PN -1</u></b>			
	i) 100 mm.	No.	15722	
	ii) 150 mm.	No.	21990	
	iii) 200 mm.	No.	34283	
	<b><u>b) Kinetic Air Valve Flanged Type - PN -1.6</u></b>			
	i) 100 mm.	No.	19656	
	ii) 150 mm.	No.	27485	
	iii) 200 mm.	No.	42853	
<b>10.</b>	<b>Lowering, laying and fixing</b> in proper alignment and position all types of <b>C.I. air valves</b> as directed by Engineer-in-charge including cost of conveyance from stores to site of work, cost of all material and giving satisfactory hydraulic testing, etc. complete. (for all class of valves).			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>a)</b>	<b><u>Air Valve Single Ball (PN-1 and PN - 1.6)</u></b>			
i)	15 mm.	No.	149	
ii)	20 mm.	No.	188	
iii)	25 mm.	No.	244	
iv)	32 mm.	No.	270	
v)	40 mm.	No.	288	
vi)	50 mm.	No.	312	
vii)	65 mm.	No.	329	
viii)	80 mm.	No.	344	
ix)	100 mm.	No.	384	
x)	125 mm.	No.	466	
xi)	150 mm.	No.	517	
xii)	200 mm.	No.	569	
<b>b)</b>	<b><u>Air Valve Double Ball (PN-1 and PN - 1.6)</u></b>			
i)	15 mm.	No.	162	
ii)	20 mm.	No.	202	
iii)	25 mm.	No.	244	
iv)	32 mm.	No.	276	
v)	40 mm.	No.	323	
vi)	50 mm.	No.	373	
vii)	65 mm.	No.	430	
viii)	80 mm.	No.	513	
ix)	100 mm.	No.	542	
x)	125 mm.	No.	596	
xi)	150 mm.	No.	815	
xii)	200 mm.	No.	897	
	<b><u>c) Kinetic Air Valve (PN-1 and PN - 1.6)</u></b>			
i)	40 mm.	No.	370	
ii)	50 mm.	No.	428	
iii)	65 mm.	No.	466	
iv)	80 mm.	No.	513	
v)	100 mm.	No.	564	
vi)	125 mm.	No.	615	
vii)	150 mm.	No.	883	
viii)	200 mm.	No.	961	
<b>11.</b>	<b><u>Providing erecting Cast Steel/ Spheroidal Graphite (S.G) Iron D/F Sluice Valves / Butterfly Valves</u></b> with jointing to pipe work (including all hardware and packing) water works quality, having non-rising spindle with hand wheel and without bypass arrangement, spindle of stainless steel as per requirement, inspection charges, transportation upto departmental store, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. excluding C. C. foundation / structural steel support.			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>A)</b>	<b><u>A) For Rating Class 150 (Working Pressure 20 kg/cm2 and Test Pressure 30 kg/cm2)</u></b>			
<b>a)</b>	<b><u>Sluice Valves. CS-150</u></b>			
i)	80 mm dia.	No.	18136	
ii)	100 mm dia.	No.	24179	
iii)	150 mm dia.	No.	36269	
iv)	200 mm dia.	No.	56564	
v)	250 mm dia.	No.	81401	
vi)	300 mm dia.	No.	104152	
vii)	350 mm dia.	No.	138870	
viii)	400 mm dia.	No.	231733	
ix)	450 mm dia.	No.	316176	
x)	500 mm dia.	No.	371971	
xi)	600 mm dia.	No.	424666	
<b>b)</b>	<b><u>Butterfly Valves. CS-150</u></b>			
i)	300 mm	No.	130967	
ii)	350 mm	No.	139618	
iii)	400 mm	No.	156820	
iv)	450 mm	No.	167060	
v)	500 mm	No.	193385	
vi)	600 mm	No.	217633	
<b>12.</b>	<b><u>Providing erecting Cast Steel D/F Sluice Valves / Butterfly Valves</u></b> with jointing to pipe work (including all hardware and packing) water works quality having non-rising spindle with hand wheel and without bypass arrangement, spindle of stainless steel as per requirement, inspection charges, transportation upto departmental store, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. excluding C. C. foundation / structural steel support.			
	<b><u>For Rating Class 300 (Working Pressure 52 kg/cm2 and Test Pressure 78 kg/cm2)</u></b>			
<b>a)</b>	<b><u>Sluice Valves CS-300</u></b>			
i)	80 mm	No.	18244	
ii)	100 mm	No.	28804	
iii)	150 mm	No.	43915	
iv)	200 mm	No.	68874	
v)	250 mm	No.	74347	
vi)	300 mm	No.	125334	
vii)	350 mm	No.	211379	
viii)	400 mm	No.	308365	
ix)	450 mm	No.	371274	
x)	500 mm	No.	578411	
xi)	600 mm	No.	874252	
<b>b)</b>	<b><u>Butterfly Valves CS-300</u></b>			
i)	300 mm	No.	149326	
ii)	350 mm	No.	159191	
iii)	400 mm	No.	178804	
iv)	450 mm	No.	190480	
v)	500 mm	No.	220496	
vi)	600 mm	No.	248142	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>13.</b>	<b><u>Providing erecting Cast Steel /Spheroidal Graphite (S.G.) Iron D/F Reflux Valves</u></b> Single Door with jointing to pipe work (including all hardware and packing) water works quality with jointing to pipe without bypass arrangement, with gunmetal seats including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. completed but excluding C. C. foundation / structural steel support.			
	<b><u>For Rating Class 150 (Working Pressure 20 kg/cm2 and Test Pressure 30 kg/cm2)</u></b>			
	<b><u>Reflux valve CS-150</u></b>			
i)	80 mm	No.	11827	
ii)	100 mm	No.	18109	
iii)	150 mm	No.	30679	
iv)	200 mm	No.	58332	
v)	250 mm	No.	101569	
vi)	300 mm	No.	133812	
<b>14.</b>	<b><u>Providing erecting Cast Steel D/F Reflux Valves</u></b> Single door with jointing to pipe work (including all hardware and packing) water works quality with jointing to pipe without bypass arrangement, with gunmetal seat including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. completed but excluding excluding C. C. foundation / structural steel support.			
	<b><u>For Rating Class 300 (Working Pressure 52 kg/cm2 and Test Pressure 78 kg/cm2)</u></b>			
	<b><u>Reflux valve CS-300</u></b>			
i)	80 mm	No.	18854	
ii)	100 mm	No.	26575	
iii)	150 mm	No.	44194	
iv)	200 mm	No.	78292	
v)	250 mm	No.	141745	
vi)	300 mm	No.	172584	
<b>15.</b>	Providing, erecting <b><u>Kinetic Double Orifice Cast Steel Air Valves</u></b> with an isolating Sluice Valve mounted in horizontal position operated by wheel gear suitable for working pressure of Class 300 rating (52 kg/cm2)			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	<b>Air valve CS-150</b>			
i)	80 mm	No.	36560	
ii)	100 mm	No.	50960	
iii)	150 mm	No.	97652	
iv)	200 mm	No.	126228	
<b>16.</b>	Providing, erecting <b>Kinetic Double Orifice Cast Steel Air Valves</b> with an isolating Sluice Valve mounted in horizontal position operated by wheel gear suitable for working pressure of Class 300 rating (52 kg/cm <sup>2</sup> )			
	<b>KDB Air valve CS-300</b>			
i)	80 mm	No.	44540	
ii)	100 mm	No.	50915	
iii)	150 mm	No.	118980	
iv)	200 mm	No.	143622	
<b>17.</b>	<b>Providing and fixing in position air valve shaft</b> including providing and fixing GI Medium Class or 6 mm thick M.S. pipe shaft 2.70 M long over branch flange of air valve tee, providing PCC block of M-150 concrete, 150 mm thick around the air valve tee including encasing of vertical shaft in PCC M-150 as shown in type design together with providing and making flanged joints wherever required and fixing of air valve tee, etc. complete as per type design and as directed by Engineer -in-charge for following diameters of pipe lines (type design attached.)			
<b>a)</b>	<b>Foundation on Murum and Harder Strata.</b>			
i)	upto 150mm	No.	6415	
ii)	200 to 400 mm	No.	7515	
iii)	450 to 900mm	No.	15284	
iv)	1000 to 1200 mm	No.	19192	
<b>b)</b>	<b>Foundation in B. C. Soil or Any Other Soil.</b>			
i)	upto 150 mm	No.	7600	
ii)	200 to 400 mm	No.	9168	
iii)	450 to 900 mm	No.	17458	
iv)	1000 to 1200 mm	No.	21894	
<b>18.</b>	Providing and supplying <b>C.I. D/F angle type spring loaded pressure relief valves</b> of approved make and quality including inspection charges, transportation to departmental stores excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b>Type PN-1</b>			
i)	25 mm	No.	4769	
ii)	40 mm	No.	6215	
iii)	50 mm	No.	8048	
iv)	80 mm	No.	12205	
v)	100 mm	No.	17086	
vi)	125 mm	No.	23297	
vii)	150 mm	No.	26621	
viii)	200 mm	No.	58784	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
ix)	250 mm	No.	82632	
x)	300 mm	No.	108974	
<b>b)</b>	<b>Type PN-1.6</b>			
i)	25 mm	No	5962	
ii)	40 mm	No	7764	
iii)	50 mm	No	8801	
iv)	80 mm	No	14126	
v)	100 mm	No	19394	
vi)	125 mm	No	29113	
vii)	150 mm	No	33275	
viii)	200 mm	No	73476	
ix)	250 mm	No	103289	
x)	300 mm	No	136536	
<b>19.</b>	<b><u>Lowering, laying and fixing in proper alignment and position all types of C.I. D/F</u></b> angle type spring loaded pressure relief valves including cost of all material, labour, cost of conveyance from stores to site of work and giving satisfactory hydraulic testing, etc. complete. (For all class of valves.)			
i)	25 mm	No	279	
ii)	40 mm	No	370	
iii)	50 mm	No	429	
iv)	80 mm	No	512	
v)	100 mm	No	561	
vi)	125 mm	No	625	
vii)	150 mm	No	883	
viii)	200 mm	No	962	
ix)	250 mm	No	1123	
x)	300 mm	No	1282	
<b>20.</b>	<b><u>Cutting and champhering of pipes</u></b> of following diameters including cost of all materials and labour involved, etc. complete as directed by Engineer-in-charge (for all class of pipes).			
<b>a)</b>	<b>C.I.Pipes</b>			
i)	80 mm	No	50	
ii)	100 mm	No	58	
iii)	150 mm	No	90	
iv)	200 mm	No	113	
v)	250 mm	No	162	
vi)	300 mm	No	193	
vii)	350 mm	No	198	
viii)	400 mm	No	251	
ix)	450 mm	No	292	
x)	500 mm	No	348	
xi)	600 mm	No	426	
xii)	700 mm	No	502	
xiii)	750 mm	No	599	
xiv)	800 mm	No	654	
xv)	900 mm	No	719	
xvi)	1000 mm	No	783	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
<b>21.</b>	Providing and supplying I.S.I. mark <b>rubber gasket suitable</b> for C.I. or D. I. pipe of all class for tyton joints including inspection charges, transportation upto departmental stores excluding GST levied by GOI & GOM in all respect etc. complete.			
<b>a)</b>	<b><u>S.B.R. Gaskets for C. I. / D.I. Pipes</u></b>			
i)	80 mm	No	45	
ii)	100 mm	No	50	
III)	150 mm	No	70	
iv)	200 mm	No	119	
v)	250 mm	No	154	
vi)	300 mm	No	218	
vii)	350 mm	No	249	
viii)	400 mm	No	346	
ix)	450 mm	No	378	
x)	500 mm	No	515	
xi)	600 mm	No	715	
xii)	700 mm	No	1273	
xiii)	750 mm	No	1323	
xiv)	800 mm	No	1371	
xv)	900 mm	No	1982	
xvi)	1000 mm	No	2546	
<b>b)</b>	<b><u>Sealing ' O' Rings of SBR (for CID Joints)</u></b>			
i)	80 mm	Set.	51	
ii)	100 mm	Set.	64	
iii)	125 mm	Set.	74	
iv)	150 mm	Set.	87	
<b>c)</b>	<b><u>Flat Flanged Gaskets moulded out of SBR (For Flanged Joints)</u></b>			
i)	80 mm	No.	95	
ii)	100 mm	No.	126	
iii)	125 mm	No.	150	
iv)	150 mm	No.	205	
v)	200 mm	No.	254	
vi)	250 mm	No.	356	
vii)	300 mm	No.	378	
viii)	350 mm	No.	458	
ix)	400 mm	No.	566	
x)	450 mm	No.	618	
xi)	500 mm	No.	725	
xii)	600 mm	No.	975	
<b>d)</b>	<b><u>Providing Rubber Gasket - EPDM Gaskets for C. I. / D.I. Pipes</u></b>			
i)	80 mm.	No	52	
ii)	100 mm.	No	54	
iii)	150 mm.	No	82	
iv)	200 mm.	No	137	
v)	250 mm.	No	187	
vi)	300 mm.	No	246	
vii)	350 mm.	No	287	
viii)	400 mm.	No	393	
ix)	450 mm.	No	439	
x)	500 mm.	No	582	
xi)	600 mm.	No	817	
xii)	700 mm.	No	1534	
xiii)	750 mm.	No	1608	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4	5	6	7
xiv)	800 mm.	No	1961			
xv)	900 mm.	No	2532			
xvi)	1000 mm	No	2943			
<b>22.</b>	Providing and fixing in position and jointing <b>high performance C. I. Air valves</b> for water combination type ( Kinetic air valve along with automatic air valves ) double ball, double orifice with stainless steel ball, tamper proof air vents rolling seal mechanism for air release and anti vacuum application designed for 16 Kg. Per sq. cm. working pressure and tested for 20 for kg per sq. cm. pressure. ( Rate to include cost of gaskets, bolt, nut and any other material required for jointing and its transportation etc. excluding GST levied by GOI & GOM in all respect.					
i)	1. C. I. ARV FLFF PN 1.6 50mm Dia.	No	11453			
ii)	2. C. I. ARV FLFF PN 1.6 80mm Dia.	No	15892			
iii)	3. C. I. ARV FLFF PN 1.6 100mm Dia.	No	25553			
iv)	4. C. I. ARV FLFF PN 1.6 150mm Dia.	No	42773			
v)	5. C. I. ARV FLFF PN 1.6 200mm Dia.	No	51811			
<b>23.</b>	Providing and supplying at site of <b>ductile iron /spheroidal graphite (S.G.) iron D/F double eccentric resilient seated short body butterfly valves</b> with gear box & handwheel, without bypass arrangement. Valves in accordance with BS EN 593 of PN 10/16 rated, with body & disc of ductile iron confirming to EN 1563/IS 1865 Gr.500/7 or Gr.400/15, Body seat of intergral SG Iron/S.S. AISI 316, seal retaining ring of steel C45/S.S. 1.4436, Shaft of S.S. 1.4021, Periferial disc seal and "O" rings of WRAS approved EPDM rubber (suitable for drinking water), Internal fasteners of stainless steel A2. Body & disc coated inside & outside with electrostatically applied epoxy powder coated blue colour. (suitable for drinking water.) as per DIN 30677- 2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be 100% tight shutoff. Face to face is per IS 13095 short body. Flange drilling as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 13095. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete.					
i)	200 mm.	No.	54741	66118		
ii)	250 mm.	No.	68558	85558		
iii)	300 mm.	No.	88005	113039		
iv)	350 mm.	No.	109577	133628		
v)	400 mm.	No.	130604	152495		
vi)	450 mm.	No.	169228	206706		
vii)	500 mm.	No.	184608	247778		
viii)	600 mm.	No.	268759	378607		
ix)	700 mm.	No.	446991	521488		
x)	800 mm.	No.	530801	637893		





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
1	2	3	4		5	
xi)	900 mm.	No.	651860	772919		
xii)	1000 mm	No.	921916	992695		
<b>24.</b>	Providing and supplying at site of <b>ductile iron / spheroidal graphite (S.G.) iron D/F non-rising spindle resilient seated glandless sluice valves</b> with handwheel & without bypass arrangement. Valves in accordance with BS 5163 of PN-10/ 16 rated, with body and bonnet of ductile iron conforming to IS 1865 Gr. 500/7 or Gr.400/15. Wedge fully encapsulated WRAS approved EPDM rubber (approved for drinking water), Wedge nut of brass, shaft of stainless steel 1.4021/1.4104, stem seals min. 3 nos. of NBR, internal fasteners of stainless steel A2. Body & Bonnet coated inside & outside with electrostatically applied epoxy powder coated blue colour (suitable for drinking water) as per DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be full bore & tight shut-off. Flange drilling as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 14846. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete. (For PN 10 & 16)					
i)	50 mm	No.	7678			
ii)	80 mm.	No.	9750			
iii)	100 mm.	No.	12079			
iv)	150 mm.	No.	16849			
v)	200 mm.	No.	26741			
vi)	250 mm.	No.	47375			
vii)	300 mm.	No.	63505			
viii)	350 mm.	No.	145345			
ix)	400 mm.	No.	175386			
x)	450 mm.	No.	239648			
xi)	500 mm.	No.	302644			
xii)	600 mm.	No.	437862			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
25.	Providing and supplying at site <u>ductile iron / Spheroidal Graphite (S.G.) iron single / Double chamber tamper proof air valve</u> without isolating sluice valve. Valves in accordance with BSEN 1074-4 of PN 10/16 rated, with body and bonnet of ductile iron confirming to EN 1563/IS 1865 Gr. 500/7 or Gr.400/15 floats, float guide, seat ring of stainless steel 1.4436/1.4306, seat ring gasket of WRAS approved EPDM rubber (suitable for drinking water), internal fasteners of stainless steel A2. Body & Bonnet coated inside & outside with electrostatically applied epoxy powder coated blue colour (suitable for drinking water) as per DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Flange connections as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 14845. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete. (For PN 10 & 16)			
i)	50 mm	No.	17353	
ii)	80 mm.	No.	17807	
iii)	100 mm.	No.	21904	
iv)	150 mm.	No.	30465	
v)	200 mm.	No.	31689	



IP SSR 2023-24

**SECTION - I (XIII)  
MECHANICAL JOINTS/FITTINGS**



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	<b>XIII. MECHANICAL JOINTS / FITTING</b>			
<b>1.</b>	<b><u>Supply of C. I. Mechanical Compression Flanged / Socket Tailpiece</u></b> (Popularly known as I TM Flanged / Socket Tailpiece) suitable for making flanged connection with the plain barrel of C. I. Spun Pipes ( as per - IS - 1536 /2001) and D. I. Pipes ( as per IS: 8329 / 2000).The Tailpiec to be supplied complete with sealing rubber gasket of S.B.R, C.I. Follower Glands and M.S. Nut Bolts.The whole assembly should be mechanically and hydraulically tested to the provisions as laid down in IS:1538 /1993. The rates are inclusive of cost of material, freight charges, loading, transportation and unloading at departemental store, excluding GST levied by Gol and GoM in all respect, etc. complete as directed.			
i)	80 mm dia	No.	1311	
ii)	100 mm dia	No.	1430	
III)	125 mm dia	No.	1800	
iv)	150 mm dia	No.	2574	
v)	200 mm dia	No.	3335	
vi)	250 mm dia	No.	5031	
vii)	300 mm dia	No.	5632	
viii)	350 mm dia	No.	7427	
ix)	400 mm dia	No.	9694	
x)	450 mm dia	No.	11380	
xi)	500 mm dia	No.	14299	
xii)	600 mm dia	No.	18336	
xiii)	700 mm dia	No.	25009	
xiv)	750 mm dia	No.	30390	
<b>2.</b>	<b><u>Supply of C. I. Mechanical Compression Collar Coupling</u></b> suitable for C. I. Spun Pipes ( as per - IS - 1536 /2001) and complete with sealing rubber gasket of SBR, C.I. follower Glands and M.S. nut Bolts.The whole assembly should be mechanically and hydraulically tested to the provisions as laid down in IS:1538 /1993.			
i)	80 mm dia	No.	826	
ii)	100 mm dia	No.	886	
III)	125 mm dia	No.	1181	
iv)	150 mm dia	No.	1593	
v)	200 mm dia	No.	1818	
vi)	250 mm dia	No.	2914	
vii)	300 mm dia	No.	3729	
viii)	350 mm dia	No.	4597	
ix)	400 mm dia	No.	7154	
x)	450 mm dia	No.	8033	
xi)	500 mm dia	No.	10977	
xii)	600 mm dia	No.	13692	
xiii)	700 mm dia	No.	17889	
xiv)	750 mm dia	No.	20990	
<b>3.</b>	<b><u>Supply of C. I. Mechanical Joint Double Socket 900 (11/4") Bends</u></b> as dimensionally described in Table-14 of IS-13382/ 1992 complete with sealing rubber gasket of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia	No.	2227	
ii)	100 mm dia	No.	2583	
III)	125 mm dia	No.	3017	
iv)	150 mm dia	No.	4744	
v)	200 mm dia	No.	6295	
vi)	250 mm dia	No.	9369	
vii)	300 mm dia	No.	11402	
viii)	350 mm dia	No.	18880	
ix)	400 mm dia	No.	25732	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
x)	450 mm dia	No.	32845	
xi)	500 mm dia	No.	40872	
xii)	600 mm dia	No.	57765	
xiii)	700 mm dia	No.	91180	
xiv)	750 mm dia	No.	103559	
<b>4.</b>	<b><u>Supply of CI Mechanical joint Double Socket 450 (11/8") Bends</u></b> as dimensionally described in Table -15 of IS - 13382/ 1992 complete with sealing rubber gasket of S.B.R. (dimensionally described in IS-12820/1989) with cast iron follower gland mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia	No.	2068	
ii)	100 mm dia	No.	2302	
iii)	125 mm dia	No.	2909	
iv)	150 mm dia	No.	3995	
v)	200 mm dia	No.	5263	
vi)	250 mm dia	No.	7720	
vii)	300 mm dia	No.	9314	
viii)	350 mm dia	No.	15538	
ix)	400 mm dia	No.	19173	
x)	450 mm dia	No.	26743	
xi)	500 mm dia	No.	29795	
xii)	600 mm dia	No.	41254	
xiii)	700 mm dia	No.	58789	
xiv)	750 mm dia	No.	77749	
<b>5.</b>	<b><u>Supply of C. I. Mechanical Joint Double Socket 22.50 (1/6") Bends</u></b> as dimensionally described in Table -16 of IS-13382/ 1992 complete with sealing rubber gasket of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia.	No.	1985	
ii)	100 mm dia.	No.	2209	
iii)	125 mm dia.	No.	2653	
iv)	150 mm dia.	No.	3751	
v)	200 mm dia.	No.	4703	
vi)	250 mm dia.	No.	7113	
vii)	300 mm dia.	No.	8585	
viii)	350 mm dia.	No.	13553	
ix)	400 mm dia.	No.	17375	
x)	450 mm dia.	No.	21980	
xi)	500 mm dia.	No.	25616	
xii)	600 mm dia.	No.	33940	
xiii)	700 mm dia.	No.	51056	
xiv)	750 mm dia.	No.	56223	
<b>6.</b>	<b><u>Supply of CI Mechanical joint Double Socket 11.250 (1/32") Bends</u></b> as dimensionally described in Table -17 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R.( dimensionally described in IS-12820 /1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia.	No.	1965	
ii)	100 mm dia.	No.	2158	
iii)	125 mm dia.	No.	2345	
iv)	150 mm dia.	No.	3667	
v)	200 mm dia.	No.	4515	
vi)	250 mm dia.	No.	6674	
vii)	300 mm dia.	No.	7395	
viii)	350 mm dia.	No.	11670	
ix)	400 mm dia.	No.	15806	
x)	450 mm dia.	No.	19951	
xi)	500 mm dia.	No.	21748	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
xii)	600 mm dia.	No.	29813	
xiii)	700 mm dia.	No.	40190	
xiv)	750 mm dia.	No.	44837	
<b>7</b>	<b><u>Supply of CI Mechanical joint All Socket Tees</u></b> as dimensionally described in Table -18 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R. (dimensionally described in IS- 12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80x80x80 mm dia	No.	3039	
ii)	100x100x80 mm dia	No.	3267	
iii)	100x100x100 mm dia	No.	3622	
iv)	150x150x80 mm dia	No.	5074	
v)	150x150x100 mm dia	No.	5146	
vi)	150x150x150 mm dia	No.	6382	
vii)	200x200x80 mm dia	No.	6120	
viii)	200x200x100 mm dia	No.	6188	
ix)	200x200x150 mm dia	No.	7370	
x)	200x200x200 mm dia	No.	8109	
xi)	250x250x80 mm dia	No.	8619	
xii)	250x250x100 mm dia	No.	8809	
xiii)	250x250x150 mm dia	No.	10513	
xiv)	250x250x200 mm dia	No.	11108	
xv)	250x250x250 mm dia	No.	12459	
xvi)	300x300x80 mm dia	No.	9451	
xvii)	300x300x100 mm dia	No.	9664	
xviii)	300x300x150 mm dia	No.	12393	
xix)	300x300x200 mm dia	No.	12803	
xx)	300x300x250 mm dia	No.	13555	
xxi)	300x300x300 mm dia	No.	14960	
<b>8.</b>	<b><u>Supply of CI Mechanical joint Double Socket with Flanged Tees</u></b> dimensionally described in Table -19 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R.( dimensionally described in IS-12820/ 1989) with cast iron follower gland and mild steel nut bolts coated or galvanised coated or otherwise protected from rusting and suitable for C. I. pipes.			
	80x80x80 mm dia	No.	2976	
	100x100x80 mm dia	No.	3266	
	100x100x100 mm dia	No.	3455	
	150x150x80 mm dia	No.	4928	
	150x150x100 mm dia	No.	5050	
	150x150x150 mm dia	No.	6015	
	200x200x80 mm dia	No.	5784	
	200x200x100 mm dia	No.	6170	
	200x200x150 mm dia	No.	7106	
	200x200x200 mm dia	No.	8147	
	250x250x80 mm dia	No.	8169	
	250x250x100 mm dia	No.	8597	
	250x250x150 mm dia	No.	10200	
	250x250x200 mm dia	No.	10673	
	250x250x250 mm dia	No.	11052	
	300x300x80 mm dia	No.	9590	
	300x300x100 mm dia	No.	9778	
	300x300x150 mm dia	No.	11289	
	300x300x200 mm dia	No.	11385	
	300x300x250 mm dia	No.	12564	
	300x300x300 mm dia	No.	15398	
	350x350x80 mm dia	No.	13413	
	350x350x100 mm dia	No.	14265	
	350x350x150 mm dia	No.	15348	
	350x350x200 mm dia	No.	17885	
	350x350x300 mm dia	No.	18323	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	350x350x350 mm dia	No.	20968	
	400x400x80 mm dia	No.	17534	
	400x400x100 mm dia	No.	18587	
	400x400x150 mm dia	No.	20694	
	400x400x200 mm dia	No.	21111	
	400x400x300 mm dia	No.	25442	
	400x400x400 mm dia	No.	29130	
	450x450x80 mm dia	No.	20913	
	450x450x100 mm dia	No.	21969	
	450x450x200 mm dia	No.	25764	
	450x450x300 mm dia	No.	32511	
	450x450x350 mm dia	No.	34304	
	450x450x450 mm dia	No.	37261	
	500x500x100 mm dia	No.	23529	
	500x500x250 mm dia	No.	32175	
	500x500x300 mm dia	No.	33333	
	500x500x400 mm dia	No.	40191	
	500x500x500 mm dia	No.	48523	
	600x600x100 mm dia	No.	33626	
	600x600x300 mm dia	No.	46175	
	600x600x400 mm dia	No.	52605	
	600x600x500 mm dia	No.	56927	
	600x600x600 mm dia	No.	69896	
	700x700x100 mm dia	No.	44565	
	700x700x200 mm dia	No.	51630	
	700x700x350 mm dia	No.	62385	
	700x700x400 mm dia	No.	67024	
	750x750x150 mm dia	No.	53153	
	750x750x250 mm dia	No.	60958	
	750x750x750 mm dia	No.	116950	
9.	<b>Supply of CI Mechanical joint Double Socket Reducers</b> as described in Table -21 of IS - 13382/1992 complete with sealing rubber gasket of SBR( dimensionally described in IS-12820/ 1989) with cast iron follower gland and mild steel nut bolts with coated or otherwise protected from rusting and suitable for C. I. pipes.			
	100x80 mm dia	No.	2088	
	150x80 mm dia	No.	3286	
	150x100 mm dia	No.	3479	
	200x100 mm dia	No.	4005	
	200x150 mm dia	No.	4380	
	250x150 mm dia	No.	5837	
	250x200 mm dia	No.	5983	
	300x150 mm dia	No.	7360	
	300x200 mm dia	No.	7372	
	300x250 mm dia	No.	7497	
	350x200 mm dia	No.	10595	
	350x250 mm dia	No.	10629	
	350x300 mm dia	No.	10503	
	400x250 mm dia	No.	16002	
	400x300 mm dia	No.	14177	
	400x350 mm dia	No.	14271	
	450x300 mm dia	No.	17721	
	450x350 mm dia	No.	17711	
	450x400 mm dia	No.	17489	
	500x350 mm dia	No.	21304	
	500x400 mm dia	No.	20979	
	500x450 mm dia	No.	20448	
	600x400 mm dia	No.	30933	
	600x450 mm dia	No.	30106	
	600x500 mm dia	No.	28267	
	700x500 mm dia	No.	42461	
	700x600 mm dia	No.	38536	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	750x600 mm dia	No.	45769	
	750x700 mm dia	No.	42306	
	800x450 mm dia	No.	62966	
	800x700 mm dia	No.	54053	

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**SECTION - I (XIV)**  
**M.S. PIPES**



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	<b>XIV. M. S. PIPES</b>			
1.	<b>Manufacturing, providing and supplying spirally welded / ERW/ SAW / fabricated M. S. pipes</b> (Commercial Quality) including procurements of plates, gas cutting to required size rolling, tack welding assembling in suitable lengths to form pipes, welding on automatic welding machine and forming 'V' edge on both ends of pipes including railway freight, insurance, unloading from railway wagon, loading into truck, transport to stores, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc, complete as per IS - 3589 and IS-5504 as applicable as per specifications (No negative tolerance in thickness is permissible).			
	<b>a) Dia of Pipe : 219.10 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) 4.8 mm	RMT	2386	
	ii) 5.6 mm	RMT	2773	
	iii) 6.4 mm	RMT	3158	
	iv) 7.0 mm	RMT	3444	
	v) 7.9 mm	RMT	3870	
	vi) 8.2 mm	RMT	4012	
	vii) 8.7 mm	RMT	4246	
	viii) 9.5 mm	RMT	4619	
	<b>b) Dia of Pipe : 273.10 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) 4.8 mm	RMT	2987	
	ii) 5.6 mm	RMT	3475	
	iii) 6.4 mm	RMT	3959	
	iv) 7.2 mm	RMT	4441	
	v) 7.8 mm	RMT	4800	
	vi) 8.7 mm.	RMT	5336	
	vii) 9.3 mm.	RMT	5691	
	<b>c) Dia of Pipe : 323.90 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) 5.6 mm	RMT	4135	
	ii) 6.4 mm	RMT	4714	
	iii) 7.1 mm	RMT	5218	
	iv) 7.9 mm	RMT	5791	
	v) 8.4 mm	RMT	6148	
	vi) 8.7 mm.	RMT	6361	
	vii) 9.5 mm.	RMT	6928	
	<b>d) Dia of Pipe : 355.7 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) 5.6 mm.	RMT	4547	
	ii) 6.4 mm.	RMT	5184	
	iii) 7.1 mm.	RMT	5740	
	iv) 7.9 mm.	RMT	6372	
	v) 8.7 mm.	RMT	7001	
	vi) 9.5 mm.	RMT	7627	
	<b>e) Dia of Pipe : 406.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) 5.6 mm.	RMT	5201	
	ii) 6.4 mm.	RMT	5932	
	iii) 7.1 mm.	RMT	6570	
	iv) 7.9 mm.	RMT	7295	
	v) 8.7 mm.	RMT	8018	
	vi) 9.5 mm.	RMT	8738	
	vii) 10.00 mm.	RMT	9186	
	<b>f) Dia of Pipe : 457.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
	i) ii) 5.6 mm.	RMT	5864	
	6.4 mm.	RMT	6690	
	iii) 7.1 mm.	RMT	7410	
	iv) 7.9 mm.	RMT	8230	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
v)	8.7 mm.	RMT	9047	
vi)	9.5 mm.	RMT	9861	
vii)	10.00 mm.	RMT	10369	
<b>g)</b>	<b><u>Dia of Pipe : 508.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	5.6 mm.	RMT	6526	
ii)	6.4 mm.	RMT	7447	
iii)	7.1 mm.	RMT	8250	
iv)	7.9 mm.	RMT	9164	
v)	8.7 mm.	RMT	10076	
vi)	9.5 mm.	RMT	10985	
vii)	10.00 mm.	RMT	11552	
<b>h)</b>	<b><u>Dia of Pipe : 559.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	5.6 mm.	RMT	7189	
ii)	6.4 mm.	RMT	8204	
iii)	7.1 mm.	RMT	9090	
iv)	7.9 mm.	RMT	10099	
v)	8.7 mm.	RMT	11106	
vi)	9.5 mm.	RMT	12109	
vii)	10.00 mm.	RMT	12735	
<b>i)</b>	<b><u>Dia of Pipe : 610.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	5.6 mm	RMT	7851	
ii)	6.4 mm.	RMT	8961	
iii)	7.1 mm.	RMT	9930	
iv)	7.9 mm.	RMT	11034	
v)	8.7 mm.	RMT	12135	
vi)	9.5 mm.	RMT	13233	
vii)	10.00 mm.	RMT	13918	
viii)	12.00 mm	RMT	16646	
<b>j)</b>	<b><u>Dia of Pipe : 660.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	5.6 mm	RMT	8501	
ii)	6.4 mm.	RMT	9703	
iii)	7.1 mm.	RMT	10753	
iv)	7.9 mm.	RMT	11950	
v)	8.7 mm.	RMT	13144	
vi)	9.5 mm.	RMT	14335	
vii)	10.00 mm.	RMT	15078	
<b>k)</b>	<b><u>Dia of Pipe : 711.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	5.6 mm.	RMT	9163	
ii)	6.4 mm.	RMT	10460	
iii)	7.1 mm.	RMT	11593	
iv)	7.9 mm.	RMT	12885	
v)	8.7 mm.	RMT	14173	
vi)	9.5 mm.	RMT	15459	
vii)	10.00 mm.	RMT	16261	
viii)	12.00 mm	RMT	19457	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>l)</b>	<b>Dia of Pipe : 762.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	9826	
ii)	6.4 mm.	RMT	11218	
iii)	7.1 mm.	RMT	12433	
iv)	7.9 mm.	RMT	13819	
v)	8.7 mm.	RMT	15202	
vi)	9.5 mm.	RMT	16583	
vii)	10.00 mm.	RMT	17444	
<b>m)</b>	<b>Dia of Pipe : 813.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	10488	
ii)	6.4 mm.	RMT	11975	
iii)	7.1 mm.	RMT	13273	
iv)	7.9 mm.	RMT	14754	
v)	8.7 mm.	RMT	16232	
vi)	9.5 mm.	RMT	17707	
vii)	10.00 mm.	RMT	18627	
viii)	12.00 mm	RMT	22297	
<b>n)</b>	<b>Dia of Pipe : 864.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	11151	
ii)	6.4 mm.	RMT	12732	
iii)	7.1 mm.	RMT	14113	
iv)	7.9 mm.	RMT	15688	
v)	8.7 mm.	RMT	17261	
vi)	9.5 mm.	RMT	18830	
vii)	10.00 mm.	RMT	19810	
<b>o)</b>	<b>Dia of Pipe : 914.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	11800	
ii)	6.4 mm.	RMT	13474	
iii)	7.1 mm.	RMT	14936	
iv)	7.9 mm.	RMT	16605	
v)	8.7 mm.	RMT	18270	
vi)	9.5 mm.	RMT	19932	
vii)	10.00 mm.	RMT	20970	
<b>p)</b>	<b>Dia of Pipe : 965.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	12463	
ii)	6.4 mm.	RMT	14231	
iii)	7.1 mm.	RMT	15776	
iv)	7.9 mm.	RMT	17539	
v)	8.7 mm.	RMT	19299	
vi)	9.5 mm.	RMT	21056	
vii)	10.00 mm.	RMT	22153	
<b>q)</b>	<b>Dia of Pipe : 1016.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i) ii)	5.6 mm.	RMT	13125	
	6.4 mm.	RMT	14988	
iii)	7.1 mm.	RMT	16616	
iv)	7.9 mm.	RMT	18474	
v)	8.7 mm.	RMT	20328	
vi)	9.5 mm.	RMT	22180	
vii)	10.00 mm.	RMT	23336	
viii)	12.00 mm	RMT	27947	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
r)	<b>Dia of Pipe : 1067.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i) ii)	5.6 mm.	RMT	13788	
	6.4 mm.	RMT	15745	
iii)	7.1 mm.	RMT	17456	
iv)	7.9 mm.	RMT	19408	
v)	8.7 mm.	RMT	21358	
vi)	9.5 mm.	RMT	23304	
vii)	10.00 mm.	RMT	24519	
s)	<b>Dia of Pipe : 1118.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	14450	
ii)	6.4 mm.	RMT	16503	
iii)	7.1 mm.	RMT	18296	
iv)	7.9 mm.	RMT	20343	
v)	8.7 mm.	RMT	22387	
vi)	9.5 mm.	RMT	24428	
vii)	10.00 mm.	RMT	25702	
t)	<b>Dia of Pipe : 1168.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	5.6 mm.	RMT	15100	
ii)	6.4 mm.	RMT	17245	
iii)	7.1 mm.	RMT	19120	
iv)	7.9 mm.	RMT	21259	
v)	8.7 mm.	RMT	23396	
vi)	9.5 mm.	RMT	25530	
vii)	10.00 mm.	RMT	26862	
u)	<b>Dia of Pipe : 1219.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	6.4 mm.	RMT	18002	
ii)	7.1 mm.	RMT	19959	
iii)	7.9 mm.	RMT	22194	
iv)	8.7 mm.	RMT	24425	
v)	9.5 mm.	RMT	26653	
vi)	10.00 mm.	RMT	28045	
vii)	12.00 mm.	RMT	33598	
v)	<b>Dia of Pipe : 1296.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	9.5 mm.	RMT	28350	
ii)	9.98 mm.	RMT	29772	
iii)	10.00 mm.	RMT	29831	
w)	<b>Dia of Pipe : 1321.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	6.4 mm.	RMT	19516	
ii)	7.1 mm.	RMT	21639	
iii)	7.9 mm.	RMT	24063	
iv)	8.7 mm.	RMT	26484	
v)	9.5 mm.	RMT	28901	
vi)	10.00 mm.	RMT	30411	
x)	<b>Dia of Pipe : 1422.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.1 mm.	RMT	23303	
ii)	7.9 mm.	RMT	25914	
iii)	8.7 mm.	RMT	28522	
iv)	9.5 mm.	RMT	31127	
v)	10.00 mm.	RMT	32754	
vi)	12.00 mm.	RMT	39249	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
y)	<b>Dia of Pipe : 1473.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	9.5 mm.	RMT	32251	
ii)	9.98 mm.	RMT	33869	
z)	<b>Dia of Pipe : 1524.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.1 mm.	RMT	24983	
ii)	7.9 mm.	RMT	27783	
iii)	8.7 mm.	RMT	30580	
iv)	9.5 mm.	RMT	33375	
v)	10.00 mm.	RMT	35120	
vi)	11.90 mm.	RMT	41740	
vii)	12.00 mm.	RMT	42088	
aa)	<b>Dia of Pipe : 1550.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	10.00 mm.	RMT	35723	
ii)	11.00 mm.	RMT	39270	
ab)	<b>Dia of Pipe : 1576.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	9.5 mm.	RMT	34521	
ii)	10.00 mm.	RMT	36326	
ac)	<b>Dia of Pipe : 1626.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.1 mm.	RMT	26663	
ii)	7.9 mm.	RMT	29652	
iii)	8.7 mm.	RMT	32639	
iv)	9.5 mm.	RMT	35622	
v)	10.00 mm.	RMT	37486	
vi)	12.00 mm.	RMT	44927	
ad)	<b>Dia of Pipe : 1650.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.9 mm.	RMT	30092	
ii)	8.7 mm.	RMT	33123	
iii)	9.5 mm.	RMT	36151	
iv)	10.00 mm.	RMT	38042	
v)	12.00 mm.	RMT	45595	
ae)	<b>Dia of Pipe : 1700.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.9 mm.	RMT	31008	
ii)	8.7 mm.	RMT	34132	
iii)	9.5 mm.	RMT	37253	
iv)	10.00 mm.	RMT	39202	
v)	12.00 mm.	RMT	46987	
af)	<b>Dia of Pipe : 1750.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.9 mm.	RMT	31925	
ii)	8.7 mm.	RMT	35141	
iii)	9.5 mm.	RMT	38355	
iv)	10.00 mm.	RMT	40362	
v)	12.00 mm.	RMT	48379	
ag)	<b>Dia of Pipe : 1800.00 mm (O. D.)</b> <b>Thickness of pipe :</b>			
i)	7.9 mm.	RMT	32841	
ii)	8.7 mm.	RMT	36150	
iii)	9.5 mm.	RMT	39457	
iv)	10.00 mm.	RMT	41522	
v)	12.00 mm.	RMT	49771	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>ah)</b>	<b><u>Dia of Pipe : 1850.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	33757	
ii)	8.7 mm.	RMT	37159	
iii)	9.5 mm.	RMT	40559	
iv)	10.00 mm.	RMT	42682	
v)	12.00 mm.	RMT	51162	
<b>ai)</b>	<b><u>Dia of Pipe : 1900.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i) ii)	7.9 mm.	RMT	34673	
	8.7 mm.	RMT	38168	
iii)	9.5 mm.	RMT	41661	
iv)	10.00 mm.	RMT	43842	
v)	12.00 mm.	RMT	52554	
<b>aj)</b>	<b><u>Dia of Pipe : 1950.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i) ii)	7.9 mm.	RMT	35590	
	8.7 mm.	RMT	39177	
iii)	9.5 mm.	RMT	42762	
iv)	10.00 mm.	RMT	45001	
v)	12.00 mm.	RMT	53946	
<b>ak)</b>	<b><u>Dia of Pipe : 2000.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i) ii)	7.9 mm.	RMT	36506	
	8.7 mm.	RMT	40187	
iii)	9.5 mm.	RMT	43864	
iv)	10.00 mm.	RMT	46161	
v)	12.00 mm.	RMT	55338	
<b>al)</b>	<b><u>Dia of Pipe : 2050.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i) ii)	7.9 mm.	RMT	37422	
	8.7 mm.	RMT	41196	
iii)	9.5 mm.	RMT	44966	
iv)	10.00 mm.	RMT	47321	
v)	12.00 mm.	RMT	56730	
<b>am)</b>	<b><u>Dia of Pipe : 2100.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i) ii)	7.9 mm.	RMT	38338	
	8.7 mm.	RMT	42205	
iii)	9.5 mm.	RMT	46068	
iv)	10.00 mm.	RMT	48481	
v)	12.00 mm.	RMT	58121	
<b>an)</b>	<b><u>Dia of Pipe : 2150.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	39255	
ii)	8.7 mm.	RMT	43214	
iii)	9.5 mm.	RMT	47170	
iv)	10.00 mm.	RMT	49641	
v)	12.00 mm.	RMT	59513	
<b>ao)</b>	<b><u>Dia of Pipe : 2200.00 mm (O. D.)</u></b>			
	<b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	40171	
ii)	8.7 mm.	RMT	44223	
iii)	9.5 mm.	RMT	48272	
iv)	10.00 mm.	RMT	50801	
v)	12.00 mm.	RMT	60905	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>ap)</b>	<b><u>Dia of Pipe : 2250.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	41087	
ii)	8.7 mm.	RMT	45232	
iii)	9.5 mm.	RMT	49373	
iv)	10.00 mm.	RMT	51960	
v)	12.00 mm.	RMT	62297	
<b>aq)</b>	<b><u>Dia of Pipe : 2300.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	42003	
ii)	8.7 mm.	RMT	46241	
iii)	9.5 mm.	RMT	50475	
iv)	10.00 mm.	RMT	53120	
v)	12.00 mm.	RMT	63689	
<b>ar)</b>	<b><u>Dia of Pipe : 2350.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	42920	
ii)	8.7 mm.	RMT	47250	
iii)	9.5 mm.	RMT	51577	
iv)	10.00 mm.	RMT	54280	
v)	12.00 mm.	RMT	65080	
<b>as)</b>	<b><u>Dia of Pipe : 2400.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	43836	
ii)	8.7 mm.	RMT	48259	
iii)	9.5 mm.	RMT	52679	
iv)	10.00 mm.	RMT	55440	
v)	12.00 mm.	RMT	66472	
<b>at)</b>	<b><u>Dia of Pipe : 2450.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	44752	
ii)	8.7 mm.	RMT	49268	
iii)	9.5 mm.	RMT	53781	
iv)	10.00 mm.	RMT	56600	
v)	12.00 mm.	RMT	67864	
<b>au)</b>	<b><u>Dia of Pipe : 2500.00 mm (O. D.)</u></b> <b><u>Thickness of pipe :</u></b>			
i)	7.9 mm.	RMT	45669	
ii)	8.7 mm.	RMT	50277	
iii)	9.5 mm.	RMT	54883	
iv)	10.00 mm.	RMT	57760	
v)	12.00 mm.	RMT	69256	
vi)	16.00 mm.	RMT	92193	
<b>2.</b>	<b><u>Manufacturing, providing and supplying spirally welded / ERW/ SAW / fabricated M. S. pipes</u></b> (Commercial Quality) including procurements of plates, gas cutting to required size rolling, tack welding assembling in suitable lengths to form pipes, welding on automatic welding machine and forming 'V' edge on both ends of pipes including railway freight, insurance, unloading from railway wagon, loading into truck, transport to stores, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. complete as per IS - 3589 and IS-5504 as applicable as per specifications (No negative tolerance in thickness is permissible).			





Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
<b>a)</b>	<b>Dia of Pipe : 200.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	2378	
	ii) 6.00 mm.	RMT	2867	
	iii) 7.00 mm.	RMT	3361	
	iv) 8.00 mm.	RMT	3860	
	v) 9.00 mm.	RMT	4363	
	vi) 10.00mm.	RMT	4871	
<b>b)</b>	<b>Dia of Pipe : 250.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	2958	
	ii) 6.00 mm.	RMT	3563	
	iii) 7.00 mm.	RMT	4173	
	iv) 8.00 mm.	RMT	4788	
	v) 9.00 mm.	RMT	5407	
	vi) 10.00mm.	RMT	6031	
<b>c)</b>	<b>Dia of Pipe : 300.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	3537	
	ii) 6.00 mm.	RMT	4259	
	iii) 7.00 mm.	RMT	4985	
	iv) 8.00 mm.	RMT	5716	
	v) 9.00 mm.	RMT	6451	
	vi) 10.00mm.	RMT	7191	
<b>d)</b>	<b>Dia of Pipe : 350.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	4117	
	ii) 6.00 mm.	RMT	4955	
	iii) 7.00 mm.	RMT	5797	
	iv) 8.00 mm.	RMT	6644	
	v) 9.00 mm.	RMT	7495	
	vi) 10.00mm.	RMT	8351	
<b>e)</b>	<b>Dia of Pipe : 400.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	4697	
	ii) 6.00 mm.	RMT	5651	
	iii) 7.00 mm.	RMT	6609	
	iv) 8.00 mm.	RMT	7571	
	v) 9.00 mm.	RMT	8539	
	vi) 10.00mm.	RMT	9511	
<b>f)</b>	<b>Dia of Pipe : 450.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	5277	
	ii) 6.00 mm.	RMT	6347	
	iii) 7.00 mm.	RMT	7421	
	iv) 8.00 mm.	RMT	8499	
	v) 9.00 mm.	RMT	9583	
	vi) 10.00mm.	RMT	10670	
<b>g)</b>	<b>Dia of Pipe : 500.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
	i) 5.00 mm.	RMT	5857	
	ii) 6.00 mm.	RMT	7042	
	iii) 7.00 mm.	RMT	8232	
	iv) 8.00 mm.	RMT	9427	
	v) 9.00 mm.	RMT	10626	
	vi) 10.00mm.	RMT	11830	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
h)	<b>Dia of Pipe : 550.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	6437	
ii)	6.00 mm.	RMT	7738	
iii)	7.00 mm.	RMT	9044	
iv)	8.00 mm.	RMT	10355	
v)	9.00 mm.	RMT	11670	
vi)	10.00mm.	RMT	12990	
i)	<b>Dia of Pipe : 600.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	7017	
ii)	6.00 mm.	RMT	8434	
iii)	7.00 mm.	RMT	9856	
iv)	8.00 mm.	RMT	11283	
v)	9.00 mm.	RMT	12714	
vi)	10.00mm.	RMT	14150	
vii)	12.00mm.	RMT	17036	
i)	<b>Dia of Pipe : 650.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	7597	
ii)	6.00 mm.	RMT	9130	
iii)	7.00 mm.	RMT	10668	
iv)	8.00 mm.	RMT	12211	
v)	9.00 mm.	RMT	13758	
vi)	10.00mm.	RMT	15310	
vii)	12.00mm.	RMT	18427	
k)	<b>Dia of Pipe : 700.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	8177	
ii)	6.00 mm.	RMT	9826	
iii)	7.00 mm.	RMT	11480	
iv)	8.00 mm.	RMT	13139	
v)	9.00 mm.	RMT	14802	
vi)	10.00mm.	RMT	16470	
vii)	12.00mm.	RMT	19819	
l)	<b>Dia of Pipe : 750.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	8757	
ii)	6.00 mm.	RMT	10522	
iii)	7.00 mm.	RMT	12292	
iv)	8.00 mm.	RMT	14066	
v)	9.00 mm.	RMT	15846	
vi)	10.00mm.	RMT	17629	
vii)	12.00mm.	RMT	21211	
m)	<b>Dia of Pipe : 800.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	9337	
ii)	6.00 mm.	RMT	11218	
iii)	7.00 mm.	RMT	13104	
iv)	8.00 mm.	RMT	14994	
v)	9.00 mm.	RMT	16889	
vi)	10.00mm.	RMT	18789	
vii)	12.00mm.	RMT	22603	
n)	<b>Dia of Pipe : 850.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	9917	
ii)	6.00 mm.	RMT	11914	
iii)	7.00 mm.	RMT	13916	
iv)	8.00 mm.	RMT	15922	
v)	9.00 mm.	RMT	17933	
vi)	10.00mm.	RMT	19949	
vii)	12.00mm.	RMT	23995	
o)	<b>Dia of Pipe : 900.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	10496	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
ii)	6.00 mm.	RMT	12610	
iii)	7.00 mm.	RMT	14728	
iv)	8.00 mm.	RMT	16850	
v)	9.00 mm.	RMT	18977	
vi)	10.00mm.	RMT	21109	
vii)	12.00mm.	RMT	25386	
p)	<b>Dia of Pipe : 950.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	11076	
ii)	6.00 mm.	RMT	13306	
iii)	7.00 mm.	RMT	15539	
iv)	8.00 mm.	RMT	17778	
v)	9.00 mm.	RMT	20021	
vi)	10.00mm.	RMT	22269	
vii)	12.00mm.	RMT	26778	
q)	<b>Dia of Pipe : 1000.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	11656	
ii)	6.00 mm.	RMT	14001	
iii)	7.00 mm.	RMT	16351	
iv)	8.00 mm.	RMT	18706	
v)	9.00 mm.	RMT	21065	
vi)	10.00mm.	RMT	23429	
vii)	12.00mm.	RMT	28170	
r)	<b>Dia of Pipe : 1050.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	12236	
ii)	6.00 mm.	RMT	14697	
iii)	7.00 mm.	RMT	17163	
iv)	8.00 mm.	RMT	19634	
v)	9.00 mm.	RMT	22109	
vi)	10.00mm.	RMT	24588	
vii)	12.00 mm.	RMT	29562	
s)	<b>Dia of Pipe : 1100.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	12816	
ii)	6.00 mm.	RMT	15393	
iii)	7.00 mm.	RMT	17975	
iv)	8.00 mm.	RMT	20561	
v)	9.00 mm.	RMT	23153	
vi)	10.00mm.	RMT	25748	
vii)	12.00 mm.	RMT	30954	
t)	<b>Dia of Pipe : 1150.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	13396	
ii)	6.00 mm.	RMT	16089	
iii)	7.00 mm.	RMT	18787	
iv)	8.00 mm.	RMT	21489	
v)	9.00 mm.	RMT	24196	
vi)	10.00mm.	RMT	26908	
vii)	12.00 mm.	RMT	32345	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
u)	<b>Dia of Pipe : 1200.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	5.00 mm.	RMT	13976	
ii)	6.00 mm.	RMT	16785	
iii)	7.00 mm.	RMT	19599	
iv)	8.00 mm.	RMT	22417	
v)	9.00 mm.	RMT	25240	
vi)	10.00mm.	RMT	28068	
vii)	12.00 mm.	RMT	33737	
v)	<b>Dia of Pipe :1250.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	6.00 mm.	RMT	17481	
ii)	7.00 mm.	RMT	20411	
iii)	8.00 mm.	RMT	23345	
iv)	9.00 mm.	RMT	26284	
v)	10.00mm.	RMT	29228	
vi)	12.00 mm.	RMT	35129	
w)	<b>Dia of Pipe :1300.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	6.00 mm.	RMT	18177	
ii)	7.00 mm.	RMT	21223	
iii)	8.00 mm.	RMT	24273	
iv)	9.00 mm.	RMT	27328	
v)	10.00mm.	RMT	30388	
vi)	12.00 mm.	RMT	36521	
x)	<b>Dia of Pipe :1350.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	22034	
ii)	8.00 mm.	RMT	25201	
iii)	9.00 mm.	RMT	28372	
iv)	10.00mm.	RMT	31547	
v)	12.00 mm.	RMT	37913	
y)	<b>Dia of Pipe :1400.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	22846	
ii)	8.00 mm.	RMT	26129	
iii)	9.00 mm.	RMT	29416	
iv)	10.00mm.	RMT	32707	
v)	12.00 mm.	RMT	39304	
z)	<b>Dia of Pipe :1450.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	23658	
ii)	8.00 mm.	RMT	27057	
iii)	9.00 mm.	RMT	30459	
iv)	10.00mm.	RMT	33867	
v)	12.00 mm.	RMT	40696	
aa)	<b>Dia of Pipe :1500.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	24470	
ii)	8.00 mm.	RMT	27984	
iii)	9.00 mm.	RMT	31503	
iv)	10.00mm.	RMT	35027	
v)	12.00 mm.	RMT	42088	
ab)	<b>Dia of Pipe :1550.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	25282	
ii)	8.00 mm.	RMT	28912	
iii)	9.00 mm.	RMT	32547	
iv)	10.00mm.	RMT	36187	
v)	12.00 mm.	RMT	43480	
ac)	<b>Dia of Pipe :1600.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	7.00 mm.	RMT	26094	
ii)	8.00 mm.	RMT	29840	
iii)	9.00 mm.	RMT	33591	
iv)	10.00mm.	RMT	37347	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
v)	12.00 mm.	RMT	44872	
ad)	<b>Dia of Pipe :1650.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	30768	
ii)	9.00 mm.	RMT	34635	
iii)	10.00mm.	RMT	38506	
iv)	12.00 mm.	RMT	46263	
ae)	<b>Dia of Pipe : 1700.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	31696	
ii)	9.00 mm.	RMT	35679	
iii)	10.00 mm.	RMT	39666	
iv)	12.00mm.	RMT	47655	
af)	<b>Dia of Pipe : 1750.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	32624	
ii)	9.00 mm.	RMT	36723	
iii)	10.00 mm.	RMT	40826	
iv)	12.00mm.	RMT	49047	
ag)	<b>Dia of Pipe : 1800.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	33552	
ii)	9.00 mm.	RMT	37766	
iii)	10.00 mm.	RMT	41986	
iv)	12.00mm.	RMT	50439	
ah)	<b>Dia of Pipe : 1850.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	34479	
ii)	9.00 mm.	RMT	38810	
iii)	10.00 mm.	RMT	43146	
iv)	12.00mm.	RMT	51831	
ai)	<b>Dia of Pipe : 1900.00 mm (I. D.) Thickness of pipe :</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	35407	
ii)	9.00 mm.	RMT	39854	
iii)	10.00 mm.	RMT	44306	
iv)	12.00mm.	RMT	53222	
aj)	<b>Dia of Pipe : 1950.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	36335	
ii)	9.00 mm.	RMT	40898	
iii)	10.00 mm.	RMT	45465	
iv)	12.00mm.	RMT	54614	
ak)	<b>Dia of Pipe : 2000.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	37263	
ii)	9.00 mm.	RMT	41942	
iii)	10.00 mm.	RMT	46625	
iv)	12.00mm.	RMT	56006	
v)	16.00 mm.	RMT	74823	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
al)	<b>Dia of Pipe : 2050.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	38191	
ii)	9.00 mm.	RMT	42986	
iii)	10.00 mm.	RMT	47785	
iv)	12.00mm.	RMT	57398	
v)	16.00 mm.	RMT	76679	
am)	<b>Dia of Pipe : 2100.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	39119	
ii)	9.00 mm.	RMT	44029	
iii)	10.00 mm.	RMT	48945	
iv)	12.00mm.	RMT	58789	
v)	16.00 mm.	RMT	78534	
an)	<b>Dia of Pipe : 2150.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	40047	
ii)	9.00 mm.	RMT	45073	
iii)	10.00 mm.	RMT	50105	
iv)	12.00mm.	RMT	60181	
v)	16.00 mm.	RMT	80390	
ao)	<b>Dia of Pipe : 2200.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	40974	
ii)	9.00 mm.	RMT	46117	
iii)	10.00 mm.	RMT	51265	
iv)	12.00mm.	RMT	61573	
v)	16.00 mm.	RMT	82246	
ap)	<b>Dia of Pipe : 2250.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	41902	
ii)	9.00 mm.	RMT	47161	
iii)	10.00 mm.	RMT	52424	
iv)	12.00mm.	RMT	62965	
v)	16.00 mm.	RMT	84102	
aq)	<b>Dia of Pipe : 2300.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	42830	
ii)	9.00 mm.	RMT	48205	
iii)	10.00 mm.	RMT	53584	
iv)	12.00mm.	RMT	64357	
v)	16.00 mm.	RMT	85957	
ar)	<b>Dia of Pipe : 2350.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	43758	
ii)	9.00 mm.	RMT	49249	
iii)	10.00 mm.	RMT	54744	
iv)	12.00mm.	RMT	65748	
v)	16.00 mm.	RMT	87813	
as)	<b>Dia of Pipe : 2400.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	44686	
ii)	9.00 mm.	RMT	50293	
iii)	10.00 mm.	RMT	55904	
iv)	12.00mm.	RMT	67140	
v)	16.00 mm.	RMT	89669	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
at)	<b>Dia of Pipe : 2450.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	45614	
ii)	9.00 mm.	RMT	51336	
iii)	10.00 mm.	RMT	57064	
iv)	12.00mm.	RMT	68532	
v)	16.00 mm.	RMT	91525	
au)	<b>Dia of Pipe : 2500.00 mm (I. D.)</b>			
	<b>Thickness of pipe :</b>			
i)	8.00 mm.	RMT	46542	
ii)	9.00 mm.	RMT	52380	
iii)	10.00 mm.	RMT	58223	
iv)	12.00mm.	RMT	69924	
v)	16.00 mm.	RMT	93380	



SSR 2023-24

**SECTION - I (XV)  
FABRICATION OF  
M.S. PIPES & SPECIALS**





Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2023-25
1	2	3	4	5
	<b><u>XV. FABRICATION OF M.S. PIPES &amp; SPECIALS</u></b>			
1.	Providing, fabricating and fixing <b>expansion joints</b> for pipelines as per the drawing. The rate to include machining the strakes and steel ring as shown in the drawing and welding on either automatic welding machine or manually, Rate includes plates and flats required for expansion joint and all other materials such as synthetic rubber, rubber ring, etc. including packing as per specifications, grease, bolts and nuts, local handling, excluding GST levied by GOI & GOM in all respect etc. complete.			
	Expansion joints suitable for pipe diameters.			
i)	300 mm	Each	39131	
ii)	400 mm	Each	56470	
iii)	450 mm	Each	73455	
iv)	500 mm	Each	98482	
v)	600 mm	Each	115695	
vi)	700 mm	Each	144026	
vii)	750 mm	Each	158716	
viii)	800 mm	Each	184709	
ix)	900 mm	Each	214460	
x)	1000 mm	Each	256793	
xi)	1200 mm	Each	341050	
2.	<b><u>Blast cleaning the surface of the old or new pipeline internally</u></b> to remove all rust etc. complete, including providing copper slag/garnet, machinery, labour, cutting of pipes at required places and rewelding the same etc, complete as directed by Engineer-in-charge. (Pipes pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	158	
3.	<b><u>Blast Cleaning</u></b> of old or new pipeline surface internally with mechanical cleaning machine having steel scraper blades with required passes including removing all rust, scaling etc. including cutting of pipes at required places, rewelding the same including cost of all materials and labour, etc, complete (Pipes pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	158	
4.	<b><u>Blast Cleaning</u></b> of old pipeline surface internally by using swabbing method by passing polyurethane foam "Pig" with required hydraulic pressure, cutting of pipes at required places, rewelding the same including cost of all materials and labour, etc. complete. (Pipe pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	186	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2023-25
1	2	3	4	5
5.	<b>Blast cleaning</b> the surface of the old or new pipeline externally to remove all rust including providing copper slag/garnet machinery etc. complete as directed by Engineer-in-charge.	Sqm.	171	
6.	Providing and applying <b>primer and one coat of red oxide</b> of iron paint internally to blast cleaned surface of the pipes.	Sqm.	51	
7.	Providing and applying <b>primer and one coat of red oxide</b> of iron paint <b>internally</b> including cleaning the surface of the pipes with steel scrappers, wire brushes, and metal cleaning solution, etc.	Sqm.	86	
8.	Providing and applying <b>primer and one coat of red oxide</b> of iron paint <b>externally</b> to blast cleaned surface of the pipes.	Sqm.	56	
9	Providing and applying <b>primer and one coat of red oxide of iron paint</b> externally including cleaning the surface of the pipes with steel scrappers, wire brushes, and metal cleaning solution, etc.	Sqm.	122	
10.	Providing and applying <b>covering coat of grey graphite</b> of approved quality including dusting the surface etc. complete.	Sqm.	63	
11.	Providing and applying <b>one coat of zinc rich epoxy primer</b> to the internal surface of pipe line at site.	Sqm.	133	
12.	Providing and applying <b>primer first coat of intertol 49 W emaline 05/58 pipe coat</b> or any other equivalent approved paint to the internal surface of pipe line at site.	Sqm.	102	
	b) Second coat	Sqm.	83	
	c) Third coat	Sqm.	81	



IP SSR 2023-24

**SECTION - I (XVI)**

**M.S. PIPE LAYING**



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	<b>XVI. M. S. PIPES LAYING</b>			
1.	<u>Lowering, laying in position</u> to correct line and level including M. S. pipes with / without any outcoating on pedestals or chairs upon prepared formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and transportation upto 500 M. etc. completed as specified.			
	<b>a) 5 mm to 8 mm thick</b>			
i)	Upto 250 mm. dia.	Rmt	522	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	615	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	705	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	798	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	892	
	<b>b) Above 8 mm upto 12 mm thick</b>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1063	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1185	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1306	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1432	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1555	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1678	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1806	
	<b>c) Above 12 mm upto 16 mm thick</b>			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1599	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1725	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1842	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1961	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2078	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2200	
	<b>d) Above 16 mm upto 20 mm thick</b>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2416	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2551	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2685	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2816	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	2952	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3088	
	<b>e) Above 20 mm upto 25 mm thick</b>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3292	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3480	
2.	<u>Lowering, laying in position to correct line and level including M. S. specials</u> with / without any outcoating such as distance pieces, straps, bends, tapers, etc. on pedestals or chairs upon formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and transportation upto 500M etc. complete.			
	<b>a) 5 mm to 8 mm thick</b>			
i)	Upto 250 mm. dia.	Rmt	729	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	857	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	989	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	1116	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1248	
	<b>b) Above 8 mm upto 12 mm thick</b>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1488	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1659	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1831	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	2002	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	2179	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	2348	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2521	
<b>c)</b>	<b>Above 12 mm upto 16 mm thick</b>			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	2318	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2413	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2582	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2745	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2916	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3079	
<b>d)</b>	<b>Above 16 mm upto 20 mm thick</b>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	3326	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	3475	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	3759	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3947	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	4132	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4322	
<b>e)</b>	<b>Above 20 mm upto 25 mm thick</b>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	4605	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4870	
<b>3.</b>	<b>Lowering, laying in position to correct line and level including M. S. pipes</b> with / without any outcoating, on pedestals or chairs upon piers, trestles etc. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, transportation upto 500 m. etc. complete.			
<b>a)</b>	<b>5 mm to 8 mm thick</b>			
i)	Upto 250 mm. dia.	Rmt	624	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	734	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	846	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	958	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1071	
<b>b)</b>	<b>Above 8 mm upto 12 mm thick</b>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1275	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1420	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1570	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1717	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1868	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	2014	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2160	
<b>c)</b>	<b>Above 12 mm upto 16 mm thick</b>			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1839	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1930	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2211	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2355	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2501	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2621	
<b>d)</b>	<b>Above 16 mm upto 20 mm thick</b>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2898	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	3061	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	3220	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3380	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	3542	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3704	
<b>e)</b>	<b>Above 20 mm upto 25 mm thick</b>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3948	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4176	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
4	<b>Lowering and laying in position to correct line and level including M. S. specials</b> such as distance pieces, straps, bends, tapers, etc. on pedestals or chairs upon piers or trestles. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and including transportation upto 500 m. etc. complete as specified.			
	<b>a) 5 mm to 8 mm thick</b>			
	i) Upto 250 mm. dia.	Rmt	874	
	ii) Above 250 mm. Upto 500 mm. dia.	Rmt	1029	
	iii) Above 500 mm. Upto 750 mm. dia.	Rmt	1183	
	iv) Above 750 mm. Upto 1000 mm. dia.	Rmt	1341	
	v) Above 1000 mm. Upto 1250 mm. dia.	Rmt	1492	
	<b>b) Above 8 mm upto 12 mm thick</b>			
	i) From 750 mm. Upto 1000 mm. dia.	Rmt	1785	
	ii) Above 1000 mm. Upto 1250 mm. dia.	Rmt	1993	
	iii) Above 1250 mm. Upto 1500 mm. dia.	Rmt	2199	
	iv) Above 1500 mm. Upto 1750 mm. dia.	Rmt	2405	
	v) Above 1750 mm. Upto 2000 mm. dia.	Rmt	2614	
	vi) Above 2000 mm. Upto 2250 mm. dia.	Rmt	2822	
	vii) Above 2250 mm. Upto 2500 mm. dia.	Rmt	3028	
	<b>c) Above 12 mm upto 16 mm thick</b>			
	i) From 2000 mm. Upto 2250 mm. dia.	Rmt	2782	
	ii) Above 2250 mm. Upto 2500 mm. dia.	Rmt	2893	
	iii) Above 2500 mm. Upto 2750 mm. dia.	Rmt	3097	
	iv) Above 2750 mm. Upto 3000 mm. dia.	Rmt	3297	
	v) Above 3000 mm. Upto 3250 mm. dia.	Rmt	3494	
	vi) Above 3250 mm. Upto 3500 mm. dia.	Rmt	3698	
	<b>d) Above 16 mm upto 20 mm thick</b>			
	i) From 2500 mm. Upto 2750 mm. dia.	Rmt	4063	
	ii) Above 2750 mm. Upto 3000 mm. dia.	Rmt	4285	
	iii) Above 3000 mm. Upto 3250 mm. dia.	Rmt	4511	
	iv) Above 3250 mm. Upto 3500 mm. dia.	Rmt	4730	
	v) Above 3500 mm. Upto 3750 mm. dia.	Rmt	4958	
	vi) Above 3750 mm. Upto 4000 mm. dia.	Rmt	5187	
	<b>e) Above 20 mm upto 25 mm thick</b>			
	i) From 3500 mm. Upto 3750 mm. dia.	Rmt	5529	
	ii) Above 3750 mm. Upto 4000 mm. dia.	Rmt	5843	
5.	Transporting within 500 meters, laying in position to correct line and level <b>M. S. pipes with / without any outcoating, on prepared bedding in trenches</b> including marginal cutting wherever required, assembling tack welding the same. The rate to include loading, unloading, hoisting, etc. complete as specified.			
	<b>a) 5 mm to 8 mm thick</b>			
	i) Upto 250 mm. dia.	Rmt	532	
	ii) Above 250 mm. Upto 500 mm. dia.	Rmt	630	
	iii) Above 500 mm. Upto 750 mm. dia.	Rmt	725	
	iv) Above 750 mm. Upto 1000 mm. dia.	Rmt	819	
	v) Above 1000 mm. Upto 1250 mm. dia.	Rmt	914	
	<b>b) Above 8 mm upto 12 mm thick</b>			
	i) From 750 mm. Upto 1000 mm. dia.	Rmt	1089	
	ii) Above 1000 mm. Upto 1250 mm. dia.	Rmt	1214	
	iii) Above 1250 mm. Upto 1500 mm. dia.	Rmt	1341	
	iv) Above 1500 mm. Upto 1750 mm. dia.	Rmt	1470	
	v) Above 1750 mm. Upto 2000 mm. dia.	Rmt	1592	
	vi) Above 2000 mm. Upto 2250 mm. dia.	Rmt	1717	
	vii) Above 2250 mm. Upto 2500 mm. dia.	Rmt	1842	
	<b>c) Above 12 mm upto 16 mm thick</b>			



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1695	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1769	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1889	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2011	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2099	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2256	
<b>d)</b>	<b>Above 16 mm upto 20 mm thick</b>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2470	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2605	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2745	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2884	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	3030	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3160	
<b>e)</b>	<b>Above 20 mm upto 25 mm thick</b>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3364	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3558	
6.	Transporting within 500 meters, laying in position to correct line and level <b>M. S. specials pipes with / without any outcoating, such as distance pieces, straps, bends, tapers, etc. on prepared bedding in trenches</b> including marginal cutting wherever required, assembling tack welding, the same. The rate to include loading, unloading, hoisting, etc. complete as specified			
<b>a)</b>	<b>5 mm to 8 mm thick</b>			
i)	Upto 250 mm. dia.	Rmt	751	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	880	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	1013	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	1143	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1280	
<b>b)</b>	<b>Above 8 mm upto 12 mm thick</b>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1526	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1702	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1876	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	2053	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	2385	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	2490	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2582	
<b>c)</b>	<b>Above 12 mm upto 16 mm thick</b>			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	2374	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2568	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2643	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2815	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2992	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3160	
<b>d)</b>	<b>Above 16 mm upto 20 mm thick</b>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	3433	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	3651	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	3844	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	4038	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	4230	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4426	
<b>e)</b>	<b>Above 20 mm upto 25 mm thick</b>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	4707	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4983	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
7.	<b>Welding</b> in all positions with required number of runs, for M. S. pipes internally and / or externally including gauging wherever necessary, fixing appurtenances and other accessories in connection with pipe laying work as per specification.			
i)	4 mm.	Rmt	231	
ii)	5 mm.	Rmt	350	
iii)	6 mm.	Rmt	824	
iv)	7 mm.	Rmt	919	
v)	8 mm.	Rmt	1154	
vi)	10 mm.	Rmt	1414	
vii)	12 mm.	Rmt	1514	
viii)	14 mm.	Rmt	1802	
ix)	16 mm.	Rmt	2182	
x)	18 mm.	Rmt	2363	
xi)	20 mm.	Rmt	2831	
xii)	22 mm.	Rmt	3554	
xiii)	25 mm.	Rmt	4824	
i)	<b>B) Lap joints</b> with convex fillet welds Lap Lengths			
ii)	5 mm.	Rmt	325	
iii)	6 mm.	Rmt	415	
iv)	8 mm.	Rmt	549	
v)	10 mm.	Rmt	614	
vi)	12 mm.	Rmt	919	
vii)	14 mm.	Rmt	1247	
viii)	16 mm.	Rmt	1374	
ix)	18 mm.	Rmt	1668	
x)	20 mm.	Rmt	1879	
xi)	22 mm.	Rmt	2514	
xii)	25 mm.	Rmt	3050	
8.	<b>Shifting and aligning ring girders</b> including removing tack welds and re-tacking in the correct position etc. complete as per specification for the pipes of following			
i)	From 1000 mm. Upto 1250 mm. dia.	Rmt	629	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	771	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	909	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1049	
v)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1187	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1327	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1464	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1607	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	1746	
x)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	1887	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	2024	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2177	





Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
9.	Transporting within 500 meters and fixing in position <b>stools, base plates, roller sets, grease box covers, etc.</b> including welding wherever necessary. The rate also to include fixing stools, base plates, etc. in true line and level, connecting the base plate to anchor bolts by flush welding including cutting the bolts, if required, assembling and aligning C. I. or M. S. roller sets of any size including oiling, greasing, etc. The rate also to include grouting anchor bolts, welding of two halves of grease box covers as directed by Engineer-in-charge, for pipes of following dia.			
i)	From 1000 mm. Upto 1250 mm. dia.	Each	2300	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Each	2488	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Each	2676	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Each	2863	
v)	Above 2000 mm. Upto 2250 mm. dia.	Each	3050	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Each	3238	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Each	3428	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Each	3612	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Each	3802	
x)	Above 3250 mm. Upto 3500 mm. dia.	Each	3990	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Each	4210	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Each	4363	
10.	Transporting within 500 meters and aligning, fixing in position and tack welding <b>expansion joints</b> suitable for pipeline of diameters.			
i)	From 1000 mm. Upto 1250 mm. dia.	Each	7783	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Each	8071	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Each	8362	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Each	8653	
v)	Above 2000 mm. Upto 2250 mm. dia.	Each	16357	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Each	16722	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Each	17086	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Each	17339	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Each	17819	
x)	Above 3250 mm. Upto 3500 mm. dia.	Each	18185	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Each	18546	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Each	18912	
11.	Transporting within 500 meters aligning and fixing in position and tack welding only, including marginal cutting, supplying and providing <b>rubber packing</b> etc. where necessary.			
	<b>A)</b> Minor fixtures such as manhole cover, pressure and non-pres-sure type blank flanges, loose rings, small pipes to form saddle bypass arrangement, plug plates, ladders, platform, stiffener rings, etc.	MT	13930	
	<b>B)</b> Minor fixtures such as tees, domes, 'Y' branches, insulating flange ring assembly, etc.	MT	7079	
12.	<b>Gas cutting</b> (either square cut or V cut) <b>pipes, plates,</b> etc. of thickness.			
i)	Upto 5 mm.	Rmt	106	
ii)	Above 5 mm. Upto 10 mm.	Rmt	149	
iii)	Above 10 mm. Upto 14 mm.	Rmt	191	
iv)	Above 14 mm. Upto 18 mm.	Rmt	220	
v)	Above 18 mm. Upto 22 mm.	Rmt	305	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
	vi) Above 22 mm.	Rmt	408	
13.	<b>Gas cutting</b> holes upto 50 mm dia (for plugs) Thickness of shell			
	a) 5 mm. to 12 mm	No.	116	
	b) Above 12 mm	No.	161	
14.	Providing <b>M.S. bar mesh</b> prepared out of 16 mm dia M.S. bar at 15 cm. c/c both ways, welded to flanged ring including tack welding of bars and fixing the same with nuts and bolts on open faces of outlet/inlet pipes in the sump or reservoir, etc. complete as directed by Engineer-in-charge.	Sqm	2113	
15.	Providing <b>permanent test points</b> on the pipe line as per drawing and as directed by Engineer-in-charge including providing and fixing sluice valves, road boxes for sluice valves of size 80 mm to 250 mm in one brick masonry chamber 300 mm x 300 mm clear C. M. 1:5 with 12 mm thick in 1:3 cement plaster both inside and outside on M-100 C.C. 150 mm thick etc. complete as specified and directed.	No.	4738	
16.	Supplying transporting, the <b>S.P. fire hydrants</b> including duck foot bend, S.V. and S.V. road box, painting the hydrant, fixing the saddle piece, supplying, and laying required length of C.I. pipeline and jointing the same spun yarn, molten lead including caulking, fixing the S.V. road box in one brick masonry chamber in 1:5 C.M. with 12 mm thick 1:3 cement plaster both inside and outside on 1:3:6: C.C. 150 mm thick etc, complete specified and directed. [As per I.S.900/1965 Revised]	No.	18764	
17.	<b>Hydraulic testing</b> of M.S. pipeline to specified pressure including cost of all materials and labour and water for testing for the length upto 1km., using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary.			
<b>a)</b>				
i)	Upto 600 mm. dia. (I.D.)	Km.	67148	
ii)	Above 600 mm. upto 750 mm. dia. (I.D.)	Km.	67247	
iii)	Above 750 mm. upto 900 mm. dia. (I.D.)	Km.	67403	
iv)	Above 900 mm. upto 1050 mm. dia. (I.D.)	Km.	67636	
v)	Above 1050 mm. upto 1200 mm. dia. (I.D.)	Km.	67866	
vi)	Above 1200 mm. upto 1500 mm. dia. (I.D.)	Km.	68324	
vii)	Above 1500 mm. upto 1800 mm. dia. (I.D.)	Km.	68995	
viii)	Above 1800 mm. upto 2250 mm. dia. (I.D.)	Km.	70123	
ix)	Above 2250 mm. upto 2500 mm. dia. (I.D.)	Km.	70946	
x)	Above 2500 mm. dia. (I.D.)	Km.	71766	
<b>b) Extra work initial km</b>				
xi)	Upto 600 mm dia. (I.D.)	Km.	340	
xii)	Above 600 mm dia. upto 750 mm dia. (I.D.)	Km.	489	
xiii)	Above 750 mm dia. upto 900 mm dia. (I.D.)	Km.	726	
xiv)	Above 900 mm dia. upto 1050 mm dia. (I.D.)	Km.	959	
xv)	Above 1050 mm dia. upto 1200 mm dia. (I.D.)	Km.	1233	
xvi)	Above 1200 mm dia. upto 1500 mm dia. (I.D.)	Km.	1823	
xvii)	Above 1500 mm dia. upto 1800 mm dia. (I.D.)	Km.	2754	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
xviii)	Above 1800 mm dia. upto 2250 mm dia. (I.D.)	Km.	4226	
xix)	Above 2250 mm dia. upto 2500 mm dia. (I.D.)	Km.	5262	
xx)	Above 2500 mm dia. upto 2750 mm dia. (I.D.)	Km.	6366	
xxi)	Above 2750 mm dia. upto 3000 mm dia. (I.D.)	Km.	7511	
18.	Providing and applying with mechanical arrangement 1:3 proportion <b>cement sand gunite, 40 to 50 mm thick to M. S. pipe</b> surface under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials as directed by Engineer-in-charge and including scrapping the surface with wire brushes, degreasing, cleaning by compressed air and providing fixing BRC fabric no.14 as reinforcement, curing for 21 days, disposing off the rebound materials within a lead of 50 M, etc. complete as directed by Engineer-in-charge.	Sqm.	737	
19.	Providing and applying <b>pipe coating of fibres, coal tar and solvent based rubber modified bituminous primer</b> of density 0.92 gms/cu cm and viscosity of 1000-2000 cps @ 150 gms/sqm followed by seven layers(4mm thick) of polythene polymerised bitumen and polyester of local 7 layers) pipe coat 4 mm should conform to requirement of IS-10221 and AWWA C-203 for prefabricated tapes including covering cost on pipe coating. Rates shall include cost of material coating and wrapping over the pipes, handling charges, preparation of pipe surface, all labour, material, etc. complete	Sqm.	794	
	<b>Note : Pipe coating is to be done at laying work site only.</b>			
20.	Providing and applying with mechanical arrangement <b>cement sand gunite</b> of 50 mm thickness to floors, walls, floor slabs or any other structure under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials on surface, cleaning with compressed air, degreasing, etc. including scaffolding and curing for 21 days, providing and fixing BRC fabric no. 14 but excluding cost of reinforcement, if any and removing rebound materials within a lead of 50 M, etc. complete as directed by Engineer-in-charge <b>(for GSRs and buildings.)</b>	Sqm.	726	
21.	Providing and applying with mechanical arrangement <b>cement sand gunite</b> of 50 mm thickness to floors, walls, roof slabs or any other structure under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials on surface, cleaning with compressed air, degreasing, etc. including scaffolding and curing for 21 days, providing and fixing BRC fabric no. 14 but excluding cost of reinforcement, if any and removing rebound materials within a lead of 50 M, for staging and bottom of bottom slab, etc. complete as directed by Engineer-in-charge <b>(for RCC ESRs)</b>	Sqm.	641	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25
1	2	3	4	5
22.	Providing and making <u>inner cement mortar lining to M.S. pipes</u> with mechanical devices in cement mortar 1:1 proportion, including cost of all materials, labour, special sand required, machinery, power generation, all equipments and taking necessary access openings and manholes, cuts at suitable intervals as directed by Engineer-in-charge and rewelding the same after done with doubler plates pipes including necessary excavation, refilling concrete breaking and remaking if any, breaking guniting and remaking the same, repainting wherever required with epoxy paint in 3 coats, all dewatering including emptying the pipeline and refilling the same after done with (water to be supplied by department free of cost within 5 km. lead at fixed point and all other arrangements to be done by agency), including carrying out "C" value performance test of pipeline, complete job as per the directions of the Engineer-in-charge.			
	i) 9 mm thick for pipes upto 700 mm dia.	Sqm.	576	
	ii) 12 mm thick for pipes above 700 mm dia.	Sqm.	668	
23.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 kg/cm <sup>2</sup> , antifungal, antibacterial, anticorrosive, graft co-polymer Coating on smooth plastered surface. 100 Micron dyufilm thickness of self bonding with plastered surface and 100 Micron of top coat. For sewage treatment plant (R. C. C. Tank inside coating) and water treatment plant.	Sqm.	1872	
24.	<u>Providing and applying external and internal coating for steel structures</u> in sewage treatment plant/water treatment plant with elastomeric (450% elongation), thermoplastic, fire retardant, coating skin tensile strength 18 to 21 kg/cm <sup>2</sup> , antifungal, antibacterial, anticorrosive, graft co-polymer. 50 Micron DFT. of self bonding with steel, 50 Micron DFT. of inner coat and 50 Micron DFT of top coat.	Sqm.	1093	
25.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 kg/ cm <sup>2</sup> , antifungal, antibacterial, anticorrosive, graft co-polymer coating on external pipe lines in unlaid/laid condition after proper cleaning. 50 micron DFT of self bonding grade with metal surface, 50 Micron DFT of self bonding grade with metal surface, 50 Micron DFT inner coat and 50 Micron DFT of top coat.			
	1) Water and sewage pipe lines (external) in unlaid condition.	Sqm.	1145	
	2) Water and sewage pipe lines (external) in laid condition.	Sqm.	1174	
26.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 Kg/ cm <sup>2</sup> , antifungal, antibacterial, anticorrosive, graft co-polymer coating on internal surface of pipe lines. <u>100 Micron DFT of site bonding grade with steel surface and 100 Micron DFT of top coat.</u>			
	1) Pipe line in unlaid condition	Sqm.	1441	
	2) Pipe line in laid condition	Sqm.	1538	



Sr. No.	Description	Unit	Rate (in Rs.) 2023-24	Rate (in Rs.) 2024-25	
1	2	3	4	5	
27.	<b>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</b> skin tensile strength 18 to 21 kg/cm <sup>2</sup> , antifungal, antibacterial, anticorrosive, graft co-poly-mer coating on cleaned steel reinforcement bars. 80 to 100 micron DFT With self bonding trade of bar coating.				
1.	6 mm dia.	MT	52404		
2.	8 mm dia.	MT	40099		
3.	10 mm dia.	MT	31775		
4.	12 mm dia.	MT	26441		
5.	16 mm dia.	MT	19799		
6.	20 mm dia.	MT	16113		
7.	25 mm dia.	MT	12724		
8.	32 mm dia.	MT	10197		
9.	40 mm dia.	MT	7744		
28.	<b>Providing and applying of H D P E coating for MS pipe internally as well as externally</b> including cost of H D P E powder moulding pipe grade, labour, scrapping the pipe surface with wire brushes, degreasing, cleaning by compressed air and surface grinding and finishing including cost of loading , unloading and handling of pipe at factory etc. complete as directed by Engineer -in -charge.				
	HDPE coating thickness in micron	Total coating thickness in micron			
	External	Internal			
1.	0	2000	2000	Sq. m	2883
2.	2000	1000	3000	Sq. m	3621
3.	3000	1000	4000	Sq. m	4162
4.	3000	2000	5000	Sq. m	4783



PIP SSR 2023-24

**SECTION - I (II)**

**P.P.R.-C. PIPES**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
1	Providing and Supplying 3 Layer PPR-C Pipes (Poly Propylene Random Copolymer ) in standard length with ISI Mark approved by CBRI (Conformed IS : 15801) UV Stabilized and antimicrobial Fusion welding. Rates including transportation and freight charges, inspection charges, loading unloading charges , inspection to the departmental stores and stacking the same excluding GST levied by GOI and GOM in all respect			
	<b>Working Pressure PN10/SDR11/S 5.3 Layer Kg/Sq.cm</b>			
	20 mm	Rmt	55.00	
	25 mm	Rmt	83.50	
	32 mm	Rmt	158.00	
	40mm	Rmt	198.00	
	50 mm	Rmt	301.00	
	63 mm	Rmt	496.00	
	75 mm	Rmt	667.00	
	90 mm	Rmt	1040.50	
	110mm	Rmt	1494.50	
	125mm	Rmt	2355.50	
	140mm	Rmt	2787.00	
	160mm	Rmt	3217.50	
	180mm	Rmt	4386.50	
	200mm	Rmt	5555.00	
	250 mm	Rmt	8704.00	
	315 mm	Rmt	14493.50	
	355 mm	Rmt	18419.50	
	400 mm	Rmt	23359.00	
	<b>Working Pressure PN 16/SDR7.4/S 3.2 3 Layer</b>			
	16 mm	Rmt	67.00	
	20 mm	Rmt	70.50	
	25 mm	Rmt	106.50	
	32 mm	Rmt	171.50	
	40 mm	Rmt	275.50	
	50 mm	Rmt	432.00	
	63 mm	Rmt	699.00	
	75 mm	Rmt	969.00	
	90 mm	Rmt	1469.50	
	110 mm	Rmt	2077.50	
	125 mm	Rmt	3277.50	
	140 mm	Rmt	3877.00	
	160mm	Rmt	4476.50	
	180 mm	Rmt	6136.00	
	200 mm	Rmt	7795.50	
	250 mm	Rmt	12208.00	
	315 mm	Rmt	17809.50	
	<b>Working Pressure PN20/SDR 6/S 2.5 Layer</b>			
	16 mm	Rmt	81.00	
	20 mm	Rmt	83.50	
	25 mm	Rmt	124.50	
	32 mm	Rmt	204.50	
	40 mm	Rmt	316.50	
	50 mm	Rmt	507.00	
	63 mm	Rmt	812.00	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	75 mm	Rmt	1139.00	
	90 mm	Rmt	1646.00	
	110 mm	Rmt	2463.00	
	125 mm	Rmt	3841.00	
	160 mm	Rmt	5219.50	
	200 mm	Rmt	9354.50	
	<b>The rate like lowering, laying, hydraulic testing etc of PPR C Pipes are same as per HDPE Pipe With Respect of its PN rating mentioned in SSR Of MJP</b>			
2	Providing and Supplying Fusion Welding PPR Fitting as per IS 15801 approved by CBRI and Comatible to PPR C Pipes (Poly Propylene Random CoPolymor) Rates including transportation, Internal testing, loading, unloading, excluding GST Levied by GOI and GOM in all aspect			
<b>1</b>	<b>Coupling</b>			
	16	No.	11.50	
	20	No.	12.50	
	25	No.	17.50	
	32	No.	27.50	
	40	No.	48.00	
	50	No.	65.50	
	63	No.	145.00	
	75	No.	207.50	
	90	No.	424.00	
	110	No.	630.50	
	160	No.	1324.50	
<b>2</b>	<b>Plain Elbow 90°</b>			
	16	No.	13.00	
	20	No.	14.50	
	25	No.	22.00	
	32	No.	36.50	
	40	No.	58.00	
	50	No.	144.00	
	63	No.	297.00	
	75	No.	453.00	
	90	No.	779.50	
	110	No.	1195.50	
	125	No.	2125.00	
	140	No.	2595.50	
	160	No.	3066.50	
	180	No.	3914.50	
	200	No.	8256.50	
<b>3</b>	<b>Plain Elbow 45°</b>			
	20	No.	16.50	
	25	No.	27.50	
	32	No.	43.00	
	40	No.	66.00	
	50	No.	127.00	
	63	No.	271.00	
	75	No.	557.00	
	90	No.	809.50	
	110	No.	1495.50	
	125	No.	2278.50	
	160	No.	3073.00	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
4	<b>Equal Tee</b>			
	16	No.	20.50	
	20	No.	22.00	
	25	No.	29.50	
	32	No.	59.00	
	40	No.	93.00	
	50	No.	157.00	
	63	No.	407.00	
	75	No.	518.50	
	90	No.	1000.50	
	110	No.	1627.50	
	125	No.	2827.00	
	140	No.	3433.50	
	160	No.	4040.50	
	180	No.	4846.00	
5	<b>Reducer</b>			
	20/16	No.	16.00	
	25/16	No.	16.50	
	25/20	No.	19.50	
	32/20	No.	26.00	
	32/25	No.	27.50	
	40/20	No.	36.50	
	40/25	No.	37.50	
	40/32	No.	38.50	
	50/20	No.	53.00	
	50/25	No.	54.00	
	50/32	No.	56.00	
	50/40	No.	61.00	
	63/20	No.	91.50	
	63/25	No.	94.50	
	63/32	No.	98.00	
	63/40	No.	102.00	
	63/50	No.	109.00	
	75/63	No.	208.00	
	75/50	No.	218.50	
	75/40	No.	229.50	
	75/32	No.	241.00	
	75/25	No.	253.00	
	75/20	No.	265.50	
	90/75	No.	377.00	
	90/63	No.	292.50	
	90/50	No.	307.50	
	90/40	No.	322.50	
	90/32	No.	339.00	
	90/25	No.	466.00	
	90/20	No.	356.00	
	110/90	No.	621.00	
	110/75	No.	652.00	
	110/63	No.	684.00	
	110/50	No.	719.00	
	110/40	No.	754.50	
	110/32	No.	792.00	
	110/25	No.	831.00	
	110/20	No.	858.00	
	125/110	No.	1232.50	
	125/90	No.	1222.50	
	125/75	No.	1253.50	
	125/63	No.	1286.00	
	125/50	No.	1320.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	125/40	No.	1356.50	
	125/32	No.	1393.50	
	125/25	No.	1433.00	
	125/20	No.	1459.00	
	160/110	No.	1209.00	
	160/90	No.	1269.50	
	160/75	No.	1332.50	
	160/63	No.	1399.00	
	160/50	No.	1469.50	
	160/40	No.	1543.00	
	160/32	No.	1620.50	
	160/25	No.	1701.00	
	160/20	No.	1786.50	
6	<b>Reducing Elbow</b>			
	20/16	No.	25.00	
	25/20	No.	28.00	
	32/20	No.	43.50	
	32/25	No.	46.00	
	40/20	No.	73.50	
	40/25	No.	73.50	
	40/32	No.	78.00	
	50/40	No.	137.00	
7	<b>Reducing Tee</b>			
	20/16/20	No.	28.00	
	25/16/25	No.	30.50	
	25/20/25	No.	37.00	
	32/20/32	No.	66.50	
	32/25/32	No.	68.00	
	40/20/40	No.	97.50	
	40/25/40	No.	102.50	
	40/32/40	No.	105.00	
	50/20/50	No.	176.50	
	50/25/50	No.	185.00	
	50/32/50	No.	188.00	
	50/40/50	No.	192.00	
	63/20/63	No.	328.00	
	63/25/63	No.	331.00	
	63/32/63	No.	333.50	
	63/40/63	No.	339.00	
	63/50/63	No.	344.50	
	75/63/75	No.	546.00	
	75/50/75	No.	573.50	
	75/40/75	No.	602.50	
	75/32/75	No.	632.50	
	75/25/75	No.	664.00	
	75/20/75	No.	697.00	
	90/75/90	No.	1016.50	
	90/63/90	No.	1067.00	
	90/50/90	No.	1120.50	
	90/40/90	No.	1177.00	
	90/32/90	No.	1235.50	
	90/25/90	No.	1297.00	
	90/20/90	No.	1362.00	
	110/90/110	No.	1652.00	
	110/75/110	No.	1735.50	
	110/63/110	No.	1821.50	
	110/50/110	No.	1913.00	
	110/40/110	No.	2008.50	
	110/32/100	No.	2109.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	110/25/110	No.	2214.50	
	110/20/110	No.	2325.00	
	125/110/125	No.	2815.00	
	125/90/125	No.	2745.00	
	125/75/125	No.	2775.50	
	125/63/125	No.	2808.00	
	125/50/125	No.	2843.00	
	125/40/125	No.	2878.50	
	125/32/125	No.	2915.00	
	125/25/125	No.	2954.50	
	125/20/125	No.	2981.50	
	160/110/160	No.	4081.50	
	160/90/160	No.	4285.00	
	160/75/160	No.	4499.50	
	160/63/160	No.	4724.50	
	160/50/160	No.	4960.50	
	160/40/160	No.	5208.50	
	160/32/160	No.	5468.50	
	160/25/160	No.	5742.00	
	160/20/160	No.	6029.50	
8	<b>End cap</b>			
	16	No.	11.50	
	20	No.	14.00	
	25	No.	18.00	
	32	No.	28.00	
	40	No.	38.50	
	50	No.	66.00	
	63	No.	114.00	
	75	No.	196.00	
	90	No.	437.50	
	110	No.	613.50	
	160	No.	1524.00	
	200	No.	1925.00	
	250	No.	2456.00	
	315	No.	3193.00	
9	<b>Flange Core (Stub End)</b>			
	20	No.	118.50	
	25	No.	133.00	
	32	No.	148.50	
	40	No.	157.00	
	50	No.	174.50	
	63	No.	180.50	
	75	No.	193.50	
	90	No.	390.50	
	110	No.	416.50	
	125	No.	755.00	
	160	No.	1098.50	
10	<b>PPR Slip-on Flange</b>			
	20	No.	307.50	
	25	No.	322.50	
	32	No.	337.50	
	40	No.	379.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	50	No.	409.00	
	63	No.	482.50	
	75	No.	667.00	
	90	No.	802.00	
	110	No.	920.00	
	160	No.	1470.00	
11	<b>Plain Union</b>	No.	0.00	
	20	No.	77.50	
	25	No.	127.00	
	32	No.	240.00	
	40	No.	303.00	
	50	No.	601.00	
	63	No.	1034.00	
12	<b>4Way /Cross Tee</b>			
	16	No.	36.00	
	20	No.	38.50	
	25	No.	60.50	
	32	No.	80.50	
	40	No.	134.00	
	50	No.	212.00	
	63	No.	295.00	
13	<b>Pipe Clamp</b>			
	16	No.	10.50	
	20	No.	11.50	
	25	No.	12.50	
	32	No.	15.50	
	40	No.	27.50	
	50	No.	36.50	
	63	No.	56.00	
14	<b>Long Plug</b>			
	1/2"	No.	12.00	
	<u>3/4"</u>	No.	16.50	
	1"	No.	17.00	
		No.		
15	<b>Tank Connector</b>			
	20	No.	97.50	
	25	No.	171.50	
	32	No.	198.00	
	40	No.	202.00	
	50	No.	351.00	
	63	No.	424.50	
16	<b>Ball Valve Plastic (Heavy Body)</b>			
	20	No.	194.50	
	25	No.	275.50	
	<u>32</u>	No.	458.50	
	40	No.	627.00	
	50	No.	851.50	
	63	No.	1202.50	
	75	No.	1863.50	
	90	No.	3234.00	
	110	No.	5862.00	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
17	<b>Male Threaded Coupling</b>			
	16*1/2	No.	107.50	
	20*1/2	No.	109.00	
	25*1/2	No.	125.00	
	25*3/4	No.	182.50	
	32*1/2	No.	164.50	
	32*3/4	No.	213.50	
	32*1	No.	271.50	
	40*1-1/4	No.	510.00	
	50*1-1/2	No.	912.00	
	63*2	No.	1457.00	
	75*2-1/2	No.	2130.50	
	<b>90*3</b>	No.	5013.50	
	110*4	No.	6504.00	
18	<b>Female Threaded Coupling</b>			
	16*1/2	No.	71.00	
	20*1/2	No.	78.50	
	25*1/2	No.	88.50	
	25*3/4	No.	155.00	
	32*1/2	No.	130.50	
	32*3/4	No.	181.50	
	32*1	No.	230.00	
	40*1-1/4	No.	391.50	
	50*1-1/2	No.	649.50	
	50*2	No.	1066.00	
	<b>63*2</b>	No.	1101.00	
	75*2-1/2	No.	2413.00	
	90*3	No.	4568.00	
	110*4	No.	6198.50	
19	<b>Female Threaded Tee</b>			
	16*1/2	No.	75.00	
	20*1/2	No.	80.50	
	25*1/2	No.	98.50	
	25*3/4	No.	177.50	
	32*1/2	No.	159.00	
	32*3/4	No.	223.50	
	32*1	No.	277.00	
	40*1-1/4	No.	416.50	
20	<b>Male Thraeded Tee</b>			
	16*1/2	No.	121.50	
	20*1/2	No.	123.00	
	25*1/2	No.	136.50	
	25*3/4	No.	208.00	
	<b>32*1/2</b>	No.	198.50	
	32*3/4	No.	257.50	
	32*1	No.	298.50	
	40-1-1/4	No.	540.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
21	<b>Female Threaded Eibow</b>			
	16*1/2	No.	71.00	
	20*1/2	No.	75.00	
	25*1/2	No.	94.00	
	25*3/4	No.	153.50	
	32*1/2	No.	149.00	
	32*3/4	No.	225.50	
	32*1	No.	280.50	
	40*1-1/4	No.	411.00	
22	<b>Male Thraeded Eibow</b>			
	16*1/2	No.	107.50	
	20*1/2	No.	109.00	
	25*1/2	No.	131.00	
	25*3/4	No.	197.50	
	32*1/2	No.	174.00	
	32*3/4	No.	221.50	
	32*1	No.	275.50	
	40*1-1/4	No.	548.50	
23	<b>Gate Valve</b>			
	20	No.	506.00	
	25	No.	555.50	
	32	No.	782.50	
	40	No.	1177.00	
	50	No.	1447.50	
	63	No.	1959.50	
24	<b>Male Threaded Union</b>			
	20*1/2	No.	368.00	
	25*3/4	No.	436.00	
	32*1	No.	672.50	
	40*1-1/4	No.	1051.50	
	50*1-1/2	No.	1961.00	
	63*2	No.	3138.00	
25	<b>Female Threaded Union</b>			
	20*1/2	No.	302.50	
	25*3/4	No.	421.50	
	32*1	No.	619.50	
	40*1-1/4	No.	1002.00	
	50*1-1/2	No.	1681.00	
	63*2	No.	2882.00	
26	<b>Double Union Ball Valve</b>			
	20	No.	1054.50	
	25	No.	1438.50	
	32	No.	2385.50	
	40	No.	4907.00	
	50	No.	7359.00	
	63	No.	10506.50	
27	<b>By Pass Bend</b>			
	25	No.	103.50	
	32	No.	239.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
28	<b>Female Weld in saddle</b>			
	160*1/2	No.	1436.00	
	110*1/2	No.	1216.50	
	90*1/2	No.	977.50	
	75*1/2	No.	780.50	
	160*3/4	No.	1461.50	
	110*3/4	No.	1237.50	
	90*3/4	No.	991.50	
	75*3/4	No.	792.50	
	63*1/2	No.	488.50	
29	<b>Weld in saddle Reducer</b>			
	200/63	No.	718.50	
	200/50	No.	754.00	
	200/40	No.	791.50	
	200/32	No.	830.50	
	200/25	No.	873.00	
	200/20	No.	917.00	
	160/63	No.	610.00	
	160/50	No.	639.50	
	160/40	No.	671.50	
	160/32	No.	705.50	
	160/25	No.	740.50	
	160/20	No.	777.50	
	110/63	No.	515.50	
	110/50	No.	542.00	
	110/40	No.	568.00	
	110/32	No.	597.00	
	110/25	No.	625.50	
	110/20	No.	657.50	
	90/63	No.	312.00	
	90/50	No.	328.00	
	90/40	No.	344.50	
	90/32	No.	361.00	
	90/25	No.	379.50	
	90/20	No.	398.00	
30	<b>Flanged Ended Ball Valve</b>			
	20	No.	1016.50	
	25	No.	1143.50	
	32	No.	1270.50	
	50	No.	1651.50	
	63	No.	2033.00	
	75	No.	3049.00	
	90	No.	4065.50	
	110	No.	7305.50	
	160	No.	20836.00	
31	<b>Reducer</b>			
	200/160	No.	2439.50	
	200/110	No.	2531.00	
	200/90	No.	2657.50	
	250/200	No.	3629.00	
	250/160	No.	3706.00	
	250/110	No.	3890.50	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
	250/90	No.	4085.50	
	315/250	No.	4494.00	
	315/200	No.	4943.50	
	315/160	No.	5438.00	
	315/110	No.	5981.50	
32	<b>Reducing tee</b>			
	200/160	No.	20903.00	
	200/110	No.	21948.50	
	200/90	No.	23045.50	
	250/200	No.	30787.50	
	250/160	No.	28986.50	
	250/110	No.	28128.50	
	250/90	No.	27700.00	
	315/250	No.	32159.50	
	315/200	No.	31302.00	
	355/250	No.	36447.50	
	355/200	No.	35590.00	
	315/160	No.	34732.50	
	315/110	No.	33017.00	
	400/355	No.	45881.00	
	400/315	No.	45109.50	
	400/200	No.	44251.50	
33	<b>Elbow 90°</b>			
	200	No.	8256.50	
	250	No.	14571.50	
	315	No.	25257.50	
	355	No.	32159.50	
	400	No.	40465.50	
34	<b>Eibow 45°</b>			
	200	No.	7430.50	
	250	No.	13114.00	
	315	No.	19375.50	
35	<b>Equal Tee</b>			
	200	No.	11222.00	
	250	No.	24737.00	
	315	No.	27888.00	
	355	No.	35383.50	
	400	No.	44505.50	
36	<b>Sandwich Flange With steel Inlay</b>			
	160	No.	6683.00	
	200	No.	9389.00	
	250	No.	11619.50	
	315	No.	14194.50	
37	<b>Eibow 90°</b>			
	200	No.	7445.50	
	250	No.	13401.00	
	315	No.	18708.50	
	355	No.	23822.00	
	400	No.	29984.00	





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
1	2	3	4	5
38	<b>Eibow 90°</b>			
	200	No.	9430.50	
	250	No.	22831.00	
	315	No.	25114.00	
	355	No.	30136.50	
	400	No.	32970.00	
39	<b>Flange Core (stub End)</b>			
	200	No.	1277.50	
	250	No.	2178.00	
	315	No.	3875.50	
	355	No.	5654.00	
	400	No.	7560.00	
40	<b>Reducing Tee</b>			
	200/160	No.	15483.50	
	200/110	No.	16258.00	
	200/90	No.	17071.50	
	250/200	No.	22806.00	
	250/160	No.	21471.50	
	250/110	No.	20836.00	
	250/90	No.	20519.00	
	315/250	No.	23822.00	
	315/200	No.	23187.00	
	355/250	No.	26998.50	
	355/200	No.	26363.00	
	315/160	No.	25728.00	
	315/110	No.	24457.50	
	400/355	No.	33986.00	
	400/315	No.	33414.00	
	400/200	No.	32779.00	



MJP SSR 2023-24



IP SSR 2023-24

**SECTION - J (I)**  
**TREATMENT PLANTS (WTP & STP)**

Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b><u>Water Treatment Plant (WTP)</u></b>					
1	Designing (aesthetically), providing and constructing high rate Unconventional Water Treatment Plant i.e. Simplified Water Treatment Plants consisting of Civil Works, including cost of providing and applying Epoxy paint to inside surface of water retaining structures in contact with Chlorine and providing anti-termite treatment to entire structure below ground level, Mechanical and Electrical components of various sub-works as given below : including necessary hydraulic testing, structural testing and trial run for 3 months, etc. complete as directed by Engineer-in-charge . (turn-key job ).					
	1) <b>Aeration fountain</b>					
	2) <b>Inlet arrangements</b>					
	3) <b>Mixing channel</b> with ventury flume and flow measuring arrangement.					
	4) <b>Inlet channel</b>					
	5) <b>Flocculator</b> - Confirming to I.S. 7208-1974 ( Type-C ) with detention period of 30 minutes.					
	6) <b>Tube Settlers</b> - " Designing, fabricating and construct Tube Settlers with square or any other shaped tube like Circular, Chevron, Hexagonal etc. having proven performance."					
	7) <b>Rapid sand gravity filters</b> .- Rapid sand gravity filters including head stock arrangement with solid extension spindle for valves suitable / compatible for mounting actuators.					
	8) <b>Filter house</b>					
	9) <b>Chemical house</b>					
	10) <b>Alum tanks</b> 2 Nos. with mixing, carrying and					
	11) <b>Gravity feed gas chlorinator</b> with 100% standby.					
	12) <b>TCL solution tank</b> with mixing, carrying and					
	13) <b>Bye-pass arrangement</b>					
	14) <b>External and internal electrification</b>					
	15) <b>Laboratory equipments</b>					
	16) <b>Wash water tanks</b> of capacity equal to 2% of					
	17) <b>Wash water pumps</b> with 100%standby					
	18) <b>Pure water sump</b> capacity equal to 1 hour pumping capacity					
	19) <b>Pure water pump house</b> over the sump / by the side of sump					
	20) <b>Drainage arrangements</b>					
	21) <b>Alum store</b>					
	22) <b>Sanitary block</b> with necessary water supply and drainage arrangement and internal WBM roads					
	23) These rates are <b>applicable for seismic zones 2, 3, and 4</b>					
	24) Rates given below are inclusive of uplift pressure if any and dewatering during the entire work					
	25) All RCC structures shall be constructed in M-300					
	26) Unconventional Treatment Plants less than 1 MLD capacity shall not be constructed					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b>27)</b> Air blowers capable of delivering 600 LMP per square metre of free air of filter area at 0.4 Kg/ sqcm at the under drains (100% standby). Unconventional Treatment Plants upto 3 MLD capacity Blower shall not included however capacity above 3 MLD Blower shall be included.					
	<b>28)</b> Unconventional Treatment Plants upto 5 MLD capacity 100 Kg. chlorine cylinder shall be provided and capacity above 5 MLD chlorine 900 kg tonner shall be provided.					
	<b>29)</b> All valves required in WTP shall be glandless instead of traditional valve.					
	<b>30)</b> All railings required for WTP shall be stainless steel Pipe railing instead of G.I.Pipe railing.					
	<b>31)</b> External painting for WTP shall be in acrylic emulsion with silicon additives paint instead of waterproof cement paint.					
	<b>32)</b> Internal flooring for WTP shall be in Ceramic tiles instead of Mosaic tiles..					
	<b>33)</b> " All the structural steel works /fabrications are to be provided with application of Hot Dip Zinc coating according to specification as per IS 4759:1996 ( Reaffirms 2006)					
	<b>34)</b> The base slab of Back wash water tank and Top slab of Chemical house or Admin building should be separate.Common slab for wash water tank and Admin building is not allowed.					
	<b>35)</b> The cost of Chlorine contact tank (CCT ) is included in these rate.					
	<b>Note:-</b> Conditions from Sr.No. 1 to 35 shall form a part and parcel of the tender and must be included in draft tender papers for the work of unconventional treatment plants.					
	The rates are as under :-					
Sr. No.	Capacity in Mld.	UNIT	Rs. In Lakhs			
1)	Fixed cost for 1 MLD	Job	76.44	30.51		
2)	Add for capacity above 1 MLD upto 2 MLD	MLD	33.86	13.18		
3)	Cost of 2 MLD treatment plant	Job	110.30	43.69		
4)	Add for capacity above 2 MLD upto 5 MLD	MLD	25.63	7.62		
5)	Cost of 5 MLD treatment plant	Job	187.19	66.54		
6)	Add for capacity above 5 MLD	MLD	20.07	9.39		
7)	Cost of 10 MLD treatment plant	Job	287.53	113.51		
2	Designing (aesthetically), providing and constructing and commissioning Conventional Water Treatment Plant consisting of Civil Works, including cost of providing and applying Epoxy paint to inside surface of water retaining structures in contact with Chlorine and providing anti-termite treatment to entire structure below ground level, Mechanical and Electrical components of various sub-works as given below : including necessary hydraulic testing, structural testing,equipment testing and trial run for 3 months, etc. complete as directed by Engineer-in-charge.(turn-key job ).					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	1) Aeration Fountain : Plan area not less than 0.625 square metre per MLD			
	2) Ventury Flume : With necessary devices, consisting of simple mechanical indicator ( Pedestal type guage)			
	3) Flash Mixer Rapid mixing device, detention time 60 seconds to give velocity gradient 300 to 400 sec-1 vane mixer type confirming to IS 7090 of 1985			
	4) Flocculator : Confirming to I.S. 7208 of 1974 ( Type-C) with dentention period of 30 minutes			
	5) Clarifier : Horizontal flow circular tank, detention period 2-5 hours, overflow rate 30 cubic metre per squire metre per day ( to be specified), Weir loading not more than 300 cubic metre per metre per day, with mechanical sludge scraper conforming to I.S. 10313/1982			
	6) Rapid Sand Filters and Filter House Filter designed for filtration rate of 5,000 liters per squire metre per hour, minimum 2 beds for plant upto 10MLD for larger plants as specified , filters house with roof slab, pipe gallery and plat form minimum 5.5 metre in width including head stock arrangement with solid extension spindle for valves suitable / compatible for mounting actuators.			
	a) Filter Sand : Effective size 0.45 to 0.70mm, uniformity coefficient not more than 1.7, nor less than 1.3 , depth of water over sand 0.75M , free board 50 cm , gravel 0.45 M depth, sand and gravel confirming to I.S. 849 (I)-77 back wash by air wash, Standard appurtenances ( to be specified), rate of flow controller, filler guage, sand expansion guage etc.			
	b) Wash Water Tank : Capacity to be specified and suitable to supply water to wash 2 filter units at a time where the units are 4 or more.			
	c) Wash Water Pumps : Capacity to fill water tank in 1 hours with 100% standby			
	d) Air Blowers : Capable of delivering 600 LMP per square metre of free air, of filter area at 0.4 Kg/square cm at the underdrains ( 100% stand by)			
	7) Chemical House in Two Storeys			
	a) Ground floor to accommodate 7 days alum requirement and sundry storage.			
	b) First floor to accommodate alum and lime tanks etc.			
	c) Solution tanks : Minimum 3 tanks ( One for preparation, Second for dosing and third as standby), each tank capable of giving 8 hours maximum dose without interruption, minimum free board 0.30M trays for dissolving, level indica tor mechanical agitation devices, solution feed and drain lines, solution feed device( Constant head device strength of solution upto 10% only) confirming to I.S.9222 part-I/1979.			
	8) Pure water Sump and Pump House			
	a) Capacity of sump : One hour of designed flow.			
	b) Pump House : Pump house of required size over the sump or by the side			
	9) Store House : Suitable for alum storage of three months requirement in manson with 10% extra capacity for other sundry articles.			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	10) Vacuum feed type chlorinatros : make to be approved by MJP					
	a) Confirming to I.S. 10533- A Part-II 1983					
	b) Rate of withdrawal					
	Temperature Kg. of Chlorine discharge Degree 'C' per day (Cylinders)					
	45 67 Tonnes					
	10 6.35 9.50 110					
	15 10.75 16.10 130					
	20 14.50 21.24 254					
	27&Above 18.70 28.12 315					
	c) Chlorinator equipment and container room : to confirm to I.S. 10553 Part-I 1983					
	d) 100% standby shall be provided					
	11) By pass arrangement - C.I. Or M.S. pipes					
	12) Drainage arrangement : RCC pipes upto plot boundry.					
	13) Electrical installation : Both internal and external including entire plant area.					
	14) Laboratory equipment : As per requirement ( to be specified during tendering)					
	15) Sanitary blocks : Carpet area-15 square metre minimum upto 25 Mld. And 25 square metre above 25 Mld.					
	16) Adminstrative block and internal road.					
	To accommodate office room, chlorine room, laboratory room, panel board room, blower room etc. andWBM road to connect all units from main gate of plot.					
	17) Rates given blow are inclusive of uplift pressure if any and dewatering during entire work.					
	18) These rates are applicable for seismic zones- 2,3&4.					
	19) All RCC strucrure shall be constructed in M.300					
	20) Conventional Treatment Plants upto 3 MLD capacity Blower shall not included however capacity above 3 MLD Blower shall be included.					
	21) Conventional Treatment Plants upto 5 MLD capacity 100 Kg. chlorine cylinder shall be provided and capacity above 5 MLD chlorine 900 kg tonner shall be provided.					
	<b><u>22) All valves required in WTP shall be glandless instead of traditional valve.</u></b>					
	<b><u>23) All railings required for WTP shall be stainless steel Pipe railing instead of G.I.Pipe railing.</u></b>					
	<b><u>24) External painting for WTP shall be in acrylic emulsion with silicon additives paint instead of waterproof cement paint.</u></b>					
	<b><u>25) Internal flooring for WTP shall be in Ceramic tiles instead of Mosaic tiles..</u></b>					
	<b><u>26) " All the structural steel works /fabrications are to be provided with application of Hot Dip Zinc coating according to specificatona as per IS 4759:1996 ( Reaffirmes 2006)</u></b>					
	<b><u>27) Tha base slab of Back wash water tank and Top slab of Chemical house or Admin building should be separate.Common slab for wash water tank and Admin building is not allowed.</u></b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b><u>28) The cost of Chlorine contact tank (CCT) is included in these rate.</u></b>					
	<b><u>NOTE:Condition from Sr. No.1 to 28 shall form a part and parcel of the tender and must be incorporated in draft tender papers of conventional treatment plants Rate for Conventional Treatment Plants ( Proposed)</u></b>					
Sr. No	<b><u>Capacity in Mld.</u></b>	<b>Unit</b>	<b>Rs. In Lakhs</b>			
1)	Upto 5 MLD	MLD	47.22	18.74		
2)	Cost of 5 MLD treatment plant	Job	236.10	93.70		
3)	Add for capacity above 5 MLD upto 10 MLD	MLD	33.89	13.39		
4)	Cost of 10 MLD treatment plant	Job	405.54	160.66		
5)	Add for capacity above 10 MLD upto 20 MLD	MLD	21.66	10.01		
6)	Cost of 20 MLD treatment plant	Job	622.15	260.80		
7)	Add for capacity above 20 MLD upto 50 MLD	MLD	20.07	7.57		
8)	Cost of 50 MLD treatment plant	Job	1224.37	488.01		
9)	Add for capacity above 50 MLD upto 100 MLD	MLD	16.95	6.34		
10)	Cost of 100 MLD treatment plant	Job	2071.64	805.21		
11)	Add for capacity above 100 MLD	MLD	12.35	4.07		
<b>3</b>	Designing (aesthetically), providing, fabricating <b><u>Package Water Treatment Plant</u></b> at the shop, transporting to site, installing, testing and commissioning at the site, giving necessary one month's free test and trail run with guarantee for one year, etc. complete.					
	Prefabricated Package Water Treatment Plant comprising following :					
1)	Rapid mixing channel in M.S. sheets and M.S. baffle.					
2)	Flocculator not less than 10 minutes detention, in M.S. prefabricated box, flocculation being achieved either by glass pebbles of graded size or PVC tetrapod or equivalent arrangement to ensure good floc formation.					
3)	Plate or tube settlers of not less than 30 minutes detention in M.S. prefabricated box, the plates / tubes mounted in the settler basin with inclination of not less than 60 degree to horizontal.					
4)	Rapid sand gravity filter in M.S. prefabricated box with filter sand not less than 500 mm thick, supported on false floor below with polypropylene nozzles spaced at not more than 500 mm centres in either direction.					
5)	Backwashing, inlet & outlet facilities shall be provided.					
5.1	Air blowers - Air Blowers are not required for WTP having capacity less than and equal to 3 MLD, for WTP having capacity more than 3 MLD air blowers capacity of delivering 600 LPM per sqm of free air of filter area 0.4 kg/sqcm at underdrain (100% standby)					
5.2	Wash water tank capacity equal to 2 % of designed quantity of filter water in a day + 10 %					
5.3	wash water pump with 100 % standby (Minimum 3 HP with all accessories)					
5.4	Backwash with water not less than 0.6 cum/sqm of filter bed area in filter box.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
5.5	Piping of outlet upto sump					
6)	Laboratory equipments					
7)	External & Internal electrification					
8)	TCL solution tank with mixing, carrying and dosing arrangement with piping.					
9)	Gravity feed gas chlorinator with 100% standby.					
10)	Four alum storage unit					
11)	Drainage arrangement					
12)	Providing room with RCC roof for office and Lab space with necessary water supply & drainage arrangement & internal roads					
13)	RCC sump of one hour cap.and pump house on it.					
14)	Internal Road					
15)	Wire fencing with gate for WTP premises.					
16)	All civil works for foundation, consisting of raised RCC platform above G.L. or walls in B.B. masonry or UCR masonry shall be provided as per needs at site.					
17)	Bypass in the form of pipes or M.S. channels included in the design, effecting bypass of such new tank and filter individually or both. (Limit upto 5.0 M. from W.T.P. face)					
18)	The entire M.S. fabricated tank provided with FRP lining (5 mm thick) to inside face in contact with water epoxy painting- two coats with one coat of primer on outside. The thickness of plates employed shall not be less than 6 mm					
19)	Alum dosing and mixing arrangements to be provided in twin tanks, each of 8 hours capacity, capable of importing does of 20 ppm with 5% solution. The alum tanks provided with a dose in steps of 5 ppm and entire unit mounted on the top of flocculator / settler box, in the form of prefabricated structure, with access platform and ladder. Alum boxes with FRP lining (5 mm thick) inside and epoxy paint two coats with one coat of primer on outside.					
20)	Both flocculator and settling basins provided with hopper bottom with slope not less than 45 degrees to the horizontal drain pipes and valves provided to both flocculator and settling basin.					
21)	Flow ratings to conform following parameters :					
a)	Velocities in channels not to exceed 0.6 M./Second.					
b)	Velocities in filter outlet pipes and valves not to exceed 1 M./Second.					
c)	Velocities in interconnecting pipe and controls not to exceed 1M./Second.					
d)	Backwash with air : Not required.					
e)	Backwash with water : Not less than 0.6 M./ Sqm. of filter bed area in filter box.					
23)	Free board for all units not less than 300 mm					
23)	Rates as above include all taxes, octroi and duties which would be specific to the site locations.					
	<b>Package Water Treatment Plant</b>		<b>Rs. In Lakhs</b>			
1)	21 Cum/Hr. (0.50 MLD)	Each	38.70	11.96		
2)	34 Cum/Hr. (0.80 MLD)	Each	47.92	14.35		
3)	42 Cum/Hr. (1.00 MLD)	Each	54.02	16.17		





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
4)	63 Cum/Hr. (1.50 MLD)	Each	67.67	20.31		
5)	83 Cum/Hr. (2.00 MLD)	Each	80.14	24.15		
6)	125 Cum/Hr. (3.00 MLD)	Each	102.60	31.08		
	Note : Depending upon the capacity required for the scheme, one of the above capacities should be chosen.					
	<b><u>Sewage Treatment Plant (STP)</u></b>					
<b>4A</b>	Designing (aesthetically), providing, constructing and giving satisfactory trials of <b><u>modernised Sewage Treatment Plant</u></b> consisting of receiving chamber, screen chamber, grit chamber, measuring flume, distribution chamber with primary and secondary treatment, etc. as detailed below, administration block of suitable size including allied units for waste disposal with all civil and mechanical works involved, etc. complete (turn key job).					
	<b><u>Primary treatment - with extended</u></b>					
	<b><u>sludge drying beds</u></b>					
	<b><u>Rates</u></b>		<b>Rs. In Lakhs</b>			
1)	Upto 10 MLD	MLD	67.44	26.49		
2)	Cost of 10 MLD plant	Job	674.38	264.90		
3)	Add for capacity above 10 MLD upto 20 MLD	MLD	58.96	23.14		
4)	Cost of 20 MLD plant	Job	1263.99	496.27		
5)	Add for capacity above 20 MLD	MLD	50.52	19.90		
6)	Cost of 50 MLD plant	Job	2779.46	1093.22		
7)	Add for capacity above 50 MLD	MLD	38.18	14.17		
8)	Cost of 100 MLD plant	Job	4688.25	1801.48		
<b>4B</b>	Designing (aesthetically), providing, constructing and giving satisfactory hydraulic testing, commissioning and giving satisfactory trials of <b><u>modernised Sewage Treatment Plant</u></b> consisting of inlet chamber, screen chamber, detritus tanks, parshall flume, primary settling tanks, aeration tanks, secondary settling tanks, sludge sump and pump house, sludge thickener, primary digester, secondary digester, SST sump and pump house, chlorine contact tank, chlorinators, chlorinator room, sump cum blending tank, PST sludge sump cum blending tank, pump house, sludge centrifuge, gas holder, necessary piping work with required valves, gates, drains, pathways, administrative building cum laboratory, laboratory equipments, tools and plants, spare parts, etc. complete as turnkey job with all involved civil, electrical and mechanical works inclusive of following items, units as per detailed specification for civil, electrical and mechanical components with all duties and taxes, etc. complete.					
	<b><u>Inlet Chamber</u></b> Designing, providing and constructing RCC (M-300) inlet chamber designed for the peak flow 2 DWF including necessary excavation in all types of strata including walkway around the periphery. Each compartment will have phosphor bronze, steel gate with extension rod, head stock, operating wheel, G.I. pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b><u>Screen Chambers</u></b>            Designing, providing, constructing, testing and commissioning screen chamber designed for average 1 DWF and maximum 2 DWF in RCC (M-300) including inlet pipe/ channel from inlet chamber, outlet pipe/ channel to detritus tank, free board of 0.50 M minimum, RCC walkway 1.2 M wide with G.I. pipe railing, RCC staircase of 1.2 M width from GL to screen chamber.</p>					
	<p><b><u>Detritus Tank</u></b>            Designing, providing and constructing continuously grit removal type of detritus tank, mechanically operated in RCC (M-300) capable of removing 100%, 0.20 mm size particle and above, having specific gravity 2.30 designed for one peak 2 DWF with suitable arrangement of separation of grit from putrescible solids including providing and making necessary arrangement of JB-1 inlet and outlet channel of required sizes as may be required to connect the flow to parshall flume, etc. complete including hydraulic testing for water tightness of the structure having minimum free board of 0.30 M washout arrangement to grit chamber and platform 1.20 M wide RCC walkway with G.I. pipe hand railing shall be provided. A pit for collecting grit conveyed by conveyor shall be provided.. It should be suitable to handle the grit for carting. All arrangements shall be as per detailed specifications and as directed.</p>					
	<p><b><u>Parshall Flume</u></b>            Designing, providing and constructing parshall flume channel in RCC (M-300) for measuring quantity of sewage received at the treatment works, max. flow of 2 DWF and minimum flow of % DWF including providing and making necessary arrangement of approach channel as may be required to connect the flow having minimum velocity of 0.3 M per second to distribution box (DB-1). The unit shall be provided with walkway and RCC staircase having width of 1.20 M each etc. complete, including hydraulic testing for watertightness of the civil structure having free board of 0.6 M including electrically operated, flow indicating and flow integrating devices having a standby of float operated ROF meter. All arrangements as per specifications.</p>					
	<p><b><u>Primary Settling Tanks with Equipments</u></b>            Designing, providing, constructing and hydraulic testing in RCC (M-300) watertight primary settling tanks of 1 DWF capacity with feed chamber, sludge and effluent chamber, base adequately supported, providing 1.20 M wide clear peripheral and approach walkway inter connecting C.I. double flanged pipes from feed chamber of the clarifier distribution well, grouting wherever necessary, including foundation, etc. as per specifications, water depth at outer side shall be minimum 3.0 M, weir loading shall not be greater than 125 cum, DWF for average flow, bottom slope shall be 1:12.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>The floor of clarifier shall have 40 mm thick (min.) screed course of cement grout of mix in CM 1:2 detention period shall be 2.25 hrs. dispersion box and stiffened weir plate made of mild steel plate not less than 8 mm thick, anticorrosive epoxy paint on both faces shall be provided. Minimum free board of 0.50 M be provided. It includes inlet pipe from distribution chamber, central shaft, inlet baffle, outlet chamber, scum remover, skimming device, scum chamber, connecting channel from PST, outlet chamber to DB-2 as per detailed specifications.</p>					
	<p><b><u>Aeration Tank (AT)</u></b>            Designing, providing and constructing in RCC mix (M-300) aeration tank in compartments to handle combined flow of 1 DWF incoming flow and recirculation flow including construction of inlet, outlet and distribution chamber DB-3 and providing 1.20 m wide clear peripheral approach walkways, expansion joints wherever necessary, including foundation, etc. as per specifications. Peak factor shall be 2, F/M ratio shall be 0.40, low speed aerator speed between 20 to 100 RPM, recirculation flow @50% and free board 0.60 m depth, (SWD) 3.50 M minimum, D.O. level at A.T. 2 mg/lit, MLVSS concentration shall be 2500 mg/lit and MLVSS concentration shall be 2000 mg/lit, HRT shall be 4 to 6 hours and STR 6-8 days.</p>					
	<p>It should have compartments for washing, oxygen transfer capacity of mechanical aerator shall not be less than 1.5 kg/KWH, BOD of effluent 20 mg/lit with input to aerator 0.15 to 0.30 KWH/1000 cum of aeration tank. All related works shall be as per detailed specifications.</p>					
	<p><b><u>Secondary Settling Tanks with Equipments</u></b>            Designing, providing and constructing in RCC (M-300) water tight secondary settling tank having detention period 2 hours and SWD shall be 4.20 M. The effluent BOD &amp; SS from the secondary clarifier shall not be more than 20 Mg/lit and 30 Mg/lit respectively. It should be hydraulically tested, bottom floor slope of 1:12 and free board of 0.60 M minimum. Dispersion box shall be made of mild steel plate not less than 8 mm thick with anticorrosive epoxy paint from both faces and well stiffened. The sewage admitted at the centre flowing upward and outward towards periphery be slowly and continuously collected towards a convenient discharge point near centre by a rotating wheel arm. The clarifier will be completed with end drive half rotating bridge, structural steel rake, overflow weir, walkway diffuser, over load alarms, having push buttons, starters for the clarifier, walkway and the suitable sludge withdrawing arrangement with flush valve capable of withdrawing moisture content not more than 97% to 98% slopping floor shall have 40 mm thickness (minimum), screed course of cement grout of mix 1 cement : 2 sand, rotating sludge scrapper mechanism fitted with squeezes including providing and making necessary arrangement to connect the flow to outlet chamber (DB-4) then the gravity mains for final disposal and as per detailed specifications and obligatory provision. All other arrangements shall be as per detailed specifications.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b><u>Sludge Thickener with Equipments</u></b>            Designing, providing and constructing watertight of sludge thickener (gravity type) including foundation in RCC (M300) with inlet and outlet chamber influent well, inlet and outlet pipes, with sludge pit and sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20 M width G.I. pipe railing interconnecting CI pipes all complete as per specifications, detention time 24 hours. SWD shall be 4.25 metre with necessary fixed bridge scraper arrangement as per detailed specifications and necessary inlet and outlet arrangement. All other arrangement as per detailed specifications.</p>					
	<p><b><u>Primary Digester with Mixer Equipment (Fixed Cover)</u></b> Designing, providing and constructing unit of watertight and gastight primary digester suitable for 1 DWF plant and complete with pipe gallery, building, staircase for access from dome of digester into inside staircase, walkways at springing levels, etc. walls and base slab being in RCC (M-300), domes in structural concrete including providing burners and civil works for gas collection, grouting wherever necessary, etc. complete as per specifications. It should be designed for min 9°C and max. 45°C and minimum detention time of 30 days, water depth shall not be more than 8.5 M, free board shall be 0.6 M with inlet and outlet arrangement of C.I. flanged pipes including giving hydraulic testing and airtightness testing. The item includes providing works for collecting gas and gas burner as per specifications.</p>					
	<p><b><u>Secondary Digester with Equipment (Fixed Cover)</u></b> Designing, providing and constructing including foundation unit of watertight and gastight secondary digester to deal with 1 DWF complete with pipe gallery, building, staircase for access from dome of digester into inside, staircase to walkways at springing levels, etc. Walls and base slab and domes being in RCC M-300, providing arrangement for digested sludge from digesters to centrifuge, providing burners and civil works for gas collection grouting wherever necessary, etc. complete as per specifications and obligatory provision. All other arrangements as per detailed specifications.</p>					
	<p><b><u>S.S.T. Sump and Pump House with Recirculation Pumps and Sludge Pumps to Digester</u></b> Designing, providing and constructing sump and pump house of requisite capacity with ceiling height not less than 6 M, sludge stream for recirculation to aeration tank and excess sludge to SCBT, including C.I. piping to carry this flow to sump as per detailed specification and as directed by Engineer-in-charge.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b><u>Chlorine Contact Tank</u></b>            Designing, providing and constructing chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank should be of 30 minutes capacity during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions including designing, providing and constructing water supply arrangement for chlorination including providing dewatering and bypass arrangements, jointing to final effluent main and outlet weir, etc. complete. The effluent quality should match with the standards laid down by Maharashtra Water Pollution Control Board and as per the obligatory provisions and detailed specifications and as directed by Engineer-in-charge.</p>					
	<p><b><u>Chlorinator and Chlorinator Room / Tonner Room</u></b>            Designing, providing and constructing chlorinators, vacuum type 2 nos. each having capacity of 10 Kg/hr as per obligatory provisions and detailed specifications with necessary provision of chlorinator room having floor area not less than 30 sqm including automatic residual chlorine controller with actuator and residual chlorine analyser including cost of chlorine cylinder, piping, valves, measuring and controlling equipments, safety devices, lifting equipments, etc. complete as per I.S.-10553 (Part II) 1982. The tonner room should have 3 MT capacity crane for loading and unloading facility. Tonner storage should distinctly isolated and should be for minimum 10 tonners space and arrangements as per gas laws 1981 and factory act shall be provided and all other matching amenities be provided, 5 MT gantry shall be provided for full length of tonner room at 6 M height from floor level, with outlet chamber and treated effluent outlet channel, etc. complete as per detailed specifications.</p>					
	<p><b><u>Sump cum Blending Tank (SCBT)</u></b>            Designing, providing and constructing sump cum blending tank of appropriate size and detention time with free board of 0.60 M. The slope of floor 1:4 with suction pit at the centre as per detailed specifications and obligatory requirements.</p>					
	<p><b><u>P.S.T. Sump cum Blending Tank, Pump House with Recirculation Pumps</u></b>            Designing, providing and constructing pump house of appropriate size with pumps, ceiling height minimum 6 M over the circular sump for discharging the sludge to thickener and recycling of flow for blending with C.I. piping, etc. complete as per detailed specifications.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b><u>Sludge Centrifuge Room with Centrifuges</u></b>            Designing, providing, constructing and installing including foundation, etc. sludge centrifuge to handle the sludge flow of one day in one hour per unit with sludge dewatering unit, drain, etc. complete as per specifications, sludge centrifuge with all necessary arrangements as per detailed specifications mentioned in Volume-II and Volume-III of tender and obligatory provisions, be provided with satisfactory functioning.</p>					
	<p><b><u>Gas Holder</u></b>            Designing, providing and constructing gas holder having gas collection system, gas flow meter and gas burner with floating dome arrangement and storage time 6 hrs. to be constructed in M-300 having appropriate diameter as per detailed specifications and obligatory provisions. The floating dome shall be of 8 mm thick M.S. plate minimum and shall be provided with two coats of anti-corrosive epoxy coating from both faces.</p>					
	<p><b><u>Outfall Sewer</u></b>            Designing, providing and constructing appropriate outfall sewer of RCC NP-2 pipe to discharge treated effluent, untreated effluent from outlet chamber (after basin / chlorination tank) to the local nalla at a point shown on the drawing including necessary chambers for inspection / cleaning including necessary excavation , dewatering, refilling, concrete encasing/ bedding concrete steps to reach the nalla bed level, pitching and energy dissipation chamber in the nalla portion, etc. complete upto 50 M length RCC NP-2 pipeline and including all above items.</p>					
	<p><b><u>Piping Work in CI 'LA' class including Sluice Valve, Reflux Valve, M.S. Gate</u></b>            Providing, laying and jointing pipes other than those already included in the above items for interconnection bypass drains, etc. of all units including adequate numbers of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The item includes required channels with gates for interconnection of units, bypass drains, etc. for all units and as directed, etc. complete as per detailed specifications.</p>					
	<p><b><u>Administrative Building cum Laboratory (G+1)</u></b>            Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be a building having appropriate carpet area at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-200 framed structure, BB masonry (IInd class in CM 1:6) 20 mm cement plaster in CM 1:3 inside and outside painting, aluminium door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening electrification arrangements, water supply arrangement, etc. complete. The building will have laboratory on upper floor of administrative building and should be so centralised that it should not be attached with any unit but should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b>Primary and secondary treatment-with digesters, sludge drying beds, etc. complete.</b>					
	<b>Rates</b>		<b>Rs. In Lakhs</b>			
1)	Upto 10 MLD	MLD	80.58	31.89		
2)	Cost of 10 MLD plant	Job	805.77	318.85		
3)	Add for capacity above 10 MLD upto 20 MLD	MLD	70.49	27.97		
4)	Cost of 20 MLD plant	Job	1510.67	598.51		
5)	Add for capacity above 20 MLD	MLD	60.78	23.91		
6)	Cost of 50 MLD plant	Job	3334.05	1315.83		
7)	Add for capacity above 50 MLD	MLD	45.57	17.98		
8)	Cost of 100 MLD plant	Job	5612.42	2214.92		
<b>5</b>	<b><u>Integrated Wetland Technology (IWT) BASED SEWAGE TREATMENT PLANT</u></b>					
	<p>Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactory trials of Integrated Wetland Technology (IWT) based Sewage Treatment Plant (STP) consisting of Screen chamber, Oil &amp; Grease trap, RCC Primary treatment tanks (including manholes, vent pipes and graded gravel media) and RCC Secondary treatment tanks (SBBR) (including gravel media, PVC sheets, wetland plants, plastic mesh, etc. as required.) tank, RCC intermediate and treated water tank, sludge recirculation pump and pipe network, room for tertiary treatment unit, E&amp;M works for tertiary treatment including associated piping work, internal pathways, wire fencing, etc. complete as turnkey job with all involved civil, electrical and mechanical works inclusive of following items, units as per detailed specifications for civil, electrical and mechanical components with all duties and taxes, etc. complete as directed by Engineer-In-charge. Allied structure shall be constructed as per the provision in appropriate and relevant standards and design guidelines of respective authorities. RCC and civil works will be as directed by Engineer-in-charge. Sewage Treatment Plant (STP) to be designed to treat the raw water sewage with the characteristics in table number "A" to produce the treated sewage with characteristics as mentioned in table number "B"</p>					
<b>A</b>						
	<b>Raw Sewage Characteristics</b>					
	Temperature - Ambient					
	pH - 5.5-9.0					
	BOD <sub>5</sub> - 300 mg/L					
	COD - 600 mg/L					
	TSS -500 mg/L					
	Total N : 50 mg/L					
	Total P : 15 mg/L					
	Faecal Coliform (MPN) : 10 <sup>6</sup> - 10 <sup>7</sup>					
<b>B</b>	<b><u>Treated Water Characteristics</u></b>					
	Temperature - Ambient					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	pH - 6.5-8.0			
	BOD <sub>5</sub> < 10 mg/L			
	COD - 40 mg/L			
	TSS < 20 mg/L			
	Total N < 5 mg/L			
	Total P < 1 mg/L			
	Faecal Coliform (MPN) < 10 mg/lt			
	Note: If raw sewage characteristics observed as per test are more critical than the mentioned in description (Table A) same shall be used for the design of Sewage Treatment Plant (STP), otherwise raw sewage characteristics mentioned ( Table A )shall be used.			
<b>II</b>	<b>FOLLOWING COMPONENTS ARE INCLUDED</b>	<b>Components</b>		
	<b>1. SCREEN CHAMBER:</b> Screening is a unit operation that separates large floating materials in and/or on water found in different and/or on water (found in different sizes) from water and from entering wastewater treatment facilities and mains. The unit known as a screen chamber	1 Nos.		
	<b>2. Oil and Grease Trap</b> Designing, providing and constructing manual type Oil & Grease removal mechanism in RCC (M-300) capable of removing grease, oil and scum including providing and making necessary arrangements. Removal will be done manually and stored in a tank for defined period after which it will be disposed to appropriate disposal facility. Inlet and outlet channels of required sizes as make be required to connect the flow to connecting unit, etc. complete including hydraulic testing for water tightness of structure having adequate Free Board, and platform. All arrangements shall be as detailed specifications and as directed by Engineering in Charge.	1 Nos.		
	<b>3. Primary Treatment Tank</b> Designing, providing, constructing and hydraulic testing in RCC (M-300) watertight underground primary treatment tanks (including PSRT, SABR, BSF). Designs as per the drawings given by IWT technology provider. Design will consider the average flow, the 2 DWF and the peak flow. Tank will be covered and PVC vent pipes having sand and activated carbon (as per details and design provided by technology provider) will be installed to prevent odour. 0.5% of horizontal slope is provided in the tank for the collection of sludge. Minimum free board of 0.3m is provided. It includes providing all necessary items such as gravel media, piping, valves, joints, launder, baffling, etc. as shown in drawings & additional items will be as directed by Engineering in Charge.	1 Nos.		





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b>4. Static Bed Biofilm Reactor (SBBR)</b>            Designing, providing, constructing and hydraulic testing in RCC (M-300) watertight underground secondary treatment tanks (SBBR). 0.5% of horizontal slope is provided in the tank for the collection and recirculation of sludge. Designs as per the drawings given by IWT technology provider. Design will consider the average flow, the 2 DWF and the peak flow. Wetland plants will be planted on gravel media ( as per designed by IWT technology provider). In the open recirculation sections a combination of Bottom screen, MS mesh, PVC sheet, plastic mesh will be provided to support Wetland plants. Minimum free board of 0.3m is provided. It includes providing all necessary items such as gravel media, piping, valves, joints, launder, baffling, structural steel work, bottom screens, grill work, pvc sheet, plastic mesh, wetland plants etc. as shown in drawings and additional items will be as directed by Engineering in Charge.</p>	1 Nos.				
	<p><b>5. Intermediate and Treated Water Tank</b>            Designing, providing, constructing and hydraulic testing in RCC (M-300) watertight underground tank acting as a feed tank for tertiary treatment avoiding backflows. Designs as per the drawings given by IWT technology provider. Design will consider the average flow, the 2 DWF and the peak flow. Tank will be covered. It includes providing all necessary items such as piping, valves, joints etc. as shown in drawings &amp; additional items will be as directed by Engineering in Charge.</p>	1 Nos.				
	<p><b>6. Tertiary Treatment Unit</b>            Designing, providing, installing and hydraulic testing of feed pump, activated carbon filter vessel with required sand and required activated carbon quantities, hypo dosing tank, dosing pump, necessary piping, pumps, joints, electrical cables, connections etc. complete. It also includes trail and run of tertiary treatment unit. After dosing contact time of 30 min allows 99.99% reduction of outstanding fecal coliform. Chlorine dosage will be as per standard requirement of 5-10ppm. to match effluent quality as mentioned in table number "B". The Unit as per designed and approved by technology provider.</p>	1 Nos.				
	<p><b>7. Treated Water Outfalls</b>            Designing, providing, constructing appropriate outfall sewer of RCC NP Class -III pipe to discharge treated effluent, untreated effluent from bypass chambers to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete</p>	1 Nos.				

Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>8. Block Diagram Integrated Wetland Technology (IWT)</b>			
	<p>The diagram illustrates the IWT process flow. It starts with Preliminary Treatment (Collection Tank, Coarse Screen, Fine Screen, and Lime as Lime and Sludge). This is followed by Primary Treatment (PSRT, BSF, and BSS). Secondary Treatment (SBBR) follows. Tertiary Treatment includes an HCl Dosing Tank, a Dosing Pump (DP), an Activated Carbon Filter (ACF), and an Interrogate Tank. The final output is a Treated water tank with an option for Discharge/Reuse.</p>			
	<p>PSRT: Primary Solid Removal Tank  BSF : Bio Sequential Filtration  RAS : Return activated sludge  SBBR: Static Bed Biofilm Reactor</p> <p>HClDT: Hypo chloride Dosing Tank  DP: Dosing Pump  ACF: Activated carbon Filter</p>			
<b>III</b>	<b>PRICE SCHEDULE</b>			
	<b>Capacity of the Plant in MLD    Area Requirement in Sqm</b>	<b>Unit</b>	<b>Amount in (Rs.)</b>	
	0.050 MLD                    110	Job	2911110	
	Add capacity above 0.050 MLD to 0.100 MLD	Litre	35.85	
	0.10 MLD                    250	Job	4703666	
	Add capacity above 0.10 MLD to 0.25 MLD	Litre	32.26	
	0.25 MLD                    630	Job	9542049	
	Add capacity above 0.25 MLD to 0.50 MLD	Litre	28.28	
	0.50 MLD                    1100	Job	16611342	
	Add capacity above 0.5 MLD to 1 MLD	Litre	27.53	
	1.00 MLD                    2090	Job	30376203	
	Add capacity above 1 MLD to 2 MLD	Litre	27.02	
	2.00 MLD                    4040	Job	57395250	
	Add capacity above 2 MLD to 3 MLD	Litre	26.51	
	3.00 MLD                    5990	Job	83905173	
	Add capacity above 3 MLD to 5 MLD	Litre	26.30	
	5.00 MLD and Above            9950	Job	136514884	
	<b>NOTES</b>			
1	Screen chamber and O and G trap are of manual type			
2	Sodium hypochlorite dosing is adopted			
3	Dedicated sludge management is not provided as it is required every 12 to 18 months basis cycle from Primary Removal Tank (PSRT) and Static Bed Biofilm Reactor (SABR)			
4	Sludge will be removed from the Sewage Treatment Plant (STP) and will be disposed according to stakeholders general practice to nearest Fecal Sewage Treatment Plant (FSTP) or as per standard guidelines. Provision of sludge drying beds are not considered in IWT scope. If sludge drying bed are to be provided then it shall be the additional cost to the Integrated Wetland Technology (IWT) Sewage Treatment Plant (STP)			





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
5	No separate Independent laboratory and administrative building required. As tertiary treatment room is provided which is large enough to accommodate required manpower, storage and instruments					
6	Site clearance, wire fencing to the boundary of Sewage Treatment Plant (STP) is included in scope of work					
7	All water retaining structures are in M30. grade of concrete					
8	Water table is considered 5m below Finish Ground Level (FGL) for design					
9	Soil bearing capacity is considered as 20 T/m <sup>2</sup> at 1.5m below from Ground Level (GL)					
10	Grade of cement used is OPC 43 grade. (Contractor can use higher grade).					
11	Grade of steel is used as Fe 500					
12	Peak factor considered in design of STP as per CPHEEO manual guideline					
13	Hypo dosing material and required manpower during trial run (90days) and commissioning is considered in scope of work					
14	Water and power during construction, trial run and commissioning shall be provided by client/ local body					
15	Power available near STP is assumed to be LT power supply					
16	All Integrated Wetland Technology (IWT) designs will be provided by IWT Technology provider					
17	Defect liability period shall be of 5 years to the contractor					
18	Maintenance and repair work of IWT shall be responsibility of the contractor and technology provider combine					
<b>IV Equipments of following make shall be used</b>						
<b>S. N.</b>	<b>Description</b>		<b>Make</b>			
1	Centrifugal Pumps		Kirloskar, Johnson, Kishor, Crompton or as per MJP APPROVED MAKE			
2	Dosing pumps		Milton Roy pumps, VK Pumps or equivalent			
3	Screens		To be fabricated as per technology provider			
4	Cables		Finolex, Polycab, Supreme or as per MJP standard			
5	Plastic mesh and plastic tie lock		General standard with 1 to 2 inch gap grill bird net			
6	PVC Sheet		General standard 4 to 6 mm thick to cover Sludge			
7	Valves		Intervolve, BDK, Procon OR AS PER MJP			
8	Gravel media		As per design and as approved by technology			
9	Pipes		As per MJP approved design / make			
10	Canna India Plants		Variegated canna or equivalent			
11	Tertiary Unit		AS per standard specification and supplied by technology provider			
12	Bio Culture and Growth Hormone		AS per standard specification and supplied by technology provider			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
6	<b>Ozone Based High Pure Oxygen Treatment System (HPO):</b>			
	Designing, providing, installing, hydraulic testing, commissioning and giving satisfactory trials of Ozone Based High Pure Oxygen Treatment System for STP consisting of Rotary air compressor, Air Dryer, Oxygen generation plant, Ozone generation plant, Chiller with recirculation pumps, Power Supply Unit (PSU), Ozone Dosing System, OFF Collection & Diffusion System, associated instrumentation and control system, associated piping & valves, etc. with complete work involved electro- mechanical works inclusive of following items as per the specifications & excluding all civil work, MCC Panel, taxes & duties, etc.			
	<b>FOLLOWING UNITS ARE INCLUDED:</b>			
	<b>A) Rotary Screw Compressor:</b>			
	Designing, providing, installing, testing & commissioning of Rotary Screw Compressor with associated piping & valves. Rotary screw air compressor are simply rotary positive displacement machines, capable of high speed operation over a wide range of operating pressures and flow rates at high efficiencies. The main advantage of using rotary screw air compressor is that it can supply compresses air continuously with minimum fluctuation in delivery pressure and generates less heat than normal air compressors which causes energy efficiency.			
	The technology design & details as per provided and approved by technology provider.			
	<b>Codes &amp; Standards: As per manufacturer standard</b>			

Sr. No.	Description		Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	Motor	Class of Insulation	F				
		Supply Voltage	415 V, 3Φ, 50 Hz				
	<b>B) Air Dryer</b>						
	Designing, providing, installing, testing & commissioning of Air Dryer with associated piping & valves. The dryer consists of two adsorber filled with dessicant. The condensed water from air is removed in the prefilter. The wet oil free compressed air enters the adsorber at the bottom. The dessicant has high surface area and high affinity towards water vapor.						
	The incoming water vapor gets adsorbed on the dessicant, and air gets progressively dried as it travels up the dessicant absorber.						
	The technology design & details as per provided and approved by technology provider.						
	<b>Codes &amp; Standards: ASME Sec VIII Div.1 /As per manufacturer standard</b>						
	<b>Air Dryer Specifications</b>						
	Ozonator Capacity ↓	Quantity (No's)		Type			
		1 kg/hr	1 No				
		5 kg/hr	1 No				
		6 kg/hr	1 No				
		10 kg/hr	1 No				
		11 kg/hr	1 No	Screw, Air cooled, Lubricated			
		15 kg/hr	1 No				
		16 kg/hr	2 No (Both Working)				
		20 kg/hr	2 No (Both Working)				
	<b>C) Oxygen Generation Plant:</b>						
	Designing, providing, installing, testing & commissioning of oxygen generation plant with associated piping & valves.						
	This Moisture free Dry compressed Air enters at the bottom of one of the Oxygen Generator Adsorber, which is filled with unique ceramic Zeolite molecular sieve, which ADSORBES Nitrogen in the Compressed Air producing high purity Oxygen at the top.						
	When the producing Dyer Adsorber & Oxygen Generator Adsorber is saturated with moisture and Nitrogen respectively, the compressed Air feed is automatically switched to the other Oxygen Generator Adsorber via other Dryer Adsorber. The adsorbed Nitrogen from Oxygen Generator Adsorber & moisture from Dryer adsorber is DESORBED when the adsorber are depressurized, purged & vented to the atmosphere. Each of the Adsorber cycles between two stages; production & regeneration. One set of dryer & Oxygen Generator Adsorber produces dry Air / Oxygen while other set of Dryer & Oxygen Generator adsorber regenerates themselves. The entire cycle is automatically controlled & under normal operation, no operator attention is required.						



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25																																				
	The technology design & details as per provided and approved by technology provider.																																							
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	<b>D) Ozone Generation Plant :</b>																																							
	Designing, providing, installing, testing & commissioning of ozone generation plant. The heart of ozone generation unit is Ozone electrodes & its power supply unit. This design shall combine the high ozone gas concentration, very low specific power consumption at all ozone gas concentrations and unmatched reliability.																																							





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	The design of ozone generating element provides low dielectric stress and a high dielectric breakdown factor of safety. The ozone generating elements consist of discrete specialized glass tubes (dielectric) and a discrete stainless steel high voltage electrode. Centering devices of the dielectrics and HV-Electrodes creating two discharge rooms (spaces) for the ozone generation while allowing gas to flow on both sides of the tube.					
	For long-term reliability the dielectrics operate max. at 10% of the dielectric breakdown voltage rating. This eliminates the problem of periodic dielectric failures during ozone production, saving on system downtime, maintenance and spares costs.					
	All ozone systems shall fulfill the requirements for ozone-producing systems used in water treatment according to Indian Industrial Standard, with mechanical equipment (e.g., pressure vessels) and the electrical systems meeting IS standards.					
	Ozone proof materials shall be used for all parts & components of the plant that come in contact with ozone gases.					
	<b>The ozone electrode material shall be confirming to DIN 17007 part 2 i.e. SS 1.4571 equivalent to SS 316 Ti, and overall ozone generator as per DIN19627.</b>					
	Cooling waterside pressure proof up to 6 bar. Thermal isolation against condensate water. Indirectly cooled dielectric of high graded borosilicate glass free of mechanical or heat generated tensions. All seals & gaskets containing ozone gases shall be made of PTFE / Viton.					
	<b>Dielectric glass tube:</b>					
	<b>Material:</b> Borosilicate glass (specially for ozone generation)					
	<b>Type:</b> Cylindrical open at both end					
	<b>Dielectric gap:</b>					
	Dimensionally uniform annular gap between H.T electrode and dielectric maintained at 0.5 mm by centering device made up of Teflon.					
	<b>H.V. electrode construction:</b>					
	<b>Material of construction:</b>					
	High voltage should be given to Aluminium tubes having MOC as per DIN 17007 - Part 4 through a S.S. Fuse wire of suitable fusing properties (over voltage protected) & gauge standard in order to protect excess load.					
	<b>Type:</b> Cylindrical					
	<b>Gas / Cooling ends:</b> Water inlet & outlet connection of Heat Exchanger should be of SS 316 Ti whereas Ozone inlet & outlet connection should also be of SS 316 Ti. The technology design & details as per provided and approved by technology provider.					
	<b>Ozone Generation System Specifications</b>					
	<b>Ozonator Capacity ↓</b>	<b>Ozone Electrode Qty.</b>	<b>Ozone Electrode Configuration</b>	<b>Model</b>		
	1 kg/hr	1 Unit		1K		
	5 kg/hr	1 Unit		5K		



Sr. No.	Description				Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	6 kg/hr	1 Unit		6K					
	10 kg/hr	1 Unit	Single Electrode at rated capacity	10K					
	11 kg/hr	1 Unit		11K					
	15 kg/hr	1 Unit		15K					
	16 kg/hr	2 Unit	Two Electrode X	16K					
	20 kg/hr	2 Unit	50% Capacity	20K					
<b>Ozone Generation System Common Specifications</b>									
Concentration of Ozone		9 % ± 1% (wt. /wt.)							
ΔT across Cooling water of Ozone Electrode		min 5 - max 6 °C							
MOC of Ozone Electrode		SS 316 Ti (as per DIN 19627)							
Cooling arrangement		Water cooled pressure proof up to 6 bar.							
MOC		Specialty borosilicate Glass for ozone							
Dielectric Size		ID - Approx 9 mm OD - Approx 12 mm ± 0.2 mm							
Voltage & Supply		415 V, 3Φ, 50 Hz.							
Frequency Operating		3000 - 10000 V, 3Φ, 100 - 1400							
<b>E) Chiller with Recirculation Pumps</b>									
<p>Designing, providing, installing, testing &amp; commissioning of Chiller with recirculation pump with associated piping &amp; valves, etc. Suitable capacity chiller for removal of excess heat generated during ozone generation from ozone producing cells. It shall consists of compressor, cooler, condenser, refrigerant circuit, control center, pump, chilled water piping, condenser water piping, electrical panel, power &amp; control cabling. ΔT 5 - 6°C.</p> <p>The technology design &amp; details as per provided and approved by technology provider.</p>									
<b>Recirculating Cooling Water Quality</b>									
Normal operating Pressure = 1 – 2 bar (g)									
Iron = < 0.2 mg/L									
Manganese = < 0.05 mg/L									
Chlorides = < 50 mg/L									
pH = 6 - 8									
Hardness = < 10 mg/L									
Conductivity = < 500 μs/cm									
<b>Codes &amp; Standards: As per Manufacturer standard</b>									
<b>Water Chiller Specifications</b>									
Ozonator Capacity ↓	Quantity (No's)		Capacity (TR)	Type					
1 kg/hr	1 No working		Approx 3 TR						
5 kg/hr	1 No working		Approx 15 TR	Reciproca--ting/ Scroll Hermetic a-llly sealed, air cooled					





Sr. No.	Description				Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	6 kg/hr	1 No working	Approx 20 TR						
	10 kg/hr	1 No working	Approx 30 TR						
	11 kg/hr	1 No working	Approx 30 TR						
	15 kg/hr	1 No working	Approx 50 TR						
	16 kg/hr	2 No (Both Working)	Approx 30 TR						
	20 kg/hr	2 No (Both Working)	Approx 30 TR						
	<b>Water Quantity Required</b>								
	<b>Ozonator Capacity ↓</b>	<b>Quantity Required (m3/hr)</b>	<b>Inlet Temp.</b>	<b>Quality</b>					
	1 kg/hr	2 (min) - 4 (max)		As mentioned above in the table/ drinking water quality					
	5 kg/hr	10 (min) - 20 (max)							
	6 kg/hr	14 (min) - 28 (max)							
	10 kg/hr	20 (min) - 40 (max)	≤ 15 °C to 25 °C						
	11 kg/hr	24 (min) - 48 (max)							
	15 kg/hr	30 (min) - 60 (max)							
	16 kg/hr	34 (min) - 68 (max)							
	20 kg/hr	40 (min) - 80 (max)							
	<b>Chilled Water Recirculation Pump Specifications</b>								
	<b>Ozonator Capacity ↓</b>	<b>Quantity (No's)</b>	<b>Head (kg/cm2)</b>	<b>MOC</b>					
	1 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	5 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	6 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	10 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	11 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	15 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	16 kg/hr	3 Nos. (2W+1S)	3.5	Cl all					
	20 kg/hr	3 Nos. (2W+1S)	3.5	Cl all					
	<b>F) Power Supply Unit:</b>								
	<p>Designing, providing, installing, testing &amp; commissioning of Power Supply Unit (PSU). The Power Supply Unit is a state of the art, variable frequency converter that provides the most effective operation of Ozone technology. Standard design of the Power Supply Unit comes on a base frame, which is designed, in order to ensure mechanical stability for all installed equipment, for instance power distribution, step up transformer etc. It is a painted sheet steel cabinet. Several doors in order to allow maintenance and service can be locked separately. Interlocks at all cabinet doors protect the operating staff by shutting down the unit in case of opening the doors during normal operation.</p>								



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>Process Equipment</b>			
	The Power Supply Unit has a dedicated power distribution/ rectifier section, inverter section and step up transformer section in order to convert the three phase 50/60 Hz power line into a single-phase variable frequency supply. Key interlocks and continuous monitoring of the most important parameters of the system ensure reliability and protection of the installation.			
	<b>Step Up Transformer Section</b>			
	The step up transformer brings the single-phase level of the inverter section to an appropriate level for generating ozone. The PSU performs two different functions for this section. The transformer shall be installed as dry type which is completely mounted on the base and covered by the enclosure in order to remove the heat by using normal or controlled convection. Insulation of the high voltage winding is five times higher than the operating voltage. It is designed for permanent stress.			
	<b>Power Distribution System</b>			
	The power distribution panels are designed with a perfect panel system. All circuit breakers are overload controlled. The control voltage will be generated with an independent control transformer with leakage and power loss control.			
	The technology design & details as per provided and approved by technology provider.			
	<b>Codes &amp; Standards: As per manufacturer standard</b>			
	<b>Power Supply Units Specifications</b>			
	<b>Quantity</b>	1 No. (1W)		
	<b>Power supply unit</b>	<b>Input Supply</b>	415 V, 3Φ, 50 Hz	
		<b>Approvals</b>	CE, CPRI & UL Approved	
		<b>Quantity</b>	1 No. (1W)	
	<b>Control Panel (PLC based)</b>	<b>MOC</b>	MS, powder coated	
		<b>Class of insulation</b>	IP 42	
		<b>Quantity</b>	Quantity = 1 No. (1W) with HMI Screen	
	<b>PLC</b>	<b>Type</b>	Non Redundant type	
		<b>HMI Screen</b>	4.6" - 14" Colored	
	<b>G) Ozone Dosing System :</b>			
	Designing, providing, installing, testing & commissioning of Ozone Dosing System with associated piping & Valves. Dosing systems as defined designates such part of the plant that mixes water with ozone gas exited from the ozonator.			
	<b>It shall consist of:</b>			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	a) Venturi Injector of Ozone resistant MOC with backflow prevention arrangement. With suitable booster pumps on assessing the dosing point location at site.			
	b) In case, the ozone electrode has a sufficient pressure up to 2 bar (g) this pressure can be utilize to diffuse the ozone gas through porous diffusers.			
	c) All pipelines, valves, fittings & other metallic parts involved in oxygen concentrator & ozone generator up to dosing point shall be of suitable non-corrosive metallurgy.			
	The technology design & details as per provided and approved by technology provider.			
	<b>Codes &amp; Standards: As per manufacturer standard</b>			
	<b>Ozone Dosing System Specifications</b>			
	<b>Ozone Dosing</b>	<b>Type</b>	Gas diffusing in contact tank.	
		<b>MOC</b>	<b>RCC by Client</b>	
	<b>Contact tank</b>	<b>Type</b>	Baffled Wall counter current with min 3 No of compartments, covered with water spraying arrangement for foam control.	
		<b>HRT</b>	Approx 6 - 10 mins for disinfection & For COD/BOD removal: Approx 30 - 60 mins.	
		<b>Liquid Depth</b>	Approx 4.9 - 5 m at sea level (6 m at	
		<b>Free Board</b>	Min. 1.2 m	
	<b>Diffusers</b>	<b>Quantity</b>	1 Lot	
		<b>MOC</b>	UPVC / Ceramic / SS 316	
	<b>Venturi Injectors/ Eductors with Anti Siphon Loop</b>	<b>Quantity</b>	1 Lot	
		<b>MOC</b>	SS 316 / SS 316 L	
	<b>Ozone Transfer Efficiency</b>		Approx 80 - 95%	
	<b>Interconnecting Piping &amp; Valves</b>		1 Lot	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25																
	<p><b>H) OFF gas Collection &amp; Diffusion System:</b>            Designing, providing, installing, testing &amp; commissioning of Off gas Collection &amp; Diffusion System with associated piping &amp; Valves. The Off Ozone/ Oxygen gas from Ozone contact tank shall be collected &amp; transferred to preozonation tank &amp; then to the aeration biology. The Ozone contact tank shall be covered type with one or more opening to connect the blower. The blower used to suck the off gas from the tank &amp; transfer to preozonation tank (covered tank) at the required pressure for diffusion.</p> <p>The Off gas from the preozonation tank shall be collected through another set of blowers &amp; transfer it to off gas diffusion means at the required pressure in aeration basin.</p> <p>The technology design &amp; details as per provided and approved by technology provider.</p> <p><b>Codes &amp; Standards: As per manufacturer standard</b></p> <p><b>OFF gas Collection &amp; Diffusion System Specifications</b></p> <table border="1"> <tr> <td>OFF gas Collection System</td> <td>Quantity</td> <td>1 Lot</td> </tr> <tr> <td>OFF gas Diffusion System</td> <td>Quantity</td> <td>1 Lot</td> </tr> <tr> <td rowspan="2">Pre ozonisation Tank</td> <td>Quantity</td> <td>1 No</td> </tr> <tr> <td>MOC</td> <td>RCC Baffled Wall counter current covered tank <b>by client</b></td> </tr> </table>	OFF gas Collection System	Quantity	1 Lot	OFF gas Diffusion System	Quantity	1 Lot	Pre ozonisation Tank	Quantity	1 No	MOC	RCC Baffled Wall counter current covered tank <b>by client</b>								
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	<p><b>I) Measuring &amp; Monitoring Devices :</b>            Designing, providing, installing, testing &amp; commissioning of Ozone measuring &amp; monitoring system.</p> <p>i) Outlet ozone gas of each ozone-generating module shall be measured by a common ozone analyser, of digital display model in gm / Nm<sup>3</sup> (range 0 to 200) having accuracy of 0.1 gm/Nm<sup>3</sup> based On UV ADSORPTION TECHNIQUE.</p> <p>ii) Residual ozone measuring device / ORP meter shall be placed at the location after condenser &amp; in the cooling water pond basin. Digital display, having repeatability <math>\pm 0.01</math> ppm.</p> <p>iii) Ambient ozone leak detector shall be placed in the ozone generator room to detect ozone leakage with alarm and cut-off signal on set value.</p> <p>iv) The above measuring / monitoring devices shall be of standard make.</p> <p>The technology design &amp; details as per provided and approved by technology provider.</p> <p><b>Codes &amp; Standards: As per manufacturer standard</b></p> <p><b>Measuring &amp; Monitoring Devices</b></p> <table border="1"> <tr> <td colspan="4"><b>A. For Feed Gas Preparation System</b></td> </tr> <tr> <td rowspan="2">A.1</td> <td rowspan="2">Dew point analyzer (online)</td> <td>Quantity</td> <td>1 No. (1 W),</td> </tr> <tr> <td>Range</td> <td>- 20 to -100° C,</td> </tr> <tr> <td rowspan="2">A.2</td> <td rowspan="2">Oxygen purity analyzer</td> <td>Quantity</td> <td>1 No. (1 W),</td> </tr> <tr> <td>Range</td> <td>0 -100%,</td> </tr> </table>	<b>A. For Feed Gas Preparation System</b>				A.1	Dew point analyzer (online)	Quantity	1 No. (1 W),	Range	- 20 to -100° C,	A.2	Oxygen purity analyzer	Quantity	1 No. (1 W),	Range	0 -100%,			
<b>A. For Feed Gas Preparation System</b>																				
A.1	Dew point analyzer (online)	Quantity	1 No. (1 W),																	
		Range	- 20 to -100° C,																	
A.2	Oxygen purity analyzer	Quantity	1 No. (1 W),																	
		Range	0 -100%,																	

Sr. No.	Description			Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b>B.</b>	<b>For Ozone Generation System</b>						
		Inlet Gas Feed gas Flow measurement	Quantity	1 No. (1 W),				
	<b>B.1</b>		Controlling	Rota meter with flow switch				
		Feed gas Temperature	Quantity	1 No. (1 W),				
	<b>B.2</b>		Controlling	for monitoring , alarming & shut down				
		Inlet Pressure Monitoring	Quantity	1 Lot				
	<b>B.3</b>		Controlling	Monitor System operation				
		Discharge Ozone Gas Temperature	Quantity	1 No. (1 W),				
	<b>B.4</b>		Controlling	for monitoring , alarming & shut down				
	<b>B.5</b>	Ozone Measuring	Quantity	1 No. (1 W),				
			Controlling	0 – 400 gm / Nm3				
	<b>B.6</b>	Ozone Leak Detector	Quantity	1 No. (1 W)				
	<b>B.7</b>	Inlet Volt meter	Quantity	1 No.				
			Controlling	Monitor system loading				
	<b>B.8</b>	Inlet Amperage	Quantity	1 No.				
			Controlling	Monitor system loading				
	<b>B.9</b>	Inlet frequency	Quantity	1 No.				
			Controlling	Monitor system loading				
	<b>B.10</b>	System watt/hr. meter/ Energy	Quantity	1 No.				
			Controlling	Monitor system loading				
	<b>C.</b>	<b>For Cooling Water System</b>						
		Water flow measurement - Inlet & outlet	Quantity	1 No. (1 W),				
	<b>C.1</b>		Type	Rota meter with flow switch				
		Water Temperature Inlet & outlet	Quantity	1 No. (1 W),				
	<b>C.2</b>		Controlling	for monitoring , alarming & shut down				
	<b>J) PLC Based Control Panel with HMI:</b>							
	All the power supply units or control panel shall confirm to CE, CPRI & UL listed.							



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p><b>Ozone system control:</b></p> <p>The ozone generator shall utilize a Programmable Logic Controller (PLC). PLC software shall be stored in EEPROM and not solely in volatile static RAM. Each ozone generator shall have an automatic and manual control mode. In the automatic mode, the generators power shall be modulated by a command from an external 4-20 milliamps signal from a process controller to the integral PLC. In the manual mode, the operator shall be able to set the inverter frequency via the operator interface terminal (OIT).</p>					
	<p><b>Programmable Logic Controller:</b></p> <p>Programmable logic controller is used in ozone generators to control the sequenced operation of the total plant as required, Plant can run both in Auto mode as well as Manual mode if desired to run individual loads, Interlocks Which are necessary to run plant in adequate manner such as Dosing Pumps, Air Flow, Cooling water Flow, Cooling water Temperature, Air Pressure, Cooling water Pressure entering the Electrode as well as control circuit safety, Door safety, Ambient ozone Leak Detector in case of any leakage is monitored and many other interlocks and safety points, analog input data 4-20mA/0-10V DC to PLC from ozone gas sensors or ozone residual sensor to monitor and also to control the output of the ozone generator, PLC will correspondingly control the power of the electrode through the Frequency Drive and HT Transformer. In typical applications where the dosing point is away from the plant building then remote PLC or Remote Input /Output is used to control the Generator output by communicating with the main plant PLC through required protocol, which will depend upon the distance. Alarms will be generated by the PLC and displayed during malfunctioning.</p>					
	<p><b>Variable Frequency Drive:</b></p> <p>Variable Frequency Drive will feed the power to HT Transformer, HT side of this transformer is connected to electrode. Variable frequency Drive having 440Volts 3Phase input and output 0 – 400 Volts, which is varied as per the requirement, is connected to the primary of HT Transformer.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>Frequency of the drive is varied up to 800 Hz depending upon the required output. Pattern for the Voltage versus frequency curve will be linear. High voltage connection of HT Transformer is connected to Electrode. Maximum of 8000 - 10000 Volts output power from HT Transformer is given to Electrode. At high voltage, Corona will be produced inside the electrode. One can control the ozone production automatically from PLC control output to Frequency drive input 4-20mA / 0-10Volt DC signal or manually through the potentiometer or LCD text display unit of frequency drive. Variable frequency drives are IGBT based. Output waveform is PWM. These Frequency drives or AC Drives are same as commonly used on Induction motors for regulating speed and energy saving. In Ozone generator systems we are using for regulating power to HT Transformer which in turn regulate power to electrode and thus corona discharge in the electrode is controlled. Single Phase frequency drives are used for small ozone generators. Acceleration time, Control output and many other features of Frequency drive have to be considered for smooth operation of the generator.</p>					
	<p><b>Control Flow OR Sequence of Operation in Auto Mode through PLC.</b></p>					
	<p><b>1. Procedure for machine start:</b></p>					
	<p>To start the plant operator has to turn 'Start' rotary switch to on position, Auto-O-manual switch to Auto; following operation will take place automatically as described in logic software of PLC.</p>					
	<p>Sump Pump should be started first by which normal water will flow through the heat exchanger of Compressor and Chiller. This is for cooling of compressor and chiller.</p>					
	<p>With Delay of 60 seconds both the compressors are to be started. This will be started after checking its interlocks for Pressure Switch, Oil Switch. If any fault is there then it will display it in its HMI Display unit at the panel on compressor.</p>					
	<p>After Compressors with delay of 60 seconds both Oxygen generators are Started.</p>					
	<p>With Oxygen Generator Chiller is to start along with Chiller its corresponding Recirculation Pump will be on. There are two Recirculation Pumps, One Working And one Standby. Operator has to decide which pump is to be run through control switch on the panel. Process of Cooling Water flow from Chiller to Electrode and return to Chiller tank will take Place.</p>					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>As soon as temperature of cooling water reached at its set point, Thermostat in chiller water tank will give the signal, with delay of 60 Seconds to thermostat signal, Oxygen inlet Valve to Electrode and Ozone Outlet valve will be On, Along with these valves Dosing pump will be on. PLC Logic will check interlocks for required Oxygen flow, transformer temperature, cooling water flow, cooling water pressure, any control trip, Door open limit switch, Drive Trip. If all the required conditions to start the electrodes are met then electrodes will be started.</p>					
	<p>During run time if Ozone Leakage is detected through ambient ozone leak detector sensor then whole plant will be shut down &amp; Exhaust fans fitted in the plant room will be started automatically to flush ozone air from the room.</p>					
	<p><b>2. Procedure for machine stop:</b></p>					
	<p>To stop the plant, Operator has to turn 'start' button to off state,</p>					
	<p>following operation will take place</p>					
	<p>First Electrode will be shut off.</p>					
	<p>With delay of 30 seconds Chiller will be off.</p>					
	<p>After chiller with delay of 5 minutes Oxygen inlet valve to Electrode and Ozone Outlet valve from Electrode, recirculation pump &amp; Dosing pumps will be off. This is required for flushing the electrode and the system.</p>					
	<p>With delay of 20 Seconds all Outputs, Oxygen generator, Compressor, all pump will be made off.</p>					
	<p></p>					
	<p><b>Control Flow OR Sequence of Operation in Manual Mode.</b></p>					
	<p><b>1. Procedure for machine start:</b></p>					
	<p>To start the plant operator has to turn rotary switch Auto-O-manual switch to manual; Safety interlocks already considered to avoid any malfunction and damage. Safety interlocks are done using imposition relays in the manual control panel. All switches &amp; push buttons for manual operation are provided on the manual panel along with its indication for ON, OFF &amp; Trip. Operator has to run machine in the procedure described below otherwise next process will not start due to safety interlocks.</p>					
	<p>First sump pump should be made on by which normal water will flow through the heat exchanger of Compressor and Chiller. This is for cooling of compressor and chiller. There are two pumps one working &amp; one standby operator has to select one to run, Pressure Switch at compressor side will be actuated. HMI display at compressor panel will correspondingly show the status.</p>					
	<p>Compressors have to be started then, with delay of 60 seconds Oxygen generator has to be started. Along with oxygen generator chiller and its recirculation pump is to be started. Two recirculation pumps are provided one running &amp; one standby operator has to decide which one has been run.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	As soon as temperature of cooling water reached at its set point, Thermostat in chiller water tank will give the indication, with delay of 60 Seconds to thermostat signal, Oxygen inlet Valve to Electrode and Ozone Outlet valve will be made On, Along with these valves Dosing pumps should be started.					
	After this electrode is to be started, this will be started after checking the interlocks for transformer thermostat, oxygen flow, door limit switches and all subsequent interlocks.					
	<b>2. Procedure for machine stop:</b>					
	To stop the plant, Operator has to turn off individual loads one by one;					
	Following described procedure should be followed by the operator.					
	Electrode should be turned off first.					
	After some delay chiller should be turned off.					
	With delay of 5 minutes oxygen valve, ozone valves, dosing pumps, recirculation pump should be turned off.					
	After 30 seconds compressors, oxygen generators & sump pump should be turned off.					
	<b>Alarms and Safety Features</b>					
	Ozone vessel gas pressure shall be precisely regulated using transducers and PID control. A water back flow prevention device suitable for ozone use shall be installed on the ozone gas out piping. Any electrical cabinet that has a door shall have electrical and mechanical interlocks on that door.					
	<b>Alarm list</b>					
	a) High gas exit temperature					
	b) High or low gas pressure					
	c) Low chilled water flow					
	d) High chilled water exit temperature					
	e) Frequency drive failure					
	f) Loss of phase detect					
	g) High inverter current trip					
	h) Low feed gas flow					
	i) Door interlock trip					
	j) Ozone concentration (intermittent)					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>Lighting, Air conditioning and Ventilation system:</b>			
	Ozone plant shall be erected in closed building that can be locked. Rooms where ozone might be emitted in case of failure shall be effectively monitored by gas detectors with alarms that stop the generation of ozone when activated. Effective monitoring means are the gas detector sensors. Rooms with ozonation plants shall be equipped with ventilation at floor level actuated automatically by the gas detectors. Ventilation shall guarantee at least three complete changes of air per hour.			
	The bidder has to confirm and fulfill ozonisation capacities and operation of the system as adequate for the following as per the guidelines of Environment Section. Possible interruptions of Ozonation due to problems such as supply failure, interruption in supply of ozone gas etc. Unit's start-ups and shut downs-planned / forced. Quick stabilization of the system after any interruption.			
	Dozing points to be selected in such a way that Ozonation is ensured for complete system. It should be ensured that no ozone-depleted pockets are left out in the system.			
	The health and safety aspects are required to be elaborated so that proper precautions can be taken during operation and maintenance.			
	<b>Operations:</b>			
	On the basis of manufacturers operation & maintenance manual the supplier shall provide instruction for the operation of the ozonating plant & make them accessible to all personnel who work at or near the plant. Such instruction shall include the following indication:			
	• Instruction on the operation of the parts of the plant			
	• Starting and shut down sequence			
	• Action in the event of the faults			
	• Preventive measures to avoid untoward situation.			
	<b>Safety Signs:</b>			
	Safety signs marked shall be in accordance with the safety concerns at the working place.			
	The technology design & details as per provided and approved by technology provider.			
	<b>Cost of Ozone Generator per kg capacity on SITC basis for High Pure Oxygen Generation System</b>			
	1	KG/HR.	10112717	
	5	KG/HR.	50563589	
	6	KG/HR.	48642920	
	10	KG/HR.	81071533	
	11	KG/HR.	75270260	
	15	KG/HR.	102711315	
	16	KG/HR.	101135720	
	20	KG/HR.	126419650	



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>NOTE</b>			
	1) All kind of civil works including internal & external electrification, exhaust system, Earthing works, hoist, etc. are excluded from above scope of work.			
	2) MCC panel is excluded from scope of work.			
	<b>3) Battery Limit for Estimation:</b>			
	The assembled ozone generation plant is pre-tested in test field and will be delivered ready for production. The battery limits for the electric parts are the in and outlet connections on the electrical cabinet. The battery limits for the ozone dosing system are the pipeline connections of our system, at the edge of the frame. a) Inlet of air compressor for Oxygen Plant.			
	b) Outlet flange of Ozone dosing system.			
	4) Power required for Bioxyzone process is not mentioned in the above table. It shall be vary from case to case.			
	5) The Price mentioned under each category shall be basic cost for 1 kg/hr. For the calculation of Ozone generator capacity, multiply the cost mentioned in each slab with the required capacity.			
	e.g. If basic cost or Installation & commissioning cost of Ozone generator of range 1 - 5 kg/hr is "X" (ref row no 168) & required ozonator capacity is 3 kg/hr then the cost of that model shall be calculated as 3X.			
	6) All the taxes & duties are extra at actual.			
	<b>Abbreviations:</b>			
	a) PSU - Power Supply Unit			
	b) PLC - Programmable Logic Controller			
	c) HMI - Human Machine Interface			
	d) HPO - High Pure Oxygen			
	<b>LIST OF MAKE</b>			
<b>Sr. No.</b>	<b>Equipment</b>			
	<b>Mechanical Item</b>			
1	Rotary Air Compressor			
2	Air Dryer			
3	Oxygen Generation System			
4	Ozone Generation System			
5	Dielectric			
6	Water Chiller			
7	Centrifugal Pumps			
8	Duct Blower			
9	Off Gas diffusion Aerator			
10	MS/ CS Pipe			
11	HDPE Pipe			
12	UPVC Pipe			
13	Butterfly Valve			
14	Ball Valve			
15	Check Valve			
	<b>Electrical Items</b>			
1	Motors			
2	Switchgears			
3	Cables			
	<b>Instrument Items</b>			
1	Pressure Gauge			
2	Pressure Transmitter			



Sr. No.	Description		Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	3	Electromagnetic Flow Meter					
	4	Rota meter with flow switch					
	5	Ozone Analyzer					
	6	Ozone Leak Detector					
	7	Dew Point Analyzer					
	8	Oxygen Purity Analyzer					
	9	HMI Panel					
<b>Ozonator Selection Table for Ozone Based HPO Treatment System</b>							
	<b>Plant Capacity</b>	<b>Ozonator Required</b>	<b>BOD Removal by Ozonator</b>				
	<b>MLD</b>	<b>kg/hr</b>	<b>mg/L</b>				
	1	1.5	20				
	2	3	20				
	3	5	20				
	4	6	20				
	5	8	20				
	6	9	20				
	7	11	20				
	8	12	20				
	9	14	20				
	10	15	20				
	11	17	20				
	12	18	20				
	13	20	20				
<b>Note: Please contact to Technology provider for Ozonator capacity above 20 kg/hr.</b>							
2	<b>PROCESS DESCRIPTION: OZONE GENERATION FOR OZONE BASED HIGH PURE OXYGEN TREATMENT SYSTEM FOR UPGRADATION OF EXISTING/NEW STP FOR COD/BOD REMOVAL &amp; OTHER PARAMETERS AS PER REVISED NORMS OF NGT/PCB.</b>						
<p>In sewage treatment ozone finds unique application for disinfection, BOD removal, DO improvement &amp; other organic matter removal, etc. In the technological advances in ozone based wastewater treatment the off gas pure oxygen coming out of the ozone contact columns can be recycled back to aerobic treatment. This will help to reduce the current power consumption up to the 30% to 60% of present power consumed by biological STP aerator/ air supply means. Further this direct pure off gas oxygen injections to biological system improves the nitrification rates &amp; binds more phosphorous in the sludge.</p>							
<p>In case of old STP wherein the hydraulic load of the STP has increased &amp; owing to the hydraulic load increase the outlet BOD norms are not being met, in such situations ozone can be dosed in the pretreatment to reduce the BOD load beforehand &amp; match it to design BOD load there by optimizing the performance of the plant. Pretreatment with ozone also helps in improving the BOD/COD ratio making the sewage characteristic more amenable for biodegradation.</p>							



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<p><b>Advantages of Ozone Based HPO in STP:</b></p> <p>Ozonisation in pre or post treatment shall be helpful for disinfection, BOD removal, Oxygen Uptake Ratio improvement in biological system &amp; improve BOD/COD ratio of wastewater, etc.</p> <p>Help to reduce power consumption of air supply means (Aerator/Blower) by recycling the off gas Oxygen generated from ozone chamber.</p> <p>Recycling of off gas oxygen to biological aeration increases the nitrifications process for &amp; binds more phosphorous in the biological cell mass. In short, improves the TN &amp; TP removal.</p> <p>Our Ozone based process can help the existing STP to treat up to 50% - 70% more hydraulic flow without the construction new STP for additional flow.</p> <p>Post ozonisation helps to increase the DO level in the treated water which inherently increases the DO levels of the downstream river.</p> <p>Owing to the strong oxidation potential of ozone, the FC (fecal coli forms) can be reduced as per NGT norms can be achieved.</p>			
	<p><b>STANDARD SPECIFICATIONS OF OZONE BASED HPO TREATMENT SYSTEM:</b></p> <p><b>Design Parameters :</b></p> <p>pH = 6.5 - 8.5</p> <p>COD = ≤ 60 ppm</p> <p>BOD = ≤ 30 ppm</p> <p>TSS = ≤ 20 ppm</p> <p>TN = ≤ 5 ppm</p> <p>TP = ≤ 1 ppm</p> <p>Fecal Coliform (MPN/100ml) = <math>10^6 - 10^7</math></p> <p><b>Treated Wastewater Parameters :</b></p> <p>pH = 6.5 - 8.5</p> <p>COD = ≤ 40 ppm BOD = ≤ 10 ppm TSS = ≤ 20 ppm</p> <p>Fecal Coliform (MPN/100ml) = ≤ 230</p>			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25	
Sr. No.	Description	Unit			
1	<b>Ozone Generator system for Disinfection:</b>				
	Designing, providing, installing, hydraulic testing, commissioning and giving satisfactory trials of Ozone generation system for WTP/STP treated water disinfection consisting of Rotary air compressor, Air Dryer, Oxygen generation plant, Ozone generation plant, Chiller with recirculation pumps, Power Supply Unit (PSU), Ozone Dosing System, Ozone Destructor, associated instrumentation and control system, associated piping & valves, etc. with complete work involved electro-mechanical works inclusive of following items as per the specifications & excluding all civil work, MCC Panel, taxes & duties, etc.				
	<b>FOLLOWING UNITS ARE INCLUDED:</b>				
	<b>A) Rotary Screw Compressor:</b>				
	Designing, providing, installing, testing & commissioning of Rotary Screw Compressor with associated piping & valves. Rotary screw air compressor are simply rotary positive displacement machines, capable of high speed operation over a wide range of operating pressures and flow rates at high efficiencies. The main advantage of using rotary screw air compressor is that it can supply compresses air continuously with minimum fluctuation in delivery pressure and generates less heat than normal air compressors which causes energy efficiency.				
	The technology design & details as per provided and approved by technology provider.				
	<b>Codes &amp; Standards: As per manufacturer standard</b>				
	<b>Ozonator Capacity ↓</b>	<b>Air Compressor Specifications</b>			
		<b>Quantity</b>	<b>Type</b>	<b>Capacity</b>	<b>Head</b>
		(No's)		(Nm3/hr )	(kg/cm2)
<b>1 kg/hr</b>	2 Nos. (1W+1S)		Approx 136		
<b>5 kg/hr</b>	2 Nos. (1W+1S)		Approx 681		
<b>6 kg/hr</b>	2 Nos. (1W+1S)		Approx 818		
<b>10 kg/hr</b>	2 Nos. (1W+1S)	Screw, Air cooled, Lubricated	Approx 1362	4.5 - 7.5	
<b>11 kg/hr</b>	2 Nos. (1W+1S)		Approx 1498		
<b>15 kg/hr</b>	2 Nos. (1W+1S)		Approx 2045		
<b>16 kg/hr</b>	3 Nos. (2W+1S)		Approx 1158		



Sr. No.	Description				Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	20 kg/hr	3 Nos. (2W+1S)		Approx 1362					
		Class of Insulation	F						
	Motor	Supply Voltage	415 V, 3Φ, 50 Hz						
	<b>B) Air Dryer</b>								
	<p>Designing, providing, installing, testing &amp; commissioning of Air Dryer with associated piping &amp; valves. The dryer consists of two adsorber filled with dessicant. The condensed water from air is removed in the prefilter. The wet oil free compressed air enters the adsorber at the bottom. The dessicant has high surface area and high affinity towards water vapor.</p>								
	<p>The incoming water vapor gets adsorbed on the dessicant, and air gets progressively dried as it travels up the dessicant absorber.</p>								
	<p>The technology design &amp; details as per provided and approved by technology provider.</p>								
	<p><b>Codes &amp; Standards: ASME Sec VIII Div.1 /As per manufacturer standard</b></p>								
	<p style="text-align: center;"><b>Air Dryer Specifications</b></p>								
	<b>Ozonator Capacity ↓</b>	<b>Quantity</b>	<b>Type</b>						
		(Nos)							
	1 kg/hr	1 No							
	5 kg/hr	1 No							
	6 kg/hr	1 No	Screw, Air cooled, Lubricated						
	10 kg/hr	1 No							
	11 kg/hr	1 No							
	15 kg/hr	1 No							
	16 kg/hr	2 No (Both Working)							
	20 kg/hr	2 No (Both Working)							
	<b>C) Oxygen Generation Plant:</b>								
	<p>Designing, providing, installing, testing &amp; commissioning of oxygen generation plant with associated piping &amp; valves.</p>								
	<p>This Moisture free Dry compressed Air enters at the bottom of one of the Oxygen Generator Adsorber, which is filled with unique ceramic Zeolite molecular sieve, which ADSORBS Nitrogen in the Compressed Air producing high purity Oxygen at the top.</p>								



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	When the producing Dyer Adsorber & Oxygen Generator Adsorber is saturated with moisture and Nitrogen respectively, the compressed Air feed is automatically switched to the other Oxygen Generator Adsorber via other Dryer Adsorber. The adsorbed Nitrogen from Oxygen Generator Adsorber & moisture from Dryer adsorber is DESORBED when the adsorber are depressurized, purged & vented to the atmosphere. Each of the Adsorber cycles between two stages; production & regeneration. One set of dryer & Oxygen Generator Adsorber produces dry Air / Oxygen while other set of Dryer & Oxygen Generator adsorber regenerates themselves. The entire cycle is automatically controlled & under normal operation, no operator attention is required.					
	The technology design & details as per provided and approved by technology provider.					
	<b>Codes &amp; Stabdards: ASME Sec VIII Dev.I/ Manufacturer Std.</b>					
	<b>Ozonator Capacity ↓</b>	<b>Oxygen Generation System Specifications</b>				
		<b>Quantity (No's)</b>	<b>Capacity (Nm3/hr)</b>	<b>Type</b>		
	1 kg/hr	1 No	Approx 8.51			
	5 kg/hr	1 No	Approx 42.55			
	6 kg/hr	1 No	Approx 51.06	PSA based/ PVSA (CSIR IIP design)		
	10 kg/hr	1 No	Approx 85.1			
	11 kg/hr	1 No	Approx 93.61			
	15 kg/hr	1 No	Approx 127.65			
	16 kg/hr	2 No (Both Working)	Approx 68.08			
	20 kg/hr	2 No (Both Working)	Approx 85.1			
	<b>Oxygen Generation System Common Specifications</b>					
	<b>Purity (by vol.)</b>	93% ± 1%				
	<b>Dew Point</b>	-50 °C to - 60 °C				
	<b>Oxygen Generation System</b>	<b>Predessicant Filtration</b>	-50 °C to - 60 °C			
		<b>Predessicant Filter Installation</b>				
		<b>Type</b>	2 No of Filters in series			





Sr. No.	Description		Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b>Filtration Rating for Oxygen/dried air</b>	99% - 1 Micron					
		98% - 0.3 micron					
	<b>Installation Type</b>	2 No of Filters in series					
	<b>D) Ozone Generation Plant :</b>						
	<p>Designing, providing, installing, testing &amp; commissioning of ozone generation plant. The heart of ozone generation unit is Ozone electrodes &amp; its power supply unit. This design shall combine the high ozone gas concentration, very low specific power consumption at all ozone gas concentrations and unmatched reliability.</p>						
	<p>The design of ozone generating element provides low dielectric stress and a high dielectric breakdown factor of safety. The ozone generating elements consist of discrete specialized glass tubes (dielectric) and a discrete stainless steel high voltage electrode. Centering devices of the dielectrics and HV-Electrodes creating two discharge rooms (spaces) for the ozone generation while allowing gas to flow on both sides of the tube.</p>						
	<p>For long-term reliability the dielectrics operate max. at 10% of the dielectric breakdown voltage rating. This eliminates the problem of periodic dielectric failures during ozone production, saving on system downtime, maintenance and spares costs.</p>						
	<p>All ozone systems shall fulfill the requirements for ozone-producing systems used in water treatment according to Indian Industrial Standard, with mechanical equipment (e.g., pressure vessels) and the electrical systems meeting IS standards.</p>						
	<p>Ozone proof materials shall be used for all parts &amp; components of the plant that come in contact with ozone gases.</p>						
	<p><b>The ozone electrode material shall be confirming to DIN 17007 part 2 i.e. SS 1.4571 equivalent to SS 316 Ti, and overall ozone generator as per DIN19627.</b></p>						
	<p>Cooling waterside pressure proof up to 6 bar. Thermal isolation against condensate water. Indirectly cooled dielectric of high graded borosilicate glass free of mechanical or heat generated tensions. All seals &amp; gaskets containing ozone gases shall be made of PTFE / Viton.</p>						
	<b>Dielectric glass tube:</b>						
	<b>Material:</b> Borosilicate glass (specially for ozone generation)						
	<b>Type:</b> Cylindrical open at both end						
	<b>Dielectric gap:</b>						
	Dimensionally uniform annular gap between H.T electrode and dielectric maintained at 0.5 mm by centering device made up of Teflon.						
	<b>H.V. electrode construction:</b>						
	<b>Material of construction:</b>						



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	High voltage should be given to Aluminium tubes having MOC as per DIN 17007 - Part 4 through a S.S. Fuse wire of suitable fusing properties (over voltage protected) & gauge standard in order to protect excess load.					
	<b>Type :</b> Cylindrical					
	<b>Gas / Cooling ends:</b> Water inlet & outlet connection of Heat Exchanger should be of SS 316 Ti whereas Ozone inlet & outlet connection should also be of SS 316 Ti. The technology design & details as per provided and approved by technology provider.					
	<b>Ozone Generation System Specifications</b>					
	<b>Ozonator Capacity ↓</b>	<b>Ozone Electrode Quantity</b>	<b>Ozone Electrode Configuration</b>	<b>Model</b>		
	1 kg/hr	1 Unit		1K		
	5 kg/hr	1 Unit		5K		
	6 kg/hr	1 Unit	Single Electrode at rated capacity	6K		
	10 kg/hr	1 Unit		10K		
	11 kg/hr	1 Unit		11K		
	15 kg/hr	1 Unit		15K		
	16 kg/hr	2 Unit	Two Electrode X 50% Capacity	16K		
	20 kg/hr	2 Unit		20K		
	<b>Ozone Generation System Common Specifications</b>					
	<b>Concentration of Ozone</b>	9% ± 1% (wt. /wt.)				
	<b>ΔT across Cooling water of Ozone Electrode</b>	min 5 - max 6 °C				
	<b>MOC of Ozone Electrode</b>	SS 316 Ti (as per DIN 19627)				
	<b>Cooling arrangement</b>	Water cooled pressure proof up to 6 bar.				
	<b>Dielectric</b>	<b>MOC</b>	Specialty borosilicate Glass for ozone			
		<b>Size</b>	ID - Approx 9 mm OD - Approx 12 mm ± 0.2 mm			
	<b>Voltage &amp; Supply</b>	415 V, 3Φ, 50 Hz				
	<b>Frequency Operating</b>	3000 - 10000 V, 3Φ, 100 - 1400 Hz.				
	<b>E) Chiller with Recirculation Pumps</b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	Designing, providing, installing, testing & commissioning of Chiller with recirculation pump with associated piping & valves, etc. Suitable capacity chiller for removal of excess heat generated during ozone generation from ozone producing cells. It shall consists of compressor, cooler, condenser, refrigerant circuit, control center, pump, chilled water piping, condenser water piping, electrical panel, power & control cabling. $\Delta T$ 5 - 6°C.					
	The technology design & details as per provided and approved by technology provider.					
	<b>Recirculating Cooling Water Quality</b>					
	Normal operating Pressure = 1 – 2 bar (g)					
	Iron = < 0.2 mg/L					
	Manganese = < 0.05 mg/L					
	Chlorides = < 50 mg/L					
	pH = 6 - 8					
	Hardness = < 10 mg/L					
	Conductivity = < 500 $\mu$ s/cm					
	<b>Codes &amp; Standards: As per Manufacturer standard</b>					
	<b>Water Chiller Specifications</b>					
	<b>Ozonator Capacity ↓</b>	<b>Quantity (No's)</b>	<b>Capacity (TR)</b>	<b>Type</b>		
	1 kg/hr	1 No working	Approx 3 TR			
	5 kg/hr	1 No working	Approx 15 TR			
	6 kg/hr	1 No working	Approx 20 TR			
	10 kg/hr	1 No working	Approx 30 TR	Reciprocating/ Scroll Hermetically sealed, air cooled		
	11 kg/hr	1 No working	Approx 30 TR			
	15 kg/hr	1 No working	Approx 50 TR			
	16 kg/hr	2 No (Both Working)	Approx 30 TR			
	20 kg/hr	2 No (Both Working)	Approx 30 TR			
	<b>Water Quantity Required</b>					
	<b>Ozonator Capacity ↓</b>	<b>Quantity Required (m3/hr)</b>	<b>Inlet Temp.</b>	<b>Quality</b>		
	1 kg/hr	2 (min) - 4 (max)				



Sr. No.	Description				Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	5 kg/hr	10 (min) - 20 (max)		As mentioned above in the table/ drinking water quality					
	6 kg/hr	14 (min) - 28 (max)							
	10 kg/hr	20 (min) - 40 (max)	≤ 15 °C to 25 °C						
	11 kg/hr	24 (min) - 48 (max)							
	15 kg/hr	30 (min) - 60 (max)							
	16 kg/hr	34 (min) - 68 (max)							
	20 kg/hr	40 (min) - 80 (max)							
	<b>Chilled Water Recirculation Pump Specifications</b>								
	Ozonator Capacity ↓	Quantity (No's)	Head (kg/cm <sup>2</sup> )	MOC					
		1 kg/hr	2 Nos. (1W+1S)	3.5	Cl all				
	5 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	6 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	10 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	11 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	15 kg/hr	2 Nos. (1W+1S)	3.5	Cl all					
	16 kg/hr	3 Nos. (2W+1S)	3.5	Cl all					
	20 kg/hr	3 Nos. (2W+1S)	3.5	Cl all					
	<b>F) Power Supply Unit:</b>								
	<p>Designing, providing, installing, testing &amp; commissioning of Power Supply Unit (PSU). The Power Supply Unit is a state of the art, variable frequency converter that provides the most effective operation of Ozone technology. Standard design of the Power Supply Unit comes on a base frame, which is designed, in order to ensure mechanical stability for all installed equipment, for instance power distribution, step up transformer etc. It is a painted sheet steel cabinet. Several doors in order to allow maintenance and service can be locked separately. Interlocks at all cabinet doors protect the operating staff by shutting down the unit in case of opening the doors during normal operation.</p>								
	<b>Process Equipment</b>								



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25																					
	<p>The Power Supply Unit has a dedicated power distribution/ rectifier section, inverter section and step up transformer section in order to convert the three phase 50/60 Hz power line into a single-phase variable frequency supply. Key interlocks and continuous monitoring of the most important parameters of the system ensure reliability and protection of the installation.</p> <p><b>Step Up Transformer Section</b></p> <p>The step up transformer brings the single-phase level of the inverter section to an appropriate level for generating ozone. The PSU performs two different functions for this section. The transformer shall be installed as dry type which is completely mounted on the base and covered by the enclosure in order to remove the heat by using normal or controlled convection. Insulation of the high voltage winding is five times higher than the operating voltage. It is designed for permanent stress.</p> <p><b>Power Distribution System</b></p> <p>The power distribution panels are designed with a perfect panel system. All circuit breakers are overload controlled. The control voltage will be generated with an independent control transformer with leakage and power loss control.</p> <p>The technology design &amp; details as per provided and approved by technology provider.</p> <p><b>Codes &amp; Standards: As per manufacturer standard</b></p>																									
	<p><b>Power Supply Units Specifications</b></p> <table border="1"> <tr> <td rowspan="3">Power supply unit</td> <td>Quantity</td> <td>1 No. (1W)</td> </tr> <tr> <td>Input Supply</td> <td>415 V, 3Φ, 50 Hz</td> </tr> <tr> <td>Approvals</td> <td>CE, CPRI &amp; UL Approved</td> </tr> </table> <table border="1"> <tr> <td rowspan="3">Control Panel (PLC based)</td> <td>Quantity</td> <td>1 No. (1W)</td> </tr> <tr> <td>MOC</td> <td>MS, powder coated</td> </tr> <tr> <td>Class of insulation</td> <td>IP 42</td> </tr> </table> <table border="1"> <tr> <td rowspan="3">PLC</td> <td>Quantity</td> <td>Quantity = 1 No. (1W) with HMI Screen</td> </tr> <tr> <td>Type</td> <td>Non Redundant type</td> </tr> <tr> <td>HMI Screen</td> <td>4.6" - 14" Colored</td> </tr> </table>	Power supply unit	Quantity	1 No. (1W)	Input Supply	415 V, 3Φ, 50 Hz	Approvals	CE, CPRI & UL Approved	Control Panel (PLC based)	Quantity	1 No. (1W)	MOC	MS, powder coated	Class of insulation	IP 42	PLC	Quantity	Quantity = 1 No. (1W) with HMI Screen	Type	Non Redundant type	HMI Screen	4.6" - 14" Colored				
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	<p><b>G) Ozone Dosing System :</b></p> <p>Designing, providing, installing, testing &amp; commissioning of Ozone Dosing System with associated piping &amp; Valves. Dosing systems as defined designates such part of the plant that mixes water with ozone gas exited from the ozonator.</p> <p>It shall consist of:</p> <p>a) Ventury Injector of Ozone resistant MOC with backflow prevention arrangement. With suitable booster pumps on assessing the dosing point location at site.</p>																									



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	b) In case, the ozone electrode has a sufficient pressure up to 2 bar (g) this pressure can be utilize to diffuse the ozone gas through porous diffusers.					
	c) All pipelines, valves, fittings & other metallic parts involved in oxygen concentrator & ozone generator up to dosing point shall be of suitable non-corrosive metallurgy.					
	The technology design & details as per provided and approved by technology provider.					
	<b>Codes &amp; Standards: As per manufacturer standard</b>					
	<b>Ozone Dosing System Specifications</b>					
	<b>Ozone Dosing</b>	<b>Type</b>	Gas diffusing in contact tank.			
		<b>MOC</b>	<b>RCC by Client</b>			
	<b>Contact tank</b>		Baffled Wall counter current with min 3 No of compartments, covered with water spraying arrangement for foam control.			
		<b>Type</b>	Baffled Wall counter current with min 3 No of compartments, covered with water spraying arrangement for foam control.			
		<b>HRT</b>	Approx 6 - 10 mins for disinfection & For COD/BOD removal: Approx 30 - 60 mins.			
		<b>Liquid Depth</b>	Approx 4.9 - 5 m at sea level (6 m at 2440 m MSL)			
		<b>Free Board</b>	Min. 1.2 m			
	<b>Diffusers</b>	<b>Quantity</b>	1 Lot			
		<b>MOC</b>	UPVC / Ceramic / SS 316			
	<b>Venturi Injectors/ Eductors with Anti Siphon Loop</b>	<b>Quantity</b>	1 Lot			
		<b>MOC</b>	SS 316 / SS 316 L			
	<b>Ozone Transfer Efficiency</b>		Approx 80 - 95%			
	<b>Interconnecting Piping &amp; Valves</b>		1 Lot			
	<b>H) Ozone Destructor:</b>					
	Designing, providing, installing, testing & commissioning of Ozone Destruction System with associated piping & Valves. Ozone destruction is the main goal of an ozone destructor. Although the application of ozone is one of the most environmentally friendly ways of disinfection and oxidation, it is crucial to destruct any excess or residual ozone in a safe way.					
	At this moment the US OSHA requires that the indoor "threshold limit value" (TLV) of an eight hour exposure be limited to 0,1 part per million (0,1 ppm).					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25													
	Ozone can be thermally destroyed (reduced to oxygen) but also catalytically and combination of both.																
	The catalytic destruction of ozone is the most used process, because it is easy to install on new and existing ozone generating systems and it is cost effective. Caution must be taken with the design and dimensions of the destructor to make sure the pressure drop and temperature rise is not too much. Also, the used materials must be ozone resistant and the catalyst must be easy replaceable.																
	Active carbon can also be used to decompose ozone. However active carbon is consumed in the process and the use is limited to applications where the ozone concentration is relatively low. It is critical to note that a fire can start in activated carbon in higher ozone concentration applications or where ozone is generated from a concentrated oxygen source.																
	The technology design & details as per provided and approved by technology provider.																
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	<b>Contact Time</b>		Approx 1 - 3 Sec														
	<b>Catalyst Used</b>		Aluminum Oxide containing Palladium/Manganese Dioxide														
	<b>Catalyst Life Expectancy</b>		Approx 5 years														
	<b>MOC of Housing</b>		SS 316 / SS 316 L														
			<b>Maximum Allowable Ozone Concentration for 8 hrs. working</b>	0.0002 gm/m <sup>3</sup> (0.1 ppm by Volume)													
		<b>Demister</b>	<b>MOC</b>	SS 316 / SS 316 L													
	<b>Suction Blower</b>	<b>Type</b>	Centrifugal type														
	<b>I) Measuring &amp; Monitoring Devices :</b>																
	Designing, providing, installing, testing & commissioning of Ozone measuring & monitoring system.																
	i) Outlet ozone gas of each ozone-generating module shall be measured by a common ozone analyser, of digital display model in gm/Nm <sup>3</sup> (range 0 to 200) having accuracy of 0.1 gm/Nm <sup>3</sup> based On UV ADSORPTION TECHNIQUE.																



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	ii) Residual ozone measuring device / ORP meter shall be placed at the location after condenser & in the cooling water pond basin. Digital display, having repeatability $\pm 0.01$ ppm.			
	iii) Ambient ozone leak detector shall be placed in the ozone generator room to detect ozone leakage with alarm and cut-off signal on set value.			
	iv) The above measuring / monitoring devices shall be of standard make. The technology design & details as per provided and approved by technology provider.			
	<b>Codes &amp; Standards: As per manufacturer standard</b>			
	<b>Measuring &amp; Monitoring Devices</b>			
	<b>A. For Feed Gas Preparation System</b>			
	Dew point analyzer (online)	Quantity	1 No. (1 W),	
A.1		Range	- 20 to -100° C,	
	Oxygen purity analyzer	Quantity	1 No. (1 W),	
A.2		Range	0 -100%,	
	<b>B. For Ozone Generation System</b>			
	Inlet Gas Feed gas Flow	Quantity	1 No. (1 W),	
B.1	measurement	Controlling	Rota meter with flow switch	
	Feed gas Temperature	Quantity	1 No. (1 W),	
B.2		Controlling	for monitoring , alarming & shut down	
	Inlet Pressure Monitoring	Quantity	1 Lot	
B.3		Controlling	Monitor System operation	
	Discharge Ozone Gas Temperature	Quantity	1 No. (1 W),	
B.4		Controlling	for monitoring , alarming & shut down	
	Ozone Measuring	Quantity	1 No. (1 W),	
B.5		Controlling	0 – 400 gm / Nm <sup>3</sup>	
	Ozone Leak Detector	Quantity	1 No. (1 W)	
B.6				
	Inlet Volt meter	Quantity	1 No.	
B.7		Controlling	Monitor system loading	
	Inlet Amperage	Quantity	1 No.	
B.8		Controlling	Monitor system loading	
	Inlet frequency	Quantity	1 No.	
B.9		Controlling	Monitor system loading	
	System watt/hr. meter/Energy	Quantity	1 No.	
B.10		Controlling	Monitor system loading	





Sr. No.	Description			Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<b>C.</b>	<b>For Cooling Water System</b>						
		<b>Water flow measurement Inlet &amp; outlet</b>	<b>Quantity</b>	1 No. (1 W),				
	<b>C.1</b>		<b>Type</b>	Rota meter with flow switch				
		<b>Water Temperature Inlet &amp; outlet</b>	<b>Quantity</b>	1 No. (1 W),				
	<b>C.2</b>		<b>Controlling</b>	for monitoring, alarming & shut down				
	<b>J) PLC Based Control Panel with HMI:</b>							
	All the power supply units or control panel shall confirm to CE, CPRI & UL listed.							
	<b>Ozone system control:</b>							
	The ozone generator shall utilize a Programmable Logic Controller (PLC). PLC software shall be stored in EEPROM and not solely in volatile static RAM. Each ozone generator shall have an automatic and manual control mode. In the automatic mode, the generators power shall be modulated by a command from an external 4-20 milliamps signal from a process controller to the integral PLC. In the manual mode, the operator shall be able to set the inverter frequency via the operator interface terminal (OIT).							
	<b>Programmable Logic Controller:</b>							
	Programmable logic controller is used in ozone generators to control the sequenced operation of the total plant as required, Plant can run both in Auto mode as well as Manual mode if desired to run individual loads, Interlocks Which are necessary to run plant in adequate manner such as Dosing Pumps, Air Flow, Cooling water Flow, Cooling water Temperature, Air Pressure, Cooling water Pressure entering the Electrode as well as control circuit safety, Door safety, Ambient ozone Leak Detector in case of any leakage is monitored and many other interlocks and safety points, analog input data 4-20mA/0-10V DC to PLC from ozone gas sensors or ozone residual sensor to monitor and also to control the output of the ozone generator, PLC will correspondingly control the power of the electrode through the Frequency Drive and HT Transformer. In typical applications where the dosing point is away from the plant building then remote PLC or Remote Input/output is used to control the Generator output by communicating with the main plant PLC through required protocol, which will depend upon the distance. Alarms will be generated by the PLC and displayed during malfunctioning.							
	<b>Variable Frequency Drive:</b>							



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>Variable Frequency Drive will feed the power to HT Transformer, HT side of this transformer is connected to electrode. Variable frequency Drive having 440Volts 3Phase input and output 0 – 400 Volts, which is varied as per the requirement, is connected to the primary of HT Transformer.</p>					
	<p>Frequency of the drive is varied up to 800 Hz depending upon the required output. Pattern for the Voltage versus frequency curve will be linear. High voltage connection of HT Transformer is connected to Electrode. Maximum of 8000 - 10000 Volts output power from HT Transformer is given to Electrode. At high voltage, Corona will be produced inside the electrode. One can control the ozone production automatically from PLC control output to Frequency drive input 4-20mA / 0-10Volt DC signal or manually through the potentiometer or LCD text display unit of frequency drive. Variable frequency drives are IGBT based. Output waveform is PWM. These Frequency drives or AC Drives are same as commonly used on Induction motors for regulating speed and energy saving. In Ozone generator systems we are using for regulating power to HT Transformer which in turn regulate power to electrode and thus corona discharge in the electrode is controlled. Single Phase frequency drives are used for small ozone generators. Acceleration time, Control output and many other features of Frequency drive have to be considered for smooth operation of the generator.</p>					
	<p><b>Control Flow OR Sequence of Operation in Auto Mode through PLC.</b></p>					
	<p><b>1. Procedure for machine start:</b></p>					
	<p>To start the plant operator has to turn 'Start' rotary switch to on position, Auto-O-manual switch to Auto; following operation will take place automatically as described in logic software of PLC.</p>					
	<p>Sump Pump should be started first by which normal water will flow through the heat exchanger of Compressor and Chiller. This is for cooling of compressor and chiller.</p>					
	<p>With Delay of 60 seconds both the compressors are to be started. This will be started after checking its interlocks for Pressure Switch, Oil Switch. If any fault is there then it will display it in its HMI Display unit at the panel on compressor.</p>					
	<p>After Compressors with delay of 60 seconds both Oxygen generators are Started.</p>					
	<p>With Oxygen Generator Chiller is to start along with Chiller its corresponding Recirculation Pump will be on. There are two Recirculation Pumps, One Working And one Standby. Operator has to decide which pump is to be run through control switch on the panel. Process of Cooling Water flow from Chiller to Electrode and return to Chiller tank will take Place.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>As soon as temperature of cooling water reached at its set point, Thermostat in chiller water tank will give the signal, with delay of 60 Seconds to thermostat signal, Oxygen inlet Valve to Electrode and Ozone Outlet valve will be On, Along with these valves Dosing pump will be on. PLC Logic will check interlocks for required Oxygen flow, transformer temperature, cooling water flow, cooling water pressure, any control trip, Door open limit switch, Drive Trip. If all the required conditions to start the electrodes are met then electrodes will be started.</p>					
	<p>During run time if Ozone Leakage is detected through ambient ozone leak detector sensor then whole plant will be shut down &amp; Exhaust fans fitted in the plant room will be started automatically to flush ozone air from the room.</p>					
	<p><b>2. Procedure for machine stop:</b></p>					
	<p>To stop the plant, Operator has to turn 'start' button to off state, following operation will take place</p>					
	<p>First Electrode will be shut off.</p>					
	<p>With delay of 30 seconds Chiller will be off.</p>					
	<p>After chiller with delay of 5 minutes Oxygen inlet valve to Electrode and Ozone Outlet valve from Electrode, recirculation pump &amp; Dosing pumps will be off. This is required for flushing the electrode and the system.</p>					
	<p>With delay of 20 Seconds all Outputs, Oxygen generator, Compressor, all pump will be made off.</p>					
	<p><b>Control Flow OR Sequence of Operation in Manual Mode.</b></p>					
	<p><b>1. Procedure for machine start:</b></p>					
	<p>To start the plant operator has to turn rotary switch Auto-O-manual switch to manual; Safety interlocks already considered to avoid any malfunction and damage. Safety interlocks are done using imposition relays in the manual control panel. All switches &amp; push buttons for manual operation are provided on the manual panel along with its indication for ON, OFF &amp; Trip. Operator has to run machine in the procedure described below otherwise next process will not start due to safety interlocks.</p>					
	<p>First sump pump should be made on by which normal water will flow through the heat exchanger of Compressor and Chiller. This is for cooling of compressor and chiller. There are two pumps one working &amp; one standby operator has to select one to run, Pressure Switch at compressor side will be actuated. HMI display at compressor panel will correspondingly show the status.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	Compressors have to be started then, with delay of 60 seconds Oxygen generator has to be started. Along with oxygen generator chiller and its recirculation pump is to be started. Two recirculation pumps are provided one running & one standby operator has to decide which one has been run.					
	As soon as temperature of cooling water reached at its set point, Thermostat in chiller water tank will give the indication, with delay of 60 Seconds to thermostat signal, Oxygen inlet Valve to Electrode and Ozone Outlet valve will be made On, Along with these valves Dosing pumps should be started.					
	After this electrode is to be started, this will be started after checking the interlocks for transformer thermostat, oxygen flow, door limit switches and all subsequent interlocks.					
	<b>2. Procedure for machine stop:</b>					
	To stop the plant, Operator has to turn off individual loads one by one; following described procedure should be followed by the operator.					
	Electrode should be turned off first.					
	After some delay chiller should be turned off.					
	With delay of 5 minutes oxygen valve, ozone valves, dosing pumps, recirculation pump should be turned off.					
	After 30 seconds compressors, oxygen generators & sump pump should be turned off.					
	<b>Alarms and Safety Features</b>					
	Ozone vessel gas pressure shall be precisely regulated using transducers and PID control. A water back flow prevention device suitable for ozone use shall be installed on the ozone gas out piping. Any electrical cabinet that has a door shall have electrical and mechanical interlocks on that door.					
	<b>Alarm list</b>					
	a) High gas exit temperature					
	b) High or low gas pressure					
	c) Low chilled water flow					
	d) High chilled water exit temperature					
	e) Frequency drive failure					
	f) Loss of phase detect					
	g) High inverter current trip					
	h) Low feed gas flow					
	i) Door interlock trip					
	j) Ozone concentration (intermittent)					
	<b>Lighting, Air conditioning and Ventilation system:</b>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	Ozone plant shall be erected in closed building that can be locked. Rooms where ozone might be emitted in case of failure shall be effectively monitored by gas detectors with alarms that stop the generation of ozone when activated. Effective monitoring means are the gas detector sensors. Rooms with ozonation plants shall be equipped with ventilation at floor level actuated automatically by the gas detectors. Ventilation shall guarantee at least three complete changes of air per hour.			
	The bidder has to confirm and fulfill ozonisation capacities and operation of the system as adequate for the following as per the guidelines of Environment Section. Possible interruptions of Ozonation due to problems such as supply failure, interruption in supply of ozone gas etc. Unit's start-ups and shut downs-planned / forced. Quick stabilization of the system after any interruption.			
	Dozing points to be selected in such a way that Ozonation is ensured for complete system. It should be ensured that no ozone-depleted pockets are left out in the system.			
	The health and safety aspects are required to be elaborated so that proper precautions can be taken during operation and maintenance.			
	<b>Operations:</b>			
	On the basis of manufacturers operation & maintenance manual the supplier shall provide instruction for the operation of the ozonating plant & make them accessible to all personnel who work at or near the plant. Such instruction shall include the following indication:			
	• Instruction on the operation of the parts of the plant			
	• Starting and shut down sequence			
	• Action in the event of the faults			
	• Preventive measures to avoid untoward situation.			
	<b>Safety Signs:</b>			
	Safety signs marked shall be in accordance with the safety concerns at the working place.			
	The technology design & details as per provided and approved by technology provider.			
	<b>Cost of Ozone Generator per kg capacity on SITC basis for Disinfection</b>			
	1	KG/HR.	8150918	
	5	KG/HR.	40754592	
	6	KG/HR.	36340414	
	10	KG/HR.	60566691	
	11	KG/HR.	60413851	
	15	KG/HR.	82357339	
	16	KG/HR.	78947583	
	20	KG/HR.	98684479	
	<b>NOTE</b>			



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	1. All kind of civil works including internal & external electrification, exhaust system, Earthing works, hoist, etc. are excluded from above scope of work.					
	2. MCC panel is excluded from scope of work.					
	<b>3. Battery Limit for Estimation:</b>					
	The assembled ozone generation plant is pre-tested in test field and will be delivered ready for production. The battery limits for the electric parts are the in and outlet connections on the electrical cabinet. The battery limits for the ozone dosing system are the pipeline connections of our system, at the edge of the frame. a) Inlet of air compressor for Oxygen Plant. b) Outlet flange of Ozone dosing system.					
	4. The Price mentioned under each category shall be basic cost for 1 kg /hr. For the calculation of Ozone generator capacity, multiply the cost mentioned in each slab with the required capacity.					
	e.g. If basic cost or Installation & commissioning cost of Ozone generator of range 1 - 5 kg/hr is "X" (ref row no 168) & required ozonator capacity is 3 kg/hr then the cost of that model shall be calculated as 3X.					
	5. All the taxes & duties are extra at actual.					
	<b>6. Abbreviations:</b>					
	a) PSU - Power Supply Unit					
	b) PLC - Programmable Logic Controller					
	c) HMI - Human Machine Interface					
	<b>LIST OF EQUIPMENT</b>					
	<b>Sr. No.</b>	<b>Equipment</b>				
	<b>Mechanical Item</b>					
	1	Rotary Air Compressor				
	2	Air Dryer				
	3	Oxygen Generation System				
	4	Ozone Generation System				
	5	Dielectric				
	6	Water Chiller				
	7	Centrifugal Pumps				
	8	Duct Blower				
	9	Off Gas diffusion Aerator				
	10	MS/ CS Pipe				
	11	HDPE Pipe				
	12	UPVC Pipe				
	13	Butterfly Valve				
	14	Ball Valve				

Sr. No.	Description		Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	15	Check Valve					
	<b>Electrical Item</b>						
	1	Motors					
	2	Switchgears					
	3	Cables					
	<b>Instruments Item</b>						
	1	Pressure Gauge					
	2	Pressure Transmitter					
	3	Electromagnetic Flow Meter					
	4	Rota meter with flow switch					
	5	Ozone Analyzer					
	6	Ozone Leak Detector					
	7	Dew Point Analyzer					
	8	Oxygen Purity Analyzer					
	9	HMI Panel					
	<b>Ozonator Selection Table for Disinfection Application</b>						
	<b>Plant Capacity</b>	<b>Ozonator Required</b>	<b>BOD Removal by Ozonator</b>				
	<b>MLD</b>	<b>kg/hr</b>	<b>mg/L</b>				
	1	1 to 2	1				
	2	3	1.5				
	3	4	2				
	4	5 to 6	3				
	5	7 to 8	4				
	6	9 to 10	5				
	7	11 to 12	6				
	8	13 to 14	7				
	9	15 to 16	8				
	10	17 to 18	9				
	11	19 to 20	10				
	12	21 to 22	11				
	13	23 to 24	12				
	14	25 to 26	13				
	15	27 to 28	14				
	16	29 to 30	15				
	17	31 to 32	16				
	18	33 to 34	17				
	19	35 to 36	18				
	20	37 to 38	19				
	21	39 to 40	20				

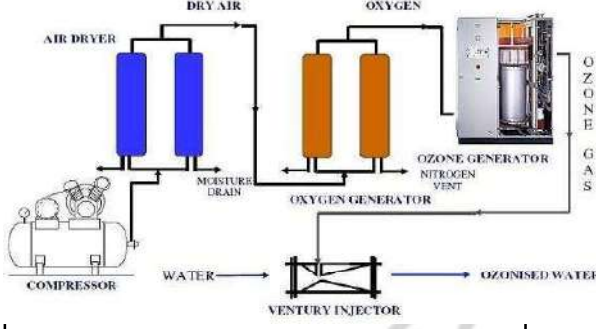


Sr. No.	Description	Unit	Rate (Rs.) 2023-24	Rate (Rs.) 2024-25
	<b>Note: Please contact to Technology provider for Ozonator capacity above 20 kg/hr.</b>			
2	<b>PROCESS DESCRIPTION: OZONE GENERATION SYSTEM FOR DISINFECTION OF STP TREATED WASTEWATER / WTP.</b>			
	The ozone generator module is fabricated as a stainless steel cylinder, holding several smaller stainless steel tubes, welded through a plate at the top & bottom. This particular cylinder serves as a ground electrode in an electrical field whereas an inserted hollow steel rod serves as the high voltage electrode. The entire cylinder can be considered as a heat exchanger when cooling water removes the excess energy as heat- energy, which is not being used in ozone generation. The positioning of the specialty glass tube, closed at the bottom between the two electrodes serves as a dielectric, & allows a narrow annular discharge column.			
	The feed gas to be ozonated crosses the ozoniser through the annular thin spaces between the dielectric tubes as well the space between the high voltage electrodes & dielectrics. The HV- electrodes are maintained at high voltage, and the vessel is connected to earth. The high electric field in the two annular spaces produces in a silent electrical discharge (cold plasma) the corona.			
	A part of the electric energy necessary for this ozone generation is transformed into heat. This heat is removed by the cooling water passing through the vessel. When high voltage is applied to the electrodes, a silent electrical discharge takes place in the annular column. This causes the generation of ozone through impact ionization & the combination when air or oxygen flows through the module. A mixture of O <sub>2</sub> /O <sub>3</sub> with a specific concentration leaves the generator modules.			
	<b>Advantages of Ozone System for STP treated wastewater Disinfection:</b>			
	• Ozonisation in post treatment shall be helpful for disinfection, BOD removal, etc.			
	• Post ozonisation helps to increase the DO level in the treated water which inherently increases the DO levels of the downstream river.			
	• Owing to the strong oxidation potential of ozone, the FC (fecal coli forms) can be reduced as per NGT/PCB norms can be achieved.			
	• Ozone doesn't increase the ionic load of the treated water unlike other oxidant like chlorine.			
	• Ozone is produced on site and does not require storage or transportation.			
	The ozone production can be varied by changing either the secondary voltage or the frequency of the electrical power. The electrical control circuit for the high voltage regulation & all peripheral installation & their power supply are integrated into a common low voltage control unit. It contains all necessary switches, control, measurements, safety & signal installations.			







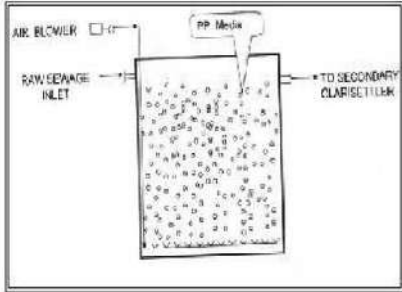

Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
	<p>The complex &amp; matured concept under which the armature controls monitoring system &amp; control components are integrated satisfy individual specific requirements as well as the quality standards set up by IOA in every application.</p> <p>In sewage treatment ozone finds unique application for disinfection, BOD removal, DO improvement &amp; other organic matter removal, etc. Ozonisation shall be incorporated as polishing unit for final treated wastewater. Ozone is a strong oxidising agent can readily decompose the complex compounds like – benzene, phenols, etc., colour, odour and disinfect the treated water. Ozone shall be dosed before filtration &amp; the wastewater after treatment shall be discharged or reuse.</p>					
						
	<p><b>STANDARD SPECIFICATIONS OF OZONATION FOR DISINFECTION:</b></p> <p><b>Design Parameters :</b></p> <p>pH = 6.5 - 8.5</p> <p>COD = ≤ 40 ppm</p> <p>BOD = ≤ 10 ppm</p> <p>TSS = ≤ 20 ppm</p> <p>TN = ≤ 10 ppm</p> <p>TP = ≤ 1 ppm</p> <p>Fecal Coliform (MPN/100ml) = <math>10^6 - 10^7</math></p> <p><b>Treated Wastewater Parameters :</b></p> <p>pH = 6.5 - 8.5</p> <p>Fecal Coliform (MPN/100ml) = ≤ 230</p>					
	<p>NOTE: While proposing this technology for wastewater treatment scheme, Sewage treatment project, comparative study with conventional system like chlorination may be carried out for CAPEX &amp; OPEX, Especially for Energy and life cycle cost.</p>					



**SECTION - J (II)**  
**MOVING MEDIA**  
**BIO REACTOR TECHNOLOGY**

Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	2	3	4		5	
1	<b><u>PROCESS DESCRIPTION - MOVING MEDIA BIO REACTOR TECHNOLOGY</u></b>					
	The Moving Media Bio Reactor Technology is a advanced biological treatment process which has a combination of activated sludge process and attached growth process. The bio reactor has lot of packing material called carrier media in suspension and provides a large surface area for micro organisms to grow and degrade the organic matter in aerobic condition. Due to the use of carrier media, the higher concentration of bio mass is developed which helps to reduce the basin size, accept higher loading rates and take shock loads. The sewage after screening and grit removal flows by gravity into the BIO REACTOR wherein the attached growth, aerobic microbes will utilize pollutant in presence of oxygen thereby, further reducing BOD. The air required will be provided through coarse bubble air diffusers provided on the aeration grid at the bottom of reactor and using positive displacement, twin lobe, root type air blower for supply of oxygen. The PP media is provided in the aeration tank to allow the aerobic microbes to grow and get attached. This media remains in					
	fluid state in the aeration tank thereby keeping large number of microbial colonies moving in the tank and provide high concentration of bio mass available at all the time. The microbes get exposed to bio degradable organics in presence of oxygen and convert it into cell biomass, water molecule and carbon-dioxide. The microbial colony grows on plastic media. The excess bio mass gets sloughed and moves with treated water into subsequent unit. This sloughing action is a continuous process and the microbes keep on growing and sloughing. This is a very fast process and hence system becomes self sustaining.					
	The dead bio mass generated will be separated in the <b>CLARISSETTLER TANK</b> wherein tube media is provided for providing additional surface area for settlement of bio mass and thereby reducing the space requirement.					
	The solid-liquid separation is achieved in this tank and clear supernatant will flow by gravity.					
	The treated wastewater will be disinfected with Chlorine and allowed to react in CHLORINE CONTACT TANK prior to suitable disposal.					
	A typical sketch of bio reactor showing various components is given below.					
	The MMBR / FAB Technology has following advantages over Conventional Systems like :					
1	Low on civil works					
2	Low space requirement					
3	Low on operating cost due to higher Oxygen Transfer Efficiency.					
4	Low on maintenance cost					
5	Easy to operate with semi-skilled manpower					
6	Higher efficiencies in pollutant removal					
7	Effective removal of nitrates and phosphates					
8	Quick retrieval of system after shutdown / power failure					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	 					
II	<p><b><u>SPECIFICATIONS OF SEWAGE TREATMENT SCHEME</u></b>  <u>Raw Sewage Characteristics</u> Temperature Ambient  pH 7.0 - 8.0 Total Suspended Solids 210 mg/l  BOD 5 days at 20° C 170 mg/l COD 340 mg/l  Oil &amp; Grease 30 mg/l MPN 0<sup>6</sup> to 10<sup>7</sup> per 100 ML  <u>Treated Sewage Quality</u>  pH 6.5 - 8.5  Total Suspended Solids &lt; 30 mg/l BOD &lt; 20 mg/l  COD &lt; 100 mg/l  Oil &amp; Grease &lt; 10 mg/l MPN &lt; 1000 per 100 ML</p> <p><b><u>Moving Media Bio Reactor (MMBR) / FAB (Fluidised Aerated Bed) Process</u></b>  Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactory trials of STP consisting of inlet chamber, screen chamber, grit separator, MMBR / FAB (based on technologies providing attached growth on plastic meddi kept suspended in the waste water due to low density of plastic and provided with compressed air for aeration with very high MLSS of greater than 15,000 mg/lit.) tank, secondary clarifier, sludge sump, sludge thickener, chlorine contact tank, chlorinator room/shed, sludge centrifuge, associated piping work with required valves, gates, drains, pathways, administration block cum laboratory, laboratory equipments, spare parts for 2 years of operation, etc. complete as turnkey job with all involved civil, electrical and mechanical works including HT Substation, Transformers, DG Sets, Metering cubical, Instrumentation &amp; control works etc.as</p>					
	per specification inclusive of following items, units as per detailed specifications for civil, electrical and mechanical components with all duties and taxes, etc. complete. Treated sewage can be used for irrigation, horticulture purposes.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25					
			Complete	Labour	Complete	Labour				
			<p><b><u>FOLLOWING UNITS ARE INCLUDED</u></b></p> <p><b><u>1. Inlet Chamber</u></b>            Designing, providing and constructing RCC (M-25) inlet chamber designed for the peak flow including necessary excavation in all types of strata including walkway all around the periphery. Each compartment will have CI gates with extension rod, head stock, operating wheels, GI pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications.</p> <p><b><u>2. Screen Chamber</u></b>            Designing, providing, constructing, testing and commissioning of screen chamber, designed for peak flow in RCC (M-25), including walkway 1.2 m wide with GI pipe.</p>						1 No.	
<p><b><u>3. Grit Separator</u></b>            Designing, providing and constructing detritor type grit removal mechanism in RCC (M-25) capable of removing 100% 0.2 mm size particle and above, having specific gravity 2.30 designed for peak flow with suitable arrangement of separation of grit from putrescible solids including providing and making necessary arrangements of Jb-1. Inlet and outlet channels of required sizes as make be required to connect the flow to connecting unit, etc. complete including hydraulic testing for watertightness of structure having minimum FB of 0.3 m, washout arrangement to grit chamber and platform 1.2 m wide RCC walkway with GI pipe handling shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as detailed specifications and as directed.</p>						2 Nos				
<p><b><u>4. MMBR / FAB Tank</u></b>            Designing, providing and constructing in RCC (M-25) biological reactor tank for removal of BOD along with nutrient removal to handle the average flow and having hydraulics suitable to handle peak flow conditions with suitable 1.2 m wide walkway, expansion joints as required, including foundation, etc as per specifications. The tank shall be equipped with inlet and outlet arrangement, air blowers for supply of air, coarse bubble diffusers and aeration grid in SS 304, PP carrier bio media, etc. FB of 0.5 m and SWD as required should be complete as per detailed specifications.</p>						1 No.				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b>5. Secondary Clari Settler</b> Designing, providing and constructing in RCC (M-25) watertight secondary clari settler having SWD of 3.75 m + 0.5 m FB and has tube media in the clarification zone to provide additional surface area for settling. The settler shall be provided with a scraper mechanism in MS with epoxy painting for collecting the settled solids at the bottom (bottom slope 1:12). The central feed well shall be made of MS with epoxy painting from both faces and well stiffened. The sewage will be admitted in the feed well and then will move outwards towards periphery slowly and continuously over a weir and will be collected in a launder.</p>	1 No				
	<p><b>6. Chlorine Contact Tank</b> Designing, providing and constructing chlorine contact tank of adequate capacity to deal with average flow. The contact time provided is 30 mm to achieve 99.99% reduction in coliform during average flow condition. Chlorine dosage will be as per standard provisions including designing, providing and constructing water supply provision for chlorination, including providing dewatering and bypass arrangement for joining to final effluent mains and outlet weir, etc. complete. The effluent quality should match with the standards laid down by Maharashtra Pollution Control Board and as per obligatory provision and as detailed specification and as directed by Engineer-in-charge.</p>	1 No.				
	<p><b>7. Chlorinator and Chlorinator Room / Tonner Room</b> Designing, providing and constructing vacuum type chlorinators having adequate capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions, detailed specifications with necessary provision of having chlorinator room of adequate size. The chlorinator equipment shall include chlorine cylinders / tonners, piping, valves, measuring, controlling equipments, safety devices, lifting equipment, etc. complete as per IS 10553 (Part II) 1982. The tonner room should have min. 3 MT capacity crane for loading and unloading facility. Tonner storage should be distinctly isolated and should have min. storage space as per the detailed specifications and as per gas law 1981 and factory act shall be provided. All other matching amenities shall be provided, 5 MT gantry rail shall be provided for full length of tonner room at 6 m ht. from level of tonner room with outlet.</p>	1 No				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b><u>8. Sludge Sump</u></b> Designing, providing and constructing of sludge sump and pump for discharging sludge to sludge thickener using MS pipe, etc. complete as per detailed specification.</p> <p><b><u>9. Sludge Thickener</u></b> Designing, providing and constructing watertight of sludge thickener - gravity type in RCC (M-25) with inlet and outlet pipes, central feed well, sludge it and sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20 m with GI pipe railing interconnecting CI pipes all complete as per specifications, having bottom slope 1:8 and 3 m SWD with necessary fixed bridge scraper arrangement as per detailed specifications and necessary inlet and outlet arrangement, all other arrangement as per detailed specifications.</p>					
	<p><b><u>10. Sludge Centrifuge Platform with Centrifuge</u></b> Designing, providing, constructing and installing including foundation, etc., sludge centrifuge to handle the sludge flow of 1 day in 18 hrs per unit with sludge dewatering unit, drain, etc complete is per specification. Sludge centrifuge with necessary arrangements as per detailed specification mentioned in tender and obligatory provisions to be provided with satisfactory functioning.</p>	1 No				
	<p><b><u>11. Outfall Sewer</u></b> Designing, providing, constructing appropriate outfall sewer of RCC NP2 pipe to discharge treated effluent, untreated effluent from outlet chamber (after basin / chlorination tank) to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete.(after basin / chlorination tank) to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete.</p>	1 No				
	<p><b><u>12. Piping Work in CI LA class including Sluice Valves, Reflux Valves, MS Gates</u></b> Providing, laying and jointing pipes other than those already included in the above items for interconnection, bypass drains, etc. of all units including adequate number of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The item includes required channels with gates or interconnection of units, bypass drains, etc. for ill units as directed, etc complete as per detailed specifications.</p>	Lot				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b>13. Administrative Building cum Laboratory (G+1)</b>            Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be building having appropriate carpet area, at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-20 framed structure, BB masonry (IInd class in CM 1:6), 20 mm cement plaster in CM 1:3, inside and outside painting, aluminum door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement, etc complete. The building will have laboratory on upper floor of administrative building and should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.</p>					
III	<p><b>PRICE SCHEDULE</b>            Capacity of the Plant in MLD            Area required in Sqm.</p>	Unit				
	1                      450	MLD	207.98			
	3                      600	MLD	122.75			
	5                      1000	MLD	105.51			
	8                      1500	MLD	96.28			
	10                     1800	MLD	93.75			
	13                     2500	MLD	84.89			
	15                     2650	MLD	77.39			
	18                     3250	MLD	76.15			
	20                     3500	MLD	73.37			
	25                     4350	MLD	70.49			
	<b>NOTES</b>					
1	Screen chamber and grit separator upto 5 MLD capacity are manual type.					
2	Upto 5 MLD capacity STP, chlorination is done by using sodium hypochlorite solution. Above 5 MLD capacity, gas chlorinator is provided.					
3	Sludge thickener is not provided upto 3 MLD capacity STP. Sludge will be collected into sludge sump and pumped directly to sludge dewatering system.					
4	For all STP, sludge dewatering is using solid bowl centrifuge.					
5	Chlorinator room not provided for STP upto 3 MLD. For STP upto 3 MLD, laboratory / administration building is not provided. Only a room for operator is provided.					
6	Boundary wall, fencing, gate, storm water drains, site clearance is not considered in the scope.					
7	All water retaining structures are in M30 grade of concrete.					
8	Water table is considered 5 m below GL for design.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
9	Soil bearing capacity is considered as 20 T/m <sup>2</sup> at 1.5 m below GL.					
10	Lead for excavation is considered as 0.5 km.					
11	Grade of cement used is OPC 43 grade.					
12	Grade of steel used is Fe 415.					
13	Peak factor considered for design for plants upto 3 MLD is 3, 4; upto 15 MLD is 2.5, 16; upto 20 MLD is 2.0.					
14	Chemicals required during trial run and commissioning are not considered.					
15	Water and power during construction, trial run and commissioning shall be provided by client.					
16	Power available at STP location is assumed as LT power supply.					
IV	<b><u>MAKES OF EQUIPMENT</u></b>					
No.	Description	Make				
1	Centrifugal Pumps	Kirloskar / Jhonson / Kishor / Eqv.				
2	Screw Pumps	Roto / Tushaco / Eqv.				
3	Air Blower	Usha / Swam / Kay / Kulkarni / Eqv.				
4	Dosing Pumps	Milton Roy / VK Pumps / Positive / Minimax / Eqv.				
5	Agitators / Flocculators	Pavan / Fibre & Fibre / Ceecons				
6	Clarifier / Thickener Mechanism	To be fabricated as per MJP approved design/make				
7	Screens	To be fabricated as per MJP approved design/make				
8	Grit Separator	To be fabricated as per MJP approved design / make				
9	Chlorinator	Toshcon Jesco / Banaco / Perfect Chloro / Chlorocontrol / Metito / Eqv.				
10	Chlorine Tonner	Meenakshi / Eqv.				
11	Solid Bowl Centrifuge	Alfa Laval / Humbolt / Wedag / Hiller / Eqv.				
12	Motors	Crompton / Siemens / Lakshmi				
13	Cables	Finolex / Polycab				
14	MS pipes	Mahalakshmi Seamless / Maharashtra Seamless / Suryaroshni / Jindal / Eqv.				
15	CI Pipes	Truform/ Electrosteel/ Kejriwal/ Eqv.				
16	Valves	Intervalve / BDK / Procon / Tyco / AV Valves / Eqv.				
17	Clarissetler Media	Cooldeck / Munters				
18	Bio Reactor Carrier Media	As per MJP approved design / make				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
			A	<p><b><u>Cyclic Activated Sludge Process</u></b>            Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactory trials of STP based on SBR technology with SCADA &amp; Automation and consisting of Inlet Chamber, Screen Chamber, Detritus Tanks, Distribution Chamber and Biological CASP Basins, Sludge Sump, Chlorine Contact Tank, Chlorinator Room/Shed, Sludge Centrifuge necessary piping work with required valves, gates, drains, pathways Administration Block cum Laboratory, Laboratory Equipments, Tools and Plants, Spare Parts, etc. complete as turnkey job with all involved civil, electrical and mechanical works including HT Substation, Transformers, DG Sets, Metering cubical, Instrumentation works etc. as per specification inclusive of following items, units as per detailed specification for civil, electrical and mechanical components with all duties and taxes, etc. complete to achieve BOD &lt; 5 ppm, COD &lt; 100 ppm, TSS &lt; 10 ppm, to get recyclable quality of water for industrial / agricultural purposes. (In Case Cyclic activated sludge plant is designed for N, P outlet parameters shall also include TN &lt; 10 ppm, Nh3N &lt; 2 ppm and TP &lt; 1 ppm)</p>		
<p><b><u>UNITS INCLUDED</u></b>  <b><u>1. Inlet Chamber</u></b>            Designing, providing, and constructing RCC (M-250) inlet chamber for the peak low of 2 DWF including necessary excavation in all types of strata including walkway all around the periphery. Each compartment will have phosphor bronze steel gates with extension rod, head stock, operating wheels, GI pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications.</p>						
<p><b><u>2. Screen Chamber</u></b>            Designing, providing, constructing, testing and commissioning of screen chamber, designed for average 1 DWF and maximum peak flow of 2 DWF in RCC (M-250), including inlet pipe / channel from inlet chamber, outlet pipe channel to detritus tank, free board of 0.5 m minimum, RCC walkway 1.2 m wide with GI pipe railing, RCC staircase of 1.2 m width from GL to screen chamber.</p>						



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b>3. Detritus Tank</b>            Designing, providing and constructing continuous grit removal type Detritus Tank, mechanically operated in RCC (M-250) capable of removing 100% of 0.2 mm size particle and above, having specific gravity 2.30, designed for one peak 2 DWF with suitable arrangement of separation of grit from putrescible solids. Inlet and outlet channels of required sizes as may be required to connect the flow to connecting unit etc. complete including hydraulic testing for watertightness of structure having minimum FB of 0.3 m, washout arrangement to grit chamber and platform 1.2 m wide RCC walkway with GI pipe handling shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as detailed specifications and as directed.</p>					
	<p><b>4. CASP Basins</b>            Designing, providing and constructing in RCC (M-250), CASP basins for biological removal of BOD along with nitrification, denitrification, Bio-P removal in compartments to handle combine flow of 1 DWF incoming flow and recirculation flow including construction of selector compartments and providing 1.2 m wide clear approach walkways, expansion joints wherever necessary, including foundations, etc as per specifications. Peak factor shall be 2, F/M ratio shall be 0.15, complete with air blowers, fine diffused aeration grid / equipment and FB 0.5 m and SWD as required. DO level in basin to be minimum 2 mg/l complete with 'Oxygen Uptake Rate' control system and all related instruments, stainless steel decanters and automation works. MLSS concentrations shall be 2000-5500 mg/l or more. MLVSS to MLSS ratio to be 0.8. HRT shall be between 12 to 13 hrs and SRT suitable for fully digested sludge. It should have all other related works as per detailed specification. In case CASP is designed to achieve N,P removal HRT shall be between 15-18 hrs and SRT shall be suitably provided to a.</p>					
	<p><b>5. Chlorine Contact Tank</b> Designing, providing and constructing chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank should be 30 min capacity, during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions, including designing, providing and constructing water supply provision for chlorination including providing dewatering and bypass arrangement, jointing to final effluent mains and outlet weir, etc . complete. The effluent quality should match with the standards laid down by Maharashtra Water Pollution Control Board and as per obligatory provision and as detailed specification and as directed by Engineer-in-charge.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b><u>6. Chlorinator and Chlorinator Room /Tonner Room</u></b>            Designing, providing and constructing chlorinators vacuum type 2 Nos. with auto switchover facility and having capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions and detailed specifications with necessary provision of having chlorinator room of adequate size. The chlorinator equipment shall include cost of chlorine cylinders / tonner piping, valves, measuring and controlling equipments, safety devices, lifting equipments, etc. complete as per IS-10553 (Part II) 1982. The tonner room should have minimum 3 MT capacity hoist for loading and unloading facility. Tonner storage should be distinctly isolated and should be for minimum storage space as directed in the design specification and as per Gas Laws 1981 and Factory Act shall be provided. All other matching amenities shall be provided.</p>					
	<p>5 MT gantry rail shall be provided for full length of tonner room at 6 m height from level of tonner room, with outlet chamber and treated effluent outlet channel, etc. complete as per detailed specification.</p>					
	<p><b><u>7. Sludge Sump</u></b>            Designing, providing and constructing of sludge sump and pump house of appropriate size with pumps, ceiling height minimum 6 m over sump for discharging sludge to centrifuge using CI pipe, etc. complete as per detailed specification.</p>					
	<p><b><u>8. Sludge Centrifuge Platform withCentrifuges</u></b>            Designing, providing, constructing and installing including foundation etc., sludge centrifuge to handle the sludge flow of 1 day in 20 hours per unit with sludge dewatering unit, drain etc. complete as per specification. Sludge centrifuges with the necessary arrangement, as per detailed specification mentioned in tender and obligatory provisions to be provided with satisfactory functioning.</p>					
	<p><b><u>9. Outfall Sewer</u></b>            Designing, providing and constructing appropriate outfall sewer of RCC NP2 pipe, to discharge treated effluent from outlet chamber after chlorination tank to the local nallah at the point shown on the drawing including necessary chamber for inspection and cleaning including necessary excavation, dewatering, refilling, concrete encasing / bedding concrete steps to reach the nallah bed level, pitching and energy dissipation chamber in nallah portion, etc. complete upto 50 m length RCC NP2 pipe line and including all above items.</p>					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<p><b>10. Piping Work in CI-LA class including Sluice Valves, Reflux Valves, MS Gates</b></p> <p>Providing, laying and jointing pipes other than those already included in the above items for interconnection, bypass drains, etc. of all units including adequate number of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The items includes required channels with gates for interconnection of units, bypass drains, etc. for all units as directed, etc complete as per detailed specifications.</p>					
	<p><b>11. Administrative Building cum Laboratory (G+1)</b></p> <p>Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be a building having appropriate carpet area at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-200 framed structure BB masonry (IInd class in C.M. 1:6), 20 mm cement plaster in CM 1:3 inside and outside painting. Aluminium door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement, etc. complete.</p>					
	The building will have laboratory on upper floor of administrative building and should be so centralized that it should not be attached with any unit but should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.					
	Capacity of Plant in MLD , required in Ha., Basins	Area No. of	Unit			
	1    0.16    2		MLD	395.87		
	2    0.20    2		MLD	264.71		
	5    0.40    2		MLD	166.33		
	10   0.70    2		MLD	135.94		
	15   0.75    2		MLD	119.73		
	20   0.80    4		MLD	113.55		
	25   1.00    4		MLD	110.64		
	30   1.20    4		MLD	104.36		
	40   1.60    4		MLD	98.07		
	50   1.75    4		MLD	95.76		
	60   1.90    4		MLD	87.96		
	75   2.25    4		MLD	85.72		
	100   2.40    6		MLD	82.00		
	125   3.00    6		MLD	78.91		
	150   3.50    6		MLD	76.73		

Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b>NOTES</b>					
a	These Rates are for Civil Works, in M30 grade RCC.					
b	Water Table is considered at 5 m below ground level.					
c	Soil bearing capacity considered as 20 T/m <sup>2</sup> at 1.5 m below ground level.					
d	OPC has been considered for costing purposes.					
e	All civil items, electrical, piping, valves, pumps, motors, blowers, etc. are considered as per MJP Schedule of Rates.					
f	I.Nos.1, 2 include sludge drying beds instead of sludge centrifuge and DWPE dosing system.					
g	I.Nos.1, 2, 3 include NaOCl dosing system instead of Gas Chlorination.					
h	I.Nos.1, 2, 3 do not include Lab and Lab Equipments.					



MJP SSR 2023-24



## **SECTION - K (I)**

### **RCC GSRS AND SUMPS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Designing (aesthetically), and constructing RCC ground service reservoirs / RCC sumps in M-300 mix</b> of required capacity including excavation in all types of strata, foundation concrete, container walls, bottom slab top RCC roof slab / or dome, 20 mm thick cement plaster with water proofing compound in CM 1:3 proportion to inside face of the container, including epoxy paint from inside including refilling and disposing of surplus stuff within lead of 50 M, all labour and material charges, for laying and jointing of pipe assembly for inlet, outlet washout, over flow and bypass arrangement consisting of C.I. M.S. D/F. pipes, specials and valves of given diameters, providing and fixing accessories such as M.S. ladder inside and outside, C.I. Manhole frame and cover, water top slab, B.B. masonry chamber for all valves, ventilating shafts, including giving satisfactory hydraulic test and water tightness test as per IS code and providing three coats of cement paints to all exposed surface of structure including roof surface etc. complete as per design data, criteria, obligatory requirements and detailed specifications. Anti-termite treatment shall be given for underground portion of the structure.					
	Notes					
1)	The design shall be in accordance with various relevant I.S. specification (I.S. 456/1978, I.S. 875 - 1987, I.S. 3370 -1965 or revised.)					
2)	Only M.S. bars grade I conforming to I.S. 432 part-I or high yield strength deformed bars conforming to I.S. 1786 or I.S. 1139 shall be used. Grade -II M.S. bars shall not be used.					
3)	Entire structure shall be in M-300 only.					
4)	The scope of pipe assembly work shall be upto 5 metre beyond outside face of the wall, cost of pipes valves and specials is not included in the rate but labour cost for laying and jointing is included.					
5)	The G.S.R. / Sump above 15 lakh litres capacity shall be in two compartment.					
6)	The Job includes designing the structure for uplift pressure and dewatering if required during entire execution and disposal of surplus excavated stuff within lead of 50 metres as directed by Engineer-in-charge. If uplifts considered in design, then these rates shall be increased by 7.5%.					
7)	G.S.R. outlets shall be with bell mouth of approved pattern in bottom slab and cost of designing bell mouth is included in the rate. Sump well includes cost of suction pit required at bottom.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
8)	For pipe diameters upto 300 mm only CI pipes and CI specials shall be used. For pipe diameters above 300 mm, M.S. pipes and specials minimum 10 mm thick shall be used with proper anticorrosive epoxy treatment from inside and outside.					
9)	Cost of pump house is not included in these rates.					
10)	Above rates are applicable for Seismic Zones 2, 3 and 4.					
11)	75% part rate shall be payable for reinforcement, concrete and plastering items of all types of G.S.R.s and sumps till satisfactory hydraulic testing for water tightness test is given and till that work shall be treated as incomplete.					
	Note : Conditions from Sr. No. 1 to 11 shall form a part and parcel of tender and must be included in the draft tender papers for work of R.C.C. GSRs and sumps.					
	<b><u>Rates for RCC GSRs and Sumps</u></b>					
1)	Upto 25,000 litres	Lit	19.35	7.59		
2)	Cost of 25,000 litres capacity	Job	483748.00	189787.00		
3)	Add for capacity above 25,000 upto 50,000 litres	Lit	11.48	4.38		
4)	Cost of 50,000 litres capacity	Job	770682.00	299172.00		
5)	Add for capacity above 50,000 upto 75,000 litres	Lit	9.33	3.62		
6)	Cost of 75,000 litres capacity	Job	1003880.00	389723.00		
7)	Add for capacity above 75,000 upto 1,00,000 litres	Lit	8.26	3.24		
8)	Cost of 1,00,000 litres capacity	Job	1210287.00	470735.00		
9)	Add for capacity above 1,00,000 upto 1,50,000 litres	Lit	8.04	3.16		
10)	Cost of 1,50,000 litres capacity	Job	1612485.00	628935.00		
11)	Add for capacity above 1,50,000 upto 2,00,000 litres	Lit	7.02	2.77		
12)	Cost of 2,00,000 litres capacity	Job	1963580.00	767612.00		
13)	Add for capacity above 2,00,000 upto 3,00,000 litres	Lit	6.49	2.54		
14)	Cost of 3,00,000 litres capacity	Job	2612883.00	1021926.00		
15)	Add for capacity above 3,00,000 upto 5,00,000 litres	Lit	5.27	2.08		
16)	Cost of 5,00,000 litres capacity	Job	3666186.00	1438189.00		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
17)	Add for capacity above 5,00,000 upto 10,00,000 litres	Lit	4.67	1.85		
18)	Cost of 10,00,000 litres capacity	Job	5999196.00	2362972.00		
19)	Add for capacity above 10,00,000 upto 15,00,000 litres	Lit	3.64	1.42		
20)	Cost of 15,00,000 litres capacity	Job	7821538.00	3073157.00		
21)	Add for capacity above 15,00,000 litres	Lit	2.95	1.20		
	Note : 10% shall be added over the cost of GSR for sump where overhead pump house is proposed.					



IP SSR 2023-24

**SECTION - K (II)**

**RCC ESRS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Designing (aesthetically), and constructing RCC elevated service reservoirs</b> of following capacity with RCC staging consisting of columns, internal and external bracings spaced vertically not more than 4.5 metres centre to centre for ESR having capacity upto 500 cum and not more than 6 m c/c for ESRs having capacity above 500 Cum including excavation in all types of strata, foundation concrete, cement plaster with water proofing compound to the inside face of the container including refilling disposing off the surplus stuff within a lead of 50 metres, all labour and material charges including lowering, laying, erecting, hoisting and jointing of pipe					
	assembly of inlet, outlet, washout, overflow and bypass arrangements as per departmental design, providing and fixing accessories such as M.S. ladder, C.I. manhole frame and covers, water level indicators, lightening conductor, G.I. pipe railing around walk way and top slab, providing spiral stair case from ground level to roof level, M.S. grill gate of 2 M height with locking arrangement of approved design, B.B. masonry chambers for all valves, ventilating shafts, providing and applying three coats of cement paint to the structure including roof slab, epoxy painting to internal surface and anti-termite treatment for underground parts of the structure and giving satisfactory water tightness test as per I.S. code. The job to include painting the name of the scheme and other details on the reservoir as per the directions of Engineer-in-Charge.					
	Notes					
	1) The design of the structure be in accordance with relevant I.S. specification (I.S. 3370 - 1965 or revised.)					
	2) The design shall satisfy the stipulations as per I.S. 1893 - 1984 and I.S. 13920 / 1993 for seismic force and I.S. - 11682 / 1985 for R.C.C. staging of overhead tanks.					
	3) For design having more than 6 columns, provision of internal bracing is obligatory. External bracings is also obligatory.					
	4) The entire structure shall be in M-300 mix only.					
	5) Plain round mild steel bars grade-I conforming to I.S. 432 part-I or high yield strength deformed bars conforming to I.S. 1786 or I.S. 1139 shall be used, grade-II mild steel bars will not be allowed.					
	6) Irrespective of the type of foundation proposed in the design, one set of bracing be provided at the ground level.					
	7) These rates include providing M.S. ladder for E.S.R.s upto 2 lakh litres capacity and providing spiral staircase for E.S.R. above 2 lakh litres capacity.					
	8) Staging shall have to be designed with stresses of M-200 concrete for ESR. However all RCC construction should be done in M-300.					
	9) These rates are including the cost of uplift pressure if any and entire dewatering during execution. In case of water logging area where water is stretch at shallow depth, extra provision of dewatering shall be made as per site condition.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
10)	All conditions given in the Member Secretary's Circular No. MJP / TS-I / 350 / 1668 dt. 2-8-97 and MJP / S-I / 350 / 2127 dt. 13-7-99 shall be strictly followed and additional cost, if any, due to these conditions is included in the rates mentioned below.					
11)	75% part rate shall be payable for reinforcement concrete and plastering items of containers of E.S.R. till satisfactory hydraulic testing for water tightness is given; and till that work shall be treated as incomplete.					
12)	The rates indicated in the table are excluding the cost of pipes, specials and valves required for inlet, outlet, washout, overflow and bypass arrangement. The scope of work, however, includes cost of erecting, laying and jointing of pipes and valves including cost of jointing materials upto 5 M beyond outer face of outermost column.					
13)	For ESR upto 500 cum capacity C.I. double flanged pipes upto 300 mm dia shall be provided and C.I. specials shall be used. For ESR above 500 cum capacity C.I./M.S. pipe assembly with minimum 8 mm thickness upto 500 mm dia and minimum 10 mm thickness above 500 mm dia can be used with proper anti-corrosive epoxy treatment from inside and outside.					
14)	Below mentioned rates are for foundations with individual footing with bearing capacity of 20 tonnes per square metre. For raft foundations, these rates shall be increased by 7.5% where safe bearing capacity (SBC) is 5 MT per sqm and by 5% where SBC is more than 5 MT/sqm and upto 10 MT/sqm. This % of 5% or 7.5% is applicable for estimation of amount of lumpsum item of ESR. For extra item due to change from individual foundation to raft, actual increase in concrete and steel be paid as per relevant SSR item.					
15)	The rate shall be increased by 30% for bearing piles upto depth of 10 M and for further increased in depth by 5 M each, it shall be increased by another 10%. These rates are applicable where raft is not feasible. For pile foundations sulphate resistant cement shall only be used. Single pile for the column is not permitted, group of piles shall be designed with pile cap for each column of ESR.					
16)	The rates are applicable for staging height of 12 M. These rates shall be increased or decreased for per metre variation in this staging height as below					
	12 to 16 M staging - 2% per metre					
	16 to 20 M staging - 3% per metre					
	20 M and above - 4% per metre					
	For 17 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 & 17 M --- $1 \times 3\% = 3\%$ Total = 11%					
	For 21 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 to 20 M --- $4 \times 3\% = 12\%$					
	20 & 21 M --- $1 \times 4\% = 4\%$ Total = 24%					
17)	Following rates are for seismic zone III. For zone IV, these rates shall be increased by 5% and for zone II, these rates shall be decreased by 5%. Concerned Executive Engineer shall confirm the seismic zone for the scheme from seismic zones plan before estimation and adopt appropriate rates as per actual seismic zones. (Seismic maps attached in this SSR).					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	Notes					
1)	Conditions from Sr. No. 1 to 17 shall form a part and parcel of the tender and must be included in the draft tender papers for works of R.C.C. E.S.R.					
	<b>Rates for RCC ESRs</b>					
1)	Upto 25,000 litres	Lit	39.02	13.02		
2)	Cost of 25,000 litres capacity	Job	975465	325464		
3)	Add for capacity above 25,000 upto 50,000 litres	Lit	20.39	6.49		
4)	Cost of 50,000 litres capacity	Job	1485227	487737		
5)	Add for capacity above 50,000 upto 75,000 litres	Lit	14.40	4.64		
6)	Cost of 75,000 litres capacity	Job	1845104	603790		
7)	Add for capacity above 75,000 upto 1,00,000 litres	Lit	13.40	10.93		
8)	Cost of 1,00,000 litres capacity	Job	2180003	877059		
9)	Add for capacity above 1,00,000 upto 1,50,000 litres	Lit	10.57	3.42		
10)	Cost of 1,50,000 litres capacity	Job	2708273	1048185		
11)	Add for capacity above 1,50,000 upto 2,00,000 litres	Lit	9.62	3.80		
12)	Cost of 2,00,000 litres capacity	Job	3189433	1238379		
13)	Add for capacity above 2,00,000 upto 2,50,000 litres	Lit	8.53	3.06		
14)	Cost of 2,50,000 litres capacity	Job	3615901	1391421		
15)	Add for capacity above 2,50,000 upto 3,00,000 litres	Lit	7.73	3.24		
16)	Cost of 3,00,000 litres capacity	Job	4002252	1553527		
17)	Add for capacity above 3,00,000 upto 4,00,000 litres	Lit	7.58	2.90		
18)	Cost of 4,00,000 litres capacity	Job	4760006	1843429		
19)	Add for capacity above 4,00,000 upto 5,00,000 litres	Lit	6.85	2.51		
20)	Cost of 5,00,000 litres capacity	Job	5445500	2094609		
21)	Add for capacity above 5,00,000 upto 7,50,000 litres	Lit	6.67	2.62		
22)	Cost of 7,50,000 litres capacity	Job	7113764	2748954		
23)	Add for capacity above 7,50,000 upto 10,00,000 litres	Lit	6.75	2.71		
24)	Cost of 10,00,000 litres capacity	Job	8800094	3426176		
25)	Add for capacity above 10,00,000 upto 15,00,000 litres	Lit	6.02	2.32		
26)	Cost of 15,00,000 litres capacity	Job	11807722	4584093		
27)	Add for capacity above 15,00,000 upto 20,00,000 litres	Lit	5.52	2.16		
28)	Cost of 20,00,000 litres capacity	Job	14568489	5664729		
29)	Add for capacity above 20,00,000 upto 25,00,000 litres	Lit				
30)	Cost of 25,00,000 litres capacity	Job				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	Designing (aesthetically), and constructing RCC elevated service reservoirs with Zinc - Alume container of following capacity with RCC staging consisting of columns, internal and external bracings spaced vertically not more than 4.5 metres centre to centre for ESR having capacity upto 500 cum including excavation in all types of strata, foundation concrete, including cost of supply and installation of prefabricated water storage bolted tanks as container to be placed over cast in situ RCC bottom slab or precast bottom slab as per specifications & standards of all related IS codes, ready to assemble construction consisting of outer wall surface made out of special grade hot dip aluminum - Zink alloy, metallic factory coated steel conforming to IS-15961-2012 minimum thickness of 0.6 mm. The inner surface should be provided with liners of minimum 0.6 mm thickness of reinforced polyethylene or polypropylene or metallocene material suitable for drinking water purpose. Top cover shall be of polyethene tape monophylament yarn or woven polypropylene or corrugated G.I. Sheets Rate include cost valves of standard quality, Stainless steel ladder inside container, water level indicator, water tightness					
	test, transportation up to site of work and all taxes etc complete including refilling disposing off the surplus stuff within a lead of 50 metres, all labour and material charges including lowering, laying, erecting, hoisting and jointing of pipe assembly of inlet, outlet, washout, overflow and bypass arrangements up to 5 m from periphery of tank as per departmental design, providing and fixing accessories such as M.S. ladder for outside container with both side GI pipe railing , lightening conductor, G.I. pipe railing around walk way and top slab, providing spiral stair case from ground level to roof level, M.S. grill gate of 2 M height with locking arrangement of approved design, B.B. masonry chambers for all valves, ventilating shafts, providing and applying three coats of Acrylic emulsion with silicon additives paint to the RCC structure including anti termite treatment for underground parts of the structure and giving satisfactory water tightness test as per I.S. code. The job to include painting the name of the scheme and other details on the reservoir as per the directions of Engineer-in-Charge.					
	Notes:					
1	The design of the structure be in accordance with relevant I.S. specification (I.S. 3370 - 1965 or revised.)					
2	The design shall satisfy the stipulations as per I.S. 1893 - 1984 and I.S. 13920 / 1993 for seismic force and I.S. - 11682 / 1985 for R.C.C. staging of overhead tanks, Zinc Alume/ Galvalume sheet - IS 15961, Hot deep galvanising- IS 2629, 2633, 6745, 4759, Bolts - IS 1367 Part 3:2002 class 8.8 (Carbon steel quenched and tempered), Nut- IS 1367 Part 6:1997, Flanges - IS 2062:2011 BS 10 (E table), Pipe - IS 1239:2004 Part 1, other steel part - IS 2062 Part 1 and all other ralated IS codes and latest amendments.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
3	For design having more than 6 columns, provision of internal bracing is obligatory. External bracings is also obligatory.					
4	The entire structure shall be casted in M-300 mix only.					
5	Plain round mild steel bars grade-I conforming to I.S. 432 part-I or high yield strength deformed bars conforming to I.S. 1786 or I.S. 1139 shall be used, grade-II mild steel bars will not be allowed.					
6	Irrespective of the type of foundation proposed in the design, one set of bracing be provided at the ground level.					
7	These rates include providing, M.S. Ladder for E.S.R's upto 2 lakhs liters capacity and providing spiral staircase for E.S.R. Above 2 lakhs liters capacity.					
8	Staging shall have to be designed with stresses of M-200 concrete for ESR. However all RCC construction should be done in M-300.					
9	These rates are including the cost of uplift pressure if any and entire dewatering during execution. In case of water logging area where water is stretch at shallow depth, extra provision of dewatering shall be made as per site condition.					
10	All conditions given in the Member Secretary's Circular No. MJP / TS-I / 350 / 1668 dt. 2-8-97 and MJP / S-I / 350 / 2127 dt. 13-7-99 shall be strictly followed and additional cost, if any, due to these conditions is included in the rates mentioned below.					
11	75% part rate shall be payable till satisfactory hydraulic testing for water tightness is given; and till that work shall be treated as incomplete.					
12	The rates indicated in the table are excluding the cost of pipes, specials and valves required for inlet, outlet, washout, overflow and bypass arrangement. The scope of work, however, includes cost of erecting, laying and jointing of pipes and valves including cost of jointing materials upto 5 M beyond outer face of outermost column.					
13	C.I./D.I. double flanged pipes upto 300 mm dia shall be provided and C.I./D.I. specials shall be used with proper anti-corrosive epoxy treatment from inside and outside.					
14	Below mentioned rates are for foundations with individual footing with bearing capacity of 20 tonnes per square metre. For raft foundations, these rates shall be increased by 7.5% where safe bearing capacity (SBC) is 5 MT per sqm and by 5% where SBC is more than 5 MT/sqm and upto 10 MT/sqm. This % of 5% or 7.5% is applicable for estimation of amount of lumpsum item of ESR. For extra item due to change from individual foundation to raft, actual increase in concrete and steel be paid as per relevant DSR item.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
15	The rate shall be increased by 30% for bearing piles upto depth of 10 M and for further increased in depth by 5 M each, it shall be increased by another 10%. These rates are applicable where raft is not feasible. For pile foundations sulphate resistant cement shall only be used. Single pile for the column is not permitted, group of piles shall be designed with pile cap for each column of ESR.					
16	The rates are applicable for staging height of 12 M. These rates shall be increased or decreased for per metre variation in this staging height as below					
	12 to 16 M staging - 2% per metre					
	16 to 20 M staging - 3% per metre					
	20 M and above - 4% per metre					
	For 17 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 & 17 M --- $1 \times 3\% = 3\%$ Total = 11%					
	For 21 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 to 20 M --- $4 \times 3\% = 12\%$					
	20 & 21 M --- $1 \times 4\% = 4\%$ Total = 24%					
17	For the dome type GI corrugated roof structure with hot dip galvanized trusses with GI manhole for access for cleaning and maintainance, 1% extra shall be added					
18	For heavy duty five layer polypropylene reinforced liner with metallocene contact layer having a minimum thickness of 1 mm- 1% extra shall be added.					
19	Following rates are for seismic zone III. For zone IV, these rates shall be increased by 5% and for zone II, these rates shall be decreased by 5%. Concerned Executive Engineer shall confirm the seismic zone for the scheme from seismic zones plan before estimation and adopt appropriate rates as per actual seismic zones. (Seismic maps attached in this SSR).					
	<b>Notes</b>					
	Conditions from Sr. No. 1 to 19 shall form a part and parcel of the tender and must be included in the draft tender papers for works of R.C.C.- Zinc Aluminate Container E.S.R.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	<b>Rates for RCC - Zinc Alumina Container ESR's</b>					
1)	Upto 25,000 litres		39.02	13.02		
2)	Cost of 25,000 litres capacity		975465	325464		
3)	Add for capacity above 25,000 upto 50,000 litres		20.39	6.49		
4)	Cost of 50,000 litres capacity		1485227	487737		
5)	Add for capacity above 50,000 upto 75,000 litres		14.40	4.64		
6)	Cost of 75,000 litres capacity		1845104	603790		
7)	Add for capacity above 75,000 upto 1,00,000 litres		13.40	10.93		
8)	Cost of 1,00,000 litres capacity		2180003	877059		
9)	Add for capacity above 1,00,000 upto 1,50,000 litres		10.57	3.42		
10)	Cost of 1,50,000 litres capacity		2708273	1048185		
11)	Add for capacity above 1,50,000 upto 2,00,000 litres		9.62	3.80		
12)	Cost of 2,00,000 litres capacity		3189433	1238379		
13)	Add for capacity above 2,00,000 upto 2,50,000 litres		8.53	3.06		
14)	Cost of 2,50,000 litres capacity		3615901	1391421		
15)	Add for capacity above 2,50,000 upto 3,00,000 litres		7.73	3.24		
16)	Cost of 3,00,000 litres capacity		4002252	1553527		
17)	Add for capacity above 3,00,000 upto 4,00,000 litres		7.58	2.90		
18)	Cost of 4,00,000 litres capacity		4760006	1843429		
19)	Add for capacity above 4,00,000 upto 5,00,000 litres		6.85	2.51		
20)	Cost of 5,00,000 litres capacity		5445500	2094609		



SSR 2023-24

**SECTION - K (III)  
ANCILLARY ITEMS FOR RESERVOURS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Providing and fixing in position copper lightning conductor</b> including copper rod of 20 mm dia as per upper terminal 1.5 M long with a knob at end and with conical spike at top, copper tape conductor 20 x 3 mm size, copper earth plate of 3 mm thick and 0.81 sqm. in area, clamps at 1 M centre to centre including, necessary excavation, laying and fixing the conductor, providing and fixing 40 mm G.I. pipe upto 3 M height from ground and 0.5 M below ground including making all connections, filling earthing pit with charcoal, salt, etc. & refilling & watering, etc. complete as per specifications laid down in relevant I.S. codes.					
	i) For tape of 10 M length	No	14897	1132		
	ii) Rebate/ extra rate per metre length or part thereof over and above initial length of 10 M.	Mtr.	394	15		
2	<b>Providing and fixing in position copper lightning conductor</b> including copper rod of 20 mm dia upper terminal 1.5 M long with a knob at the end with a conical spike at top, aluminium tape conductor 20 x 3 mm size, copper earth plate of 3 mm thick and 0.81 sqm. in area, clamps at 1 M centre to centre including, necessary excavation, laying and fixing the conductor, providing and fixing 40 mm G.I. pipe upto 3 M height from ground and 0.5 M below ground including making all connections, filling earthing pit with charcoal, salt, etc. & refilling & watering, etc. complete as per specifications laid down in relevant I.S. codes.					
	i) For tape of 10 M length	No	12411	1060		
	ii) Rebate/ extra rate per metre length or part thereof over and above initial length of 10 M.	Mtr.	136	5		
3	<b>Providing, hoisting and fixing in position inverted 'J' type 100 mm dia</b> C.I. cowl type ventilators with mosquitoproof aluminium mesh at top in including applying 2 coats of anti-corrosive paint, etc. complete as directed by Engineer-in-charge, weighing not less than 35 kg.	No	2352	1090		
4	<b>Providing, hoisting and fixing in position C.I. manhole, frame and cover</b> of best quality and of required size and shape with locking arrangements including applying 2 coats of anti-corrosive paint, etc. complete.					
	i) 90 x 60 cm size and weight 35 kg.	No	2898	217		
	ii) Rate on weight basis for any size and type of frame and cover.	Kg	82	6		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
5	<b>Providing and fixing in position M.S. ladder 0.50 M wide</b> consisting of 75 x 10 mm M.S. flats as stringers and 16 mm dia M.S. bars in double rows as steps placed at 25 cm c/c including cost of material and labour involved, welding, anchoring and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.	RMT	1493	252		
6	<b>Providing and applying epoxy paint of approved make</b> (Shalimar, Ciba or Mahindra & Mahindra) to concrete surface for RCC ESR or GSR or any other structure including cleaning the surface by scrapping and air blowers to the satisfaction of Engineer-in-charge, necessary scaffolding, etc. complete with all leads and lifts and giving satisfactory hydraulic test for water tightness as per I.S. codes.					
i)	For new surfaces - Two coats	Sqm	809	420		
ii)	For old surfaces - Two coats	Sqm	912	501		
7	<b>Providing and constructing RCC spiral staircase</b> in M-150 mix concrete at site of work and consisting of central vertical column of 400 mm dia and steps in RCC M-150, tie members at each brace level, RCC parapet wall 80 cm high including cost of all labour and material involved, cost of scaffolding, centering, shuttering, curing, finishing in CM 1:3 proportion including RCC M-150 footing foundation, its excavation, refilling and cleaning the site, etc. complete as per type design, with 3 coats of cement paint.	RMT	7480	616		
8	<b>Providing and constructing RCC ventilating shaft</b> of diameters and height mentioned below with required number of RCC 15 x 15 cm size columns and RCC circular slab or dome over the pillars in M-150 including cost of all material and labour, providing and fixing steel or wooden frame and providing and fixing G.I. flyproof mesh of 26 gauge and providing and applying in 3 coats of oil paint to wooden or steel frame and cement paint to concrete structure, etc. complete as directed by Engineer-in-charge.					
i)	0.9 M dia x 1.35 M height	No	7101	788		
ii)	1.2 M dia x 1.80 M height	No	9524	1060		
iii)	1.5 M dia x 2.25 M height	No	14920	1675		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
9	Providing and installing mercury water level indicator for RCC ESR and wash water tank site as per instructions of Engineer-in-charge at ground level of the tank or nearing pump house or room for RCC ESR having 15 mtrs. stage height and 5 mtrs. water storage height with indication of water height in storage tank in metre and 1/10th of metre including providing and installing 15 mm dia class 'B' G.I. piping with necessary accessories from bottom of the tank upto the instrument as per instructions of Engineer-in-charge.	No	23370	3885		
	For extra stage height over 15 mtrs. or part thereof and water depth over 5 mtrs. or part thereof for Item No. 9.	Mtr.	1214	205		
10	<u>Providing, erecting, installing and commissioning Barometric leg chlorination system for water treatment plant upto 5 MLD capacity</u> as per manufacturer's specification with all required materials viz. 15 kg. pressure yellow PVC pipe, specially prepared chamber, mixing chamber, scrubber unit, gas pressure flexible pipe, brass nozzle nipple, electronic alarm unit, PPM dose, indicator of 25 mm dia, 4 mm thick glass tube borosil, gas unit opening spanner 3 hole type, instruction board, aluminium pipe upto sump (max. length 15 M) including civil works wherever required for above materials, fittings, including satisfactory test and trial at work site, etc. complete. (Item do not include construction of chlorine gas room of 3.0 x 3.0 M or adequate size) as per drawing attached.					
i)	For 5.0 Mld capacity	No	141944	13852		
ii)	Add / deduct per Mld or part of per Mld capacity	Mld	4997	488		
11	<u>Providing and fixing water level indicator upto 5 M height</u> including M.S. enamelled gauge plate 300 mm wide and 3 mm thick, copper float, providing and fixing required accessories such as pointer, pulleys, nylon thread including cost of all material, labour, etc. complete.	No	11324	1984		
12	<u>Providing and fixing water level indicator upto 5 M height</u> including M.S. enamelled gauge plate 150 mm wide and 3 mm thick, copper float, providing and fixing required accessories such as pointer, pulleys, nylon thread including cost of all material, labour, etc. complete.	No	7244	2101		



SSR 2023-24

**SECTION - L  
CHAMBERS, MANHOLES &  
DRAINAGE DROPS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Valve Chamber with Precast RCC Covers</b> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion precast RCC frame and cover, etc. complete as directed by Engineer-in-charge.					
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with precast R.C.C. slab cover.	No	7386	1963		
a)	Add for every increase in depth of 30 cm or part there of	30 cm depth	1626	468		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	10942	2967		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1942	561		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	11899	3244		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2125	609		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	13786	3711		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2393	696		
E	As above of 90 cm internal dia. size and depth upto 1.2 M with precast R.C.C slab cover.	No	10801	3614		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1948	654		
F	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	18237	5039		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2985	887		
G	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with precast R.C.C slab cover.	No	27729	6156		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	3857	996		
2	<b>Valve chamber with cast iron manhole frame and covers</b> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion, 12 mm thick cement plaster in CM 1:4 proportion on both sides with providing and fixing C.I. manhole frame and cover in RCC 1:2:4 coping or RCC 1:2:4 proportion x 15 cm thick slab, etc. complete as directed by Engineer-in-charge.					





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with 60 x 45 cm size CI manhole frame and cover of 40 kg.	No	10986	1922		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1533	449		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with 90 x 45 cm size CI manhole frame and cover of 40 kg.	No	13915	2718		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1770	517		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with 90 x 60 cm size CI manhole frame and cover of 50 kg.	No	15904	3014		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1912	564		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	22100	3784		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2333	685		
E	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	25807	4769		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2972	885		
F	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	33215	6824		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	3777	1108		
3	<b>Valve chamber with precast steel fibre reinforced concrete frame and covers (S.F.R.C. frame and covers)</b> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion precast S.F.R.C. frame and cover, etc. complete as directed by Engineer-in-charge.					
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with S.F.R.C. frame and cover.	No	9955	2154		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1617	376		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	14305	3115		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1824	423		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	15371	3426		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1951	458		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	19492	4050		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2283	538		
E	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with S.F.R.C. frame and cover of size 540 mm dia. fixed in RCC slab.	No	24116	5003		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	3069	712		
F	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with S.F.R.C. frame and cover of size 540 mm dia. fixed in RCC slab.	No	32458	6735		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	3864	887		
4	Providing and fixing in position <b>M.S. air valve boxes fabricated</b> with 2 mm thick M.S. plate, 30 x 30 x 3 mm size M.S. angle frame, concreting in M-150 for fixing the box in position, applying two coats of oil paint, painting chainage, locking arrangement, etc. complete as directed by Engineer-in-charge.					
a)	For single ball air valve	No	2675	237		
b)	For double ball air valve	No	3755	487		
5	Providing and fixing <b>C.I. road box</b> including loading, unloading and carting to site of work including all necessary excavation in all types of strata and fixing in murum packing, etc. complete.					
a)	100 mm x 225 mm (20 kg)	No	1729	391		
b)	225 mm x 300 mm (40 kg)	No	3408	772		
6	Providing and constructing on sewer, <b>B. B. masonry circular manhole with concentric cone 1.2 M dia. at bottom and 0.5 M dia. at top</b> and upto a depth of 2.00 M with 23 cm brick work in CM 1:4 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C. C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer in-charge.	No	29148	5606		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth	3912	1458		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
7	Providing and constructing on sewer, <b>B. B. masonry circular manhole concentric cone 1.5 M dia. at bottom and 0.5 M dia. at top</b> and upto a depth of 5.00 M with 23 cm brick work, upto depth of 2 M from top and 35 cm thick brick work for balance depth in CM 1:4 proportion with 20 mm thick smooth plaster on both sides in CM 1:2 proportion excluding excavation including foundation concrete 250 mm thick and haunches in C. C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer in-charge.	No	83100	7250		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth	8460	3783		
8	Providing and constructing on sewer, <b>B.B. masonry circular manhole with concentric cone 1.5 M dia. at bottom and 0.5 M dia. at top</b> and upto a depth of 9.00 M with 23 cm brick work, upto depth of 2 M from top and 35 cm thick brick work for depth of 2 M and 45 cm thick brick work for remaining depth upto 9 M in CM 1:4 proportion with 20 mm thick smooth plaster on both sides in CM 1:2 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C.C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer-in-charge.	No	177345	11493		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth	10750	5663		
9	Providing and constructing <b>B.B. masonry circular manhole without conical shape</b> excluding excavation, RCC 1:2:4 proportion, 20 cm bedding brick masonry in CM 1:4 proportion, 23 cm thick for 2 M depth from top 35 cm thick for 2 M below it and 45 cm thick for balance depth, RCC slab at top and at 2 M depth from top for supporting brick masonry above it, plastering with smooth finish in CM 1:2 proportion, C.C. 1:2:4 finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., providing and fixing S.F.R.C. frame and cover of 56 cm dia. at top including cost of all materials and labour, etc. complete.					
A	1.00 M dia. x 2 M depth	No	24798	5731		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	3680	974		
B	1.00 M dia. x 3 M depth	No	40893	9435		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	6375	1526		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
C	1.00 M dia. x 4.5 M depth	No	63606	14996		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	8161	1935		
D	1.50 M dia. x 2 M depth	No	41254	9382		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	5532	1401		
E	1.50 M dia. x 3 M depth	No	56060	13152		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	8493	2082		
F	1.50 M dia. x 4.5 M depth	No	86155	15056		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	10838	2618		
10	<b>Drainage Drops</b> Providing 150 mm dia. S.W. or R.C.C. pipes in <b>vertical drop arrangement</b> including providing 150 mm dia S.W. and R.C.C. pipe fixed in B.B. masonry of manhole at the required level including providing 150 mm dia double tee, 150 mm dia right angled bend, encasing in B.B. masonry 1:4 proportion all around the pipe, double tee, bend upto the foundation of manhole, jointing, cutting, filleting including neat cement rendering, plugging the opening with jungle wood knob complete as directed by Engineer-in-charge (0.60 M depth) excluding cost of chamber.		2402	473		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	873	174		
11	As above but for 200 mm dia pipes and depth 0.60 M	No	3110	587		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1009	201		
12	As above but for 250 mm dia pipes and depth 0.60 M	No	3793	722		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1198	256		
13	As above but for 300 mm dia pipes and depth 0.60 M	No	4583	864		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1347	271		
14	As above but for 400 mm dia pipes and depth 0.60 M	No	6391	1187		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1746	371		
15	As above but for 500 mm dia pipes and depth 0.60 M	No	8157	1658		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	2141	415		
16	As above but for 600 mm dia pipes and depth 0.60 M	No	10458	2136		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	2469	489		
17	Providing and fixing in position <b>steel fibre reinforced concrete (S.F.R.C.) frame and covers</b> of approved make including loading, unloading, transportation, all taxes, etc. complete as directed by Engineer-in-charge (20 tonnes capacity).					
a)	540 mm dia	No	3491	775		
b)	560 mm dia	No	4569	1043		
c)	90 x 45 cm size	No	3491	775		
d)	90 x 60 cm size	No	3784	838		
e)	60 x 60 cm size	No	3456	766		
f)	60 x 45 cm size	No	2995	665		
18	Providing and fixing <b>intercepting sewer trap</b> including concrete bedding, etc. complete.					
a)	150 x 100 mm	No	550	97		
b)	100 x 100 mm	No	393	69		
19	Providing and fixing in position <b>S.W. bends</b> of various size, etc. complete.					
a)	100 mm	No	175	30		
b)	150 mm	No	204	35		
20	Providing and fixing <b>'Y' junction</b> and labour, etc. complete.					
a)	Saddle junction 100 x 100 M	No	213	35		
b)	'Y' junction 150 x 150 x 100 mm	No	245	41		
c)	'Y' junction 300 x 300 x 300 mm	No	289	49		
d)	'Y' junction 300 x 300 x 100 mm	No	245	41		
21	Providing and fixing in position <b>A.C. soil ventilators / slotted</b> as necessary and as directed by Engineer-in-charge, etc. complete.					
a)	80 mm	No	207	35		
b)	100 mm	No	252	41		
c)	150 mm	No	357	58		
22	Providing and fixing <b>A.C. soil pipe or downtake pipe</b> with all required fittings, taking hole, etc. complete (as per manufacturer's code of practice).					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
a)	80 mm	No	363	61		
b)	100 mm	No	432	71		
c)	150 mm	No	677	110		
23	Providing and fixing <b>Cast Iron soil pipe</b> of 1.8 M length including taking out holes and all required fittings, etc. complete.					
	S/S					
a)	80 mm	No	1257	206		
b)	100 mm	No	1427	236		
	D/S					
a)	80 mm	No	1357	223		
b)	100 mm	No	1573	259		



SSR 2023-24

**SECTION - M**  
**WELL SINKING & RIVER**  
**INFILTRATION WORKS**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2023-25	
			Complete	Labour	Complete	Labour
1	Providing, constructing <b>coffer dam</b> in river basin / dam storages as per type design including excavation, filling the middle portion with B.C. soil (in gunny bags if required). Providing impervious / semipervious materials on both sides of B.C. soil (in gunny bags if required) including ramming, compacting to the satisfaction of Engineer-in-charge till the completion of work including dismantling coffer dam after completion of works and disposing off the material as directed by the Engineer-in-charge.	Cum	818	28		
	<b>Note</b> : Pay line maximum. Top width payable shall be 2 Mtr. and maximum payable side slopes shall be 1.5 horizontal to 1 vertical, if the constructed top width of the side slopes are less, then the measurements at actual are payable. Extra top width or flat slopes are not payable. Contractor is free to use ballies, plastic sheets, piles, pipes, CGI sheets for supporting hearting materials instead of impervious/ semi-pervious hearting materials for which no extra payments shall be payable. 30% payment shall be withheld for dismantling of coffer dam. This foot note shall appear in tender condition. (Type section is shown on last page of type design section of CSR).					
2	Providing and fabricating at work shop, carting to site of work, including transport, loading, unloading, hoisting, lowering and setting out at actual site of well, sinking <b>M.S. plate cutting edge for R.C.C. well curb</b> consisting of 350 mm M.S. plate, 10 mm thick, champhering at bottom. Cutting edge should be provided in pieces not less than 2 M in length. Each joint should be plain from outside and jointed by gusset plate 400 x 200 x 12 mm thick M.S. plate with 12 nos. of 20 mm dia. crushank headed bolts (gusset plates from inside) with unequal angle of 90 x 60 x 10 mm should be welded from top of chamfered portion at 14 mm from bottom so that 15 mm side should be in contact with cutting edge with overlap of 300 mm joints. 16 mm dia bar should be welded to M.S. plate 200 mm below the top surface and length should be 1.8 M above plate with a bend 300 mm from plate surface including 3 coats of anticorrosive paint as directed by Engineer-in-charge.	Kg	122	27		
3	Providing and filling <b>puddle</b> (selected good impervious clay) in Kolhapur type weirs in proper layers of 15 cm including watering, ramming and compaction, etc. complete with all leads and lifts.	Cum	308	133		





Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2023-25	
4	Providing and filling around the well <b>boulders filling</b> of selected variety and size of boulders including cost of all materials, labour, transportation, etc. complete with all leads and lifts.	Cum	974	237		
5	Providing and fixing 80 mm dia <b>A.C./ P.V.C. pipe weep holes</b> at 1.5 M c/c staggered including cost of all materials and labour involved with all leads and lifts, etc. complete.	RMT	231	25		
6	Providing and fixing <b>M.S. chequered plate</b> flooring of following thickness supported on M.S. angles (25 x 25 x 5 mm size) including welding, cutting and fabricating the plates to the required square or rounding shape, making holes in the plate, including providing and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.					
a)	6 mm thick	Sqm	5156	726		
b)	8 mm thick	Sqm	6389	710		
7	Providing at site of works ISI standard <b>RCC slotted pipes of NP-3 class</b> including cost of all central and local taxes, octroi, inspection, transportation, etc. complete including cost of RCC collar, etc. complete.					
a)	450 mm dia	RMT	4411			
b)	600 mm dia	RMT	6612			
8	<b>Lowering, laying and jointing RCC slotted pipes</b> of following diameters including all leads and lifts, cost of jointing material, labour, etc. complete as directed by Engineer-in-charge.					
a)	450 mm dia	RMT	271	166		
b)	600 mm dia	RMT	361	218		
9	<b>Lowering, laying and jointing CI 'B' class connecting mains with rubber gaskets</b> including transportation of pipes from stores to site of works, cost of jointing materials, cost of rubber gasket with all leads and lifts, etc. complete.					
i)	300 mm dia	RMT	312	231		
ii)	350 mm dia	RMT	364	275		
iii)	400 mm dia	RMT	466	348		
iv)	450 mm dia	RMT	481	344		
v)	500 mm dia	RMT	572	400		



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2023-25	
vi)	600 mm dia	RMT	783	559		
vii)	700 mm dia	RMT	1041	704		
viii)	750 mm dia	RMT	1176	809		
10	Providing, lowering, laying and placing in position, <b>shrouding material</b> for porous pipe gallery / slotted pipe gallery / trench gallery with all leads and lifts involved including transportation of materials to site of works, screening and washing of materials and placing in position with given section, etc. complete as directed by Engineer-in-charge.					
a)	40 mm gauge pebbles	Cum	1857	381		
b)	12 mm to 20 mm gauge pebbles	Cum	2187	448		
c)	6 to 12 mm gauge pebbles	Cum	2463	507		
d)	Coarse sand (from river sand at site)	Cum	1615	389		
e)	Fine sand (from river sand at site)	Cum	1846	300		
11	Providing and fixing in position <b>Cl dapuri steps</b> or 22 mm dia. M.S. bar step with proper anchorage, etc. and providing and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.	No	464	104		
12	Providing and fixing <b>M.S. sluice gates</b> in position as per detailed drawings and specification including cost of all materials, labour, operating pedestal, connecting rod, painting with three coats of anti-corrosive paint, etc. complete as directed by Engineer-in-charge.	Kg	137	45		
13	Providing and fixing in position <b>C.I. / M.S. rose pieces</b> in intake wells including cost of all materials and labour, painting with three coats of anticorrosive oil paint, etc. complete as directed by Engineer-in-charge.	Kg	120	22		
14	Providing and fixing in position 80 mm dia. x 1.5 M deep <b>G.I. pipe anchorage</b> below invert of pipeline for nalla or river crossings where soft materials or sand is anticipated for considerable depth including hammering the pipe upto 1.5 M depth below invert of pipe, removing sand/ loose materials in the pipe with small and long spoons, providing and fixing 16 mm dia x 1.75 M clear length M.S. hook for holding the pipeline in position, through G.I. pipe already hammered and cleared, pouring cement grout through this pipe upto top of pipe to form a cement bulb at bottom of pipe and to hold M.S. hook tight in the pipe including cost of all material and labour involved but excluding cost of excavation on pipeline for its exposure upto invert, as per type design.	Anch or Pipe				



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2023-25	
	Note : This type of pipe anchorage shall be provided at 30 M centre to centre on alternate side of pipeline for full width of nalla or river.					
15	<b>Providing and spreading</b> around the well 1 mm thick <b>polyethylene sheet</b> complete as directed by Engineer-in-charge.	Sqm	30	5		
16	<b>Dewatering charges for estimation purpose for head works in river basin or dam :</b>					
i)	Approach Channel	RMT	7152	1074		
ii)	Intake Well of 3 M dia.	No	94068	15022		
iii)	Inspection Well of 2 M dia.	No	61167	10372		
iv)	Connecting Main	RMT	5750	967		
v)	Jack Well of 6 M dia.	No	287016	39804		
vi)	Approach Bridge	RMT	959	225		
	Notes					
1)	The Contractor at his request may be allowed to start construction of masonry steining so as not to allow silting of well in oncoming monsoon and while paying masonry, 25% amount shall be withheld and released only when excavation to the full depth is completed.					
2)	Dewatering : Total dewatering charges are to be proposed in the tender as lumpsum amount and 75% is payable for excavation and 25% is payable for construction of well/ gallery. Out of 75% excavation, break-up shall be as under:					
	25% for last 1 M depth.					
	20% for 2 M depth which just above last 1 M depth.					
	15% for 2 M depth which just above last 3 M depth.					
	15% for the rest of depth from water table level.					
3)	The provisions made for dewatering in the tender being on lumpsum basis, the same shall have to be reduced / increased proportionately as the length of approach channel, connecting main or approach bridge reduces / increases during actual execution.					
	Condition Nos. (1) & (2) shall appear in tender conditions.					



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2023-25	
17	<b>Carrying out recuperation/ yield test</b> for asserting the discharge of constructed well/ excavated profile as directed by Engineer-in-charge. The test is carried out by drawing down water from the well/profile below normal/ subsoil water level upto full depth rise in water level is recorded. The normal water level/ subsoil water level in the well/ profile as well as stainer/ suction level at pump as per design of W.S. scheme shall be recorded prior to the test including cost of all materials, overhead, labourers, etc. completed as directed.					
	The test shall be carried out as per Tech. Circular No. 2597 & 2011 -97 and shall be carried out for 7 days.					
i)	Lps more than 25,000	Day	3462	2286		
ii)	Lps less than 25,000	Day	2492	2087		



IP SSR 2023-24

**SECTION - N**

**TRIAL RUN**



Sr. No.	Description	Unit	Rate (Rs.) 2023-24		Rate (Rs.) 2024-25	
			Complete	Labour	Complete	Labour
1	<b>Commissioning, running and maintaining the scheme</b> to quantities, rated capacity, including manning necessary personnel such as operator, valveman, etc. as per requirements of the scheme and who should also administer chemical dose for a period of <b>1 month</b> for individual scheme and for regional scheme, together with training of personnel spared by MJP / Local Body and handing over the scheme to Local Body after completion of the above period as directed by Engineer-in-charge.					
	<b>Note :</b> Required chemicals to be supplied by Department free of cost and electricity bill will also be paid by the Department.					
a)	For single village without WTP	Month	30181	19780		
b)	For single village with WTP	Month	35160	23077		
c)	For regional scheme upto 3 villages with raw water pumping, one treatment plant with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc.	Month	62393	50890		
d)	For regional scheme upto 3 villages with raw water pumping with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For six months) without WTP	Month	40374	32915		
e)	For regional scheme upto 3 villages trial period shall be one year with raw water pumping, one treatment plant with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For one year)	Month	63289	51153		
f)	For regional scheme upto 3 villages trial period shall be one year with raw water pumping with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For one year) without WTP	Month	41035	33414		
g)	Add for every additional villages or part thereof	Month	11145	7941		
h)	Add for every additional pumping station	Month	18510	17182		

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SAVE LIFE  
SAVE THE PLANET

