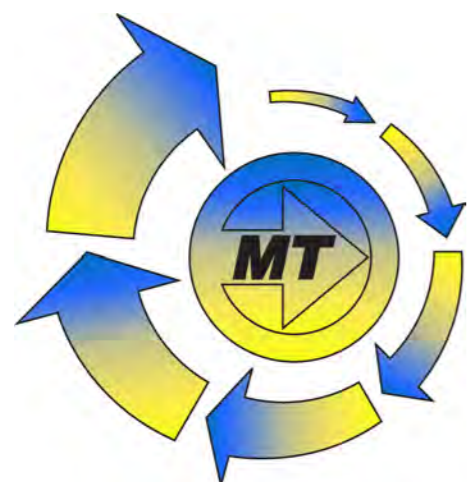


JTS

Bevel Gear Screw Jack

Contents

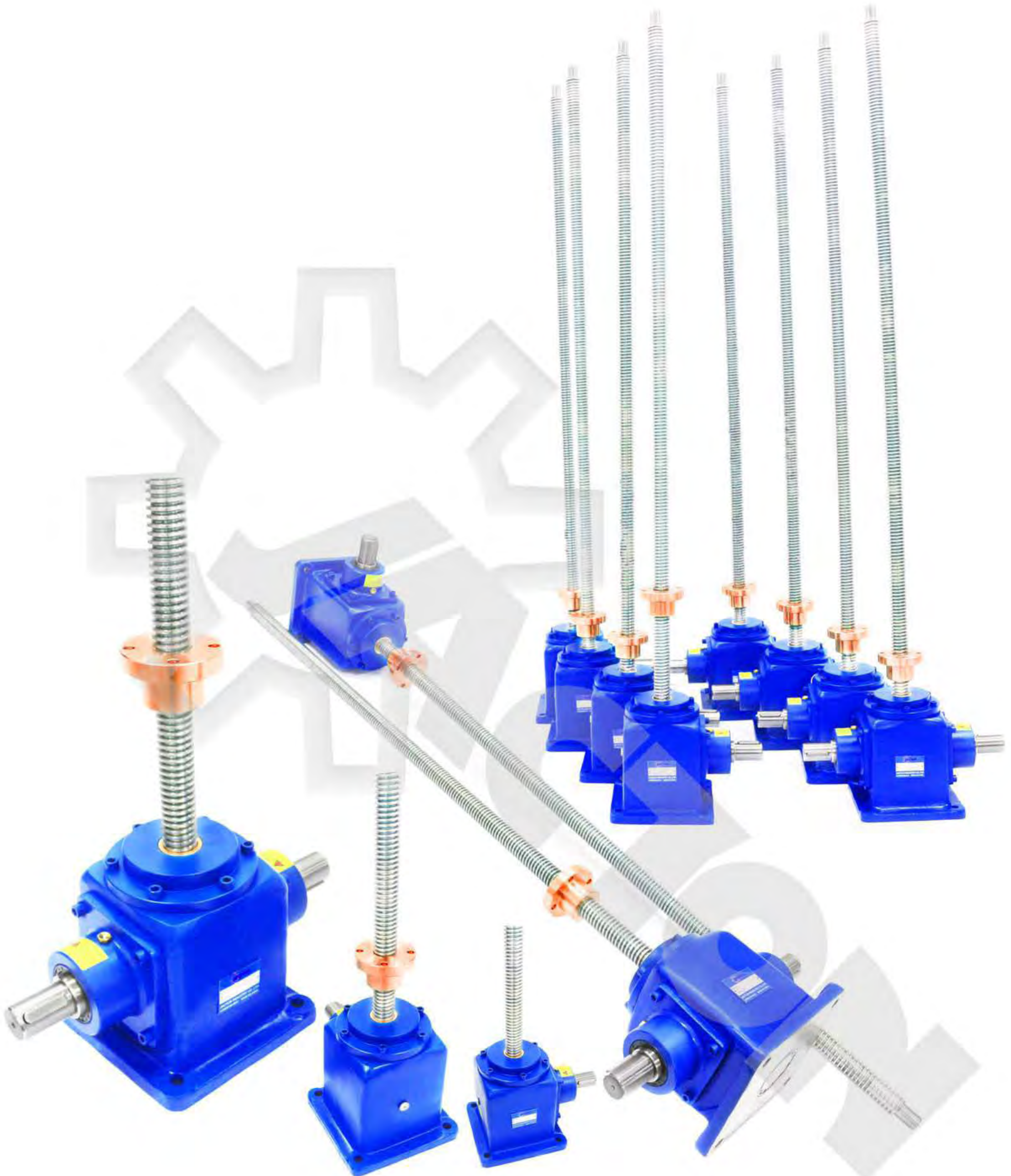
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2D/3D
CAD

JACTON[®]



Product Description

JACTON JTS Series Bevel Gear Screw Jack are by the use of spiral bevel gears mechanism. These Bevel Gear Jacks with ball screw and trapezoidal screws offer higher efficiency, higher lifting speed, higher duty cycle and longer lifespan than Worm Gear Screw Jacks. As an added benefit, bevel gear jacks also act as bevel boxes, making them an ideal choice for screw jack lifting systems. Trapezoidal screw bevel gear jacks with single lead screws provide the benefits of a self-locking screw, with double lead screws offer even greater travel speed. Ball screw bevel gear jacks achieve faster travel speeds and are rated for near continuous operation, but without self-locking, require a brake or other external locking device to hold position. Can be mounted in any attitude. Generally maintenance free.

● Features:

- * Higher efficiency, higher lifting speed, higher duty cycle, longer lifespan
- * Available in 4 sizes from JTS25 to JTS200.
- * Static load capacity from 25 kN to 200 kN. Custom 250 kN, 350 kN and 500 kN.
- * Trapezoidal screw diameter from 30 mm to 65 mm. Custom larger diameter screw.
- * There are no "standard" travel lengths. Standard trapezoidal screw maximum length 6000 mm, custom longer stroke.
- * Upright or Inverted mounting. Available in tension or compression loads.
- * Translating, Keyed for non-rotating, and Rotating designs.
- * Each size is available with two ratios, 1:1 and 2:1. Custom 2.5:1 ratio.
- * Standard with 1-start trapezoidal screw, custom 2-starts trapezoidal screw which offers increased travel speed and require a brake or external locking device to hold position.
- * Custom-made trapezoidal screw diameter and pitch, gear ratios, and worm shaft sizes.
- * Trapezoidal Screw Ends: top plate, clevis end, plain end, threaded end, fork end, rod end.
- * Can be operated by manually operated or by electrical motor driven.

Product Description

- * Single unit use, or complete jacking system including gear motors, bevel gearboxes, connecting shafts and couplings for dual or multiple jack arrangements.
- * Optimal for low-speed operation: The driving system has less noise because machinery can be driven at a lower input speed.
- * Simple and effective solution in comparison with hydraulic and pneumatic systems.

● **Materials:**

- * Spiral Bevel Gears: Lapped together in pairs, high quality alloy steel, case hardened.
- * Trapezoidal Screw: Carbon steel #45. Custom stainless steel.
- * Input Shaft: Hardened, alloy steel. Custom stainless steel.
- * Drive Sleeve: High strength bronze.
- * Travelling Nut and Safety Nut: High strength bronze.
- * Housing(Gearbox): Ductile Iron.

● **Accessories:**

- * Motorized driven (AC or DC) by asynchronous motors (normal, YEJ brake, YVP variable frequency, B explosion proof, D multi-speed), stepper motors, servo motors with encoders and controllers. IEC motor flange or NEMA C-Face motor adapter for connect with motors. Frequency inverters.
- * Manually operated by Aluminum handwheels, or Cast iron handwheels.
- * Connection Devices: Couplings. Universal joints. Telescopic universal joints. Connecting shafts.
- * Screw Protective Devices: Bellows boot. Telescopic spring covers. Protective tubes.
- * Safety Devices: Limit switches. Proximity switches. Safety nuts. Anti-backlash nut. Overload safety couplings. Stop nuts. Position Encoders. Overload clutch. Brake motor. Linear braking elements. Wear detection/monitors. Linear guides and rails. Potentiometer. Pressure sensor.
- * Others Accessories: Travel nuts. Position indicators. Trunnion adapter plates. Trunnion mounting brackets. Pillow blocks. Flange blocks. Rod end bearings.



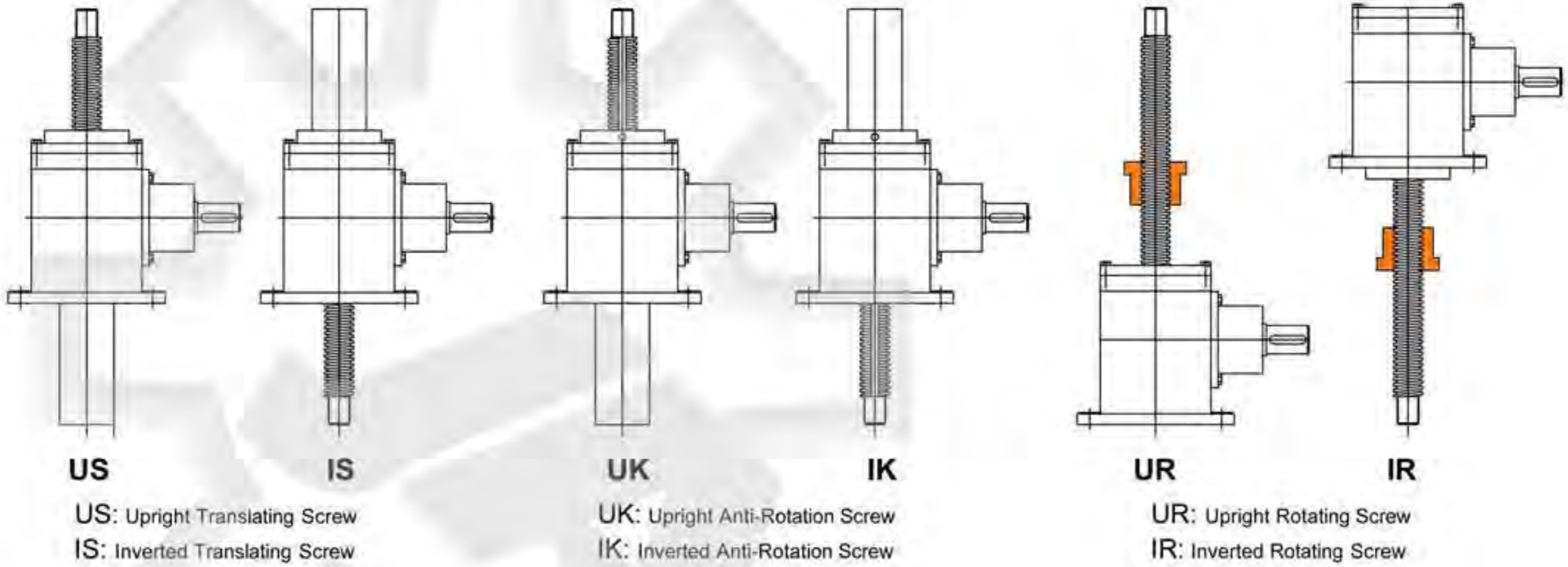
Sample Part Number

Sample Parts Numbers: JTS50 - US - 300 - H - I - C - PP
 (1) (2) (3) (4) (5) (6) (7)

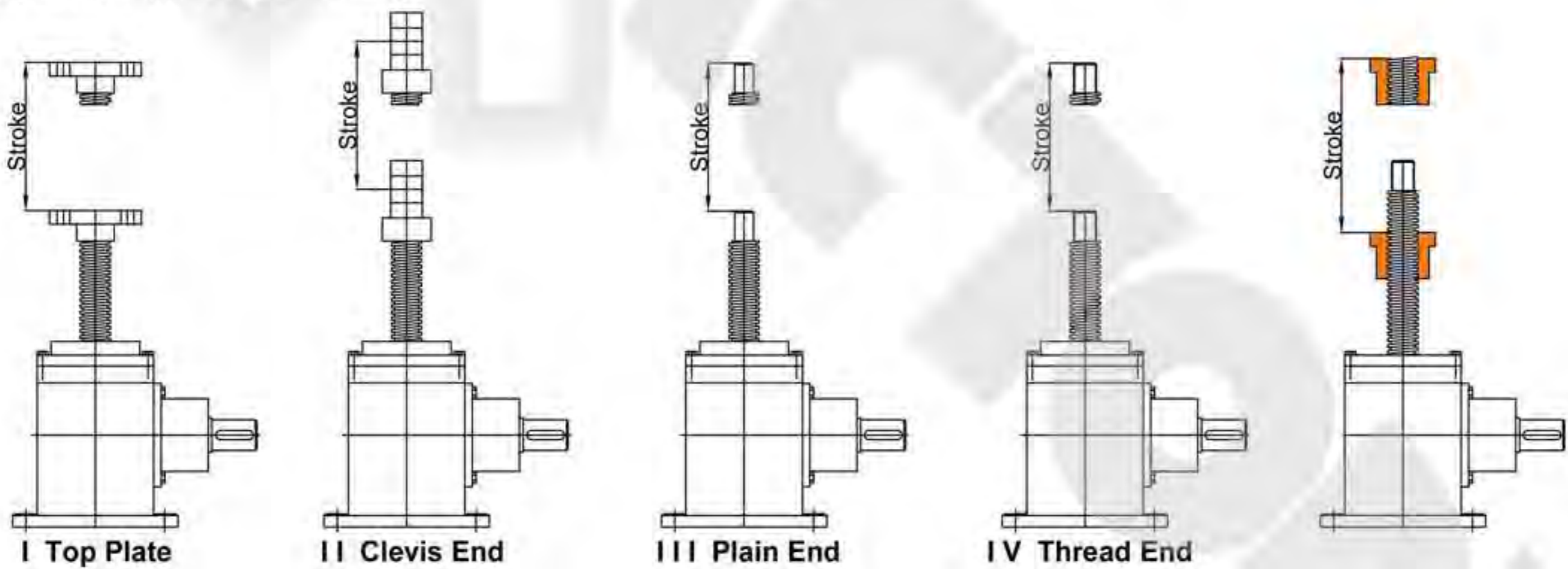
(1) Models & (4) Ratios

JTS25 (Tr 30x6) H:1:1, L: 2:1	JTS50 (Tr 40x7) H:1:1, L: 2:1	JTS100 (Tr 58x12) H:1:1, L: 2:1	JTS200 (Tr 65x12) H:1:1, L: 2:1	H: High Ratio L: Slow Ratio
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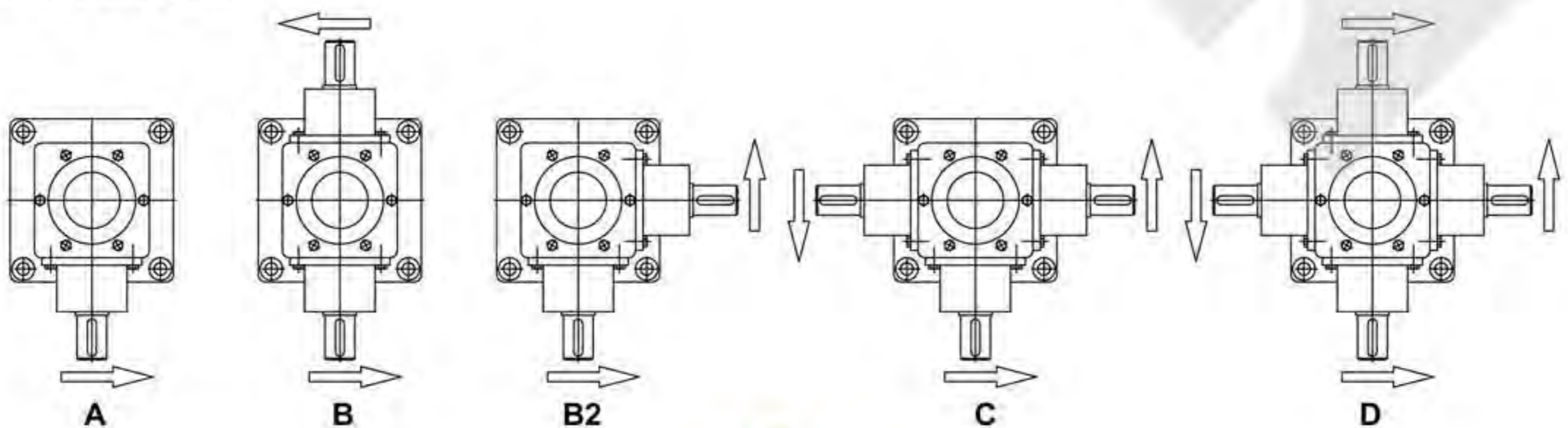
(2) Jack Design and Configuration



(3) Stroke & (5) Screw End Fittings

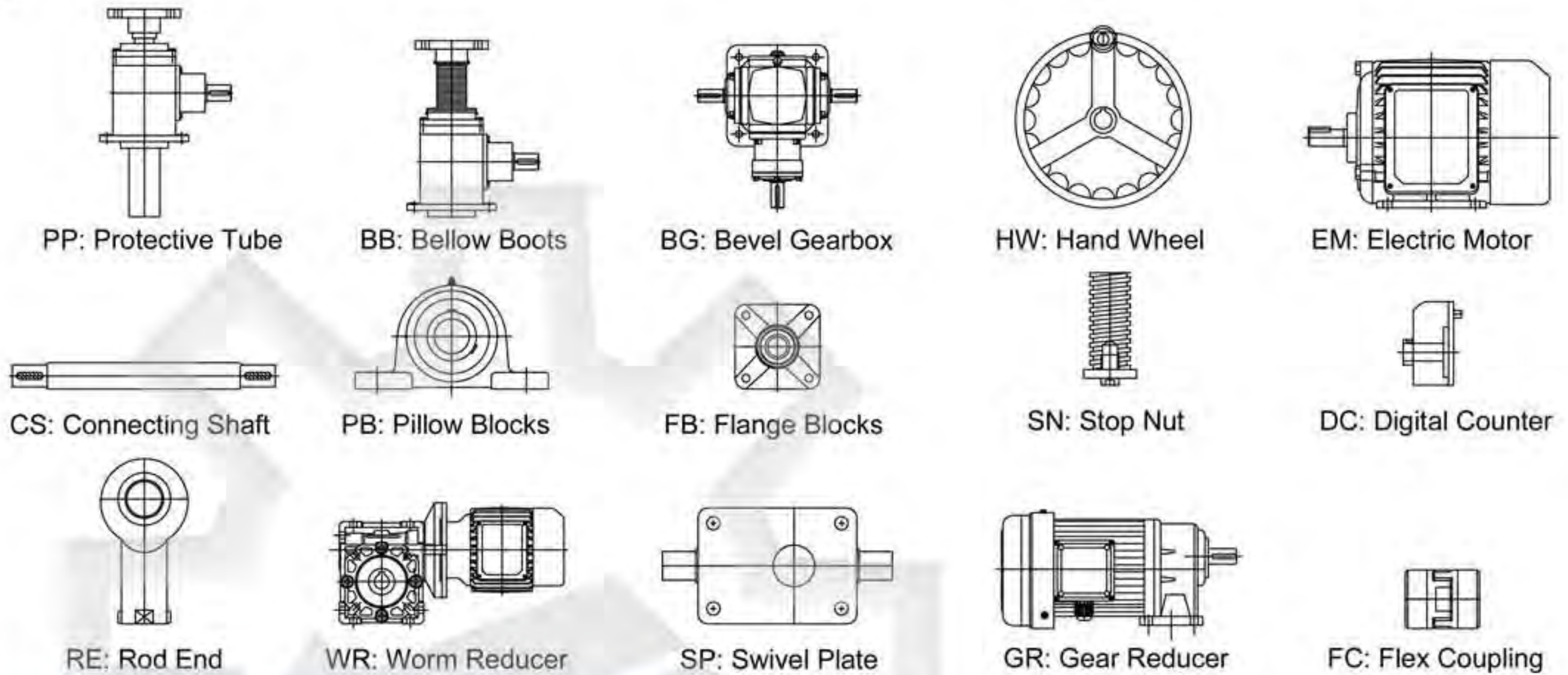


(6) Input Shafts Types



Sample Part Number

(7) Accessories



Specifications

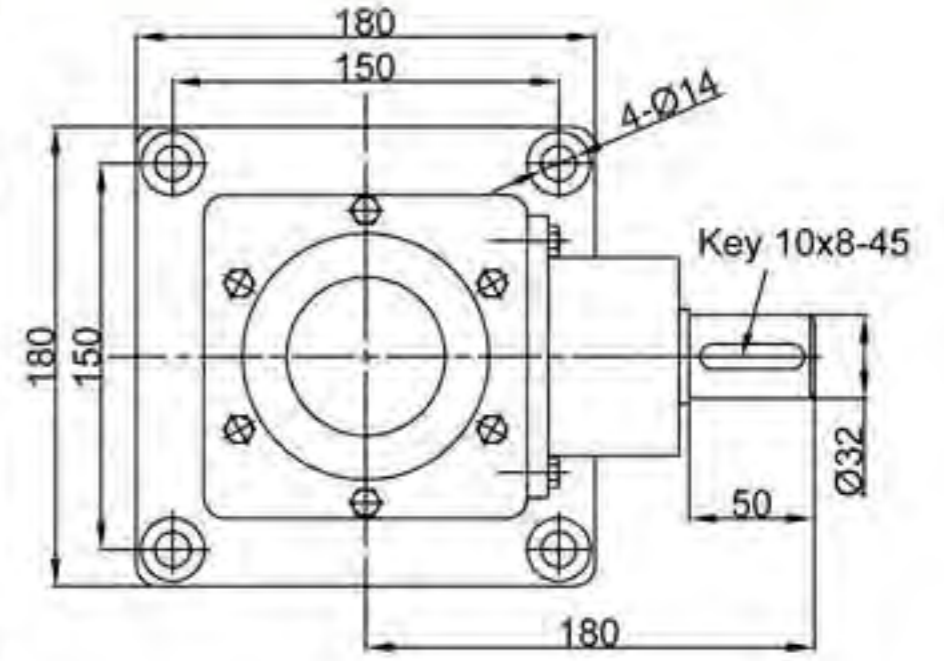
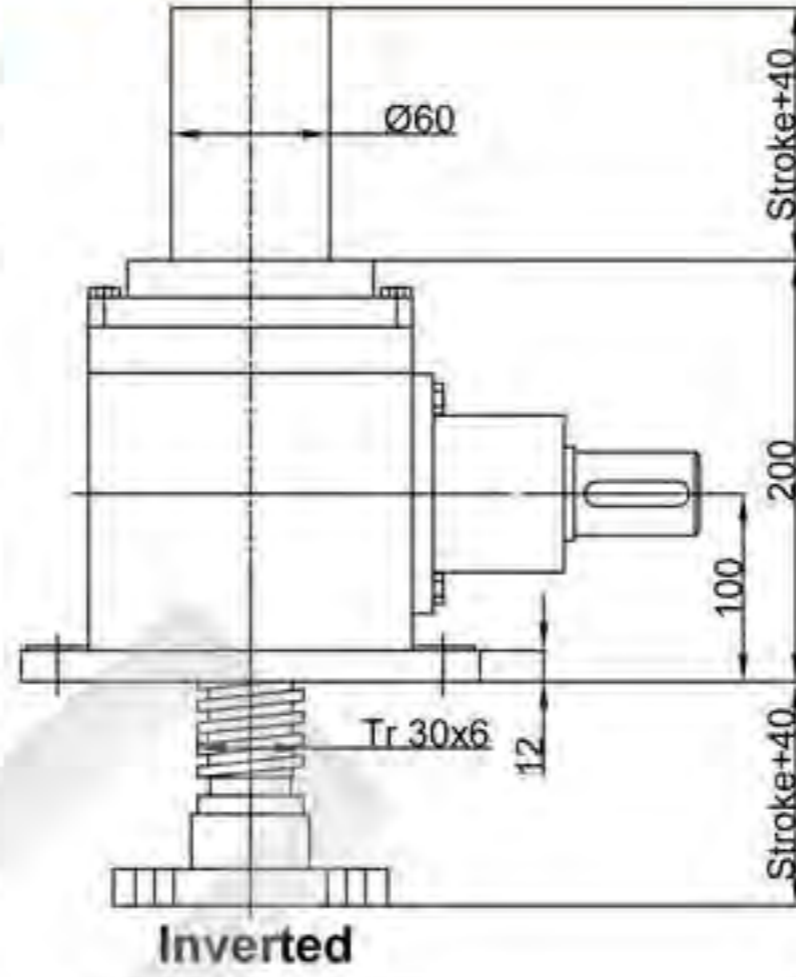
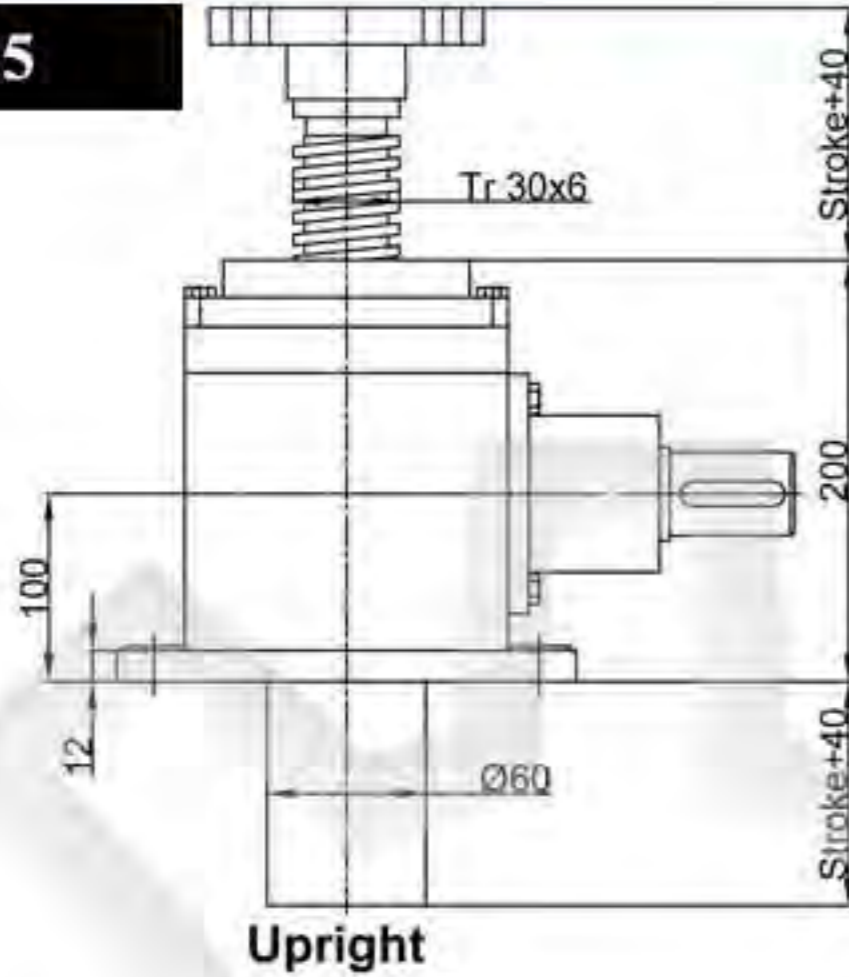
Remarks:

- 1) H: high ratio, L: slow ratio
- 2) Overall efficiency is under grease lubrication.
- 3) Self-locking under static conditions.

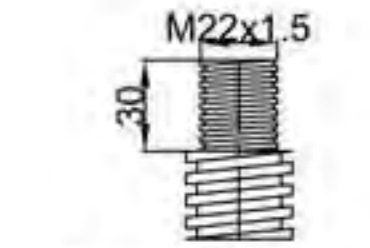
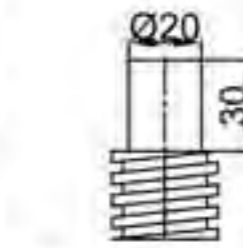
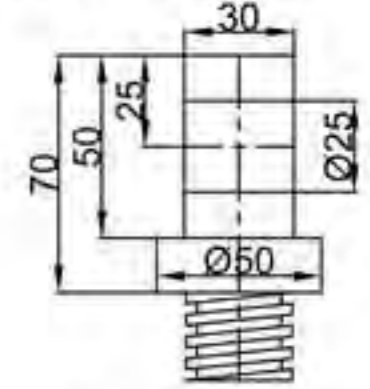
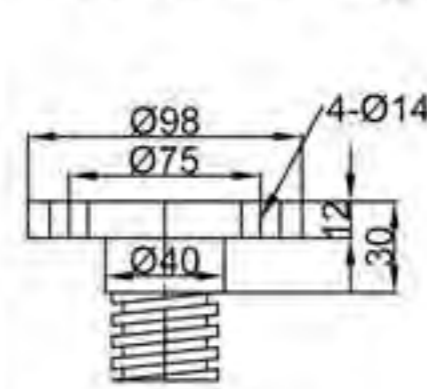
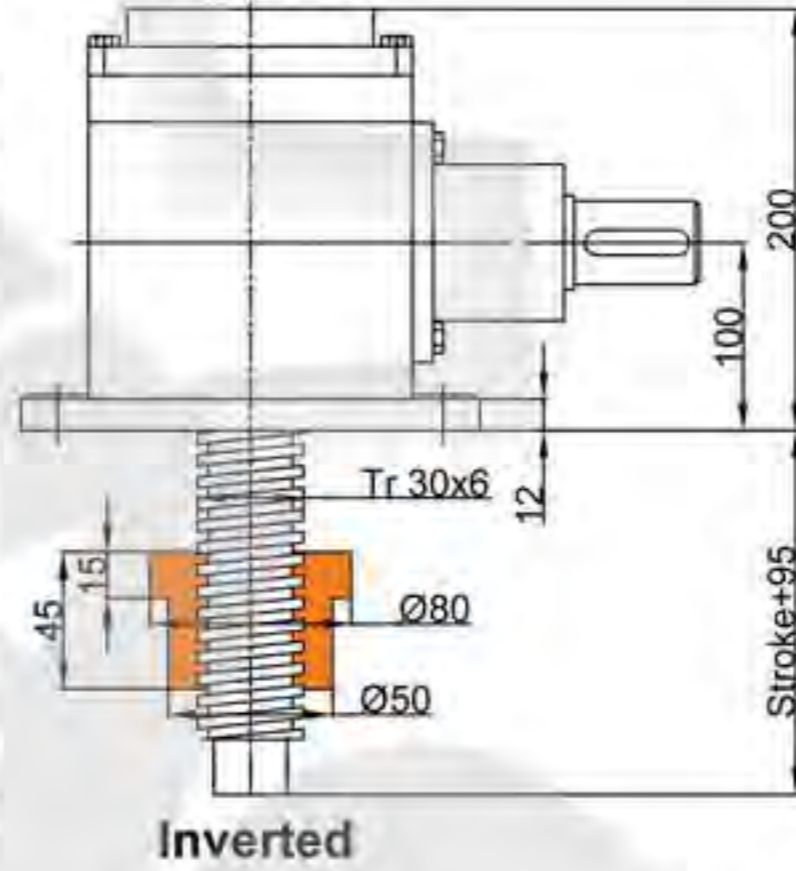
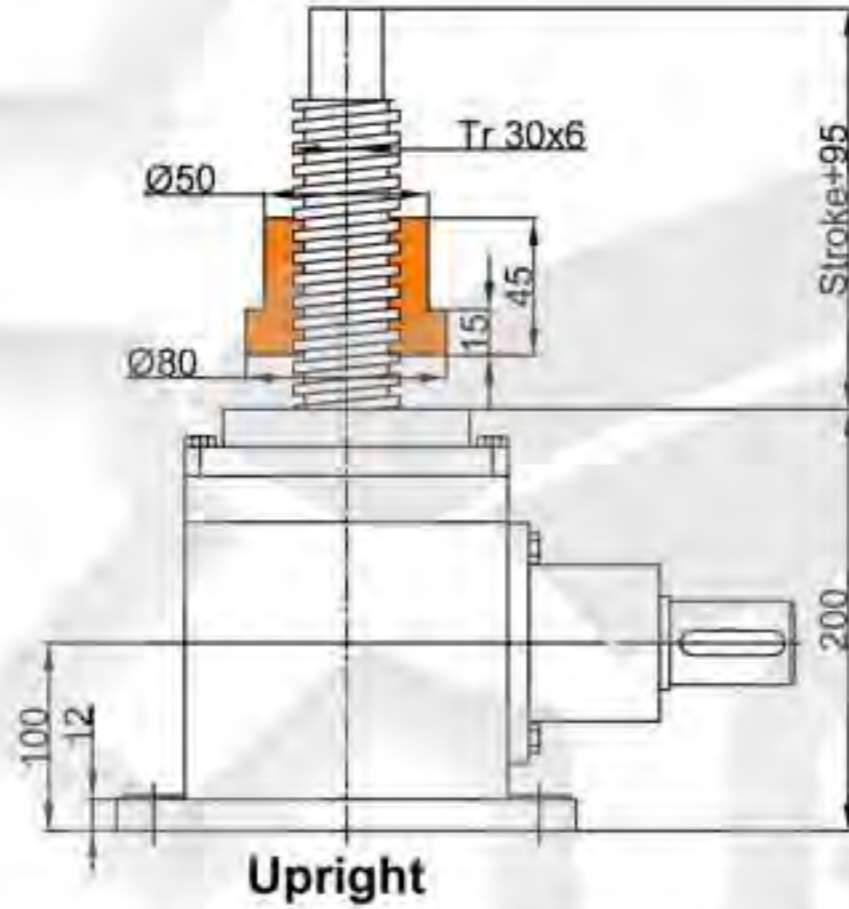
Model	JTS25	JTS50	JTS100	JTS200
Maximum lifting force (kN)	25	50	100	200
Lift screw sizes (mm)	Tr30 x 6	Tr40 x 7	Tr58 x 12	Tr65 x 12
Gear ratio	H 1:1	1:1	1:1	1:1
Lift screw travel (mm), per turn of input shaft	H 6	7	12	12
Gear ratio	L 2:1	2:1	2:1	2:1
Lift screw travel (mm), per turn of input shaft	L 3	3.5	6	6
Efficiency %	25	23	25	24
Lift screw with maximum extended length (mm)	1500	2000	2500	3000
Max. permissible input power (kw)	H 4.82	12.15	38.22	80
	L 2.41	6.07	19.11	40
Required torque of input shaft at max. load (Nm)	H 92	232	730	1528
	L 46	116	365	764
Max. permissible input speed (RPM)	H 500	500	500	500
	L 500	500	500	500
Permissible max. stroke (mm) of lift screw at max. compression load	Guided 400	770	800	1200
	Unguided 250	385	400	600
Weight without stroke (kg)	42	78	112	148
Weight of screw (kg), per 100 mm stroke	0.45	0.82	1.68	2.1
Lubricant (kg) - N320 or N680	0.6	1	3.3	4.8

Dimensions

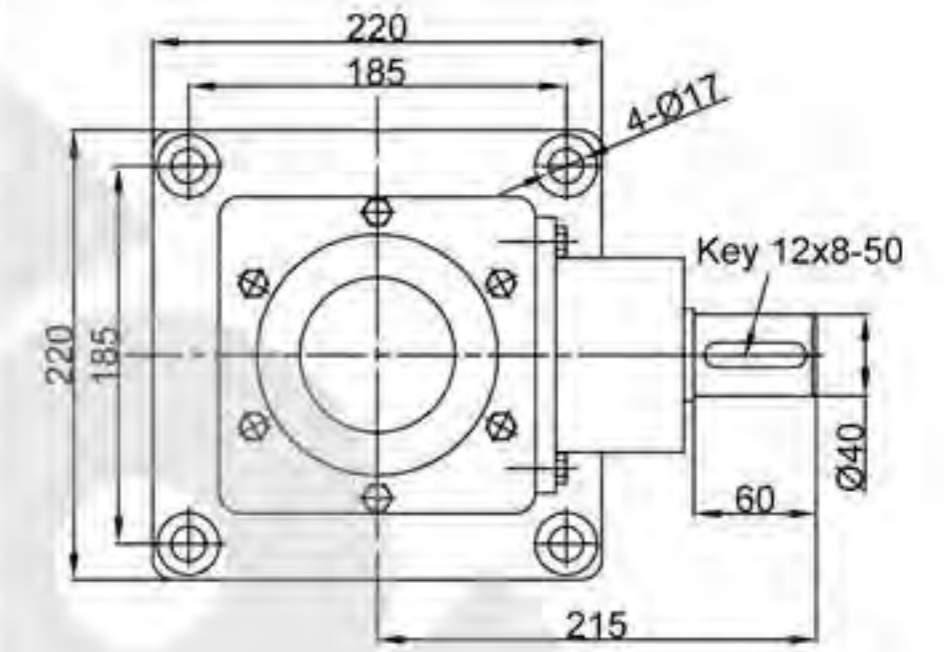
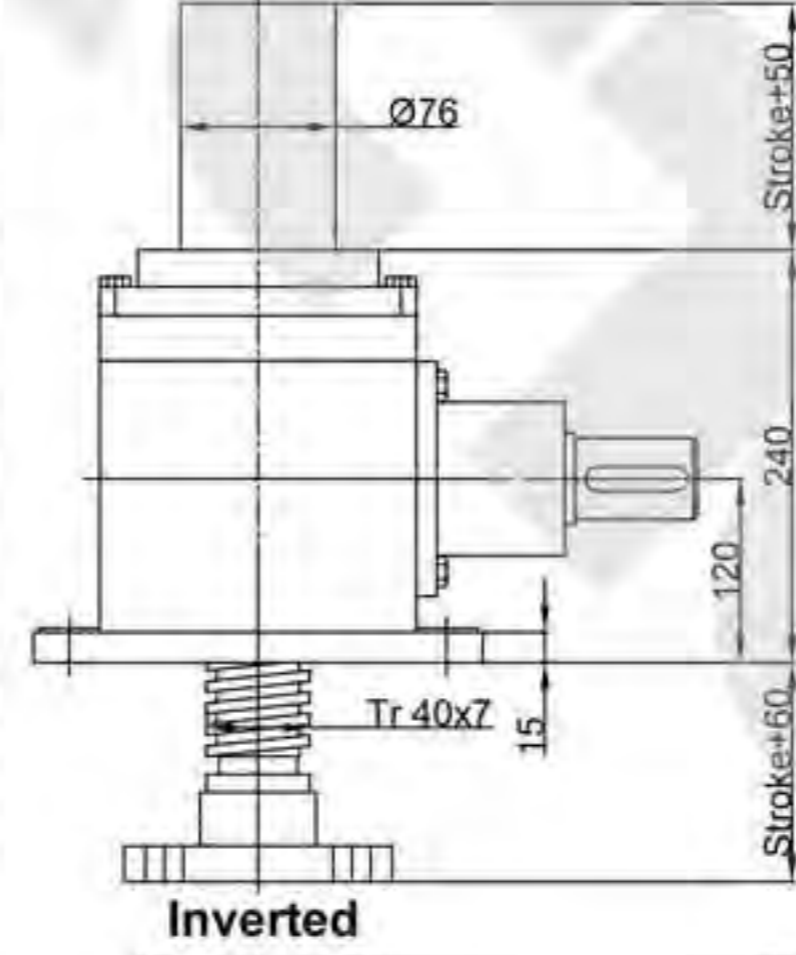
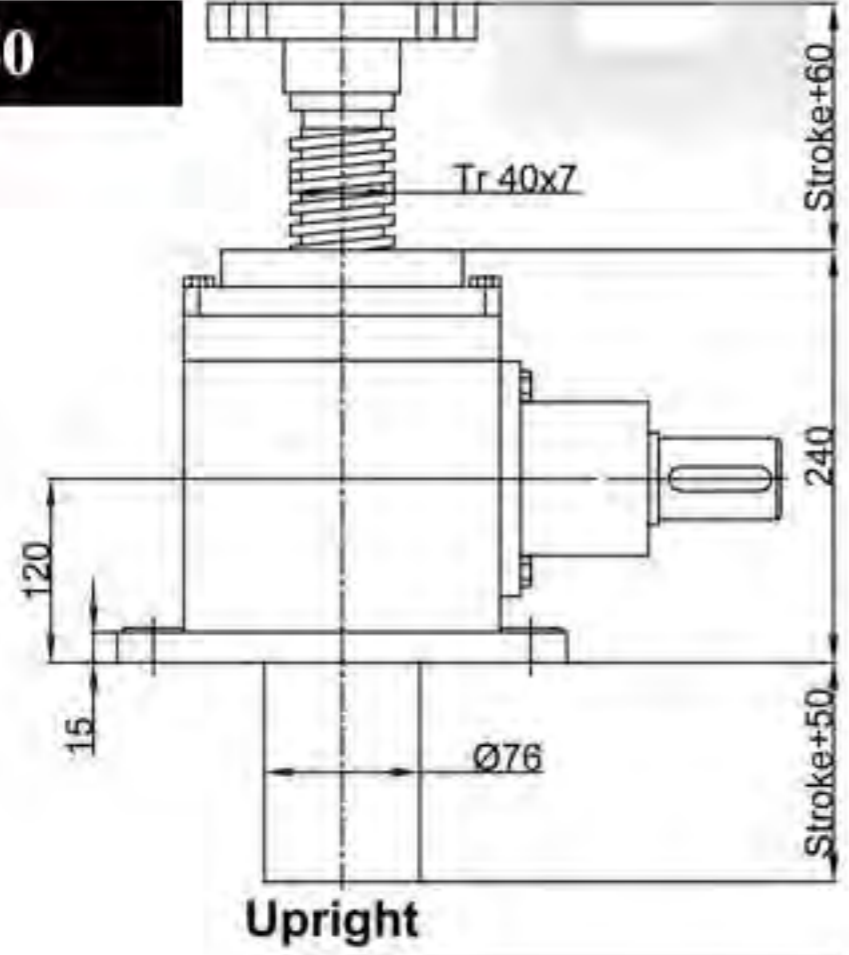
JTS25



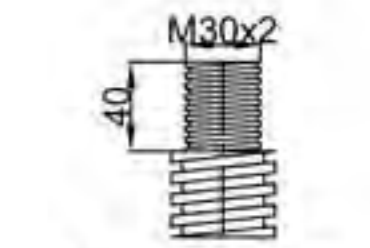
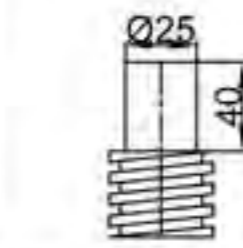
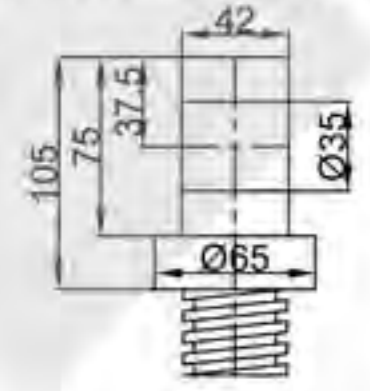
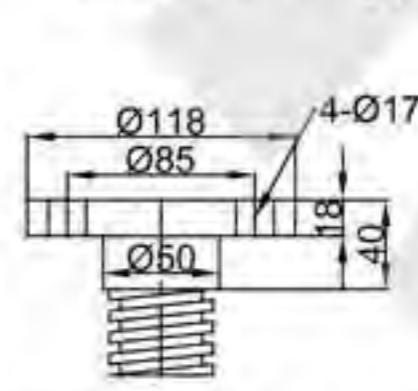
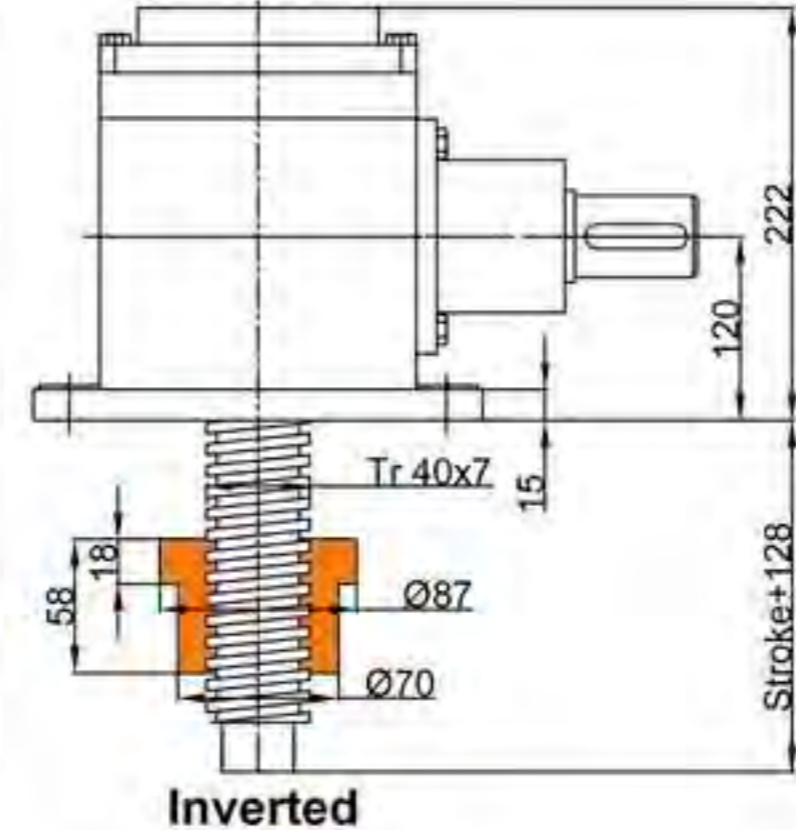
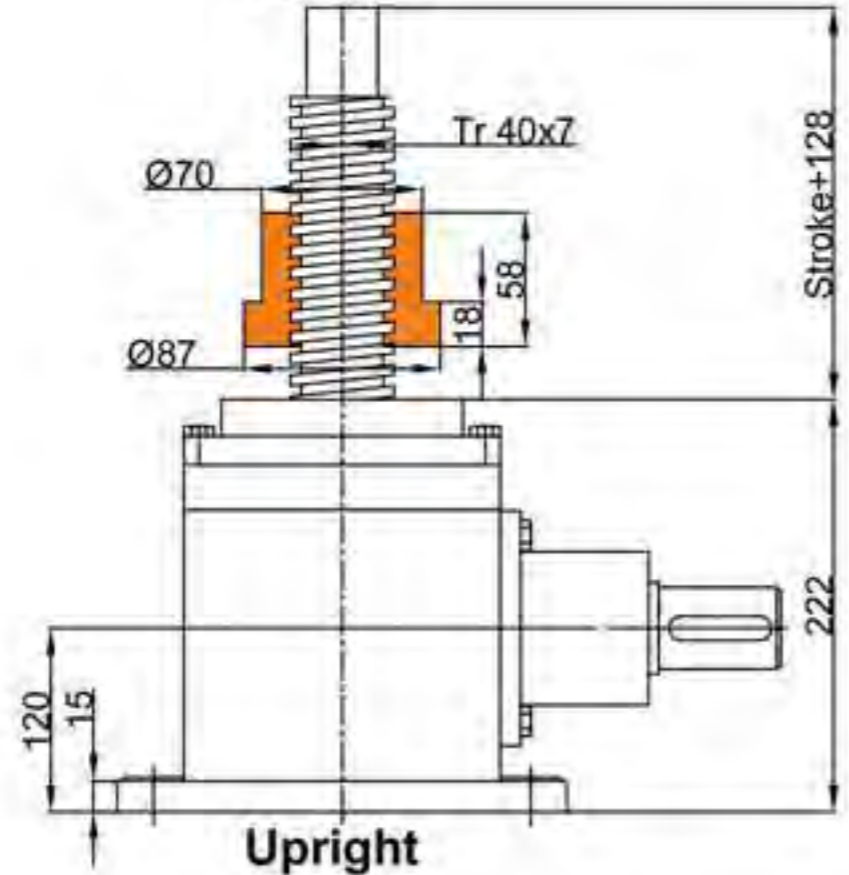
Screw End Types and Dimensions



JTS50

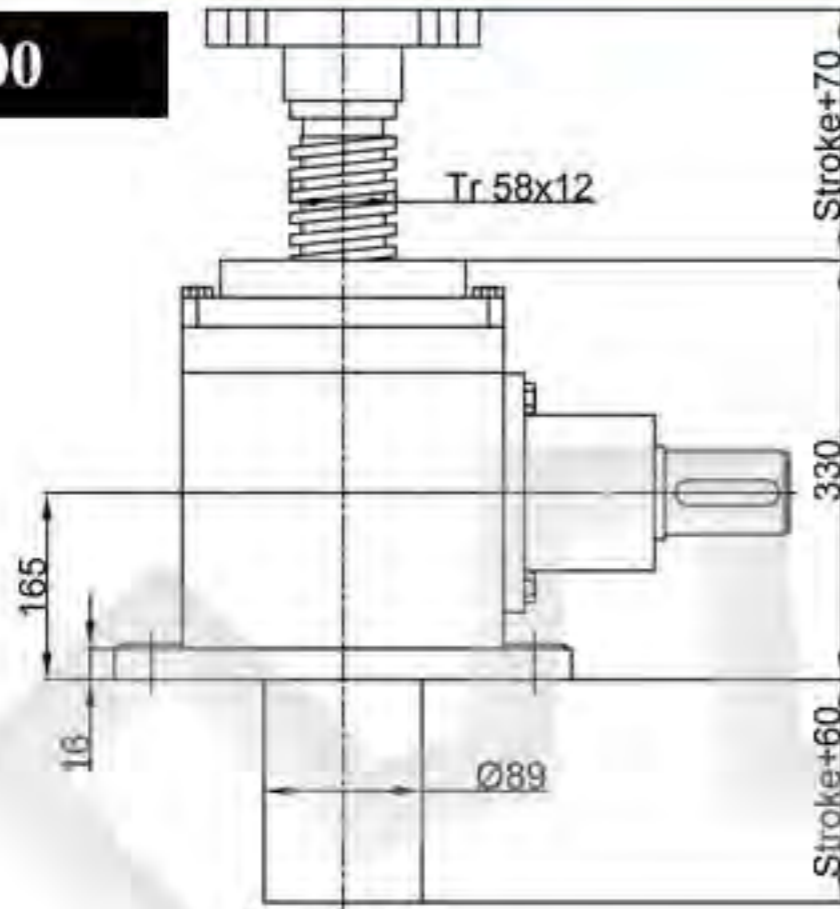


Screw End Types and Dimensions

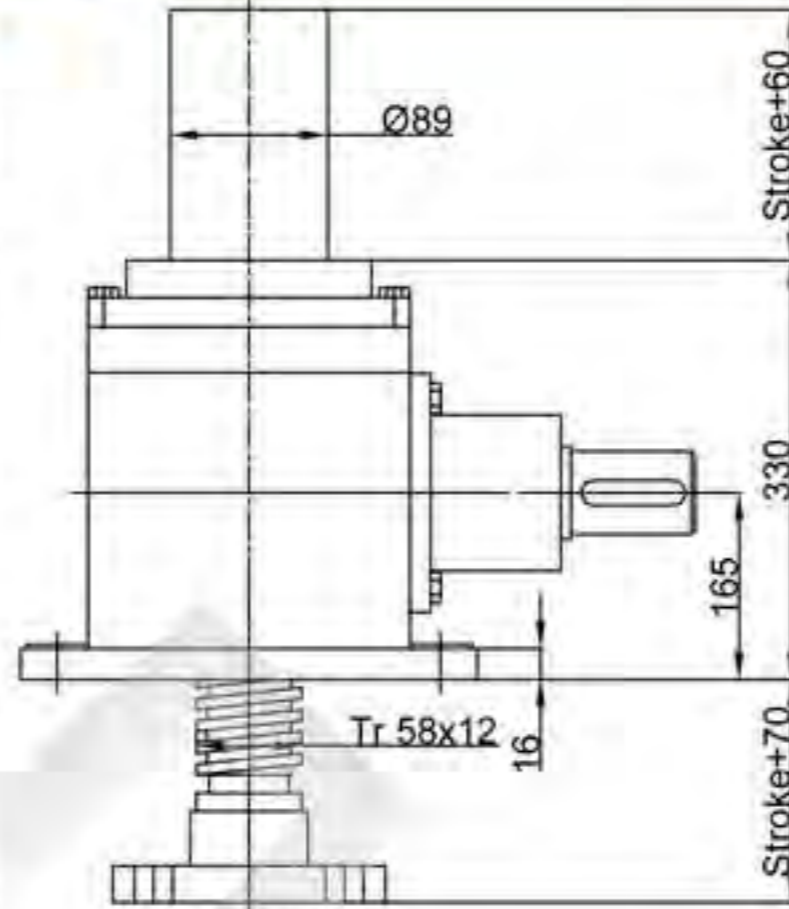


Dimensions

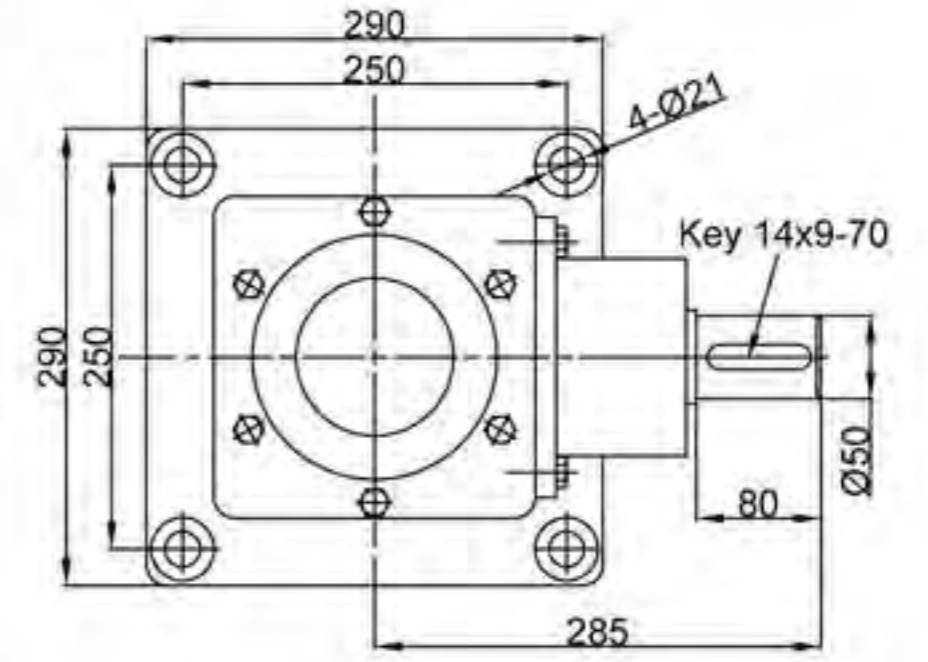
JTS100



Upright

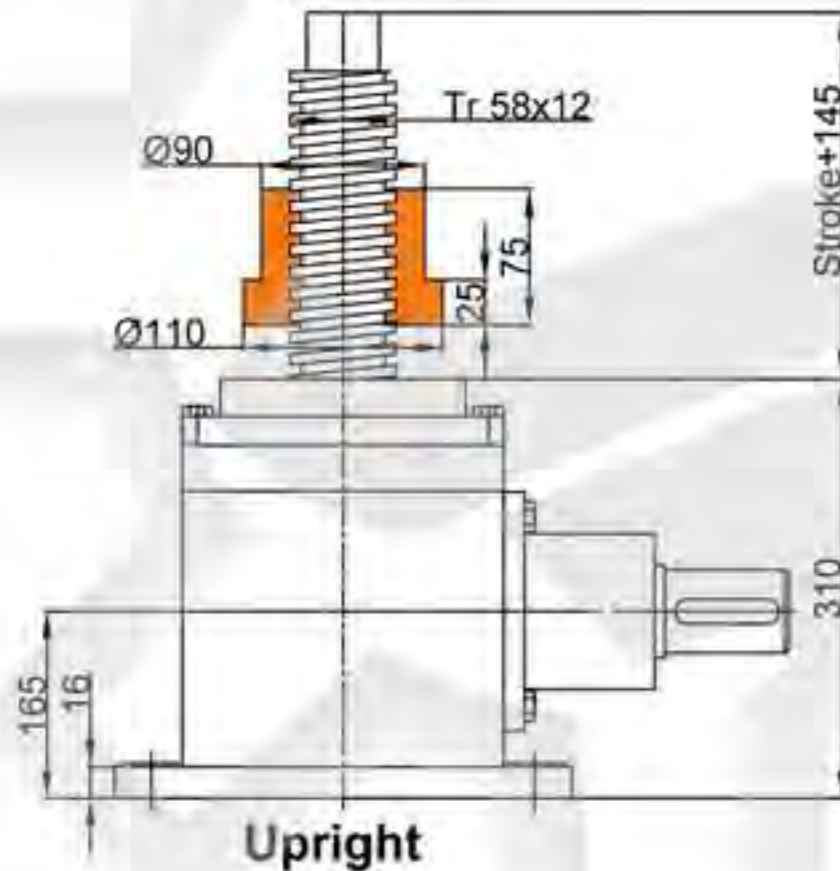


Inverted

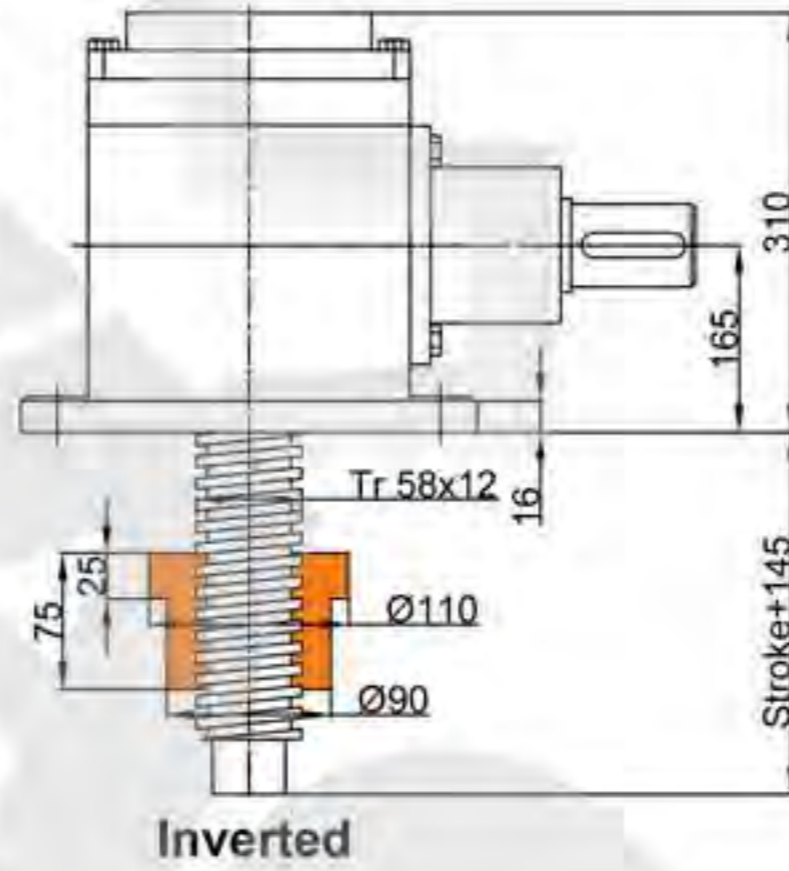


Plan View

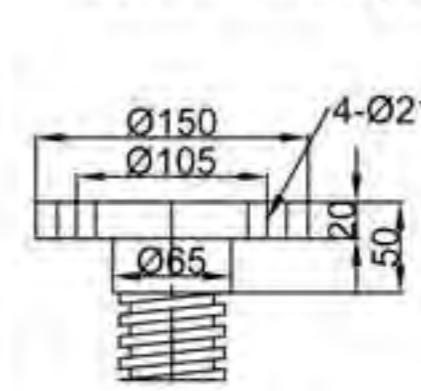
Screw End Types and Dimensions



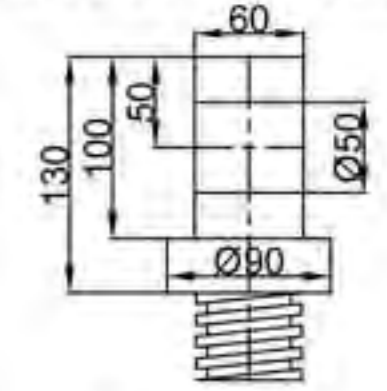
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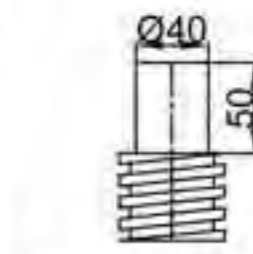
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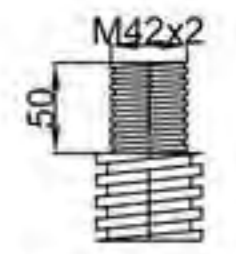
I Top Plate



II Clevis End

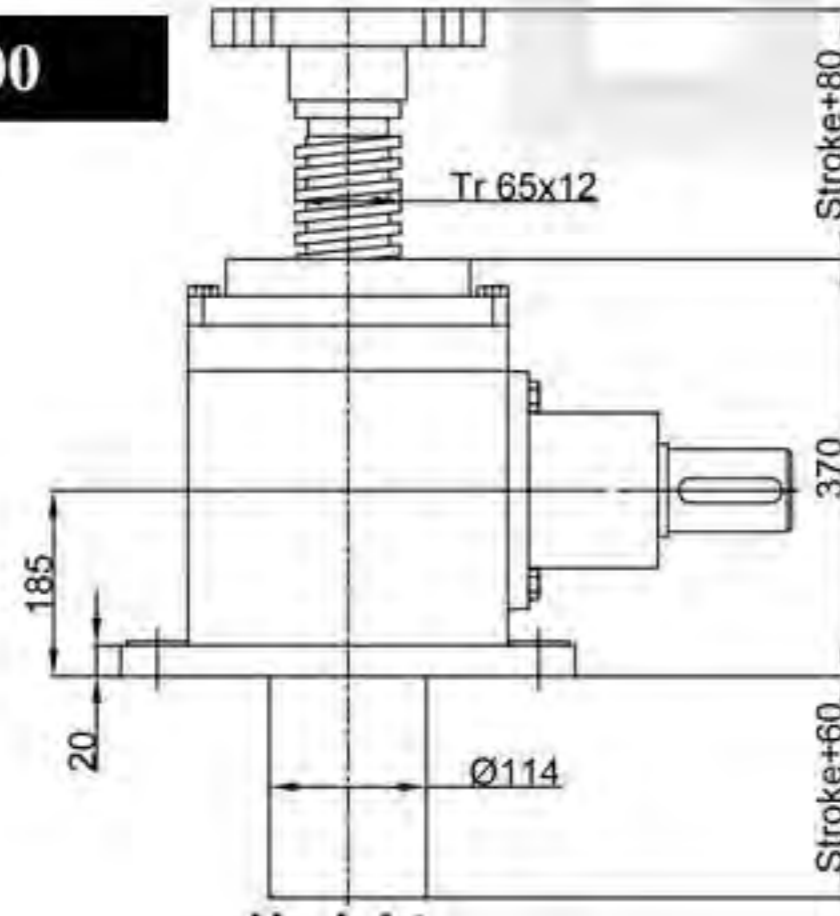


III Plain End

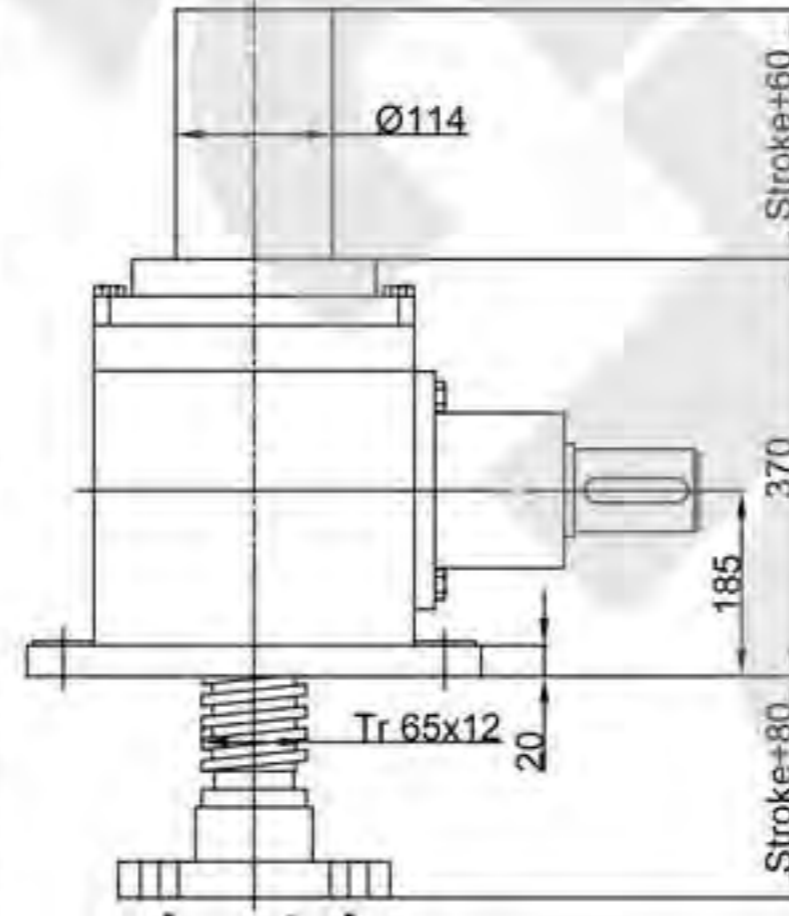


IV Thread End

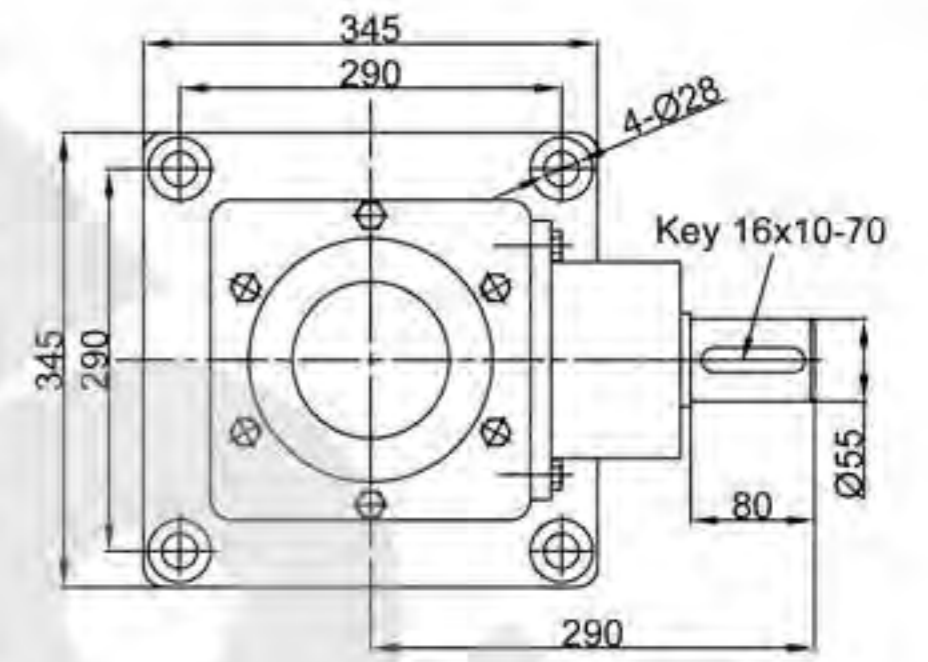
JTS200



Upright

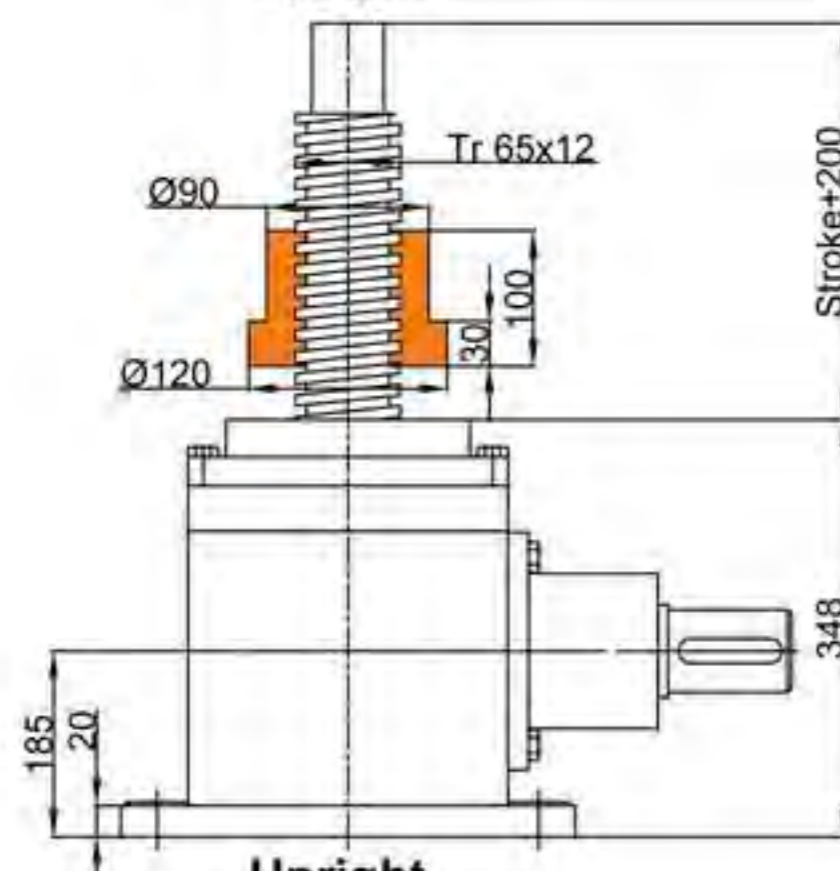


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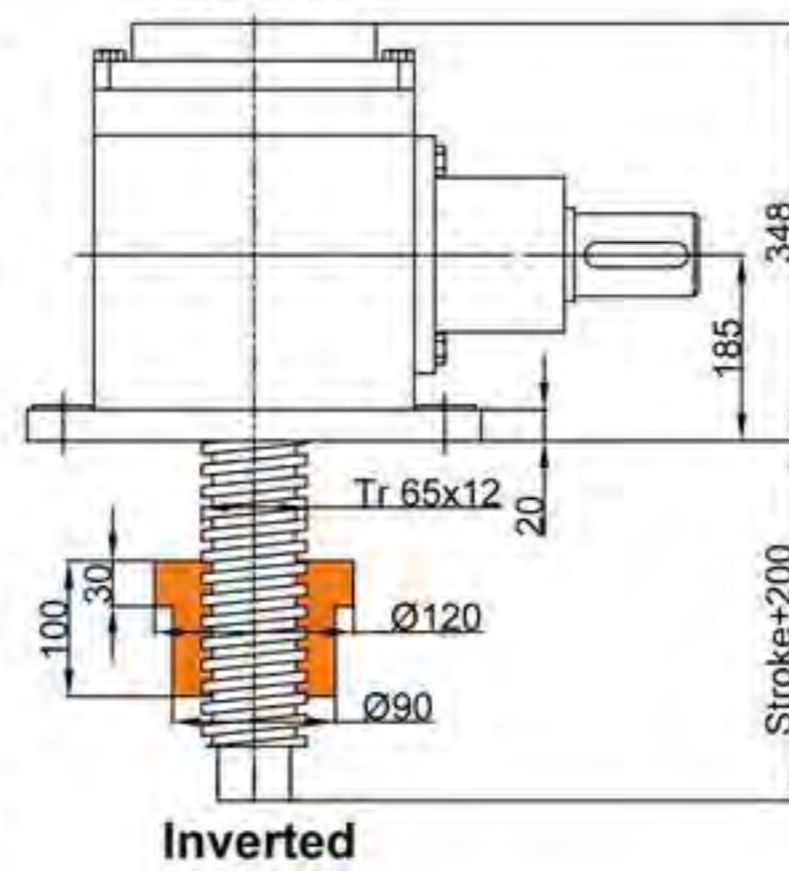


Plan View

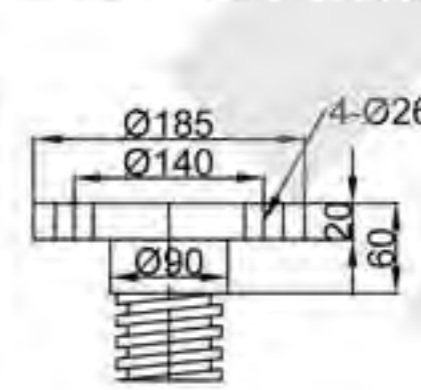
Screw End Types and Dimensions



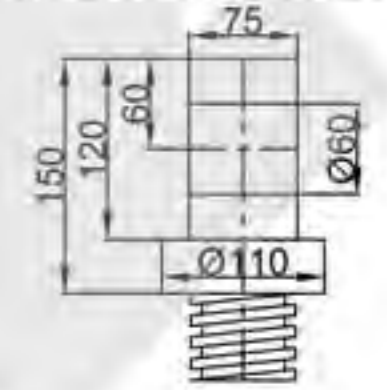
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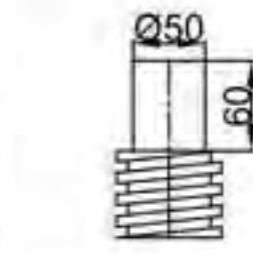
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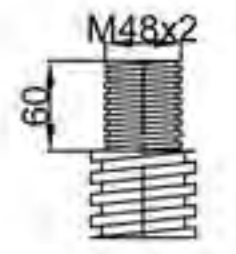
I Top Plate



II Clevis End



III Plain End



IV Thread End



*. Dimensions are subject to change without notice