



Department of Materials Science and Engineering

# MACHINE SHOP

*Analytical and non-analytical  
instruments*



# NON- ANALYTICAL INSTRUMENTS



## Device: **Lathe machine**

Manufacturer: *MACHINE SAZI TABRIZ / TN50B*



### *Technical specification*

Spindle speed range	<b>22.4-1000 rpm</b>
Three jaw chuck diameter	<b>250 mm</b>
Cross slide travel	<b>300 mm</b>
Toolpost working travel	<b>140 mm</b>
Maximum workpiece weight	<b>300 kg at 45 rpm</b>
Tool shank dimension	<b>32 mm × 20 mm</b>
Tailstock quill diameter	<b>70 mm</b>
Tailstock quill stroke	<b>180 mm</b>



## Device: **Desktop column drilling machine**

Manufacturer: *IXION/BST13*



### *Technical specification*

Drilling capacity	<b>13 mm in steel</b>
	<b>15 mm in aluminum</b>
drilling depth	<b>60 mm</b>
Spindle / column projection	<b>180 mm</b>
drilling spindle speeds	<b>480 - 2400 rpm (4 steps)</b>

## Device: Column drilling machine

Manufacturer: MACHINE SAZI TABRIZ/MSB20



*Technical specification*

Drilling capacity	20 mm in steel
Maximum drilling depth	125 mm
Spindle speed range	355-2800 rpm (8 steps)



## Device: Column drilling machine

Manufacturer: MACHINE SAZI TABRIZ/MS32A



*Technical specification*

Drilling capacity	32 mm in steel
Maximum drilling depth	200 mm
Spindle speed range	56-2240 rpm (15 steps)

# Device: Milling machine

Manufacturer: MACHINE SAZI TABRIZ/FB4M



## *Technical specification*

Longitudinal travel (x)	500 mm
Cross travel (y)	400 mm
Vertical travel (z)	400 mm
Quill strike Z axis	80 mm
Horizontal traverse of headstock	150 mm
Spindle speed range	60-2500 (18 steps)
Rapid rate	1300 mm/min
Feed rate	6-650 mm/min
Maximum load in vertical table	600 kg
Maximum load in horizontal table	400 kg



# Device: Power hacksaw machine

Manufacturer: MME



## *Technical specification*

Maximum diameter	250 mm
Minimum length of the cut	50 mm

# Device: Band saw

Manufacturer: WAYTRAIN/ FHBS\_712MA



## *Technical specification*

Maximum diameter	250 mm
Minimum length of the cut	50 mm

