INTERPLANT STANDARD IN STEEL INDUSTRY		
IPSS	**SPECIFICATION FOR STRAINER ELEMENTS FOR OIL HYDRAULIC SYSTEM**	**IPSS:1-02-056-18** (First Revision)
	CORRESPONDING I S DOES NOT EXIST	Formerly: IPSS:1-02-056-95

0. FOREWORD

0.1 Interplant standardization in steel industry has been initiated under the aegis of the Indian Standards Institution (ISI) and the Steel Authority of India Limited (SAIL). This Interplant Standard has been prepared by the Standards Committee on Basic Standards and Hydraulic, Pneumatic and Lubricating equipment, IPSS 1:2 with the active participation of the representatives of all the steel plants and leading consultants and was first adopted in December, 1995. Thereafter standard was revised in January, 2018.

0.2 Interplant Standards for steel industry primarily aim at achieving rationalization and unification of parts and assemblies used in steel plant equipment and provide guidance in indenting stores for existing equipment (or while placing orders for additional requirements) by individual steel plants. For exercising effective control on inventories, it is advisable to select a fewer number of sizes/ types from those mentioned in this standard. These limited sizes/ types can be adopted as Plant Standards for an individual steel plant. It is not desirable to make deviations in technical requirements.

1. SCOPE

1.1 This Interplant Standard covers the requirement of strainer elements used in small capacity hydraulic pump suction.

1.2 The strainer element covered in this standard shall be installed inside the hydraulic tank, immerged under oil.

2. TECHNICAL REQUIREMENTS

2.1 The strainer element shall be cylindrical in shape with oil flow passing from outside to inside.

2.2 The strainer element shall be a wire gauge mesh supported by an inner element of suitable thickness with perforation and suitable end caps shall be provided at both ends.

2.3 Suitable pipe threads are to be provided on one end to thread on to the suction piping of the pump and thread side end cap shall have a hexagonal step to facilitate screwing on to the pipe.

2.4 The strainer element shall able to withstand a temperature of 120 Deg C maximum.

2.5 Strainer element shall be useful for all grades of hydraulic oil in the viscosity range of ISO VG 32 – 100 as per IPSS: 1-09-002 (Latest).

2.6 The filtration degree of the oil shall be of the order of 125 microns.

2.7 The outline dimensions and the capacities shall be as given in Table – 1 (read along with Fig. – 1).

3. MATERIAL OF CONSTRUCTION

3.1 Strainer screen shall be made of stainless steel material. In case phosphor Bronze material is needed, it shall be mentioned while ordering.

3.2 Strainer support and end cap shall be made of aluminum.

4. DESIGNATION

A strainer element having thread size 1”BSP (based on IS 554: 1999) shall be designated as:

SE25 IPSS: 1-02-056-18.

5. WORKMANSHIP

The strainer elements shall be free from defects and the gauge element shall be uniform and the circumference shall not have any depressions.

6. MARKING

The strainer element shall be legibly marked on the closed end with the following:

a. Manufacturers name/ trade mark,

b. IPSS designation with the thread size.

TABLE 1

STRAINER ELEMENTS FOR HYDRAULIC SYSTEM

Designation	Flow Rate Lit/ Min	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Thread H	Size A/f
SE 25	45	127	51	62	65	12	12	160	1” BSP	46
SE 40	90	152	80	86	95	16	16	210	1.5” BSP	70
SE 50	180	275	80	86	96	16	16	315	2” BSP	70

Note :

(a) The dimensions A, B, C, D, E, F & G are given for guidance purpose only. However actual dimensions should not exceed the values given in the Table - 1.

(b) For fire resistant fluids, flow rate should be assumed to be 75% of the flow rate mentioned in the Table – 1.

(c) The dimensions H and A / f are important for installation of strainer element.

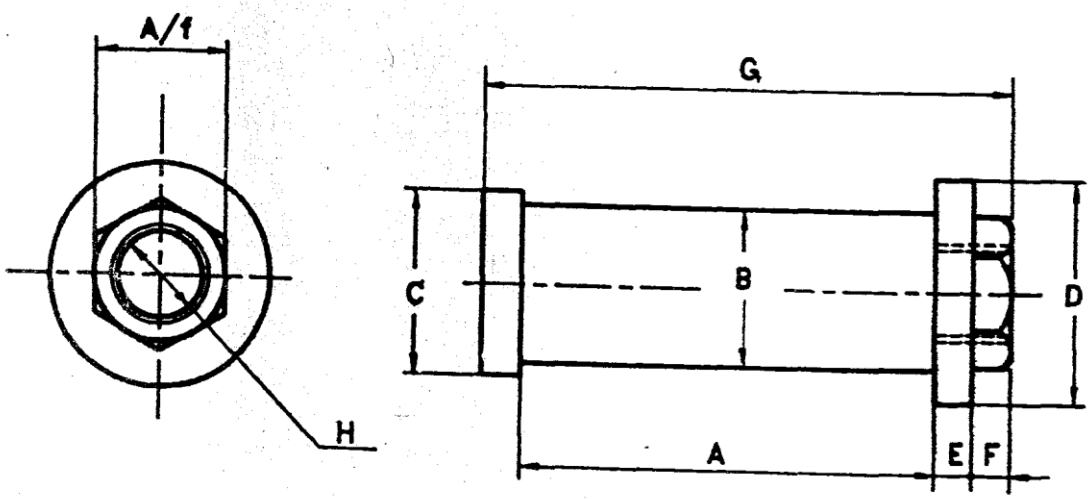

FIGURE - 1