Built-in Spindle Motor achieving
high performance machine tool spindle

FANUC

BUILT-IN SPINDLE MOTOR
Bi-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 BiI-B series

Features

- **BiI-B** series offers high power up to high speed range 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
- Suitable model available for every kind of machine tool spindle from a wide range of line-up
- High response, high precision, high efficiency and lower motor loss achieved by Spindle HRV Control
- Larger torque and higher power due to 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 with copper-bar rotor (Some models)
- Water cooling available in addition to conventional oil cooling
- S6 short-time rated output equal to S3 available due to FANUC original spindle control

FANUC BUILT-IN SPINDLE MOTOR BiS-B series

Features

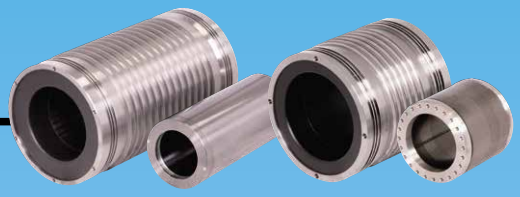
- **BiS-B** series has two types of motor: IPM type (interior magnet) is suitable for turning with large torque at low speed and SPM type (surface magnet) is suitable for milling with high speed rotation.
- Compact size and large torque achieved with strong neodymium magnets
- Low torque ripple achieved by optimizing magnetic circuit design
- High speed and high power achieved by using Sub Module SM
- Larger torque and higher power due to efficient heat radiation of stator resin mold
- Stator with or without cooling jacket selectable for stator resin mold
- Water cooling available in addition to conventional oil cooling

System configuration

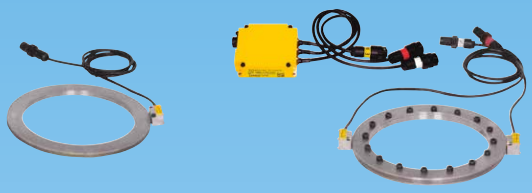
FANUC SERVO AMPLIFIER
αi-B series/βi-B series

Sub Module SM
(only **BiS-B** series)

FANUC
BUILT-IN SPINDLE MOTOR
BiI-B series/BiS-B series



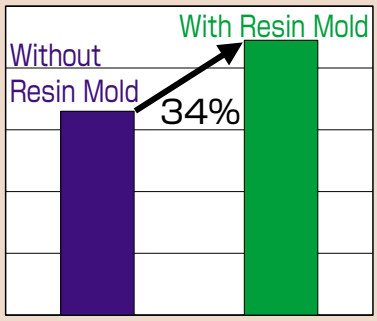
αiBZ SENSOR / **αiCZ** SENSOR



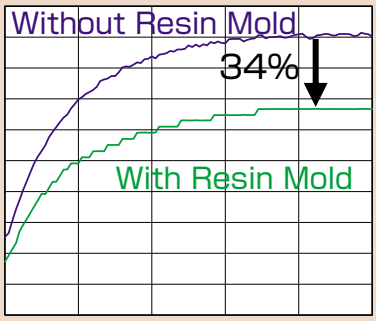
Stator resin mold (**BiI-B** series : Option, **BiS-B** series : Standard)

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

[Example]



Continuous rated output

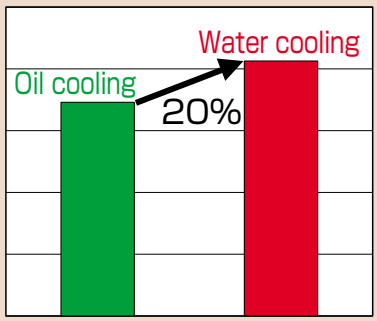


Temperature rise at the same output

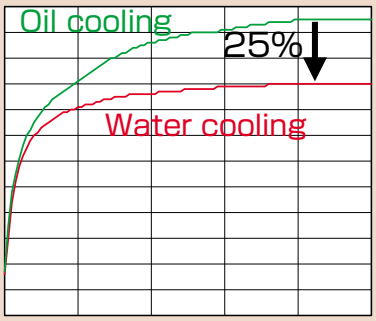
Output specification with water cooling

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

[Example]



Continuous rated output



Temperature rise at the same output

Service & Support

Excellent Maintenance Services

FANUC service team delivers customer trust and confidence based on direction of service “Maximizing Uptime”, “Global Service” and “Lifetime maintenance”.

Service First

Conforming to the spirit of “Service First”, FANUC provides lifetime maintenance to its products for as long as they are used by customers, through more than 260 service locations supporting more than 100 countries and regions throughout the world.

Maximizing Uptime

Global Service

Lifetime Maintenance

FANUC ACADEMY

FANUC ACADEMY operates versatile training courses to develop skilled engineers effectively in several days.

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