

# H-Series All-In-One Electric Linear Actuation System

## A High Speed Actuator and High Force Actuator Combined in an Integrated Package

The H-Series is the ideal choice for applications such as pressing and others that require a high speed extend stroke combined with a high force load stroke to minimize cycle time as illustrated in the adjacent graph.

The H-Series is an excellent alternative to traditional hydraulic power units with cylinders or air-over-oil cylinders.

#### **H-Series Features:**

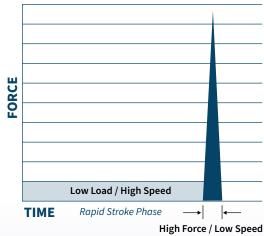
- High-Speed Cylinder for Fast Extend / Retract
- High Force Cylinder for the Load Cycle
- Precision Servo Motor with Bi-Directional Pump
- High-Resolution Position Sensor
- Pressure Sensor for Force Control Operation

#### **H-Series Specifications:**

- Up to 84,823 lbf (377 kN) force
- Up to 11.7 in/s (298 mm/s)

- Manifold with Integral
  Valve Controls
- Integral Rod-Compensation Reservoir
- Servo Drive / Motion Controller Package with Four-Quadrant Control
- Minimal Hydraulic Fluid
- All-in-one Actuation System
- Up to 24 in (610 mm) stroke
- 240, 460 VAC





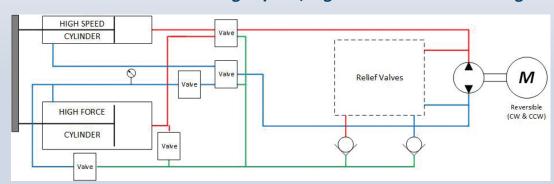
Load Stroke Phase

#### **H-Series Controller Options:**

- All-In-One Control in enclosure with Integral HMI (shown).
- Subpanel configuration for mounting in customers enclosure.
- Multiple axis controller package (subpanel or enclosure).
- Add-On-Instruction for Rockwell Automation motors, drives and Logix software.



#### High-Speed / High-Force Actuator Block Diagram



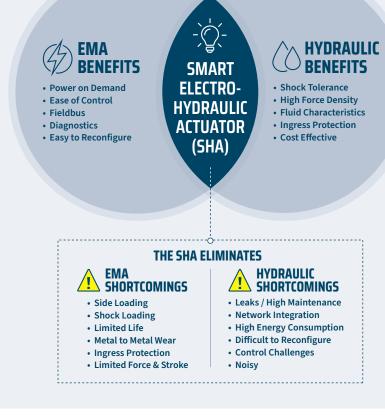
#### Simple Operation Sequence:

The high-speed cylinder pulls the high-force cylinder until the position where the high force portion of the cycle begins and then switches to the high-force cylinder for completion of the cycle. The system then switches back to the high-speed cylinder to retract to the start position.

### Kyntronics Actuators Combine the Best Features of Screw-Type and Hydraulic Actuators and Eliminates Their Shortcomings

#### **H-Series Advantages:**

- Lower cost alternative compared with oversized, leaky and high-maintenance hydraulic system actuators.
- Power-on-demand operation provides significant energy savings.
- Built-in precision servo control of position, force and speed in all four motion quadrants with fully-programmable transition position.
- Ideal in rugged applications that damage and cause pre-mature failure with ball screw / roller screw actuators.
- Simple setup and integration with common control networks, including CanBus, Ethernet, Modbus and others.
- An all-in-one complete package, factory-tuned and ready to install saving hours of time.



# H-Series High-Speed / High-Force Actuator Product Specifications

	*High Force Segment Maximum Force		*High Speed Segment Maximum Extend Force		*High Speed Segment Maximum Retract Force		*High Force Segment Maximum Speed		*High Speed Segment Maximum Extend Speed		*High Speed Segment Maximum Retract Speed	
*Model Series	lbf	kN	lbf	kN	lbf	kN	in/s	mm/s	in/s	mm/s	in/s	mm/s
1H19C15-32-34	24,765	110	4,232	19	151	1	2.5	64	11.7	298	21.1	536
1H19C15-40-34	37,514	167	4,399	20	1,182	5	1.7	42	11.7	298	21.1	536
1H19C15-50-34	58,616	261	3,055	14	710	3	1.1	27	10.0	254	10.0	254
1H19C15-60-34	84,407	375	603	3	241	1	0.7	19	10.5	267	7.5	191
1H19C20-32-34	24,765	110	8,930	40	6,361	28	2.5	64	6.6	167	8.8	223
1H19C20-40-34	37,514	167	8,723	39	6,038	27	1.7	42	6.6	167	8.8	223
1H19C20-50-34	58,616	261	8,212	37	5,225	23	1.1	27	6.6	167	8.8	223
1H19C20-60-34	84,407	375	7,184	32	3,557	16	0.7	19	6.6	167	8.8	223

\*Note: This is a Representative Sample of the High Speed / High Force Actuator Product Series, Consult Factory for Additional Models For Additional Information on the Operational Performance of H-Series Actuators, consult <u>www.kyntronics.com/products/smart-hydraulic-actuator-h-series/overview</u> or <u>sales@Kyntronics.com</u> to speak with an Engineer.



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# **About Kyntronics**

All Kyntronics actuation products are made in the USA. With vast knowledge in industrial, aerospace and medical industries, our in-house team of mechanical, electronics and software engineers have hundreds of years of engineering experience. Customer-centric, we thrive on 'solving the unsolvable' application problems while working with customers worldwide.

To speak with an Engineer and discuss your application, please contact us at sales@kyntronics.com and discover how the SMART Electro-Hydraulic Actuator can improve your machines and processes.



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