



The versatile lathe.

New generation ST.



New generation ST.

Description.

Pinacho's most sophisticated lathe with servo motor direct engine attack.



ST series are made with the best raw materials and components in Pinacho's Factories. We offer a **high quality product with the best accuracy, rigidity and finish.** The ST series are the result of 70 years of experience as manufacturer. It's a very versatile lathe for machining big and small parts with a **high efficiency production and excellent quality finish and maximum precision.**

With different control options and many accessories we are adapting our lathes to the customers necessities in order to achieve their satisfaction.



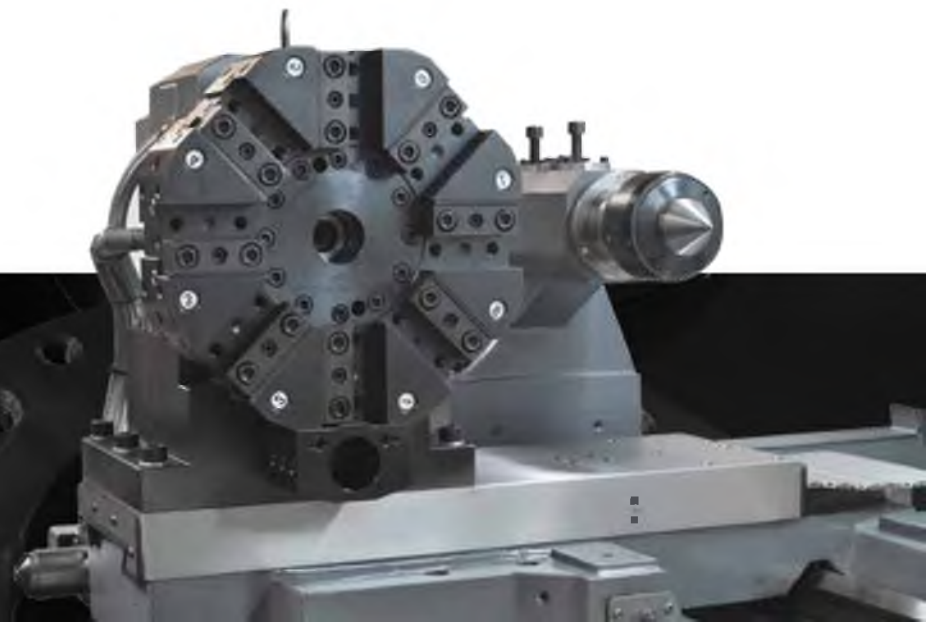
New generation ST.



Standard accessories.

- > Controls FANUC OI TF, FAGOR 8055i & SIEMENS 828D
- > Automatic 8 station turret with 4 tool holders
- > Dynamic, solid and trajectory graphics
- > Profile editor
- > Electronic hand wheels for the X and Z axis
- > Instruction Manual
- > Servo spindle motor
- > Enclosure as per CE regulations (certified)
- > Chip collecting tray
- > Coolant equipment
- > Automatic Lubrication of the slide ways
- > Work light
- > Levelling Plate
- > Main spindle reducing bush and fixed centres

WE BELIEVE THAT THE MODE OF SUCCESS CAN BE ACHIEVED THROUGH DELIVERING HIGH QUALITY PRODUCTS. OUR FUNCTION IS TO PRODUCE SUPERIOR QUALITY FOR OUR ENDUSERS.







New generation ST.



Diversity of controls

FAGOR 8055i

- > User memory in CF (compact flash) 512 Mb.
- > RAM Memory 1 Mb.
- > 11" color display.
- > Spindle orientation M 19.
- > Profile Editor.
- > Ethernet.
- > DNC for PC communication. RS 232.
- > Front panel with USB port for pen-drives use only.
- > Rigid tapping.
- > Machining canned cycles for lathe in ISO-G code and Conversational programming .



New generation ST.

FANUC OI-TF

- > Nano CNC system combined with precise nano- calculation and leading-edge servo technology.
- > All Contouring Control effective for high-speed and high precision machining.
- > 8.4" color display.
- > Smooth Tolerance Control makes it easy to adjust the precision needed for machining.
- > Smart Overlap enables a shorter cycle time for machining parts.
- > Servo HRV provides high-speed and high accuracy.
- > Spindle HRV has high acceleration and high response.
- > FANUC SERVO GUIDE with quick and smart tuning.



SIEMENS 828D

- > Panel-based compact CNC
- > 8.4" color display
- > Up to 5 axes / spindles
- > 1 machining channel
- > Min. block change time ~ 3 ms (M)
- > 128 tools, 256 cutting edges
- > 3MB user memory





New generation ST.

① Pinacho uses **the best raw materials.**



- > All castings are grey pearlitic cast iron GG20/25 all made in Pinacho's foundry.
- > Beds are Hardened by induction and ground, the hardness is 400-450 HB/ 43 Rockwell C.
- > Gears F155.
- > Bearings SKF, FAG and TIMKEN.
- > The complete package of drivers and servo motors is original from the control brand: FANUC, FAGOR or SIEMENS.
- > Hardened and ground steel spindles.





New generation ST.

Optional accessories

- > Larger spindle up to 155mm
- > Live tool turret with C axis
- > 3 & 4 jaws universal and independent chuck
- > Fixed steady rest
- > Follow rest
- > Rear chuck
- > Hydraulic chuck and tailstock
- > Hydraulic collet chuck
- > Hydraulic steady
- > VDI 12 position disc
- > Bar feeder
- > 6 BAR coolant system
- > Casting pedestals
- > Chip conveyor
- > Part catcher
- > Tool setter

Diplomatic live tool BMT turret



Big Spindles



Hydraulic chuck



Chip conveyor



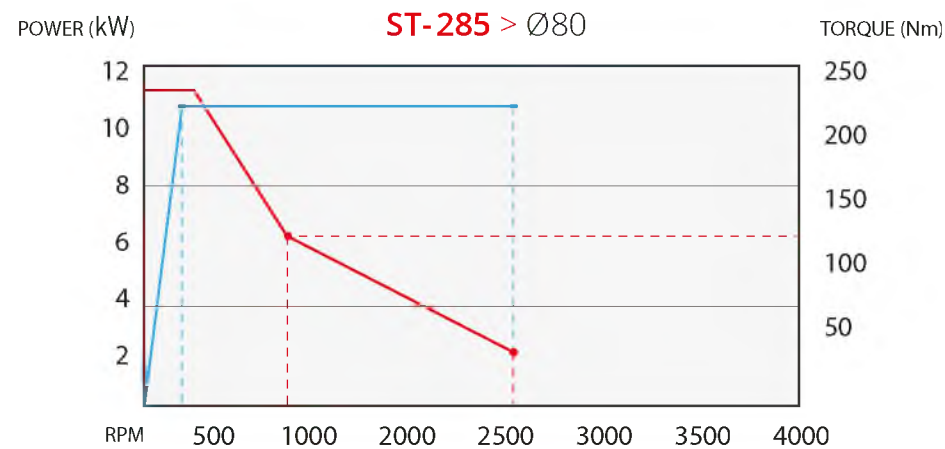
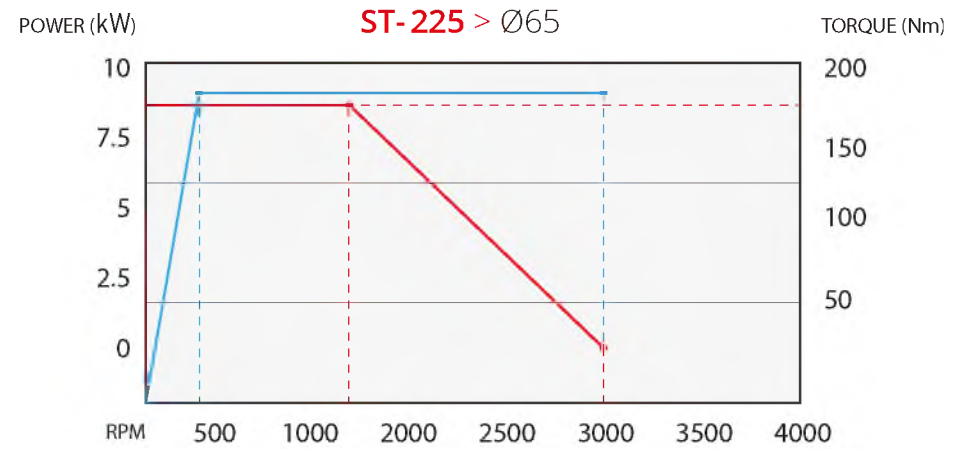
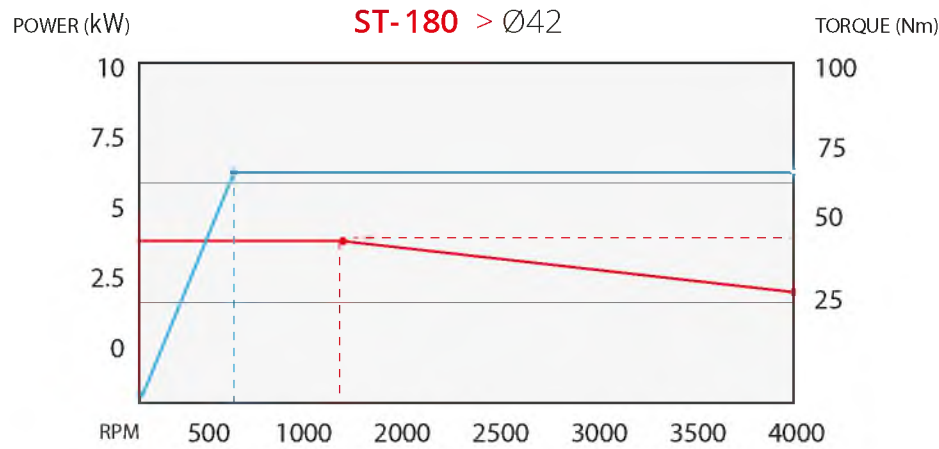
Hydraulic steady rest





New generation ST.

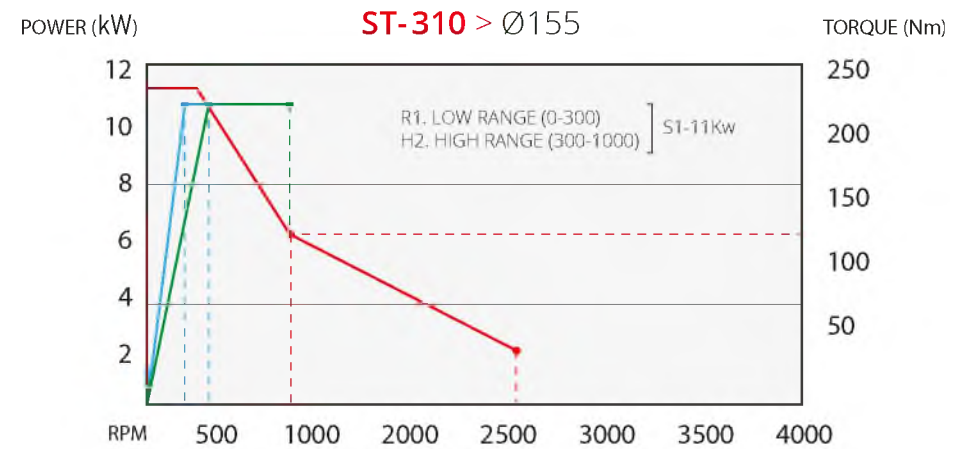
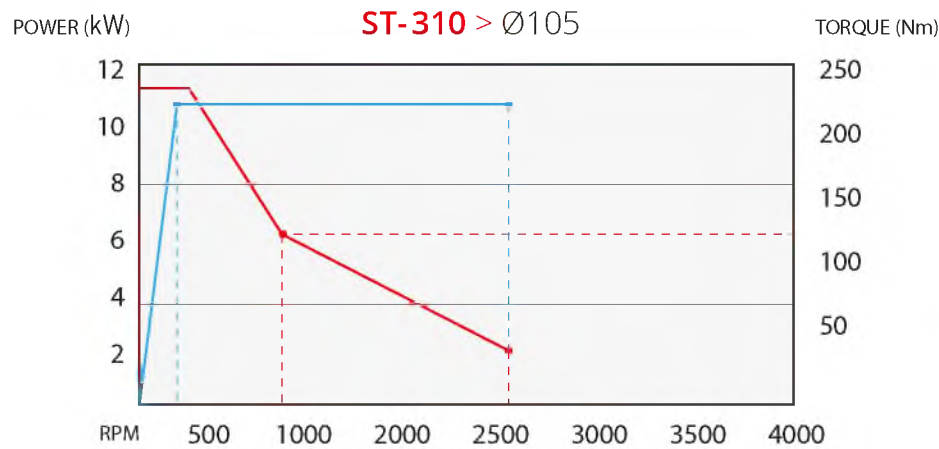
Power / Torque diagram ST





New generation ST.

Power / Torque diagram ST

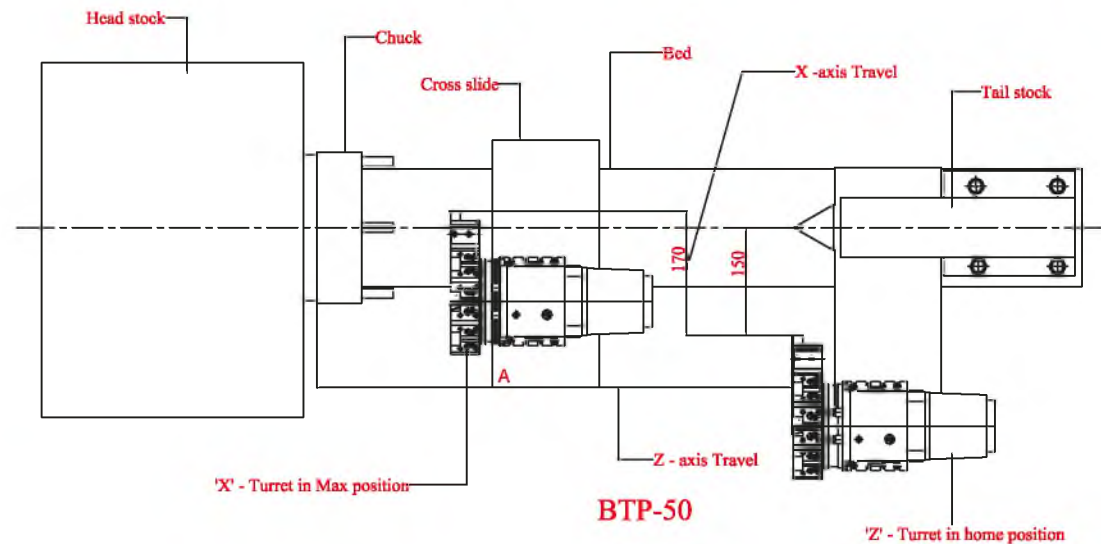
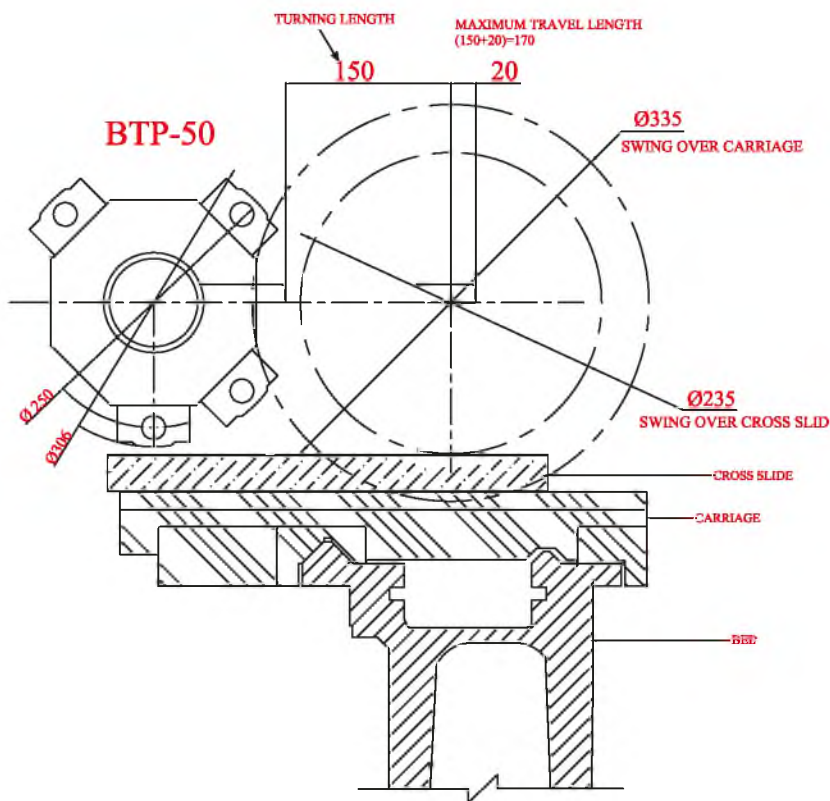




New generation ST.

Tool interference diagram.

> ST 180



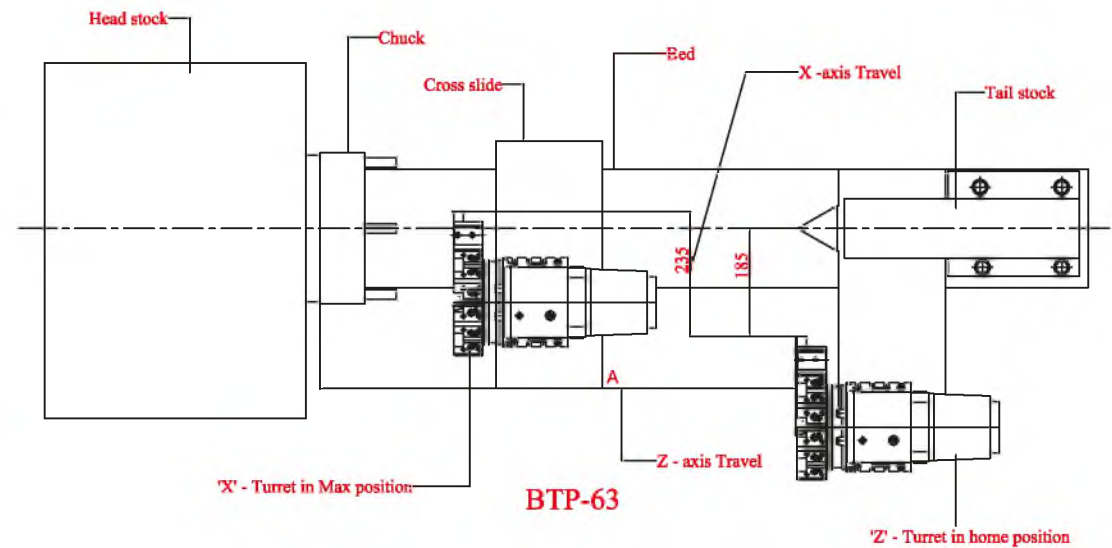
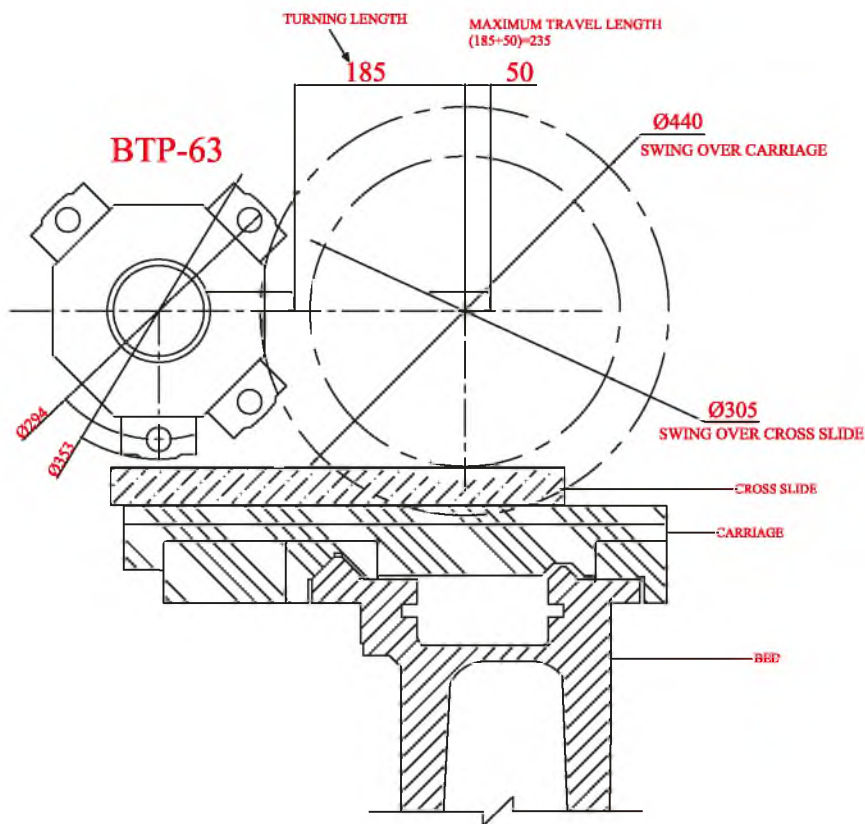
>—<	750	1000
A	705	950



New generation ST.

Tool interference diagram.

> ST 225



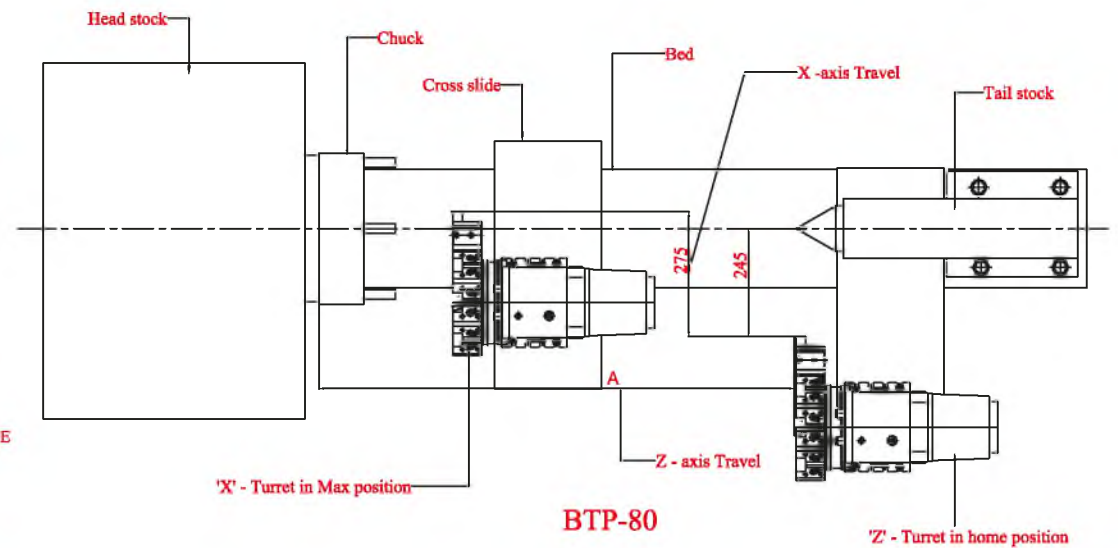
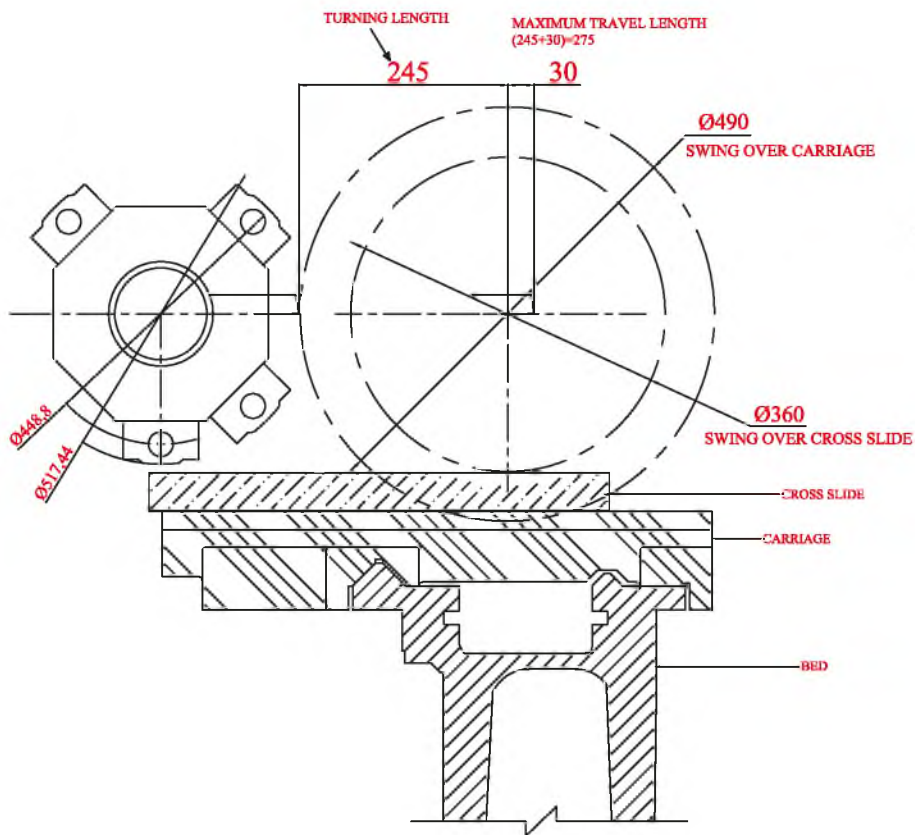
>—<	1000	1500
A	1030	1500



New generation ST.

Tool interference diagram.

> ST 285



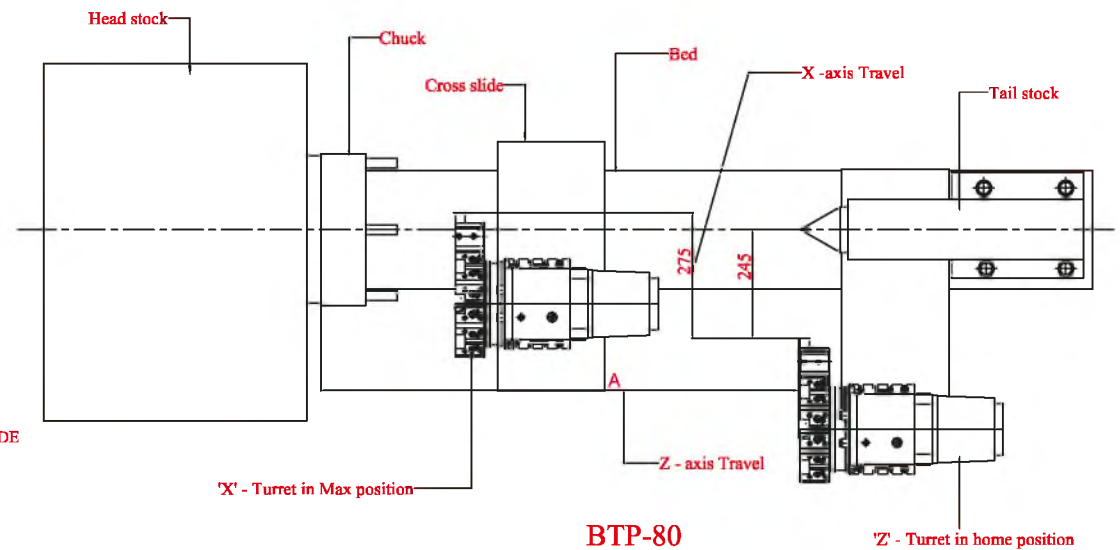
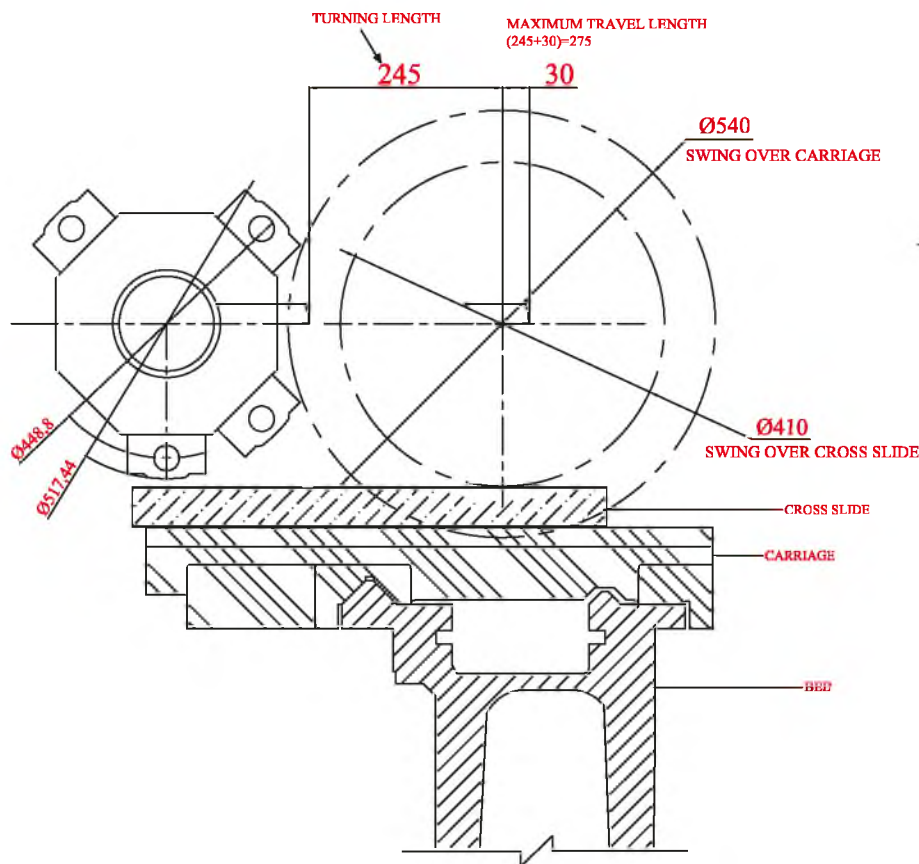
>—<	1000	1500	2000	3000
A	990	1470	2050	2980



New generation ST.

Tool interference diagram.

> ST 310



>—<	1000	1500	2000	3000
A	990	1470	2050	2980



New generation ST.

▷ MODEL	▷ ST 180		▷ ST 225		▷ ST 285		▷ ST 310		
SPECIFICATIONS	MM	INCH	MM	INCH	MM	INCH	MM	INCH	
Centre distance	750/1000	30"/40"	1000/1500	40"/60"	1000/1500 2000/3000	40"/60" 80"/120"	1000/1500 2000/3000	40"/60" 80"/120"	
Centre height	180	7"	225	16"	285	11"	310	12"	
Swing over bed	360	14"	450	32"	570	24"	620	24"	
Swing over carriage	300	12"	370	28"	490	21"	540	21"	
Swing over cross slide	190	7"	260	20"	360	16"	410	16"	
Cross slide travel	185	7¼"	235	16"	300	11¾"	310	12"	
Lenght of carriage	450	17¾"	485	35"	550	21¾"	550	21¾"	
Lenght of cross slide	500	19 ½"	500	29 ½"	600	23 ¾"	600	23 ½"	
Bed width	250	10"	300	17"	350	14"	350	14"	
Headstock Main spindle bore	42	1 ½"	65	2 ½"	80	3"	105 155	4" 6"	
Main spindle nose	A2-5/5		A2-6/6		A2-6/6		A2-8/8	A2-11/11	
Main spindle morse taper (MT)	4		5		5		5	5	
Speed range (rpm)	Range I	0-4000		0-3000		0-3000		0-2500	0-300
	Range II								300-1000
Working feed Z, X (mm/min)	0-7500		0-7500		0-7500		0-7500		
Rapid traverse Z (m/min)	12		12		12		12		
Rapid traverse X (m/min)	15		15		15		15		
Z - axis ball screw ø	40/10		40/10		40/10		40/10		



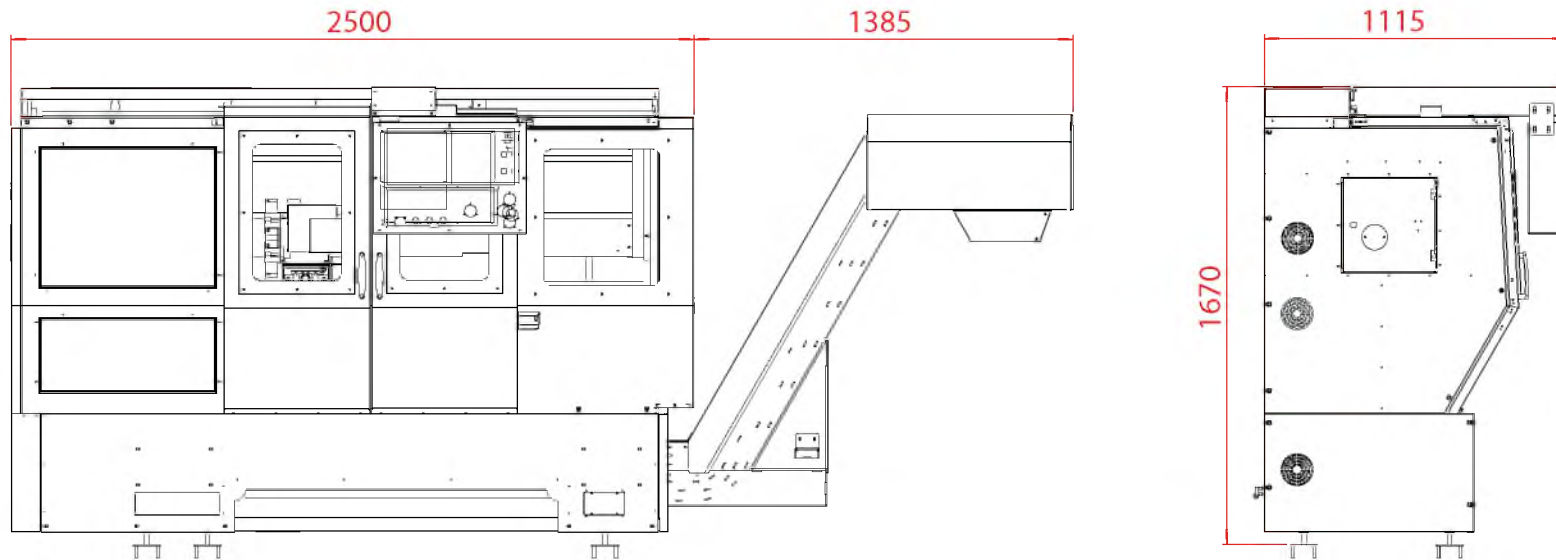
New generation ST.

▷ MODEL	▷ ST 180		▷ ST 225		▷ ST 285		▷ ST 310		
X - axis ball screw ø	20/5		20/5		20/5		20/5		
Tail stock barrel ø	58	2 ¼"	68	2 ½"	95	3 ¾"	95	3 ¾"	
Tail stock barrel travel	180	7"	200	7 ¾"	220	8 ½"	220	8 ½"	
Tail stock morse taper (MT)	4		4		5		5		
Number of stations	8		8		8		8		
Tool shank	20	3 ¼"	25	1"	25	1"	25	1"	
Boring bar	32	1 ¼"	40	1 ½"	40	1 ½"	40	1 ½"	
Position Accuracy	0.01		0.01		0.01		0.01		
Repeatability	0.01		0.01		0.01		0.01		
Fixed Steady capacity	125	4 ¾"	145	5 ½"	185	7 ¼"	185	7 ¼"	
Follow rest capacity	90	3 ½"	95	3 ¾"	130	5"	130	5"	
Main Motor Power (kW)	7.5		9		11		11		
Pump Motor Power (kW)	0.37		0.37		0.37		0.37		
Discharge (l/min)	25		25		25		25		
Capacity of coolant tank (lts)	42/55		67/92		81/111/151/201		81/111/151/201		
Overall dimensions (mm)	Length	2250/2500		2800/3300		2800/3325/3850/4750		2800/3325/3850/4750	
	Width	1115		1215		1350/1450		1350/1450	
	Height	1630		1750		1810/1875		1810/1875	
	Weight (kg)	1200/1490		1400/1680		2250/2475/2970/3640		2300/2515/3010/3700	
Acceptance Accuracy	DIN 8605		DIN 8605		DIN 8605		DIN 8605		



New generation ST.

ST180 X 1000



	LENGTH	WIDTH	HEIGHT	WEIGHT Kg
ST 180 X 750	2250	1115	1670	1200
ST 180 X 1000	2500	1115	1670	1490

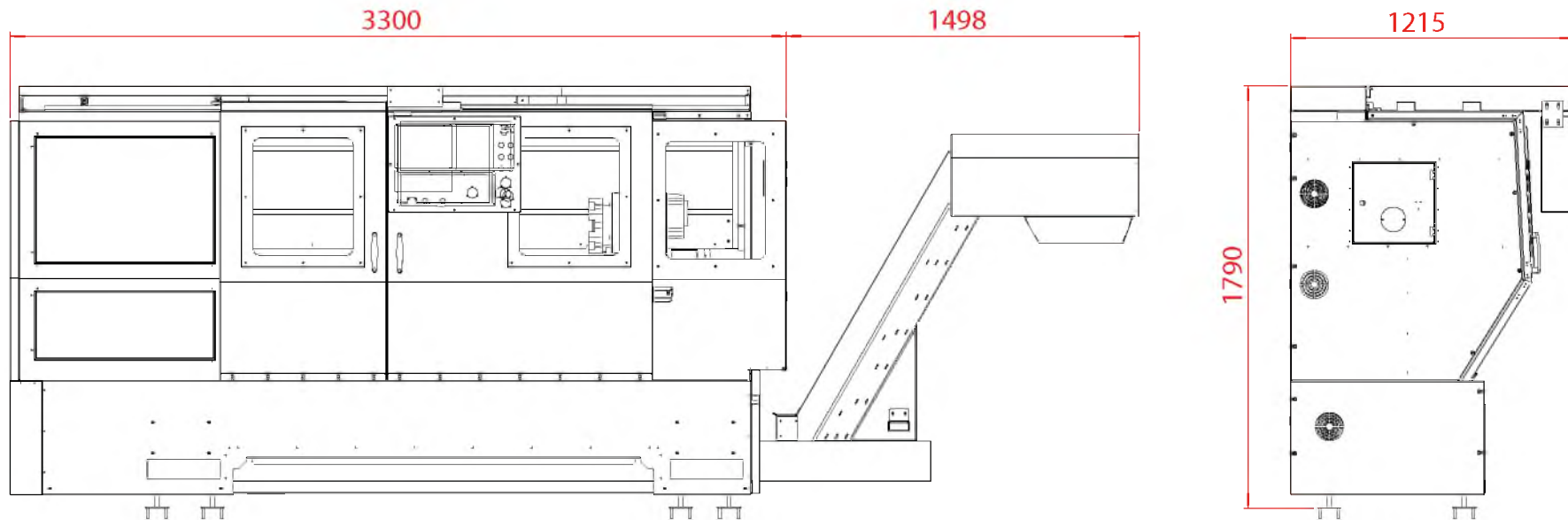
WORKPIECE MAX.WEIGHT

	MAX WEIGHT B/W CHUCK & TAILSTOCK in kg	MAX WEIGHT IN CHUCK in kg
ST 180 X 750	280	135
ST 180 X 1000	300	



New generation ST.

ST225x1000



	LENGTH	WIDTH	HEIGHT	WEIGHT Kg
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ST 225 X 1000	2800	1215	1790	1400
ST 225 X 1500	3300	1215	1790	1680

WORKPIECE MAX.WEIGHT

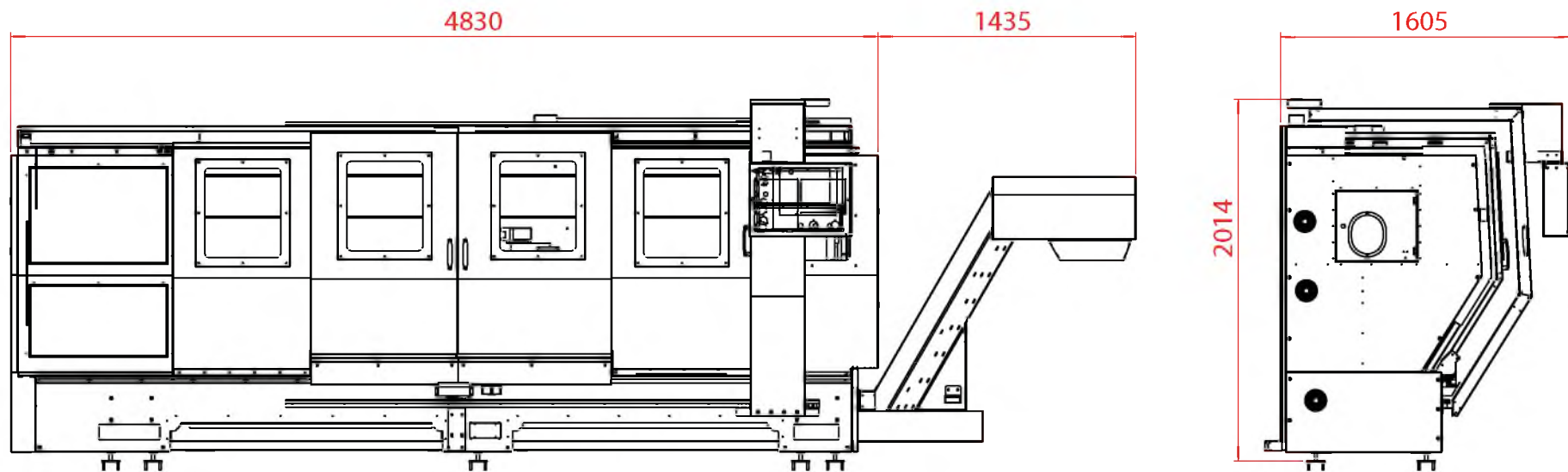
MAX WEIGHT B/W CHUCK & TAILSTOCK in kg	MAX WEIGHT IN CHUCK in kg
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ST 225 X 1000	450	225
ST 225 X 1500	750	



New generation ST.

ST285/310x1500



WORKPIECE MAX.WEIGHT

	LENGTH	WIDTH	HEIGHT	WEIGHT Kg	MAX WEIGHT B/W CHUCK & TAILSTOCK in kg	MAX WEIGHT IN CHUCK in kg
ST 310 X 1000	2800	1350	1850	2250	1125	
ST 310 X 1500	3325	1350	1850	2475	1690	
ST 310 X 2000	3920	1605	2014	2970	2025	360
ST 310 X 3000	4830	1605	2014	3640	2815	



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