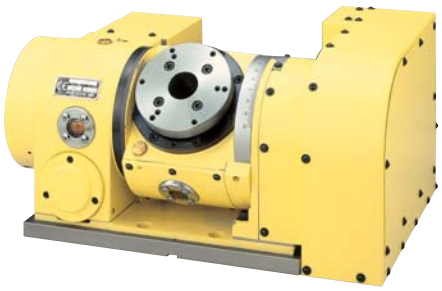
# COMPACT TILTING ROTARY TABLE

NIKKEN



5AX-130FA

- Rotary and tilting axes are controlled by CNC.
- Rotary axis cables and hoses stay during tilting for **5AX-130** and **5AX-201** as standard.
- Various kinds of attachments ☞ **P.48**

● Explanation of the Code No. (Example)

**5AX - 130 F A - M**

- 5AX-: Tilting rotary CNC table
- Location of the motor for tilting axis
  No letter: horizontal
  A: Back side of tilting axis B: Back side of rotary axis
  T: Top side motor
- Diameter of Table 130, 200
- Motor Maker ☞ **P.37**
  WA21: with NIKKEN αi21 controllers for both axes
  DA21: with NIKKEN αi21 controller for tilting axis
  F:FANUC M:MELDAS Y:YASNAC OSP:OSP T:TOSNUC N:NEC S:SANYO
  Z:SIEMENS I:INDRAMAT H:HEIDENHAIN X:ISOFLEX SEM:SEM B:BOSCH
- No Letter: DC servo motor A: AC servo motor
- No Letter: without motor M: with motor

## Specifications

Rotary table with αi21 controller, refer ☞ **P.71**

| Item / Code No. | | 5AX-130 | | 5AX-201 | |
|---|---|---|---|---|---|
| Diameter of Table | φmm | Φ105(with Φ130 sub table) | | 200 | |
| Diameter of Spindle Hole | φmm | Φ60H7 Φ30 | | Φ60H7 Φ50 | |
| Centre Height (90°) | mm | 150 | | 180 | |
| Table Height in Horizonatal Position (0°) | mm | 235 | | 260 | |
| Width of T Slot | mm | Φ10H7 Pin hole | | $12^{+0.018}_{0}$ | |
| Axis | | Rotary | Tilting (0°～105°) | Rotary | Tilting (0°～105°) |
| Clamping System | | Air | Air | (Air*) / Hyd. | (Air*) / Hyd. |
| Clamping Torque | N·m | 205 | 303 | (303*) / 588 | (303*) / 612 |
| Table Inertia at Motor Shaft | $(\frac{GD^2}{4})$ kg·m²X10⁻³ | 0.09 | 0.12 | 0.11 | 0.16 |
| Servo Motor | min⁻¹ | αiF2 / 5000· 2000 | αiF2 / 5000· 2000 | αiF2 / 5000· 2000 | αiS4 / 5000 · 2000 |
| MIN. Increment | | 0.001° | 0.001° | 0.001° | 0.001° |
| Rotation Speed | min⁻¹ | 22.2 | 11.1 | 22.2 | 16.6 |
| Total Reduction Ratio | | 1/90 | 1/180 | 1/90 | 1/120 |
| Indexing Accuracy | sec | ±30 | 60 | 20 | 60 |
| Net Weight | kg | 115 | | 160 | |
| MAX. Work Load on the Table | 0° to 30° kg | 50 | | 60 | |
| | 30° to 90° kg | 25 | | 40 | |
| MAX. Thrust Load applicable on the Table | Tilting Angle = 0° N | 5880 | | 9800 | |
| | Tilting Angle = 0° | L = 65mm F = 2940N | | L = 100mm F = 4900N | |
| | Tilting Angle = 90° | $L_1$ = 0mm $F_1$ = 3460N<br>$L_2$ = 100mm $F_2$ = 1590N | | $L_1$ =0mm $F_1$ = 5880N<br>$L_2$ = 100mm $F_2$ = 2940N | |
| | Tilting Angle = 90° FxL N·m | 98 | | 382 | |
| MAX. Work Inertia | $(\frac{GD^2}{4})$ kg·m² | 0.12 | | 0.5 | |
| Driving Torque | N·m | 72 | | 72 | |

★ **AWC** system is available for all rotary tables, please refer ☞ **P.47～48**
★ Rotary joint is available for all rotary tables, please refer ☞ **P.54**
★ Ultra precision type is available for all rotary tables,
Rotary axis : **±5"** Tilting axis : **±10"**, please refer ☞ **P.53**
★ Location of tilting axis motor can be changed as an option. **e.g. 5AX-B130**.
★ The air-hydraulic booster is available, when **5AX-201** with hydraulic clamping system is used on the M/C without hydraulic source, please refer ☞ **P.55**.