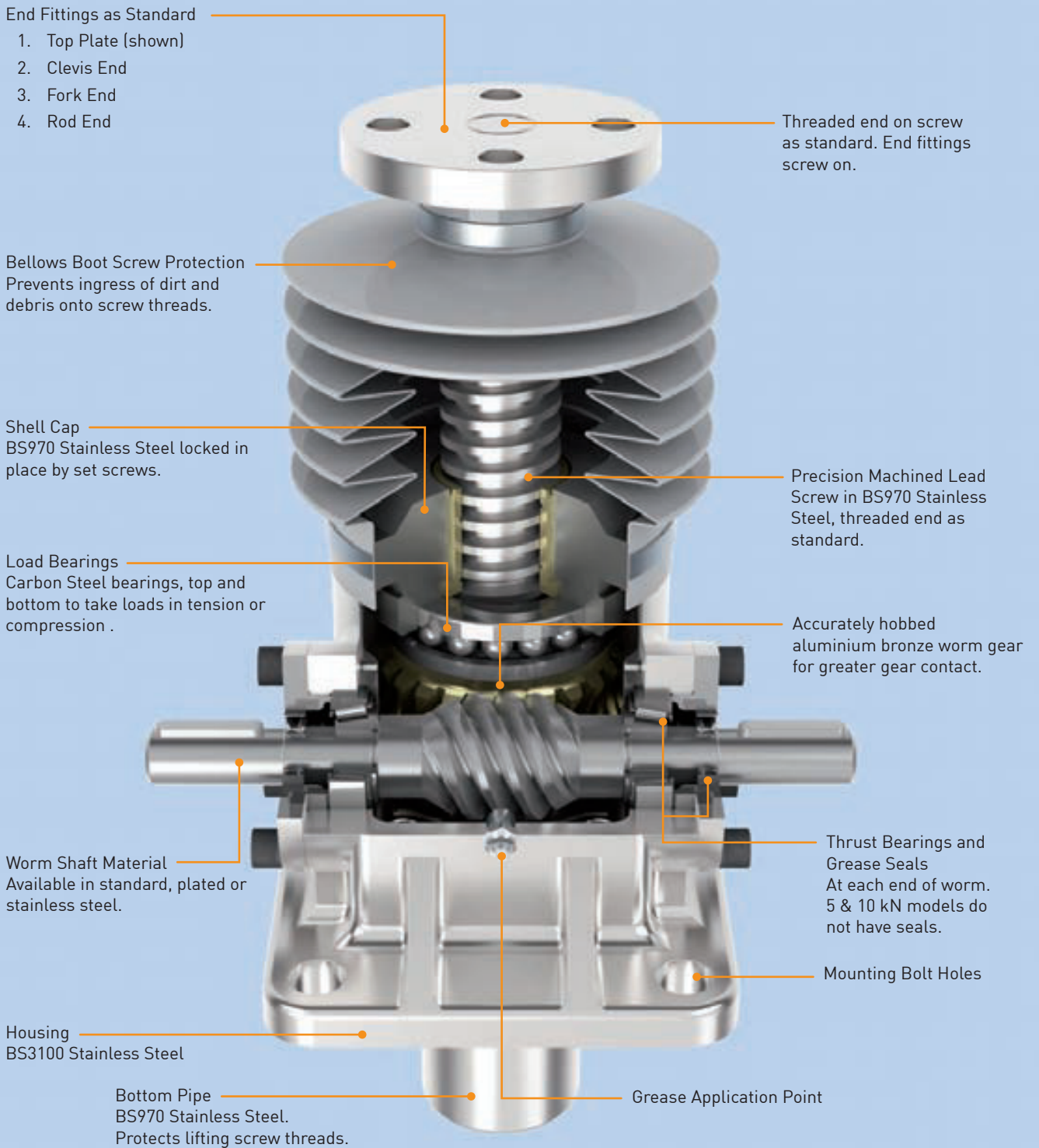




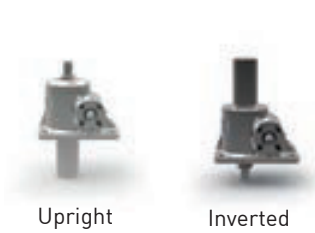
Key Features

- Standard Performance Power Jack
- Metric Single Face Machine Screw Jacks
- Capacities - 10kN to 1000kN as standard
- Translating and Rotating Screw in Upright and Inverted types
- Precision Worm Gear Set
- 2 Gear ratios and 1 screw lead as standard
- Anti-backlash and anti-rotation (keyed) options
- 6 mounting options including trunnion and double clevis
- Sealed gearbox design available
- Special custom designs available



The stainless steel screw jacks are ideal for use in harsh or corrosive environments such as marine, nuclear, water, food processing or paper making machinery, where standard materials may be inadequate.

Translating Screw



Upright

Inverted

Rotating Screw



Upright

Inverted

Typical Applications

Stainless Steel Machine Screw Jacks are typically used in harsh or corrosive environments or those with a regular wash down requirement. Industries such as Marine, Water Treatment, Nuclear, Food Processing, Offshore, Pulp and Paper use stainless steel screw jacks. For each application, variants with different material grades or plated components can be used, tailoring the product for the specific application and budget.

Selecting the Right Screw Jack

Consider all application constraints then choose a product that looks suitable for the intended application. Calculate the power and torque requirements. This is a 5 step process:

- Screw Jack Input Speed (RPM)
- Operating Input Power (kW)
- Operating Input torque (Nm)
- Screw Jack Start-up Torque (Nm)
- Mechanical Power and Torque Check

Special Designs

1. Modifications to the standard screw jacks

This would include non-standard painting or plating of the housing, 2 or 3 start threaded lifting screws, stainless steel lifting screws or worm shafts, increased closed heights, extended worm shafts, opposite threading of lifting screws, etc.

2. Additions to the standard screw jacks

Items such as wear indicators, safety nuts, rotation monitoring kits, special lifting screw end fittings, encoder adapter flanges, etc.

3. Completely special screw jacks

Where a modification of our existing range is not practical we have the facilities to design and manufacture screw jacks tailored specifically to your requirements.

Systems

The 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 gearbox, drive shafts, couplings, plumber blocks and motion control devices.

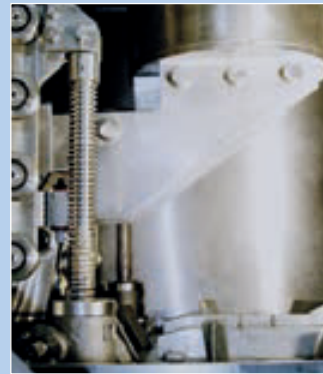
The use of bevel gearboxes allows the distribution of drive throughout a jacking system. The gearboxes come in 2,3 and 4 way drive types. See Neeter Drive Bevel Gearboxes brochure for more details.

Bevel gearboxes and other system components can also be supplied in stainless steel or other corrosion resistant designs.

Two of the most popular system configurations are the 'H' and 'U' configured jacking systems. Remember that multiple screw jacks can be linked together mechanically or electrically. The latter is useful if there is no space for linking drive shafts.



If multiple machine screw jacks are connected in a mechanically linked system then the complete system may be considered self-locking. If you would like this checked consult Power Jacks. Alternatively, to be sure, include a brake on the system either as a stand alone device or as a brake motor.



DRUM POSTING EQUIPMENT (DPE)

Dunreay cementation plant waste transfer facility.

Raise and lower drum transfer table.

Two stainless steel E-Series translating machine screw jacks type EMT0100-U0021S0-1805-CBS0-000C connected in series by a stainless steel drive shaft and geared couplings.

For more application examples see the 'Power at Work' brochure or www.powerjacks.com.



Stainless Steel Screw Jack Standard Performance

Model		EMT0010 EMR0010	EMT0025 EMR0025	EMT0050 EMR0050	EMT0100 EMR0100	EMT0200 EMR0200	EMT0300 EMR0300	EMT0500 EMR0500	EMT1000 EMR1000	
Capacity	kN	10	25	50	100	200	300	500	1000	
Sustaining Capacity (kN) 1	Tension	6.6	16.5	33	66	132	200	333	666	
	Compression	10	25	50	100	200	300	500	1000	
Operating Capacity (kN) 2	Stainless Steel Worm Shaft	3.3	8.25	16.5	33	66	100	167	333	
	Plated Worm Shaft	Tension	6.6	16.5	33	66	132	200	333	666
		Compression	10	25	50	100	200	300	500	1000
Lifting Screw 3	Diameter (mm)	20	30	40	55	65	95	120	160	
	Pitch (mm)	5	6	9	12	12	16	16	20	
Gear ratios	Option 1	5:1	6:1	6:1	8:1	8:1	10 2/3	10 2/3:1	12:1	
	Option 2	20:1	24:1	24:1	24:1	24:1	32:1	32:1	36:1	
Turn of worm for travel of lifting screw	Option 1	1 for 1mm	1 for 1mm	1 for 1.5mm	1 for 1.5mm	1 for 1.5mm	1 for 1.5mm	1 for 1.5mm	3 for 5mm	
	Option 2	4 for 1mm	4 for 1mm	4 for 1.5mm	2 for 1mm	2 for 1mm	2 for 1mm	2 for 2mm	9 for 5mm	
Max. Input power (kW)	Option 1	0.375	1.5	3.0	3.75	3.75	6.0	11.25	18.5	
	Option 2	0.19	0.375	0.55	1.125	1.125	1.9	4.5	8.25	
Start up torque at full load (Nm) 4	Option 1	2.3	6.5	18.5	38.2	87	160	301	675	
	Option 2	1.0	2.9	8.4	19.9	45	95	168	373	
Weight (kg) - stroke = 150mm		2.27	8.17	15.88	24.72	45	86	195	553	
Weight (kg) per extra 25mm		0.13	0.21	0.32	0.57	0.86	1.58	2.49	4.31	
Option 1	Gear Ratio	5	6	6	8	8	10.66	10 2/3	12	
	Screw Jack Static Efficiency	0.233	0.201	0.213	0.206	0.181	0.149	0.132	0.131	
	Screw Jack Dynamic Efficiency	0.306	0.264	0.281	0.272	0.242	0.205	0.181	0.178	
Option 2	Gear Ratio	20	24	24	24	24	32	32	36	
	Screw Jack Static Efficiency	0.130	0.115	0.117	0.132	0.116	0.084	0.079	0.079	
	Screw Jack Dynamic Efficiency	0.194	0.167	0.172	0.190	0.169	0.128	0.120	0.123	

Notes

1. Sustaining capacity for tension is less than screw jack rating due to the performance of the stainless steel lifting screw. If a tension sustaining capacity is required equal to the screw jack rating consult Power Jacks Ltd.
2. Operational rating is less than sustaining rating due to the performance of stainless steel worm shafts. If a operating capacity is required equal to sustaining capacity consult Power Jacks for worm shaft options such as Chrome or Electroless-Nickel plating.
3. All metric stainless steel machine screws have a trapezoidal thread form, single start as standard.
4. Based on operating capacity for loads of 25% to 100% of screw jack capacity, torque requirements are approximately proportional to the load.
5. Efficiency values for standard grease lubricated worm gear box and lifting screw

External dimensions same as for Metric Machine Screw Jacks.