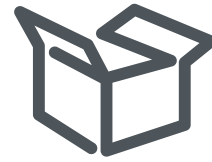


## The applications

MDrive Linear Actuator motion systems offer clear advantages in a very cost effective package for a wide range of motion control applications such as:



Printing, paper,  
packaging



Handling,  
labeling



Electronics  
manufacture



Medical  
technology



Laboratory  
equipment

# MDrive® Linear Actuators

### All-in-one linear motion systems

Delivering long life, high accuracy and unsurpassed repeatability, all in a package that is extremely compact and affordable.



#### U.S.A. SALES OFFICES

**Eastern Region**  
Tel. 862 208-9742 - Fax 973 661-1275  
e-mail: e.region@imshome.com

**Northeast Region**  
Tel. 860 368-9703  
e-mail: n.region@imshome.com

**Central Region**  
Tel. 860 295-6102  
e-mail: c.region@imshome.com

**Western Region**  
Tel. 602 578-7201  
e-mail: w.region@imshome.com

#### IMS EUROPEAN SALES MANAGEMENT

4 Quai Des Etroits  
69005 Lyon, France  
Tel. +33/4 7256 5113 - Fax +33/4 7838 1537  
e-mail: europe.sales@imshome.com

**IMS ASIA PACIFIC OFFICE**  
30 Raffles Pl., 23-00 Chevron House  
Singapore 048622  
Tel. +65/6233/6846 - Fax +65/6233/5044  
e-mail: asia.sales@imshome.com

**TECHNICAL SUPPORT**  
Tel. +00 (1) 860 295-6102 - Fax +00 (1) 860 295-6107  
e-mail: etech@imshome.com

#### Intelligent Motion Systems, Inc.

370 North Main Street, P.O. Box 457  
Marlborough, CT 06447 - U.S.A.  
Tel. +00 (1) 860 295-6102 - Fax +00 (1) 860 295-6107  
e-mail: info@imshome.com  
<http://www.imshome.com>

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# MDrive® Linear Actuators

All-in-one linear motion systems deliver long life, high accuracy and unsurpassed repeatability, all in a package that is extremely compact and affordable.

White paper: reduce machine cost, size and time-to-market  
[www.imshome.com/mdrive](http://www.imshome.com/mdrive)



## Integrated linear motion

MDrive Linear Actuators are compact, powerful, easy to use and low cost, and can reduce machine cost, size and time-to-market.

### Extremely compact design

Motor, mechanicals and electronics form a single, compact unit that dramatically reduces the space requirements in linear motion applications.

### Great versatility

For a wide range of linear motion applications, three (3) frame sizes and two (2) control options — MDrive Plus or MDriveAccuStep — provide a rich choice of features at low cost. Unique to the market, a rugged internal encoder integrated with the screw is available.

### Easy installation and setup

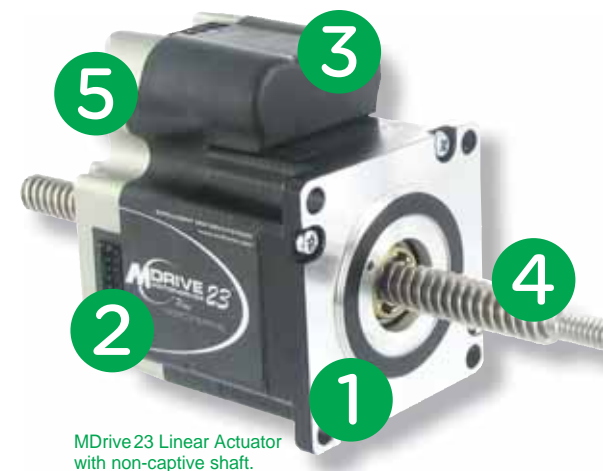
Minimized wiring and production time along with user-friendly software all contribute to the easy integration of MDrive products.

Available QuickStart Kits provide everything needed for initial setup and testing.

Linear actuator motors without the integrated electronics of MDrive products are also available. Contact the factory for more information.



AccuStep control not only bridges the gap between servo and step motor technologies, it also delivers unique capabilities and enhancements over both.



MDrive 23 Linear Actuator with non-captive shaft.

- 1 Compact motor
- 2 Integrated driver
- 3 Fully programmable controller\*
- 4 Stainless steel screw
- 5 Internal encoder optional  
except AccuStep products which all include encoders

\*Motion Control versions

## The products



MDrive 23 Linear Actuator with external shaft.

MDrive 14 Linear Actuator with non-captive shaft.

### Linear actuator styles

MDrive Linear Actuators are available in two shaft styles:

- Non-captive shaft — a threaded shaft extends through the product and moves axially as the motor rotates.
- External shaft — a rotating screw, integral to the MDrive rotor, moves the nut axially along the threaded shaft. Choice of nut styles include: anti-backlash for higher precision, or general purpose for higher load limit.

### Operating versions

Two control options are available for MDrive Linear Actuators:

- MDrive Plus — provides an all-in-one motor+mechanical+electronics solution that will satisfy a wide range of linear motion applications.
- MDrive AccuStep™ — for more demanding applications, AccuStep control technology adds benefits that include: preventing loss of synchronization (unintentional stalling), offering torque mode, saving energy and reducing heat through variable current control, allowing use of a motor's maximum torque.

### Lead screws

MDrive Linear Actuator precision rolled lead screws are designed specifically to deliver maximum life and quiet operation in motion control applications. Corrosion resistant, non-magnetic screws are manufactured from premium grade stainless steel with an optional teflon coating, and are available with a choice of pitches, end finishes and lengths.

Specifications	Size 14	Size 17	Size 23
Length without screw	2.3" (58.4mm)	2.2" (55.9mm)	2.65" (67.3mm)
Screw lengths	3 to 18" (76 to 457mm)	3 to 18" (76 to 457mm)	3 to 24" (76 to 610mm)
Screw diameter	0.25" (6.35mm)	0.25" (6.35mm)	0.375" (9.525mm)
Nominal load limit	up to 50 lbs	up to 50 lbs	up to 200 lbs
Communications	SPI, RS-485, CANopen		