



The versatile lathe

New generation ST



New generation ST

Description

The Pinacho's most sophisticated lathe with servo motor and direct drive spindle



The ST is the most sophisticated computer numeric control lathe of Pinacho providing high working accuracy and rigidity. It has been developed in base of top quality components and manufactured under extremely thorough verification and control processes. The ST parallel lathes use state of the art technology acquired during 70 years of activity.

The ST series are silent and easy to use machines where the headstock is composed of servomotor and main spindle direct drive, providing high turning speed and excellent finish quality.

The Pinacho's ST are lathes up to 3 CNC axis providing an extraordinary versatility in the machine tool world.



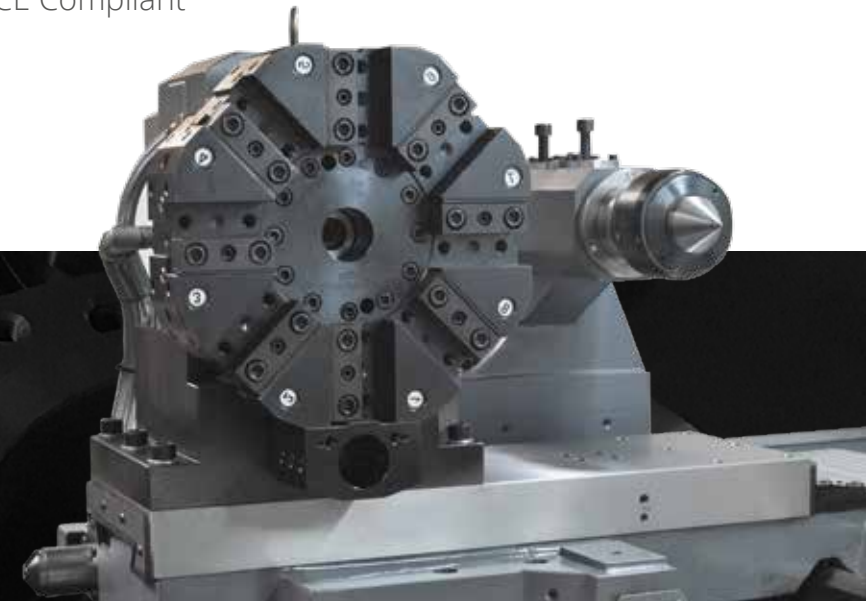
New generation ST



Standard Accesories

- > Control Fanuc 0i-TF, Fagor 8055i/FL-TC & Siemens 828D.
- > Automatic 8 station turret with tool holders
- > Dynamic, solid and trajectory graphics (depending on the control and software version)
- > Profile editor
- > Electronic hand wheels for X and Z axis
- > Headstock equipped with servomotor and main spindle direct drive
- > Manual tailstock
- > Coolant equipment
- > Automatic lubrication for the slide ways
- > Main spindle reducing bush and dead centres
- > Chip collecting tray
- > Work light
- > Tower lamp
- > Enclosure according to EC standards
- > Leveling plates
- > Instruction manual
- > CE Compliant

IN PINACHO WE BELIEVE THAT SUCCESS CAN BE ACHIEVED THROUGH DELIVERING HIGH QUALITY PRODUCTS. OUR GOAL IS TO OBTAIN THE EXCELLENCE OF OUR MACHINES IN ORDER TO SATISFY THE MOST DEMANDING CUSTOMERS





New generation ST



Diversity of controls



FAGOR 8055i/FL-TC

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



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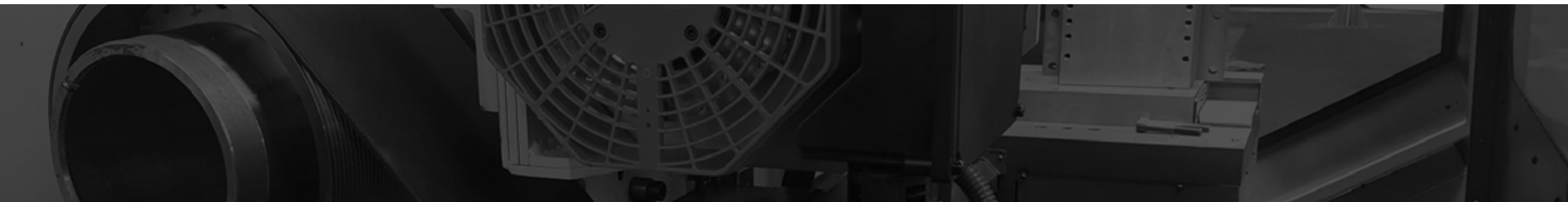
FANUC Oi-TF

- > 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
- > Fanuc Servo Guide with quick and smart turning



SIEMENS 828D

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





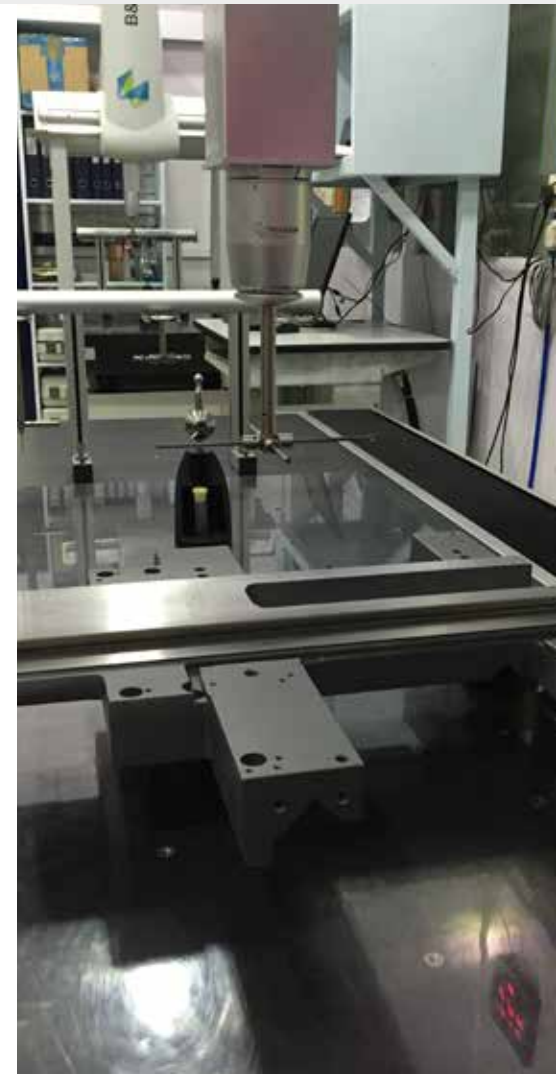
New generation ST



Pinacho uses the best raw materials



- > All castings are grey pearlitic cast iron GG20/25 entirely produced in Pinacho's foundry
- > Beds are induction hardened and slide ways ground; the hardness is 400-450 HB/ 43 HRC
- > Gears made of F155 steel
- > Bearings SKF, FAG and TIMKEN
- > Hardened and ground steel spindles
- > The complete package of control, servo-motors and drivers is original from the control brand: Fanuc, Fagor or Siemens





New generation ST

Optional accessories

- > Larger spindle bore options up to 155 mm
- > C axis
- > 12 positions live tool turret VDI 30
- > 8 or 12 positions VDI 20/30/40 disk for standard automatic turret
- > Self-centering and independent 3 or 4 jaws chuck
- > Hydraulic chuck and tailstock
- > Rear chuck
- > Hydraulic collet chuck
- > Steady rest and follow rest
- > Hydraulic steady
- > Automatic or semi-automatic bar feeder
- > 6 Bar coolant pump
- > Portable hand wheel
- > Casting pedestals
- > Chip conveyor
- > Part catcher
- > Renishaw tool setter

Live tool turret VDI 30



larger spindle bore up to 155 mm



Hydraulic chuck



Chip conveyor



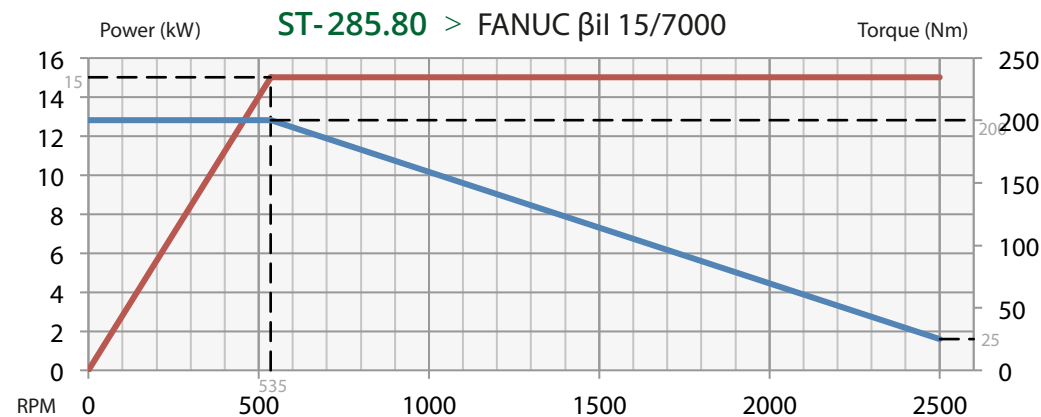
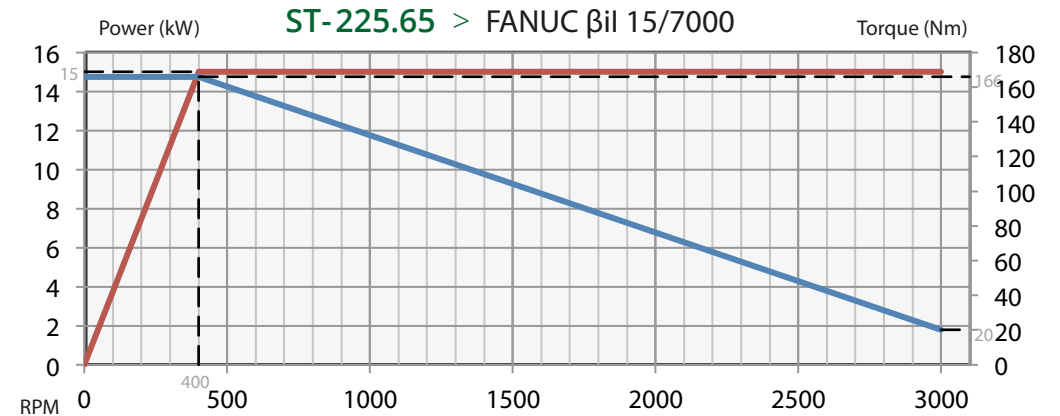
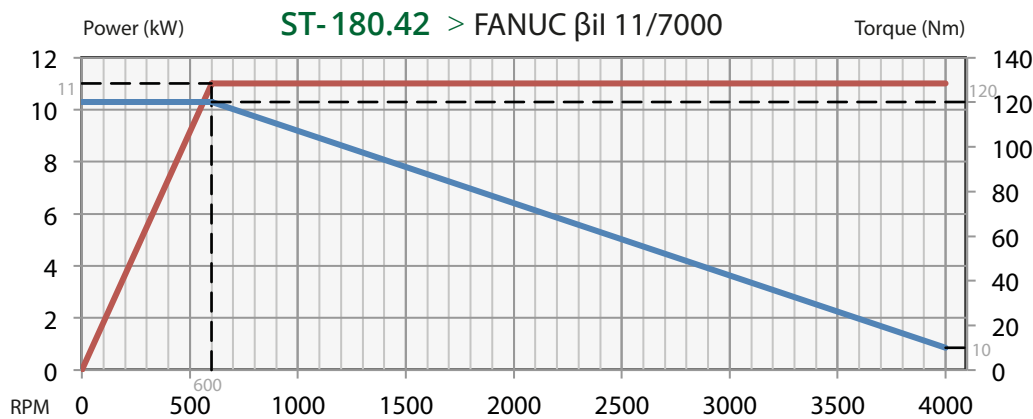
Hydraulic steady rest





New generation ST

Torque & power characteristic curves, ST

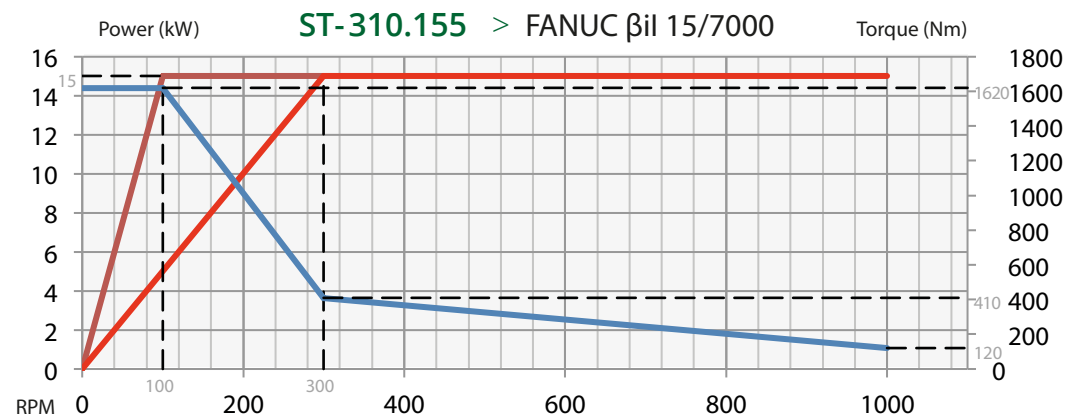
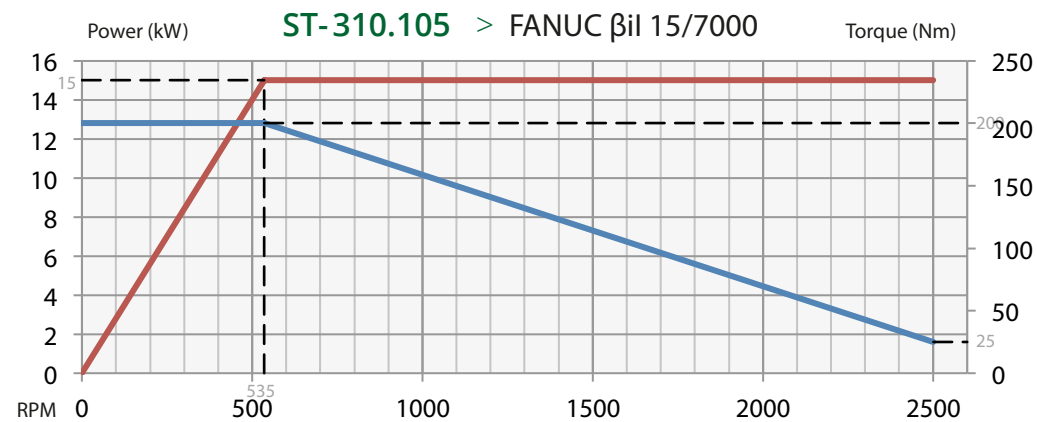


— R1: Power/Potencia S1 (kW) — Torque/Par S1 (Nm)



New generation ST

Torque & power characteristic curves, ST

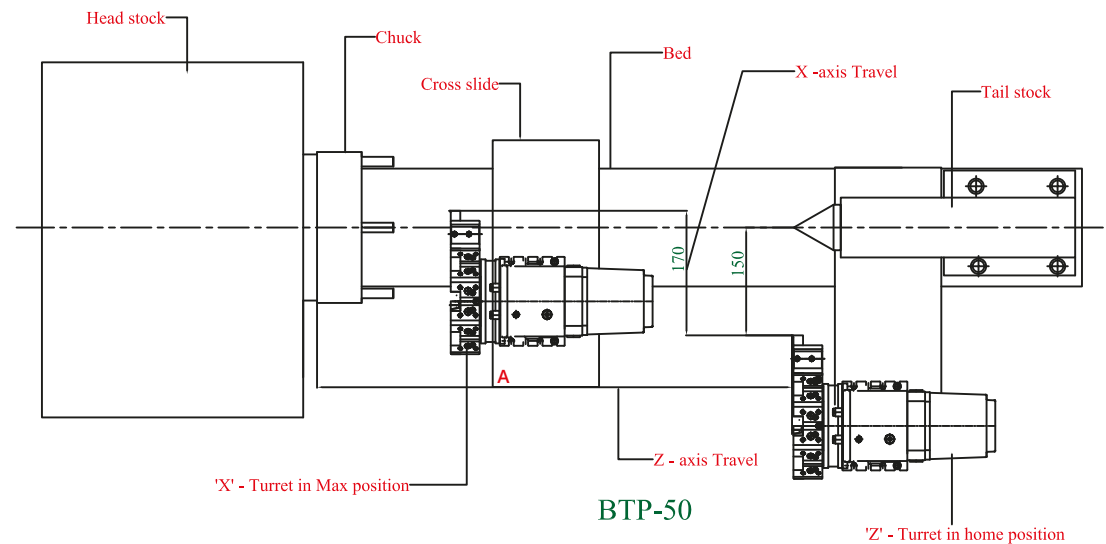
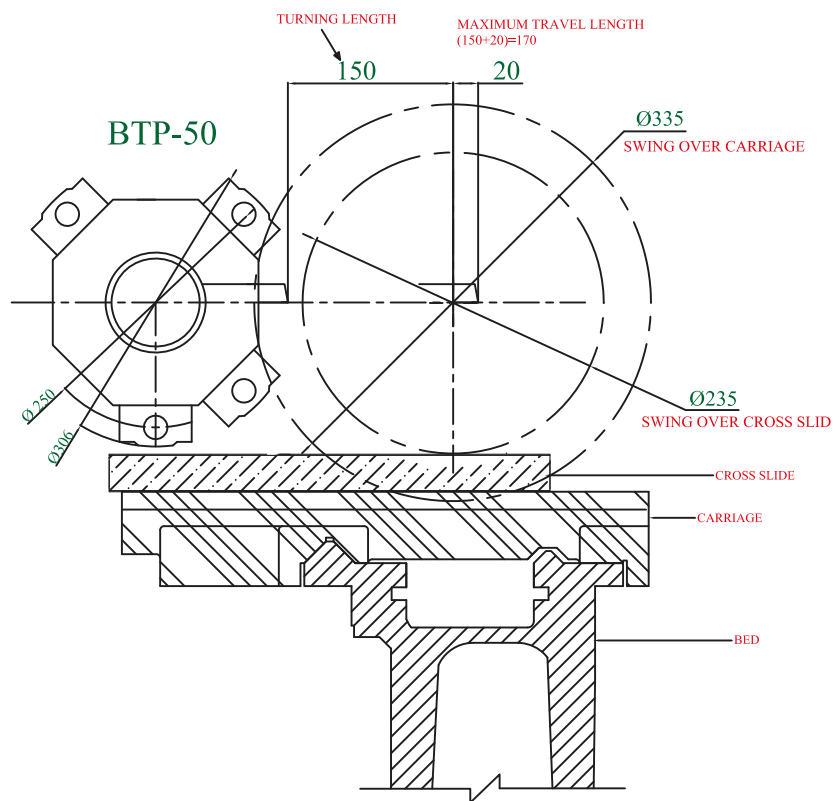




New generation ST

Interference tool diagram, ST

> ST 180 standard 8 station turret



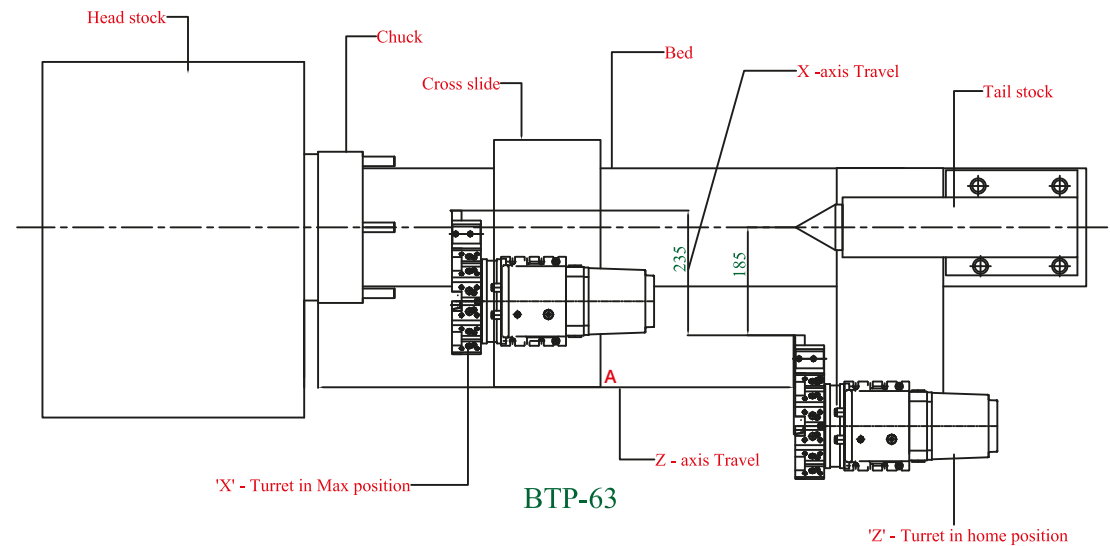
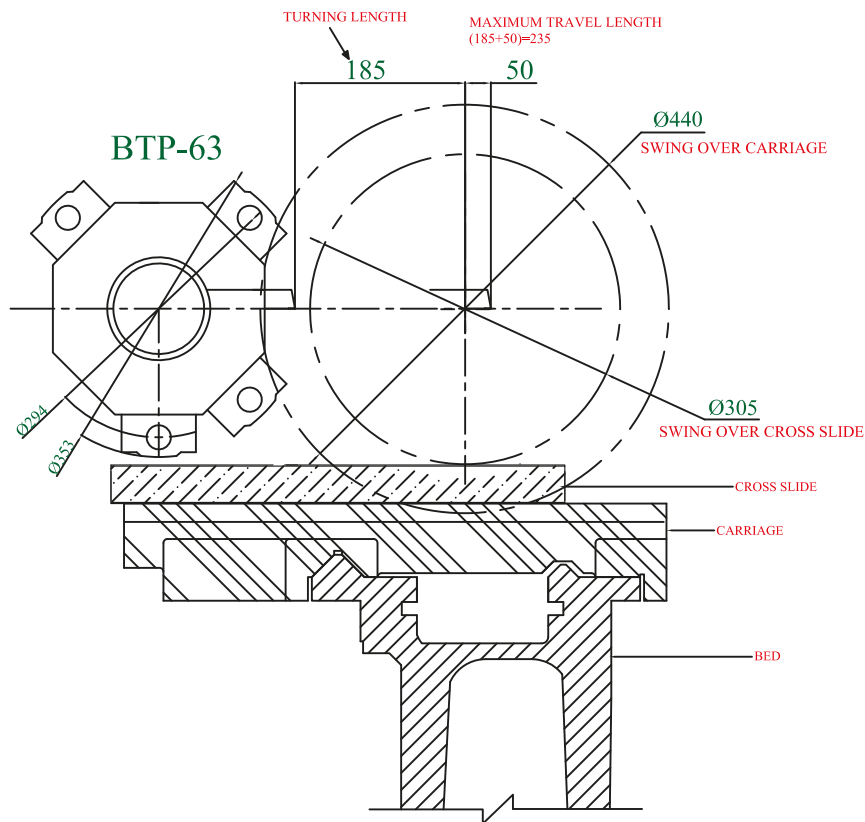
>—<	750	1000
A	705	950



New generation ST

Interference tool diagram, ST

> ST 225 standard 8 station turret



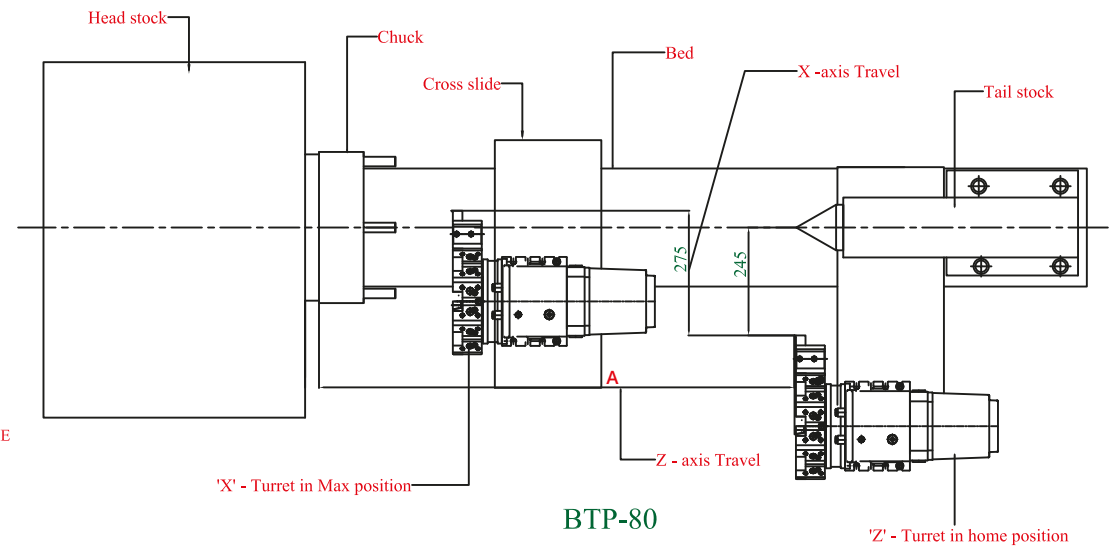
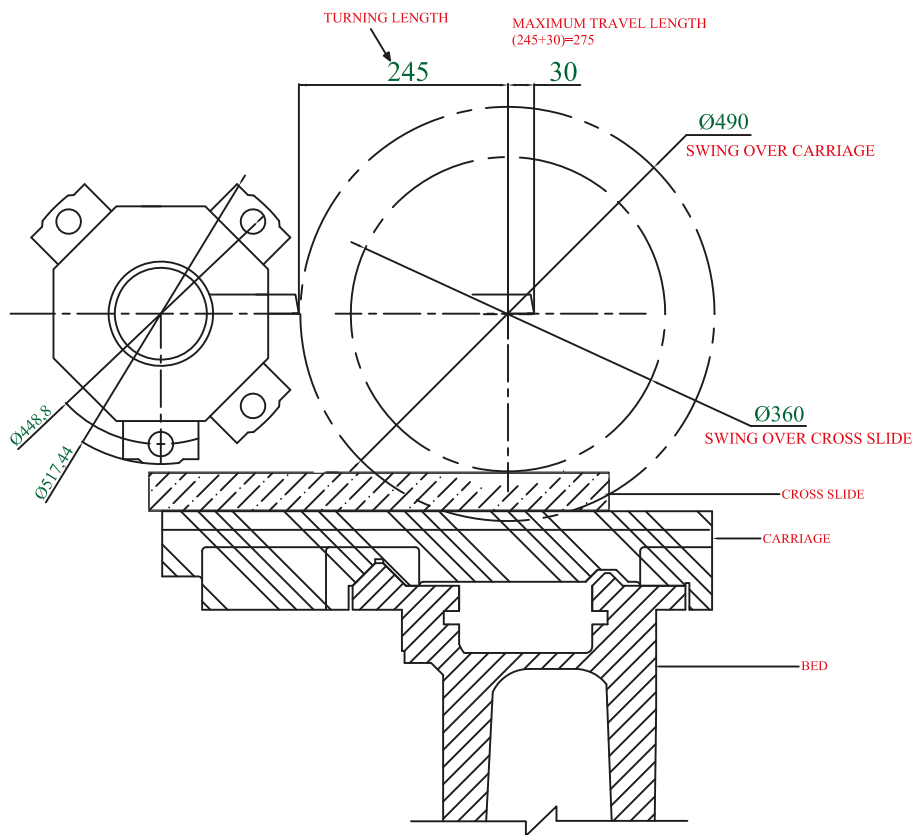
>—<	1000	1500
A	1030	1500



New generation ST

Interference tool diagram, ST

> ST 285 standard 8 station turret



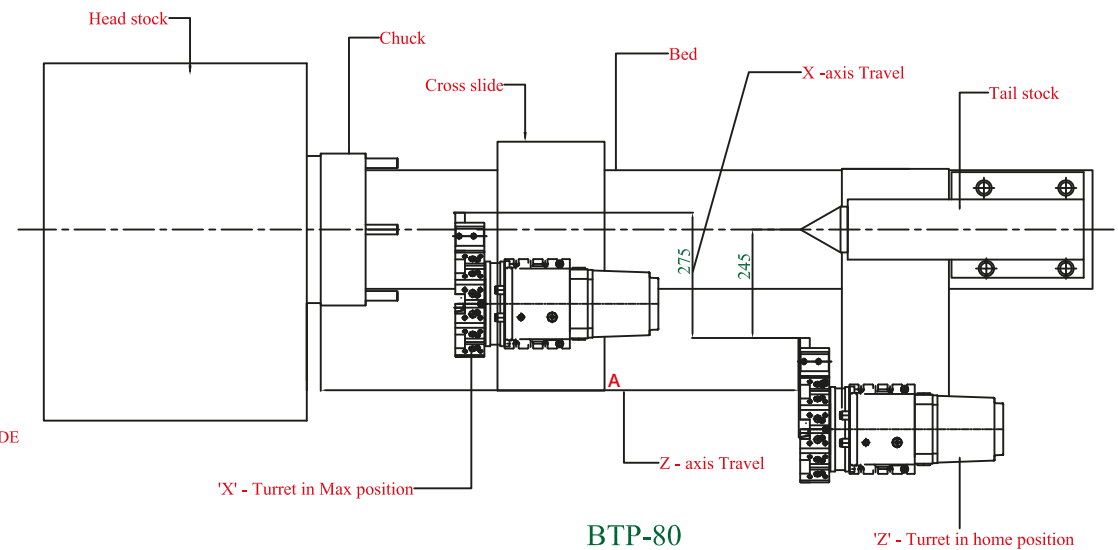
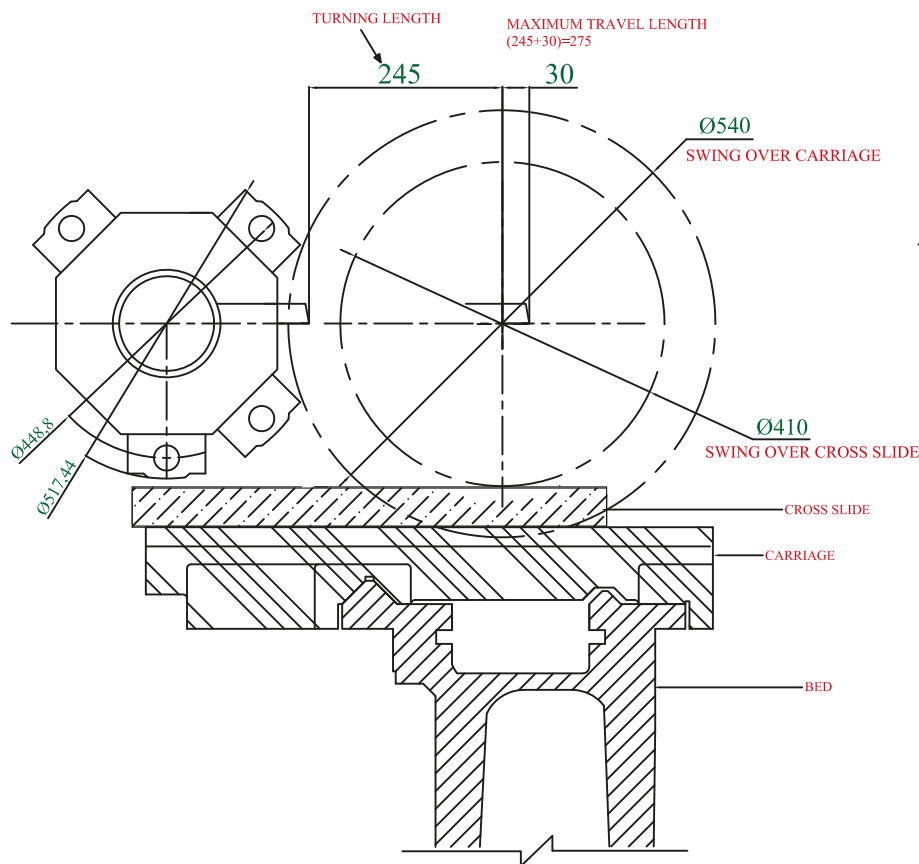
>—<	1000	1500	2000	3000
A	990	1470	2050	2980



New generation ST

Interference tool diagram, ST

> ST 310 standard 8 station turret



>—<	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	
Control		Fanuc 0i-TF / Fagor 8055i/FL-TC / Siemens 828D									
Center 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"		
Center Height		180	7"	225	9"	285	11"	310	12"		
Swing over bed		360	14"	450	18"	570	22½"	620	24"		
Swing over carriage		300	12"	370	15"	490	19¼"	540	21"		
Swing over cross slide		190	7¼"	260	10"	360	14"	410	16"		
Cross slide travel		185	9¼"	235	9¼"	300	11¾"	310	12"		
Length of carriage		450	17¾"	485	19"	550	21¾"	550	21¾"		
Length of cross slide		500	19½"	500	19 ½"	600	23½"	600	23 ½"		
Bed width		250	10"	300	12"	350	14"	350	14"		
Headstock main spindle bore		42	1½"	65	2 ½"	80	3"	105	155	4"	6"
Main spindle nose (ASA/CAM-LOCK)		A2-5/D1-5		A2-6/D1-6		A2-8/D1-8		A2-8/D1-8		A2-11/--	
Main spindle nose taper (MT)		4		5		5		5		5	
Speed ranges (rpm) (Only valid for Fanuc 0i-TF control)	Range I	0-4000		0-3000		0-2500		0-2500		0-300	
	Range II									300-1000	
Working feeds 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 & pitch (mm)		40/10		40/10		40/10		40/10			

Specifications subject to change without notice. Not responsible for typographical error. Machines are shown with optional equipment



New generation ST

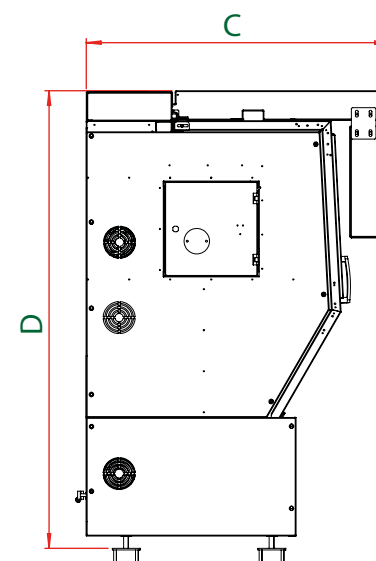
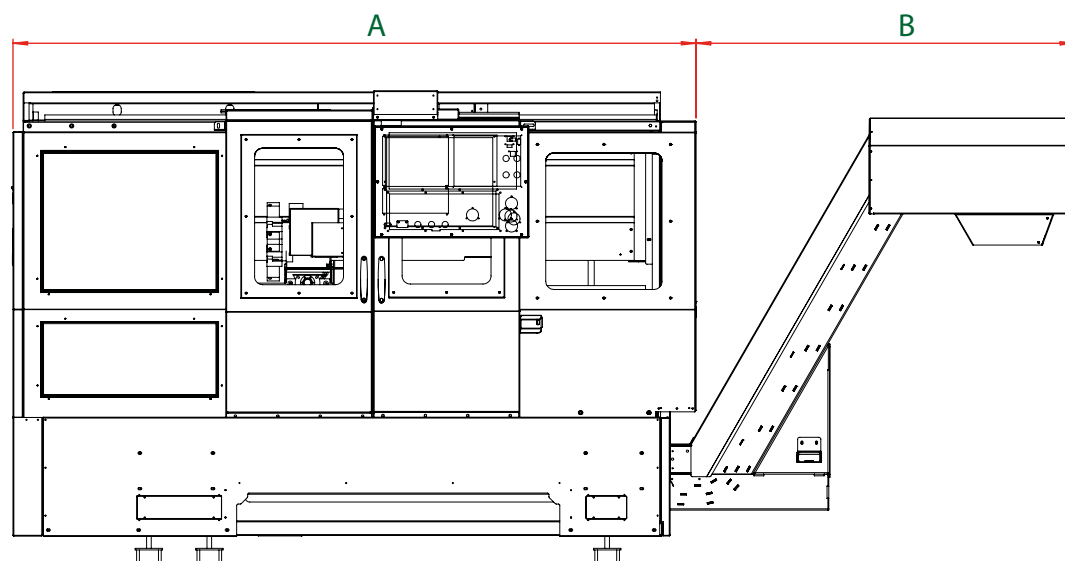
▷ MODEL		▷ ST 180		▷ ST 225		▷ ST 285		▷ ST 310	
SPECIFICATIONS		MM	INCH	MM	INCH	MM	INCH	MM	INCH
X-axis ball screw, Ø & pitch (mm)		20/5		20/5		20/5		20/5	
Tail stock barrel Ø		58	2 ¼,"	68	2 ½"	95	3 ¾"	95	3 ¾"
Tail stock barrel travel		180	7"	200	7 ¾"	220	8 ½"	220	8 ½"
Tail stock Morse taper (MT)		4		4		5		5	
Stations of automatic turret		8		8		8		8	
Tool shank		20x20	¾x¾"	25x25	1x1"	25x25	1x1"	25x25	1x1"
Boring bar Ø		32	1 ¼"	40	1 ½"	40	1 ½"	40	1 ½"
Position accuracy (mm)		0.01		0.01		0.01		0.01	
Repeatability (mm)		0.01		0.01 ½-5½/5½-10"		0.01		0.01	
Fixed steady capacity		10-125/110-200	½-4 ¾/4½-8"	10-140/140-250		10-180/180-350	½-7 ¼/7 ¼-13½"	10-180/180-400	½-7 ¼/7 ¼-15½"
Follow rest capacity		10-80	½-3¼"	10-90	½-3½"	10-130	½-5"	10-130	½-5"
Main motor power (kW) (Only valid for Fanuc Oi-TF control)		11		15		15		15	
Coolant pump power (kW)		0.37		0.37		0.37		0.37	
Coolant pump flow (l/min)		25		25		25		25	
Coolant tank capacity (l)		42/55		67/92		81/111/151/201		81/111/151/201	
Overall Dimensions	length (mm)	2250/2500		2800/3300		2800/3325/3920/4830		2800/3325/3920/4830	
	width (mm)	1115		1215		1350/1605		1350/1605	
	height (mm)	1670		1790		1850/2014		1850/2014	
	weight (kg)	1200/1490		1400/1680		2250/2475/2970/3640		2300/2515/3010/3700	
Verification standard		DIN 8605		DIN 8605		DIN 8605		DIN 8605	

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New generation ST

ST 180



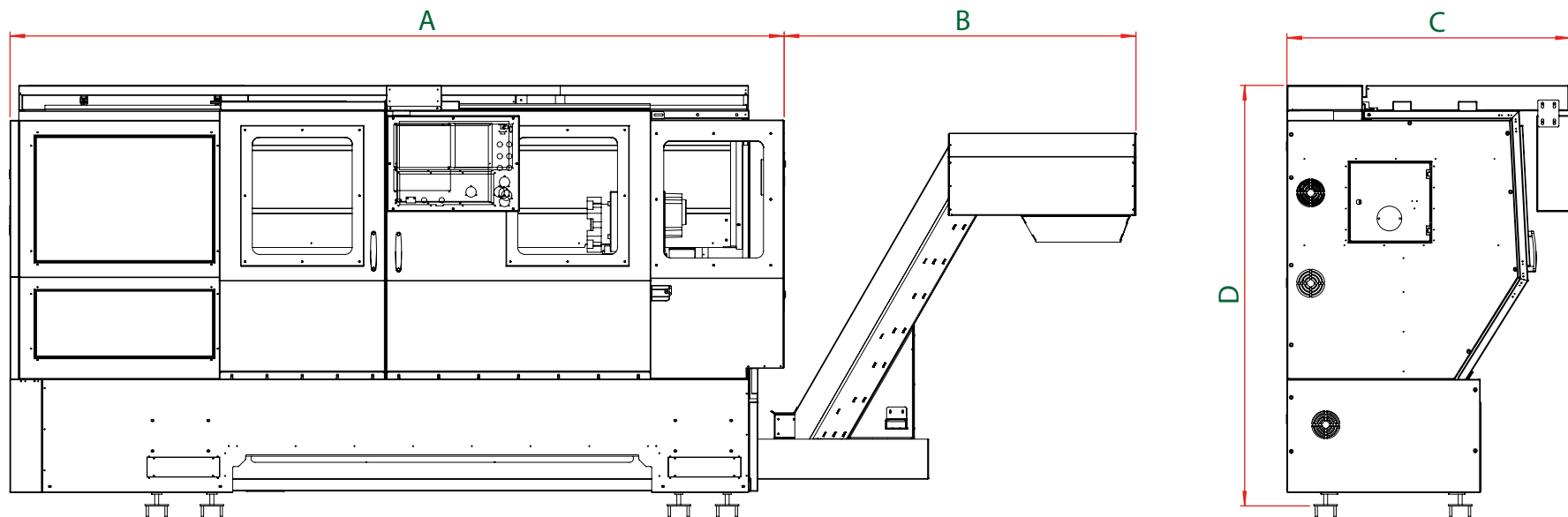
MAXIMUM WORKPIECE WEIGHT

	A (mm)	B (mm)	C (mm)	D (mm)	WEIGHT Kg		MAXIMUM WEIGHT BW CHUCK AND TAILSTOCK	MAXIMUM WEIGHT ON CHUCK
ST 180 X 750	2250	1385	1115	1670	1200	ST 180 X 750	280	135
ST 180 X 1000	2500	1385	1115	1670	1490	ST 180 X 1000	300	



New generation ST

ST 225



MAXIMUM WORKPIECE WEIGHT

MAXIMUM WEIGHT BW CHUCK AND TAILSTOCK	MAXIMUM WEIGHT ON CHUCK
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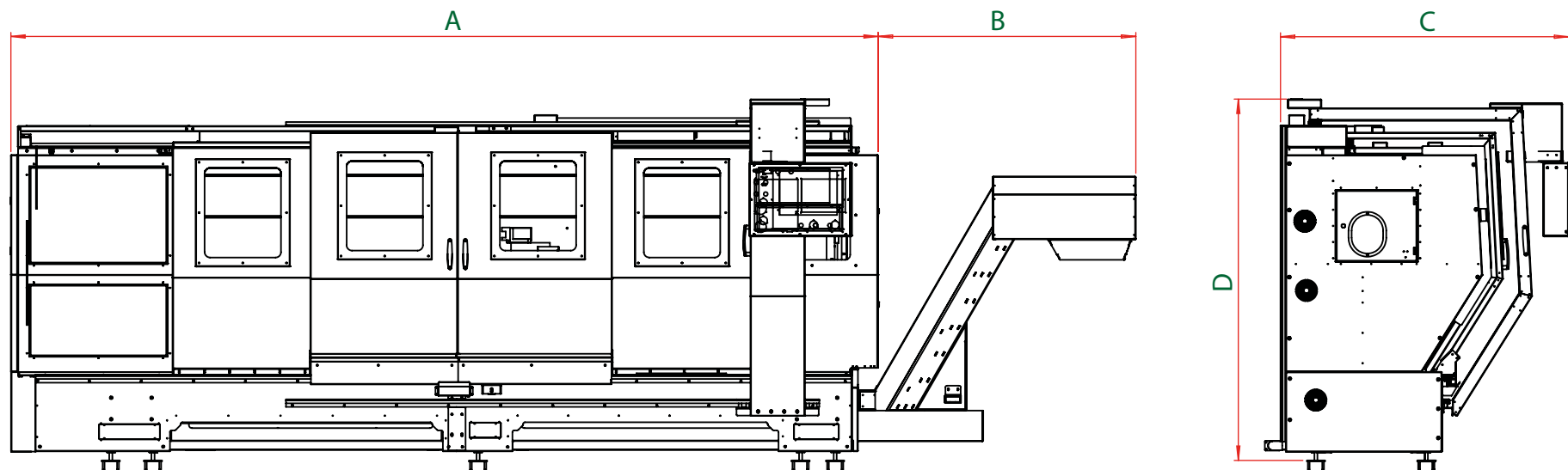
	A (mm)	B (mm)	C (mm)	D (mm)	WEIGHT Kg
ST 225 X 1000	2800	1498	1215	1790	1400
ST 225 X 1500	3300	1498	1215	1790	1680

ST 225 X 1000	450	225
ST 225 X 1500	750	



New generation ST

ST 285/310



	A (mm)	B (mm)	C (mm)	D (mm)	WEIGHT Kg	MAXIMUM WORKPIECE WEIGHT	
						MAXIMUM WEIGHT BW CHUCK AND TAILSTOCK	MAXIMUM WEIGHT ON CHUCK
ST 285/310 X 1000	2800	1435	1350	1850	2250	ST 285/310 X 1000	1125
ST 285/310 X 1500	3325	1435	1350	1850	2475	ST 285/310 X 1500	1690
ST 285/310 X 2000	3920	1435	1605	2014	2970	ST 285/310 X 2000	2025
ST 285/310 X 3000	4830	1435	1605	2014	3640	ST 285/310 X 3000	2815

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