FILE No. DCEO/GeM/AVM/ Draft 1 20.12.2018

Creator : Mr. Ajmer Singh(TA) Moderator : Shri A.V.Muralidharan (Dy. CEO GeM) Approver :Shri A K Kamra (Ad. CEO GeM)

Major Category: Metal cutting machinery and accessories , UNSPSC: 23240000

Sub Category: Metal drilling machines UNSPSC: 23241800

RADIAL DRILLING MACHINE -UNSPSC :23241801

S.No.	Parameters	Grouping		Value 1	Value2	Value 3	Value 4	Value 5	Value 6	Validation	Whether Filter Required	Golden Parameter	Remarks	priority	Unit	Demand Aggregation
1	Confirmity to standard of Radial drilling machine	S	E	As per IS 6893-1988 part 1 with latesr amndmt.								G				
2	Confirmity to standard of Machine Vice with swivel base, fixed base	S	E	As per IS 4502:1999								G				
3	Confirmity to standard of material for Box table,Universal table,Co-ordinate table	S	E	C.I grade FG 220 As per IS 210:1993 with amdt.no.1								G				
4	Confirmity to standard for Base Plate T-slot	S	E	As per IS:2013:1995								G				
5	Confirmity to standard for Drill spindle taper	S	E	As per IS :1715:2002								G				
6	Confirmity to standard for Main motor frame size & mounting	S	E	As per IS:1231:1974 with amdt.no. 1 to 4								G				
7	Confirmity to standard for Motor protection	S	E	As per IS:4691:1985								G				
8	Confirmity to standard for Coolant pump	S	E	As per IS :2161:1996								G				
9	Confirmity to stanadard Noise emitted by machine	S	E	As per IS:10988/84								G				
10	Confirmity to standard for Colour	S	E	As per IS:5:2004								G				
11	Confirmity to standard for Geometrical & practical test performance	S	E	As per IS:2199:1989								G				
12	Confirmity to standard for Permissible deviations	S	E	As per IS 2063(Part 1):2002								G				
13	Confirmity to standard for Drill Chuck	S	E	As per IS:2273/71								G				
14	Confirmity to standard for Electrical equipment	S	E	As per IS:1356(part 1)-72								G				
15	Confirmity to standard for Electrical motor	S	E	As per IS 325/1996 with amdt no.1								G				
16	Confirmity to standard for Control gear/switches/button	S	E	As per IS 13947/1993								G				
17	Confirmity to standard for Mechanical guarding	S	E	As per IS 9474/80								G				
18	Confirmity to standard for Drill chuck quick change	S	E	As per IS:7824-1995								G				
19	Confirmity to standard for Painting practices followed	S	E	As per IS:10949/1984								G				

20	Confirmity to standard for Power factor capacity rating	S	E	As per IS:7752(Part-1)/75								G				
21	Confirmity to standard for Lubrication & Cooling system	S	E	As per IS:11118								G				
22	Confirmity to standard for material of spindle sleeve			Case hardening steel 15Ni7Cr4Mo2 As per IS 11118-1997								G				
23	Drill Head Drive gears Conformity	S	E	confirming to Alloy steel material specification 15 Ni 7 Cr								G				
24	Main Spindle Conformity	S	E	confirming to C2R grade forged Steel and hardened 58-62								G				
25	Material which can be drill	P	E	Steel	Cast Iron	Aluminium	Copper	Nylon				G				
26	Nature of Duty of Operation of Drill machine	P	E	Light Duty	Heavy Duty							G				
27	Maximum Drill Diameter for steel in mm	D	E	25	28	32	40	50	60			G				mm
28	Maximum Drill Diameter for cast iron in mm	D	E	32	60							G				mm
29	Maximum Drill Diameter for non ferous material in mm	D	E	50	60	N/A										mm
30	Quill Traverse in mm	D	E	200	250	280	300	325	330			G				mm
31	Column Sleeve Diameter in mm	D	E	200	250	350	400					G				mm
32	Width of Arm Guide Ways in mm	D	E	150	175	200	252					G				mm
33	Maximum Drilling Radius in mm	D	E	1200	1500	1790	1800	2350				G				mm
34	Minimum Drilling Radius in mm	D	E	500	530	550						G				mm
35	Type of Bed	P	E	Flat type								G				
36	Length of Bed in mm	P	E	600	630	800	1000	1200	1250							mm
				1300	1350	1400	1600	1680	1700							
				2050	2900	3100	3600									
37	Width of Bed in mm	P	E	180	220	240	500	600	630							
				750	800	820	850	930	1000							
				1300	1400											
38	Feed Range in mm/rev	P	E	0.125 - 1.25	0.4-3.20	0.06-3.20	0.07-.6									mm/rev
39	Number of feed	P	E	6	16							G				
40	Number of Spindle speed	P	E	8	9	12	16	22				G				
41	Taper in Spindle as per IS 2582-1972 with Latest amndmt	P	E	MT3	MT4	MT5	MT6					G				
42	Drill head traverse in mm	P	E	750	970	1050	1200	1250	1260							mm
				1450	1750	1800	1550	2000	2150							
				2580	3000	3600										
43	Range of Spindle Speed in Forward Direction in rev/min hint : For e.g. 80-1500	P	E	6.3-800	8-1000	16-800	20-1600	16-1250	35-2000							rev/min
				40-1800	50-1750	62-1500										

44	Arm Traverse in mm	P	E	450	550	580	650	660	740			G				mm
				800	940											
45	Spindle travel (drilling depth) in mm	P	E	200	225	250	300	325	350			G				mm
				400	425	450	500	600	650							
46	Base plate to spindle maximum in mm	P	E	970	1120	1270	1350	1420	1645			G				mm
				1650	1750	2050	2200	2500	2560							
47	Base plate to spindle minimum in mm	P	E	300	350	355	380	400								mm
48	Main Motor Power hint: (For Light Duty drill ≥ 3kw)	P	E	2	3.6	4	4.5	5.5	7.5							kW
				15	18.5											
49	Arm motor power	P	E	0.75	1.5	3						G				
50	Type of Cooling	P	E	Fluid cooling	Air cooling											
51	Noise emitted by Machine in db as per IS 10998:1984 latest	P	E	80	85											db
59	Mechanical Guarding as per IS 9474 :1980 with latest	P	E	Yes	NO											
60	In possession of Technical Evaluation report as per IS :11118	P	E	Yes	NO											
61	Main Spindle Bearing confirming Pre-loaded Standard make hint: Spindle Bearing High precision class Double Row taper roller bearings at Front & Single Row taper roller bearing at back	P	E	Yes	No											
62	Confirming of machine towards dynamically balanced spindle and other parts	P	E	Yes	No											
63	Spindle Forward/Reverse Drive transmission through Electro Magnetic Double Clutch	P	E	Yes	No											
65	Power supply	P	E	Three Phase Supply (415 V, 50 Hz)	Single Phase Supply (230 V, 50 Hz)											
66	Erection and Commisioning Charges included in Offered Prices without Foundation	P	E	Yes												
67	Warranty in years	P	E	1	1	1										
68	Coolant Pump output in kw as per IS 2161:1962 latest	P	E	0.11	0.37											
69	Sleeve Travel Type	D	E	Manual	Power Operated											

70	Travel of Sleeve in mm	D	E	250	300	350	400									mm
71	Hardness of Bed Guide Ways in HRC	D	E	58-62	62-70	70-90										HRC
72	Lead Screw Diameter in mm	D	E	25	32	44	50									mm
73	Lead Screw Pitch in mm	D	E	6	7	8	10									mm
74	Tapping in steel - metric fine threads	D	E	M20	M27	M40	M56									
75	Type of Lubrication	D	E	Oil Mist	Oil recirculating	Chain lube										
76	Length of Drill Machine in mm	D	E	2900	3100	3600										mm
77	Width of Drill Machine in mm	D	E	1300	1400											mm
78	Height of Drill Machine in mm	D	E	3000	3300											
79	Weight of Drill Machine with electrical and standards Accessories in kg	D	N													Kg
80	Size of machine (L xW xH) in mm x mm x mm	D	T													
81	Colour of Drill machine	D	E	Apple green												
82	Machine Confirming Full power cutting load test to full length drilling capacity of Machine	D	E	Yes												
83	Availability of Drawing for Foundation	D	E	Yes												
84	Taping in cast Iron	D	E	M30	M40											
Standards Accessories																
85	Set of Service tools	SA	E	YES												
86	Operational Manual	SA	E	YES												
OPTIONAL ACCESSORIES																
87	Universal table for 32 mm drill capacity	OA	E	Yes	No											
88	Universal table for 40 mm drill capacity	OA	E	Yes	No											
89	Universal table for50 mm drill capacity	OA	E	Yes	No											
90	Universal table for 60 mm drill capacity	OA	E	Yes	No											
91	Machine Vice with fixed base 80 mm clamping range 0-50 mm pull type	OA	E	Yes	No											
92	Machine Vice with fixed base 80 mm clamping range 0-50 mm push type	OA	E	Yes	No											
93	Machine Vice with fixed base 160mm clamping range 0-100 mm pull type	OA	E	Yes	No											

94	Machine Vice with fixed base 160 mm clamping range 0-100 mm push type	OA	E	Yes	No											
95	Machine Vice with fixed base 315 mm clamping range 0-200 mm pull type	OA	E	Yes	No											
96	Machine Vice with fixed base 315 mm clamping range 0-200 mm push type	OA	E	Yes	No											
97	Machine Vice with Swivel base 80 mm clamping range 0-50 mm push type	OA	E	Yes	No											
98	Machine Vice with Swivel base 160 mm clamping range 0-100 mm pull type	OA	E	Yes	No											
99	Machine Vice with Swivel base 160mm clamping range 0-100 mm push type	OA	E	Yes	No											
100	Machine Vice with Swivel base 315mm clamping range 0-200 mm pull type	OA	E	Yes	No											
101	Machine Vice with Swivel base 315mm clamping range 0-200 mm push type	OA	E	Yes	No											
102	Suitable Tapping Attachment drill capacity 32 mm	OA	E	Yes	No											
103	Suitable Tapping Attachment drill capacity 40 mm	OA	E	Yes	No											
104	Suitable Tapping Attachment drill capacity 50 mm	OA	E	Yes	No											
105	Suitable Tapping Attachment drill capacity 60 mm	OA	E	Yes	No											
106	Drill chuck quick change 32 mm	OA	E	Yes	No											
107	Drill chuck quick change 40 mm	OA	E	Yes	No											
108	Drill chuck quick change 50 mm	OA	E	Yes	No											
109	Drill chuck quick change 60 mm	OA	E	Yes	No											
110	Boring Head 32mm	OA	E	Yes	No											
111	Boring Head 40mm	OA	E	Yes	No											
112	Boring Head 50mm	OA	E	Yes	No											
113	Boring Head 60mm	OA	E	Yes	No											

114	Co-ordinate table 32 mm	OA	E	Yes	No											
115	Co-ordinate table 40mm	OA	E	Yes	No											
116	Co-ordinate table 40mm	OA	E	Yes	No											
117	Co-ordinate table 32 mm	OA	E	Yes	No											
118	Box Table 32 mm	OA	E	Yes	No											
119	Box Table 40 mm	OA	E	Yes	No											
120	Box Table 50 mm	OA	E	Yes	No											
121	Box Table 50 mm	OA	E	Yes	No											
122	Drill drift 4 nos.	OA	E	Yes	No											
123	Quick indexing dividing head	OA	E	Yes	No											
	Reports															
124	Availability of Test Report from Central Govt./NABL/ILAC acredited lab to prove confirmity to specification	R	E	Yes	No											
125	Test Report No.	R	T													
126	Test Report Date	R	T													
127	Name of the Lab	R	T													
128	Address of the Lab	R	T													
129	ISO certification for manufacturer	R	E	Yes	No											
130	ISO certification number & date	R	T													
131	Copies of test report to be furnished to the buyer on demand at the time of supplies	R	E	yes	no											
	Mr. Ajmer Singh(TA)				Shri A.V.Muralidharan (Dy. CEO GeM											