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SR DE LK &amp; LC (IPSS)

## INTERPLANT STANDARD — STEEL INDUSTRY



**SPECIFICATION FOR PORTABLE ELECTRIC  
ANGLE GRINDER  
( FIRST REVISION )**

IPSS : 1-07-024-89

Formerly

JPSS : 1-07-024-85

CORRESPONDING INDIAN STANDARD DOES NOT EXIST

**0. Foreword**

**0.1** Interplant standardization activity in steel industry has been initiated under the aegis of the Bureau of Indian Standards ( BIS ) and the Steel Authority of India Limited ( SAIL ). This Interplant Standard prepared by the Standards Committee on Paints and Portable Maintenance Equipment, IPSS 1 : 7, with the active participation of the representatives of all the steel plants and established manufacturers of portable electric angle grinder, was adopted by the Approval Committee on Consumable Stores and General Equipment, IPSS 1, on 17 March 1989.

**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 select a fewer number of sizes ( or types ) from among those mentioned in this standard for the purpose of company standards of individual steel plants. It is not desirable to make deviations in technical requirements.

**0.3** This standard was first published in 1985. This first revision of this Interplant Standard has been necessitated after the experience gained during this period and to align it with the present practices prevailing in the plants. Some changes in the value of mass and marking has been incorporated.

**1. Scope** — This Interplant Standard covers the requirements for the portable electric angle grinder.

**2. General Requirements**

**2.1 Workmanship and Finish** — The grinder shall be of rugged construction and shall be free from all imperfections which may affect the performance of the same.

**2.2 Bearing** — The bearing shall be of antifriction type.

**2.3 Handle** — The handle shall be smooth, free from burrs, sharp edges or any other manufacturing defects. It shall be so designed that the operator gets a firm grip.

**2.4 Wheel Guard** — The grinder shall have an adjustable wheel guard to protect the operator.

**2.5 Switch** — The handle shall be incorporated with the internally insulated switch with locking device to provide scope for continuous operation.

**2.6 Insulation** — The body and handle shall be well insulated internally to ensure safety. The insulation shall be suitable for tropical environment.

**2.7** The standard voltage shall be according to IPSS : 1-02-020-85 'Basic parameters for standardization of steel plant equipment'.

**2.8** The manufacturer shall supply booklets giving the operating and maintenance instructions along with the machines.

**2.9** The grinder shall be provided with TRS cable with one lead for earthing.

**3. Dimension** — The dimension of the portable electric angle grinder shall be as given below :

Wheel diameter, mm, <i>Max</i>	180
Spindle diameter, mm	16
Spindle speed ( full load ), rev/min, <i>Max</i>	6 000
Handle style	Straight
Overall length, mm, <i>Max</i>	550
Mass, kg, <i>Max</i>	7.4
Input ( continuous rating full load ), W	2 000

Amendments issued ( to be filled up by the user department ):

No.	Date of issue	No.	Date of issue
1		3	
2		4	

4. **Guarantee** — Each grinder shall be guaranteed for satisfactory performance, for repair and replacement for a minimum period of 18 months from the date of supply or 12 months of use whichever is earlier.

5. **Marking** — The grinder shall be fitted with a name-plate legibly and indelibly marked with the following:

- a) Manufacturer's name or trade-mark,
- b) Serial number of the machine, reference number
- c) Spindle speed ( no load ) maximum rev min.
- d) Spindle speed ( full load ) maximum rev min.
- e) Input — watt ( full load ).
- f) Standard voltage, and
- g) Maximum wheel size in mm.