



## ACTIONJAC™ JACKS

ActionJac™ Worm Gear Screw Jack systems are ruggedly designed and produced in standard models with load handling capacities from 1/4 ton to 100 tons.

They may be used individually or in multiple arrangements. There are no “standard” travel lengths and each Worm Gear Screw Jack is built to specification.

### MACHINE SCREW JACK

The worm gear driven Machine Screw Jack incorporates an alloy steel worm which drives a high strength bronze worm gear (drive sleeve). The worm shaft is supported on anti-friction tapered roller bearings with external seals provided to prevent loss of lubrication (sealed radial bearings on the 1/2 and 1 ton units). The drive sleeve is supported on anti-friction tapered roller or ball thrust bearings. Rotation of the drive sleeve causes the acme thread lifting screw to translate or rotate, depending upon jack configuration.

The jack housing is made of ductile iron (MJ models have aluminum housings, aluminum optional on one ton models) and proportioned to support the rated capacity of the unit. The lifting screw is made of alloy steel with a minimum tensile strength of 95,000 psi. The threads are precision formed, typically

using Class 2-C (Centralizing) tolerances. Jack lift shaft lead tolerance is approximately 0.004" per foot.

### BALL SCREW JACK

The ActionJac™ Ball Screw Jacks use the same worm gear set arrangement as machine screw jacks. The addition of a high efficiency ball screw and nut reduces the required input torque to approximately one-third the torque required for the Machine Screw Jack.

The Ball Screw Jack housing is made of ductile iron (1/2 BSJ and 1/2 HL-BSJ jacks have aluminum housings, aluminum optional on one ton models) and designed to support the rated capacity of the unit. The ball screw and nut are made from hardened alloy steel with hardened bearing balls carrying the load between nut and screw. This rolling action reduces friction between the nut and the screw permitting smooth and efficient movement of the load. Because of the greater efficiency and rolling action, the ball screw can operate at higher speeds or increased duty cycle when compared with the Machine Screw Jack. When a Ball Screw Jack is motorized, less horsepower is required than an equivalent size Machine Screw Jack.

### STAINLESS STEEL SCREW JACK

ActionJac™ Stainless Steel Machine Screw Jacks are ideal for use in demanding environments where corrosion resistance is required. All external components are manufactured from 316 Stainless Steel materials. These jacks use a stainless steel worm with a high strength bronze drive sleeve. The worm and drive sleeve are supported by tapered roller bearings and sealed to prevent loss of lubrication and to resist

contamination. The stainless steel lifting screw threads are precision formed to Class 2-C (centralizing) thread profiles.

Load capacities for Stainless Steel Machine Screw Jacks range from 1,300 to 23,000 pounds. For increased capacity, a 17-4PH hardened worm is available.

### METRIC BALL SCREW JACK

With over twenty-five years of experience manufacturing precision worm gear screw jacks, Nook Industries has expanded the ActionJac™ offering to include metric models providing design engineers a globally accepted product. All the efficiency advantages that come with ball screw technology are available in ActionJac™ Metric Ball Screw Jacks. A full line of IEC motor mounts are available.

### TRAPEZOIDAL SCREW JACK

The ActionJac™ Trapezoid Screw Jacks utilize the same rugged design as the ActionJac™ Machine Screw Jacks. These true metric jacks include a lift shaft with a special trapezoidal thread form. This thread form has been created to stay within ISO standards yet retains the centralizing feature of our 2C acme threads. These jacks may be assembled with IEC motor mounts.

### ACCESSORIES

Accessories such as motors, motor mounts, encoders, hand wheels, counters, couplings, miter gear boxes, boots, limit switches, top plates and clevises are available.

**NOTE:** Units are not to be used as personnel support or movement.