SCOPE OF SERVICE

SUPPLY AND DELIVERY OF PRESSURE REDUCING / SOLENOID ACTIVATED (24V/DC) C/W CHECK VALVE FEATURE FOR IVW CORROSION MITIGATION PROJECT

REVISION 03

CONTENT

1 TRANSNET PIPELINES BACKGROUND

Transnet Pipelines (TPL), a business unit of Transnet, provides strategic pipeline infrastructure, with associated world class pipeline logistics, for the petroleum and gas industries of South Africa. This is done in partnership with our customers and stakeholders thereby assuring the African sustainable development imperative.

Established in 1965, Transnet Pipelines owns, maintains, and operates a network of some 3114 km of high-pressure petroleum and gas pipelines. Transnet Pipelines transports an average of 17 billion litres of liquid fuels per annum. This includes diesel, unleaded petrol, aviation turbine fuel and crude oil.

2 SCOPE OF SERVICE

2.1 EMPLOYER REQUIREMENTS

The Supplier shall be responsible for the works: supply of valves for Island view terminal.

Technical Specifications:

2.2 TPL valve datasheet

Table 1: General valve specification

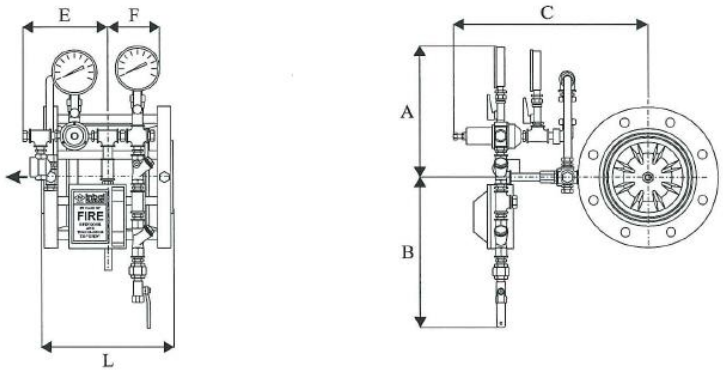
Feature	Description
Valve Type	Hydraulic, Pressure Reducing / Solenoid Activated (24V/DC) c/w Check Valve Feature
Application	Fire protection system using seawater & foam premix
Design Pressure	21 bar (300 psi)
Minimum Operating Pressure	1.5 bar (20 psi)
Maximum Operating Temperature	+65°C
Valve Coating	Epoxy (0.3 mm thick) with polyurethane topcoat for corrosion resistance
Compliance	FM / UL Approved
Installation Orientation	Suitable for both vertical and horizontal
Operation	Soft closure, no springs, surge-free operation
Actuation Compatibility	Electric, pneumatic, and hydraulic

Construction (N.M.M.P.)	No moving mechanical parts
Valve Body Material	Carbon Steel, Epoxy coated
End Connection	Flanged, ANSI 150#RF
Ends Material	Ductile Iron (ASTM A536 65-45-12)
Sleeve Material	SMR5 Elastomer, reinforced with Polyester and Kevlar

Table 2: Valve Sizes & Operating Conditions

Size	**Qty**	**Inlet Pressure (kPa)**	**Set Pressure (kPa)**	**Flow Rate (L/min)**	**Control Type**
6"	2	1500	500	4800	Pressure Reducing / Solenoid Activated (24V/DC)
12"	1	1500	—	18000	Solenoid Activated (24V/DC) c/w Check Valve Feature
10"	1	1500	—	10200	Solenoid Activated (24V/DC) c/w Check Valve Feature
4"	1	1500	—	1200	Solenoid Activated (24V/DC) c/w Check Valve Feature

2.3 TYPICAL GA DRAWING FOR THE VALVE



SIZE	A	B	C	E	F	L	Weight*
2"	11 ½"	16 ⅜"	17 ⅛"	8 ⅜"	5 ⅛"	6 ¾"	40 lbs
50mm	290	415	435	220	130	171	18.5 kg
2 ½"	11 ½"	16 ⅜"	17 ⅛"	8 ⅜"	5 ⅛"	6 ¾"	42 lbs
65mm	290	415	435	220	130	171	19.5 kg
3"	11 ½"	16 ⅜"	17 ⅛"	8 ⅜"	5 ⅛"	6 ⅜"	42 lbs
80mm	290	415	435	220	130	161	19.5 kg
4"	11 ½"	16 ⅜"	17 ⅜"	8 ⅜"	5 ⅛"	7 ½"	51 lbs
100mm	290	415	448	220	130	190	23.5 kg
6"	11 ½"	16 ⅜"	18 ⅜"	8 ⅜"	5 ⅛"	9 ¾"	84 lbs
150mm	290	415	478	220	130	246	38.5 kg
8"	11 ½"	16 ⅜"	20"	8 ⅜"	5 ⅛"	12 ⅛"	128 lbs
200mm	290	415	507	220	130	308	58.5 kg
10"	11 ½"	16 ⅜"	21"	8 ⅜"	5 ⅛"	14 ⅜"	206 lbs
250mm	290	415	532	220	130	363	94.5 kg
12"	11 ½"	16 ⅜"	21 ½"	8 ⅜"	5 ⅛"	17 ⅜"	263 lbs
300mm	290	415	548	220	130	447	120.5 kg

** Refer to Standard Material Valve.*

Figure 1: Typical GA drawing for the valves

2.4 MANDATORY RETURNABLES DOCUMENTATION

- Manufacturer's datasheet
- Material certificates (EN 10204 3.1)
- Coating specification according to ISO 12944-6-C5-M compliance
- Operation and maintenance manual
- Performance curves
- Test certificate (Visual inspection, hydrostatic test, and functional test(s))
- Certificate of Conformity
- Fire protection system approval (UL/FM) for applicable valves.
- Warranty details
- Delivery lead time
- Quote Validity (minimum 30 days)
- Incoterm and delivery location (Transnet Pipelines Workshop, Pinetown)

2.5 DELIVERY ADDRESS:

Valves are to be delivered to: Transnet Pipelines Workshop, 10b Kirk Road, Pinetown. Kwa-Zulu Natal. 3610.