

TECHNICAL DATASHEET CNC 4-Axes-Machining Center with prepared 5th-Axis (rotary table)

| | |
|--------------|---------------------------|
| Manufacturer | SIGMA |
| type | Flexi 7P - 4AX |
| Built | 2008 |
| Control | HEIDENHAIN iTNC530 |



Working area

Two machine tables inside the working area,
movable separately for pendulum machining, linkable for long workpieces

| | | |
|-----------------------------|-----------------|----|
| Working area table | 2 x 1.000 x 730 | mm |
| Working area table (linked) | 1 x 2.075 x 730 | mm |
| Max. Workpiece dimensions | D = 860 x 700 | mm |
| Max table load | 2 x 1.400 | kg |
| Max table load (linked) | 1 x 2.500 | kg |

Travels

| | | |
|---|-----------|----|
| X-Axis (table longitudinal) | 2 x 1.500 | mm |
| X-Axis (table linked) | 1 x 2.100 | mm |
| Y-Axis (table transversal) | 700 | mm |
| Z-Axis (Head vertical) | 950 | mm |
| B-Axis (Swiveling head) | +/- 110 | ° |
| C-Axis (prepared 5. Axis, rotary table) | +/- 360 | ° |

Main Spindle

| | | |
|------------------------|-------------|-------|
| Max. Power, ED 100/40% | 22/33 | kW |
| Max. Torque, ED 40% | 180 | Nm |
| Speed range | 40 - 12.000 | min-1 |
| Swiveling range B-Axis | +/- 110 ° | |
| Tool taper DIN 69871 | SK 40 | |
| Pull stud | DIN 69872 | |

Tool magazine

Chain magazine with two running directions and electromechanical double gripper

| | | |
|-----------------------------|-----|----|
| Number of pockets | 64 | |
| Max. Tool length | 300 | mm |
| Max. Tool diameter | 140 | mm |
| Max. Diameter adjacent tool | 75 | mm |
| Max. Tool weight | 8 | kg |

Coolant circuit

Two coolant circuits, each with its own filter unit:

- 30 bar internal coolant supply through the spindle
- 5 bar external coolant supply via shower rim (4 nozzles)

| | | |
|---|--------|----|
| Coolant tank capacity in chip conveyor and tank | 650 | l |
| Filter system high pressure 30bar | 25 | µm |
| Filter system low pressure 5bar | 2 x 90 | µm |

Dimensions

| | | |
|----------------|---------------------|----|
| Needed space | ca. 6,0 x 4,0 x 3,0 | m |
| Machine weight | 15.000 | kg |

Equipment & Accessories

- 2 pcs. Zero-Point clamping system mounted on both machine tables
- 30 pcs. Tool taper SK 40
- NC-rotary table manufacturer LEHMANN, type EA-431.2A, with clamping yoke and counter bearing
- 3D-touch probe
- Machine housing with fully closed working area
- 2 pcs. chip conveyor
- Refrigerating unit for spindle cooling
- Electronic handwheel HR410