

### Bid Document

Bid Details	
Bid End Date/Time	25-12-2018 15:00:00
Bid Validity	90 (Days)
Ministry/State Name	Ministry Of Human Resource Development
Department Name	Department Of Higher Education
Organisation Name	Indian Institute Of Technology (iit)
Office Name	Ropar
Total Quantity	1
Item Category	Milling Machine
MSE Exemption For Years Of Experience And Turnover	Yes

### Milling Machine ( 1 )

#### Technical Specifications

[\\* As per GeM Category Specification](#)

Specification	Specification Name	Values	Allowed Values
Standards	<b>Confirmity to specification IS 6893 part 2 for Horizontal /Universal Knee Type Milling Machine</b>	Yes	Yes, Na
	<b>Confirmity to specification IS 6893 part 6 for Vertical spindle Knee Type Milling Machine</b>	Na	Yes, Na
	Milling Arbor as per IS 8614 latest	Yes	*
	Mechanical Guarding as per IS 9474 latest	Yes	*
	Geometrical and Practical Accuracy as per IS 2200 latest	Yes	*
	Geometrical Accuracy test for inspection of	Yes	*

Performance Parameters	the machine conforming to IS: 2201 - 1973		
	Machine standard As per IS: 210-1993	Yes	*
	<b>Type of Milling</b>	Universal Milling	Horizontal Milling, Vertical Milling, Universal Milling
	Mechanism	Manually Operated	*
	<b>Nature of Operation</b>	Medium Duty	Light Duty, Medium Duty, Heavy Duty
	<b>Table Total Area (Length x Width) (mm x mm)</b>	1520 x 310	1070 x 230, 1200 x 300, 1350 x 310, 1520 x 310, 1600 x 325, 2050 x 355, 2060 x 300
	Table Clamping Area (Length x Width ) , mm x mm	1350 X 310	*
	Width of T slots in mm	16	*
	Number of T Slots	3	*
	Centre Distance between T slots in mm	65	*
	Table Transverse	Manual & Automatic	*
	Longitudinal Table Transverse in mm	800	*
	Cross Table Transverse in mm	265	*
	Vertical Transverse in mm	400	*
	Swivel of Milling Head to either side in vertical plane for vertical milling in degree (for others put NA)	NA	*
	Swivel of Table to either side of horizontal plane in Degree ( for universal /Put NA for Horizontal and Vertical Milling Machine)	45	*
	Maximum Safe Load on table in KG	250	*
	Number of Spindle Speed	18	*
	Spindle Speed range in rev/min	35.5 -1800	*
	Spindle Front Bearing	85.725	*

Diameter in mm		
Type and Size of Spindle Nose	TYPE ISO AND SIZE 40	*
Vertical Movement of Quill in mm( put NA for Horizontal Milling Machine and Universal Milling Machine )	NA	*
Vertical Quill Diameter in mm(For light duty dimater must be greater than 85 mm, for medium and heavy duty milling $\geq 170$ mm)	85	*
Number of Feeds available	18	*
Feed range for Longitudinal in mm/min	16 - 800	*
Feed range for Transverse in mm/min	16 - 800	*
Feed range for Vertical in mm/min	4 - 200	*
Rapid Transverse Feed range for Longitudinal & Cross in mm/min	1 TO 3200	*
Rapid Transverse Feed range for vertical in mm/min	1 TO 800	*
Max Feed Force in KN	20	*
Maximum Torque on Spindle in Nm	1324	*
Required Floor Space in mm x mm	2550 X 3130 X 2010	*
ISO Compliance for Milling Machine	ISO 40 for Medium Duty Milling Machine	*
Size of Milling Arbor	As per ISO 40 for Medium Duty Milling Machine	*
Power Supply (V, Ph , Hz)	415V , 3 PHASE , 50Hz	*
Spindle Motor Power in Kw	5.5	*
Spindle Motor RPM	1500	*
Feed Motor power in KW	1.5	*
Feed Motor RPM	1500	*

Coolant Pump Motor in kw	0.12	*
Coolant Pump Motor in RPM	2800	*
Noise level Emitted by Machine as per IS 10988 latest in dB	85	*
Interlocking through switches for Medium Duty and Heavy Duty ( For Light Duty Put NA)	Yes	*
Shear Pin or mechanical over load coupling for feed drive For medium duty and Heavy Duty , For Light Duty Put NA	Yes	*
Flexible Motor Coupling against shock loading For medium duty and Heavy Duty , For Light Duty Put NA	Yes	*
Thermal Safety Over Load Relay	Yes	*
Interlocking of spindle & feed Drive For medium duty and Heavy Duty , For Light Duty Put NA	Yes	*
Control circuit switching off during Voltage drop	Yes	*
Single phase preventor	Yes	*
Possitive clamping of all guideways thru clamping pads	Yes	*
Stremlined construction,rigged and vibration free	Yes	*
Power operated Feeds and Rapid traverse in all axis	Yes	*
Independent main drive and feed drive	Yes	*
Instantaneous braking of spindle and all Axis feed drive for medium duty and heavy duty, for light duty put NA	Yes	*
Inch push button for	Yes	*

	speed & feed dirves		
	Two nut arrangeent with Climb Milling attachment for Longitudinal drive for medium duty and heavy duty, for light duty put NA	Yes	*
	Feed & Rapid drive thru Electromagnetic clutch for Medium Duty and Heavy duty Milling Machine	Yes	*
	Separate plunger pump for spindle & feed drive lubrication for Medium Duty and Heavy Duty Milling Machine	Yes	*
	Automatic Lubrication to all slide	Yes	*
	Selection of Each Axis drive thru mechanical lever operated for Medium Duty and Heavy Duty Milling Machine	Yes	*
	Programable control in Longitudinal axis	No	*
	Thermal Stability of bearing over excess temperature above 40 degree cel	Yes	*
	Electric equipment	Yes	*
	Annual Maintenance Contract Rate included for machine	No	*
	<b>Period of AMC in years if yes</b>	0	0, 1, 2, 3, 4, 5
	<b>Warranty in years</b>	1	1, 2, 3, 4, 5
	<b>Foundation Turnkey Charges included</b>	No	Yes, No
	<b>Erection And Commisioning Charges Included In Offered Prices Without Foundation</b>	Yes	Yes, No
Dimensional & Material parameters	Size of the machine (L x W x H ) (mm x mm x mm)	2550 X 3130 X 2010	*

	Weight of the machine in kg	2500	*
	Machine casting of Column/Knee/Saddle /Table confirms to Cast Iron Grade FG-260 & Hardness 180-230 BHN	Yes	*
	Main Spindle of C2R grade forged Steel and hardened 58-62 HRC	Yes	*
	Drive gears of Alloy steel material specification 15 Ni 7 Cr 4 M02	Yes	*
	Pre-loaded Standard make High precision class P3 set of taper roller bearings for main spindle	Yes	*
	Dynamically balanced Spindle and other parts rotating with peripheral speed of more than 3m/sec	Yes	*
	Lead screw -Ground profile	Yes	*
	Colour of Milling Machine as per IS 5-1978 latest	APPLE GREEN	*
Standard Accessories	Draw Bolt with draw nut	Yes	*
	Elevating crank handle	Yes	*
	Two arbor support bearing bracket for horizontal & Universal milling (put NA for Vertical Milling Machine)	Yes	*
	Over arm brace for vertical / horizontal & Universal milling	Yes	*
	Machine Lamp	Yes	*
	Service Tool kit for operation & maintenance	Yes	*
	Operation & Maintenance Manual	Yes	*
	Foundation bolts & levelling plate	Yes	*

		Machine vice with swivel base 200mm	Yes	*
		Self Centering vce 10-80 mm	Yes	*
		Stub Milling Arbor dia 16,22,27,32 & 40 mm	Yes	*
		Collet Holder with set of conical collets size 5,6,8,10,12 & 20 mm	Yes	*
		End mill holders dia 5,6,8,10,16 & 20 mm	Yes	*
		Reduction sleeve type B size MT1,MT2,MT3 & MT4	Yes	*
		Milling Arbor for horizontal & Universal milling size dia 22x500 & ,dia 27x500mm ( NA for Vertical Milling )	Yes	*
	Optional Accessories	3 Axis DRO	No	*
		Slotting attachment	No	*
		Angle plate & sine plate	No	*
		Universal dividing head 135mm with tailstock, supporting block, 3 jaw self centering chuck dia 160mm & train of gears for Universal Milling Machine only for rest Put NA	Yes	*
		Universal dividing head 135mm with tailstock, supporting block, 3 jaw self centering chuck dia 160mm for Universal put NA	Na	*
		Vertical Milling head	Yes	*
		Cross plate minimum size 350 x 260 mm	No	*
		Hand operated round table minimum dia 400 mm	No	*
		Set of spares for normal running	Yes	*
		Parking bracket	Yes	*

	Single lever hand operated vertical indexing head 12 notches 3 jaw chuck, 160 mm dia	No	*
Reports	Avilability of test reports from Govt lab or any NABL /ILAC approved lab to prove conformity to the specification	Yes	*
	Test Report No	HMT MTP/NPCIL/FN/001	*
	Test Report Date	29-12-2016	*
	Name and Complete address of Lab	NPCIL RAWATBHATA, KOTA ,RAJASTHAN	*
	Copy of test report to be submitted to buyer on demand at the time of supplies	Yes	*

\* Bold specifications are the golden parameters.

### Consignees and Quantity

S.No.	Consignee	Address	Quantity	Delivery Days
1	Vijay Kumar	140001,Room No. 104 , Indian Institute of Technology Ropar, Nangal Road,Rupnangar	1	15

### EMD Detail

Required	No
----------	----

### ePBG Detail

Required	No
----------	----

### Splitting

Bid splitting not applied.

### Buyer Specific Additional Terms and Conditions

- Scope of supply (Bid price to include all cost components) :** Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

[This Bid is also governed by the General Terms and Conditions](#)

**---Thank You---**



