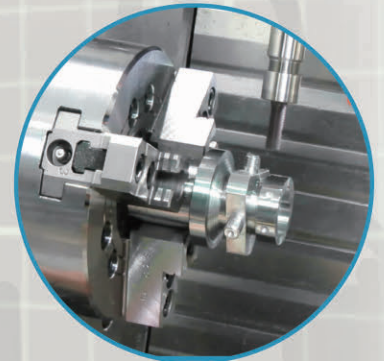
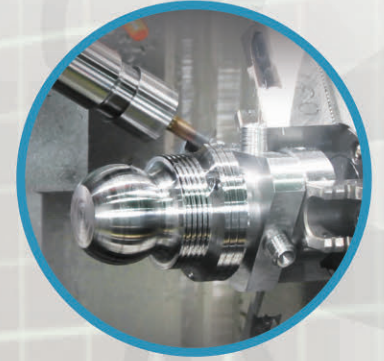


# CNC

## MACHINE TOOLS MANUFACTURING | 2020 **S32/42 ATM**

*Total solution for engineering Integration*







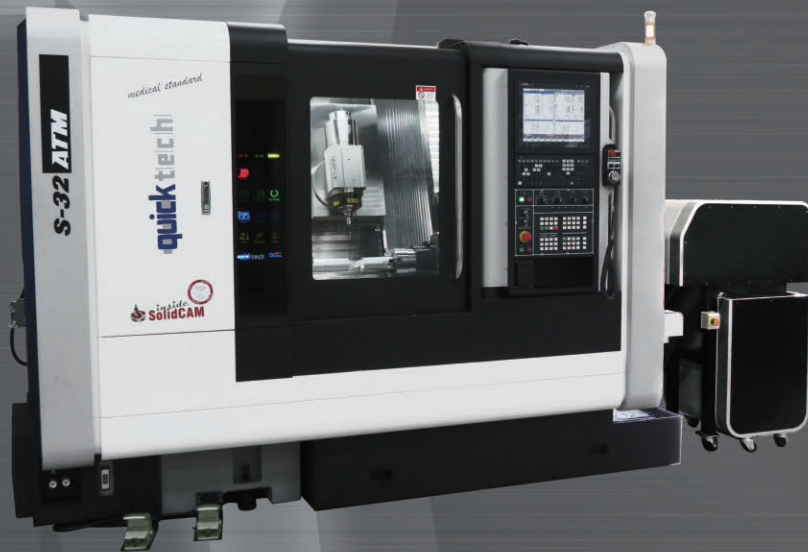
01

# || S32/42 ATM ||

The medical market is highly regulated, require high precision, performance and reliability; lives depend on accurate machining performed by experienced professionals. The new S32 provides an option for a cost-effective machine for those seeking highly accurate turning and angular milling capability. There is no room for error in this field; high-demand request for new medical devices and technologies, This are critical factors in medical manufacturing and the S32 is the machine to achieve this request.



Every new challenger  
Every accurate part  
S32 is your best partner



## ■ Feature :

- Versatile Mill Spindle indexing (B-axis) 0-190 degrees
- High-speed, high-torque milling spindle
- Large Y-axis design
- Big tool magazines to reduce setup time (24 tools)
- C axis in main and sub spindle
- Mitsubishi M830 standard (Option. Fanuc)

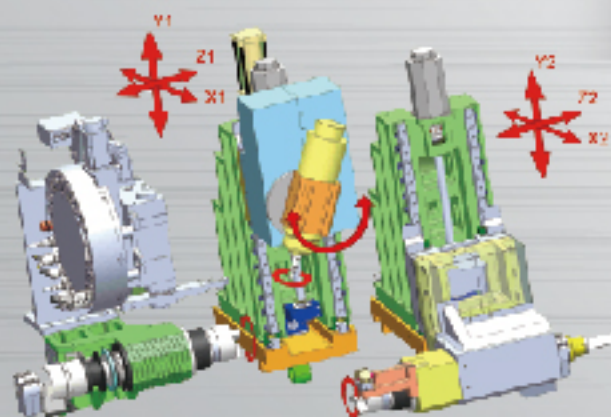




# Remarkable pieces require a special machine

The new S32 delivers successful medical machining solutions for a wide range of products. This field continues to grow in complexity parts and new S32 help to achieve any challenge. Whether taking on titanium, chrome, stainless steel or extreme precision of micromachining, the S32 fulfills the engineering solutions for one-process manufacturing.

02



## Axis movement

The S32 is mounted on a 75 degrees one-piece casting, this allow have extra wide hardened and linear ways to assure the rigidity and accuracy.

## Mitsubishi Control

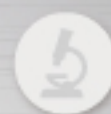


S32 is equipped with a 15 inch vertical display with a two-split multi-window screen. Home application in the lower half can freely be customized.



## LED Extended display

Easy monitor status of the machine.





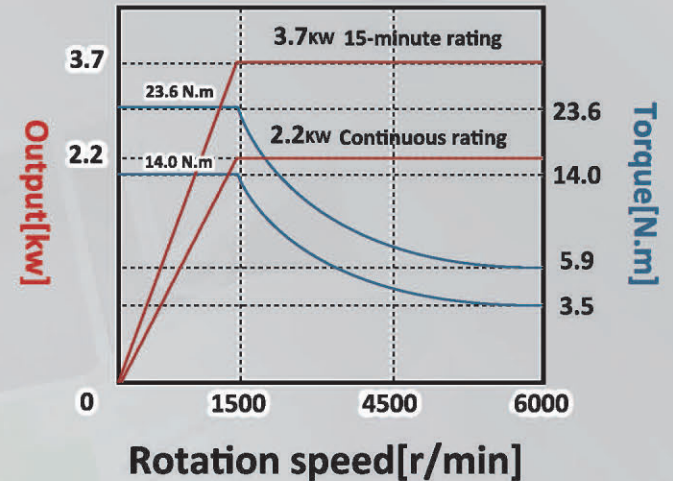


03

# Complex, Fast, Accurate parts done in one machine

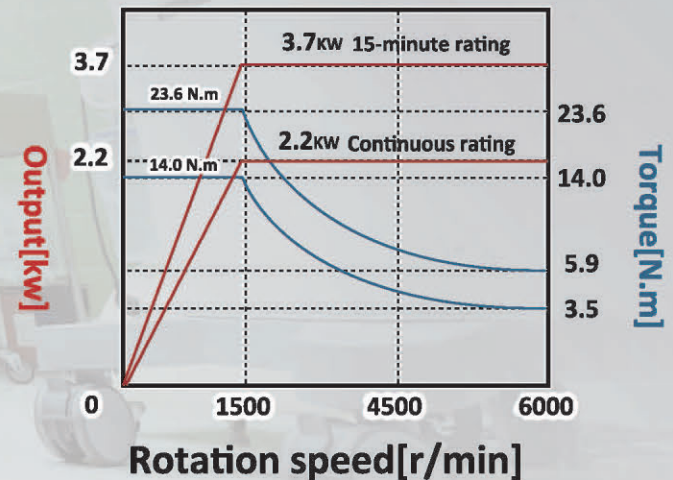
## Main Spindle

Collect chuck or Jaws give you the flexibility need and the built-in spindles give you the precision and rigid.



## Sub-Spindle

Built-in motor provides the precision and accurate for every parts need.

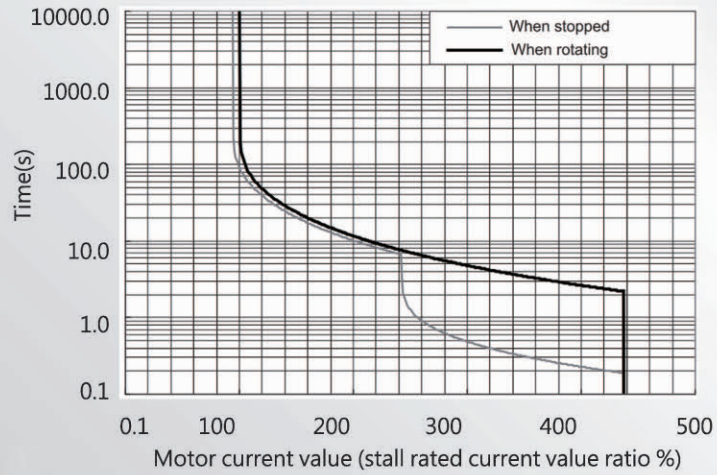






Tool Spindle

# Easy setup for complex parts

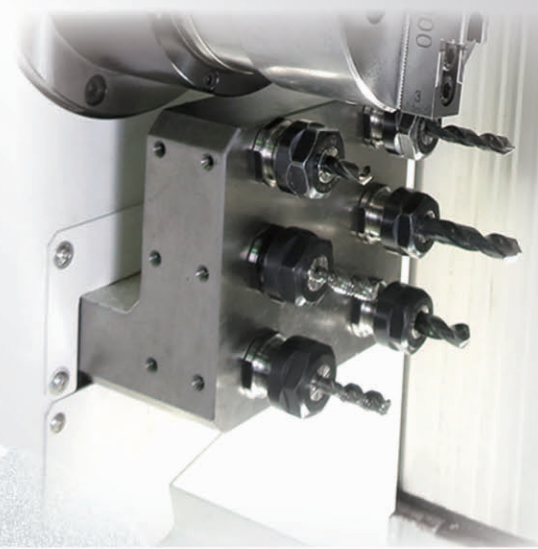


## ATC System

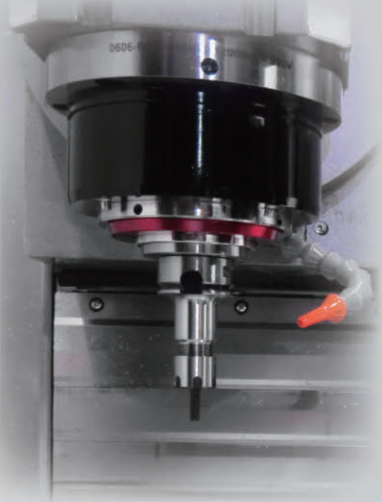
In the medical area, you combine several cutting processes, including turning, milling, drilling, and tapping ; in one machine you need quick and precision; The new S32 offer you 24 tools for achieving high accurate application for complex parts.

04

## Tooling System



Extra 6 I.D Tools help you to achieve special parts and reduce 60% with the simultaneously machining.



# Accurate, Flexible, Fast

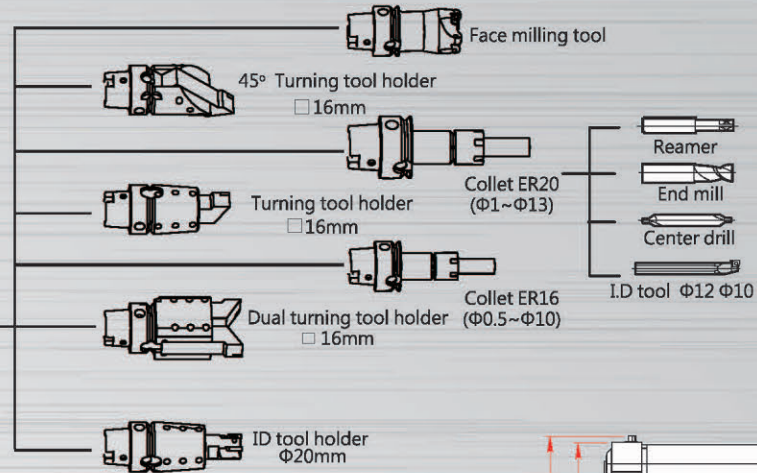
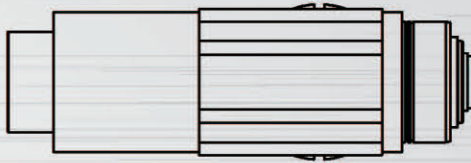
Tool spindle with X-axis travel (+/-400mm) and B-axis rotation (0-190 degree)



# Tooling Specification

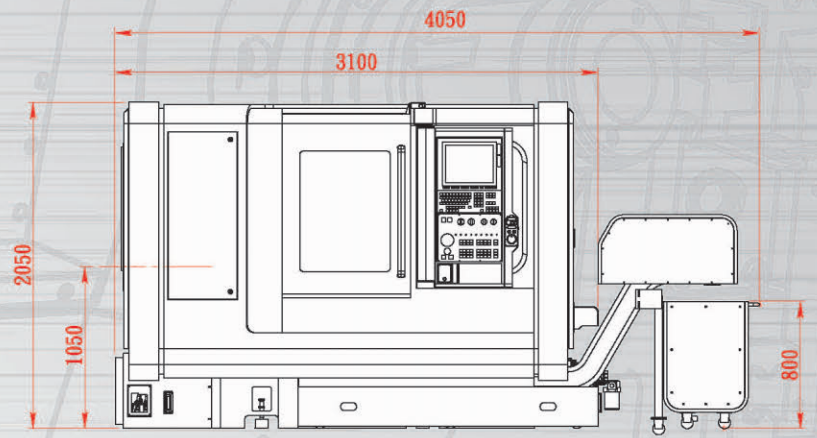
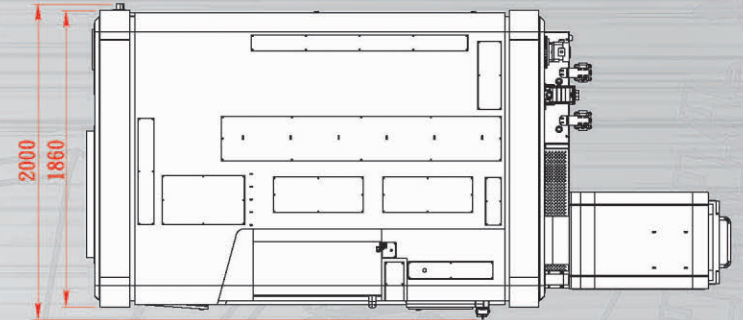
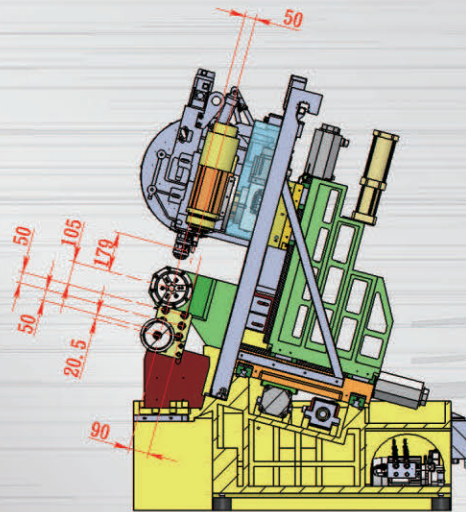
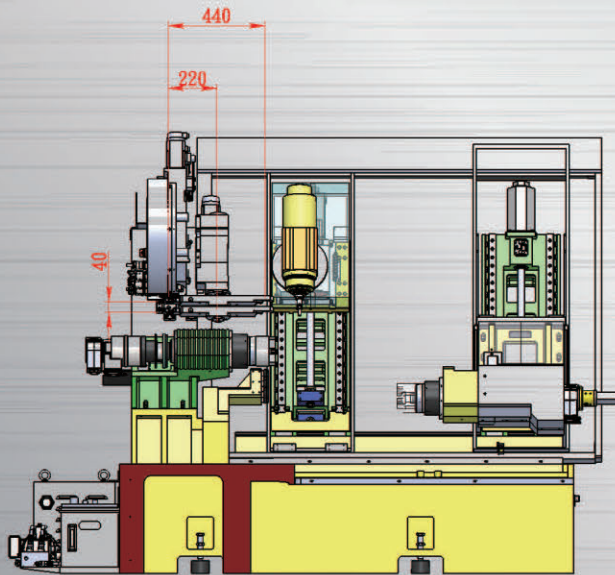


05



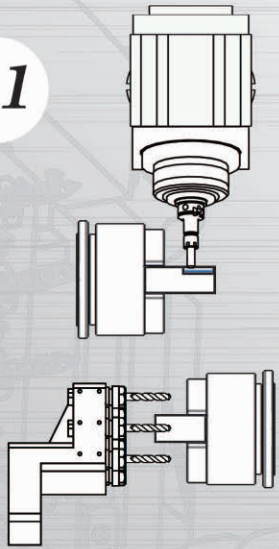
# Machine Dimension

# Interference Drawing



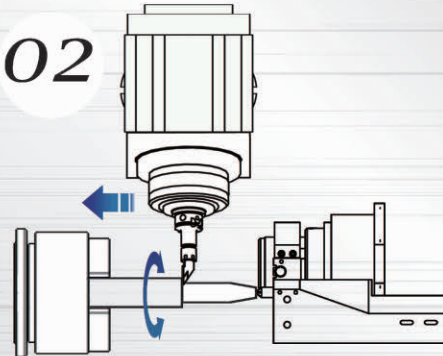
# Machining Applications

01



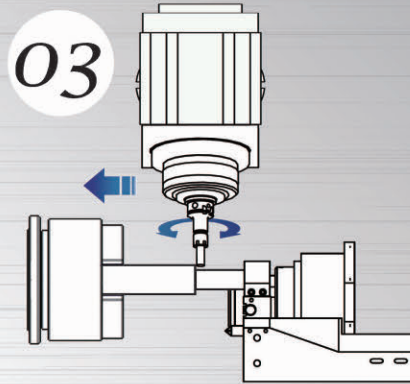
Twin spindles synchronize machining

02



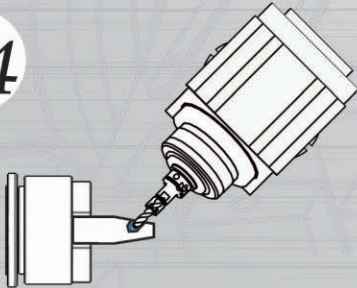
Long work-piece machining

03



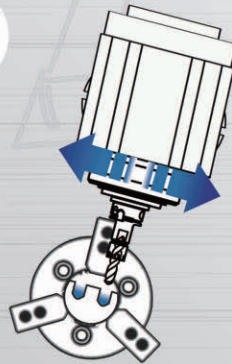
Live tool milling

04



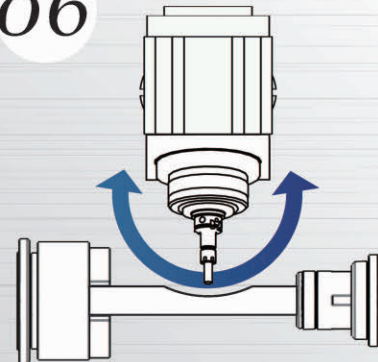
Tapping or drilling by free angle B axis

05



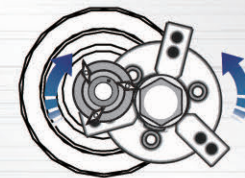
Off-center machining

06



B axis Angular Milling

07



Polygon Generating Cutting

06





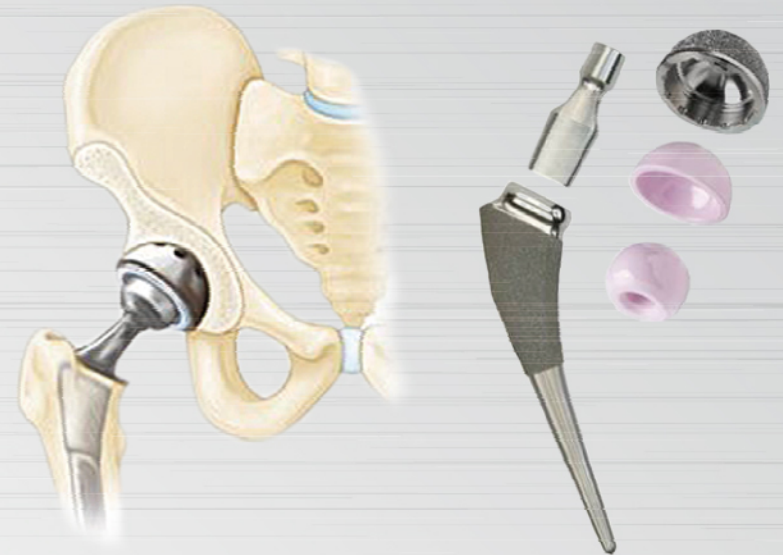


07

Specification

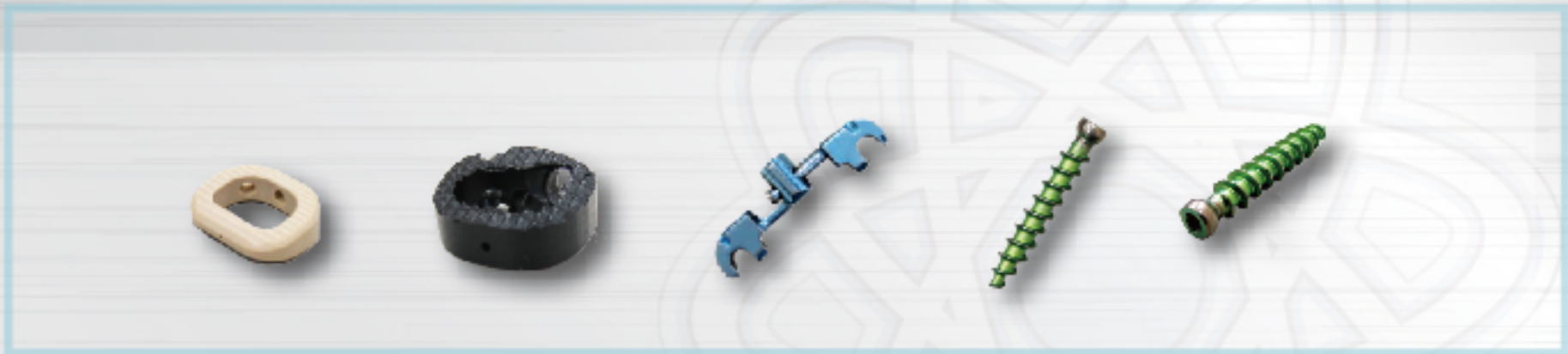
| Machine Model          | S-32 ATM              | S-42 ATM                          |                                   |
|------------------------|-----------------------|-----------------------------------|-----------------------------------|
| Mitsubishi controller  | M830S                 | M830S                             |                                   |
| Swing over bed         | 400mm                 | 400mm                             |                                   |
| Swing over cross slide | 250mm                 | 250mm                             |                                   |
| Max. working dia       | 169mm                 | 169mm                             |                                   |
| Max. Bar working dia   | 32mm                  | 42mm                              |                                   |
| Main spindle           | Max. turning length   | 350mm(OD Turn) / 140mm(Drill)     | 340mm(OD Turn) / 130mm(Drill)     |
|                        | Collet chuck type     | KK5-173E42B / N206A5 (6-inch)     | KK5-173E42B / N206A5 (6-inch)     |
|                        | Nose                  | ISO(DIN) A2-5                     | ISO(DIN) A2-5                     |
|                        | Spindle bore          | 33mm                              | 43mm                              |
|                        | Speed                 | 6000 rpm                          | 6000 rpm                          |
|                        | Spindle motor         | Built-in spindle 3.7kw            | AC spindle 11kw                   |
|                        | Max. Bar working dia  | 32mm                              | 42mm                              |
|                        | Max. turning length   | 230mm(OD Turn) / 55mm(Drill)      | 230mm(OD Turn) / 55mm(Drill)      |
|                        | Collet chuck type     | KK5-173E42B / N205A5 (5-inch)     | KK5-173E42B / N205A5 (5-inch)     |
|                        | Nose                  | ISO(DIN) A2-5                     | ISO(DIN) A2-5                     |
| Sub spindle            | Spindle bore          | 33mm                              | 33mm                              |
|                        | Speed                 | 6000rpm                           | 6000rpm                           |
|                        | Spindle motor         | Built-in spindle 3.7kw            | Built-in spindle 3.7kw            |
|                        | Accessory 1           | φ 16 Tapper                       | φ 16Tapper                        |
|                        | Accessory 2           | Gripper(hydraulic)                | Gripper(hydraulic)                |
|                        | Max. speed            | 12000rpm                          | 12000rpm                          |
|                        | Spindle type          | HSK-T40                           | HSK-T40                           |
|                        | Spindle motor         | Built-in spindle 10kw             | Built-in spindle 10kw             |
|                        | Tool holding force    | 290kg                             | 290kg                             |
|                        | Tool release force    | 450-500kg                         | 450-500kg                         |
| Machining Cooling      | Ring coolant          | Ring coolant                      |                                   |
|                        | X1                    | 420mm                             | 420mm                             |
| Axis                   | Y1                    | 80 = ±40mm                        | 80 = ±40mm                        |
|                        | Z1                    | 400mm                             | 400mm                             |
|                        | X2                    | 420mm                             | 420mm                             |
|                        | Y2                    | 80 = ±40mm                        | 80 = ±40mm                        |
|                        | Z2                    | 510mm                             | 510mm                             |
|                        | X1/Y1/Z1 axis motor   | 2.2 / 1.5 / 2.2 kw                | 2.2 / 1.5 / 2.2 kw                |
|                        | X2/Y2/Z2 axis motor   | 2.2 / 1.5 / 2.2 kw                | 2.2 / 1.5 / 2.2 kw                |
| B axis                 | B axis Rotary         | 190° = ±95°                       | 190° = ±95°                       |
|                        | Least Command Unit    | 0.001°                            | 0.001°                            |
|                        | Repetition Accuracy   | 0.002°                            | 0.002°                            |
|                        | Motor                 | AC Servo 1.0kw                    | AC Servo 1.0kw                    |
|                        | Tool Spec             | HSK-T40                           | HSK-T40                           |
| ATC system             | Tool Magazine Station | 24                                | 24                                |
|                        | Tool retract Travel   | 40mm                              | 40mm                              |
|                        | Max. Tool Dia         | φ 55 (φ 80 without adjacent tool) | φ 55 (φ 80 without adjacent tool) |
|                        | Max. Tool Weight      | 3kg                               | 3kg                               |
|                        | Max. Tool Length      | 100 (From the surface of spindle) | 100 (From the surface of spindle) |
| Tool Change Time       | 2.5 sec               | 2.5 sec                           |                                   |

| Machine Model    | S-32 ATM              | S-42 ATM                        |                                 |
|------------------|-----------------------|---------------------------------|---------------------------------|
| ATC system       | Tool arm swing        | 505mm                           | 505mm                           |
|                  | Motor                 | AC Servo 0.75kw                 | AC Servo 0.75kw                 |
| Gantry Tooling   | Drill holder spec     | ER20 / φ 20mm                   | ER20 / φ 20mm                   |
|                  | Tool Quantity         | 6                               | 6                               |
|                  | Max. Pressure         | 10MPa (100 kg/cm <sup>2</sup> ) | 10MPa (100 kg/cm <sup>2</sup> ) |
| Lubrication      | Flow                  | 20cc/min                        | 20cc/min                        |
|                  | Capacity              | 1L                              | 1L                              |
|                  | Oil Spec              | no. 0-00 grease                 | no. 0-00 grease                 |
|                  | Hydraulic motor       | 1HP                             | 1HP                             |
| Hydraulic system | Hydraulic pressure    | 50kg/cm <sup>2</sup>            | 50kg/cm <sup>2</sup>            |
|                  | Tank Capacity         | 35L / 30L                       | 35L / 30L                       |
|                  | Coolant tank capacity | 240L                            | 240L                            |
| Coolant System   | Coolant Motor type    | 2KW + 2KW                       | 2KW + 2KW                       |
|                  | Pressure              | 5BAR + 25BAR                    | 5BAR + 25BAR                    |
|                  | Length                | 3800mm (Chip CVY.) / 2900mm     | 3800mm (Chip CVY.) / 2900mm     |
|                  | Machine Size          | Width                           | 2200mm                          |
|                  | Height                | 2050mm                          | 2050mm                          |
|                  | Weight                | 4350kg                          | 4350kg                          |





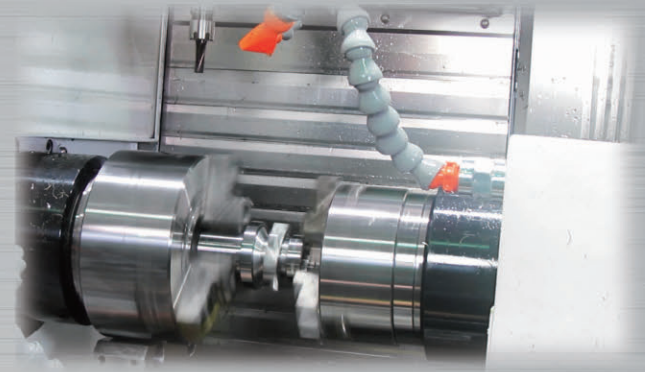
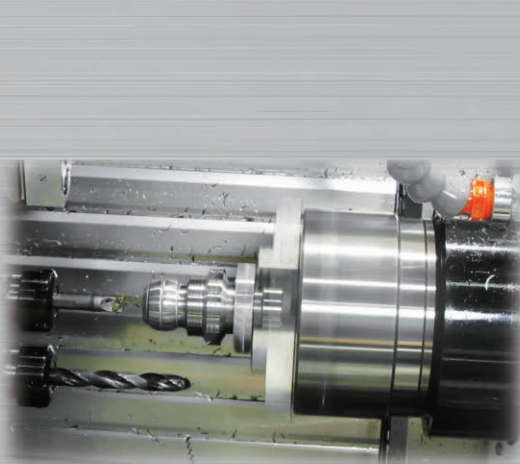
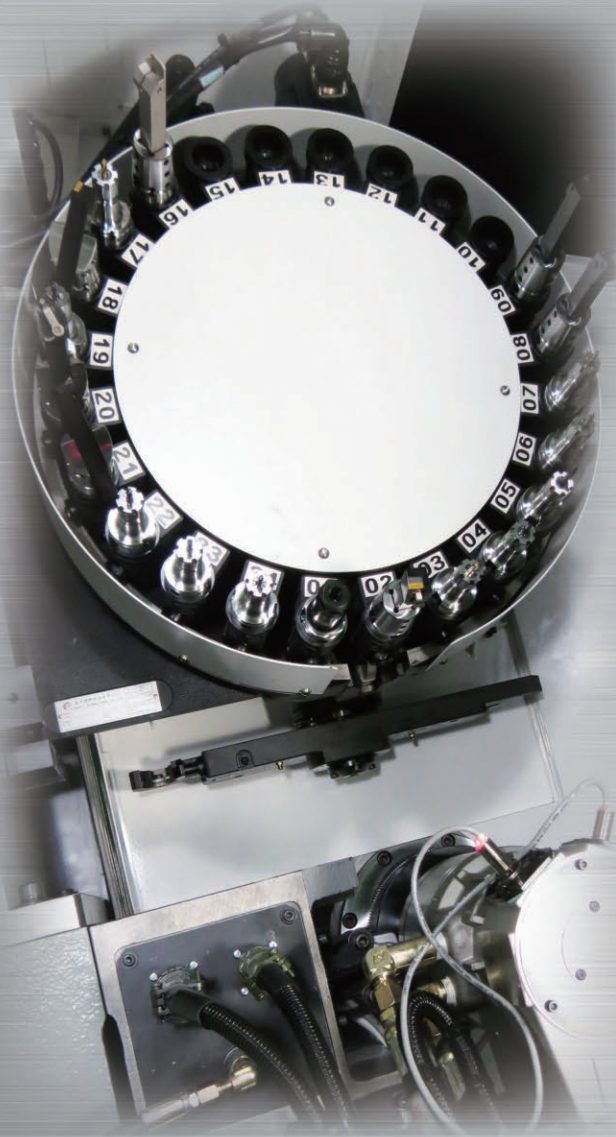
# Applications



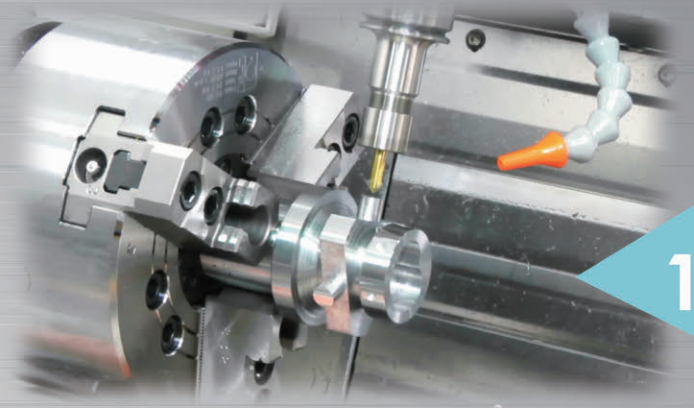
ATC System with 24 Tools

machining

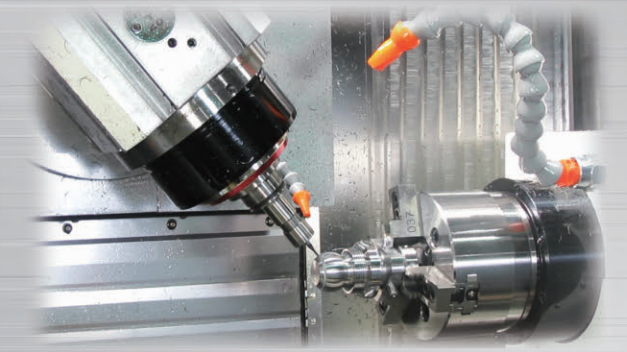
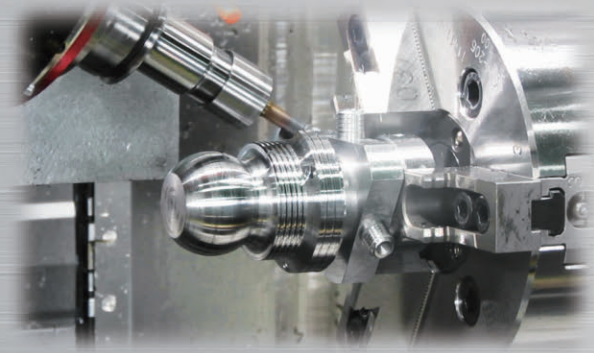
09







10



*the art of turning*



**quicktech**

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