

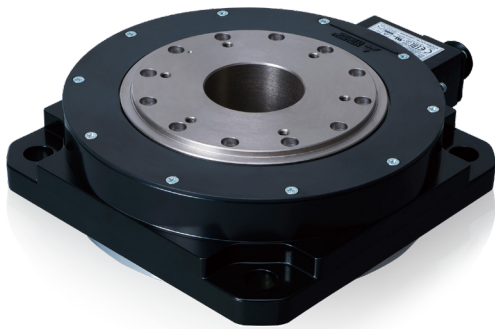


for a greener tomorrow

LOW-PROFILE DIRECT DRIVE MOTOR TM-RG2M / TM-RU2M

Direct Control with the Accuracy of a Servo Motor

Product Overview



The TM-RG2M and TM-RU2M are Mitsubishi Electric's low-profile direct drive motors. These motors allow for the direct control of a load without the use of more traditional mechanical transmission components (gears, belts, chains, etc.). Combining this direct control with the accuracy of a servo motor allows customers to build more compact, efficient, and precise machines. These low-profile motors are a good fit for applications such as index tables, tool changers, and rotary axis for material handling robots.

KEY FEATURES:

- **Reduced footprint** – Optimize your machine's center of gravity and stability by minimizing height and weight.
- **Hollow shaft** – This design feature allows for easy installation of cables and air pipes in the rotating axis.
- **High resolution encoder** – Achieve higher productivity with an improved 21 (002C30)/22-bit encoder that reaches 2097152/4194304 pulses per revolution.
- **Increased torque with alternate amplifier** – By selecting a servo amplifier one class higher for the Low-Profile Direct Drive Motor, the rated torque and maximum torque are increased even further. This option is available for the 004 size.
- **Reduced system wear/maintenance** – By eliminating mechanical components prone to wear and directly driving the load, the Low-Profile Direct Drive Motor removes the need to perform maintenance or monitor for wear over time.
- **Two installation methods** – Pilot and table mounting surface types allow for flexible mounting options.



Low-Profile Direct Drive Motor TM-RG2M/TM-RU2M Product Overview

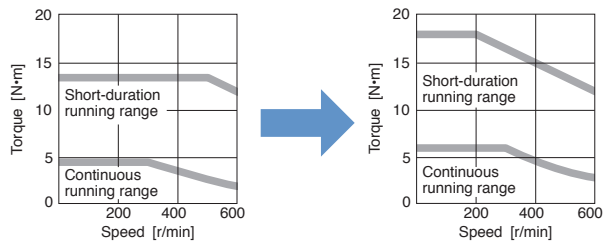
OUTSTANDING PERFORMANCE IN A LOW-PROFILE SOLUTION

- Improved speed** – The TM-RG2M and TM-RU2M models have a rated speed of 300 rotations per minute, boosting machine productivity.
- Compatibility with larger-capacity servo amplifiers** – The 004 sized motor is compatible with larger-capacity amplifiers such as the MR-J4-40B(-RJ) amplifier. Utilizing this option increases rated torque from 4.5 N to 6 N-m, and maximum torque from 13.5 to 18 N-m. This is the ideal solution for heavy loads that require higher torques.
- First-class positioning accuracy** – The Low-Profile Direct Drive Motor is capable of being operated as an incremental or absolute positioning device in either an open or closed loop, allowing for extremely precise positioning accuracy.
- Reduced size and weight** – Compared to standard direct drive motors, the Low-Profile Direct Drive Motor offers a significant reduction in size. This makes it ideal for customers with tight space restrictions who need a stiff and accurate drive solution.

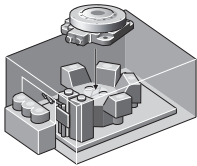

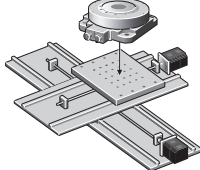
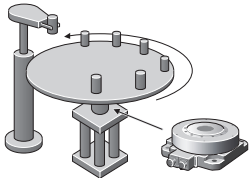
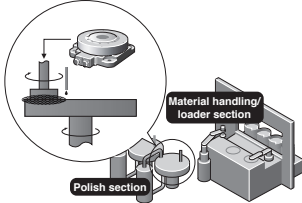
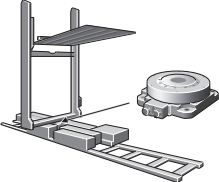
INDUSTRY AND APPLICATION EXAMPLES

- Semiconductor / LCD** – Coating and vapor deposition systems
- Machine Tool** – Index tables and tool changers
- Material Handling Robots** – Rotary axis for material handling robots
- Inspection** – Rotary axis on XYθ inspection positioning systems

Increased Rated Torque with Larger-Capacity Amplifier



Application Examples

Coating and vapor deposition systems 	Spin-type cleaning systems for LCD/semiconductor 	LCD/semiconductor testing systems (XYθ tables) 
Index table for machine tools 	Rotary axis for polishing systems 	Rotary axis for material handling robots 

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