

# LHS Series

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Compact Precision. Zero Air Required.

## Key Features

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- **Non-captive direct lead screw design** – converts rotary stepper motor motion directly into linear thrust with no belts, pulleys, or gearboxes to maintain
- **NEMA 17 motor (LHS-005)** – ~50 lbf thrust for low-profile and compact installations
- **NEMA 23 motor (LHS-020)** – 200 lbf thrust for intermediate web guides and retrofit replacements
- **NEMA 34 motor (LHS-030)** – 300 lbf thrust for larger intermediate web guides (80in/2m or higher) or smaller unwind/rewinds and retrofit replacements
- **LP (Low Profile) configuration** – 50 lbf, 1–4 in stroke, fixed mount for space-constrained intermediate guides and typically used with [Roll-2-Roll® Web Guides](#) smaller than 20in or 500 mm
- **RF (Retrofit) configuration** – 200–300 lbf, 4–12 in stroke, fixed mount and no actuator pivoting (should be handled in the actuator mount) for drop-in pneumatic and hydraulic replacements
- **TG configuration** – 200–300 lbf, 4 in stroke, front and rear rod eye options for floating mount option. Easy installation with a pin or shoulder bolt in the front and rear to attach the existing fixed and moving frame of the web guide mechanism

## Benefits

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- **Stop losing production to slow, imprecise actuators** – the LHS Series delivers positioning accuracy of  $\pm 0.1$  mm with speeds up to 4 in/sec, keeping your web on-center without operator intervention
- **Eliminate air compressor costs** – LHS actuators run on low voltage (24/48V for the driver); no air lines, no compressor, no wasted energy
- **Drop in a retrofit replacement** – the RF and TG configurations use standard mounting patterns (pivot, rod eye, clevis) so you can upgrade from pneumatic and hydraulic actuators without re-engineering your guide frames
- **Fit actuators where others cannot** – NEMA 17-based LHS actuators deliver 50 lbf of thrust in a compact package small enough for the tightest web paths
- **Simplify your drive electronics** – pair with MC QD motor drivers for SCU5 controller or the SCU6x with built-in stepper driver for a clean, integrated system

## Specifications

| Specification                 | LHS-005-0400-LP                             | LHS-xxx-xxxx-WG             | LHS-0200-xxxx-RF/TG                       | LHS-030-xxxx-RF/TG                        |
|-------------------------------|---|-----------------------------|---|---|
| <b>Thrust</b>                 | 50 lbf                                      | 50–200 lbf                  | 200 lbf                                   | Up to 300 lbf                             |
| <b>Stroke Length</b>          | 2–4 in (50 mm - 100 mm)                     | 1–3 in (25–76 mm)           | 4–6 in (100–150 mm)                       | 6 - 12 in (150–300 mm)                    |
| <b>Maximum Speed</b>          | 2.63 in/sec or 67 mm/sec                    | 1.32 in/sec or 33.5 mm/sec  | 0.59 in/sec or 15 mm/sec                  | 0.5 in/sec or 12.7 mm/sec                 |
| <b>Drive Voltage</b>          | 24 VDC                                      | 24 VDC                      | 24 VDC                                    | 24/48 VDC                                 |
| <b>Driver Current (RMS)</b>   | 2 A   | 2 A                         | 2 A                                       | 5.5A                                      |
| <b>Power Source</b>           | MC QD 1140/1141 or SCU6x MD                 | MC QD 1140/1141 or SCU6x MD | MC QD 1140/1141 or SCU6x MD               | MC QD 1180/1181 or SCU6x MxD              |
| <b>Actuator Type</b>          | Direct Lead Screw                           |                             |   |   |
| <b>Motor Type</b>             | Brushless Bi-polar Stepper, 1.8° resolution |                             |   |   |
| <b>Mounting</b>               | Fixed                                       | Fixed                       | RF: Fixed<br>TG: Pivot / Rod Eye / Clevis | RF: Fixed<br>TG: Pivot / Rod Eye / Clevis |
| <b>Intermediate Web Guide</b> | Yes   | Yes                         | Yes                                       | Yes                                       |
| <b>Off-Shelf Replacement</b>  | Yes   | Yes                         | Yes                                       | Yes                                       |

## Applications

- Intermediate web guides for converting, coating, and printing lines
- Low-profile installations where space is limited
- Compact web guide systems for narrow-web converting and packaging
- Retrofit replacements for pneumatic and hydraulic actuators

## Available Configurations

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| Part Number | Configuration   |
|-------------|-----------------|
| 6-111001    | LHS-005-0125-LP |
| 6-114001    | LHS-005-0400-LP |
| 6-144004    | LHS-020-0400-RF |
| 6-144005    | LHS-020-0400-TG |
| 6-145004    | LHS-020-0600-RF |
| 6-155004    | LHS-030-0600-RF |
| 6-156004    | LHS-030-0800-RF |
| 6-158004    | LHS-030-1200-RF |

## Supporting Documentation

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### 2D Drawings (1)

- LHS-020-x400-TG

### 3D Models (5)

- LHS-005-0400-LP
- LHS-020-0400-RF
- LHS-020-0400-TG
- LHS-020-0600-RF
- LHS-030-xxxx-RF



Scan for datasheets, 3D models & full documentation

<https://r2r.tech/products/actuators/lhs>

### Ready to Get Started?

Contact our experts to discuss how this product fits your application.

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