



# S-192 FT

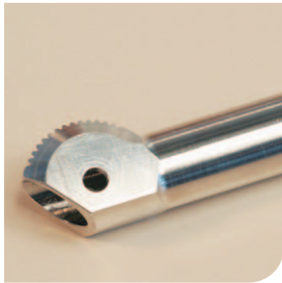
***Milling/turning centre,  
monospindle or two spindles***



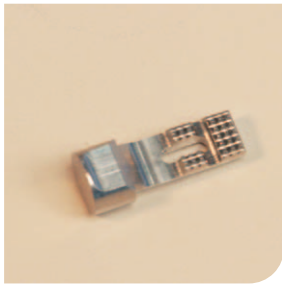
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# **Samples machined by the S-192 FT**

Medical field



Instrumentation



Dental field



Horological industry



Jewellery



Aeronautics



Light industry



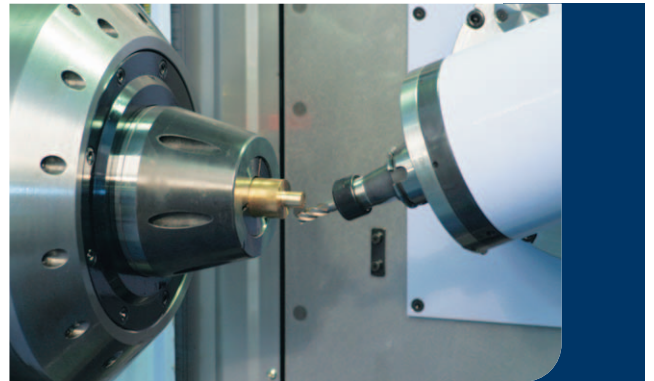
## **Main characteristics**



- Possibility to execute milling and turning operations on up to 5 simultaneous axis, on main spindle and counter-spindle
- Cast iron construction providing high rigidity and vibrationfree operation
- Rotating axis with direct-drive technology offer extremely high precision and accuracy as well as clearance-free operation
- Re-taking spindle for turning and milling operations
- Possibility to use an automatic bar loader

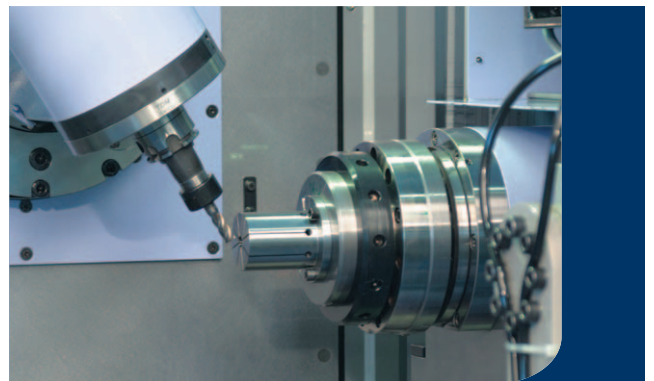
## **Main spindle**

- Main spindle with integrated motor, bar passage 42 mm, working either from bar or billet. Like a lathe, this device ensures the locking and rotation of the parts.
- Different locking tools, such as chuck and collet holders enable the user to adapt the system to his specific requirements.
- High-level power and torque provide optimum swarf evacuation as well as an excellent regulation in axis-mode.



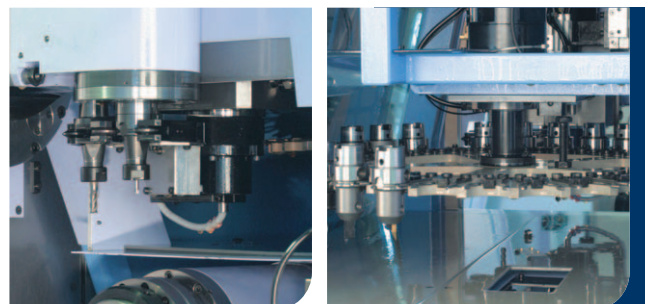
## **Re-taking spindle**

- Re-taking spindle situated opposite the main spindle for re-taking after grinding or simple re-taking.
- As on the main spindle, all turning and milling operations may be executed, as well as automatic machining of the parts on all sides.



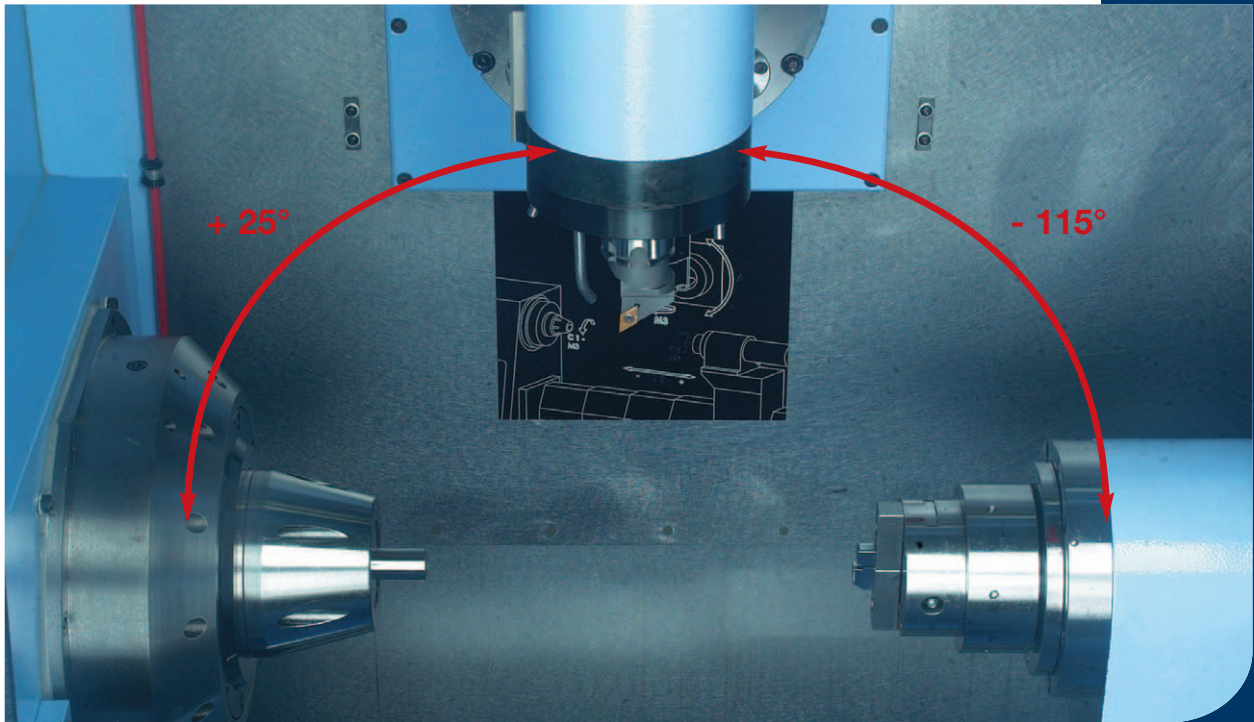
## **Tool Changer**

- Tool magazine with 30 or 48 positions. Complete housing assigned for optimum protection of the tool holders.
- Tool preparation within the tool changer is carried out in masked time.
- Rotative arms and linear movements are synchronised thus enabling a tool change in only 1.4 sec.



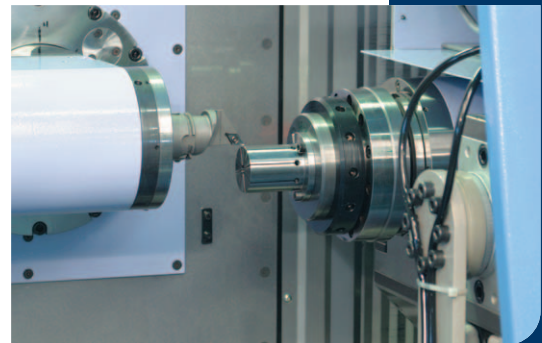
## Axis travel

- + 25° / - 115° : without re-taking spindle
- + 115° / - 115° : with re-taking spindle



## Electrospindle Tool-holder

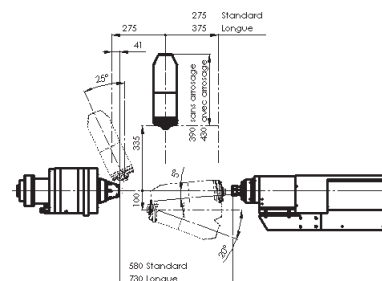
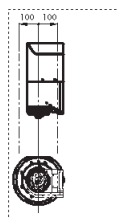
- High-performance electrospindle combining high torque and high speed for increased productivity rates.
- Locking of the turning tools by a toothed indexing system whilst the spindle bearings are entirely separated.
- The performing cooling system, air/oil lubrication and a constant pressure ensure high and long-lasting performances.



## High dynamics axis B

- Axis with direct-drive motor
- Precise and regular movements ensure high machining quality, especially for the machining of complex parts on 5 simultaneous axis.
- In case of a huge swarf amount, the axis will be perfectly locked by means of a hydraulic brake.

## Machining volume



## Numerical command

- NUM : Type NUM 1050 or Axiume power or FANUC : Type FANUC 30 i
- For ease of programming and operation, specific machine functions have been developed by our engineers.
- The latest integrated tools and technologies allow for very short calculation times and improved surface quality, especially for the machining of complex parts.
- All the functionalities of a lathe and a milling machine are available.

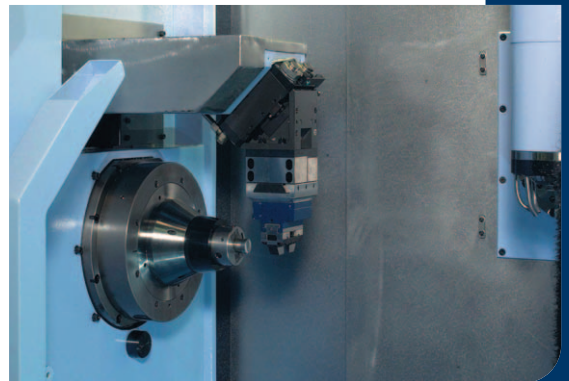


## Equipment

- A wide range of accessories will offer major locking solutions and provide precise and reliable solutions for machining either from bar or billet. We are also in a position to adapt other locking systems.
- The length of the rotating tools as well as the turning tools on the 3 axis can be precisely measured by means of an automatic tool sensing system.
- A bar loader as well as various unloading systems offer continuous production without human intervention.
- A wide range of swarf conveyors are available upon request. A universal system for the machining of other materials such as steel by means of chains or noble metals with paper filters can also be provided.

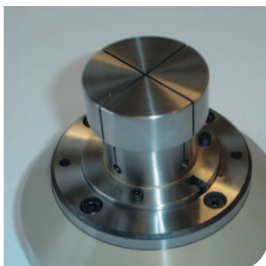
## Options

- Re-taking spindle
- High pressure lubrication unit
- Oil vapour collector
- Bar loaders
- Swarf conveyors
- Unloading unit
- Retaking unit (photo) for machining of the sixth side (axis W), controlled by an axis



## Clamping

Ottet grip



Grip F48



Chuck



## Tool

Tool-holder



## Technical data

**Number of axis** 7 axis

### Axis travel

X	200 mm
Y	400 mm
Z	550 or 650 mm

### Main spindle

Bar passage	42 mm
Maximum speed	6'000 min <sup>-1</sup>
Power	14 KW
Torque	96 / 140 Nm

### Milling spindle

Speed	30'000 min <sup>-1</sup>
Power	10 KW
Power axis B	4.3 KW
Tilttable	+ 25° / - 115°
Torque	84 / 150 Nm

### Re-taking spindle

Clamping	Grip F 48 Chuck or Ottet grip
Maximum speed	5'000 min <sup>-1</sup>
Power	9.7 KW
Torque	17 Nm
Axis W	x

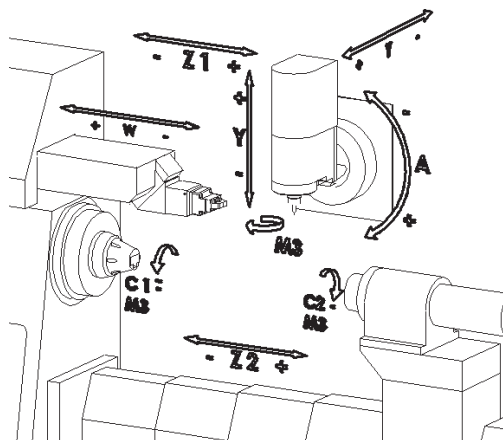
### Tool Changer

Number of positions	30 / 48
Tool-Holder	HSK 40

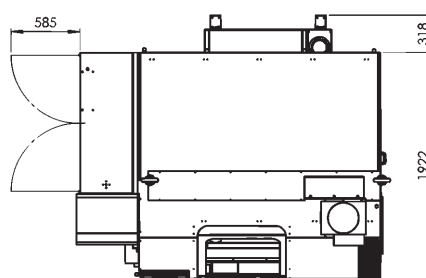
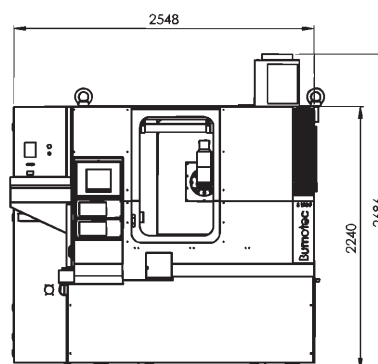
### Weight

6.5 T (depending on configuration)

## Axis travel diagram



## Floor space requirement



We reserve the right to modify certain specifications of this catalogue without any notice in order to improve these data. They are not contractual.



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