



## i-42 Robo

This 4 axis lathe with C-axis and live tooling provides the added advantage of robotic loading for unmanned chucking operations

This machine is a modified version of the IT-42 with internal integration of a Mitsubishi 6 axis articulated robot. This requires no additional floor space, and is positioned so it will not hinder the machine operator while setting the machine, or operating the Mitsubishi M70 control system.

## Specification

| Machine Type          |                               | I-42ROBO                     |
|-----------------------|-------------------------------|------------------------------|
| Mitsubishi Controller |                               | M80                          |
| Spindle Capacity      | Max. Turning Dia.             | 100mm                        |
|                       | Max. Bar Working Dia.         | 42mm (65mm)                  |
|                       | Max. Turning Length           | 230mm                        |
|                       | Collet Chuck Type             | KK5-173E42B (KK6-185E60B)    |
|                       | Spindle Nose                  | A2-5 (A2-6)                  |
|                       | Spindle Bore                  | 43mm (66mm)                  |
|                       | Max. RPM.                     | 4000rpm (6000rpm)            |
| Sub-spindle Capacity  | Max. Turning Dia.             | ----                         |
|                       | Max. Bar Working Dia.         | ----                         |
|                       | Max. Turning Length           | ----                         |
|                       | Collet Chuck Type             | ----                         |
|                       | Spindle Nose                  | ----                         |
|                       | Spindle Bore                  | ----                         |
|                       | Max. RPM.                     | ----                         |
| C Axis                | Least Command Unit            | 0.001 °                      |
|                       | Positioning Accuracy          | 0.02 °                       |
| Travel&Feed           | X1/Y1/Z1 axis                 | 150 / 410 / 250mm            |
|                       | X2/Y2/Z2 axis                 | ----                         |
|                       | Rapid Feed                    | ----                         |
|                       | Repeated Positioning Accuracy | 0.005mm                      |
| Motor                 | Main-Spindle                  | Servo Spindle 7.5kw (11.0kw) |
|                       | Sub-Spindle                   | ----                         |
|                       | X1/Y1/Z1 axis                 | AC Servo 1.0 / 1.5 / 1.5kw   |
|                       | X2/Y2/Z2 axis                 | ----                         |
|                       | Motorized Tool                | AC Servo 1.5k                |
| A.T.C System          | OD/ID Tools Main Spindle      | 6 / 5                        |
|                       | OD/ID Tools Main Spindle      | ----                         |
|                       | Tool Shank Size               | 20mm                         |
|                       | Drill Holder Size (Main)      | ER-20 / Ø20mm                |

|                  |                                |                                 |
|------------------|--------------------------------|---------------------------------|
|                  | Drill Holder Size (Sub)        | ----                            |
| Motorized Tool   | Number of Motorized Tools      | 6 (12 with B-axis)              |
|                  | B axis                         | ( 360 ° )                       |
|                  | Max. RPM.                      | 4000rpm                         |
|                  | Collet Specification           | ER-20                           |
|                  | Max. Drilling Dia.             | 12.0mm                          |
|                  | Max. Tapping Capacity          | M10xP1.5                        |
| Hydraulic System | Hydraulic Pump / Tank Capacity | 1HP / 40L                       |
|                  | Max. Pressure / Flow           | 30 kg/cm <sup>2</sup> / 12L/min |
| Lubrication      | Lubricant Pump / Tank Capacity | 25W / 2L                        |
|                  | Max. Pressure                  | 15 kg/cm <sup>2</sup>           |
| Coolant System   | Coolant Pump                   | TPH4T5K, 5Bar, 75 L/min         |
|                  | Hydraulic Pump                 | -----                           |
|                  | Coolant Tank Capacity          | 125L                            |
| Machine Size     | Length/ Width/ Height          | 3200 (2500) / 1750 / 1950mm     |
|                  | Weight                         | 4300kg                          |
| ( ) Option       |                                |                                 |