

# Types of Machinery



Pos.	<u>Horizontal</u> Machining Centers existing types	X-Y-Z Travels (inches)	Pallet Dimensions (inches)	Indexing (B-Axis)	Max. Workpiece Weight (pounds)	disturbance circuit diameter (inches)
1.	OKUMA MC <sup>1</sup> MX-40 HA	X = 22,04 Y = 24,01 Z = 23,62	15,75 x 15,75	360 x 1°	882	23,62
2.	OKUMA MC MX-50 HB	X = 27,58 Y = 31,49 Z = 27,58	19,70 x 19,70	360° x 1°	1.764	31,49
3.	OKUMA MC MA-600 HB (B-Axis)	X = 39,40 Y = 35,43 Z = 35,40	24,80 x 24,80	0,001 °	2.646	39,40
4.	OKUMA BAZ MA-500- HB & OKUMA MA-500H II (chained MC, 2x flexible manufacturing systems, 2x 60 machine pallets)	X= 27,55 Y= 35,43 Z= 30,70	19,70 x 19,70	1°	1.764	31,49
	<u>Vertical</u> Machining Centers existing types					
5.	OKUMA MC MX 45 VAE	X= 30,00 Y= 18,11 Z= 17,71	39,37 x 16,92		1.102	
6.	OKUMA MC MA-550 VB	X= 51,18 Y= 22,04 Z= 22,04	51,18 x 22,04		2.205	

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<sup>1</sup> MC= Machining Center

Pos.	Turning Machines existing types	Technical Parameters (inches)		Max. Workpiece Weight (pounds)
7.	EMAG VL 8 Turning Machine	Max. swing diameter	15,75 inches	Moving Tools (12x)
		Max. turning length	11,81 inches	
8.	OKUMA CNC Turning Machine LB 400-C 650 M	Max. swing diameter	16,53 inches	Moving Tools (8x)
		Max. turning length	25,59 inches	
9	OKUMA CNC Turning centre LB 4000II-MC 750	Max. swing diameter	16,53 mm	Moving Tools (12x)
		Max. turning length	29,52 mm	
	Balancing Machine	Technical Parameters (inches)		Comments
10.	MPM – Balancing Machine	Speed range 1200 rpm X-Y-Z Travels – 1260x1800x1000mm		dynamic and static – machinable different size statistical analysis program
Pos.	Measuring Machine	Technical Parameters (inches)		Comments
11.	Mitutoyo-Coordinate Measuring Machine EURO-C 7106 APEX	Metering Range: 27,58 x 39,40 x 23,64		statistical analysis program (e.g. Machine Capability Calculation with variable time slots, Process –norm-cards)
12.	Mitutoyo Outlines-Measuring Machine Contracer CV-1000	Metering precision Z-axis:	5,5 µm	very high resolution over the whole metering Range a digital data exit offers a outline analyses of the PC
		Metering Range:	25 mm	

Pos.	Test Bench	Technical Parameters	Comments
13.	Strength & leakage testing PED approval 2014/68/EU; CE 0035	Max. 150 bar (Water) Max. 110 bar (Air)	- Hardware test bench with camera surveillance system - procedural surveillance of operating cycles - report and traceability of tests
Pos.	Washing System	Technical Parameters	Comments
14.	Double bath chamber washing system	Content wash tank 400 l Heating capacity 30 KW Volume flow rate 500 l/min	- Max. workload 700 kg - Cage dimensions: 43,30 in x 43,30 in x 31,49 in - Max. wash temperature 70°C