

Built-in Spindle Motor achieving
high performance machine tool spindle

FANUC

BUILT-IN SPINDLE MOTOR B1-B series



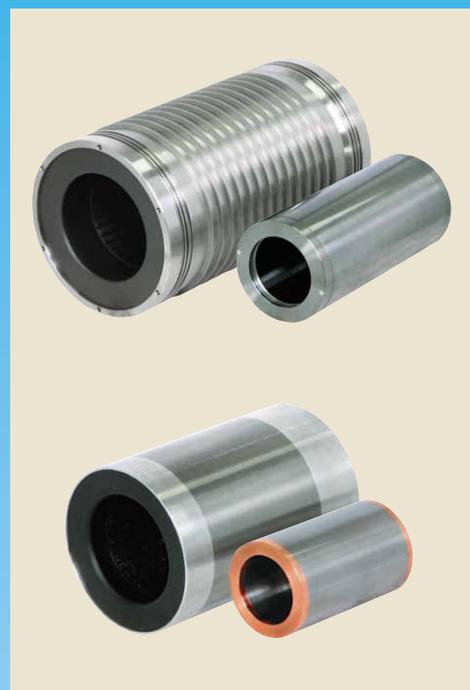
Built-in Spindle Motor achieving high performance machine tool spindle

FANUC BUILT-IN SPINDLE MOTOR Bi-B series

FANUC BUILT-IN SPINDLE MOTOR Bi-B series

Features

- **Bi-B** series offers high power up to high speed range by the speed range switching control, and is suitable for every kind of machine tool spindle.
- Large torque at low speed and high power at high speed achieved by speed range control
- Offering best suitable model for every kind of machine tool spindle from among wide line-up
- High response, high precision, high efficiency and lower motor loss achieved by Spindle HRV Control
- Larger torque and higher power achieved by efficient heat radiation of stator resin mold (Option)
- Stator with or without cooling jacket selectable for stator resin mold
- Even larger torque and higher power achieved by copper-bar rotor (Some models)
- Water cooling available as well as current oil cooling
- S6 rated output can be realized with the same rated output of S3 by using FANUC spindle control technology



FANUC BUILT-IN SPINDLE MOTOR BiS-B series

Features

- **BiS-B** series offers large torque at low speed with compact motor size by strong neodymium magnets, and is suitable for turning or gear cutting machine.
- Compact size and large torque achieved by strong neodymium magnets
- Low torque ripple achieved by optimum magnetic circuit design
- High speed and high power achieved by Sub Module SM
- Larger torque and higher power achieved by efficient heat radiation of stator resin mold
- Water cooling available as well as current oil cooling



System configuration

FANUC SERVO AMPLIFIER α i-B series/ β i-B series



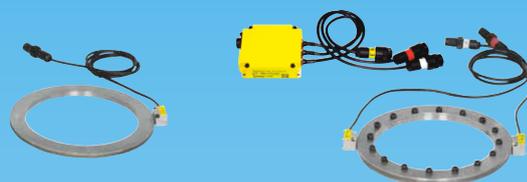
Sub Module SM
(only **β iS-B** series)



FANUC BUILT-IN SPINDLE MOTOR **β iI-B** series/ **β iS-B** series



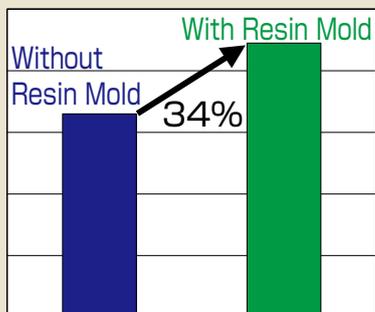
α iBZ SENSOR / α iCZ SENSOR



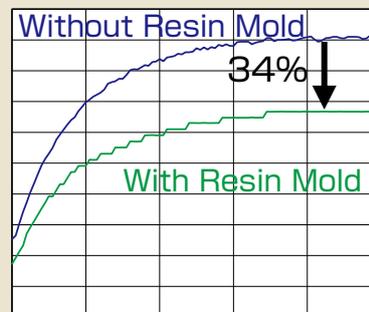
Stator resin mold (**β iI-B** series : Option, **β iS-B** series : Standard)

- Larger torque, higher power or lower temperature rise achieved by efficient heat radiation of stator resin mold (Necessary to increase chiller capacity)

[Example]



Continuous rated output

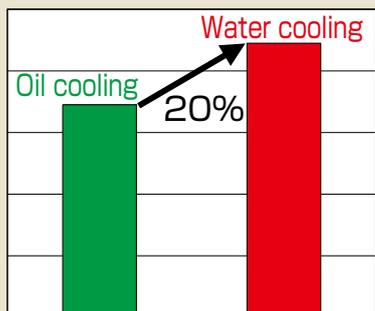


Temperature rise at the same output

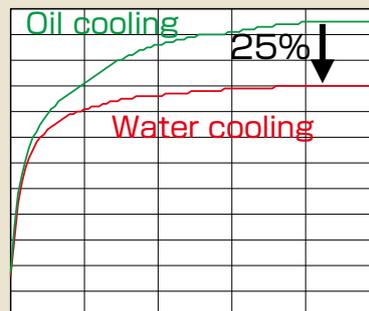
Output specification with water cooling

- Larger torque, higher power or lower temperature rise achieved by higher the heat removal with water cooling (Necessary to increase chiller capacity)

[Example]



Continuous rated output



Temperature rise at the same output

Maintenance and Customer Support

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