

OIL INDIA LIMITED(A Govt. of India Enterprise)
P.O. Duliagan-786602, Assam.

Fax No. 91-374-2800533, E-mail:material@oilindia.in

Tender No. & Date : DFD7678L11/08 09.04.2010Bid Security Amount : INR 0.00 OR USD 0.00
(or equivalent Amount in any currency)**Bidding Type : Single Bid (Composite Bid)**

Bid Closing On : 07.07.2010 at 13:00 hrs. (IST)

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Performance Guarantee : Not Applicable

OIL INDIA LIMITED have issued Limited tenders to following parties for items detailed below. For General Terms & Conditions, please refer to Document No. MM/GLOBAL/01/2005 available in OIL's web site:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 99067059	<p><u>API 6D BALL VALVE</u></p> <p>TWO PIECE SPLIT BODY TRUNION MOUNTED AS PER FOLLOWING SPECIFICATION:</p> <ol style="list-style-type: none"> 1. Design Standard. API 6D 22nd Edition January 2002, Fire safe design and testing as API 6FA. 2. Valve location and function Onshore #sweet natural gas service 3. Valve size 406mm DN/16# NPS 4. Valve pressure class 300 5. Type of Valve BALL VALVE 6. Special Flow requirement Full bore, Through Conduit type, Piggable 7. Design features Two piece, split body (double block) Primary metal to metal seating. Internal Trunnion mounting for ball . 8. Stem extension requirement NR Stem extension length NA 9. End connection details Connecting pipe(both ends) 16# (406 mm) OD Grade NA Thickness NA Ends (both) RF type Flanged ends Size and pressure class As per ASME B 16.5 10. Valve Operation Gear mounted hand wheel operation.(manual) 11. Valve components and material Specification.(equivalent or superior grade material will also be acceptable) BODY Material ASTM A 216 GR WCB BALL ASTM A 216 GR WCB + ENP BODY SEAT RINGS AISI 410/ASTM A 182 gr. F6A +PTFE/ENP SEAT SEAL Graphite STEM AISI 410 STEM SEAL Graphite STUD BOLTS ASTM A 193 GR B7 NUTS ASTM A 194 GR 2H STEM HOUSING ASTM A 216 GR WCB 12. Valve Design conditions.: Service temperature -28 deg C to 65 deg C Service Sweet : Natural Gas. Corrosion allowance :1.5mm Installation : Above Ground. 13. Pressure relief vent for valve Required 14. Emergency seat Sealant injection system for valve Required 15. Drain for valve Required 16. Lifting lugs Required (tapped holes and eyebolts not to be used) 17. Locking arrangement Required 18. Foot support Required 	16	NO

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Item No./ Mat. Code	Material Description	Quantity	UOM
	19. Painting(external) Primer + aluminum paint. Size : 16" nps X 300 class.		
20 99067060	24" NPS X 300 CLASS SPECIFICATION SAME AS ITEM NO. 10.	15	NO
30 99067131	8" NPS X 300 CLASS, SPECIFICATION SAME AS ITEM NO. 10.	4	NO
40 99067132	4" NPS X 300 CLASS SPECIFICATION SAME AS ITEM NO.10.	10	NO

Standard Notes: 1.0 SCOPE : All valves shall be manufactured and supplied in accordance with the 22nd Edition January 2002 American Petroleum Institute (API) Specification 6D, with additions and modifications as indicated in the following sections of this specification.

2.0 REFERENCE DOCUMENTS:

2.1 Reference has also been made in this specification to the latest edition of the following codes, Standards and Specifications.

ASME B 31.3 - Process Piping.

ASME B31.4 - Pipeline Transportation System for Liquid Hydrocarbon and other liquids.

ASME B31.8 - Gas Transmission and Distribution Piping Systems

ASME B16.5 - Pipe Flanges and Flanged Fittings.

ASME B16.47 - Large Diameter Steel Flanges.

ASME B16.25 - Butt-welding Ends.

ASME B16.34 - Valves-Flanged, Threaded and Welding Ends.

API 1104 - Welding Pipeline and Related Facilities.

ASME Sec VIII/IX - Boiler and Pressure Vessel Code.

ASTM A - 370 - Standard Test Methods and Definitions for Mechanical Testing of Steel Products.

ASTM B 733 - Auto catalytic Nickel Phosphorous Coating on Metals.

MSS-SP-6 - Standard Finishes for Contact Faces of Pipe Flanges and Connecting-end Flanges of Valves and Connecting end Flanges of Valves and Fittings.

MSS-SP-44 - Steel Pipeline Flanges.

SSPC-VIS-1 - Steel Structures Painting Council Visual Standard

2.2 In case of conflict between the requirements of this specification, API 6D and the Codes, Standards and specifications referred in clause 2.1 above, the requirements of this specification shall govern.

3.0 MATERIALS:

3.1 Material for major components of the valves shall be as per specification mentioned. Other components shall be as per Manufacturer's standard, which shall be subject to approval by Purchaser.

3.2 For all such valves where Carbon Steel is used as ball material, the ball shall have 0.075 micrometers (.003 inches) thick Electroless Nickel Plating (ENP) as per ASTM B 733 with following classification : SC2, Type II, Class 2. The hardness of plating shall be minimum 50 RC.

4.0 DESIGN AND CONSTRUCTION:

4.1 Valve design shall meet the requirements of API specification 6D. The ASME Boiler & Pressure Vessel Code, Section VIII, Division 1 shall be used to design the valve body. Allowable stress requirements shall comply the provisions of ASME B31.3.

4.2 The manufacturer shall have valid license to use API monogram on valves manufactured as per API6D.

4.3 Valve shall be two piece, split body(double block) and valves above 150 mm NB shall have gear mounted/gear operated hand wheel.

4.4 Valves shall be full bore suitable for the passage of all types of pipeline scraper and inspection pigs on regular basis without casing damage to either the valve component or the pig. The full bore valve shall provide an unobstructed profile for pigging operations in either direction. Full bore valves shall be designed to minimize accumulation of debris in the seat ring region to ensure that valve movement is not impeded.

4.5 Ball mounting shall be trunion only. Valve design shall minimize the possibility of debris ingress into the trunnion as far as practicable.

4.6 Valve seats shall be with primary metal to metal contact. O-rings or other seals if used for drip tight sealing shall be encased in a suitable groove in such a manner that it can not be removed from seat ring and there is not extrusion during opening or closing operation at maximum differential pressure. The seat rings shall be so designed as to ensure sealing at low as well as high differential pressure.

4.7 Full Bore valves nominal valve size 250 mm (10") & above, shall have provision for secondary sealant injection under full line pressure for seat and stem seals. All sealant injection connections shall be provided with an internal non-return valve. Valve design shall have a provision to replace the sealant injection fitting under full line pressure.

4.8 Valves shall be provided with vent and drain connections.

4.9 Valve design shall ensure repair of stem seals / packing under full line pressure.

4.10 Valve shall be provided with ball position indicator and stops of rugged construction at the fully open and fully closed positions.

4.11 Full Bore valve of nominal valve size, DN > 200 mm (8") and shall be equipped with support foot and lifting lugs. Tapped holes and eyebolts shall not be used for lifting lugs. Height of support foot shall be kept minimum.

4.12 Valves shall have locking devices to lock the valve either in full open (LO) or full close (LC) positions. Locking devices shall be permanently attached to the valve operator and shall not interfere with operation of the valve.

4.13 Valves shall be suitable for either buried or above ground installation as indicated in Valve Data Sheet.

4.14 Flanged end shall have dimensions as per ASME B16.5 for valve sizes upto DN 600 mm (24#) excluding DN 550 mm (22") and as per MSS-SP-44/ASME B 16.47 Series A for valve sizes DN 550 mm (22") AND FOR dn 650 mm (26 inches) and above. Flange face shall be raised face.

4.15 Butt weld end preparation shall be as per ASME B16.25.

4.16 Design of weld end valves shall be such that during field welding operation, soft seals are not liable to be damaged.

5.0 INSPECTION AND TESTS: The manufacturer shall perform all inspection and tests as per requirement of API 6D specifications and relevant codes, prior to shipment, at his works. Such inspection and tests shall be, but not limited to the following.

5.1 All valves shall be visually inspected.

5.2 Dimension check on all valve shall be carried out as per the purchaser approved drawings

5.3 All valves of 300 class and above shall be 100% radiographed.

Radiographic testing of castings on 100% of critical areas in accordance with ASME B 16.34.

Radiographic testing of castings on 100% of accessible areas.

Examination shall be carried out in accordance with ASME Section V, article 22. The sensitivity , as indicated by wire penetrometers, shall be 1.5% or better.

Acceptance shall be in accordance with ASME Sec VIII Div-1, appendix 7.

5.4 Cavity relief testing should be carried out for trunnion mounted ball valves.

6.0 PAINTING, MARKING AND SHIPMENT

6.1 Valve surface shall be thoroughly cleaned, freed from rust and grease and applied with sufficient coats of corrosion resistant paint. Surface preparation shall be carried out by shot blasting to SP-6 in accordance with Steel Structures Painting Council - Visual Standard SSPC-VIS-1#. For the valves to be installed underground, the external surfaces of buried portion of the valve shall be painted with three coats of suitable coal tar epoxy resin with a minimum dry film thickness of 300 microns.

6.2 All valves shall be marked as per API 6D. The unit of marking shall be metric except nominal diameter, which shall be in inches.

6.3 Packing and shipping instructions shall be as per API-6D.

6.4 On packages, following shall be marked legibly with suitable marking ink.

- a) Order Number
- b) Manufacturer's Name
- c) Valve size and rating
- d) Tag Number
- e) Serial Number

6.5 Valve ends shall be suitably protected to avoid any damage during transit. All threaded and machined surfaces subject to corrosion shall be well protected by a coat of grease or other suitable material. All valves shall be provided with suitable protectors for flange faces, securely attached to the valves. Bevel ends shall be protected with metallic or high impact plastic bevel protectors.

7.0 DOCUMENTS TO BE SUBMITTED DURING BID: The following documents are required to be submitted at the time of bidding

7.1 Valid API 6D certificate

7.2 Details sectional arrangement drawing showing all parts with reference numbers, materials specification.

7.3 Assembly drawing with detailed dimensions of bonnet, hand wheel stem, yoke etc. Drawing shall also indicate the number of turns of hand wheel (in case of gear operators) required for operating the valve from full open to full close position and the painting scheme. Complete dimensional details of support foot (where applicable) shall be indicated in these drawings.

NOTE : All valves of similar size, type and pressure rating will have same casting pattern, bonnet design, height and overall dimensions.

7.4 Point wise compliance of NIT requirements. Deviations from the NIT, if any must be highlighted with documentation.

7.5 Technical catalogue / literature of the valves.

7.6 Testing and quality control procedures / ITP / QAP.

7.7 Supplier of valves has to get drawings supplied against 7.3 above approved before carrying out fabrication of the valves, incase PO is placed on them.

9.0 SUBMISSION OF DOCUMENTS ALONG WITH SUPPLY OF VALVES. The manufacturer must submit the following along with the supply of the valves.

9.1 All test reports and certificates as required by API 6D specifications.

9.2 Mill test certificates relevant to the chemical analysis and mechanical properties of the materials used for the valve construction as per the relevant standards.

9.3 Test certificate of hydraulic test complete with records of timing and pressure of each test carried out.

9.4 TPI certified radiograph films of all the valves.

9.5 Above mentioned certificates shall be valid only when signed by Purchaser's Third party Inspection agency. Only those valves which have been certified by Purchaser's Third party Inspection agency shall be dispatched from Manufacturer's works.

Special Notes : 1. The items shall be brand new, unused & of prime quality. Bidders shall warrant (in the event of an order) that the product supplied will be free from all defects & fault in material, workmanship & manufacture and shall be in full conformity with ordered specifications. This clause shall be valid for 18 months from date of shipment / dispatch or 12 months from date of receipt of the items. Bidders must confirm the same while quoting.

2. The minimum FOB/FCA charges in case of partial order for reduced quantity/ items shall have to be indicated by the bidder. In case this is not indicated specifically, the charges quoted would be prorata calculated and the same will be binding on the bidder.

3. Third party Inspection : The valves shall be inspected, tested & certified by OIL approved Third Party Inspection (TPI) Agency viz M/s Lloyds/ M/s Bureau Veritas/ RITES/ M/s DNV/ M/s Tuboscope Vecto or M/s IRS only. Third Party Inspection charges to be quoted separately which

will be considered for bid evaluation. Quotation received without TPI charges will be loaded with the maximum TPI charges received against the tender at the time of commercial evaluation. The scope of third Party inspection will be as under:-

- a. To review heat number wise foundry certificates of castings and material certificates in order to ensure that the materials used are as per purchase order.
- b. To ensure that valve body castings are procured from foundries as approved by M/s EIL or M/s Lloyds only.
- c. To ensure that proper technique and procedure as per relevant API standard and Purchase Order are followed by the manufacturer.
- d. To ensure that different components of the valve conform to purchase order, API 6D specification and all referred standard, codes and specifications in point 2.0 above of the special terms and conditions.
- e. To ensure and check that valves are tested as per API 6D specifications
- f. To documents and issue all inspection certificates.
- g. To ensure that the valves inspected are fully embossed with API monogram and other markings as per API 6D specifications.
- h. To witness hydraulic, pneumatic test for the body and seat on each specified valve as per API 6D standards.
- i. To review and check the radiograph films of body and bonnet of all the valves of rating ANSI 300 Class and above. Certified radiography film shall be submitted along with the supplied valves.

4. Validity of the offers should be 120 days. (Please refer clause 1.2 of Section 'D' of MM/GLOBAL/01/2005). Bids with lesser validity shall be rejected.

5. Quotation must be submitted in **triplicate**.

6. The items covered by this tender shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. Indigenous bidder shall be eligible for Deemed Export Benefit against this purchase. Details of Deemed Export are furnished vide Addendum to MM/GLOBAL/01/2005 enclosed.

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Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	100123	PETROL VALVES S.R.L.	MILANO
2	100268	BREDA ENERGIA S P A	ITALY
3	100438	WEIR VALVES & CONTROLS UK LTD	
4	101815	CAMERON ITALY S.R.L	
5	200947	MICROFINISH VALVES PVT. LTD.	HUBLI
6	201889	VIRGO ENGINEERS LTD	KOLKATA
7	204820	LACIER INDUSTRIES	MUMBAI
8	205891	LARSEN & TOUBRO LIMITED	Kolkata