

SPECIFICATIONS / TECHNICAL DETAILS OF ELECTRICAL STRAIGHT GRINDERS

SPEC NO.: FF/M&S/SPEC/2K15/ELEC GRINDER

Sl. No.	PARTICULARS	BHEL Requirement
1	NAME OF ITEM	ELECTRICAL INDUSTRIAL GRINDER
2	APPLICATION	FOR HEAVY GRINDING ON STEEL CASTINGS (SMALL CASTINGS TO VERY LARGE SIZE - 3 M X 4M X 5M) IN ORDER TO ACHIEVE DESIRED SURFACE FINISH AND SMOOTHENING OF WELDMENTS. RESINOID WHEELS SHALL BE MOUNTED ONTO THE GRINDER.
3	MAKE	RALLI WOLF / MÖRETEC / PFERD / HILTI / BOSCH / MAKITA
4	TYPE	STRAIGHT GRINDER
5	DIMENSIONS	L <= 1000MM (EXCLUDING CABLE AND ATTACHEMENTS/ACCESSORIES) WD, TH (OR DIA) <= 150MM (AT THE WIDEST PART ON MAIN BODY)
6	WEIGHT	<=6kg (WITHOUT CABLE, WHEEL AND ACCESSORIES)
7	SUPPORTED WHEEL SIZE	OUTER DIA 100mm OR ABOVE; COMPATIBLE TO SMALLER SIZES. BORE DIA TO BE 16 MM, THICKNESS OF WHEEL 20/25 MM
8	POWER AND POWER SUPPLY	>=1000W, 220V, 1-Φ, 50Hz, AC SUPPLY
9	TYPE OF MOTOR	1-Φ, UNIVERSAL MOTOR OR DC SERIES/COMPOUND MOTOR
10	MOTOR WINDING MATERIAL (CONDUCTOR)	ELECTRICAL GRADE COPPER WIRE IN BOTH FIELD AND ARMATURE
11	CABLE TYPE	2/3-CORE, MULTI-STRAND, COPPER CONDUCTOR INSULATED CABLE
12	CABLE LENGTH	>=10m. IN CASE CABLE LENGTH PROVIDED AS STANDARD PART IS LESS THAN 10m IN LENGTH THEN A SUITABLE EXTENSION POWER CHORD WITH SUITABLE ADAPTORS AT BOTH ENDS TO BE PROVIDED
13	CABLE PROTECTION	FLEXIBLE METALLIC HOSE FOR PROTECTION AGAINST MECHANICAL DAMAGES TO BE PROVIDED FOR ENTIRE CABLE OF THE GRINDER OR EXTENSION CABLE IF GRINDER CABLE IS SHORTER AND EXTENSION CABLE IS PROVIDED.
14	ON-OFF CONTROL	TRIGGER TYPE, SPRING LOADED, PUSH TO ON SWITCH AT A CONVENIENT LOCATION ON GRINDER. MUST BE ABLE TO SWITCH OFF GRINDER IMMEDIATELY IN CASE OF ACCIDENTAL SLIPPAGE OF GRINDER FROM HANDS
15	SHAFT SIZE (PART FOR MOUNTING GRINDER WHEELS)	SUITABLE FOR GRINDER WHEELS WITH BORE DIA 16mm LENGTH OF THREADED PART >=35mm IN CASE THE ABOVE DIMENSIONS ARE NOT AVAILABLE AS PART OF THE STANDARD EQUIPMENT, SUITABLE ADAPTORS/ATTACHMENTS TO BE PROVIDED.
16	NORMAL FULL SPEED	>=4500RPM AT NO LOAD
17	PERMISSIBLE TEMPERATURE RISE	<=15deg-C ABOVE AMBIENT AFTER ONE HOUR CONTINUOUS OPERATION AT NO LOAD
18	ACCESSORIES	AS DETAILED BELOW
a.	GRINDING WHEEL	100mm (4"); ONE NO.
b.	ATTACHMENTS	AS MENTIONED IN 12 AND 15. ABOVE; IF AND AS REQUIRED.
c.	MAIN POWER SWITCH	RESIDUAL CURRENT OR EARTH LEAKAGE CIRCUIT BREAKER (REQUIRED AS MANDATORY ADDITIONAL ACCESSORY)
18	TOOLS & TACKLES	ALL SPECIAL TOOLS REQUIRED FOR MAINTENANCE OF THE GRINDER.
19	GENERAL COMMENTS	THE SUPPLIER SHALL PROVIDE A LIST OF SPARES REQUIRED FOR TROUBLE FREE OPERATION OF THE GRINDER FOR TWO YEARS.
20	GUARANTEE/WARRANTY	MINIMUM 18MONTHS FROM DATE OF RECEIPT ALL COMPLAINS TO BE RESOLVED WITHIN A REASONABLE TIME FRAME. VENDOR TO SUBMIT DETAILS OF THE SERVICES OFFERED DURING GUARANTEE/WARRANTY PERIOD.
21	DOCUMENTS:	1. TECHNICAL CATALOGUES AND O&M MANUALS 2. COMPLETE LIST OF SPARES WITH PART NO., MAKE, SPECIFICATION AND QUANTITY USED PER GRINDER
22	AMBIENT CONDITIONS	
a.	MAX TEMPERATURE	50°C
b.	MIN TEMPERATURE	0°C
c.	RELATIVE HUMIDITY	97% MAX
d.	ALTITUDE	300M ABOVE MSL
e.	GENERAL CONDITIONS	AIR CONTAINS SMOKE, DUST AND WELDING FUMES USUALLY ASSOCIATED WITH HEAVY STEEL FOUNDRIES. CONTAINS CONDUCTIVE AND MAGNETIC DUST

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