



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II



BHAGYANAGAR GAS LIMITED

(A JOINT VENTURE OF HPCL & GAIL)

**BID DOCUMENT FOR
PROCUREMENT OF GI FITTINGS AND OTHER REQUIRED
MATERIAL FOR THE LMC CONNECTIONS IN BGL HYDERABAD
GA**

E-TENDER

**UNDER OPEN DOMESTIC
COMPETITIVE BIDDING**

Bid Document No.: BGL/679/2025-26

VOLUME II OF II



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

CONTENTS

VOLUME II OF II

SECTION 7	- SCOPE OF SUPPLY & TECHNICAL SPECIFICATIONS
SECTION 8	- SPECIAL CONDITIONS OF CONTRACT (SCC)
SECTION 9	- SCHEDULE OF RATES / PRICE SCHEDULE



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

**SECTION – 7
SCOPE OF SUPPLY &
TECHNICAL SPECIFICATIONS**



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

SCOPE OF SUPPLY & TECHNICAL SPECIFICATIONS

1.0 SCOPE:

This specification covers the requirement for Malleable Cast Iron Fittings unless modified by this specification, requirement of IS 1239 Part-II/IS 1879 – 2010 shall be valid.

2.0 MATERIAL

The material used for manufacturing of malleable cast iron fittings shall confirm to IS 2108 – 2020 grades BM 290.

3.0 DIMENSIONS AND DIMENSIONAL TOLERANCES

- Dimensions of various types of fittings shall be as specified in section 2 to 10 of IS 1239 Part-II/IS 1879 – 2010, as applicable.
- Wall thickness of fittings and tolerances on them shall be as given in table 1.2 of IS 1239 Part-II/IS 1879 – 2010.
- In case of reducing fittings. The dimensions at each outlet shall be those appropriate to the nominal size of the outlet.
- Elbows, Tees, Sockets and caps shall be of reinforced type.

4.0 THREADS

- (a) Outlet of fittings shall be NPT threaded to dimensions and tolerances as specified in IS: 554 – 2014.
- (b) All internal and external threads shall be tapered.
- (c) For checking conformity of threads gauging practice in accordance with IS: 8999 – 2003 shall be followed.
- (d) The outlet of fittings shall have chamfer. The chamfer shall have an included angle of $90^\circ \pm 5^\circ$ for internal threads and $70^\circ \pm 10^\circ$ for external threads.

5.0 FREEDOM FROM DEFECTS

On visual examination, the inside and outside surfaces of fittings shall be smooth and free from any defects such as cracks, injurious flaws, fine sand depth etc.

6.0 GALVANIZING

- (a) Fittings shall be galvanized to meet the requirements of IS : 4759 – 1996.



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

- (b) Zinc confirming to any grades specified in IS: 209 – 1992 or IS: 13229 – 1991 shall be used for purpose of galvanizing.
- (c) Galvanizing Bath: The molten metal in the galvanizing bath contain shall not less than 98.5% by mass of zinc.
- (d) Coating Requirements: Mass of coating shall be 700 gms / m².
- (e) Freedom From Defects: The zinc coating shall be uniform adhered, reasonably smooth and free from such imperfections as flux, ash bare patches, black spots, pimples, lumpiness runs, rust stains. Bulky white deposits and blisters.
- (f) Sampling:
 - i) All materials of the same type in coating bath having uniform coating characteristics shall be grouped together to constitute a lot. Each lot shall be tested separately for the various requirements of the specifications. The number of units to be selected from each lot for the testing shall be as given in table 2 of IS: 4759 – 1996.
 - ii) The sample selected according to column 1 and 2 of table 2, IS: 4759 – 1996 shall be tested for visual requirements as per clause no 6 (e).
 - iii) The sample confirming to above requirements shall then be tested for mass of zinc coating in accordance with clause 9.2 of IS: 4759 – 1996.
 - iv) Criteria for conformity: As per clause 8.3 of IS: 4759 – 1996.
 - v) Test procedure shall be as per clause 9 of IS: 4759 – 1996.

7.0 PRESSURE TEST

Pneumatic pressure test (not less than 5Kg/cm²) as per clause 11.1b of IS 1239 Part-II/IS 1879 – 2010 shall be carried out on each fitting. Vendor to submit the internal quality control certificate for the same. BGL or Third-party inspection agency appointed by BGL shall witness pneumatic testing as per the sampling procedure specified in IS: 1879 – 2010.

8.0 COMPRESSION TEST

Compression test shall be carried out as per clause 12 of IS: 1879 -2010.

9.0 SAMPLING

BGL representative or Third-Party Inspection agency approved by PNGRB shall witness the tests as per clause 14 of IS: 1879 – 2010. However, vendor shall perform 100% inspection of Visual, Dimensional, and Pressure test. Vendor shall furnish Internal test certificates at the time of final inspection by Bhagyanagar Gas Ltd.



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

10.0 POWDER COATING

Pure Polyester coating to be done on Galvanized fittings as per BGL technical specification for Powder coating no: BGL/ENG/PE/08.

11.0 MARKING

Marking shall be done as per BGL guidelines.

Each fitting shall be embossed with manufacture's name or trademark and the size of designation.

Each fitting confirming to this standard shall also be marked with BIS standard mark over and above BGL's requirement.

12.0 INSPECTION:

Inspection shall be carried out as per BGL Technical specifications.

Vendor shall furnish all the material test certificates, proof of approval, from specified authority as per specified standard.

BGL reserves the right to select the sample of fittings from each batch and get independently tested as per technical specification. BGL reserves the right to reject the production if it is not falling within the specified limit of testing as per standards.

Technical Specifications –

1. GI Pipe Fittings (Elbows, Tees, Sockets, Nipples, Plugs)-1/2"

- Applicable Standards:
 - IS 1239 (Part II): Mild steel tubulars & wrought steel fittings.
 - IS 1879: Malleable cast iron fittings.
 - IS 4759: Hot-dip galvanization.
 - ASME B1.20.1: NPT thread standard.
 - IS 13871: Powder coating (where applicable).
- Sizes:
 - GI Elbow 90 Degrees angle, 1/2 "Size-NPT.
 - GI Equal Tee 1/ "size-NPT.
 - GI Sockets/Couplers 1/2" Size-NPT.
 - GI Nipples 2", 3" and 4" length of 1/2" size-NPT.
 - GI End plugs 1/2"-NPT.
- Material:
 - Galvanized Malleable cast iron as per IS 1879 / IS 1239.
 - Free from cracks, blow holes, porosity, and defects.
- Mechanical Properties:
 - Tensile Strength: ≥ 330 MPa.
 - Elongation: $\geq 15\%$.
 - Hardness: ≤ 200 BHN.
- Coating:
 - Hot-dip galvanization, minimum coating $85 \mu\text{m}$ (610 g/m^2).
 - Powder coating: 60–80 μm , epoxy-polyester type.
- Threads:
 - NPT (ASME B1.20.1), verified by gauges.



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

- Inspection:
 - Dimensional check as per IS 1879.
 - Coating thickness testing.
 - Third-party inspection mandatory.

2. Brass Fittings (Meter Adaptors, PNG Nozzles, etc.)

- Applicable Standards:
 - IS 319: Free-cutting brass composition.
 - IS 1545: Pipe fittings (general requirements).
 - ASME B1.20.1: NPT threads.
- Sizes and Types:
 - Brass Meter Adaptor and Nut with “O” Ring (3/4 “ * 1/2 “- NPT)
 - Nozzles: 110(Small), 125(Large)
- Material Composition (as per IS 319):
 - Copper: 56–60%.
 - Lead: 2–3%.
 - Balance: Zinc.
- Mechanical Properties:
 - Tensile Strength: ≥ 350 MPa.
 - Elongation: $\geq 15\%$.
 - Hardness: ≤ 100 BHN.
- Threads:
 - NPT, leak-tight, gauge tested.
- Inspection:
 - Dimensional accuracy checks.
 - Composition verification with spectrometer.
 - TPI reports mandatory.

3. Rubber Tube (with Clamps)

- Applicable Standard:
 - IS 9573:1998 – Rubber hose for PNG.
- Material:
 - Synthetic rubber tube reinforced with textile yarn.
 - Flame resistant, oil resistant, abrasion resistant.
- Construction Requirements:
 - Inside Diameter: $8.5 \text{ mm} \pm 0.25 \text{ mm}$.
 - Wall Thickness: $\geq 3 \text{ mm}$.
 - Working Pressure: $\geq 2.5 \text{ kg/cm}^2$.
 - Burst Pressure: $\geq 10 \text{ kg/cm}^2$.
- Clamps:
 - Mild Steel / Stainless Steel, corrosion protected.
- Inspection:
 - Pressure testing (hydrostatic).
 - Flexibility and bend radius check.
 - TPI certification.

4. Teflon Tape (Thread Seal Tape)

- Applicable Standard:
 - IS 15058: 2002 – Non-adhesive PTFE tape for threaded joints.
- Material:
 - 100% virgin PTFE(Polytetrafluoroethylene).
 - Non-toxic, chemically inert, non-flammable.
- Dimensions:
 - Width: $12 \text{ mm} \pm 0.5 \text{ mm}$.
 - Thickness: $\geq 0.075 \text{ mm}$ to 0.2 mm



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

- Length per roll: Minimum 10 m.
- Mechanical Properties:
 - Temperature resistance: -20°C to $+200^{\circ}\text{C}$.
 - Pressure resistance: Up to 10 kg/cm^2 (gas).
- Inspection:
 - Visual inspection for defects.
 - Dimensional checks.
 - Material certificate for PTFE purity.

5. Clamps ($\frac{1}{2}'' \times 1''$)

- Applicable Standards:
 - IS 3688: Pipe clamps and fasteners (general).
 - IS 513: Cold rolled steel sheets (if MS used).
 - Material:
 - Mild Steel (galvanized) / Stainless Steel.
 - Coating:
 - Hot-dip galvanized or zinc plated.
 - Minimum coating thickness: $12\text{ }\mu\text{m}$.
 - Inspection:
 - Dimensional checks as per drawings.
 - Coating adhesion tests.
-



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

LIST OF APPROVED SUPPLIERS



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

GI FITTINGS:

1. M/s- HP Steel
2. M/s- Chokhawala
3. M/s- Jainsons Industries
4. M/s- Jupiter Metal Industries Ltd.
5. M/s- Rajnesh Malleables Ltd.
6. M/s- Industrial Valves & Components
7. M/s- Sarin Industries

BRASS FITTINGS:

1. M/s- HP Steel
2. M/s- Chokhawala
3. M/s- Jainsons Industries
4. M/s- Chandan Enterprises
5. M/s- Paras Industries
6. M/s- Umesh Enterprises
7. M/s- Mehta Brothers

FLEXIBLE HOSE:

1. M/s- HP Steel
2. M/s- Chokhawala
3. M/s- Jainsons Industries
4. M/s- KPC Flex Tubes
5. M/s- Vestas Hose Division
6. M/s- Alfa Flexi Tubes



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

SECTION – 8

SPECIAL CONDITIONS OF CONTRACT (SCC)



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

SPECIAL CONDITIONS OF CONTRACT (SCC)

The special conditions of contract shall be read in conjunction with Schedule of rates, scope of work and any other document forming part of contract, wherever Context so requires. In case of any contradictions the Decision of the Engineer-I In-Charge will be final and binding on the Contractor. In case of contradiction between Indian or other applicable Standards, Special Conditions of Contract, Specifications, drawings, Schedule of Rates, the following shall prevail in order of precedence:

- i) Letter of acceptance along with statement of Agreed variations.
- ii) Fax / Letter of Intent / Fax of Acceptance
- iii) Schedule of Rates as enclosures to letter of acceptance
- iv) Job / Particular Specifications
- v) Technical / Material Specifications
- vi) Special Conditions of Contract.

It will be contractor's responsibility to bring to the notice of Engineer-in-charge any irreconcilable conflict in the contract documents before starting the work(s) of making the supply with reference which the conflict exists.

The bidders mentioned in the list of approved suppliers shall quote against the RFQ. In case the mentioned suppliers are not willing to quote directly, their authorized dealer/seller can quote and accordingly submit the valid authorization certificate issued by the manufacturer along with their offer.

1. SCOPE OF SUPPLY:

- 1.1. The Supplier shall supply GI fittings and other required materials in accordance with technical specifications, drawings, and BOQ provided in the Purchase Order (PO).
- 1.2. Supplier shall be fully responsible for timely procurement, packing, transportation, and delivery of materials to the designated site/store.

2. QUALITY OF MATERIAL:

- 2.1. All materials shall conform to relevant IS Codes / BIS certifications / approved standards.
- 2.2. Materials shall be brand new, unused, free from corrosion, cracks, manufacturing defects, or damages.
- 2.3. Any sub-standard or rejected materials shall be removed from site immediately and replaced within 7 days at the supplier's risk and cost.

3. INSPECTION & TESTING:

- 3.1. Inspection shall be carried out by the Engineer-in-Charge (EIC) and/or Third-Party Inspection Agency (TPIA) at supplier's premises or at site.
- 3.2. Supplier shall provide test certificates from NABL-approved laboratories/manufacturers along



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

with each supply batch.

3.3. Third-party inspection charges shall be in the scope of the supplier and borne entirely by them.

3.4. Purchaser reserves the right to reject supplies that fail inspection/testing.

4. PACKING, DISPATCH & DELIVERY:

4.1 Supplier shall ensure safe packing to prevent damages during handling and transportation.

4.2 Each package must carry batch number, identification marks, and packing lists.

4.3 Materials must be delivered within the stipulated Delivery Schedule.

4.4 Transit damages shall be at the supplier's risk and cost.

5. CONTRACT PERIOD/VALIDITY:

Validity of contract will be 3Months from the date of issue of FOA/LOI.

6. DELIVERY/COMPLETION PERIOD:

5.1 Delivery Schedule – Materials must be delivered within the 8 weeks of issue of FOA/LOI.

5.2 Price Reduction (PRS) – For delays in delivery, PRS shall be imposed at 0.5% of the delayed portion per week or part thereof, subject to a maximum of 5% of total PO value.

- Sub-standard or defective material: ₹10,000 per instance, plus mandatory replacement at supplier's cost.

5.3 Quality-related Penalties –

- Non-submission of test certificates: ₹5,000 per batch.

7. TRANSPORTATION & INSURANCE:

7.1. Supplier shall arrange safe transportation of all materials to the designated site/store.

7.2. Transit insurance up to the point of delivery shall be in supplier's scope and cost.

8. PAYMENT TERMS:

8.1. 80% against receipt of material at site and acceptance after inspection.

8.2. 20% after submission of test certificates and final acceptance by Engineer-in-Charge.

8.3. No advance payment will be made unless specifically approved.

9. DOCUMENTS REQUIRED:

1.1 Inspection/Quality Test Reports

1.2 Material Manufacturing Test Reports (As per mentioned Standards and procedures).

10. PAYMENT METHODOLOGY:

10.1. Supplier shall raise invoices right after each delivery, certified by EIC in triplicate, with details of materials. Invoices must be submitted accordingly to avoid statutory penalties.

10.2. Payment shall be released within 15 days from the date of receipt of certified invoices, if found in order.



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

- 10.3. Payment will be released as per SCC Clause 7 conditions.
10.4. All payments shall be released through RTGS / NEFT / Bank Cheque only.

11. GUARANTEE / WARRANTY:

- 11.1. Supplier shall provide a minimum 12-month guarantee from the date of supply.
11.2. Any material found defective during this period must be replaced immediately and free of cost.
11.3. If any accident, loss, or damage occurs due to defective material within the guarantee period, the supplier shall bear full responsibility, liability, and penalties as decided by the purchaser.

12. PERFORMANCE SECURITY:

- 12.1. Supplier shall furnish a Performance Bank Guarantee (PBG) of 3% of PO value, valid until the completion of the guarantee/warranty period.
12.2. Purchaser reserves the right to encash the PBG in case of default or breach of contract.

13. RISK PURCHASE:

- 13.1. In case of supplier's failure to supply within the stipulated period, purchaser reserves the right to procure the material from alternate sources at the risk and cost of the supplier, in addition to penalties.

14. TAXES & DUTIES:

- 14.1. Prices shall be quoted inclusive of GST.
14.2. Any statutory variation in taxes & duties after award shall be borne as per applicable law.

15. FORCE MAJEURE:

- 15.1 Supplier shall not be held liable for delays due to natural calamities, strikes, lockouts, or other causes beyond reasonable control, subject to due notification and acceptance by purchaser.

16. ARBITRATION & JURISDICTION:

- 16.1 Any disputes arising shall be referred to arbitration as per the Arbitration & Conciliation Act, 1996.
16.2 Jurisdiction shall rest with courts of the purchaser's location.

17. MODE OF PAYMENT

Payment will be released through E-payment as detailed in ITB Taxes & duties (GST) shall be paid in Indian Rupees only. For reimbursement of taxes & duties the currency exchange rate as mentioned in GST Invoice shall be considered.

The payment shall be released within 15 days from the date of receipt of invoice and acceptance and satisfactory running of the equipment duly certified by EIC. The Payment shall be released through RTGS only

18. CONTRACT PERFORMANCE SECURITY: NA

19. CONTRACT PRICE: The Quoted prices shall be deemed to be inclusive of all taxes including duties, GST tax, and other charges as applicable till the completion of the contract and contractor shall not be eligible for any compensation on this account.

20. DEFECT LIABILITY PERIOD: Not Applicable

21. PRICE REDUCTION SCHEDULE / LIQUIDATED DAMAGES:



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

In case of delayed delivery, prices will be reduced @1/2% of the total order value of undelivered quantity for every week of delay or part thereof subject to a maximum of 5% of the value of undelivered quantity.

22. RECOVERY OF FAILURE OF ITEMS: -

In case the item supplied by the supplier fails during fabrication and or erection due to the manufacturing defect the supplier shall become liable to reimburse to BGL the landed cost for replacing the defective items including all costs incurred up to the delivery thereof at site, all duties, freight, insurance, labour, material charges.



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

SECTION 9

SCHEDULE OF RATES (SOR)



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

SCHEDULE OF RATES (SOR)

Tender Name:-Procurement and supply of GI Fittings and other required material for LMC connections in Hyderabad.

Tender Document Number: BGL/679/2025-26

Vendor Name						
S.N.	Description of Item	UOM	Qty	Size (mm)	Unit rate inclusive of all but excluding GST (Rs.)	Total Amount excluding GST
1	2	3	4	5	6	7=(4*6)
1	GI Fittings-Elbow 90 Degree 1/2" 15mm with coating-NPT					
	Supply of Galvanized Iron pipe fitting 90-degree elbow 1/2" banded type with NPT thread as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239 part2. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of material (GI Elbow 90-1/2")	Nos.	4000	15		
2	GI Equal Tee coated type 1/2"-NPT					



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

	Supply of Galvanized Iron pipe fitting of Equal tees banded type of 1/2" Size with NPT thread as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of material (GI Elbow 90-1/2")	Nos.	50	15		
3	GI Powder Coated M/F 1/2"-NPT					
	Supply of GI powder coated elbow with one male and one female with NPT threaded ends as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239 part2. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of material (GI M/F Elbow-1/2")	Nos.	1000	15		
4	GI coated Coupler/Socket 1/2"-NPT					
	Supply of Galvanized Iron pipe couplers/sockets of size 1/2" with NPT thread as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239 part2. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of material (GI Socket/Coupler-1/2")	Nos.	1000	15		
5	GI Pipe Nipples 1/2" * 2", 3" and 4" Length.					



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

	Supply of Galvanized Iron pipe Nipples (2", 3", 4" lengths) of ½" size with NPT thread as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239 part2. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
5.1	Supply of 1/2" GI Pipe Nipple of 2" Length-NPT	Nos.	1500	15		
5.2	Supply of 1/2" GI Pipe Nipple of 3" Length-NPT	Nos.	1500	15		
5.3	Supply of 1/2" GI Pipe Nipple of 4" Length-NPT	Nos.	1000	15		
6	GI Coated End Plugs 1/2"-NPT					
	Supply of Galvanized Iron pipe End plug fitting of ½" nominal bore (NB) with NPT thread as per ASME B1.20.1, manufactured from malleable cast iron or mild steel conforming to IS 1879/IS 1239 part2. Fittings shall be free from cracks, blow holes, porosity, and other defects. Mechanical properties must meet minimum tensile strength of 330 MPa, elongation ≥15%, and hardness ≤200 BHN. Fittings shall be coated by hot-dip galvanization conforming to IS 4759, minimum coating thickness 85 µm (610 g/m²), and additional epoxy-polyester powder coating of 60–80 µm thickness as per IS 13871. Threading shall be NPT type, verified by thread gauges. Each batch to undergo dimensional, coating thickness, and mechanical property tests, with third-party inspection mandatory. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of 1/2" GI End plug-NPT	Nos.	50	15		
7	Brass Meter Adaptor 3/4" * 1/2"					
	Supply of brass fittings—including meter adaptors (3/4" x 1/2" NPT) with nuts and "O" manufactured from free-cutting brass per IS 319 (Copper: 56–60%, Lead: 2–3%, rest Zinc). Fittings shall meet a minimum tensile strength of 350 MPa, elongation ≥15%, and hardness ≤100 BHN. Threading shall be NPT type, in line with ASME B1.20.1, and gauge tested for leak tightness. All fittings require dimensional and composition verification, supported by spectrometry reports and third-party inspection documentation. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of Brass Meter Adaptor with nuts and "O" Rings 3/4" * 1/2"-NPT	Nos.	500	15		
b	Submission of material and Test Certificates, Inspection Reports etc.					
8	Brass Nozzle of jet number/ sizes 1.10 mm and 1.25 mm.					



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

	Supply of brass fittings—Brass Nozzles for to convert LPG stove into PNG suppliable with sizes of 1.10mm(small) and 1.25mm (large)manufactured from free-cutting brass per IS 319 (Copper: 56–60%, Lead: 2–3%, rest Zinc). Fittings shall meet a minimum tensile strength of 350 MPa, elongation ≥15%, and hardness ≤100 BHN. Threading shall be NPT type, in line with ASME B1.20.1, and gauge tested for leak tightness. All fittings require dimensional and composition verification, supported by spectrometry reports and third-party inspection documentation. Submission of material and Test Certificates, Inspection Reports etc.					
8.1	Supply of PNG Nozzle 1.10mm Small	Nos.	1000	1.1		
8.2	Supply of PNG Nozzle 1.25mm Large	Nos.	500	1.25		
9	GI Pipe clamp-1/2"					
	Supply of pipe clamps sized 1/2" as per IS 3688, manufactured from Galvanised Iron or mild steel (conforming to IS 513) . All clamps shall be hot-dip galvanized or zinc plated to achieve minimum coating thickness not less than 12 µm. Clamps are to be dimensionally checked as per approved drawings and subjected to coating adhesion tests. Each lot should have inspection records and compliance certificates attached. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of Pipe clamp-1/2"	Nos.	5000	15		
10	Rubber Tube IS 9573 with Clamps					
	Supply of synthetic rubber tube sets reinforced with textile yarn for PNG applications, conforming to IS 9573:1998. Tube shall be flame, oil, and abrasion resistant, with inner diameter of 8 mm ± 0.25 mm, minimum wall thickness 3 mm, working pressure ≥2.5 kg/cm ² , and burst pressure ≥10 kg/cm ² . Set includes corrosion-protected clamps of mild steel (galvanized/zinc plated) or stainless steel as per IS 3688/IS 513. Provided tubes and clamps must pass hydrostatic pressure testing, flexibility/bending radius tests, and be accompanied by third-party inspection certification. And clamps should belike 2 clamps for every 1 meter. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of Rubber Tube with clamps	Mtrs	500	8		
11	Teflon Tape (Teflon) 1/2" (12mm)					
	Supply of non-adhesive PTFE thread seal tape for threaded joints as per IS 3465, made from 100% virgin PTFE. Tape shall be non-toxic, inert, and non-flammable. Dimensions: width 12 mm ± 0.5 mm, thickness ≥0.075 mm, length per roll not less than 10 meters. Must withstand temperature –20°C to +200°C and pressure up to 10 kg/cm ² (for gas service). Each roll should be free of defects, with material certificate for PTFE purity and batch-level dimensional and visual inspection reports. Submission of material and Test Certificates, Inspection Reports etc.					
a	Supply of Teflon Tape (Teflon) 1/2" (12mm)	Nos.	2000	12		



**PROCUREMENT OF GI FITTINGS AND OTHER
REQUIRED MATERIAL FOR THE LMC CONNECTIONS IN
BGL HYDERABAD GA
Bid Document No. BGL/679/2025-26**

Volume II of II

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