



SCREW JACKS AND LINEAR ACTUATORS





Joyce/Dayton is a leading manufacturer of jacks, actuators and lifting systems for OEM's worldwide.

We are known for the high standard we set on product quality, customer service, and skillful customization to meet unique requirements.

In business since 1873, we offer a diverse range of solutions from basic devices to custom designed linear motion systems with controls.

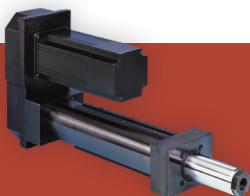
Industry leading response times and rapid delivery!

With a strong reputation for customer satisfaction, quality, and performance, Joyce is leading the way as a trusted, linear motion solutions provider.

PRODUCT FEATURES INCLUDE:

- Machine Screw Jacks
- Ball Screw Jacks
- ComDRIVE® Actuators
- Metric Screw Jacks
- Electric Cylinders
- Integrated & Linear Actuators
- Stainless Steel Screw Jacks
- Bevel Gear® Jacks
- Bevel Ball Jacks
- Protective Boots
- Limit Switches
- System Accessories

EDRIVE[®]
A C T U A T O R S
A JOYCE/DAYTON BRAND



EDrive Actuators are perfect for tough, industrial automation applications. Our products are used in a wide variety of industries where conservative design, rugged construction, long life, and high precision are required and valued. More specifically, as replacements for older power solutions like hydraulic and pneumatic actuators.

Machine Screw Jacks



Precision Lifting, Built to Last

Joyce worm gear machine screw jacks lift and precisely position loads (250 pounds to 250 tons). Upright or inverted jacks operate at full capacity in tension or compression. WJ and RWJ, single lead jacks are self-locking. DWJ and DRWJ, double lead jacks offer increased travel speed and require a brake or external locking device to hold position.

FEATURES:

- Alloy steel input shafts
- Aluminum bronze wormgears
- Tapered or ball thrust bearings provide rugged reliability
- Double input shafts standard
- Protective boots available
- Anti-backlash devices available
- Custom finishes available

Machine Screw ComDRIVE®



Compact Power, Maximum Efficiency

Joyce Machine Screw ComDRIVES combine a machine screw jack, motor and gear reducer into a single compact unit. Motorized ComDRIVES are available in 2-ton through 30-ton capacities with travel speeds up to 35.1 inches per minute. ComDRIVES with single lead screws (CD) are self-locking; those with double lead screws (DCD) may require a brake to hold position.

FEATURES:

- ComDRIVES can power an entire jacking system
- Reduce the number of components that must be specified
- Simplify designs
- Reduce installation costs with only a single plate needed to mount the jack body
- Reduces the number of couplings and shafts required in multi-jack systems
- Standard 230/460 volt, 3-phase, 60 hertz motor included
- Custom finishes available

Ball Screw Jacks



Precise Positioning, Reduced Input Torque

Joyce worm gear ball screw jacks lift and precisely position loads up to 50-tons. Upright or inverted jacks operate at full capacity in tension or compression. Select from standard lead (WB, WBL) and high lead (HWB, HWBL) models to meet your travel speed and ball nut life requirements. These ball screw jacks require up to two-thirds less input torque to move the load than similarly rated machine screw jacks. They require a brake motor or external locking device to hold position.

FEATURES:

- Alloy steel input shafts
- Aluminum bronze worm gears
- Tapered or ball thrust bearings
- Choose one of four standard end conditions
- Protective boots available
- Oversized ball bearings available to limit end play
- Custom finishes available



Ball Screw ComDRIVE®

Simplify Designs, Compact Solution

Joyce Ball Screw ComDRIVES combine a ball screw jack, motor and gear reducer into a single compact unit. Motorized ComDRIVES are available in 2-ton through 30-ton capacities. Available in Translating, KFTN, and double clevis designs, they provide travel speeds up to 55.5 inches per minute. Ball screw ComDRIVES require up to two-thirds less input torque to move the load than a similarly sized machine screw jack ComDrive. They require a brake motor or external locking device to hold position.

FEATURES:

- Available in a variety of ratios and screw leads
- Can power an entire jacking system
- Reduces the number of components that must be specified
- Reduce installation costs with only a single plate needed to mount the Reduce the number of couplings and shafts required in multi-jack systems
- 230/460 volt, 3-phase, 60 hertz motor is standard
- Custom finishes available

UNI-LIFT® Series Screw Jacks



Industrial Power, Rugged Versatility

Improving on the time-tested concept of converting rotary movement into linear motion, the UNI-LIFT series is ideal for a variety of industrial lifting and handling applications. Joyce/Dayton is proud to include the following UNI-LIFT series product screw jacks in its robust product line.

FEATURES:

- Precise positioning
- Uniform lifting speeds
- Capacity up to 250 tons
- High-strength roll-formed threaded load screw
- Rugged housings
- Upright or inverted units with translating or rotating lifting screws
- End configurations available in top plate, plain, threaded, or clevis ends

Bevel Gear® Jacks



Greater Speed, Higher Efficiency

Joyce Bevel Gear® Jacks, available in 7.5-ton to 100-ton static capacities, offer higher efficiency and greater speed than other mechanical screw jacks. As an added benefit, bevel gear jacks also act as miter boxes, making them an ideal choice for multi-jack systems. As many as three output shafts may be specified for mounting motors, limit switches, readout devices and other accessories. Bevel gear jacks with single lead screws (S series) provide the benefits of a self-locking screw, and bevel gear jacks with double lead screws (D series) offer even greater travel speed.

FEATURES:

- Choose one of four standard end conditions
- Protective boots and other options are available
- Right hand and left hand screw threads are available
- Joyce/Dayton can customize to your specifications

Bevel Ball Jacks

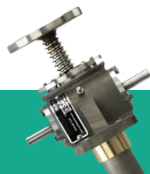


Speed, Precision, and Power

These are Joyce's fastest jacks, able to attain travel speeds of 48.6 feet per minute. Available in Translating and KFTN designs, bevel ball actuators act as miter boxes, making them an ideal choice for multi-jack systems. As many as three output shafts may be specified for mounting motors, limit switches, readout devices and other accessories.

FEATURES:

- Higher speeds and less heat generation than other mechanical actuators
- Requires a brake or other external locking device to hold position
- More precise positioning and repeatability than hydraulic cylinders
- Fully predictable L-10 ball nut life expectancy
- Right hand screws standard (left hand screw available)
- Protective boots and other options are available
- Threaded end conditions standard (load pad, clevis, and plain end condition available)



Stainless Steel Screw Jacks

Durable Strength, Custom Reliability

Joyce stainless steel screw jacks are specifically designed for positioning and lifting applications that are located in wet, corrosive and harsh environments. Metallurgical properties of stainless steel allow it to remain ductile even at very low temperatures. These mechanical jacks are available in 2 ton through 25 ton capacities. Upright or inverted jacks operate at full capacity in tension or compression.

FEATURES:

- All exposed surfaces and components feature stainless steel or bronze construction
- Nitrile rubber seals protect all internal mechanisms.
- Tapered or ball thrust bearings provide rugged reliability
- Choose one of four standard end conditions
- Protective boots available
- Anti-backlash devices available
- Joyce/Dayton can customize to your specifications
- Custom finishes available

Metric Screw Jacks



Global Compatibility, Metric Accuracy

Joyce metric screw jacks, series MWJ, are specifically designed for applications that must be fully metric. Both upright and inverted configurations operate at full capacity whether the load is in tension or compression. These jacks are commonly used in OEM machinery manufactured in the U.S. and shipped to other countries. Fully interchangeable with several European products.

FEATURES:

- Self-locking metric (trapezoidal) lifting screws
- Fully metric mounting hole locations, diameters, and fasteners
- Alloy steel input shafts
- Aluminum bronze wormgears and Traveling nuts
- Tapered roller or ball thrust bearings provide rugged reliability
- Protective boots available
- Anti-backlash devices available
- Joyce/Dayton can customize to your specifications
- Custom finishes available

Systems & Accessories



Precision Lifting, Built to Last

Joyce offers everything from protective boots and anti-backlash devices to special materials and system controls. Customize your system with limit switches, miter boxes, pillow block supports, shafting and couplings.

Joyce Dayton also offers a variety of motor controls from basic motor starters and linear actuator controls to variable speed positioning systems (VSPS) and other custom system controls.

Choose the options and accessories that fit your application or contact us with your requirements. Our experienced application engineers can help you put it all together.

QUICK REFERENCE GUIDE

Product	Prefix	Capacity Range (tons)	Typical Lifting Speeds (IPM)	Input Shaft		Predictable Life	Inherently Self-Locking	Corrosion Resistant	Enclosed Screw	Options			
				In-Line	Right Angle					Keyed for Non-Rotation	Limit Switch	Direct Drive Motor	Anti-Backlash or Limited End Play
Machine Screw Jack	WJ RWJ DWJ DRWJ	1/8-250	14-55	■			A WJ, RWJ	C		■	■	■	■
Machine Screw ComDRIVE®	CD DCD	2-30	2-35	■			A CD	C		■	■		■
Stainless Steel Jack	SWJ RSWJ DSWJ DRSWJ	2-25	14-55	■			A SWJ, RSWJ	■		■	■	■	■
Metric Jack	MWJ	1-10 (10-100 Kn)	14-55 (6-23 mm/sec)	■			■	C		■	■	■	■
Ball Screw Jack	WBL HWBL WB HWB	1-50	14-300	■		■ Screw Only		C			■	■	D
Ball Screw ComDRIVE®	CDB CDBL	2-30	2-55	■		■ Screw Only		C			■		D
Electric Cylinder - Standard	ECA ECB	2 1/2-20	15-540	■		■ ECB Screw Only	B ECA	C	■		■		D
Electric Cylinder - Motor Mount	ECA ECB	2 1/2-20	18-540	■		■ ECB Screw Only	B ECA	C	■		■	■	D
Electric Cylinder ComDRIVE®	ECA ECB	2 1/2-20	15-104	■		■ ECB Screw Only	B ECA	C	■		■		D
Integrated Actuator	IA DIA BIA HBIA	1	15-350	■		■ BIA, HBIA Screw Only	■	C	■		■	■	D
Linear Actuator	LA	3/4	15-70				■		■		■		
Bevel Gear® Jack	BG	5-60	50-130	■	■		A Single Lead	C		■	■		
Bevel Ball Actuator	BB	5-60	15-600	■	■	■		C			■		D

A Jacks with single lead screws (except WJ500) are self-locking. Double lead screw jacks may lower under load.

B ECA jacks that are ≤ 30% efficient are self-locking.

C Joyce offers a variety of finishes and modifications that resist corrosion.

D Oversize ball bearings can be added to limit the end play between the ball screw and ball nut.



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937-294-6261

ADDITIONAL OPTIONS

For Jacks and Actuators



Protective Boots



Hand Wheels



Mechanical Counters



Limit Switches



Potentiometers



Encoders

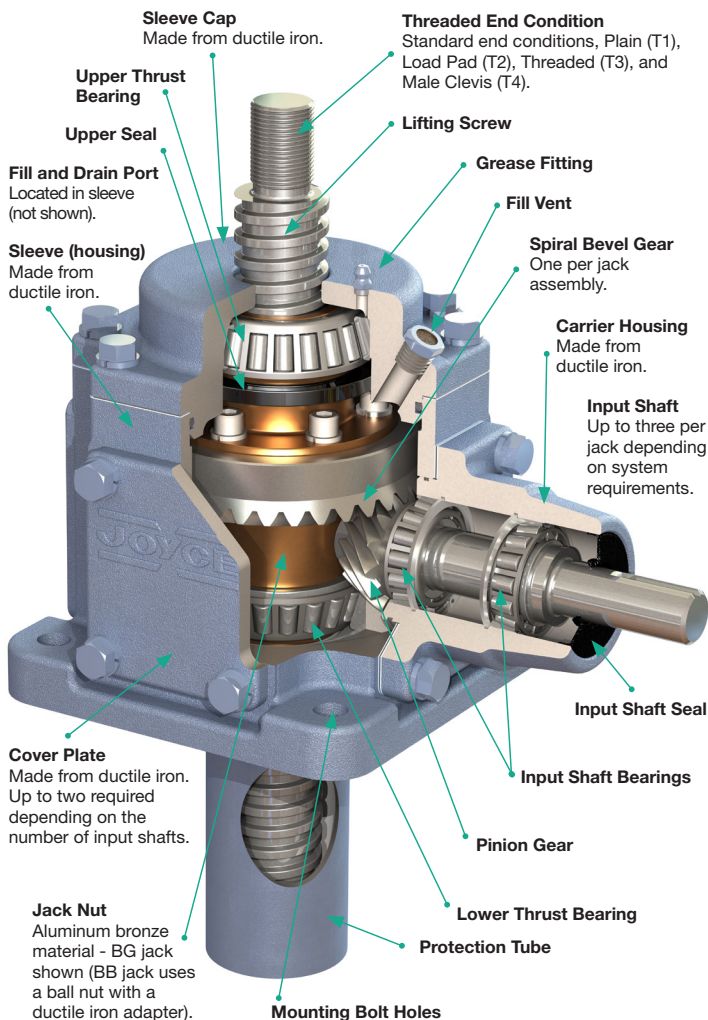


...and more

Custom products are available.
Contact Joyce with your requirements.

Upright Translating Style Shown

Upright Translating Style Shown

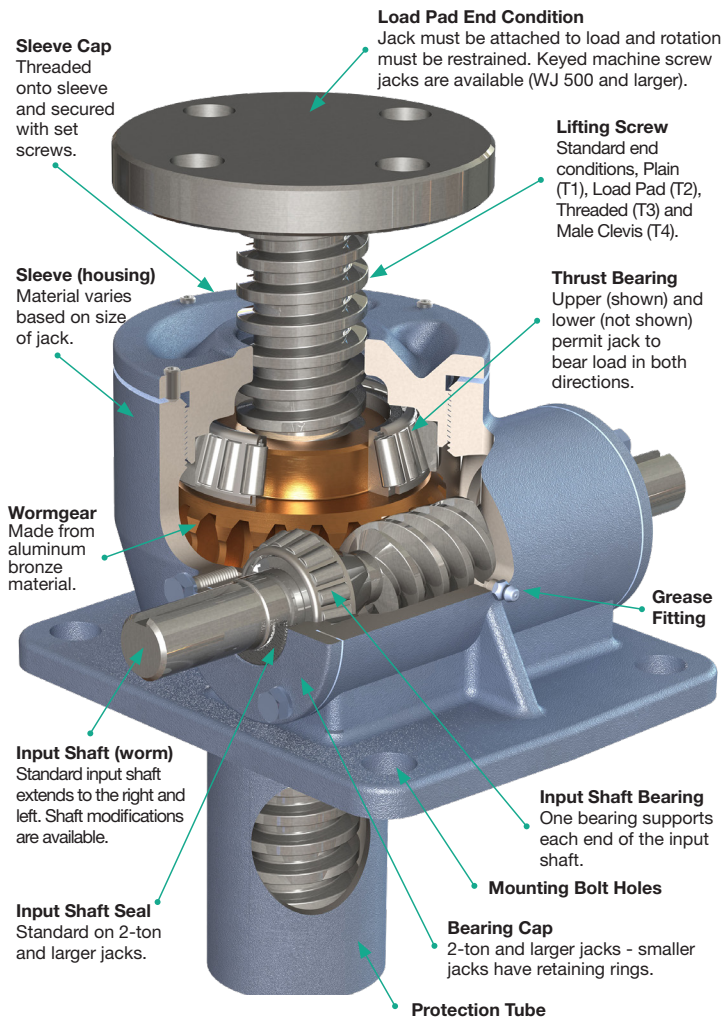


This graphic shows a Joyce Bevel Gear® jack (BG). Bevel ball actuators (BB) also use a bevel gear set.

Custom products are available.
Contact Joyce with your requirements.

WORMGEAR JACK

Upright Translating Style Shown



Sleeve/Sleeve Cap Material

250-lb - 1-ton	Aluminum
2-ton - 35-ton	Ductile Iron
50-ton - 250-ton	Steel

Options

2-ton	Stainless Steel
5-ton - 25-ton	Stainless Steel
5-ton - 35-ton	Steel

Custom products are available.
Contact Joyce with your requirements.



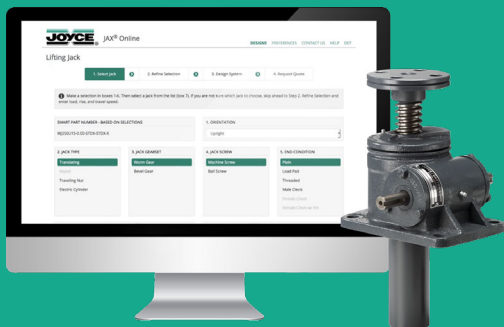
**We're your partner for standard
or fully customized actuators and
screw jack solutions up to 250 tons.**

**Contact us at:
1-937-294-6261**

JAX® Online

Web-based Linear Motion Design Software

This easy-to-use tool enables you to specify the right jacks and components for your lifting & linear motion systems.



Use JAX Online to:

- Size jacks and systems from any computer
- Configure & download 2D / 3D models
- Save files and return to your designs at any time
- Evaluate combinations and options before choosing
- Automatically generate a bill of materials in minutes
- Request a quote and transmit your requirements with a single click



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