

www.powerjacks.com



Screw Jacks

As a leader in the manufacture of mechanical screw jacks, and with over two million products in the field, we guarantee quality, reliability, performance and value.

Our screw jacks come in a variety of series designed to meet the challenges of any application.

They range from the classic single face screw jack, one of the most widely used and popular screw jacks worldwide and proven in the most demanding linear motion applications, to our high performance machine screw jack that meet the evergrowing industrial demands placed upon our products.

C-SERIES



E-SERIES



M-SERIES

Face



S-SERIES



- Metric, Cubic Design
- Machine Screw Jack
- Capacities 10kN to 100kN
- Translating & Rotating Screw configurations
- Anti-backlash & anti-rotation (keyed) options
- 6 mounting options including trunnion
- Metric, Single Face Design
- Machine Screw or Ball Screw
- Capacities 5kN to 3500kN
- Translating & Rotating Screw in Upright & Inverted types
- Stainless Steel Option
- Anti-backlash & anti-rotation (keyed) options
- 6 mounting options including trunnion & double clevis
- Special designs avaliable

- Imperial (inch / lb), Single

- Machine Screw or Ball Screw
- Capacities 0.25 Ton to 250 Ton
- Translating & Rotating Screw in Upright & inverted types
- Stainless Steel Option
- Anti-backlash & anti-rotation (keyed) options
- 6 mounting options including trunnion & double clevis
- Special designs avaliable

- Metric, Cubic Design

- High Performance Machine Screw Jack
- 50% greater duty cycle than standard worm gear machine screw jack
- Capacities 25kN to 200kN
- Translating & Rotating Screw Configurations
- Thermally Optimised Gearbox
- Other Options as C-Series
- Special designs avaliable

U-SERIES



A-SERIES





SPECIAL DESIGNS



- Subsea Screw Jack
- Metric, Single Face Design
- Capacities 25kN to 1000kN
- Pressure Compensated or Flooded Designs
- 3000m Depth Rating
- Translating & Rotating Screw in Upright & Inverted types
- Full Stainless Steel construction as standard
- Anti-backlash & anti-rotation (keyed) & safety nut options
- Extensive range of options including ROV adapters.
- Special designs avaliable

- Anode Jacks Design for Aluminium Smelters
- Capacities 10kN to 500kN
- AMT, AMT-Swivel, AMR-Swivel, AML & AML Motorised Designs
- Translating & Rotating Screw in Upright & Inverted types
- High accuracy, arduous duty & high temperature rated.
- Sealed for harsh environment protection.
- Swivel design allows for lifting screw to pivot in gearbox
- Bespoke design.

ROLLER SCREW JACKS



- High Performance Screw Jack
- Capacities 25kN to 1200kN
- Translating & Rotating Screw
- Cubic, Single Face or Custom gearbox design.
- High precision & repeatability
- High speed
- High dynamic load capacity
- High duty
- High efficiency
- Long life & low maintenance
- Special designs avaliable



- Made To Measure
- Capacities 5kN to 35000kN
- Machine Screw, Ball Screw or Planetary Roller Screw
- Translating & Rotating Screw
- Cubic, Single Face or Custom gearbox design with worm gears or bevel gears.
- Standard material or stainless steel construction.
- To suit any environment in any industry sector.
- With free drive shaft or motorised



Jacking Systems

Screw jacks can be connected together in systems so that multiple units can be operated and controlled together. These jacking system arrangements or configurations can be built in many formats with the use of bevel gearboxes, motors, reduction gearboxes, drive shafts, couplings, plummer blocks and motion control devices.

Four of the most popular system configurations are the 'H', 'U', "T" and "I" configured jacking systems. Note that multiple screw jacks can be linked together mechanically or electrically. The latter is useful if there is no space for linking drive shafts.

H-CONFIGURATION



T-CONFIGURATION



U-CONFIGURATION



I-CONFIGURATION



Bevel Gearboxes

RANGE-N



The Range-N bevel gearbox is an ultra compact unit designed and built with performance and efficiency in mind using Neeter Drive technology. It is available in 6 sizes with 5 gear ratios. The standard design is suitable for most applications but also design & manufacture customised units to meet arduous conditions for all industry sectors

- Ultra Compact Bevel Gearbox Design
- 2-way, 3-way & 4-way Configurations
- Solid Shaft & Hollow Shaft
- Gear Ratios: 1:1, 1.5:1, 2:1, 3:1 & 4:1
- Torque Ratings up to 7000 Nm as Standard.
- Robust SG Iron Housing as Standard.
- Special Custom Designs Avaliable
- Special Gear Ratios Avaliable
- Popular models ex-stock

RANGE-U



The Range-U subsea bevel gearboxes are proven and reliable technology for subsea operations to 3000m depth as standard.

- Subsea Bevel Gearbox
- 3000m depth rating as standard.
- Pressure compensated & flooded designs available.
- 2-way, 3-way & 4-way Configurations
- Solid Shaft & Hollow Shaft
- Gear Ratios: 1:1, 1.5:1, 2:1, 3:1 & 4:1
- 6 Gearbox sizes & 9 configurations per size as standard.
- Torque Ratings up to 20000 Nm
- ROV Drive Interfaces
- Full stainless steel design available.
- Special Custom Designs Avaliable





Linear Actuators

EMA - ELECTRO MECHANICAL ACTUATOR



The EMA industrial linear actuator is designed for precision industrial low to medium duty applications, with loads up to 10kN. It uses a precision spiroid gear set that delivers superior performance when compared to a similar size worm gear set. The dynamic load capacity is up to 10kN and custom designs are available.

- Compact & Customised Linear Actuator
- Dynamic Load Ratings up to 10kN
- Linear Speeds up to 5500 mm/min
- Machine Screw & Ball Screw
- 3-Phase AC. 1-Phase AC & DC Motors
- Special Custom Designs Available

ROLARAM - LINEAR ACTUATOR



Rolaram linear actuators comes into their own when high precision or performance actuation is required or as a replacement for a hydraulic or pneumatic units. There are 8 standard models, available in 2 standard drive configurations. Roller screw design are available for the highest performance applications and ball screw designs when less performance is required. Custom designs are available.

- High Load & Performance Linear Actuator
- Dynamic Load Ratings up to 400kN as standard
- Linear Speeds up to 7000 mm/min as standard
- Roller Screw & Ball Screw Types
- 3-Phase AC, 1-Phase AC and DC Motors
- Special Custom Designs Available

Planetary Roller Screw spiracon™



Go beyond the performance of ball screw with our highly efficient Spiracon™ planetary roller screw. It is a unique concept, to meet unique needs.

Converting rotary motion to linear movement, the system consists of a multi-start screw which engages with a number of planetary rollers.

It is a high efficiency mechanism with a robust construction to achieve high dynamic load carrying capacity, together with almost no axial backlash and high durability.

- Continuous duty
- High dynamic load capacity from 45 kN to 1200 kN
- High efficiency
- High positional accuracy
- Long Life
- Low maintenance

Lead Screws & Matched Nuts



Our extensive expertise in lead screw technology allows us to offer the best solution for each customer's application requirements whether using standard or special designs. By offering the options of Whirled Screw Thread, Rolled Screw Thread and Ground Screw Thread.

- Whirled Screw thread, Rolled Screw Thread, Ground Screw Thread
- Multi start threads with 1, 2, 3, up to 50 threads
- Variable pitch threads
- Screw lengths from 0.01m up to 20m
- Screw diameters from 10mm to 300mm
- Internal screw threads up to 2000mm long
- Special thread profiles, including non-standard flank angles
- End machining of the lead screw to suit your exact needs
- Standard, tempered and special materials
- Heat treatments up to 8m in length
- Surface coatings and treatments
- Small volume (prototype) and high volume production available
- Short leads times of 1-3 weeks







LOAD LINKS & SHACKLES



- Load Links up to 500Te
- Load Shackles up to 2000Te
- 10+ standard designs for each
- Wireless & Cabled Versions
- ATEX Options for Zones 0,1 & 2
- Accuracy < 0.5% of applied load
- 150% proof load tested
- Safety factor of 5:1
- Special custom designs
- Buy or Rent

LOAD CELLS & PINS



- Load Cells up to 1000Te
- Load Pins up to 2000Te
- Wireless & Cabled Versions
- Stainless Steel Construction
- ATEX Options for Zones 0,1 & 2
- Accuracy < 0.5% of applied load
- 150% proof load tested
- Safety factor of 5:1
- Special custom designs
- Buy or Rent

Load Monitoring Solutions

Power Jacks Load Monitoring Solutions division design and manufacture a comprehensive range of standard load cell products and also offer a bespoke, custom design service.

In addition to the load cell products we offer a hire, repair and calibration service.

LINE TENSIOMETERS



- Line Diameters up to Ø100mm
- Line Capacities up to 120Te
- 20 standard line designs
- Extreme environment design
- Simple & quick line/rope fitting
- Line mounted on tether/swivel
- Feet & Trunnion mount options
- Cable & Wireless Versions
- ATEX models available
- Buy or Rent

DISPLAYS & LOGGING



- Hand held displays
- Wireless & Cabled Displays
- Link up to 12 units to 1 display
- Worldwide licence exempt 2.4GHz radio
- Low power consumption units
- Data logging wirelessly
- Live logging & graph display
- Integrate to control systems
- Buy or Rent

Services PRECISION MACHINING



State of the art facility providing:

- CNC Lathes and Mills
- CNC Thread Whirling, Rolling and Grinding
- Worm Gear cutting, Grinders and Slot machines
- Paint, Shot Blast, Inspection services.
- Specialist machining cell for Oil & Gas Sector

Able to operate 24hrs per day with 90%+ on-time delivery

DESIGN SUPPORT



Our specialty is in designs requiring mechanical or electromechanical linear or rotary motion solutions whether for a component part or complete system.

The design teams high level of expertise, quality and flexible service ensure you get a commercially viable solution that will help grow your business.

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Balmacassie Commercial Park Ellon, Aberdeenshire **AB41 8BX** Scotland (UK) Tel: +44 (0)1358 285100 WWW.POWERJACKS.COM sales@powerjacks.com







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