POWERJACKS

PRECISION ACTUATION



Capability

OUR EXPERTISE HAS BEEN BUILT ON A HISTORY OF MORE THAN 100 YEARS OF ENGINEERING, CRAFTSMANSHIP, VISIONARY DESIGN, QUALITY MANUFACTURE AND CUSTOMER CARE.



Power Jacks is a manufacturing/engineering company specialising in the design and manufacture of precision actuation, lifting and positioning solutions for applications in Industrial Automation, Energy, Defence, Transport and the Civil Engineering sectors.

Headquartered near Aberdeen in the UK, the company is the UK's largest screw jack manufacturing facility, that uses the latest engineering technologies to deliver quality products (ISO 9001) that offer reliability, performance and economy.

Power Jacks deliver this high quality service in a safe (ISO 45001) and environmentally friendly (ISO 14001) working environment thanks to the highly trained, flexible and motivated teams that work throughout the business driving the company to higher levels of performance.

Applications



Aircraft Maintenance Platform



Test Facility - Lid Lift



Metal Section Straighteners

Global Reach



Headquarters & Factory Local Power Jacks Sales Offices Local Representative

POWER JACKS HAS LOCAL REPRESENTATION IN 27 COUNTRIES AND SUPPLIES ITS PRODUCTS TO MORE THAN 80 COUNTRIES WORLDWIDE.

A global reach with a local service as we work closely with our customers to ensure the best solution for all their actuation, lifting and positioning applications.

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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 screw jack that meet the ever-growing industrial demands placed upon our products.

E-SERIES Machine Screw



- Single Face Design
- Capacities 5kN to 3500kN
- Translating & Rotating Screw
- Upright & Inverted types
- Anti-Backlash version
- Anti-Rotation (Keyed) version
- Safety Nut version
- 6 mounting options including trunnion & double clevis
- Limit switches & other feedback devices
- Special designs available

E-SERIES Ball Screw



- Single Face Design
- Capacities 10kN to 500kN
- Translating & Rotating Screw
- Upright & Inverted types
- Zero-Backlash version
- Anti-Rotation version
- Integral Safety Device in Ball Nut
- 6 mounting options including trunnion & double clevis
- Limit switches & other feedback devices
- Special designs available

E-SERIES Stainless Steel



- Single Face Design
- Capacities 10kN to 1000kN
- Translating & Rotating Screw
- Upright & Inverted types
- Anti-Backlash version
- Anti-Rotation (Keyed) version
- Safety Nut version
- 6 mounting options including trunnion& double clevis
- Limit switches & other feedback devices
- Special designs available

C-SERIES



- Cubic Design
- Machine Screw Jack
- Capacities 10kN to 100kN
- Translating & Rotating Screw Configurations
- Anti-Backlash version
- Anti-Rotation (Keyed) version
- Safety Nut version
- 6 mounting options including trunnion & double clevis
- Limit switches & other feedback devices
- Special designs available

U-SERIES



- Subsea Screw Jack
- 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 as standard
- Anti-Backlash version
- Anti-Rotation (keyed) version
- Extensive options including ROV adapters
- Special designs available

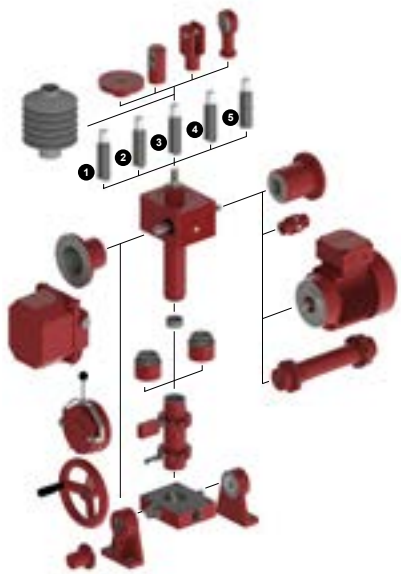
ROLLER SCREW JACKS

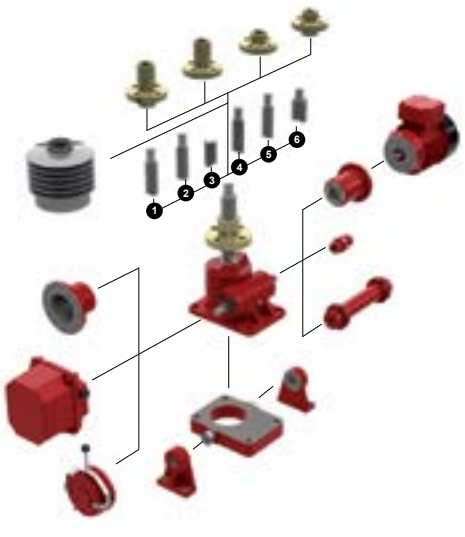


- High Performance Screw Jack
- Capacities 25kN to 1200kN
- Translating & Rotating Screw
- Cubic, Single Face or Custom gearbox design.
- High precision & repeatability
- High speed
- High dynamic load capacity
- High duty
- High efficiency
- Long life & low maintenance
- Special designs available

MODULAR BUILDING SYSTEM

Easily build the custom design you want for E or C-Series screw jacks with our modular building system





SPECIAL DESIGNS



- 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.
- With free drive shaft or motorised.
- To suit any environment in any industry sector.

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



U-CONFIGURATION



T-CONFIGURATION



I-CONFIGURATION



Jacking systems are not limited to the number of screw jacks shown here. They are regularly supplied to clients with 2, 4, 6, 8 jack systems. Larger systems can extend up to 16 or higher. With the use of electronic synchronisation/control multiple systems or screw jacks can be used in unison. Extending the possible number of screw jacks used in unison in excess of 100.

Bevel Gearboxes



Bevel gearboxes in compact designs built for performance and efficiency in transmitting and distributing mechanical power. Available in 3 ranges and 6 sizes with 5 gear ratios. The standard designs are suitable for most applications but we also design & manufacture customised units to meet arduous conditions for all industry sectors.

- Range-C – Cubic Compact Gearboxes with 6 Side Mounting
- Range-N – Ultra Compact Gearboxes with 2 Side Mounting
- Range-U – Subsea Gearboxes to Depths of 3000m as Standard
- 2-way, 3-way & 4-way Configurations
- Solid Shaft & Hollow Shaft
- Gear Ratios: 1:1, 1.5:1, 2:1, 3:1 & 4:1
- Precision Spiral Bevel Gears.
- Torque Ratings up to 7000 Nm as Standard and 20000Nm on request.
- 6 Gearbox sizes & 14 Configurations per size as Standard.
- Robust SG Iron Housing as Standard.
- Plug-In Motor Adapter Available
- Subsea ROV Drive Interfaces Available
- Full Stainless Steel Design Available
- Special Custom Designs Available
- Special Gear Ratios Available

Linear Actuators



Electro-Mechanical Actuators with a screw drive in a sealed ram enclosure complete with electric motor and feedback devices. The Rolaram range is a Precision Medium-Large load and duty rated Industrial Actuator. There are 8 standard Rolaram linear actuator models, available in 2 standard drive configurations.

- Standard Load Capabilities range from 4kN to 400kN.
- Precision Roller Screw Drives in models R050, R075, R100, R125, R150, R175, R225 and R250 as Standard.
- Ball Screw Drives in models B050, B075, B100 and B125 as Standard.
- Machine Screw actuators (low duty) available up to 2000kN.
- Right angle, Parallel or In-Line drive Configurations.
- Choice of end fittings include Clevis, Threaded End, Top Plate, Fork End and Rod End.
- Trunnion Mounting with or without feet.
- Rear Clevis or Fork End mount available.
- Limit Switches (fixed or adjustable) available as proximity or electro-mechanical devices
- Encoder feedback available in Incremental or Absolute designs.
- Guided Ram (Anti-Rotation) version available on request.
- Full Stainless Steel Design Available.
- Special Custom Designs Available

POWERJACKS
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MANAGEMENT SYSTEM CERTIFICATION
DNV·GL
ISO 9001 ISO 14001
ISO 45001

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