INTERPLANT STANDARD - STEEL INDUSTRY		
IPSS	**PROCEDURE FOR INSTALLATION OF STEAM TRAPS**	**IPSS:1-06-037-17 (First Revision)**
	Corresponding IS does not exist	**IPSS:1-06-037-01**

0. **FOREWORD**

0.1 This Inter Plant Standard prepared by the Standards Committee on Pipes, Fittings, Valves and Piping Layout, IPSS 1:6 with the active participation of the representatives of all the steel plants, reputed consultants, was adopted in March 2001 and first revised in July 2017.

0.2 Interplant Standards for steel industry primarily aim at achieving rationalization and unification of parts and sub-assemblies used in steel plant equipment and accessories, and provide guidance in indenting stores or equipment for existing or new installations by individual steel plants. For exercising effective control on inventories, it is advisable to adopt procedure for installation as mentioned in this standard for the purpose of company standards of individual steel plants. It is not desirable to make deviations in technical requirements.

1. SCOPE

1.1 This interplant standard lays down the procedure for installation of steam trap for steam pipe lines ranging nominal pipe diameter from 12mm to 600 mm.

2. DESIGNATION - The different process steam lines shall be designated as follows :

2.1 Main lines –DN 50 –DN 600 (2” to 24”) nominal pipe diameter.

2.2 Steam purging lines –DN 25 to DN 100(1” to 4”) nominal pipe diameter

2.3 Tracer lines – DN 15 to DN 32 (0.5” to 1.25”) nominal pipe diameter.

3. GENERAL REQUIREMENTS FOR INSTALLATION

3.1 The steam lines shall have condensate collecting pockets at every 50 to 60 meter length, and at all low points from which suitable discharge lines shall be taken up to the trap station.

3.2 The traps shall be provided with in-built strainer. Where this provision cannot be made, a separate strainer shall be fitted at the steam trap inlet line.

3.3 The end connection of steam traps preferably shall be B.S.P. Thread. However end connection can be flanged/welded type depending on site requirements.

3.4 The inverted bucket trap shall be provided with a check valve on the inlet side when used on super-heated steam line.

3.5 Minimum 2 Nos. of clamp supports shall be provided near the trap assembly to avoid any vibration.

3.6 Discharge condensate shall be led to drain system of shops/away from thorough fare in shops or from frequent movement area.

3.7 In case traps are connected in system having condensate recovery system, then the back pressure/differential pressure shall be designed to meet the system requirement. Such trap shall have isolation valves (on upstream and down stream), by-pass globe valves for proper operation & maintenance.

3.8 Installation position of Inverted Bucket type trap shall be vertical having inlet & outlet from bottom and top respectively. The thermodynamic trap shall be installed in horizontal position only.

3.9 The main/branch header and inlet lines to traps shall be flushed properly before final connection to traps.

4. INSTALLATION

4.1 The steam traps shall be connected to the condensate discharge line with a slope of 1:5 as described in the Figures 1, 2 & 3.

4.2 Figures 1, 2 & 3 show typical details of steam trap station.

4.3 Inverted bucket steam traps shall be suitably primed with water before being installed in condensate discharge line and subsequently as and when required.

4.4 Inverted bucket steam traps shall have attachment for priming with water. The same shall be checked regularly and priming done for proper operation.

4.5 Discharge of the trap & by pass line shall be sufficiently away from the structures and the operating valves.

5. REFERENCES

IPSS:1-06-039-01 “Specification for steam trap and guideline for its selection”.

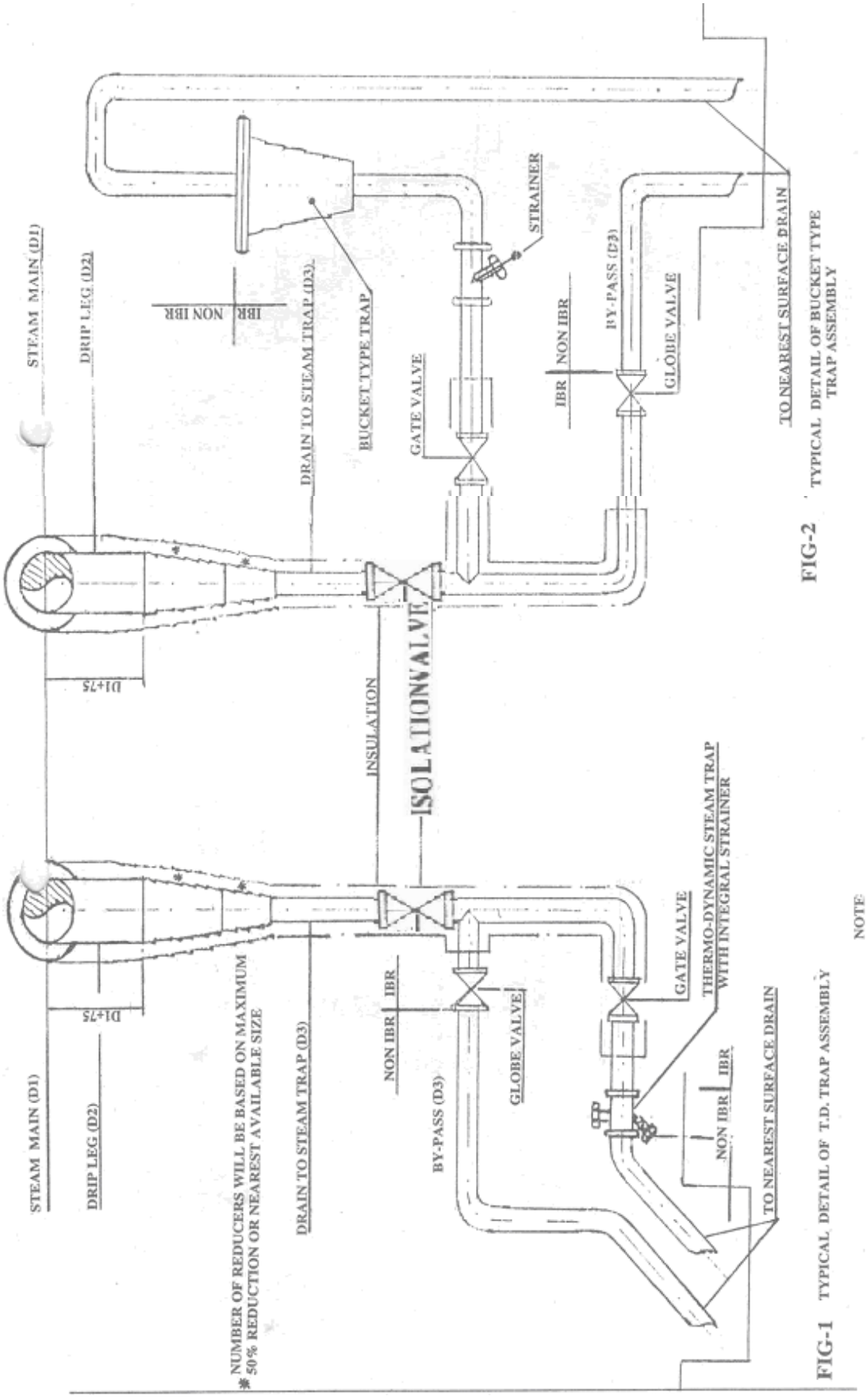

FIG-1 TYPICAL DETAIL OF T.D. TRAP ASSEMBLY

FIG-2 TYPICAL DETAIL OF BUCKET TYPE TRAP ASSEMBLY

NOTE
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

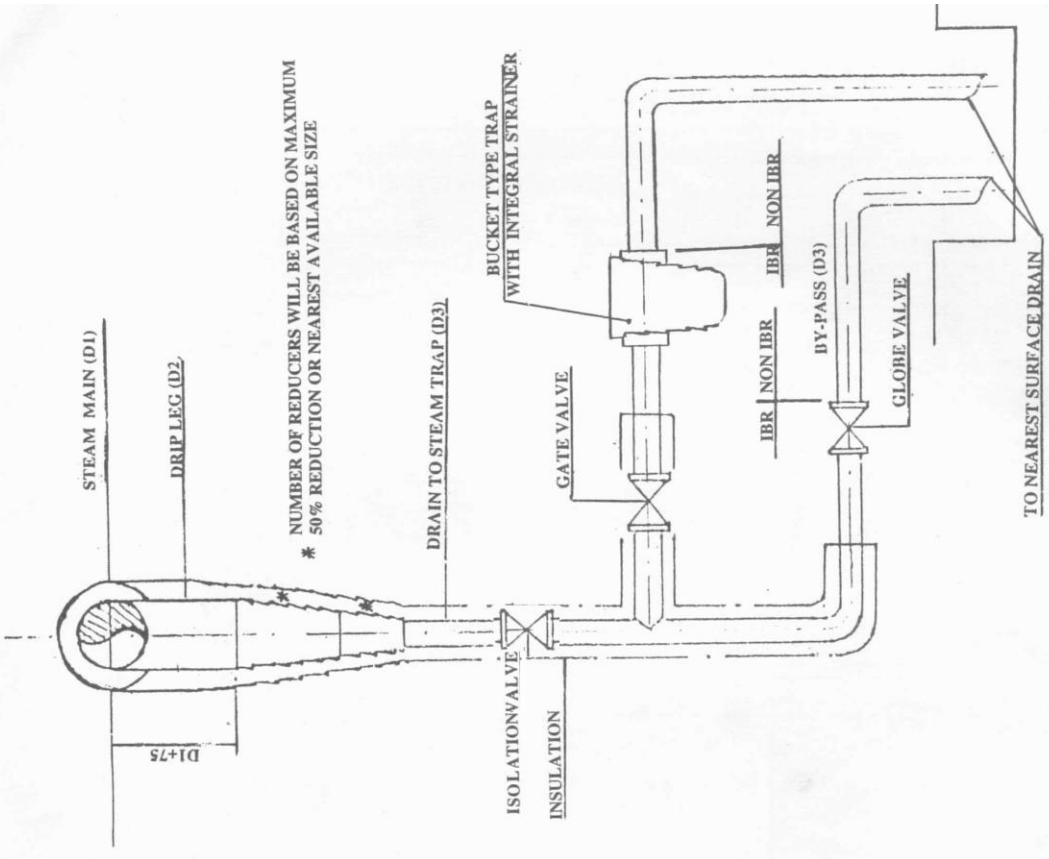

FIG-3 TYPICAL DETAIL OF BUCKET TYPE TRAP ASSEMBLY

NOTE:

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS

DETAILS OF DIMENSIONS IN mm
FOR FIGURES 1 TO 3

DN OF STEAM MAIN	DN OF DRIP LEG	DN OF DRAIN
D1	D2	D3
15 TO 50	SAME AS DN OF STEAM MAIN	15
65 TO 200		20
250 TO 600		25