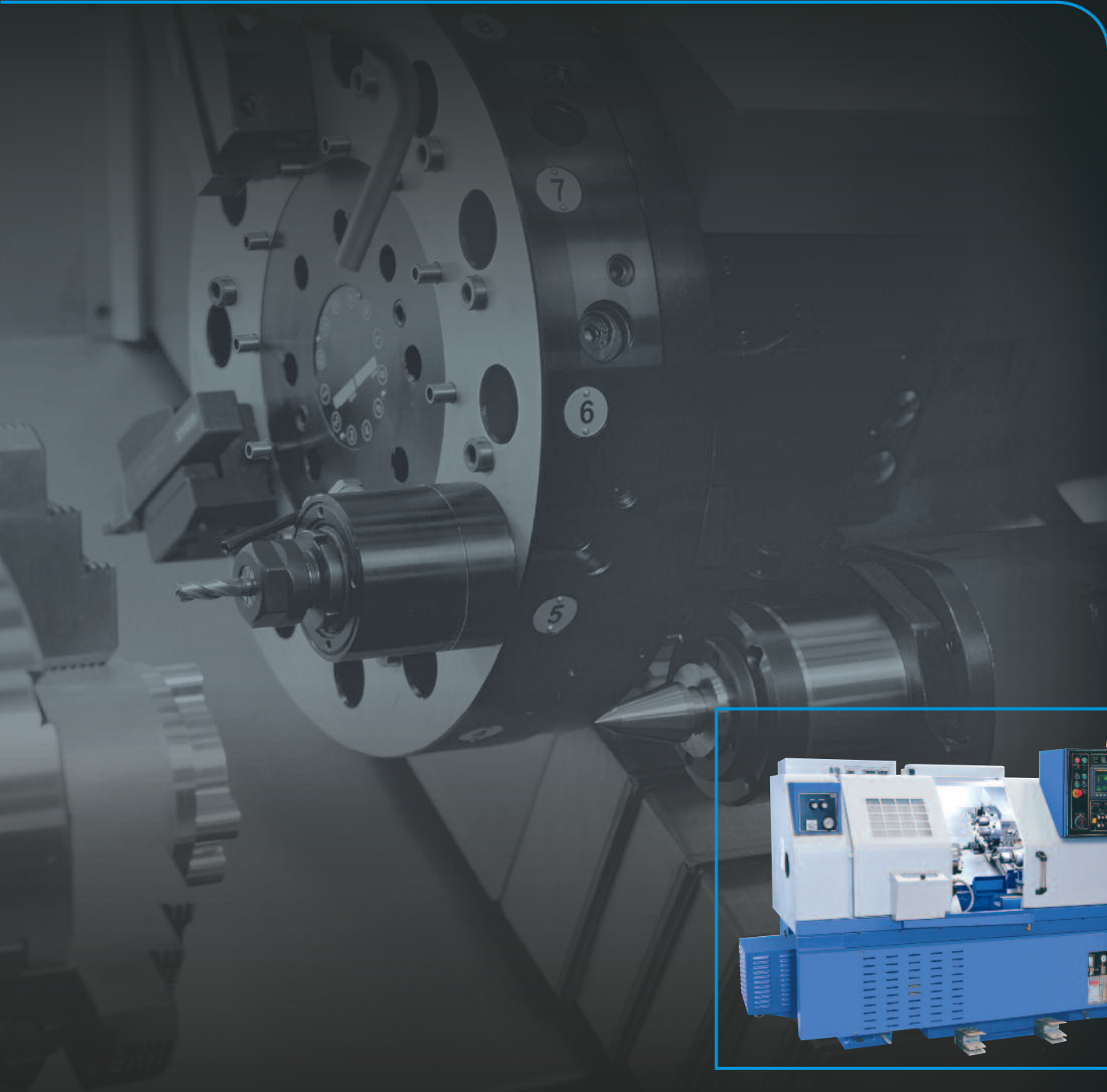
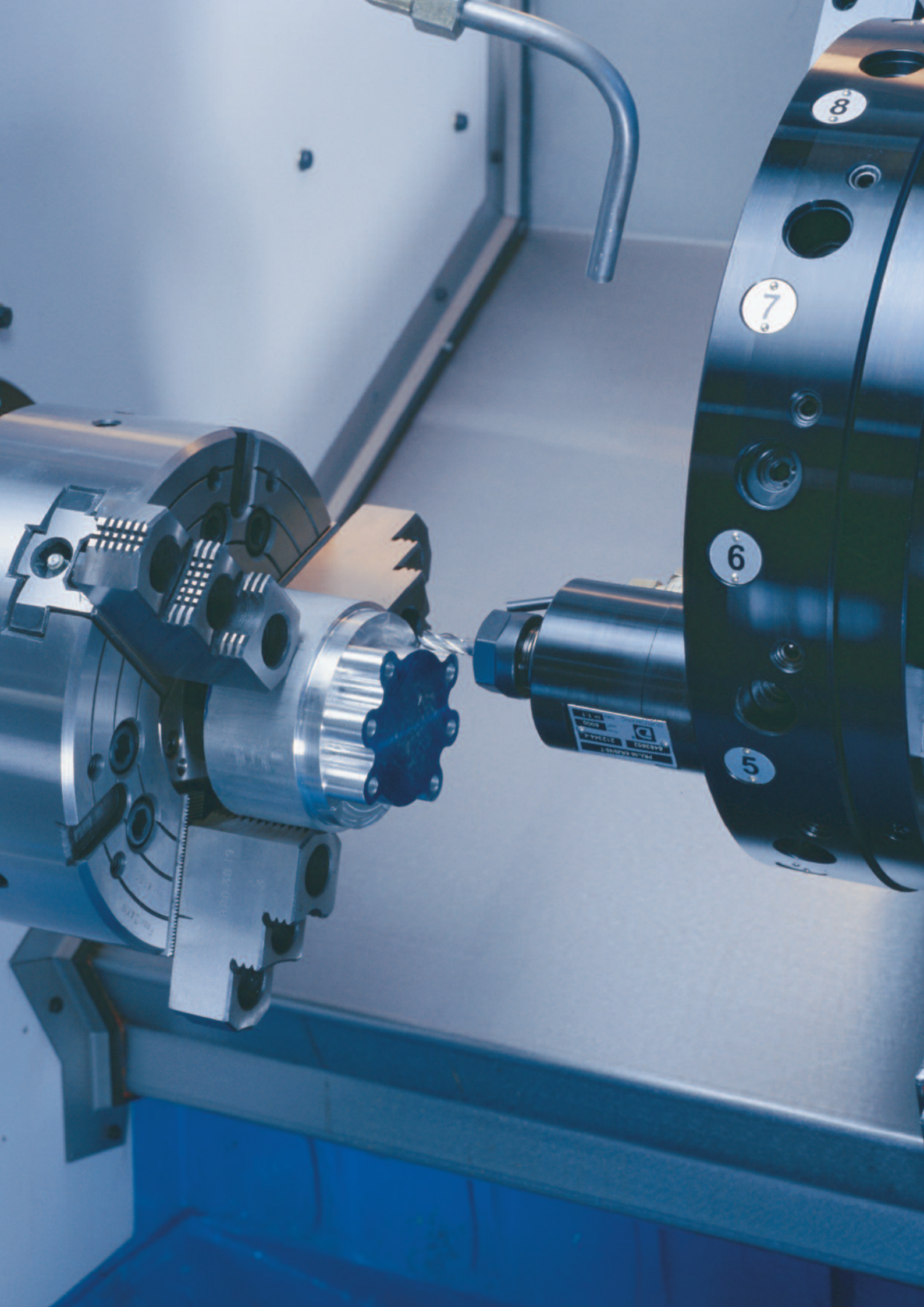


Turn Mill Centers



Ajax Machine Tools Ltd

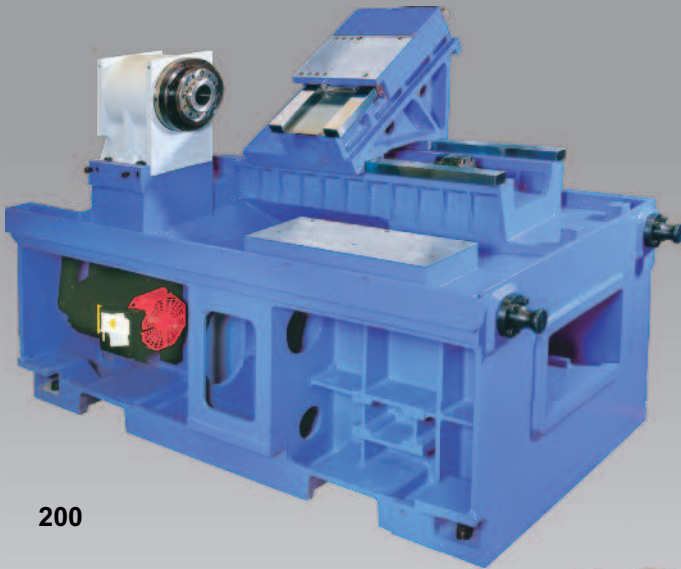


AJAX Turn mill centres are high precision CNC Turning centres with C axis capability to cater a wide variety of machining needs like turning, milling, drilling & tapping in single setup which increases the capability of the machine significantly. The main spindle provides indexing in precise increments for part positioning and during live tool operations, the main spindle is locked by a powerful brake, which disengages while turning and indexing. The C axis provides, bi-directional spindle motion that can be interpolated with X and/or Z motion.

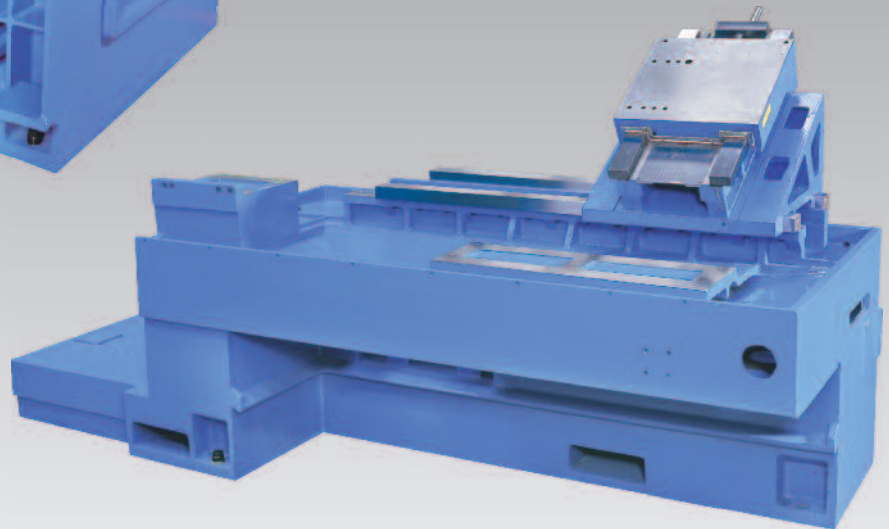
The machine elements like ball screws, bearings, CNC systems and drives have been chosen from some of the best manufacturers in the world. The machine is put together by a dedicated team of skilled craftsmen under expert technical guidance. The machine has superior features like high rapid rates for both axes, rigid cartridge type spindle, safety clutch for both the axes and chip conveying from the rear or side to suit the plant layout.



AJSBLT250 with parts catcher, tool probe and swarf conveyor



200



250

BED

The bed is a fine grain grade 25 cast iron casting. It is well ribbed to provide rigidity and is thermally seasoned. The bed is designed for easy chip flow and removal.

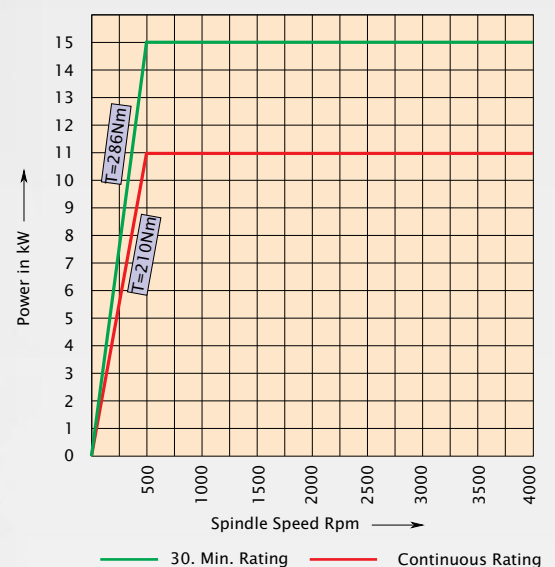
SPINDLE

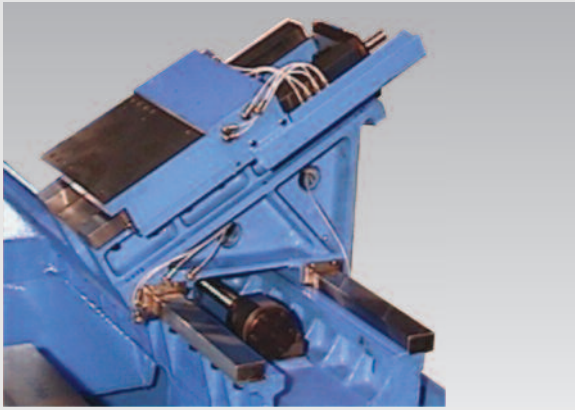
The spindle is assembled and tested in a climatically controlled clean room environment. The spindle is of cartridge type design and uses super precision cylindrical roller bearing and double direction angular contact thrust ball bearing in front and cylindrical roller bearing in the rear. The bearing configuration gives very high stiffness to the spindle assembly in both axial and radial direction. Other bearing configurations are also possible. The bearings are grease lubricated for life.

A high torque spindle motor provides power for heavy stock removal.



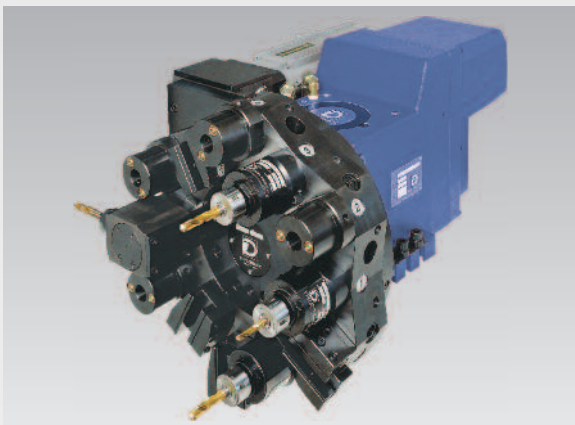
POWER TORQUE DIAGRAM AJSBLT 250





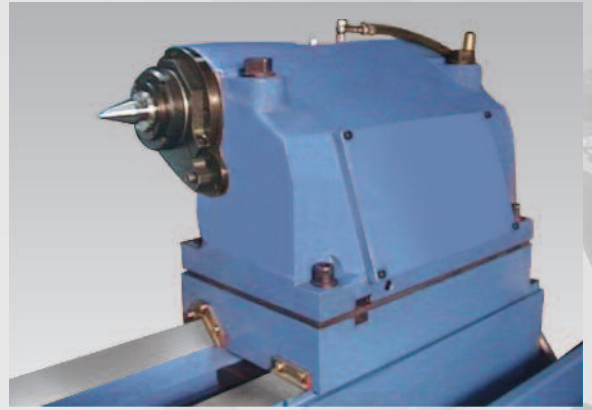
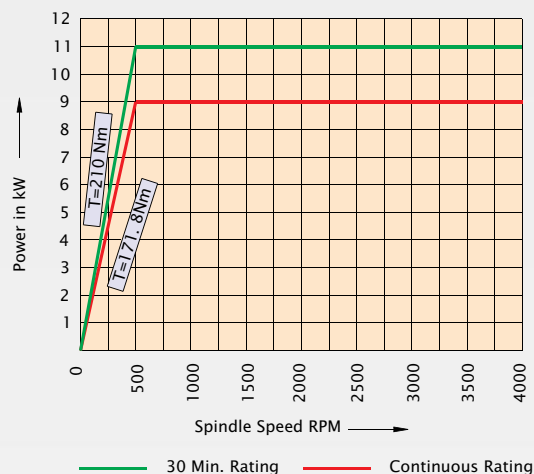
AXES

X and Z-axes feature precision ball screws supported at both ends. Pre-tensioning of the ball screws ensures high positioning accuracy. The guide ways are well spaced to ensure stability, fully protected and are made of hardened and ground box way strips. The mating way is bonded with turcite for its superior wear and friction characteristics. Automatic metered lubrication is provided to the guide ways and ball screw.



TOOL TURRET

POWER TORQUE DIAGRAM AJSBLT 200



TAILSTOCK

The tailstock consists of a hydraulically operated quill that moves inside a housing. The quill and the body are independently moveable. The tailstock is supported on V and flat guideways. Widely spaced guideways and heavy-duty design of the tailstock ensure rigidity. Foot pedal or program activates the quill.

ELECTRICAL SYSTEM

The machine uses highly reliable and internationally accepted electrical elements and sub systems. Fanuc CNC system, Fanuc AC digital spindle motor with controller and Fanuc axes motors with controller are offered as standard.

STANDARD FEATURES

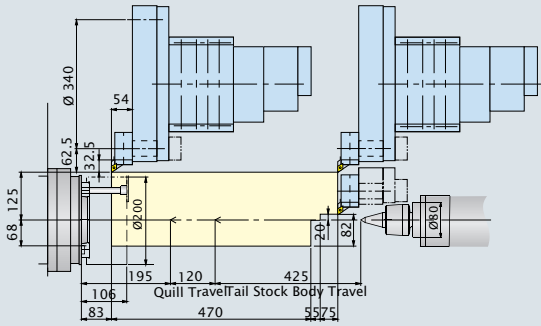
- Fanuc AC spindle & axes drives
- 12 Station Live tool turret
- Hardened and ground guide way strips
- Turcite anti-slipstick liners on slide way surfaces
- Tailstock with live centre
- Automatic centralised lubrication
- Built-in lighting system
- High Power Coolant system

OPTIONAL FEATURES

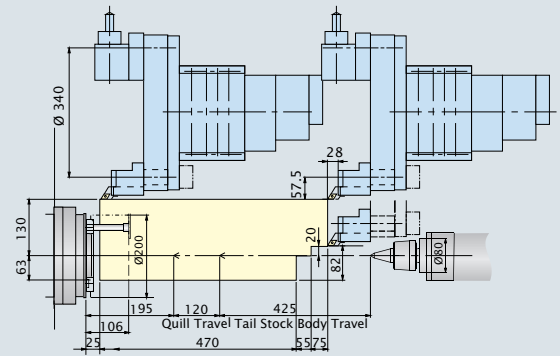
- Fully tooling solutions to meet customer needs
- Chip conveyor at side or rear
- A wide variety of power operated work holding (chucks, collets, fixtures, etc) and tooling
- Auto door
- Parts catcher
- Tool probe
- Bar feeder
- Bar puller
- Programmable tail stock (AJSBLT 250 only)

MACHINING RANGE for AJSBLT 250

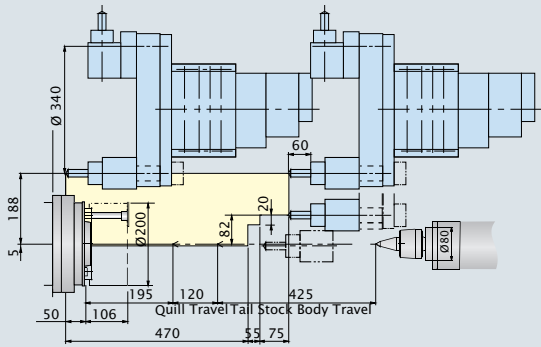
unit : mm



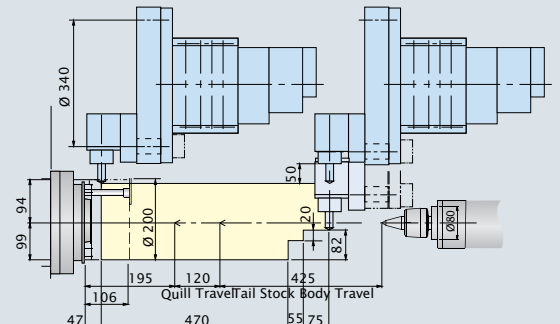
Parallel Shank Transversal Right Hand Short



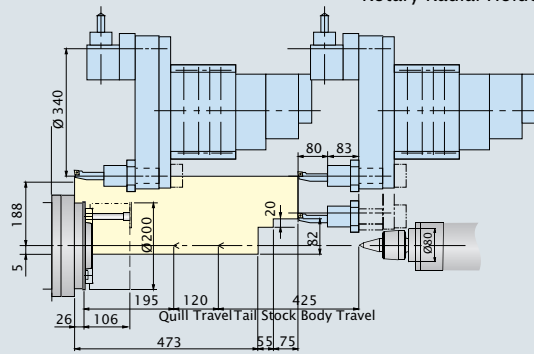
Parallel Shank Longitudinal Right Hand Short



Rotary Axial Holder



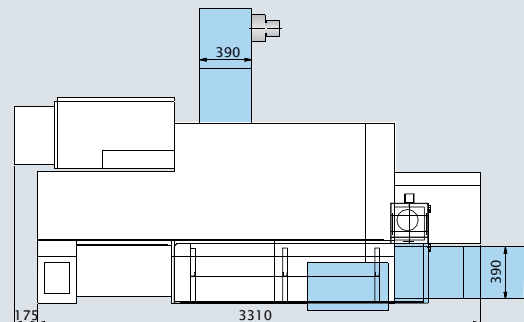
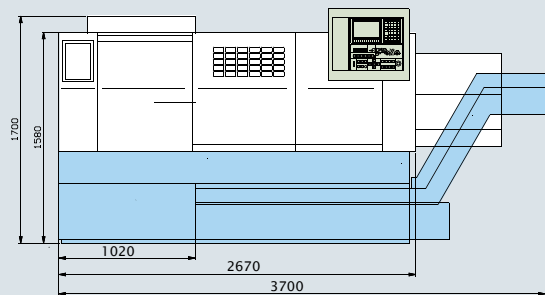
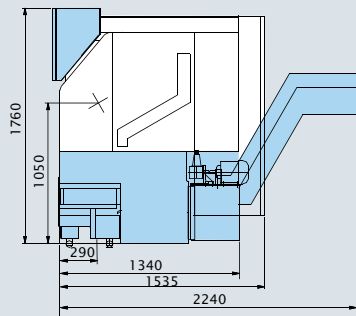
Rotary Radial Holder



Parallel Shank for Boring Bars

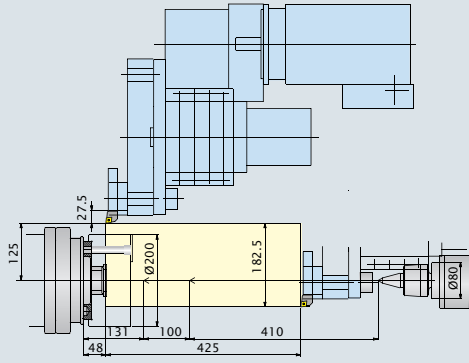
OVERALL VIEWS of AJSBLT 250

unit : mm

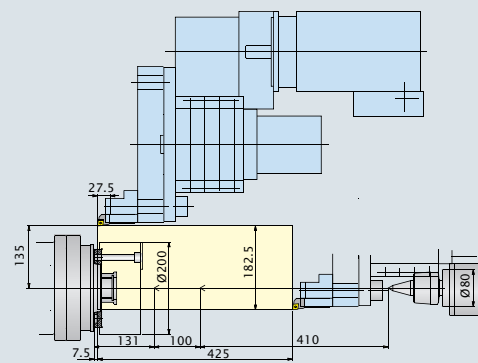


MACHINING RANGE for AJSBLT 200

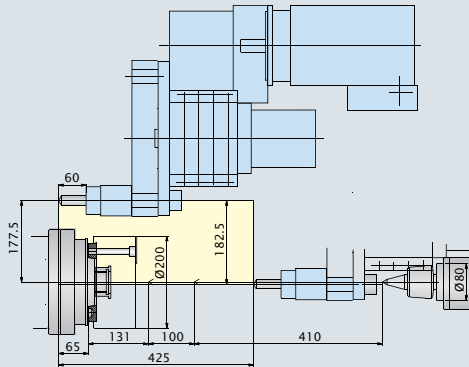
unit : mm



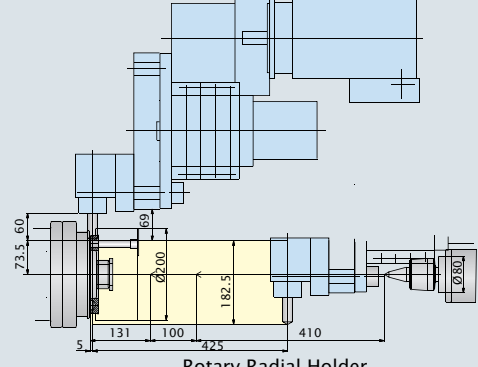
Parallel Shank Transversal Right Hand Short



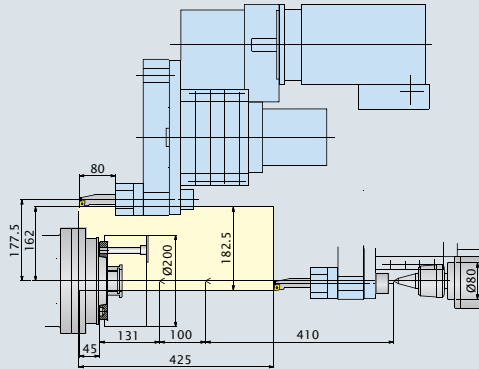
Parallel Shank Longitudinal Right Hand Short



Rotary Axial Holder



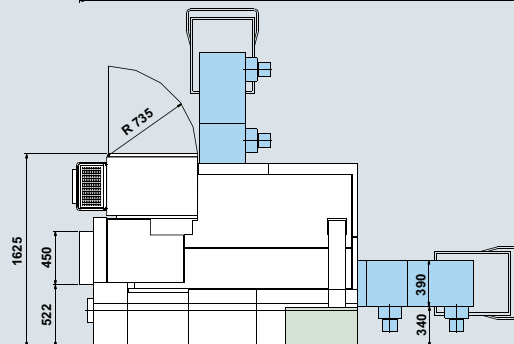
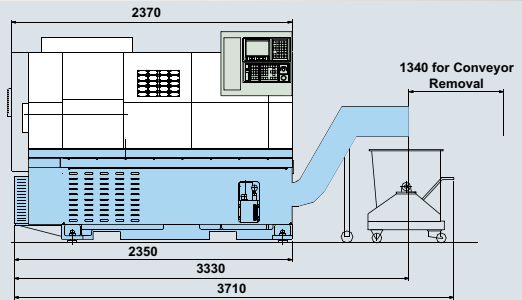
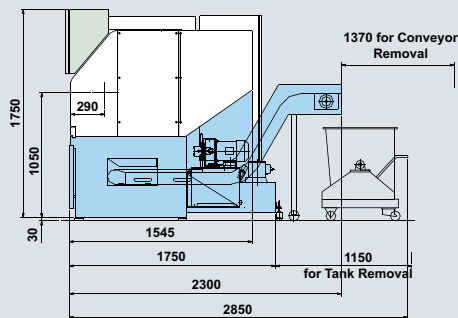
Rotary Radial Holder



Parallel Shank for Boring Bars

OVERALL VIEWS of AJSBLT 200

unit : mm



SPECIFICATIONS

unit : mm

CNC System: Fanuc 0i TC

Features

- Manual data input
- Simultaneously controllable 2 axes
- Part program storage & editing
- Tool nose radius compensation
- Self diagnostics
- Constant surface speed control
- Multiple repetitive cycles
- Thread cutting cycles
- Feed rate override
- Circular interpolation
- Direct drawing dimension programming
- Absolute/ incremental programming
- RS 232C port
- Program memory 640 meters of tape - 256K
- Backlash compensation
- Background editing
- Inch / metric switchable
- Dynamic graphics
- Front PCMCIA port

Options

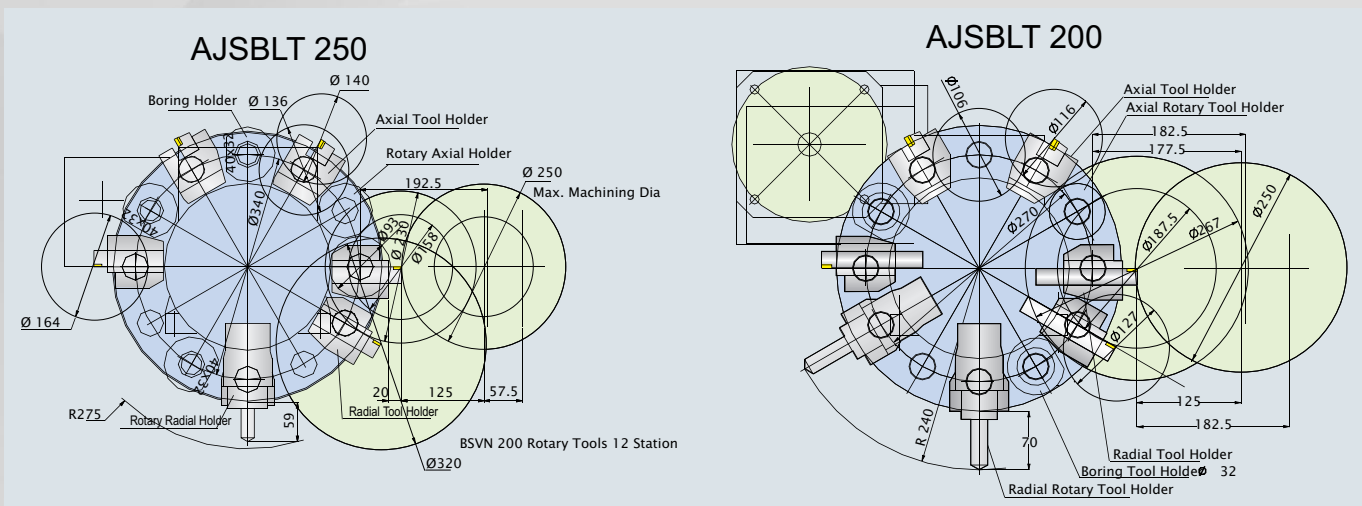
- Manual Guide i (Fully Conversational programming)

		AJSBLT 200	AJSBLT 250
Capacity			
Distance between centers	mm	550	650
Maximum turning dia.	mm	250	250
Maximum turning length	mm	425	600
Main Spindle			
Spindle nose		A2-6	A2-8
Bore thro' spindle	mm	63	86
Bar capacity*	mm	51	74
Chuck size	mm	200	200 / 250
Front bearing bore	mm	100	100 / 120
Spindle motor rated power (cont./30 min. rating)	kW	9 / 11	11 / 15
Spindle speed (Max.)	rpm	4000	4000 / 3000
Axes Slides			
X axis stroke	mm	183	193
Z axis stroke	mm	425	600
Feed rate (inf. variable)	mm / min	0 - 10,000	0 - 10,000
Rapid traverse rate: X axis	m / min	20	20
Rapid traverse rate: Z axis	m / min	20	20
Tailstock			
Quill diameter	mm	80	80
Quill stroke	mm	100	120
Taper in quill		MT-4	MT-4
Thrust (adjustable) Max.	Kgf	500	500
Tailstock base travel	mm	410	425
Turret			
No. of stations		8 (12)	12
Tool holder size		VDI-30	VDI-40
Weight (Approx.)	Kg	4000	5000
Dimensions L x W x H (Approx.)	mm	1750 x 1750 x 1750	3310 x 1535 x 1760

* With appropriate workholding.

INTERFERENCE DIAGRAMS

unit : mm



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