



Starrag Group



s181

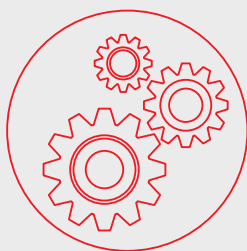
Mill/turn machining center from bar stock



s181, A NEW CONCEPT OF PRODUCTION INTEGRATING HIGH FLEXIBILITY AND PRODUCTIVITY

s181 series combines the best of swiss made knowhow and a high degree of innovation. With twin machining stations, a milling spindle capable to reach 30,000 rpm's and a high availability of tooling in the automatic tool magazine, the Bumotec s181 has the capability to produce complex components from bar stock up to 1.26 in diameter. The machine's mineral casting bed, the latest CNC technology and the linear motor drives ensure uncompromised thermic stability and performances.

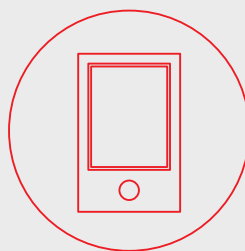
Suitable for watch, surgical instruments, medical implants and complex micro-mechanical components, the s181 is a major asset to help you to take on the actual and future industry challenges.



Micro-Mechanics



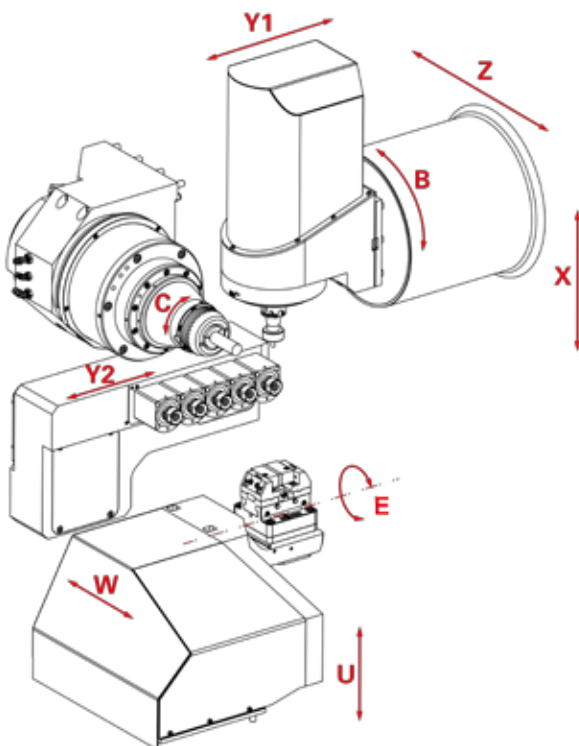
Watch-Making



Electronics



Medical



Innovative concept ensures an important productivity gain, thanks to the possibility to simultaneous machining on two working stations.

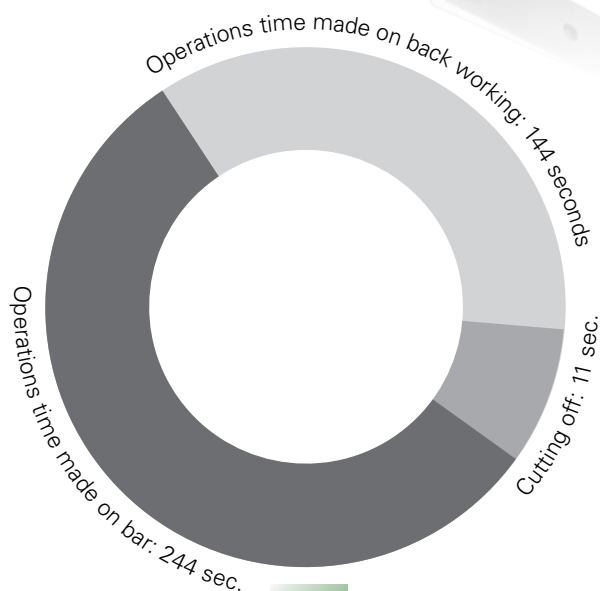
- 2 machining stations
- Up to 90 positions for tool in the automatic tool changer
- Tool to tool time change in 1.1 s
- 30,000 min^{-1} milling spindle
- Linear motor drives
- 5-axis simultaneous machining
- Combine milling and turning
- CNC FANUC 31i panel

STEP BY STEP PERFORMANCES

Surgical instrument machining example
Material type : Stainless steel AISI 316L
Bar diameter : Ø .55 in
Number of tools : 14

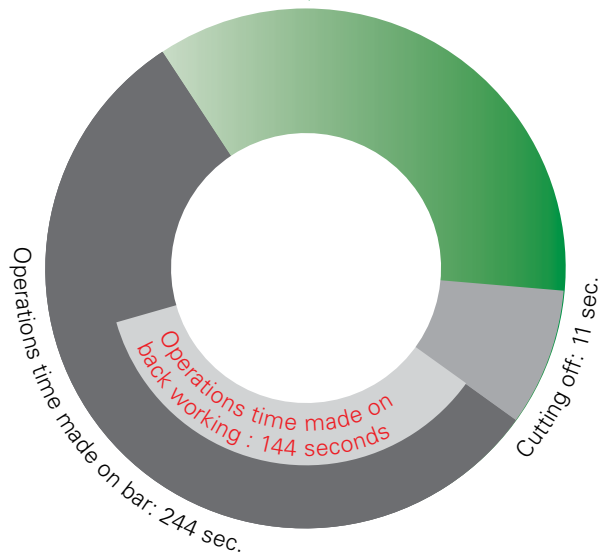


Cycle time on modern
machining center:
399 seconds



38%
increase in productivity

Cycle time on
Bumotec s181:
255 seconds



Electrospindle

- Attachment: HSK40
- Max. power: 8 hp
- Max. torque: 5.6 ft-lbs
- Max. speed: 30,000 min⁻¹

Automatic tool changer

- Electro-mechanic system
- Tool to tool change time: 1.1 s
- Capacity: 30 / 60 / 90 tools
- Max. diameter of tool: 3.15 in

Tool measuring without contact

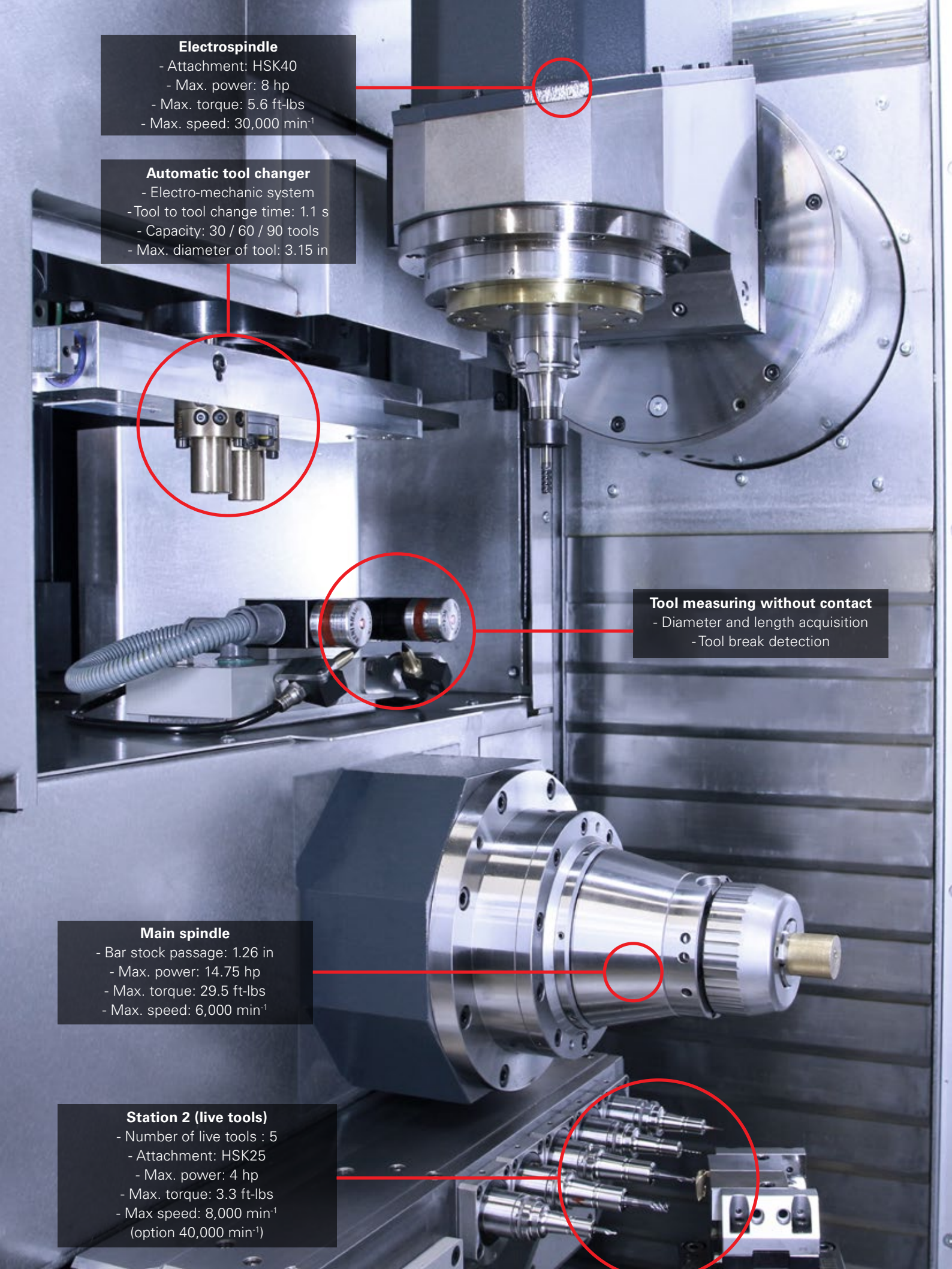
- Diameter and length acquisition
- Tool break detection

Main spindle

- Bar stock passage: 1.26 in
- Max. power: 14.75 hp
- Max. torque: 29.5 ft-lbs
- Max. speed: 6,000 min⁻¹

Station 2 (live tools)

- Number of live tools : 5
- Attachment: HSK25
- Max. power: 4 hp
- Max. torque: 3.3 ft-lbs
- Max speed: 8,000 min⁻¹
(option 40,000 min⁻¹)



PERIPHERAL EQUIPMENT



Measuring probe



Automatic bar feed



Swarf conveyor



Tank with paper filtration

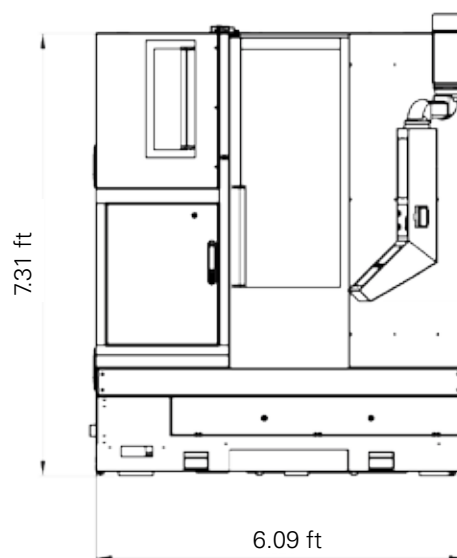
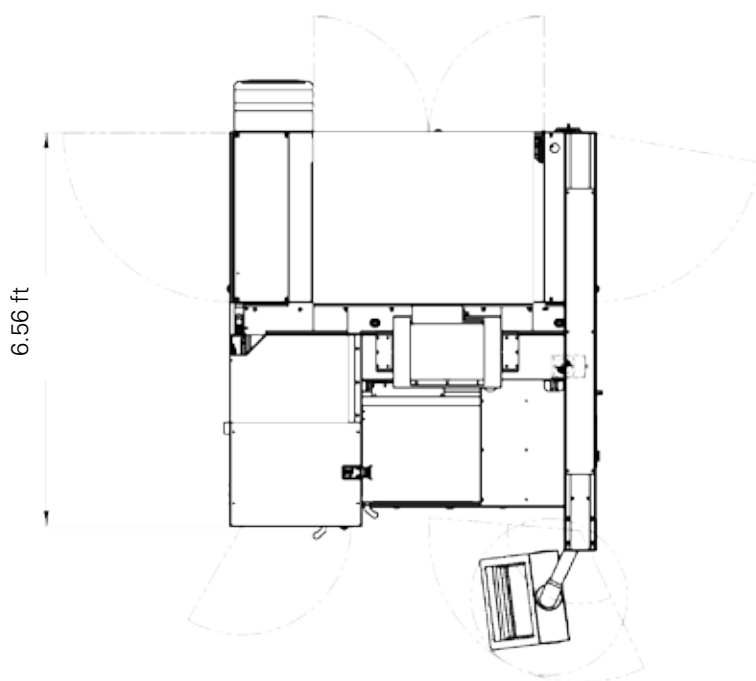


90 tools automatic tool changer



Stand alone coolant high pressure

FOOTPRINT



Bumotec SA
Route du Rontet 17
1625 Sâles
Switzerland

P +41 26 351 00 00
F +41 26 351 00 99
admin@bumotec.ch

Starrag USA Inc.
Skyport Business Park
2379 Progress Dr.
Hebron, KY 41048
USA

P +1 859 534 5201
F +1 859 534 5212
ussales@starrag.com

www.bumotec.ch
www.starrag.com

