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## **Section V. Schedule of Requirements**

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## List of Goods and Delivery Schedule

### LIST OF GOODS

List of goods and relevant specifications are mentioned in the Price Schedules in Section IV.

### DELIVERY SCHEDULE

No.	Offer type	Final Destination for supply	Delivery Date	
			CPSTL requirement	Bidder's Offer [ <i>Insert the number of weeks from the date of establishment of LC</i> ]
1.	Local Supply basis	CPSTL- Oil Installation Kolonnawa	<b>within twenty four (24) weeks from the date of receipt of the Purchase Order</b>	
2.	Foreign Supply basis	Colombo Sea Port	<b>within twenty four (24) weeks from the date of establishment of the Letter of Credit</b>	

(Shorter delivery periods are most welcome. However, bidders shall indicate the period within which the items could be delivered.)

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## Technical Specifications

### SCOPE OF SUPPLY AND SPECIFICATIONS

### SEAMLESS CARBON STEEL COATED & BARE PIPES, FITTINGS AND RELATED ACCESSORIES.

- 1.1. All pipe material specification shall be API 5L Gr. B or ASTM A 106 Gr. B. Dimensions & tolerances shall be conforming to API 5L. Equivalent material offered will not be considered for evaluation.

Pipe External shall be grid blast to SA2.5, 3-layer PE (Polyethylene) extruded according to DIN 30670, minimum coating thickness 3.0mm.

Mill test certificates shall be provided in accordance with EN 10204 3.2 with Heat/Batch numbers or any other reference number marked on pipes as well as in the certificates to check once the items are delivered to CPSTL Kolonnawa with reference to the items against the Mill Certificate

- 1.2. All pipe fitting (bends & reducers) material specification shall be conforming to ASTM A 234 and dimensions shall be conforming to ASME B 16.9, SCH 40.

Mill test certificates shall be provided in accordance with EN 10204 3.2 with Heat/Batch numbers or any other reference number marked on fittings as well as in the certificates to check once the items are delivered to CPSTL Kolonnawa with reference to the items against the Mill Certificate

- 1.3. All flange material specification shall be conforming to ASTM A 105 and dimensions shall be conforming to ASME B 16.5.

- 1.4. All Paddle Blanks and Paddle Spacers material specification shall be conforming to ASTM A 105 and dimensions shall be conforming to ASME B 16.48.

- 1.5. All long radius pipe bends (3D and 5D as mentioned in the specifications) are to be welded to a **pigable** pipe line, hence internal diameter/bore throughout the bend should be as per the ASME B 16.49. Typical drawings (Dwg No: ST/PI/011 & ST/PI/012 ) is attached with the bidding document. Relevant Nondestructive testing (NDT) reports shall be provided as per ASME Section V and ASME B31.4.

- 1.6. Following information to be clearly indicated on each **pipe and reducer** by water resistant paint.

- i) Heat number, Schedule, size, Length and Material Specification
- ii) Manufacturer's name and country of manufacture & year of manufacture

- 1.7. Following information to be clearly indicated on each **bend** by water resistant paint.

- i) Heat number, Schedule, size, Length and Material Specification
- ii) Manufacturer's name and country of manufacture & year of manufacture
- iii) Identification Numbers which mentioned under the specifications.

- 1.8. Following information to be stamped clearly on each **flange**.

- i) Heat number, Pressure Rating, size, and Material Specification
- ii) Manufacturer's name and country of manufacture & year of manufacture

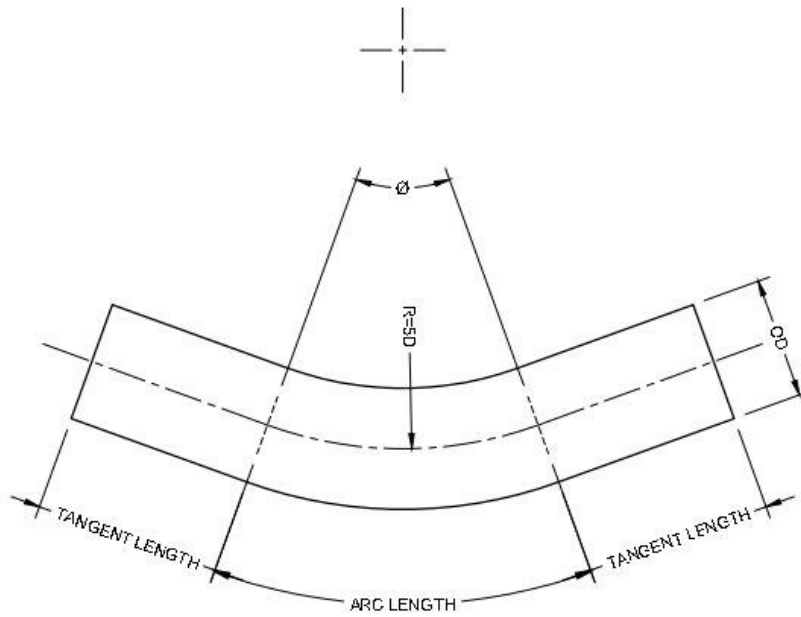
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- 1.9. Following information to be clearly indicated on each **spiral wound gasket** by water resistant paint.
- i) Pressure Rating, size, and Material Specifications
  - ii) Manufacturer's name and country of manufacture & year of manufacture
- 1.10. **Bolts and Nuts** to be stamped with material grade.
- 1.11. Literature should be supplied in English language along with the bid for the following;
- i) Manufacturing process of the pipes
  - ii) Application process of the coatings.
  - iii) Repairing procedure of Polyethylene coating using the repair kit.
  - iv) Method of applying the heat shrinkable wrapping.
- 1.12. Both ends of pipe and fittings should have protective sleeves.

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## Drawings

This Bidding Document includes the following drawings.

<b>List of drawing</b>		
<b>Drawing No.</b>	<b>Drawing Name</b>	<b>Remark</b>
ST/PI/011	Details of R= 5D Pipe Bend	Typical Drawing
ST/PI/012	Details of R= 3D Pipe Bend	Typical Drawing



NOTE:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. PIPES STANDARD ACCORDING TO API-5L
3. ALL PIPE BENDS TO BE SEAMLESS BEVELED END
4. STANDARD PIPE FITTINGS TO BE ACCORDING TO ASME 16.9
5. PIPE BENDS TO BE ACCORDING TO ASME 16.4B

REV.No.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
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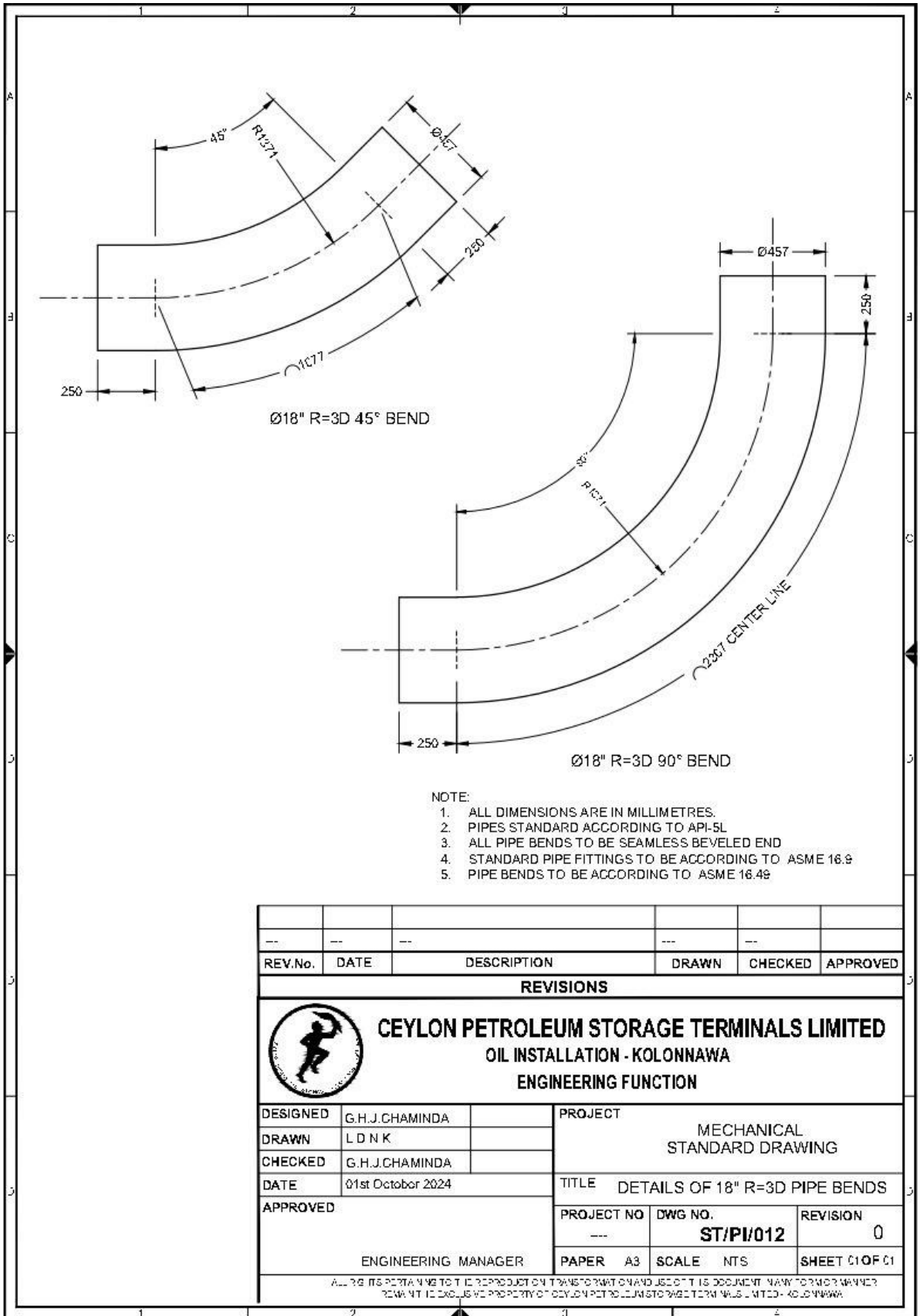
REVISIONS



**CEYLON PETROLEUM STORAGE TERMINALS LIMITED**  
**OIL INSTALLATION - KOLONNAWA**  
**ENGINEERING FUNCTION**

DESIGNED	G.H.J.CHAMINDA	PROJECT	MECHANICAL STANDARD DRAWING		
DRAWN	L D N K	TITLE	DETAILS OF R=5D PIPE BEND		
CHECKED	G.H.J.CHAMINDA	PROJECT NO	DWG NO.	REVISION	
DATE	01st October 2024	---	<b>ST/PI/011</b>	0	
APPROVED	ENGINEERING MANAGER	PAPER	A3	SCALE	NTS
					SHEET 01 OF 01

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REV.No.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
<b>REVISIONS</b>					
<b>CEYLON PETROLEUM STORAGE TERMINALS LIMITED</b> OIL INSTALLATION - KOLONNAWA ENGINEERING FUNCTION					
DESIGNED	G.H.J.CHAMINDA	PROJECT	MECHANICAL STANDARD DRAWING		
DRAWN	L D N K	TITLE	DETAILS OF 18" R=3D PIPE BENDS		
CHECKED	G.H.J.CHAMINDA	PROJECT NO	DWG NO.	REVISION	
DATE	01st October 2024	---	<b>ST/PI/012</b>	0	
APPROVED	ENGINEERING MANAGER	PAPER	A3	SCALE	NTS
					SHEET 01 OF 01
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## **Inspections and Tests**

The following inspections and tests shall be performed:

- 1.1. 3<sup>rd</sup> party inspection of pipes and fittings shall be carried out by a reputed third-party inspector approved by CPSTL, witnessed by two CPSTL mechanical engineers and submission of inspection report to CPSTL and obtain approval before shipment. The inspection charges and all expenses for CPSTL engineers including visa chargers, return air tickets, accommodation, internal transport and food will be arranged and borne by the Contractor.  
3<sup>rd</sup> party inspector shall be one of the following institutions or a inspector proposed by the Supplier subjected to CPSTL approval.
  - i) Lloyds
  - ii) S. G. S.
  - iii) Bureau Veritas
  - iv) ABS

The costs involved in this TPI and witness visit shall be disclosed in the appropriate columns of the Schedule of Prices.

- 1.2. Independent 3<sup>rd</sup> party inspector shall certify that the goods supplied are conforming to the “Technical specification” given in Section V.
- 1.3. Mill test certificates shall be provided by the Supplier in accordance with EN 10204 3.2 with Heat/Batch numbers or any other reference number marked on pipes and fittings.
- 1.4. The Supplier shall provide comprehensive Non-Destructive Testing (NDT) Reports in accordance with ASME Section V and ASME B31. 4. These reports shall confirm that the product is:
  - i) Free from Internal Flaws, such as cracks, voids, and inclusions.
  - ii) Free from Surface and Near-Surface Defects, including seams, laps, or other discontinuities.
- 1.5. The Supplier shall provide the following documents as applicable.
  - i) Hydrostatic Test Report  
This report shall confirm that the product has been subjected to hydrostatic testing as per the applicable standards, demonstrating its ability to withstand the required test pressure without leakage or deformation.
  - ii) Heat Treatment Certificate  
This certificate shall verify that the product has undergone the specified heat treatment process in compliance with the relevant material standards. The certificate should include details such as heat treatment type, temperature range, and duration.