

Screw Jack FAQ's

What is the delivery time for a standard Screw Jack? Normally 3-4 weeks from receipt of order. If you need it quicker then we can offer an express premium service, call us for details.

What are the determining factors in selecting the correct screw jack? There are many. Please download and complete the application questionnaire and email to sales@drivelines.co.uk and we can help you.

What are the corrosion resisting options available for screw jacks? Electroless nickel or zinc plated housings, standard and offshore paint finishes, and stainless steel spindles with or without bellows protection. Stainless steel gear casings, spindle cover tubes and bearing housings.

What is the difference between rotating or translating screw jack spindle designs? With rotating spindle design, a nut fixed to the load climbs the spindle. Features include minimal protrusion below the jack. With the translating spindle design, the spindle rises and falls through the gearbox. Features include no permanent protrusion above the jack.

What is the Euler figure often quoted with screw jack installations? Euler is a spindle buckling reference. For our own calculations, a figure 6 is required as a minimum to include a safety factor. Values below this indicate a tendency to buckling when spindle is under load. It relates to spindle length and diameter and the applied force / load.

Trapezoidal / ball screw / worm gear...which combination should I use for my screw jack? Normally, use a standard worm gear with trapezoidal spindle for stroke speeds up to 1.5m/min and intermittent duty. For higher speed operation, it is possible to use a worm gear with a ball spindle or a bevel gear jack with a trapezoidal spindle. For demanding / continuous duty cycle, it might be better to use the bevel gear jack with ball spindle. We have a mathematical model which will quickly resolve which combination is the best for your particular application.

Are CAD files available for Screw Jacks? Yes take a look at the product pages for download and links.

How should motors be sized for a screw jack system? Preferably refer the application to our technical office to calculate the power requirement. Alternatively use the formula in our catalogue. Be generous when selecting the motor. Temperature, friction and imperfect assemblies can cause greater than calculated loads to be encountered. This is particularly true for multi jack installations. Size and motor based on dynamic load. Obvious but often missed.

What does a screw jack self-sustaining mean? The ability for a screw jack spindle to hold position without a brake. Trapezoidal spindles normally will be self-sustaining. Vibration will cause them to tend toward not being so. Ball screw spindles are not self-sustaining and must be braked if used vertically. Always refer to relevant health and safety requirements when planning screw jack systems.

Why is spindle rotation prevention offered on screw jacks with non-rotation spindles? Under 'no load' conditions, translating spindles will rotate due to drag between spindle and worm gear. This can be prevented by the use of a keyed lifting screw.

Why is spindle travel limit option offered for screw jacks? Translating spindles can be easily wound out of the gearbox. A mechanical stop, fixed at the base of the spindle prevents this. It is particularly recommended for manually operated jacks.

Are screw jacks backlash free? No, the very nature of the screw jack system means that some clearances must exist to prevent binding. This normally creates backlash of 0.13 to 0.28mm as measured at the spindle. Backlash reduction options are available for critical applications where the stroke encompasses both compressive and tensile load cycles.

Can I achieve a stroke speed higher than 1.5m/min with worm gear screw jacks? Yes, by using a 2 start thread or a high lead ball screw. Be aware that the motor power will increase.

Can screw jacks be maintained and refurbished by users? Yes, they can and full maintenance instructions are published on our website under the relevant product. In the interests of health and safety however, the supply of some parts for refurbishment may be refused.