

PSGSG/ 2017- 18/002	Product Specifications		Drg. No.	RD DG 4 35 0517 0813
	For		Date	01.06.2022
	PT Reducer assembly for 245kV GSM		Product	GSM245
1.0	Application: The stainless steel PT reducer assembly to Drawing. No. RD DG 4 35 0517 0813 is used for gas filled applications. The gas pressure in this metal enclosure is maintained at 0.5-0.7 MPa. The PT reducer assembly shall meet following Specifications.			
2.0	Drawings : PT Reducer Assembly : RDDG435-0517-0813 Component/Part Drawings: RD DG 4 35-0517-0814 RD DG 4 35-0517-0815 RD DG 4 35-0517-0013 RD DG 4 35-0517-0059 RD DG 4 35-0517-0812 RD DG 4 35-0517-0080 RD DG 4 35-0517-0818 RD DG 4 35-0517-0817			
3.0	SPECIFICATIONS:			
3.1	Material: Low Carbon Austenitic stainless steel confirming to AISI-304L.			
3.2	Standard seamless or ERW (straight/ spiral) tubular sections shall be used for construction, wherever applicable in design. The pipe shall be pulled out using hydraulic or equivalent equipment as per desired sizes. Pull out shall be avoided on pipe welded joints.			
3.3	Drawn profiles, to size, only shall be used for direct welding with the flanges (To be machined to the drawing only after welding). No smithy is allowed for formation/ matching of profiles in view of defect inception. Pipe and flanges shall be MIG/TIG welded with suitable SS electrode.			
3.4	Earthing plate, which provides place for earthing, shall compulsorily be made/welded at suitable place on enclosure in case not specified in drawing.			
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3.5	The welded sections shall be sized as per drawing and verified /tested using Dye Penetration (D.P.) technique at all stages of welding. Inside edges/weld shall be fused to obtain near smooth weld surface		
3.6	The flanges shall be manufactured to drawings after welding only. The flanges shall be machined as per instructions and maintaining parallelism of faces and Perpendicularity as prescribed. To ensure parallelity, it is must to machine the components after welding all the sections as prescribed. The flange sealing surfaces shall be polished to RA 0.6 or better and the bolting holes shall be machined fine, using CNC milling, and shall have uniform chamfer. The tolerances, wherever not mentioned in the drawing, shall be within 0.1°. Any sharp corners shall be removed as per the drawing. Wherever not specified in the drawing, a chamfer of 0.5x45° shall be provided at the sharp corners and edges.		
3.7	All flanges of different dimensions shall be welded by maintaining parallelity as per limits of manufacturing drawing.		
3.8	Weld splatter, if any, shall be removed by chipping or grinding on completion of the weld. Particular care should be taken to avoid any splatter on the inside of the chamber, at the joint or other locations.		
3.9	Dye penetration shall be carried out as part of PDI. Report shall be generated and submitted to BHEL.		
3.10	The tested assembly should be cleaned, degreased and prepared for pressure test. The assembly shall be tested at 8.5 bar pressure for 4 hours and pressure drop shall be recorded and communicated to BHEL. The leak shall be rectified and the test repeated to satisfaction. Components indicating drop in pressure during this test will not be accepted. The arrangement shall be kept at 15 bar for 15 minutes prior to this test to verify pressure withstanding capabilities specified in drawing.		
3.11	The supplier shall stress relieve tested component to ensure zero post supply deformation.		
3.12	Stress relieved component shall be electro-polished on the inside surface using moderate current densities.		
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3.13	The assemblies further shall be sandblasted on the outer surface and powder coated (> 50 Micron) as specified in drawing. During this operation all flanges shall be masked at the sealing surfaces and at the rim/collar.		
3.14	Supplier has to give Minimum 7 days intimation for PDI. Following tests shall be carried out as part of PDI, in presence of BHEL inspector or through virtual mode, after complete welding. <ol style="list-style-type: none"> 1. Dye penetration test 2. Dimension test 3. Pressure drop test as per clause 3.10. 		
3.15	The accepted component shall be packed in wooden boxes with suitable PVC covers on the flanges to prevent transit damages. A thick polyethylene cover shall be used to seal to component from ingress of moisture and water. For transit time higher than 2-weeks, adequate quantity of moisture absorbent shall also be placed with the component.		
4.0	Following certificates shall be furnished for acceptance of the component: <ol style="list-style-type: none"> 3.16.1 Material source certificate, 3.16.2 Material test certificate 3.16.3 Stage wise DP tests 3.16.4 Pressure drop test and pressure withstand test report, 3.16.5 Electro-polishing schedule. 3.16.6 Powder coating schedule A certified copy of above documents shall be sent along with the delivery note.		
5.0	The components shall be guaranteed against all manufacturing defects.		
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