#### CNC turning and milling complex lathe | i-42 Ultimate

Written by Administrator Thursday, 17 April 2014 00:00



The i-42 Ultimate designation comprises of 10 axis and 4 spindles which includes a sub spindle with both X and Z positioning. This also marks the integration of the driven tools having a powerful B- axis milling for simultaneous and efficient machining. Due to this enhancement, the tools application becomes more fast and flexible for complicated parts.

#### i-42 Ultimate

This innovative series stands out as an automatic lathe!



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## **Tilting Motorized Tools**

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The milling head comprises of 12 motorized tools for 360° continuous leads to even greater flexible tools arrangement and significantly efficient productivity for small and medium lot sizes.

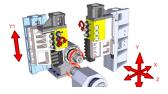


# SYNCHRONOUS SPINDLES

Both main and sub spindle can be synchronized for parting off operations, or can be used for turning longer work pieces.

By synchronizing, transfer of the part from main to sub spindle is precise, and alignment of critical dimensions can be realized.

Synchronizing can be achieved to an accuracy of 0.02 degrees while the spindles are in motion.



## No B-axis

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## Single B-axis

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Specification Mitsubishi Controller M720

| S | pindle Capacity | Max. Bar Working Dia | 42.0mm/60.0mm (option | ) Mitsubishi Motor |
|---|-----------------|----------------------|-----------------------|--------------------|
|   |                 |                      |                       |                    |

| Spindle Max. Turning Le  | en2550.0mm                               | Sub-spindle                   | AC Spindle 3.7kw       |
|--|--|-------------------------------|------------------------|
| Spindle Collet Chuck Ty  | фКК5-173E42B/КК6-185                     | E & B (appis cap) indle       | AC Servo 1.0kw         |
| Spindle Nose   | ISO(DIN) A2-5/ A2-6                      | X-1/Z-1 axis                  | AC Servo 1.0kw (X1 Z1) |
| Spindle Bore   | 44.0/62.0mm (option)                     | Motorized Tool                | AC Servo 1.0kw/1.5kw ( |
| Spindle Speed Range  | 3000rpm/4000rpm                          | ]                             |                        |
| (4000rpm/6000rpm) option<br>Sub-Spindle Capacity<br>Max. Bar Working Dia | Max. Turning Dia.                        | 100.0mm                       |                        |
| Max. Turning Length.   | 100.0mm                                  | Hydraulic System              | Hydraulic Motor        |
| Collet Chuck Type  | KK5-173E42B                              | Max. Pressure                 | 50kg/cm                |
| Nose   | ISO(DIN) A2-5                            | Tank Capacity                 | 60L                    |
| Bore   | 30.0mm                                   |                               |                        |
| Speed Range  | 4000rpm/6000rpm (opti                    | ,                             |                        |
| C Axis<br>Travel & Feed  | Positioning Accuracy<br>X/Y/Zaxis Travel | 0.001°<br>150.0/415.0/250.0mm |                        |
| X-1/Y-1/Z-1axis Travel   | 410.0/410.0/300.0mm                      | Lubrication                   | Lubricant Motor        |
|  |  |                               | l                      |
| Max. Pressure  | 15kg/cm                                  | 2                             |                        |
| Tank Capacity<br>A.T.C System  | 2 Liter<br>OD Tools Main Spindle         | (1 <b>S</b> t)                | Coolant System         |

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| ID Tools Main Spindle  | 4             |                       |              |
|------------------------|---------------|-----------------------|--------------|
| OD Tools Sub Spindle(2 | 2n <b>4</b> ) | 1                     | ŗ            |
| ID Tools Sub Spindle   | 4             | 1                     | 1            |
| Tool Shank Size        | 20.0mm        | 1                     |              |
| Boring Bar (main)      | ER-20/20.0mm  | 1                     |              |
| Boring Bar (sub)       | ER-20/20.0mm  | 1                     |              |
| Coolant Tank Capacity  | 240L          |                       |              |
| Motorized Tool         | Index Time    | 0.3sec(one)/0.6(full) | Machine Size |
| Motorized Tool         | Index Time    | 0.3sec(one)/0.6(full) | Machine Size |

| Number of motorized to | ol\$1-12 tools \$2-12 tools |        |        |
|------------------------|-----------------------------|--------|--------|
| B axis                 | 360°                        |        |        |
| Speed                  | 4000rpm(Max.)               |        |        |
| Size                   | ER-20                       |        |        |
| Max.Drilling Dia.      | 12.0mm                      |        |        |
| Max. Tapping capacity  | M10xP1.5                    | Weight | 4350kg |

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