

TECHNICAL SPECIFICATION OF NIV, CNC LATHE MACHINE

Ser No.	Description	Specification	Must be filled by principal/manufacturer
CNC Lathe Machine			
1.	Name and complete address of Local Agent	Details to be mentioned	
2.	Name and complete address of Principal	Details to be mentioned	
3.	Name and complete address of Manufacturer	Details to be mentioned	
4.	Brand	To be mentioned	
5.	Model	To be mentioned	
6.	Country of origin	Group A countries	
7.	Country of Manufactured		
8.	Country of Assembly		
9.	Year of production	Not before the year of contract	
Machine Capacity			
10.	Maximum swing	220 mm – 240 mm	
11.	Distance between spindle nose and headstock cover	30 mm – 40 mm	
12.	Distance between spindle nose and turret face	530 mm – 540 mm	
13.	Collet	With B32 (20 mm – 25 mm)	
14.	Collet	With B45 (35 mm – 40 mm)	
15.	Clamping head	40mm - 45mm	
Principal Spindle, by AC motor drive			
16.	Power, continuous/intermittent	24/30 to 25/35 KW	
Spindle			
17.	Spindle nose	ISO-720/1/DIN 55026	
18.	Spindle speed, infinitely variable	To be mentioned	
19.	Power, continuous/ intermittent	24/30 to 25/35 kw	
20.	Continuous torque spindle/intermittent	72/90 to 65/80 Nm	
21.	Spindle ID (without chuck key)	40 mm ~ 45 mm	
22.	Max bar capacity	With B32 collect 20mm~25mm	
23.	Max bar capacity	With B35 collect 35mm~40mm	
24.	Max bar capacity of clamping head	40mm ~ 45mm	
25.	Max bar capacity of the automatic chuck	40 mm ~ 45 mm	
26.	Recommended max swing	170 mm ~ 200 mm	
Hydraulic clamping for main spindle			
27.	Adjustable axial clamping force	500~33000 daN	
28.	Maximum spindle speed	6000 to 8000 rpm	
Spindle interlock			
29.	Pneumatic spindle interlock, moment at 5 bar-7 bar	440 nm ~ 450 nm	
C axis			
30.	Spindle drive	Integrated	
31.	Programmatic increment	0.001 ⁰ - 0.002 ⁰ /min	
32.	Interpolation	X-Z-C	
33.	Rapid advance	35000 – 40000 ⁰ /min	
34.	Top cross slide (X axis)		
35.	Transverse stroke, X axis	200 mm - 210mm	



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36.	Resolution, X-axis (on radius)	0.0005 mm – 0.0010 mm	
37.	AC motor drive power	1.8 kw to 2.5 kw	
38.	Torque continuous/ intermittent	11/27 to 15/20 Nm	
39.	Ball screw, Ø x pitch	28x10 mm	
Top cross slide(Z Axis)			
40.	Longitudinal stroke, Z axis	500mm~600 mm	
41.	Resolution, Z axis	0.00010 mm	
42.	AC motor drive, power	1.80 KW	
43.	Torque, continuous/ intermittent	11/27 Nm	
44.	Ball screw, Ø x pitch	28x10 mm	
Tooling: Linear			
45.	Cutting feed, X- and Z- axis	10 m/min	
46.	Rapid feed, X- and Z- axis	30m/min	
47.	Feed force, X- and Z- axis, continue	622 daN	
Tooling: Turret with driven tools			
48.	Number of fool stations	12+12	
49.	Number of stations for driven tools	12+12	
50.	Standardized mounting of tool holders	SAUTER	
51.	Drive of the driven tools	SAUTER	
52.	Max, cross section of tool shank	20x20 mm	
53.	Spindle speed, infinitely variable	12000 rpm	
54.	Power, continuous/ intermittent	6/6 KW	
55.	Torque rpm	9.50 Nm @ 6000	
Counter-spindle			
56.	Spindle	Collets B32	
57.	Spindle speed, infinitely variable	50-5000 rpm	
58.	Continuous torque spindle/ intermittent	23/38 Nm	
59.	Spindle through bore	32.0 mm	
60.	C axis spindle drive	Belt	
61.	Recommended maximum turning diameter	Ø140 mm	
62.	Possibility to mount 3 Jaw chuck	To be mentioned	
63.	Max. longitudinal stroke, E axis	445 mm	
64.	Resolution, E axis	0.00010 mm	
65.	AC motor drive, power	1.80 KW	
66.	Torque, continuous/Intermittent	11/27 Nm	
67.	Ball screw, Ø x pitch	32x10 mm	
Motor driven tailstock (Option)			
68.	Internal taper of the sleeve	Morse 3	
69.	Max. longitudinal stroke, E axis	445 mm	
70.	Resolution, E axis	0.00010 mm	
71.	AC motor drive, power	1.80 KW	
72.	Torque, continuous/Intermittent	11/27 mm	
73.	Ball screw, Ø x pitch	32 x 10 mm	
Coolant Supply			
74.	Tank capacity	160 to 180 ltr	
75.	Pump power	0.55 KW	
76.	Pump capacity	46 ~ 50 ltr/min	
77.	Pressure of pump	10 bar	
Pneumatic Consumption			
78.	Min/Max. pneumatic pressure	5 bar – 7 bar	
79.	Type of connection	¼" G	



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80.	Quality of the air	Clean and moisture free	
81.	Average consumption	10 (m3/H)	
<u>Electrical power supply</u>			
82.	Voltage	440 V ~ 450 V, 50/60 Hz	
83.	Tolerated Fluctuations	$\pm 5 - \pm 7 \%$	
84.	Other voltage	Option V (200 – 240 V)	
85.	Frequency	50 / 60 Hz	
86.	Rated current	40 amp	
87.	Protection at mains end	83 amp	
88.	Power consumption of the machine	28 KVA	
<u>Obstruction and weight</u>			
89.	Overall dimensions : length x depth x height (mm)	To be mentioned	
90.	Approx net weight of the machine (including oil) (Kg)	To be mentioned	
91.	Floor load (between machine feet)	To be mentioned	
92.	Load per square meter for one machine	To be mentioned	
93.	Dimensions of the pallet	To be mentioned	
94.	Weight of the pallet	To be mentioned	
95.	Center height over floor	To be mentioned	
<u>Lubrication of slide ways and ball screws</u>			
96.	Kind of X sideways lubrication	Automatic	
97.	Kind of Z sideways lubrication	Automatic	
98.	Kind of X ball screws lubrication	Automatic	
99.	Kind of Z ball screw lubrication	Automatic	
100.	Kind of grease or oil	Motorex superglass 68K	
101.	<u>Various</u>		
	a. Workplace collector	Option (workshop)	
	b. Color standard 4 color 1 gray	To be mentioned	
	c. Color standard 4 color 2 gray	To be mentioned	
102.	Color standard 4 color 3 white	To be mentioned	
103.	Color standard 4 color 4 Red	To be mentioned	
104.	Noise level under load at the operator's station	60-75 DBA	
105.	Operating temperature	$+ 15^0 \sim +30^0 \text{ C}$	
106.	Relative humidity	10-75 %	
<u>Control Unit</u>			
107.	Type of control unit	Fanuc Oi-TF	
108.	Screen	12 " LED Color	
109.	Manual Guide	Required	
110.	Memory	128 KB ~ 256 KB	
111.	Number of programs	400 - 600	
112.	Tool offsets	60 – 65	
113.	Programmable increment	0.0001(mm)	
114.	Axis feed rate override	0-120(%)	
115.	Spindle override	50-120(%)	
116.	M codes in one block	3	
117.	Background editing	Required	

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118.	Constant surface speed control	Required	
119.	Spindle positioning	Required	
120.	Rigid tapping (with spindle)	Required	
121.	Multiple threading	Required	
122.	Tapper thread cutting	Required	
123.	Continuous threading	Required	
124.	Variable lead threading	Required	
125.	Custom Macro B	Required	
126.	Polar coordinate interpolation	Required	
127.	Cylindrical interpolation	Required	
128.	Helical interpolation option	Required	
129.	Polygon turning	Required	
130.	Inch/metric	Required	
131.	Fanuc Picnic	Required	
Interface Control Unit			
132.	Interface RS 232-C	RS 232 C	
133.	Interface PCM CIA	PCM CIA	
134.	Interface Ethernet	To be mentioned	
135.	Interface USB	To be mentioned	
136.	Data server	Wi-Fi/Broad band (Both)	
Software			
137.	Software	All type of software required for the machine to be supplied and updated online free of cost for ever by manufacturer.	

