

NOTES FOR VENDOR FABRICATION

DUCT SPOOLING_EIL-IOCL HALDIA

01. The scope contains supplying of duct/pipe spools, fittings and components contained in the enclosed 69 drawings (List enclosed).
02. Items marked in cloud in the enclosed isometrics are not in piping vendor scope.
03. Minimum length of any pipe/duct spool shall not be less than 2 m unless otherwise specified in the drawing.
04. Maximum length of pipe/duct spool shall not be more than 12 m.
05. All pipe/duct spools connecting with items other than pipe/duct spools/fittings shall have 200 mm excess length.
06. All butt welded bevel ends shall be in accordance with ASME B16.25. Edge preparation details as follows.

Material	Edge preparation details
Carbon steel	Figure 2 Type A (EP drg attached)
Alloy steel & Stainless steel	Figure 4 (EP drg attached)

Weld end dia to be considered as (OD-2xt).

7. Clad plate to be welded to main pipe for all saddle support locations at shop.
8. Type of branch connection shall be as indicated in **Annexure-I**.
9. All material specification and design standard shall be as indicated in the drawing.
10. In place of specification SA283GrC, specification SA516Gr70 is also acceptable.
11. Up to 14" size, pipes & fittings shall be of seamless construction and fittings shall be as per ASME B16.9. For pipe size 16" and above, welded pipes, mitre bends/fabricated reducers can be used. Thickness of fittings shall not be less than matching pipe/duct thickness.
12. Dimensions and construction of mitre bend shall be as per **Annexure-II**.
13. Allowable tolerances for fabrication of steel parts shall be as specified in **Annexure-III**.
14. Selection of welding electrode shall be as indicated in **Annexure-IV**.
15. All pressure bearing and structural steel welding must be full penetration butt/fillet welds.
16. Components like half coupling, nipple, cap, plug etc. shall be as per **Annexure-V**.
17. For plate formed pipes up to 28", only one longitudinal seam weld is permitted. For plate formed pipes 30" and above up to 56", two longitudinal seam welds are permitted and beyond that three longitudinal seam welds are permitted. Angle between any two consecutive longitudinal seam welds shall not be less than 15°.
18. Branch openings/attachments shall not fall on any weld seam.
19. Socket welded and weld neck flanges up to size 3" are as per ASME B16.5. All slip on weld and blind flanges up to 14" shall also be as per ASME B16.5. Flanges size 16" and above are as per **Annexure-VI**.
20. For all Carbon steel, Alloy steel and Stainless steel piping, OD and thickness shall be as per **Annexure-VII**.
21. Square duct 64"x28", 6 mm thick, SA283GrC and square flange 64"x28", SA283GrC to be manufactured as per **Annexure-VIII**.
22. Mixer plates SPE-107, SPE-114 and SPE-115 to be manufacture as per **Annexure-IX**.
23. 2nd process gas cooler outlet duct to be manufacture as per **Annexure-X**.
24. Mandatory spare pipe of all sizes, material and thickness shall be equal to 10% of its total length (minimum spare length shall be 1 m).
25. Suitable arrangements such as Bracings/Spider arrgt. shall be provided in piping /duct spools, in order to avoid damage during loading/unloading and during transportation.