

COVER SHEET - PL 204/E

TRANSNET PIPELINES SPECIFICATION: BALL VALVE FOR PETROLEUM PRODUCT SERVICE

This cover sheet shall be completed by the purchaser/project manager and inserted in sequence into the specification.

3. VALVE REQUIREMENTS

ITEM	QTY	SIZE	ASME CLASS	BORE	END CONNECTION	OPERATION	CYCLE TIME	SUPPORT REQD.
				(F/R)	(FE/WE)	(ACT/HO)	(SEC)	(YES/NO)
1								
2								
3								
4								
5								
6								
7								
8								
9								

NOTES:

- | | |
|-------------------|---|
| 1. ITEM | Item Number |
| 2. QTY | Quantity of valves required. |
| 3. SIZE | Size of valve required in inches |
| 4. ASME CLASS | Pressure rating of valve |
| 5. BORE | F = Full Bore, R = Reduced Bore (Purchaser/Project Manager to state Bore Dimension) |
| 5. END CONNECTION | FE = Flanged End, WE = Weld End |
| 6. OPERATION | ACT = Actuator Operated, HO = Handwheel Operated |
| 7. CYCLE TIME | Time in seconds for the valve to complete one full cycle. Only applicable to Actuated Valves. |
| 8. SUPPORT REQD. | Yes = Support Ribs or Legs are required., No = valve supports are not required. |



TRANSNET
pipelines

**Specification,
Ball Valve for
Petroleum Product Service**

PL 204/E

March 2013

1. SCOPE

- 1.1 This specification covers Transnet Pipelines' requirements for ball valves, size 2" and greater for non-buried service.
- 1.2 The valve is to be suitable for installation in the horizontal, vertical or inclined position.
- 1.3 Operating temperature will not exceed 45°C.
- 1.4 This specification must be read in conjunction with Transnet Pipeline Specification PL2/Latest - General Specification - steel valves for petroleum product service.

2. TECHNICAL INFORMATION REQUIRED

- 2.1 Tenderers shall complete the relevant questionnaire in full and shall indicate whether their offer complies with each item of the requirements.
 - 2.1.1 Should there be insufficient space for furnishing full details; the tenderer shall provide the additional details in a covering letter. The details shall be numbered in accordance with the applicable clause specified in section 4 of this specification.
- 2.2 Offers will not be considered unless full particulars and sufficient literature is provided at the tendering stage to enable Transnet Pipelines to assess each offer properly.

3. VALVE REQUIREMENTS

Table in cover sheet to be completed by Purchaser/Project Manager and inserted into the specification at this point.

4. SPECIFICATION

PARAGRAPH	DESCRIPTION	DETAILS OF OFFER
4.1	Valve	
4.1.1	Shall be a trunnion mounted, three-piece split body type of bolted body construction or welded body with bolted top entry design.	
4.1.2	Shall comply with API SPEC 6D - Latest	
4.1.3	Shall be of fire safe design to API 6FA / BS 6755 Part 2 (ISO 10497 : 2010)	
4.1.4	Material shall comply with NACE MR01-75	
4.1.5	Shall have "DOUBLE BLOCK AND BLEED" Facility ie: It shall be possible to check valve seal integrity in both full open and full closed position.	
4.1.5.1	Bleed system shall be fitted with a wrench operated bleed nipple. Detail to be shown on valve general arrangement or separate drawing.	
4.1.6	Full Bore Valve shall be able to pass pigs (scrapers) and spheres	
4.2	Stem & Trunnion	
4.2.1	Shall be of adequate proportions to safely resist all applied forces at full pressure differential conditions.	
4.2.2	Shall be suitably protected against corrosion and erosion.	
4.2.3	Tenderer to state:	
4.2.3.1	Coating applied	
4.2.3.2	Thickness of coating in μm	
4.2.3.3	Coating Standard Adhered to	
4.2.4	Shall be separate from ball and be of anti blow-out design.	
4.2.5	Valve shall have triple barrier stem seals.	
4.2.6	Stem shall have fitting for emergency sealant installed.	
4.3	Seats	
4.3.1	Shall be of the floating, spring-loaded type.	
4.3.2.1	Tenderer to state:	
4.3.2.2	Coating applied	
4.3.2.3	Thickness of coating in μm	
4.3.2.3	Coating Standard Adhered to	

PARAGRAPH	DESCRIPTION	DETAILS OF OFFER
4.3.3	Shall be suitably protected against corrosion, erosion and accumulation of solid deposits.	
4.3.4	Seats shall be spring energised complete with soft seal arrangement (springs are required to keep seat in constant contact with ball to ensure a positive seal at low differential pressure).	
4.3.5	Tenderer to state:	
4.3.5.1	Spring type (Helical / Belleville etc)	
4.3.5.2	Spring material and grade	
4.3.5.3	Soft seal material and grade	
4.3.6	Seats shall provide a double sealing barrier in both directions (Double Piston Effect) - body pressure relief valve is a requirement for this design.	
4.3.7	Seats shall have a built in emergency sealant injection fitting of the giant button head type.	
4.4	Ball	
4.4.1	Shall be suitably coated to protect against corrosion and erosion.	
4.4.2	Tenderer to state:	
4.4.2.1	Coating applied	
4.4.2.2	Thickness of coating in μm	
4.4.2.3	Coating Standard Adhered to	
4.5	O-Rings & Gaskets	
4.5.1	O-rings and gasket material to be physically and chemically resistant to process media as listed in paragraph 2 of PL 2/ Latest.	
4.5.1.1	Tenderer to state o-ring material and grade	
4.5.1.2	Tenderer to state gasket material and grade	
4.6	Valve Torque Requirements	
4.6.1	Tenderer to state	
4.6.2	Valve torque requirements at full differential pressure in Nm	
4.6.3	Maximum seating and unseating torque in Nm	
4.6.4	Stem shear torque in Nm	

PARAGRAPH	DESCRIPTION	DETAILS OF OFFER
4.7	Actuation	
4.7.1	Hand operated valves 4" and larger are to be gearbox operated.	
4.7.2.	All actuated valves are to be fitted with a quarter turn gearbox.	
4.7.3	Gearboxes to comply with Transnet Pipelines Specification PL 219/Latest	
4.7.4	Actuators to comply with Transnet Pipelines Specification PL 619/Latest and are to be supplied with data logger installed.	

I confirm that all information furnished is correct and complies with Transnet Pipelines Specification PL 204/E

Name: _____

Designation: _____

Company: _____

Signature: _____

Date: _____