

# JAP

CNC LATHES  
High-Precision Technology





## Why technology like JAP's was necessary?

The METOSA GROUP, a pioneering company in the machine tool industry has been designing and manufacturing continuously for more than 70 years its range of quality, efficient lathes and is now a company positioned in the supply of cutting-edge technology.

The current market is more and more competitive and demanding, requesting reliable and accurate products offering minimal downtime in the manufacturing processes and needs to produce workpieces with tight tolerances, consistently in a profitable way.

In response The METOSA GROUP has created the new Premium line JAP range of conventional and CNC flat-bed lathes. This range offers machines with rigid and stable beds combined with the selection of high quality materials, components and accessories in its construction, making JAP a new benchmark in the machine tool industry.

## JAP: The Metosa Group's latest brand

The Metosa Group's launch of JAP, the new brand offering cutting-edge technology lathes incorporates a new design of bed with improved stiffness, careful selection of raw materials and components, the optimizing of the assembly and quality control process, which combined provides a significant improvement in the performance of all JAP models.

As a result of the effort in the R&D investment of The Metosa Group, the new JAP lathes improve the machining time, guarantee the dimensional stability of workpieces produced and obtain an optimum surface finishing.

The supply of the JAP range always provides a complete service for the customers from the analysis of the customer's needs, in house manufacturing, commercial advice, transport service, control and commissioning of the machine, training of the operators in our facilities to the technical after sales service and maintenance contracts.

# JAP





## A Premium line for the challenges of the future.

The JAP range has been created with an irrevocable commitment to quality and state of the art technology, presenting 4 innovative models designed to cover any industrial need request for its customers.

JAP models are destined to work in demanding sectors such as automotive, oil & gas, wind generators, steel makers, metalworking, shipyards, railways etc. as well as the training sector within technical schools and universities.

### > MLS

The high precision manual lathe.

- MLS 200
- MLS 250
- MLS 325



### > SMS

The optimum choice for training, maintenance and prototyping.

- SMS 200
- SMS 250
- SMS 325



### > STS

Work speed and versatility in up to 3 axis.

- STS 200
- STS 250
- STS 350



### > STH

High capacity CNC lathes up to 4 axis.

- STH 400
- STH 500



# > SMS

## The optimum choice for training, maintenance and prototyping

The new CNC lathes of the SMS series are robust and accurate machines equipped with a geared headstock providing high torque for the most demanding roughing work.

The new JAP beds provide increased stiffness improving the dimensional and thermal stability of the machine and reduce the level of vibration during the turning process.

The SMS series are intuitive and user-friendly thanks to the conversational programming options offered with the controls Siemens or Fagor, ideal for the production of short series, prototyping and training centers.

MODELS: SMS 200 > SMS 250 > SMS 325

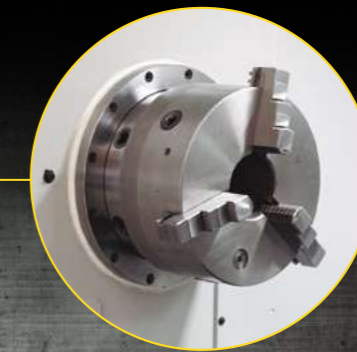
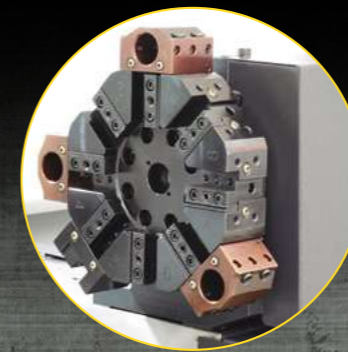


### STANDARD EQUIPMENT

- Siemens 808D Control
- Linear Path Graphs
- Electronic handwheel for X and Z axes
- Increased width and stiffness of the bed
- Headstock with electronic speed variator 3 ranges
- Lubrication pump for the main spindle bearings
- High precision main spindle bearings
- Reducing bush of main shaft and dead center
- Dead center for tailstock
- Manual quick-change toolpost
- Automatic guide lubrication system
- Coolant equipment
- Complete guarding enclosure
- Cast iron pedestals
- Precision Levellers
- LED Work light
- Instruction manual
- Verification standard DIN 8605
- CE Standard

### OPTIONAL EXTRAS

- Control Fagor 8037T or Fagor 8055T
- Chucks with 3 and 4 jaws
- Rear chuck
- Hydraulic power chuck
- Hydraulic collect chuck
- Hydraulic tailstock
- Fixed Steady Rest
- Large capacity fixed steady rest
- Follow Rest
- Multifix quick-change toolpost
- 4 and 8 position automatic turret
- Live center
- Chip conveyor
- Electric transformer
- Higher pressure cooling system
- Electric panel refrigeration
- Anti-vibration kit
- Remote jog unit
- Tool Presetter



Working capacity	mm / in	SMS-200		SMS-250				SMS-325		
		1000/40	1500/60	1000/40	1500/60	2000/80	3000/120	1000/40	2000/80	3000/120
Distance between centres										
Bed width		300 / 11 3/4		350 / 13 3/4				425 / 16 3/4		
Centre height		200 / 7 3/4		250 / 9 3/4				325 / 13		
Ø max. swing over bed		400 / 15 3/4		500 / 19 1/2				700 / 27 1/2		
Ø max. swing over carriage		360 / 14		450 / 17 1/2				600 / 23 1/2		
Ø max. over cross slide		200 / 7 3/4		290 / 11 1/4				400 / 15 3/4		
Cross slide travel		235 / 9		310 / 12				400 / 15 3/4		
Length inal carriage travel		850	1350	850	1350	1850	2850	850	1850	2850

Headstock		kW		5,5				7,5		
Main motor power		4		5,5				7,5		
Headstock main spindle bore <i>Valid for all centre distances</i>	mm / in	42 / 1 1/2		58 / 2 1/4				105 / 4		
Main spindle nose	ASA/CAM-LOCK	A2 - 5 / D1 - 5		A2 - 5 / D1 - 5				A2 - 8 / D1 - 8		
Main spindle nose taper	MT	4		5				5		
Speed ranges	Range I	r.p.m.	0 - 575	0 - 520	0 - 312	0 - 375	0 - 312	0 - 200		
	Range II	r.p.m.	575 -1500	520 -1080	312 -1250	375-1500	241-1250	200-800		

X-axis, Z-axis		m/min		0 - 7				0 - 5		
Working feeds Z	Siemens			0 - 7				0 - 5		
	Fagor			0 - 10				0 - 8.5		
Working feeds X	Siemens			0 - 8.5				0 - 4		
	Fagor			0 - 12				0 - 6		
Rapid traverse Z	Siemens			9				6.5		
	Fagor			12.5				10		
Rapid traverse X	Siemens			10				5		
	Fagor			15				7.5		
Z - Ball screw, Ø/pitch	mm			40 / 10				50 / 10		
X - Ball screw, Ø/pitch	mm			20 / 5				32 / 5		

Tailstock		mm / in		95 / 3 3/4				106 / 4		
Tailstock barrel Ø		68 / 2 1/2		95 / 3 3/4				106 / 4		
Tailstock barrel travel		200 / 7 3/4		220 / 8 1/2				225 / 8 3/4		
Tailstock Morse taper	MT	4		5				6		

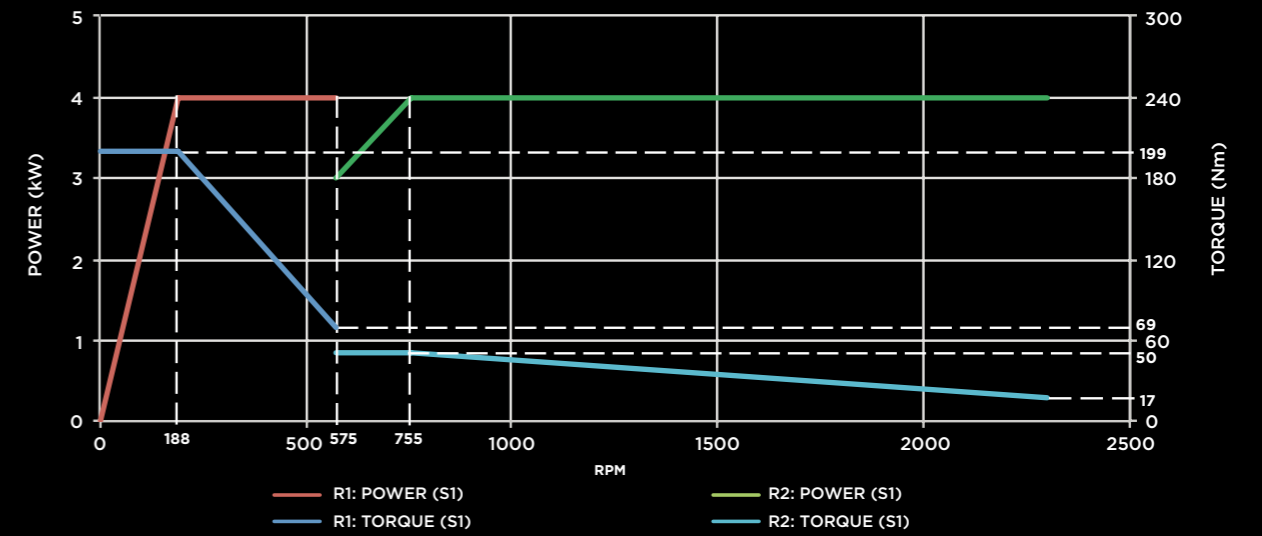
Turret		mm		32x32				32x32		
Manual turret				32x32				32x32		
Tool shank		25x25		32x32				32x32		
Ø Boring bar		20		25				25		

Dimensions and Weight		mm		2810				3290		
Length		2800	3350	2810				3290		
Width		1270		1370				2170		
Height		1890		1910				2090		
Weight	kg	1670	1980	1850	2200	2600	3200	5460	5760	6560

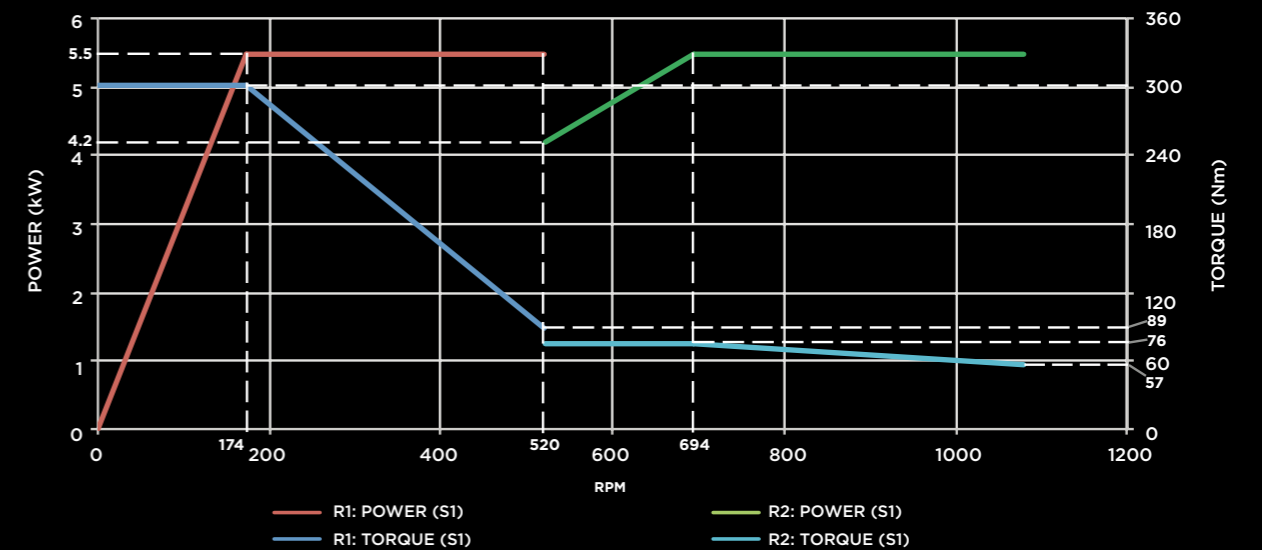
Options		mm		10 - 180				90 - 300		
Fixed steady rest Ø		10 - 140		10 - 180				90 - 300		
Large capacity fixed steady rest Ø		140 - 300		180 - 400				300 - 530		
Mobile Steady Rest Ø		10 - 100		10 - 140				70 - 290		

Dimensions and Weight with packaging		mm		2910				3390		
Length		2900	3450	2910				3390		
Width		1470		1570				2370		
Height		2080		2100				2180		
Weight	kg	1970	2280	2250	2600	3000	3600	5860	6160	6960

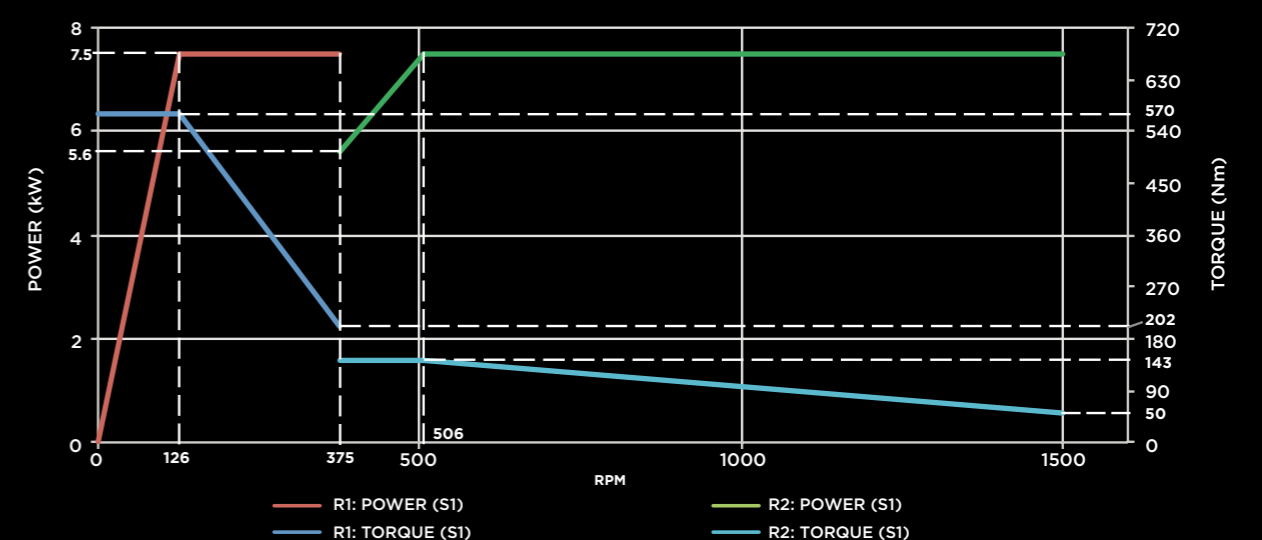
### SMS-200/42



### SMS-250/58



### SMS-325/80



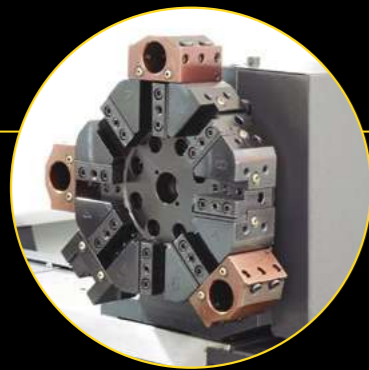
# > STS

## Work speed and versatility in up to 3 axis

The new STS CNC lathe series is versatile, fast and accurate, developed under the robust quality standards of the JAP premium technology. The new JAP beds provides increased rigidity improving the dimensional and thermal stability of the machine and reduces the level of vibration during the machining process.

The STS series has a headstock equipped with a belt-drive servomotor and a high quality and low run-out main spindle, providing a lathe with high spindle speed, reduced noise level and high quality surface finish capability. The JAP STS are lathes with up to 3 axes that provide extraordinary versatility in the world of machine tools.

MODELS: STS 200 > STS 250 > STS 350



### STANDARD EQUIPMENT

- Fanuc Oi-TF Control
- Dynamic graphics / trajectory
- Profile Editor
- Electronic handwheel for X and Z axes
- Increased width and stiffness of the bed
- Direct drive headstock with servomotor
- High precision main spindle
- Reducing bush of main shaft and dead centers
- 8-position automatic turret with 4 toolholders
- Automatic lubrication of the guideways
- Refrigeration equipment
- Cast iron pedestals
- Precision Levellers
- LED Work light
- Instruction manual
- Verification standard DIN 8605
- CE Standard

### OPTIONAL EXTRAS

- Control Fagor 8055T, Siemens 828D
- C-axis
- Chucks with 3 and 4 jaws
- Rear chuck
- Hydraulic power chuck
- Hydraulic collect chuck
- Hydraulic tailstock
- Fixed Steady Rest
- Large capacity fixed steady rest
- Follow Rest
- Livetool 12 positions
- Live center
- Chip conveyor
- Electric transformer
- Higher pressure cooling system
- Electric panel refrigeration
- Anti-vibration kit
- Remote jog unit
- Tool Presetter
- Bar feeder



		STS-200		STS-250			STS-350			
<b>Working capacity</b>										
Distance between centres	mm / in	1000/40	1500/60	1000/40	1500/60	2000/80	3000/120	1000/40	2000/80	3000/120
Bed width	mm / in	300 / 11 3/4		350 / 13 3/4			425 / 16 3/4			
Centre height	mm / in	200 / 7 3/4		250 / 9 3/4			350 / 13 3/4			
Ø max. swing over bed	mm / in	400 / 15 3/4		500 / 19 1/2			700 / 27 1/2			
Ø max. swing over carriage	mm / in	360 / 14		450 / 17 1/2			600 / 23 1/2			
Ø max. over cross slide	mm / in	200 / 7 3/4		290 / 11 1/4			400 / 15 3/4			
Cross slide travel	mm / in	235/ 9		310 / 12			400 / 15 3/4			
Length inal carriage travel	mm / in	850	1350	850	1350	1850	2850	850	1850	2850

<b>Headstock</b>				STS-200			STS-250			STS-350		
Main motor power	Fagor			7,5			15			17		
	Fanuc	kW		11			15			15		
	Siemens			7			9			11		
Headstock main spindle bore <i>Valid for all centre distances</i>	mm / in			42 / 1 1/2			65 / 2 1/2			80 / 3	105 / 4	155 / 6
Main spindle nose	ASA			A2 - 5			A2 - 6			A2 - 8		A2-11
Main spindle nose taper	MT			4			5			5		5
Speed ranges	r.p.m.			0-4000			0-3000			0-2500	0-2500	0-1000

<b>X-axis, Z-axis</b>				STS-200			STS-250			STS-350		
Working feeds Z	Fagor	m/min		0 - 10			0 - 10			0 - 8.5		
	Fanuc	m/min		0 - 10			0 - 10			0 - 10		
	Siemens	m/min		0 - 7			0 - 7			0 - 5		
Working feeds X	Fagor	m/min		0 - 12			0 - 12			0 - 6		
	Fanuc	m/min		0 - 12			0 - 12			0 - 12		
	Siemens	m/min		0 - 12			0 - 12			0 - 6		
Rapid traverse Z	Fagor	m/min		12.5			12.5			10		
	Fanuc	m/min		12.5			12.5			12.5		
	Siemens	m/min		9			9			6.5		
Rapid traverse X	Fagor	m/min		15			15			7.5		
	Fanuc	m/min		15			15			15		
	Siemens	m/min		15			15			7.5		
Z - Ball screw, Ø/pitch	mm			40 / 10			50 / 10					
X - Ball screw, Ø/pitch	mm			20 / 5			32 / 5					

<b>Tailstock</b>				STS-200			STS-250			STS-350		
Tailstock barrel Ø	mm / in	68 / 2 1/2		95 / 3 3/4			106 / 4					
Tailstock barrel travel	mm / in	200 / 7 3/4		220 / 8 1/2			225 / 8 3/4					
Tailstock Morse taper	MT	4		5			6					

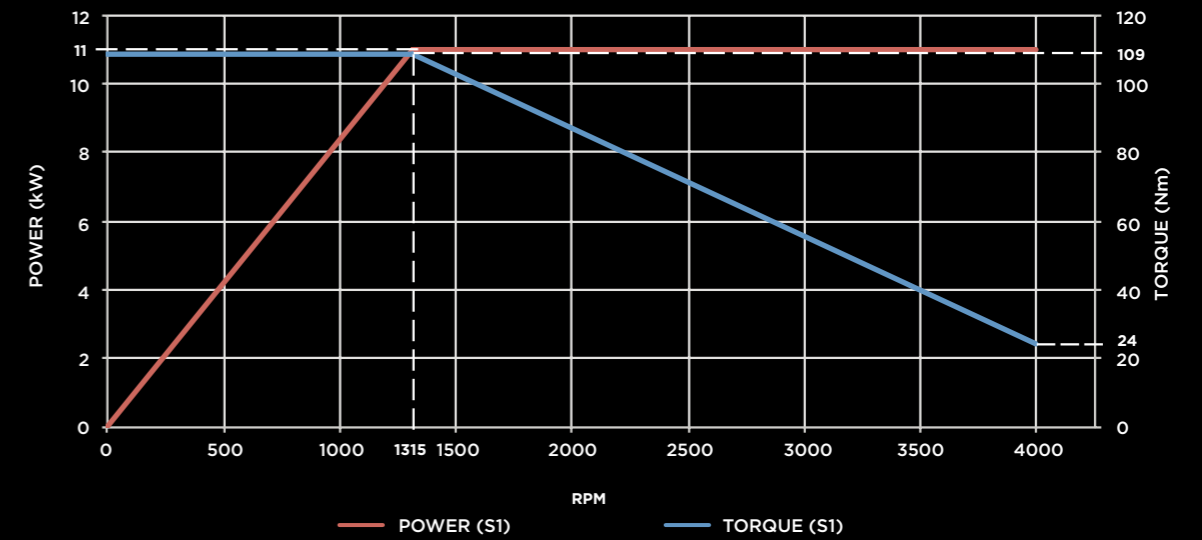
<b>Turret</b>				STS-200			STS-250			STS-350		
Stations of standard turret		8			8							
Tool shank	mm	25x25			25x25							
Ø Boring bar	mm	32			40							

<b>Dimensions and Weight</b>				STS-200			STS-250			STS-350		
Length	mm	2810	3300	2800	3325	3940	4750	3290	4290	5290		
Width	mm	1260		1350			1700		2170			
Height	mm	1890		1810			2110		2090			
Weight	kg	2230	2340	2250	2475	2970	3640	5460	5760	6560		

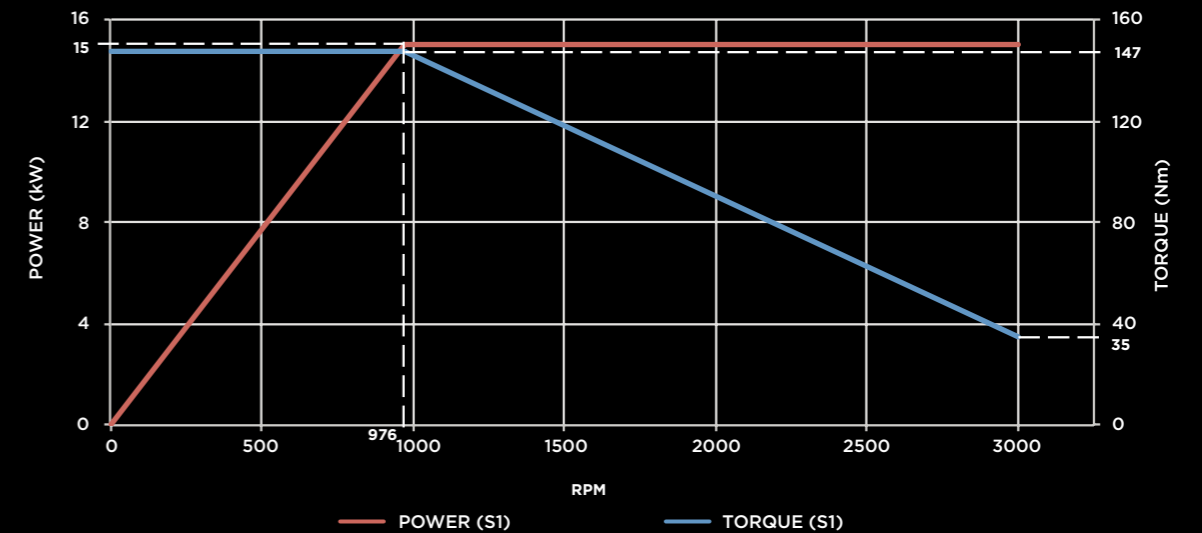
<b>Options</b>				STS-200			STS-250			STS-350		
Fixed steady rest Ø	mm	10 - 140		10 - 180			90 - 300					
Large capacity fixed steady rest Ø	mm	140 - 250		180 - 400			300 - 530					
Mobile Steady Rest Ø	mm	10 - 90		10 - 130			70 - 290					

<b>Dimensions and Weight with packaging</b>				STS-200			STS-250			STS-350		
Length	mm	3010	3500	3000	3525	4140	4950	3490	4490	5490		
Width	mm	1360		1450			1800		2270			
Height	mm	2090		2010			2310		2290			
Weight	kg	2530	2640	2650	2875	3370	4040	5860	6160	6960		

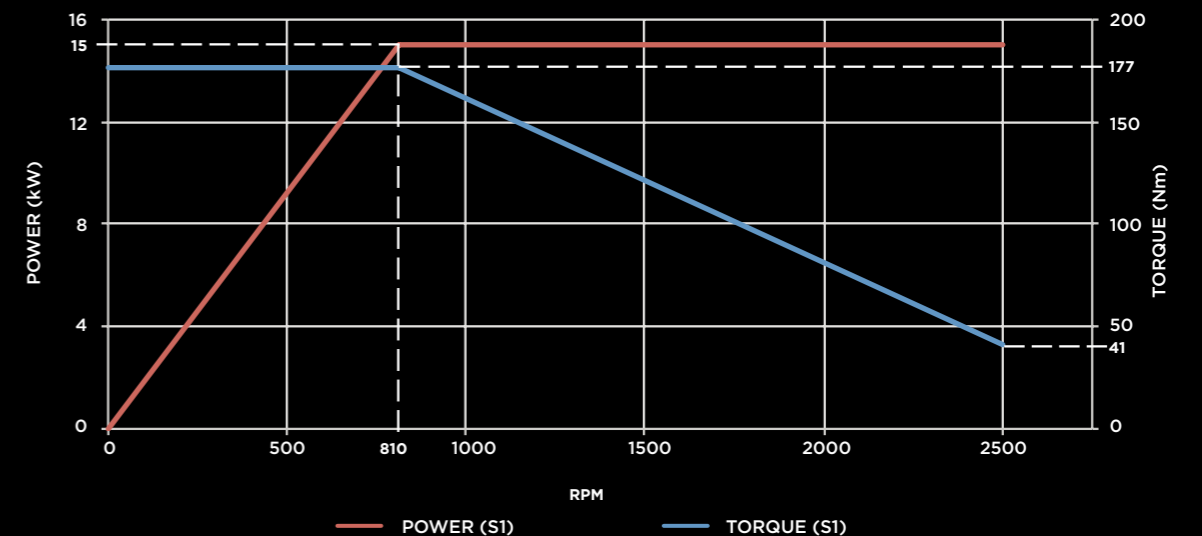
### STS-200/42 > FANUC



### STS-250/65 > FANUC



### STS-350/80 > FANUC



# > STH

## Large roughing CNC lathes with up to 4 axes

The STH series of CNC lathes marks a milestone among flatbed numerical control machines. STH are parallel lathes with up to 4 axes that have a reputation for versatility within their segment without loss of precision and quality of surface finish that have made STH a reference in the world of machine tools.

The headstock of the STH series is equipped with a 2-step gear box providing a high output in the roughing operation. In addition, the high quality and reduced run-out main spindle of the JAP machines, makes the STH the best friend of the most complex works.

STH parallel lathes have been designed with our most demanding customers in mind, using the highest quality components combined with the most innovative technology, the result of more than 70 years of experience.

Models with up to 4 CNC axes, 1050 mm turning on over bed and 5000 mm between centres.

**MODELS:** STH 400 > STH 500

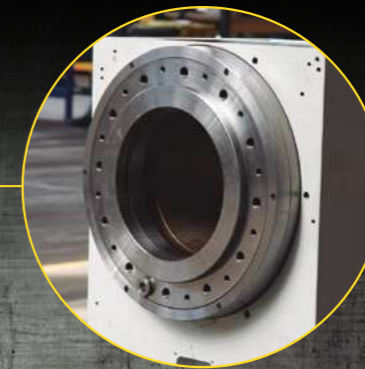
### STANDARD EQUIPMENT

- Fanuc Oi-TF
- Dynamic graphics / trajectory
- Profile Editor
- Screen 15"
- High precision main spindle
- Reducing bush of main shaft and dead centres
- Servomotor
- Gearbox 2 ranges
- 8-position automatic turret with 4 toolholders
- Remote jog unit
- Refrigeration equipment
- Cast iron pedestals
- Precision Levellers
- LED Work light
- Status signal light
- Instruction manual
- Verification standard DIN 8605
- CE Standard



### OPTIONAL EXTRAS

- Fanuc Fagor 8060T, Siemens 828D
- Boring bar up to 310 mm
- High accuracy C-axis
- Y-axis
- Automatic and live tool 8 or 12 positions VDI or BMT
- Chucks with 3 and 4 jaws
- Hydraulic chuck and tailstock
- Fixed steady rests of various capacities
- Follow Rest
- Hydraulic Steady Rest
- Electric transformer
- Rear chuck
- Support for boring bars
- Live center
- Higher pressure coolant pump
- Chip conveyor
- Linear capacitance scales
- Anti-vibration kit
- Tool Presetter
- Electric panel cooler





### STH-400

### STH-500

#### Working capacity

		1000 / 39 1/2	2000 / 78 3/4 3/4	3000 / 118	4000 / 157 1/2	5000 / 197	2000 / 78 3/4	3000 / 118	4000 / 157 1/2	5000 / 197
Distance between centres	mm / in									
Bed width	mm / in	425 / 16 3/4				500 / 20				
Centre height	mm / in	400 / 15 3/4				500 / 19 3/4				
Ø max. swing over bed	mm / in	805 / 31 3/4				1010 / 39 3/4				
Ø max. swing over carriage	mm / in	720 / 28 1/4				935 / 36 3/4				
Ø max. over cross slide	mm / in	515 / 20 1/4				718 / 28 1/4				
Cross slide travel	mm / in	400 / 15 3/4				500 / 19 1/4				
Length inal carriage travel	mm / in	1000 / 39 1/2	2000 / 78 3/4	3000 / 118	4000 / 157 1/2	5000 / 197	2000 / 78 3/4	3000 / 118	4000 / 157 1/2	5000 / 197

#### Headstock

Main motor power	kW	17				22			
Headstock main spindle bore <i>Valid for all centre distances</i>	mm / in	105 / 4	155 / 6	230 / 9	130 / 5	155 / 6	230 / 9	310 / 12 1/4 3/4	
Main spindle nose	ASA	A2-8	A2-11	A2-15	A2-11	A2-11	A2-15	A2-20	
Main spindle nose taper	MT	5	5	6	5	5	6	6	
Speed ranges	r.p.m.	0-1700	0-1000	0-750	0-1400	0-1000	0-750	0-560	

#### X-axis, Z-axis

Working feeds Z	Fagor	m/min	0 - 8.5
	Fanuc	m/min	0 - 8.5
	Siemens	m/min	0 - 8.5
Working feeds X	Fagor	m/min	0 - 6
	Fanuc	m/min	0 - 6
	Siemens	m/min	0 - 6
Rapid traverse Z	Fagor	m/min	10
	Fanuc	m/min	10
	Siemens	m/min	10
Rapid traverse X	Fagor	m/min	7.5
	Fanuc	m/min	7.5
	Siemens	m/min	7.5
Z - Ball screw, Ø/pitch	mm	50/10	
X - Ball screw, Ø/pitch	mm	32/5	

#### Tailstock

Tailstock barrel Ø	mm / in	96 / 3 3/4	120 / 4 1/2
Tailstock barrel travel	mm / in	215 / 8 1/4	300 / 11 3/4
Tailstock Morse taper	MT	6	

#### Turret

Stations of standard turret		8
Tool shank	mm	32x32
Ø Boring bar	mm	50

#### Dimensions and Weight

		3290	4290	5290	6290	7290	4600	5600	6600	7600
Length	mm									
Width	mm	2170				2190				
Height	mm	2090				2315				
Weight	kg	5460	5760	6460	7560	9060	6400	7600	8800	10000

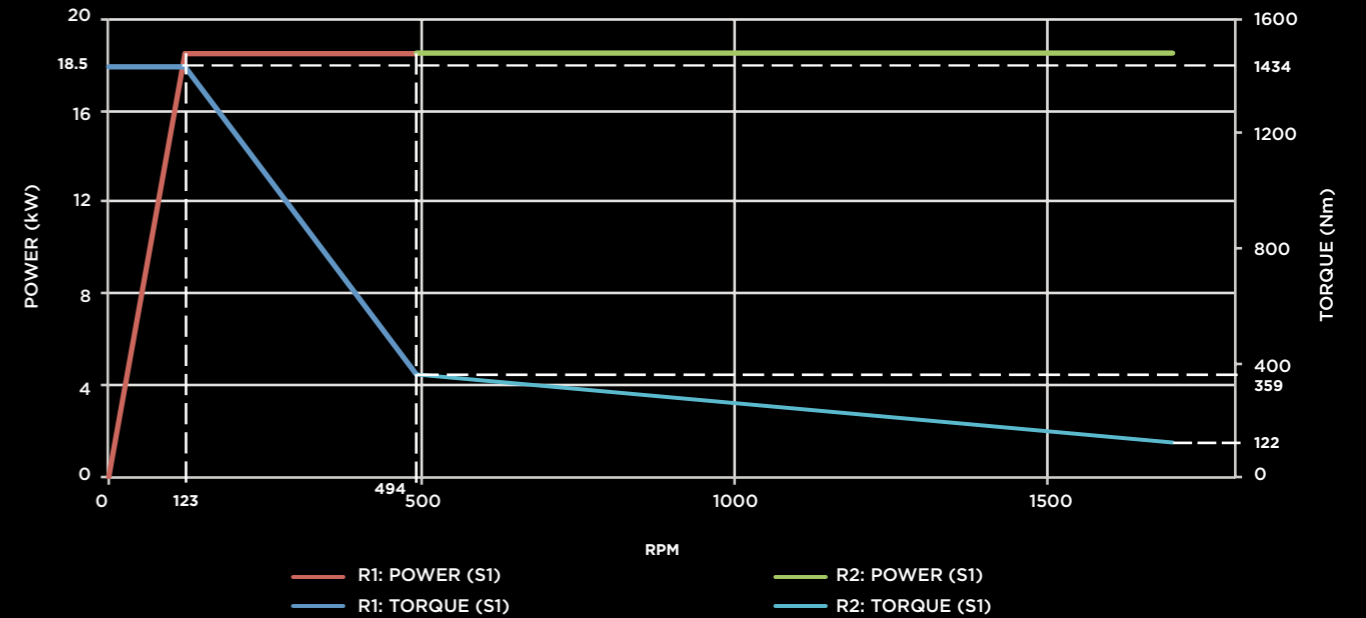
#### Options

Fixed steady rest Ø	mm	90 - 300	10 - 380
Large capacity fixed steady rest Ø	mm	300 - 530	370 - 730
Mobile Steady Rest Ø	mm	70 - 290	35 - 310

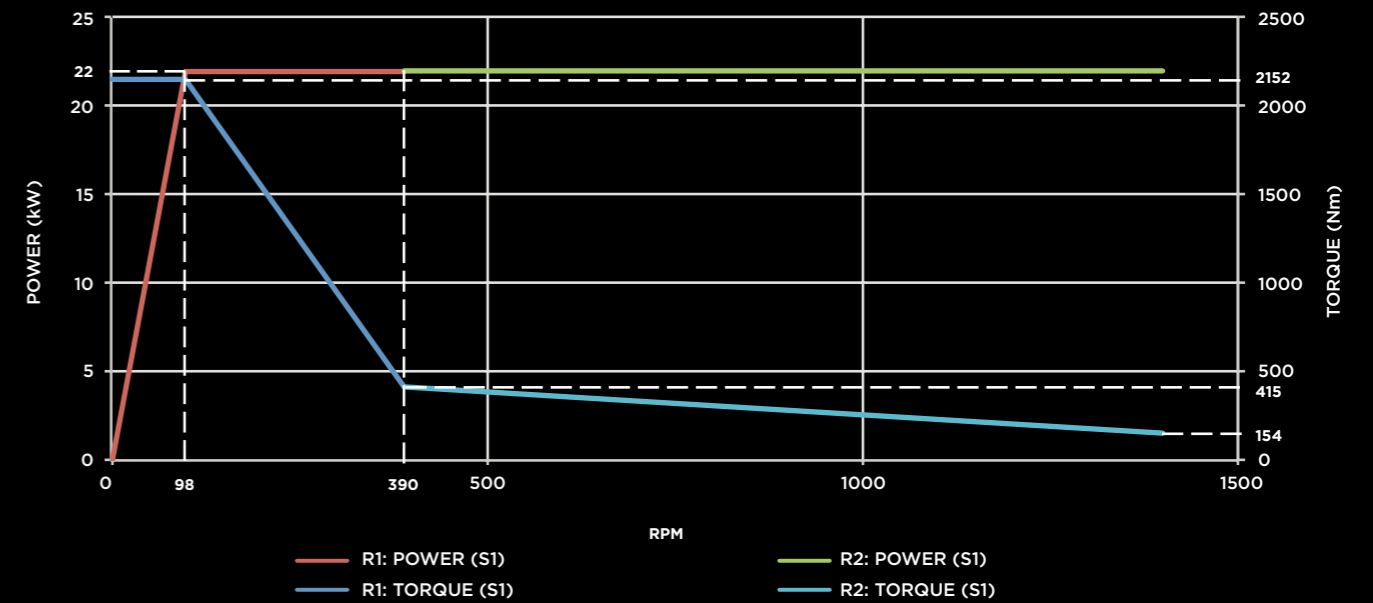
#### Dimensions and Weight with packaging

		3490	4490	5490	6490	7490	4800	5800	6800	7800
Length	mm									
Width	mm	2270				2290				
Height	mm	2290				2515				
Weight	kg	5810	6160	7110	8060	9610	6800	8050	9300	10550

## STH-400/105 > FANUC



## STH-500/130 > FANUC



# Metosa Showroom: professionals at the service of professionals

In the METOSA GROUP facilities we have a large Showroom of 2,000 square meters where our Clients can go through the evolution of our lathes and see in detail the model that best suits their business needs. It will always be attended by qualified technical personnel who will be able to solve any doubt that could arise.

## 1 Presentation

This multifunctional room allows to carry out acts of presentation of the new models, of the different activities of our commercial brands, etc.

All the models we manufacture are on permanent display, so that who visits the factory can see all the lathes and the differences between them.

## 2 Training

The training courses are taught by our qualified technicians, very experienced teachers who know every corner and performance of the lathe. They are designed for Customers and Distributors of our brand. Additionally, we provide workshops and updating-days for our own staff in order to keep up to date with the technologic novelties.

## 3 Product Launches

Every time a new model is launched on the market, we make an official presentation in which we bring together Clients, staff, personalities and the sectorial press.

It is another way of being permanently close to the industrial environment in which we move.



product  
made in  
Spain

presence  
in 80 countries

+100  
distributors  
worldwide



#### EUROPE

Austria  
Belgium  
Bulgaria  
Croatia  
Czech Republic  
Denmark  
Estonia  
Finland  
France  
Germany  
Greece  
Hungary  
Ireland  
Italy  
Latvia  
Lithuania  
Norway  
Poland  
Portugal  
Romania  
Russia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
Turkey  
Ukraine  
United Kingdom

#### AMERICA

Bolivia  
Brazil  
Canada  
Chile  
Colombia  
Costa Rica  
Cuba  
Ecuador  
El Salvador  
Guatemala  
Mexico  
Nicaragua  
Peru  
United States  
Uruguay  
Venezuela

#### ASIA-PACIFIC

Australia  
Bangladesh  
India  
Indonesia  
Iraq  
Israel  
Jordan  
Korea  
Malaysia  
Mauritius  
Oman  
Pakistan  
Philippines  
Saudi Arabia  
Singapore  
Thailand  
United Arab Emirates  
Vietnam

#### AFRICA

Algeria  
Angola  
Egypt  
Morocco  
South Africa  
Tunisia

CE certificate for all  
products manufactured  
by Grupo Metosa.

JAP is a registered trademark of:



[www.metosagroup.com](http://www.metosagroup.com)

# JAP

Partida de la Sierra s/n  
22310 Castejón del Puente  
Huesca (Spain)  
+34 974 401 650  
[info@metosagroup.com](mailto:info@metosagroup.com)  
[www.japcnc.com](http://www.japcnc.com)