Hollow Shaft Step Motors

NEMA Step Motors with Hollow Shafts

Product Features

- Hollow shaft for mounting custom shafts or lead screws
- High torque design
- Low cost
- 1.8 degree step angle (200 steps/rev)
- 2-phase step motors
- NEMA 17 and 23 frame sizes
- All motors shipped with detachable lead/connector pigtail

Series Details

What is a hollow shaft step motor?

A hollow shaft step motor has a machined hole running axially through the center of the motor, in place of where the shaft would normally be.

Why use a hollow shaft motor?

Hollow shaft motors are great for applications that require a special shaft. This includes applications where a lead screw and nut assembly is required to drive the load. The hollow shaft permits a lead screw to be assembled directly to the rotor of the step motor. This simplifies the design by reducing the number of components (no coupling hardware is needed), reduces the size of the actuator assembly, and minimizes the cost compared to more complex actuator designs. Another benefit of the hollow shaft motor is that custom shaft assemblies can be added to the motor post-production, without having to disassemble the motor. This makes the hollow...
shaft motor very flexible for machine designers and improves lead time compared to completely custom motor designs.

**What is the inside diameter of the hollow shaft?**

The inside diameter of the hollow shaft is 5 mm for NEMA 17 motors and 8 mm for NEMA 23 motors.

**How are hollow shaft motors controlled?**

Hollow shaft step motors operate the same as step motors with standard shafts, so they can be used with the same type of drive electronics. For best performance, pair a hollow shaft motor with an **ST5 series stepper drive** [1]. ST5 stepper drives are available with a variety of control and communication options to ensure an optimal motor and drive solution for any application.

**Products in the Series Hollow Shaft Step Motors**

* Items with web only pricing are highlighted in yellow. * Closeout priced products are highlighted in green.

<table>
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<tr>
<th>Part Number</th>
<th>Frame Size</th>
<th>Length</th>
<th>Holding Torque</th>
<th>Series Current</th>
<th>Parallel Current</th>
<th>Rotor Inertia</th>
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[1] ST5 series stepper drive