

FANUC ROBODRILL α -DiB Plus series option

Additional 1-axis high-speed rotary table capable of turning

FANUC ROBODRILL DDR-HSiB



Horizontal axis installation



C-axis installation

Max. rotation speed
1,500 min⁻¹ (*1)

Acceleration time
0.47 s (*2)

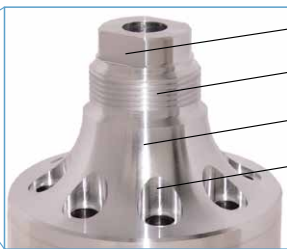
Max. torque
100 N·m

Clamp torque
600 N·m

Features

- High-speed and high-precision turning by using turning functions of FANUC CNC
- High indexing accuracy and high clamp torque equivalent to **DDRiB**
- Simple initial setting and automatic servo parameter adjustment by loading mass with **DDR** setting screen

Application example



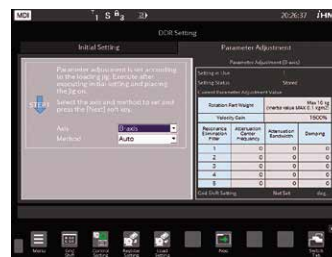
- Milling
- Thread cutting
- Turning
- Drilling

Turning tool
(*3)

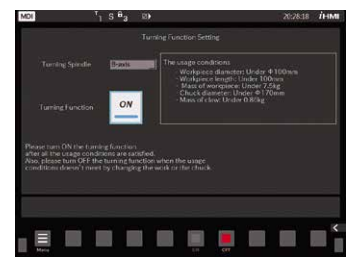
Turning tool holding unit
(*3)



DDR setting screen

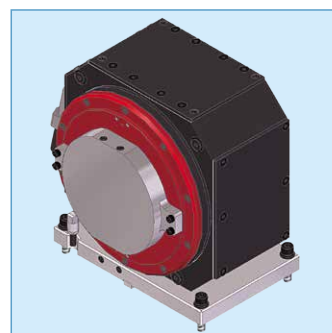


Parameter adjustment

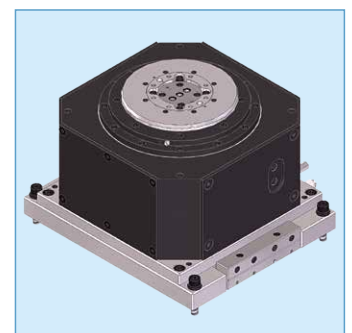


Turning function setting

Rotary joint (option) (*4)



Horizontal axis installation



C-axis installation

*1 : Maximum rotation speed is 1,500 min⁻¹ regardless of workpiece size.

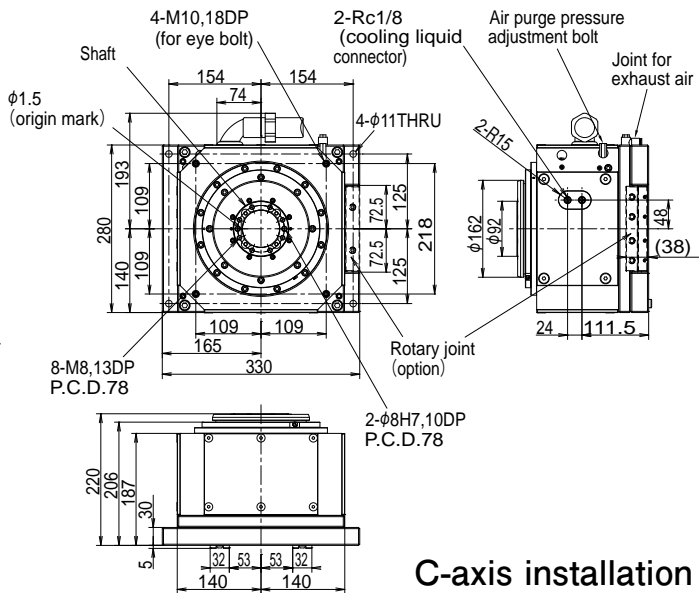
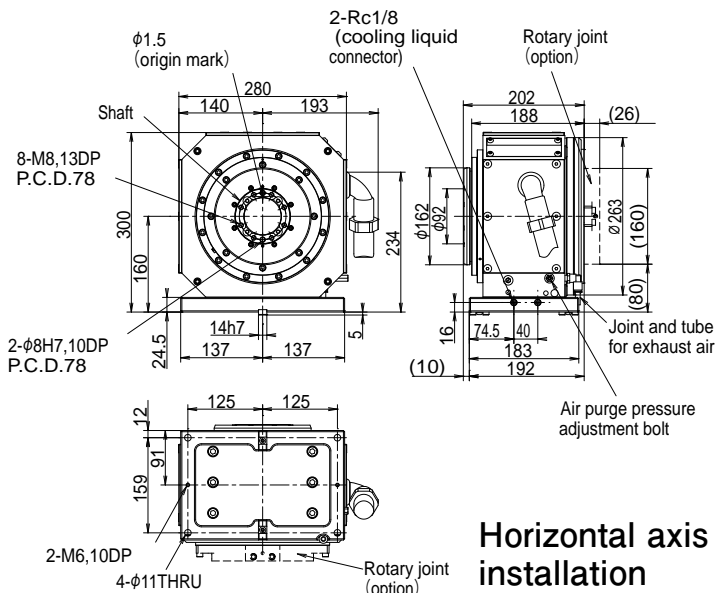
(Workpiece size follows the limit of Turning function: Maximum diameter ϕ 100 mm, Maximum length 100 mm, Maximum mass 7.5 kg)

*2 : Acceleration time from 0 to 1,500 min⁻¹, when loading mass is less than 10 kg and total loading inertia (fixture + workpiece) is less than 0.1 kg·m².

*3 : When turning tool is clamped on ROBODRILL spindle, turning tool holding unit should be used (arranged by end user).

*4 : Rotary joint is dedicated to DDR-HSiB. Hydraulic and pneumatic types are available.

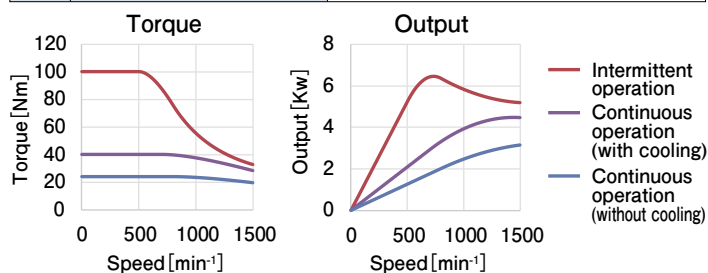
Outer dimensions



Specifications

No.	Item	Specification
1	Drive system	Direct drive
2	Cooling system	None / liquid cooling (water, oil)
3	Required ability for liquid cooling	840 W
4	Maximum torque	100 N·m
5	Continuous rating	24 N·m (without cooling) 40 N·m (with cooling)
6	Maximum rotation speed	1,500 min ⁻¹
7	Maximum loading mass	40 kg
8	Allowable workpiece inertia	J = 0.4 kg·m ² (GD ² = 1.6 kgf·m ²)
9	Feedrate	1°/min to 30000°/min
10	Least input increment	0.001° (0.0001° with IS-C setting)
11	Index accuracy	±0.0028° (±10")
12	Indexing time (180°)	0.27 s (loading mass 10 kg and inertia 0.1 kgm ²) 0.31 s (loading mass 20 kg and inertia 0.2 kgm ²) 0.39 s (loading mass 40 kg and inertia 0.4 kgm ²)
13	Clamp system	Air pressure
14	Clamp torque	600 N·m (air pressure 0.5 MPa) 400 N·m (air pressure 0.35 MPa) Unclamp when no air supply
15	Table inertia	J = 0.02 kg·m ² (GD ² = 0.08 kgf·m ²)
16	Allowable moment load	F ₁ ·L = 250 N·m

No.	Item	Specification
17	Allowable thrust load	F ₂ = 4,000 N
18	Spindle outside diameter	φ92 mm
19	Spindle hole diameter	φ62 mm through
20	Installation direction	Horizontal / C-axis
21	Center height (horizontal installation)	160 mm
22	Table height (C-axis installation)	220 mm
23	Mass	Horizontal installation: 75 kg (+8.5 kg with rotary joint) C-axis installation: 80 kg (+9 kg with rotary joint)
24	Rotary joint Hydraulic type (option)	Oil: 2 ports Maximum pressure 5 MPa Air: 1 port Maximum pressure 0.5 MPa
25	Rotary joint Pneumatic type (option)	Air: 2 ports Maximum pressure 0.7 MPa Air: 1 port Maximum pressure 0.5 MPa



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