

# 3. Machine specifications

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### 3.1 Specification tables

#### 3.1.1 PUMA 400M/LM

Description	Unit	Specifications		
		PUMA 400MA[LMA]	PUMA 400MB[LMB]	PUMA 400MC[LMC]
<b>Capacity :</b>				
Swing over bed	mm(in.)	770		
Swing over saddle	mm(in.)	590		
Recom. machining dia.	mm(in.)	305	380	380
Max. machining dia.	mm(in.)	560		
Max. work length	mm(in.)	1,014[2,064]	978[2,028]	959[2,009]
Draw tube dia.	mm(in.)	91	117.5	166.5
<b>Travels :</b>				
X axis	mm(in.)	357(77+280)		
Z axis	mm(in.)	1,105[2,155]		
C axis	deg	360°(0.001°)		
<b>Spindle :</b>				
Chuck dia.	mm(in.)	305(12.01)	380(15)	533(21)
Speed range	rpm	30~3,000	20~2,000	15~1,500
Spindle nose	ASA #	A2#8	A2#11	A1#15
Spindle bore dia.	mm(in.)	102	132	181
Bearing dia.(Front)	mm(in.)	160	180	240
<b>Turret :</b>				
No. of tool stations(Type)	st.	12(BMT75)		
OD tool height	mm(in.)	25(BMT75)		
Boring bar dia.	mm(in.)	60(BMT75)		
Indexing time	sec	0.25(1st. Swivel)		
<b>Feedrates :</b>				
Rapid traverse	mm/min	X:16,000[16,000] / Z:20,000[18,000]		
Cutting feed	mm/rev	X,Z:0.001~500,000		
<b>Tail stock :</b>				
Quill dia.	mm(in.)	120		
Quill bore taper	MT#	MT#6		
Quill travel	mm(in.)	120		
<b>Motor :</b>				
Spindle(Cont./30min)	kW	22/30	22/30	30/37
Rotary tool(Cont./30min)	kW	7.5	7.5	11

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Feed drives	kW	X:3.8[3.8] / Z:5.0[5.9]		
Coolant pump	kW	0.4		
<b>Power requirements :</b>	kVA	50	60	60
<b>Machine size :</b>				
Height	mm(in.)	2,250[2,317]		
Floor space	mmxmm	4,222[5,342]x2,179		
Weight(W/CNC system)	kgf	8,200[9,800]	8,200[9,800]	8,250[9,850]
<b>CNC system :</b>		F21i-TB		