Roll-2-Roll Technologies

PRODUCT BROCHURE

# LHS Series

Compact Precision. Zero Air Required.

## Key Features

- **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 mout) for drop-in pneumatic and hydraulic replacements
- **TG configuration** – 200–300 lbf, 4 in stroke, front and rear rod eye options for floating mount opion. Easy installation with a pin or sholder bolt in the front and rear to attach the existing fixed and moving frame of the web guide mechanism

## Benefits

- **Stop losing production to slow, imprecise actuators** – the LHS Series delivers positioning accuracy of ±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 |
|---|---|---|---|---|
| **Thrust** | 50 lbf | 50–200 lbf | 200 lbf | Up to 300 lbf |
| **Stroke Length** | 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) |
| **Maximum Speed** | 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 |
| **Drive Voltage** | 24 VDC | 24 VDC | 24 VDC | 24/48 VDC |
| **Driver Current (RMS)** | 2 A | 2 A | 2 A | 5.5A |
| **Power Source** | 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 |
| **Actuator Type** | Direct Lead Screw | | | |
| **Motor Type** | Brushless Bi-polar Stepper, 1.8° resolution | | | |
| **Mounting** | Fixed | Fixed | RF: Fixed<br>TG: Pivot / Rod Eye / Clevis | RF: Fixed<br>TG: Pivot / Rod Eye / Clevis |
| **Intermediate Web Guide** | Yes | Yes | Yes | Yes |
| **Off-Shelf Replacement** | 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

| 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

### 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.

**Phone:** +1 (888) 290-3215 | **Email:** experts@r2r.tech | **Web:** r2r.tech