


INTERPLANT STANDARD IN STEEL INDUSTRY		
 IPSS	<b>SPECIFICATION FOR PNEUMATICALLY OPERATED SUMP PUMP</b>	<b>IPSS:1-02-048-18</b> (First Revision)
	CORRESPONDING INDIAN STANDARD DOES NOT EXIST	Formerly: IPSS:1-02-048-89

## 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 February, 1989. 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 portable pneumatically operated pump, generally used for pumping out water from manholes, ditches, tanks, pits and trenches.
- 1.2 The pumps covered in this standard are recommended to be operated at air pressure of 0.35 to 0.7MPa (3.5 to 7.03 kg/ sq. cm).

2. **TECHNICAL REQUIREMENTS**

2.1 The specification of the pump shall be as follows :

- a. Overall length, 600 – 610 mm.
- b. Externs width, 275 – 285 mm.
- c. Height of supporting base, 75 – 80 mm.
- d. Discharge, 80 mm ( 3" B S P)
- e. Air inlet nipple 20 mm (  $\frac{3}{4}$ " B S P).
- f. Mass, less than 30 kg and
- g. Operating range 0.35 to 0.7 MPa.

- 2.2 The performance rating of the pump shall be as given in Fig. 1.

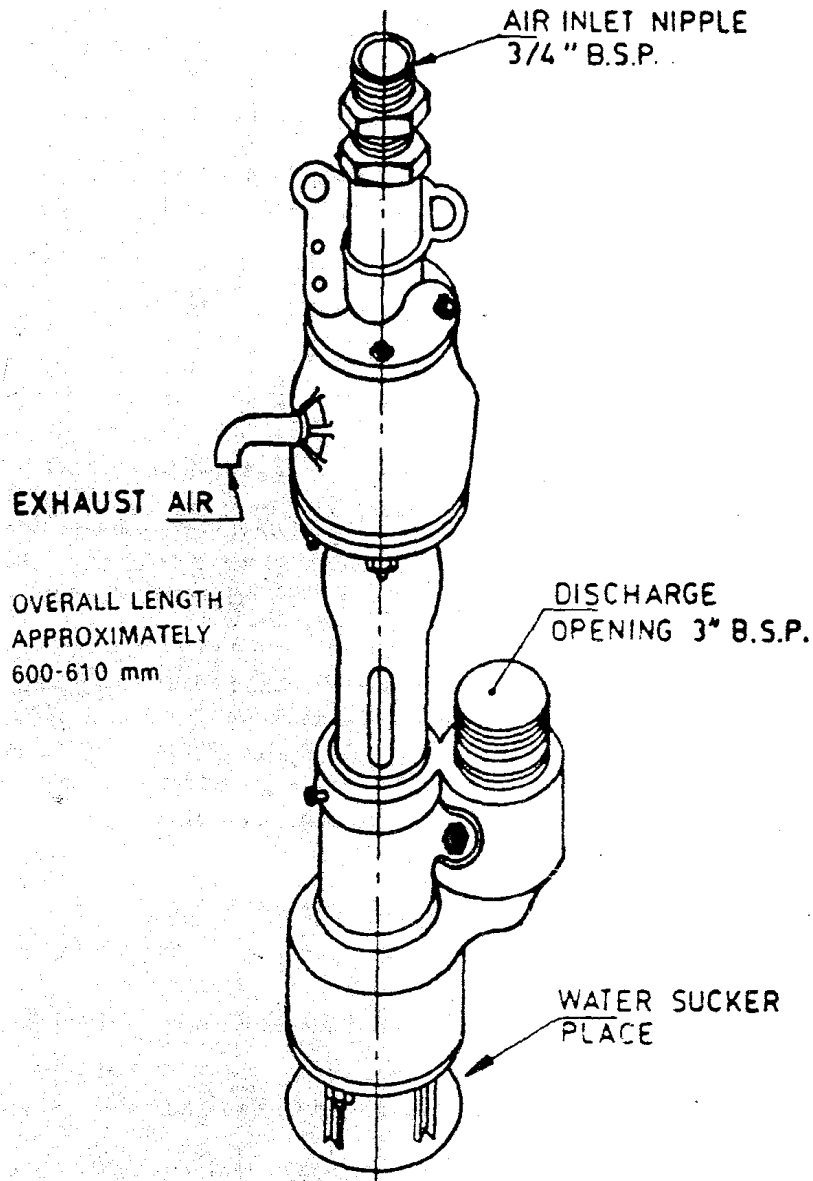


FIG. 1. PNEUMATIC SUMP PUMP

(Fig. 1) – PNEUMATIC SUMP PUMP

- 2.3 The pump shall operate whether partially or totally submerged.
- 2.4 The pump shall be provided with a governor or any other feature to prevent over speeding.

2.5 All rotating parts shall preferably be supported on antifriction bearings with suitable arrangement for lubrication.

2.6 The pump shall have in-built strainer to ensure clean air to the pump.

### **3. WORKMANSHIP**

The pump shall be of rugged construction so as to withstand the rough usage likely to be encountered in steel plants and shall be free from all imperfections which may affect the serviceability.

### **4. TEST CERTIFICATE**

The manufacturer shall provide a test certificate for its satisfactory performance conforming to this standard.

### **5. GUARANTEE**

The manufacturer shall guarantee efficient performance of the pump for a period of 12 months of operation or 18 months of date supply and shall rectify / replace defective parts of the components during guarantee period.

### **6. MARKING**

The pump shall be fitted with a name plate at a suitable place. The name plate shall be legible marked with the following:

- a. Manufacturers name/ trade mark,
- b. IPSS : 1-02-048-17 and
- c. Range of pressure 0.35 to 0.7 MPa.