



# PRODUCT OVERVIEW

CNC automatic lathes

2023



# STAR MICRONICS



## OVERVIEW OF MACHINES

	AXES	7 AXES	8 AXES
DIAMETER	∅ 10 mm	SR-10J type C	SL-10
	∅ 12 mm	SB-12R type G	
	∅ 16 mm	SB-16 III	
	∅ 20 mm (23 mm)	SB-20R type G    SR-20J II type A	SR-20J II type B    SR-
	∅ 23 mm (26 mm)	SP-23	
	∅ 26 mm		SD-26 type C
	∅ 32 mm (36 mm)		SR-32J III type B
	∅ 38 mm (42 mm)		

## CNC AUTOMATIC LATHES FROM THE SPECIALISTS

The economic and reliable production of high precision parts requires a trained and motivated workforce in combination with a well-equipped and efficient array of machines. Our innovative force and technological leadership is there to enable you to successfully react to changing market conditions.

For over 40 years thousands of customers have trusted in the reliability, technical expertise and experience of STAR Micronics. We are the market leader with more than 6000 STAR machines delivered to customers in Germany. In addition to innovative CNC automatic lathes for diameters in the range of 1 to 42 mm, we also offer a range of innovative services.

	9 AXES	10 AXES	11 AXES	12 AXES
		<b>SW-12R II</b>		
<b>ZOR IV</b> type A	<b>SR-ZOR IV</b> type B		<b>SW-20</b>	<b>SV-20R</b> <b>ST-20</b>
	<b>SD-26</b> type E/G	<b>SD-26</b> type S		
		<b>SR-38</b> type B		<b>SX-38</b> type A <b>ST-38</b>

# SR

## 10J

type C



# SL

## 10



### SPECIFICATIONS

Diameter  $\varnothing$  10 mm / 12 mm (option)

Headstock stroke  $\leftrightarrow$  105 mm

Machining possibilities



### THE ADVANTAGES

- FANUC 32i-B control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Low space requirement
- Ideal replacement for cam-controlled lathes

### SPECIFICATIONS

Diameter  $\varnothing$  10 mm / 12 mm (option)

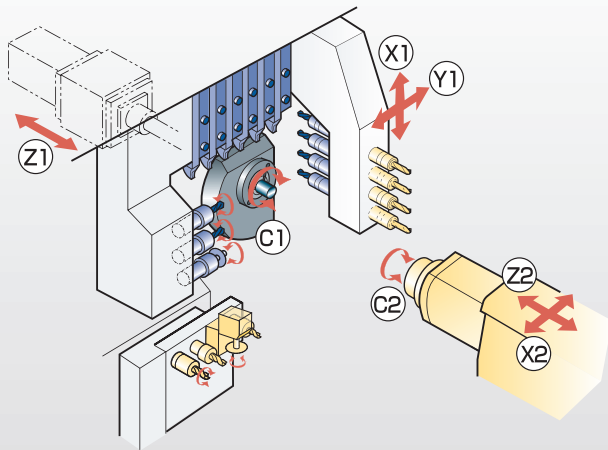
Headstock stroke  $\leftrightarrow$  105 mm

Machining possibilities



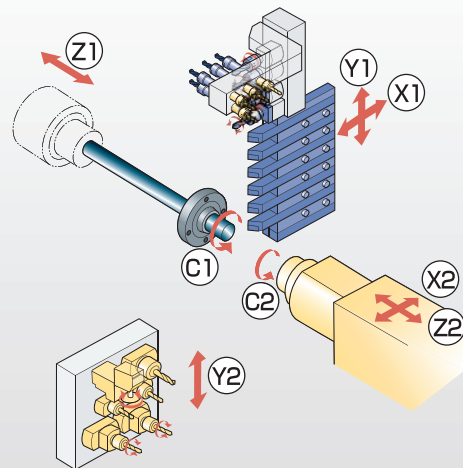
### THE ADVANTAGES

- FANUC 31i-B Plus control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Low space requirement
- Ideal replacement for cam-controlled lathes



### KINEMATICS & TOOLS

- 6 turning tools
- Each with 4 drilling tools (front and rear side)
- 3 power-driven tools on the tool post
- 4 +  $\alpha$  backworking tools, power-driven on 2 stations
- 7 axes



### KINEMATICS & TOOLS

- 6 turning tools
- Each with 4 drilling tools (front and rear side)
- 4 +  $\alpha$  power-driven tools on the tool post
- 6 backworking tools, power-driven on 4 stations
- 8 axes

# SB

## 12R

type G

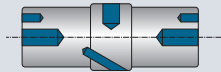


### SPECIFICATIONS

Diameter  $\varnothing$  12 mm / 13 mm (option)

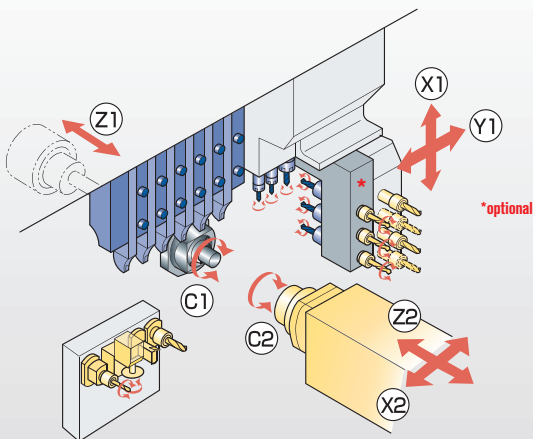
Headstock stroke  $\leftrightarrow$  205 mm / 30 mm  
(fixed headstock lathe)

Machining possibilities



### THE ADVANTAGES

- FANUC 0i-TF control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- Low space requirement
- Ideal replacement for cam-controlled lathes



### KINEMATICS & TOOLS

- 7 turning tools
- Each with 4 drilling tools (front and rear side)
- 4 +  $\alpha$  power-driven tools on the tool post
- 4 +  $\alpha$  power-driven tools for backworking
- 7 axes

# SB

## 16 III

NEW

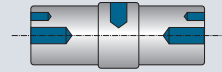


### SPECIFICATIONS

Diameter  $\varnothing$  16 mm

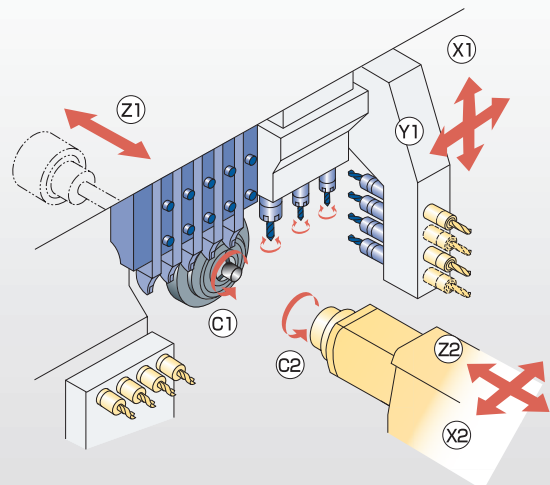
Headstock stroke  $\leftrightarrow$  155 mm

Machining possibilities



### THE ADVANTAGES

- FANUC 0i-TF control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Low space requirement



### KINEMATICS & TOOLS

- 5-station tool holder on the tool post
- 4-station drilling unit including sleeves on the front and rear side
- 3 power-driven tools for cross machining on tool post
- 4 +  $\alpha$  tools for backworking including sleeves
- 7 axes

# SB

## 20R

type G

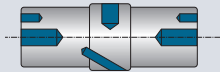


### SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

Headstock stroke  $\leftrightarrow$  205 mm / 50 mm (fixed headstock lathe)

Machining possibilities



### THE ADVANTAGES

- FANUC 0i-TF control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- Low space requirement
- Ideal replacement for cam-controlled lathes

# SP

## 23

NEW

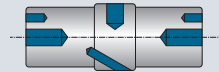


### SPECIFICATIONS

Diameter  $\varnothing$  23 mm / 26 mm (option)

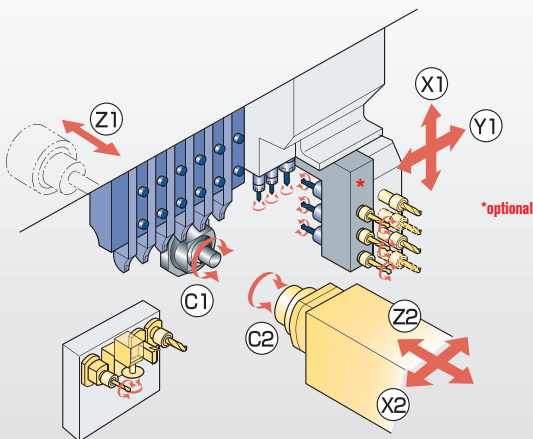
Headstock stroke  $\leftrightarrow$  196 mm / 50 mm (fixed headstock lathe)

Machining possibilities



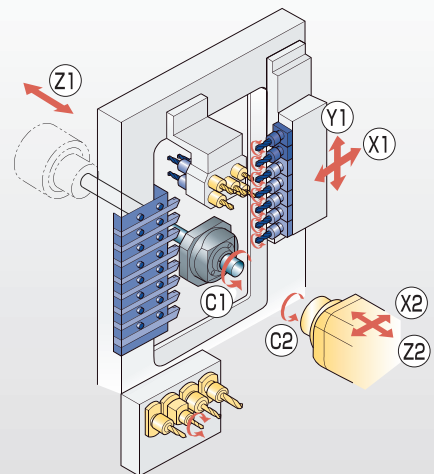
### THE ADVANTAGES

- FANUC 0i-TF control system
- C-axis control as standard on main and sub spindle
- Movable control panel
- Completely independent backworking with 4 stations
- Convertible from sliding headstock to fixed headstock lathe



### KINEMATICS & TOOLS

- 6 turning tools
- Each with 4 drilling tools (front and rear side)
- 4 +  $\alpha$  power-driven tools on the tool post
- 4 +  $\alpha$  power-driven tools for backworking
- 7 axes



### KINEMATICS & TOOLS

- 8-station turning tool holder on tool post
- Each with 5 drilling tools (front and rear side)
- 7 +  $\alpha$  power-driven tools for cross machining on tool post
- 5-station drilling unit with sleeves on the front and rear side
- 4 +  $\alpha$  power-driven tools with sleeves for backworking
- 7 axes

# SR 20J II

type A/B



## SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

Headstock stroke  $\leftrightarrow$  205 mm / 50 mm  
(fixed headstock lathe)

Machining possibilities



## THE ADVANTAGES

- FANUC 32i-B control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- 2 additional deep drilling stations

# SR 20R IV

type A/B



## SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

Headstock stroke  $\leftrightarrow$  205 mm / 50 mm  
(fixed headstock lathe)

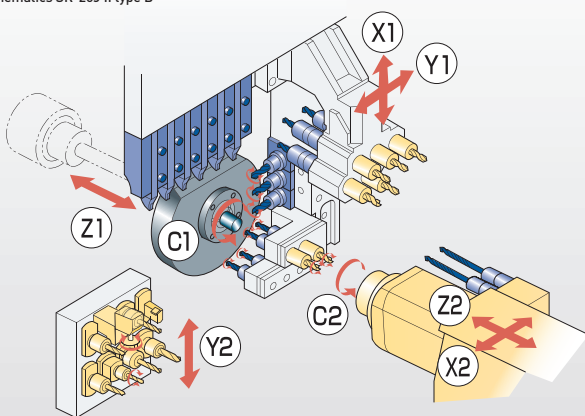
Machining possibilities



## THE ADVANTAGES

- FANUC 31i-B5 control system (type A: 31i-B)
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- 2 additional deep drilling stations
- B axis for the front and rear side on the tool post

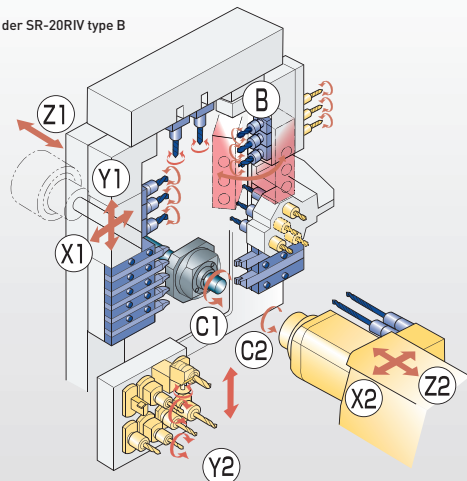
Kinematics SR-20J II type B



## KINEMATICS & TOOLS

- 6 turning tools
- Each with 5 drilling tools (front and rear side)
- 5 +  $\alpha$  power-driven tools on the tool post
- 2 deep drilling stations
- 4 [1] / 8 [2] power-driven tools for backworking
- 7 [1] / 8 [2] axes

Kinematics der SR-20RIV type B



## KINEMATICS & TOOLS

- 7 turning tools
- Each with 4 drilling tools (front and rear side)
- 8 +  $\alpha$  power-driven tools on the tool post
- 11 +  $\alpha$  power-driven tools for backworking
- 2 deep drilling stations
- 8 axes type A / 9 axes type B



# SR

## 32J III

type B



### SPECIFICATIONS

Diameter  $\varnothing$  32 mm / 36 mm (option)

Headstock stroke  $\leftrightarrow$  320 mm / 80 mm (fixed headstock lathe)

Machining possibilities



### THE ADVANTAGES

- FANUC 32i-B control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel

# SR

## 38

type B



### SPECIFICATIONS

Diameter  $\varnothing$  38 mm / 40 or 42 mm (option)

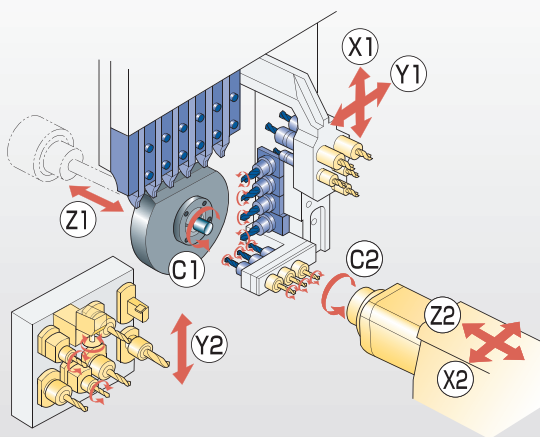
Headstock stroke  $\leftrightarrow$  320 mm / 95 mm (fixed headstock lathe)

Machining possibilities



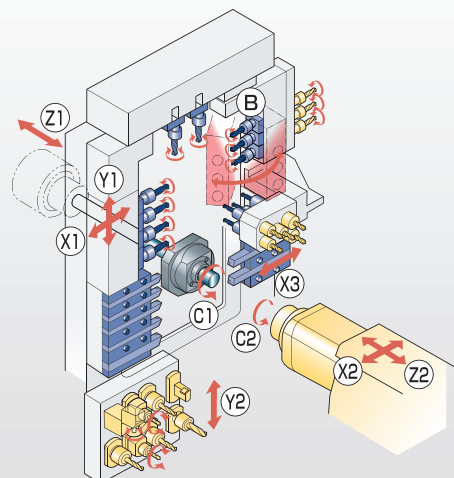
### THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- B axis for the front and rear side on the tool post
- Additional X3 axis for simultaneous turning on the front side



### KINEMATICS & TOOLS

- 6 turning tools
- Each with 5 drilling tools (front and rear side)
- 5 +  $\alpha$  power-driven tools on the tool post
- 8 +  $\alpha$  backworking tools, power-driven on 8 stations
- 8 axes



### KINEMATICS & TOOLS

- 7 turning tools
- Each with 5 drilling tools (front and rear side)
- 9 +  $\alpha$  power-driven tools on the tool post
- 11 +  $\alpha$  power-driven tools for backworking
- 10 axes



# SW 12R II



## SPECIFICATIONS

Diameter  $\varnothing$  12 mm / 13 mm (option)

Headstock stroke  $\leftrightarrow$  135 mm / 30 mm  
(fixed headstock lathe)

Machining possibilities



## THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- Two tool posts for simultaneous machining on the front side
- Low space requirement
- Three independent tool systems

# SW 20

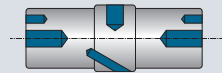


## SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

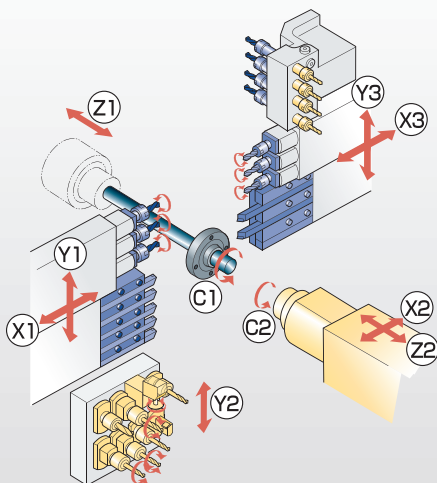
Headstock stroke  $\leftrightarrow$  205 mm

Machining possibilities



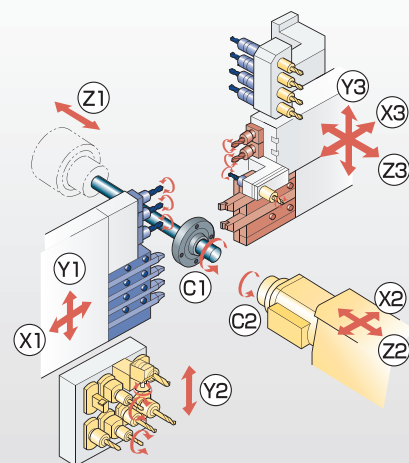
## THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Movable control panel
- Two tool posts for simultaneous machining on the front side
- Additional longitudinal axis (Z3) on the tool post
- Three independent tool systems



## KINEMATICS & TOOLS

- 7 turning tools
- Each with 4 drilling tools (front and rear side)
- 6 +  $\alpha$  power-driven tools on the tool post
- 8 +  $\alpha$  power-driven tools for backworking
- 10 axes



## KINEMATICS & TOOLS

- 6 turning tools
- Each with 4 drilling tools (front and rear side)
- 6 +  $\alpha$  power-driven tools on the tool post
- 8 +  $\alpha$  backworking tools, power-driven on 6 stations
- 11 axes

# SD 26

type C/E/G/S

NEW



## SPECIFICATIONS

Diameter  $\varnothing$  26 mm

Headstock stroke  $\leftrightarrow$  260 mm / 65 mm  
(fixed headstock lathe)

Machining possibilities



## THE ADVANTAGES

- FANUC 31i-B5 Plus control system (type S/G)  
FANUC 32i-B Plus control system (type E)  
FANUC 0i-TF Plus control system (type C)
- C-axis control as standard on main and sub spindle
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- B-axis for main and sub spindle on the tool post (type S: additional second B axis)
- Completely independent backworking with 8 stations and 2 additional turning tools

# SV 20R



## SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

Headstock stroke  $\leftrightarrow$  205 mm / 50 mm  
(fixed headstock lathe)

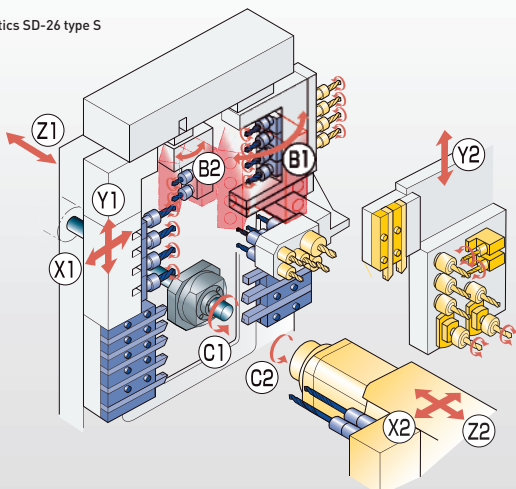
Machining possibilities



## THE ADVANTAGES

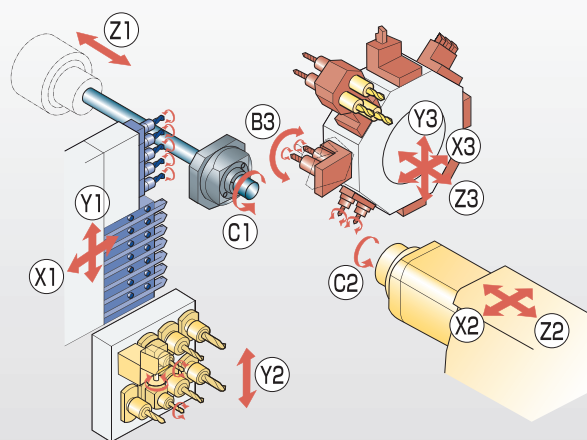
- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- Tool post and turret for simultaneous machining on the front side
- Three independent tool systems
- Additional longitudinal axis on the turret
- Turret drive power 4 kW

Kinematics SD-26 type S



## KINEMATICS & TOOLS

- 7 turning tools
- 5 drilling tools respectively on the front and rear side
- 2 deep hole drilling stations
- 10 +  $\alpha$  power-driven tools on the tool post (type C/E/G)
- 9 +  $\alpha$  power-driven tools on the tool post (type S)
- 8/9/10 axes (type C / type E+G / type S)



## KINEMATICS & TOOLS

- 7 turning tools
- 5 power-driven tools for cross machining
- 8 +  $\alpha$  tools for turning, drilling, cross machining and backworking with drive on the turret
- 4 of these tools with B axis drive
- 8 +  $\alpha$  power-driven tools for backworking
- 12 axes

# SX

## 38

type A



### SPECIFICATIONS

Diameter  $\varnothing$  38 mm / 40 or 42 mm (option)

Headstock stroke  $\leftrightarrow$  320 mm / 95 mm (fixed headstock lathe)

Machining possibilities



### THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Convertible from sliding headstock to fixed headstock lathe
- Movable control panel
- B axis for front and rear side on the tool post
- Tool post and turret for simultaneous machining on the front side
- Three independent tool systems
- Additional longitudinal axis (Z3) on the turret
- Turret drive power 4 kW

# ST

## 20



### SPECIFICATIONS

Diameter  $\varnothing$  20 mm / 23 mm (option)

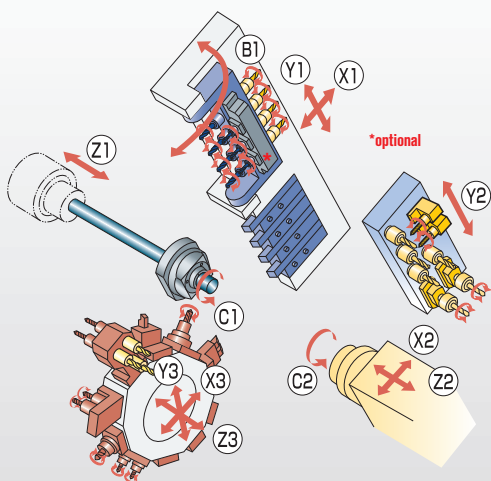
Headstock stroke  $\leftrightarrow$  350 mm

Machining possibilities



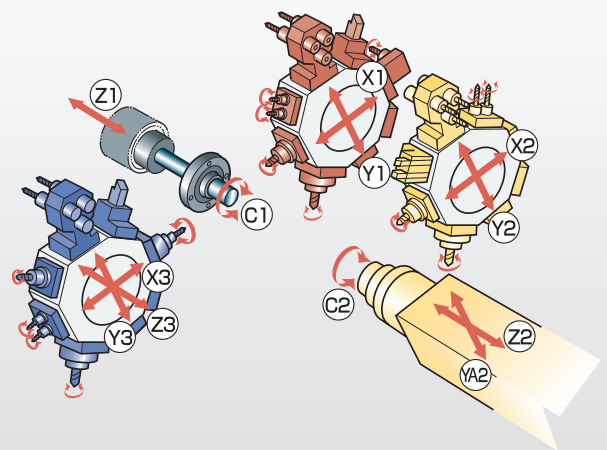
### THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Movable control panel
- Two tool posts for simultaneous machining on the front side
- Three independent tool systems
- Additional longitudinal axis on the tool post 3
- Turret drive power 2.5 kW



### KINEMATICS & TOOLS

- 4 turning tools
- 4 power-driven tools on the tool post with B axis drive (3 additional front tools possible)
- 10 +  $\alpha$  power-driven tools for turning, drilling, cross drilling and backworking on the turret
- 8 power-driven tools for backworking
- 12 axes



### KINEMATICS & TOOLS

- 3 turrets each with 8 tool stations for excellent power-driven machining
- 24 +  $\alpha$  tools for turning, drilling, cross machining and backworking
- 12 axes

# ST 38

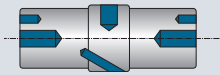


## SPECIFICATIONS

Diameter  $\varnothing$  38 mm / 40 mm (option)

Headstock stroke  $\leftrightarrow$  350 mm

Machining possibilities

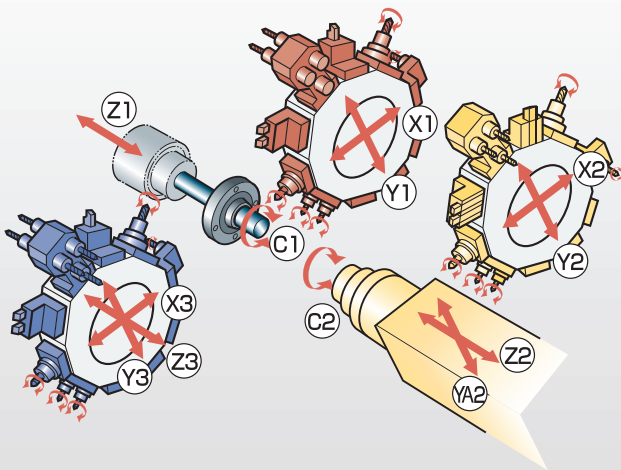


## THE ADVANTAGES

- FANUC 31i-B5 control system
- C-axis control as standard on main and sub spindle
- Completely independent backworking
- Movable control panel
- Two tool posts for simultaneous machining on the front side
- Three independent tool systems
- Additional longitudinal axis on the tool post 3
- Turret drive power 2.5 kW

## KINEMATICS & TOOLS

- 3 turrets each with 10 tool stations for excellent power-driven machining
- 30 +  $\alpha$  tools for turning, drilling, cross machining and backworking
- 12 axes



# TYPE CST1

## Chip conveyor

NEW

NEW: MÜLLER CHIP CONVEYOR WITH EXCELLENT DESIGN AND FUNCTION



## EQUIPMENT

- Floor cleaning through Vulkollan® driver
- Chip rake is standard
- Avantgarde design with excellent function

## TYPE OF CONVEYOR

- Hinged belt conveyor
- Scraper belt conveyor

## OPERATION

- Easy standard operation
- Smart control through contamination symbols + chip trolley monitoring

## USPS

- Smart control with contamination symbols available as option and/or chip trolley monitoring
- Chip scraper at end of conveyor
- Chip rake + Vulkollan® scraper



# PROCESSES USING DIGITAL TECHNOLOGY

NEW

STAR\* TPM  
TOOL PROCESS MONITORING

Reproducible process and tool monitoring has long become essential for companies to ensure productivity and quality. With Tool Process Monitoring (TPM) STAR Micronics has developed a retrofit solution to monitor the process.

The system enables the simultaneous monitoring of over 50 tools. In the meantime, TPM has been successfully deployed with more than 20 customers. The close cooperation with our customers is a cornerstone for the continuous further development and continued success of TPM.

## THE ADVANTAGES

- Process monitoring on separate 15" touchscreen parallel to the NC program
- Monitoring of drill D = 2 mm, depending on the process
- No need to stop during the measurement cycle
- Integrated tool and program management and alarm history
- Freely selectable number of teach cycles
- Automatic saving of measurement data for tool optimisation and error analysis

- Multi-monitoring of up to 12 tools / axes simultaneously
- Display of history data to improve process
- User interface intuitive and easy to use
- Windows PC to display 3D or CAM data, QS tables, work schedules, etc.
- Retrofit possible from FANUC 30i (all types from approx. 2008)
- USB ports for data transfer or external keyboard
- Display language switchable between German and English
- Freeze function to enable cleaning of screen
- Option: network connection for display of process data in the office

**WATCH DEMO VIDEO  
NOW AND RETROFIT  
YOUR MACHINE!**

[tpm.starmicronics.eu](http://tpm.starmicronics.eu)

Scan  
QR-Code



# HFT

The cutting chip innovation

NEW

**CHIP PROBLEMS?  
WITH HFT FROM STAR\* THESE  
PROBLEMS ARE A THING OF THE PAST.**

## THE ADVANTAGES

- Controlled chips
- Higher machine availability
- Less action required by operating personnel
- More stable process reliability
- Less heat development

Suitable for all types of machining and materials  
(internal and external machining)

This revolutionary technology enables you to immediately  
control cutting chips.



before

Chip generation  
with conventional machining  
Bearbeitung

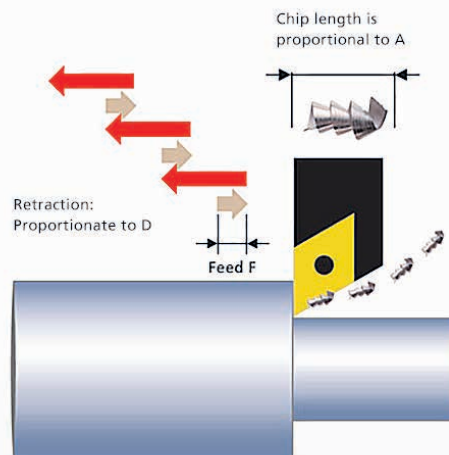
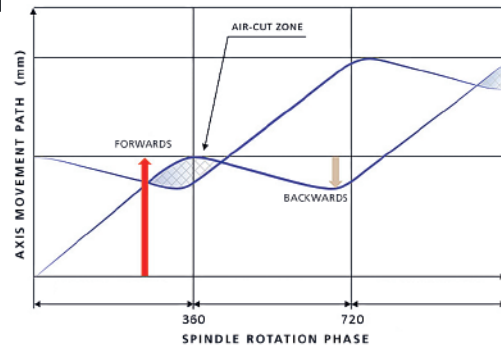


afterwards

Chip generation  
with high frequency turning

# SCP

Step Cycle Pro



**SCP STEP-CYCLE-PRO – A PIONEERING  
DEVELOPMENT FOR THE MANAGEMENT  
OF CHIPS**

## THE ADVANTAGES

- Prevents chip problems and considerably reduces scrap
- even surface finish
- cycle time easy to control
- reduces machine downtimes
- shortens setup times
- easy to retrofit for a reasonable price
- easy to handle using the G codes

SCP (Step-Cycle-Pro) is the latest breakthrough in the  
fight to deal with the challenges of awkwardly long cutting  
chips found with the machining of difficult materials such  
as aluminium, stainless steel, copper and plastics.

Further information available at:  
<http://hft.starmicronics.eu/>



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Mon. to Thur. 8 am to 4pm  
Frid. 8 am to 1pm

### Spare parts:

Tel. +49 (7082) 7920-17  
Mon. to Thur. 8 am to 4pm  
Frid. 8 am to 1pm



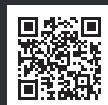
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OPEN HOUSE  
04. – 06. Oktober 2023 · Neuenbürg



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[www.starmicronics.de](http://www.starmicronics.de)



Subject to technical changes and errors. Kinematics do not always correspond to the standard. Issue September 2023.