

TD-106. - 2 Rev. No. : 05	Form No. :		PRODUCT STANDARD HYDERABAD GT ENGINEERING		Prod. Std. No. : GT54717
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SS MANIFOLD ASSEMBLY

FOR WATER INJECTION PURGE

- DESCRIPTION**
This SS manifold assembly is part of the high pressure water injection purge system and provides a convenient means of connecting water injection and water injection purge lines to the single water injection inlet on the breach loaded fuel nozzle. The SS manifold shall be compact and light weight.
- OPERATION**
The path of the flow through the manifold is described as follows (Refer Figure - 1). Water from the water injection header enters the manifold and is ported to the check valve inlet. Second supply (purge air) from the water injection purge air header enters the manifold and is ported to the second check valve. The outlets of the two check valves are combined to a single passage and a single outlet provided on the manifold.
- MATERIAL**
Material shall be ASTM A240 TP 304L (Stainless steel).
- SYSTEM COMPONENTS**
All the valves coming in the manifold assembly should be of M/s Vickers or equivalent (subjected to BHEL approval) make only.
Maximum pressure drop allowed in the manifold is ½ kg/cm².
The manifold & its components shall be designed for 200⁰ C temperature.

WATER INJECTION CHECK VALVE
Normal Flow : 1180 kg/hr
Working Pressure : 42 kg/cm²
Crack Pressure : 7 kg/cm²

PURGE AIR CHECK VALVE
Normal Flow : 4.1 m³/hr at 146⁰ C and 17.5 kg/cm²
Working Pressure : 17.5 kg/cm²
Crack Pressure : ½ kg/cm²

All these components are to be assembled on a manifold with internal drilling for passages and with required inlet and outlet connections.

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5. DOCUMENTATION

- a. Schematic, manifold assembly drawings with manifold block dimensions and Quality plan are to be submitted to BHEL approval prior to manufacture.
- b. 4 copies of Test Certificates to be enclosed with each consignment.
- c. 15 copies of O&M manuals with catalogues of components to be enclosed for each consignment.
- d. 4 copies of Guarantee certificates to be sent for each consignment.

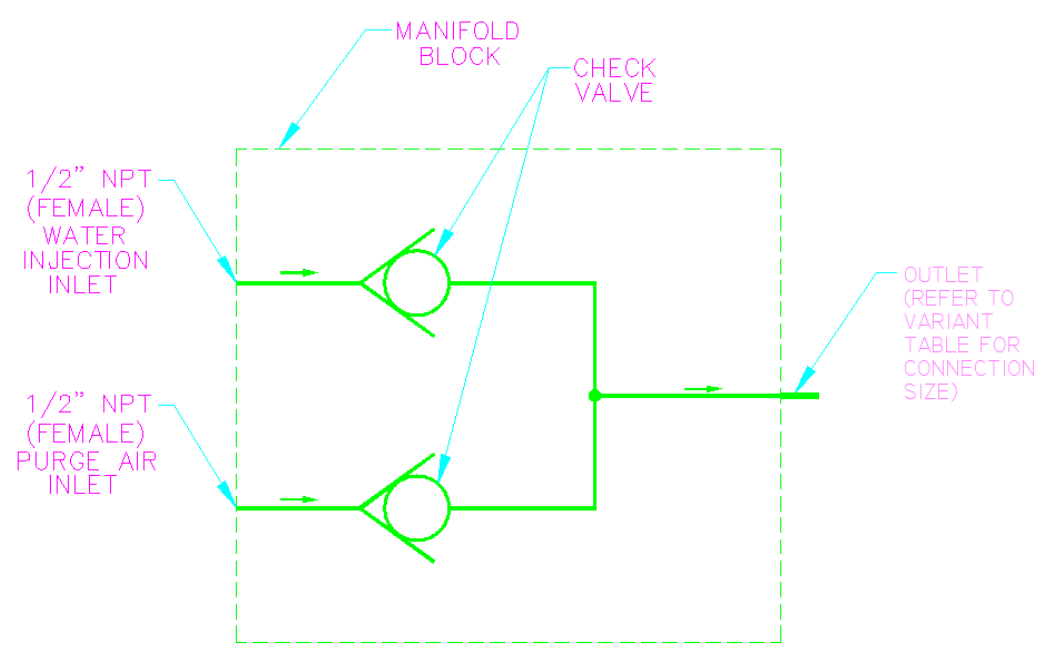


FIGURE-1
Manifold shall be compact and light weight (less than 1 kg)

RESTRICTED USE



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PRODUCT STANDARD

HYDERABAD

GT ENGINEERING

Prod. Std. No. : GT54717

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VARIANT TABLE

BHEL VAR No.	DESCRIPTION	BHEL MATE- RIAL CODE	WEIG HT (kg)	REMARKS																				
01	MANIFOLD ASSEMBLY Fr-6	GT9754717010	1.0	- For Fr-6 GT. - Outlet connection for this variant shall be 7/8” – 16UN.																				
02	O-rings for SUN make check valves (CXDA-XAN/AP & CXDA- XFN/AP) <table><tr><th>Sl. No.</th><th>Outer diameter (mm)</th><th>Thick- ness (mm)</th><th>Quantity required</th></tr><tr><td>1</td><td>20</td><td>1.45</td><td>2 Nos</td></tr><tr><td>2</td><td>18</td><td>1.30</td><td>2 Nos</td></tr><tr><td>3</td><td>20</td><td>1.80</td><td>2 Nos</td></tr><tr><td>4</td><td>18</td><td>1.75</td><td>2 Nos</td></tr></table>	Sl. No.	Outer diameter (mm)	Thick- ness (mm)	Quantity required	1	20	1.45	2 Nos	2	18	1.30	2 Nos	3	20	1.80	2 Nos	4	18	1.75	2 Nos	GT9754717028	0.2	- The O-rings shall be of PTFE make or higher to withstand temperatures upto 200 ⁰ C. - The O-rings against this variant shall be supplied as a set with quantities specified.
Sl. No.	Outer diameter (mm)	Thick- ness (mm)	Quantity required																					
1	20	1.45	2 Nos																					
2	18	1.30	2 Nos																					
3	20	1.80	2 Nos																					
4	18	1.75	2 Nos																					

