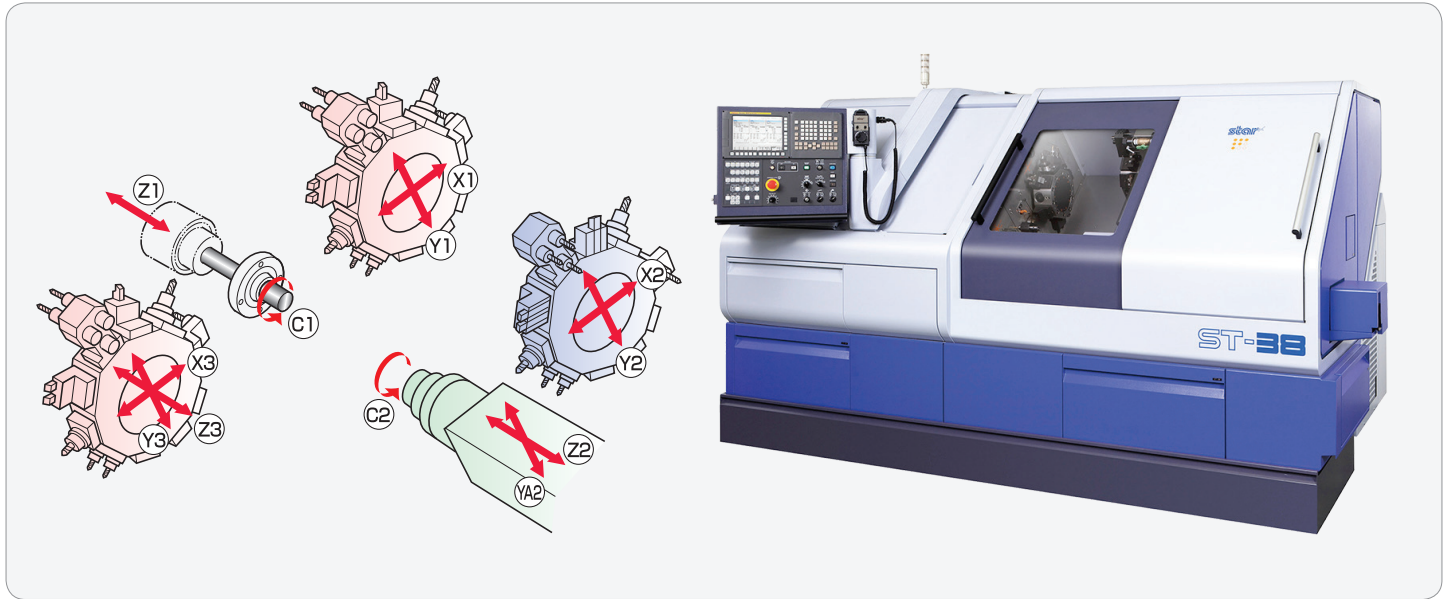


# ST-38

SWISS TYPE AUTOMATIC LATHE  
equipped with Star motion control system



[View machine demo >](#)

[View case study >](#)

## High Productivity

- » Star Motion Control System is a unique control technology which minimizes non-cutting time.
- » Simultaneous machining such as turning, milling etc. is achieved by opposing twin turret tool posts and dramatically reduces the machining time.
- » Adoption of the turret exclusive for back machining enables independent front and back machining, and reduces the cycle time.
- » Mounting multiple tools onto one turret station reduces the number of indexing times and tool change time.
- » Increased rapid traverse rate of each control axis; shortens movement time.

## High Accuracy

- » Spindle Cooling Unit controls thermal displacement by exhausting heat generation of the main and sub spindles out of the machine.
- » Coolant Chiller Unit regulates increases of the machine temperature to restrict thermal displacement.
- » Star Motion Control System minimises vibration during rapid traverse.

## Machining Capabilities

- » Possible to machine large bars of 38mm in diameter and 32mm hexagonal bars.
- » The turret exclusive for back machining allows combined machining equivalent to main machining.
- » Combining this machine with a high-pressure coolant unit enables deep-hole drilling (maximum 120mm) on both the front and rear ends.
- » The headstock stroke is 350mm (\*1)
- » The YA2 axis is provided for picking up eccentric parts.

## Operability

- » The operation panel can be turned and moved to an optimum position for the operator.
- » Data can be input/output with the USB memory.
- » Retrace operation with the electronic handwheel makes set-up arrangement easier.

\*1: This length changes to 315mm when the rotary magic guide bush unit is used



“Star ST-38 equals capability to profit in a single step.”

## Standard Machine Specifications

Item	Specifications	
Max. machining diameter	φ38mm (1-1/2in)	
Max. headstock stroke	350mm (13-25/32in)	
Front turret tool post	10 stations	
Near side turret		
Far side turret	10 stations	
Number of turning tools	Max. 2 tools/station (□16mm)	
Tool shank	□16mm / □20mm	
Sleeve holder	Number of tools	Max. 3 tools/station
	Max. drilling capability	φ23mm (29/32in)
	Max. tapping capability	M12×P1.75
Power driven att.	Max. depth of hole capability	120mm (4-23/32in)
	Number of tools	Max. 2 tools/station
	Max. drilling capability	φ10mm (25/64in)
Main spindle indexing angle	Max. tapping capability	M8×P1.25
	C-axis control	
Main spindle speed	Max. 7,000min <sup>-1</sup>	
Main spindle motor	Built-in motor drive 7.5kw(continuous)/11kw(10min/25%ED)	
Power-driven att. spindle speed	Max. 5,700min <sup>-1</sup>	
Power-driven att. drive motor	AC servo drive 2.7kw(continuous)/4.0kw(5min/30%ED)	
Coolant tank capability	245 ℓ	
Dimensions (Width×Depth×Height)	3,477×1,859×1,865mm	
Center height	1,134mm [including leveling pads]	
Weight	6,250kg	
Power consumption	10.5KVA	
A-weighted sound pressure : note1	Max.71 dB(A)	

## Backworking Attachment Specifications

Item	Specifications	
Max. chucking diameter	φ38mm (1-1/2in)	
Max. part pick-up length	150mm (5-7/8in)	
Max. parts projection length	75mm (2-15/16in)	
Sub spindle indexing angle	C-axis control	
Sub spindle speed	Max. 7,000min <sup>-1</sup>	
Sub spindle motor	Built-in motor drive 5.5kw(continuous)/7.5kw(10min/40%ED)	
Back turret tool post	10 station	
Number of turning tools	Max.2 tools/station (□16mm)	
Tool shank	□16mm / □20mm	
Sleeve holder	Number of tools	Max.3 tools/station
	Max. drilling capability	φ23mm (29/32in)
	Max. tapping capability	M12×P1.75
Power driven att.	Max. depth of hole capability	120mm (4-23/32in)
	Number of tools	Max.2 tools/station
	Max. drilling capability	φ10mm (25/64in)
Power-driven att. spindle speed	Max. tapping capability	M8×P1.25
	Max. 5,700min <sup>-1</sup>	
Power-driven att. drive motor	AC servo drive 2.7kw(continuous)/4.0kw(5min/30%ED)	

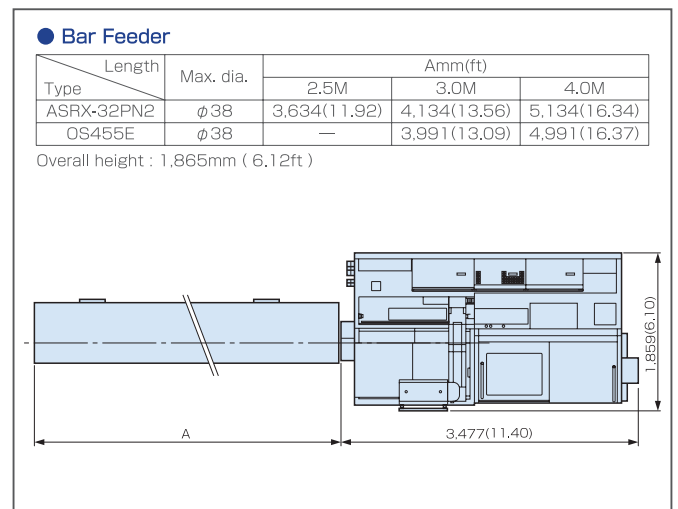
## Standard Accessories and Functions

- CNC unit  
FANUC Series 30i-A
- Operation panel  
10.4-inch color LCD display
- Main/Sub collet
- Revolving guide bush unit
- Main/Sub spindle C-axis control unit
- Main/Sub spindle clamp unit
- Main/Sub spindle cooling unit
- Coolant chiller
- Air purge unit  
(guide bush unit / sub spindle)
- Parts separator
- Parts conveyor
- Automatic centralized lubrication unit
- Coolant level detector (lower limit)
- Door interlock system
- Broken cutoff tool detector
- Leakage breaker
- Automatic bar feeder interface
- High pressure coolant interface

## Optional Accessories and Functions

- Tool unit for turret
- Tool presetter
- Rotary magic guide bush unit
- Coolant unit 6.9MPa
- Coolant unit 1.5MPa
- Coolant piping for turret tool post
- Parts ejector with guide tube
- Parts ejector (spring type/air cylinder type)
- Parts ejection detector
- Coolant flow detector
- Beacon

## External Dimensions and Floor Space unit: mm(ft)



※Design features, specifications and technical execution are subject to change without prior notice.

※This product is an export control item subject to the foreign exchange and foreign trade laws. Thus, before exporting this product, or taking it overseas, contact your STAR MICRONICS dealer.