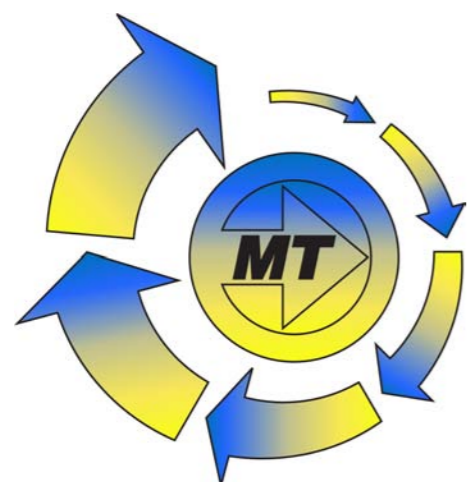


JSS

Stainless Steel Screw Jack

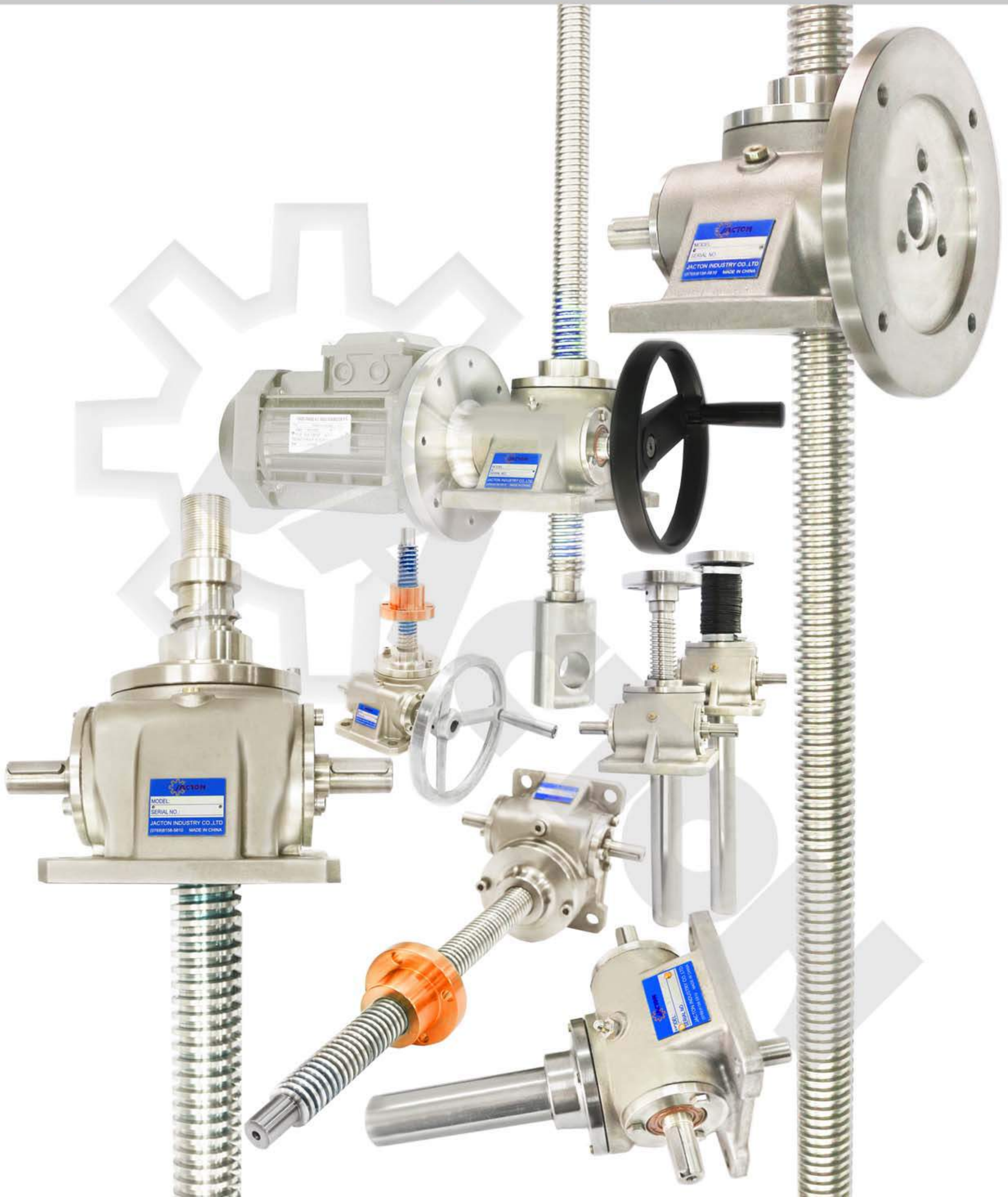
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2D/3D
CAD



Product Description

JACTON JSS Series Stainless Steel Screw Jack 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 Machines use stainless steel screw jacks. Due to the classic design, you don't need to attach any construction elements to the housing. In the absence of vibration load, they have self locking and precisely position loads, will hold loads without backdriving, and no need any brake mechanism or locking system. Can be mounted in any attitude. Generally maintenance free.

● Features:

- * Self locking stainless screw, precise positioning, and uniform speed.
- * Available in 5 sizes from JSS-1T to JSS-20T.
- * Static load capacity from 1 Ton to 20 Ton.
- * Stainless screw diameter from 24 mm to 65 mm.
- * Standard stainless 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.
- * Models JSS-1T to JSS-20T have THREE gear ratios (High ratio, Medium ratio, Slow ratio).
- * Standard with 1-start stainless screw, custom 2-starts stainless screw which offers increased travel speed and require a brake or external locking device to hold position.
- * Custom-made stainless screw diameter and pitch, gear ratios, and worm shaft sizes.
- * Stainless 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.
- * Single unit use, or complete jacking system including gear motors, bevel gearboxes, connecting shafts and couplings for dual or multiple jack arrangements.
- * Custom-made double clevis stainless steel screw jack, anti-backlash stainless steel screw jack.
- * Can be used as alternatives to hydraulic and pneumatic systems.

Product Description

● **Materials:**

- * Lifting Screw: Stainless steel #304. Custom stainless steel #316.
- * Worm(Input Shaft): Hardened worm, stainless steel #304. Custom stainless steel #316.
- * Worm Gear(Wheel): High strength bronze.
- * Travelling Nut and Safety Nut: High strength bronze.
- * Housing(Gearbox): Stainless steel #304.
- * All Covers of Housing(Gearbox): Stainless steel #304.
- * Bearings: Bearing steel as standard. Custom stainless steel #304.
- * Lifting Screw Ends: Stainless steel #304.
- * Motor Flanges: Stainless steel #304.
- * Protective tube: Stainless steel #304.
- * Locking screws and Keys: Stainless steel #304.

● **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.



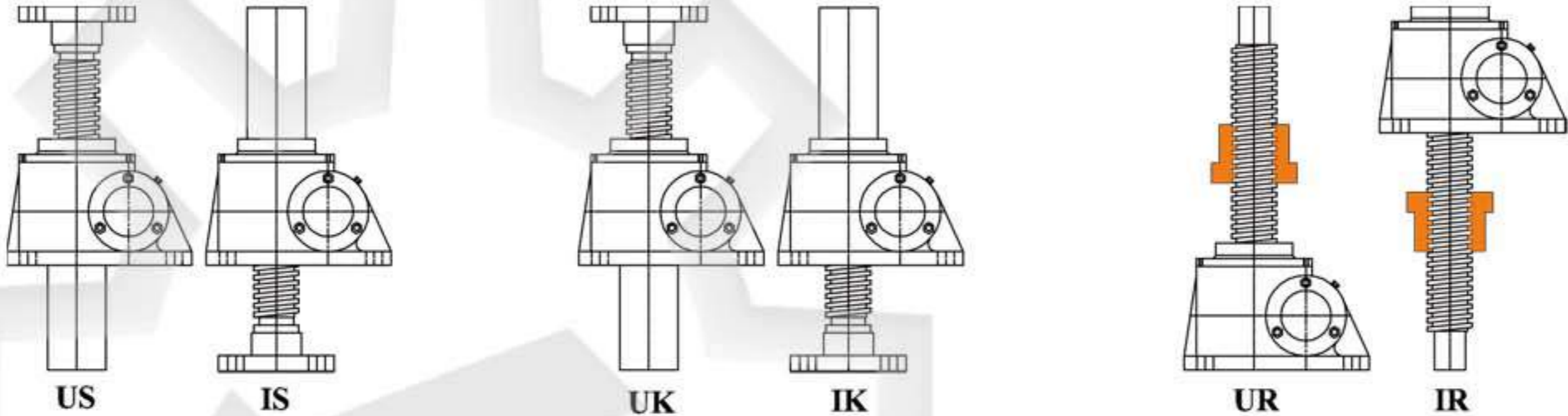
Sample Part Number

Sample Part Number: JSS-5T - US - 300 - H - I - C - PP
 (1) (2) (3) (4) (5) (6) (7)

(1) Models & (4) Ratios

JSS-1T (Tr24x4) H:1/6, L:1/24	JSS-2.5T (Tr30x6) H:1/6, L:1/24	JSS-5T (Tr40x7) H:1/6, L:1/24	JSS-10T (Tr58x12) H:1/8, L:1/24	JSS-20T (Tr65x12) H:1/8, L:1/24
H: High Gear Ratios, L: Slow Gear Ratio				

(2) Jack Designs and Configurations

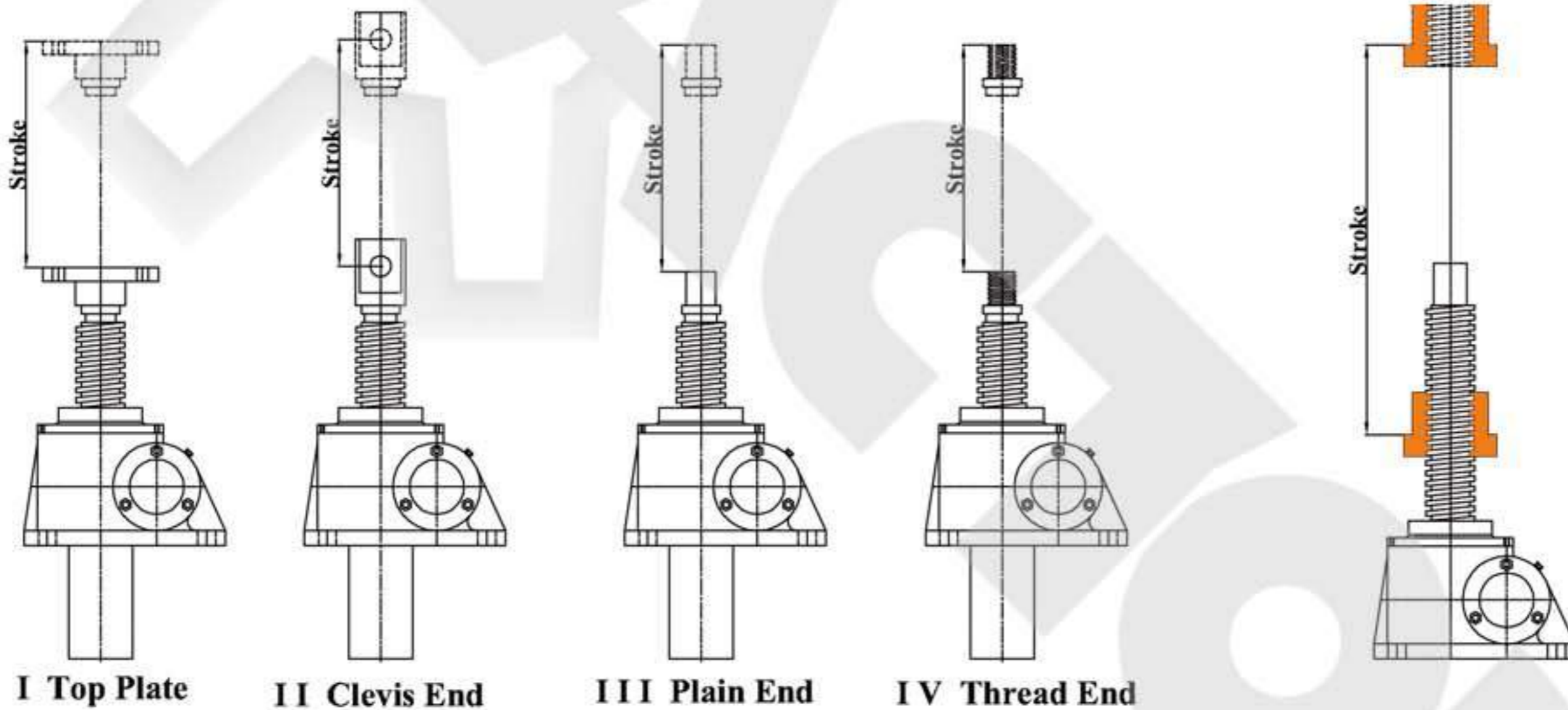


US: Upright Mounting, Translating Screw
IS: Inverted Mounting, Translating Screw

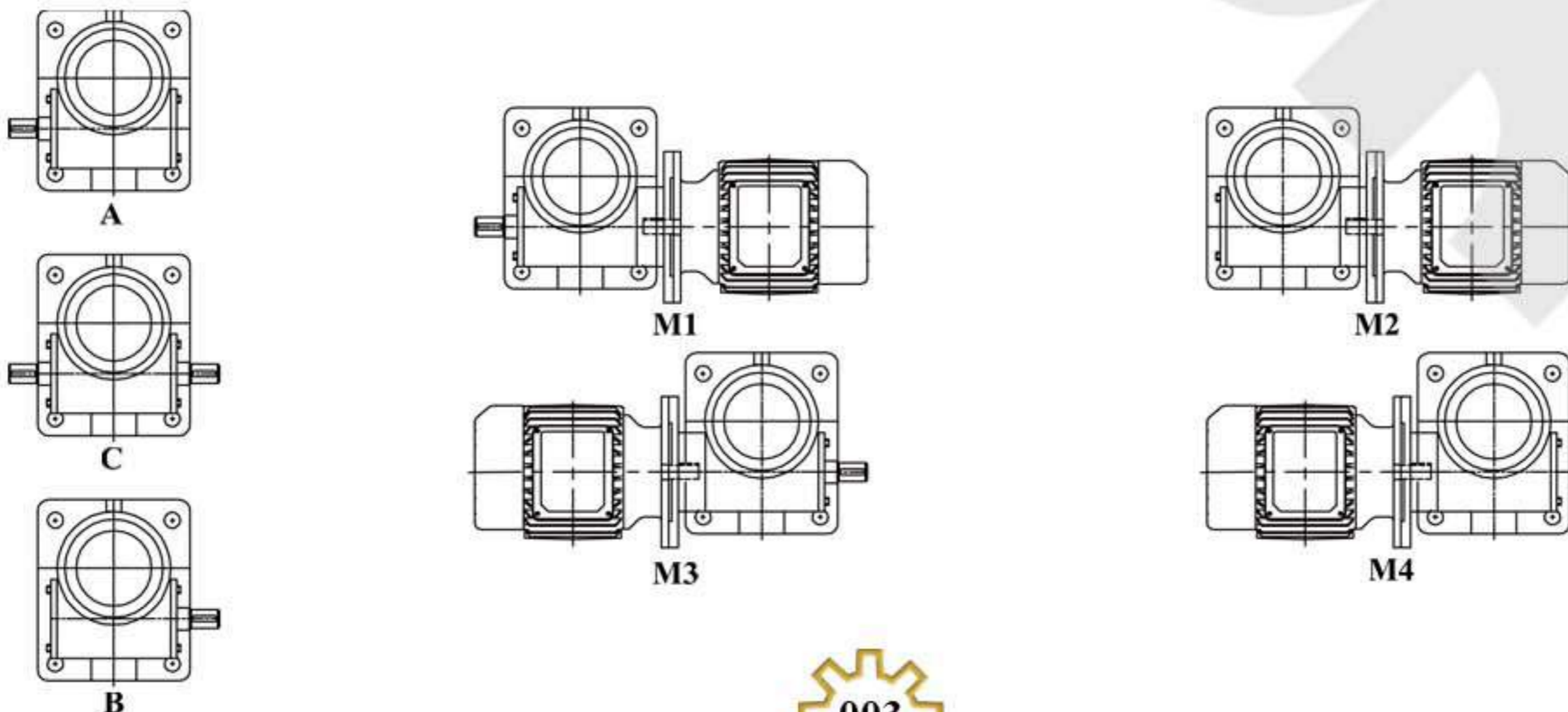
UK: Upright Mounting, Keyed Screw
IK: Inverted Mounting, Keyed Screw

UR: Upright Mounting, Rotating Screw
IR: Inverted Mounting, Rotating Screw

(3) Stroke & (5) Screw End Fittings

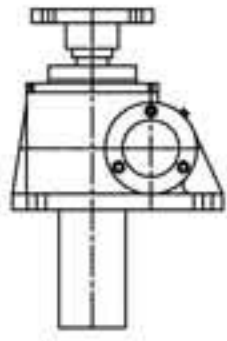


(6) Input Shafts Types & Motor Flange Types

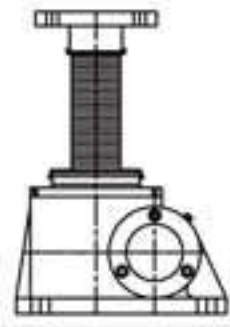


Sample Part Number

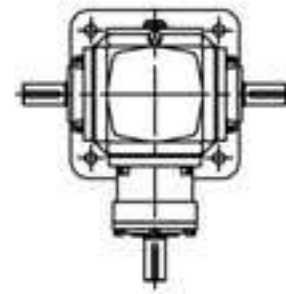
(7) Accessories



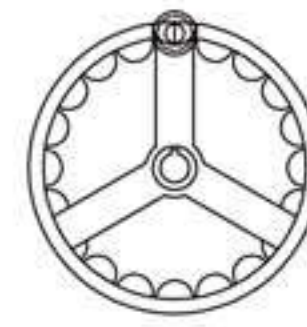
PP: Protective Tube



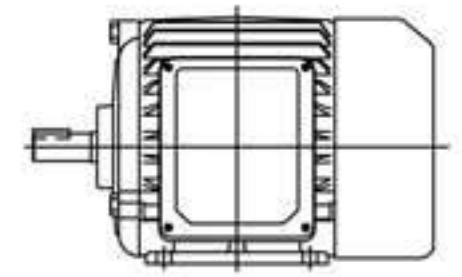
BB: Bellow Boots



BG: Bevel Gearbox



HW: Hand Wheel



EM: Electric Motor



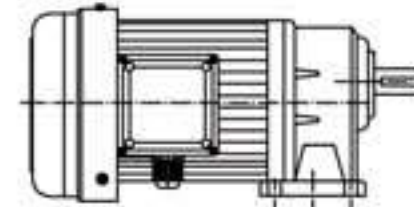
CS: Connecting Shaft



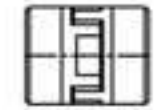
PB: Pillow Blocks



FB: Flange Blocks



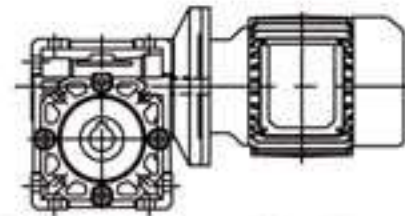
GR: Gear Reducer



FC: Flex Coupling



RE: Rod End



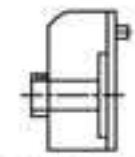
WR: Worm Reducer



SP: Swivel Plate



SN: Stop Nut



DC: Digital Counter

Specifications

Remarks:

- 1) H: high ratio, L: slow ratio
- 2) Max. allowable power is under the conditions that ambient temperature 20 degree C, duty cycle 20%h and input speed 1500rpm.
- 3) Overall efficiency is under grease lubrication.
- 4) Self-locking under static conditions.

Model	JSS-1T	JSS-2.5T	JSS-5T	JSS-10T	JSS-20T
Max. lifting force (ton)	1	2.5	5	10	20
Max. pulling force (ton)	1	2.5	5	9.9	16.6
Lift screw sizes (mm)	Tr24 x 4	Tr30 x 6	Tr40 x 7	Tr58 x 12	Tr65 x 12
Gear ratio (H)	6:1	6:1	6:1	8:1	8:1
Lift screw travel (mm), per turn of input shaft (H)	0.667	1	1.167	1.5	1.5
Efficiency % (H)	21	23	21	23	21
Gear ratio (L)	24:1	24:1	24:1	24:1	24:1
Lift screw travel (mm), per turn of input shaft (L)	0.167	0.25	0.292	0.5	0.5
Efficiency % (L)	13	14	12	15	13
Max. length of lift screw (mm), when max. tensile force	1200	1500	2000	2500	3000
Max. allowable power (kw)	0.25	0.55	1.1	2.6	3.7
Lubricant (kg)	0.05	0.1	0.25	0.5	0.75
Weight without stroke (kg)	4	7.3	16.2	25	36
Weight of screw (kg), per 100 mm stroke	0.3	0.45	0.82	1.67	2.15

Performance Tables

* **Note:** The dark gray figures in the tables indicates operational restrictions due to thermal limits. Static only (dynamic not permitted).

Selection of screw jacks using these figures should only be carried out in consultation with our engineers. When your selection is made within

the areas dark gray, you will need to reduce duty cycle or choose larger model screw jacks in order to allow effective heat dissipation.

* **Conditions:** Duty cycle 20%/h or 30%/10min, 20 °C ambient temperature.

* **Gear Ratios:** H: high ratio, L: slow ratio.

* **Nm:** Input torque required, kW: Input power required.

JSS-1T (Tr24 x 4)

Input Speed (RPM)	Lifting Speed (MM/MIN)		F=1 Ton		F=0.8 Ton		F=0.6 Ton		F=0.4 Ton		F=0.3 Ton		F=0.2 Ton		F=0.1 Ton	
			H	L	H	L	H	L	H	L	H	L	H	L	H	L
	H	L	6.6Nm	2.7Nm	5.3Nm	2.1Nm	4.0Nm	1.6Nm	2.7Nm	1.0Nm	2.0Nm	0.8Nm	1.3Nm	0.53Nm	0.66Nm	0.27Nm
			kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1500	1000.0	250.0	1.00	0.40	0.80	0.32	0.60	0.24	0.40	0.16	0.30	0.12	0.20	0.08	0.10	0.04
1000	666.7	166.7	0.67	0.27	0.53	0.21	0.40	0.16	0.27	0.11	0.20	0.08	0.13	0.05	0.07	0.03
750	500.0	125.0	0.50	0.20	0.40	0.16	0.30	0.12	0.20	0.08	0.15	0.06	0.10	0.04	0.05	0.02
500	333.3	83.3	0.33	0.13	0.27	0.11	0.20	0.08	0.13	0.05	0.10	0.04	0.07	0.03	0.03	0.01
300	200.0	50.0	0.20	0.08	0.16	0.06	0.12	0.05	0.08	0.03	0.06	0.02	0.04	0.02	0.02	0.01
200	133.3	33.3	0.13	0.05	0.11	0.04	0.08	0.03	0.05	0.02	0.04	0.02	0.03	0.01	0.01	0.01
100	66.7	16.7	0.07	0.03	0.05	0.02	0.04	0.02	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.00
50	33.3	8.3	0.03	0.01	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00

JSS-2.5T (Tr30 x 6)

Input Speed (RPM)	Lifting Speed (MM/MIN)		F=2.5 Ton		F=2.0 Ton		F=1.5 Ton		F=1.0 Ton		F=0.5 Ton		F=0.25 Ton		F=0.1 Ton	
			H	L	H	L	H	L	H	L	H	L	H	L	H	L
	H	L	18Nm	7.1Nm	14Nm	5.7Nm	11Nm	4.3Nm	6.9Nm	2.9Nm	3.5Nm	1.4Nm	1.7Nm	0.71Nm	0.7Nm	0.28Nm
			kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1500	1500	375	2.70	1.20	2.20	0.89	1.70	0.67	1.10	0.45	0.54	0.22	0.27	0.11	0.11	0.05
1000	1000	250	1.80	0.74	1.50	0.60	1.10	0.45	0.72	0.30	0.36	0.15	0.18	0.07	0.07	0.05
750	750	187.5	1.40	0.56	1.10	0.45	0.82	0.33	0.54	0.22	0.27	0.11	0.14	0.06	0.05	0.05
500	500	125	0.91	0.37	0.72	0.30	0.54	0.22	0.36	0.15	0.18	0.07	0.09	0.05	0.05	0.05
300	300	75	0.54	0.22	0.43	0.18	0.33	0.13	0.22	0.09	0.11	0.05	0.05	0.05	0.05	0.05
200	200	50	0.36	0.15	0.29	0.12	0.22	0.09	0.14	0.06	0.07	0.05	0.05	0.05	0.05	0.05
100	100	25	0.18	0.07	0.14	0.06	0.11	0.05	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05
50	50	12.5	0.09	0.05	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05

JSS-5T (Tr40 x 7)

Input Speed (RPM)	Lifting Speed (MM/MIN)		F=5 Ton		F=4 Ton		F=3 Ton		F=2 Ton		F=1 Ton		F=0.5 Ton		F=0.25 Ton	
			H	L	H	L	H	L	H	L	H	L	H	L	H	L
	H	L	44.2Nm	19.3Nm	35.4Nm	15.5Nm	26.5Nm	11.6Nm	17.7Nm	7.7Nm	8.8Nm	3.9Nm	4.4Nm	1.9Nm	2.2Nm	1.0Nm
			kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1500	1750.0	437.5	6.90	3.00	5.60	2.40	4.20	1.80	2.80	1.20	1.40	0.60	0.70	0.30	0.30	0.20
1000	1166.7	291.7	4.60	2.00	3.70	1.60	2.80	1.20	1.90	0.80	0.90	0.40	0.50	0.20	0.20	0.10
750	875.0	218.8	3.50	1.50	2.80	1.20	2.10	0.90	1.40	0.60	0.70	0.30	0.30	0.20	0.20	0.10
500	583.3	145.8	2.30	1.00	1.90	0.80	1.40	0.60	0.90	0.40	0.50	0.20	0.20	0.10	0.10	0.10
300	350.0	87.5	1.40	0.60	1.10	0.50	0.80	0.40	0.60	0.20	0.30	0.10	0.10	0.10	0.10	0.10
200	233.3	58.3	0.90	0.40	0.70	0.30	0.60	0.20	0.40	0.20	0.20	0.10	0.10	0.10	0.10	0.10
100	116.7	29.2	0.50	0.20	0.40	0.20	0.30	0.10	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10
50	58.3	14.6	0.20	0.10	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

Performance Tables

JSS-10T (Tr58 x 12)

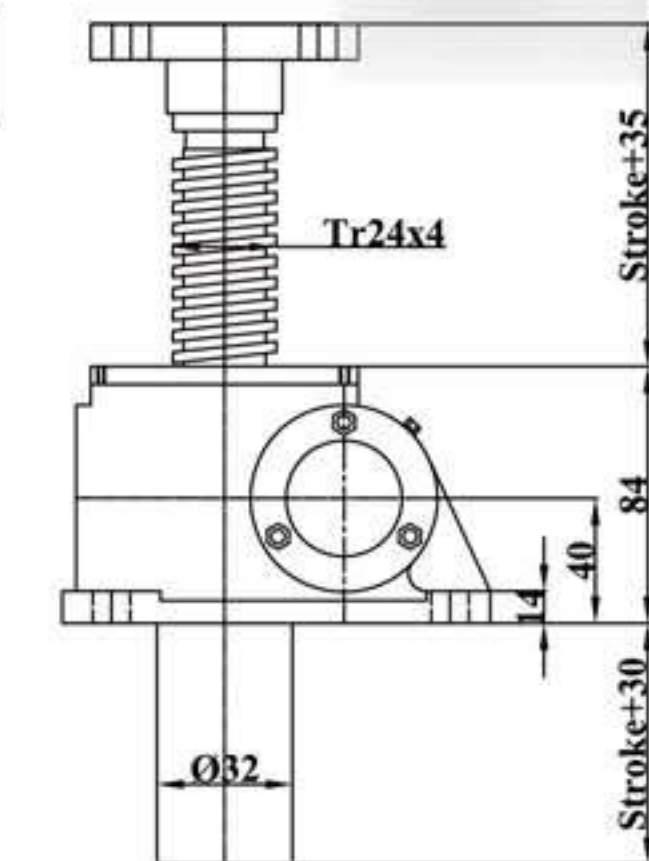
Input Speed (RPM)	Lifting Speed (MM/MIN)		F=10 Ton		F=8 Ton		F=6 Ton		F=4 Ton		F=2 Ton		F=1 Ton		F=0.5 Ton	
			H	L	H	L	H	L	H	L	H	L	H	L	H	L
			108Nm	53Nm	87Nm	43Nm	65Nm	32Nm	44Nm	22Nm	22Nm	11Nm	11Nm	5.3Nm	5.4Nm	2.7Nm
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1500	2250	750	17.00	8.30	14.00	6.70	11.00	5.00	6.80	3.30	3.40	1.70	1.70	0.80	0.90	0.40
1000	1500	500	12.00	5.60	9.10	4.40	6.80	3.30	4.50	2.20	2.30	1.10	1.10	0.60	0.60	0.30
750	1125	375	8.50	4.20	6.80	3.30	5.10	2.50	3.40	1.70	1.70	0.80	0.90	0.40	0.40	0.20
500	750	250	5.70	2.80	4.50	2.20	3.40	1.70	2.30	1.10	1.10	0.60	0.60	0.30	0.30	0.10
300	450	150	3.40	1.70	2.70	1.30	2.00	1.00	1.40	0.70	0.70	0.30	0.30	0.20	0.20	0.10
200	300	100	2.30	1.10	1.80	0.90	1.40	0.70	0.90	0.40	0.50	0.20	0.20	0.10	0.10	0.10
100	150	50	1.10	0.60	0.90	0.40	0.70	0.30	0.50	0.20	0.20	0.10	0.10	0.10	0.10	0.10
50	75	25	0.60	0.30	0.50	0.20	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.10	0.10

JSS-20T (Tr65 x 12)

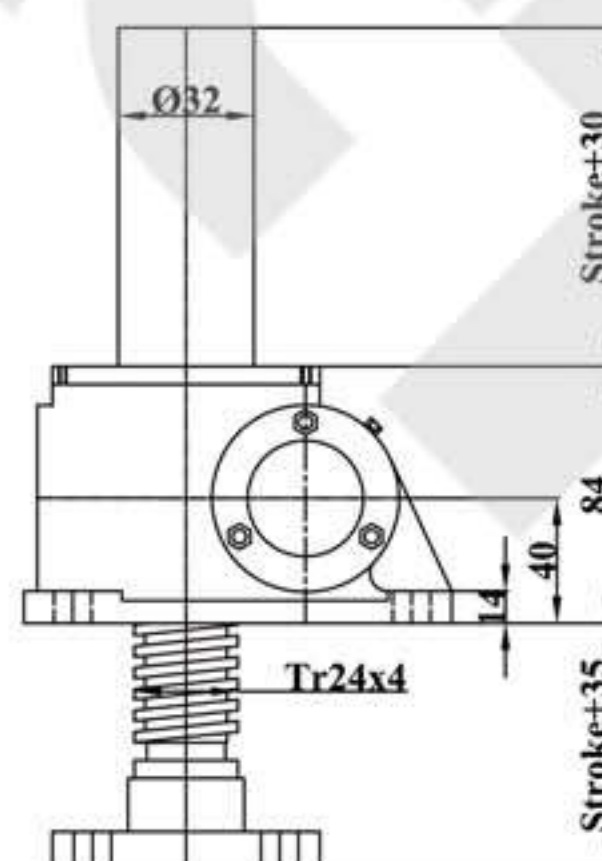
Input Speed (RPM)	Lifting Speed (MM/MIN)		F=20 Ton		F=16 Ton		F=12 Ton		F=10 Ton		F=7.5 Ton		F=5 Ton		F=2.5 Ton	
			H	L	H	L	H	L	H	L	H	L	H	L	H	L
			228Nm	123Nm	182Nm	98Nm	137Nm	74Nm	114Nm	62Nm	86Nm	46Nm	57Nm	31Nm	29Nm	16Nm
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1500	2250	750	36.00	20.00	29.00	16.00	22.00	12.00	18.00	9.60	14.00	7.20	8.90	4.80	4.50	2.40
1000	1500	500	24.00	13.00	19.00	11.00	15.00	7.70	12.00	6.40	8.90	4.80	6.00	3.20	3.00	1.60
750	1125	375	18.00	9.60	15.00	7.70	11.00	5.80	8.90	4.80	6.70	3.60	4.50	2.40	2.20	1.20
500	750	250	12.00	6.40	9.50	5.10	7.10	3.80	6.00	3.20	4.50	2.40	3.00	1.60	1.50	0.80
300	450	150	7.10	3.80	5.70	3.10	4.30	2.30	3.60	1.90	2.70	1.40	1.80	1.00	0.90	0.50
200	300	100	4.80	2.60	3.80	2.10	2.90	1.50	2.40	1.30	1.80	1.00	1.20	0.60	0.60	0.30
100	150	50	2.40	1.30	1.90	1.00	1.40	0.80	1.20	0.60	0.90	0.50	0.60	0.30	0.30	0.20
50	75	25	1.20	0.60	1.00	0.50	0.70	0.40	0.60	0.30	0.40	0.20	0.30	0.20	0.10	0.10

Dimensions

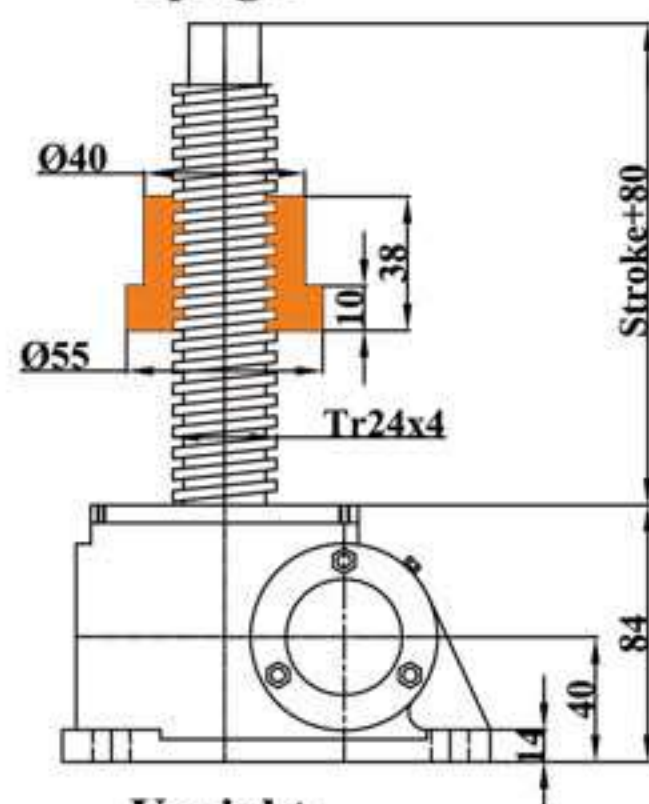
JSS-1T



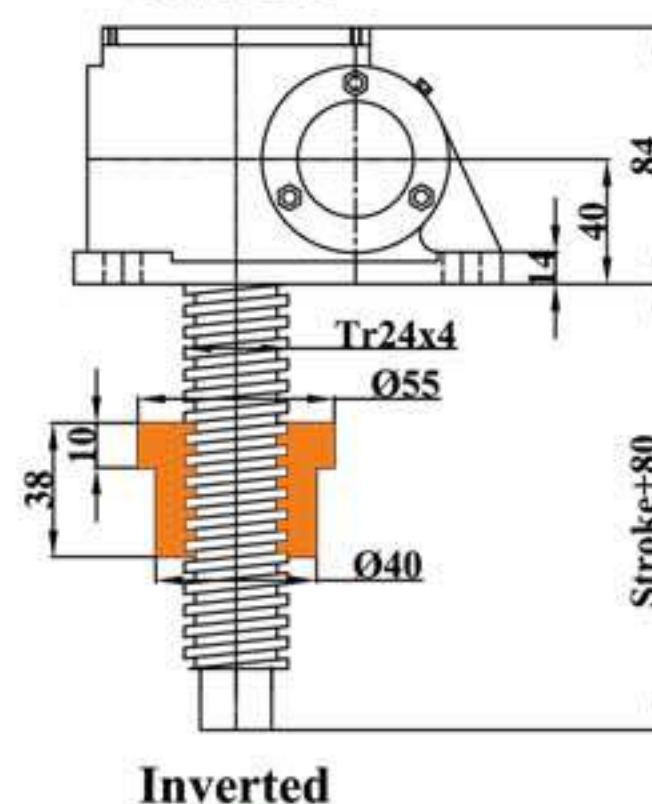
Upright



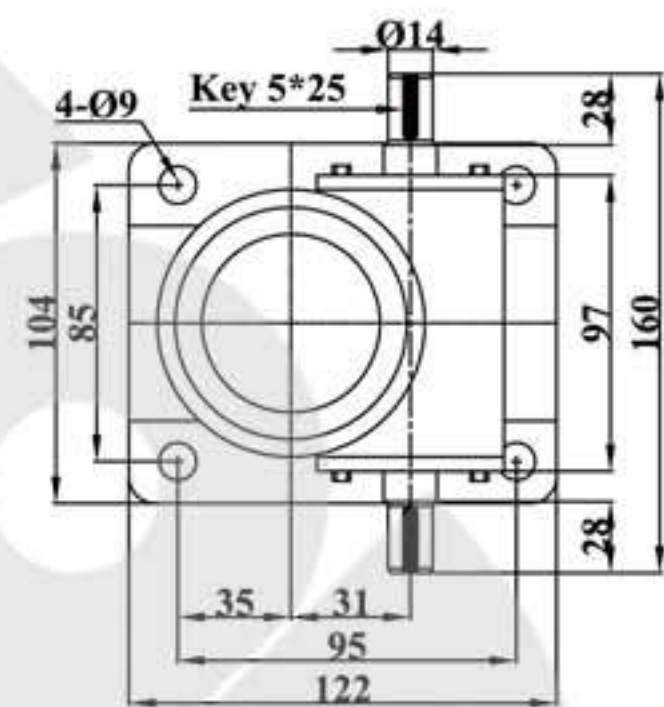
Inverted



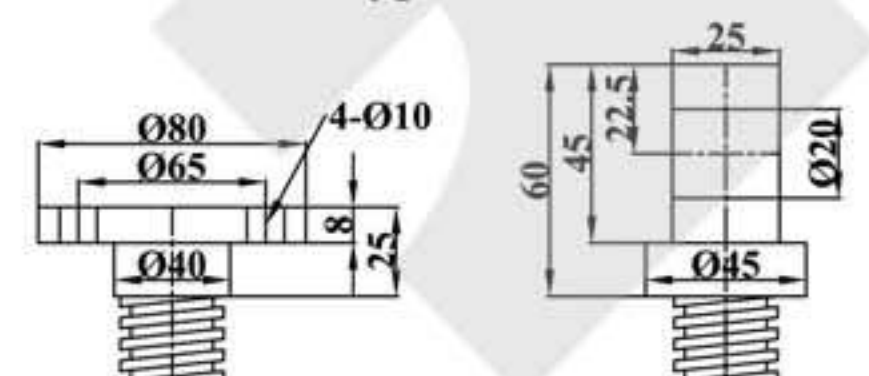
Upright



Inverted

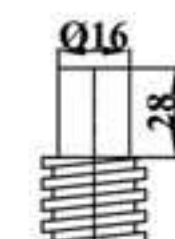


Screw End Types and Dimensions

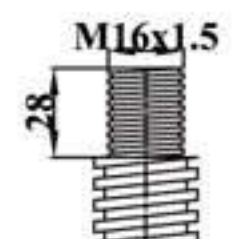


I Top Plate

II Clevis End



III Plain End



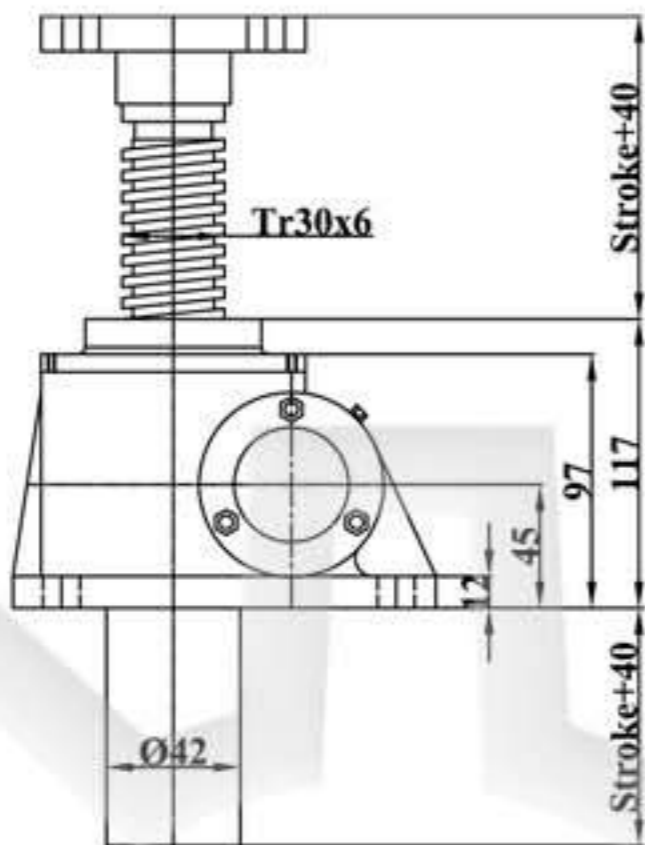
IV Thread End



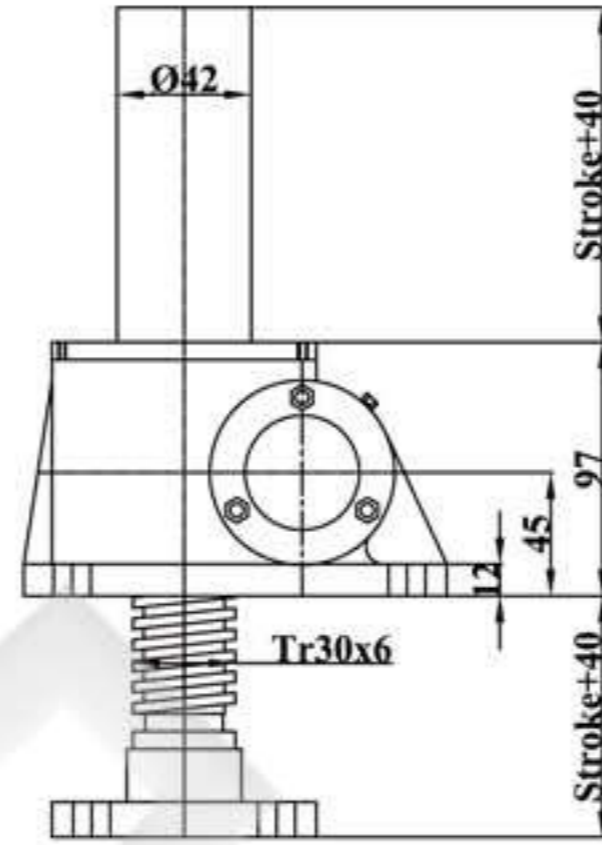
*. Dimensions are subject to change without notice

Dimensions

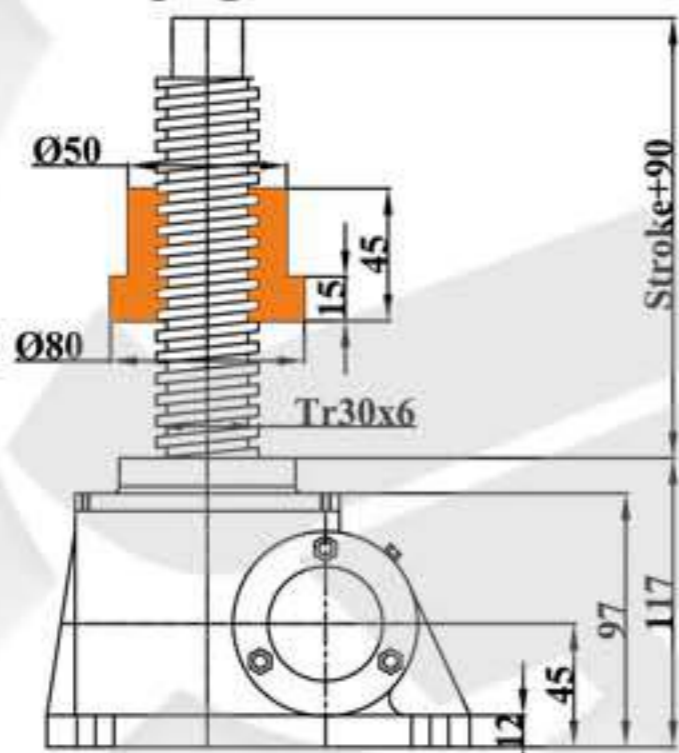
JSS-2.5T



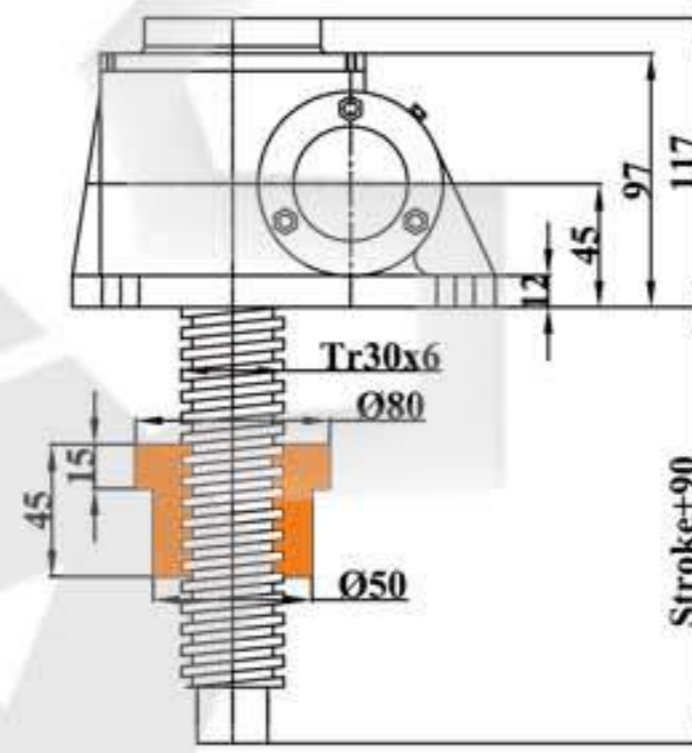
Upright



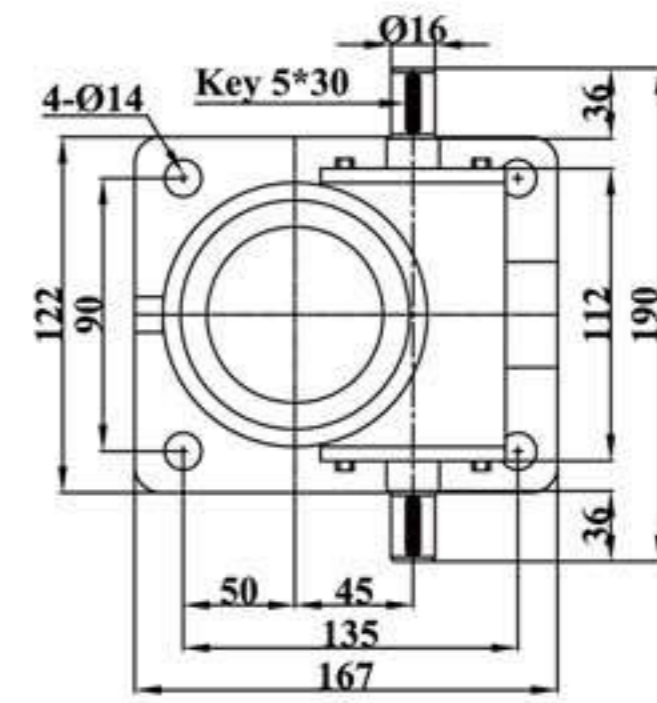
Inverted



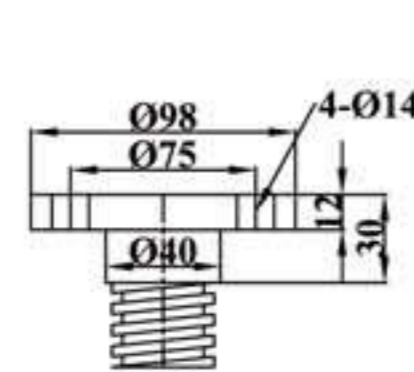
Upright



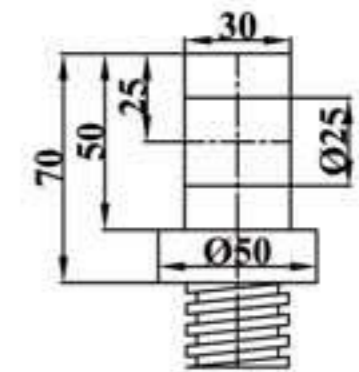
Inverted



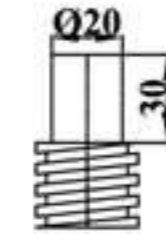
Screw End Types and Dimensions



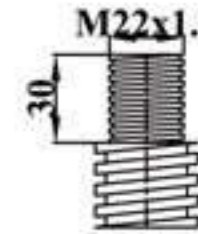
I Top Plate



II Clevis End

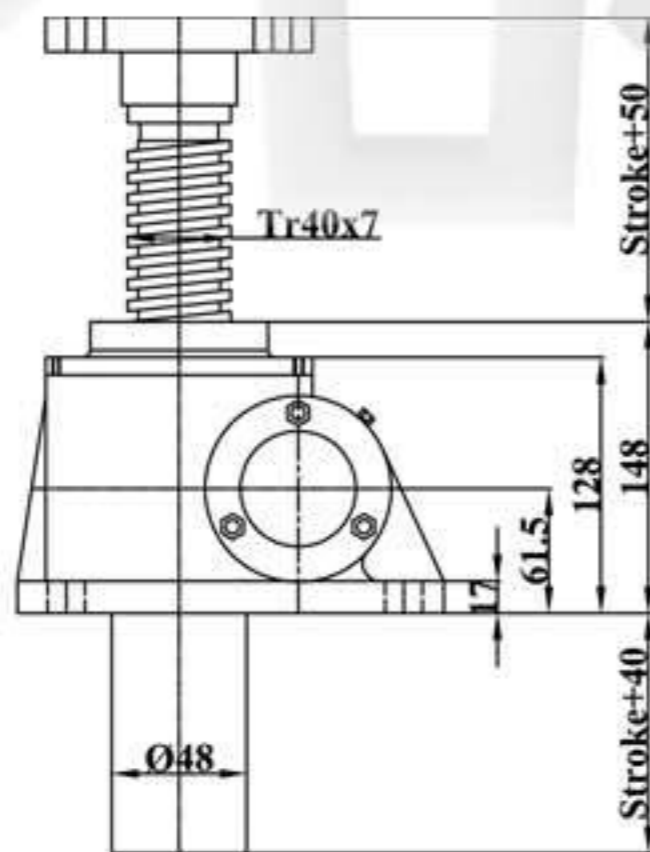


III Plain End

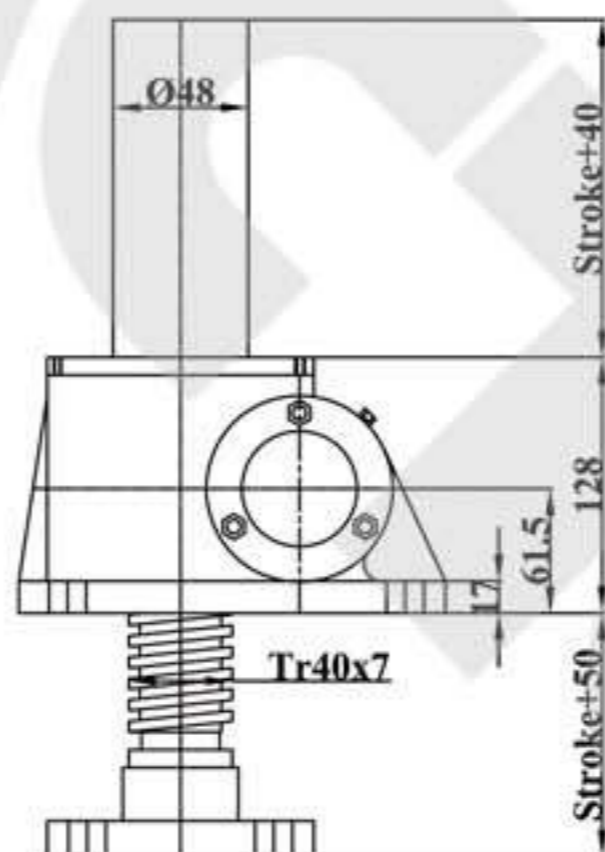


IV Thread End

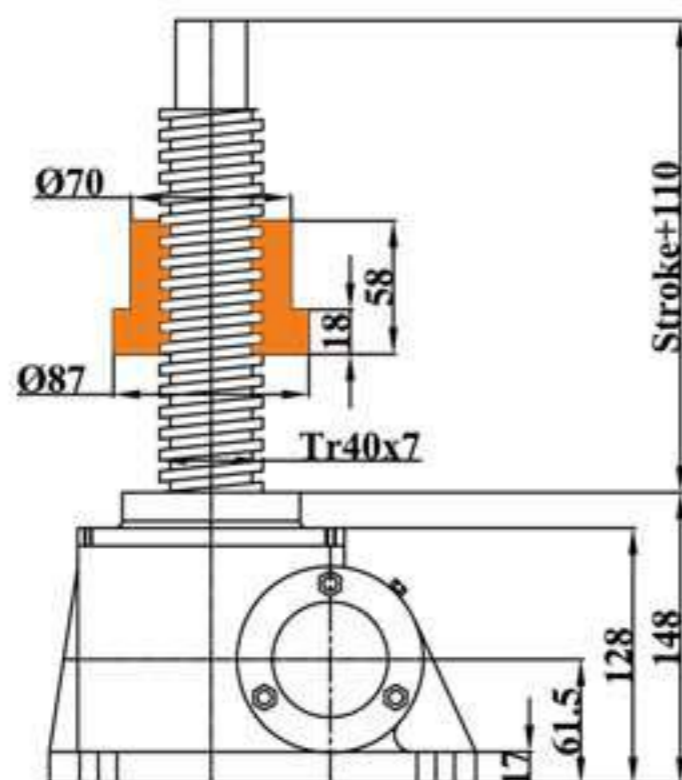
JSS-5T



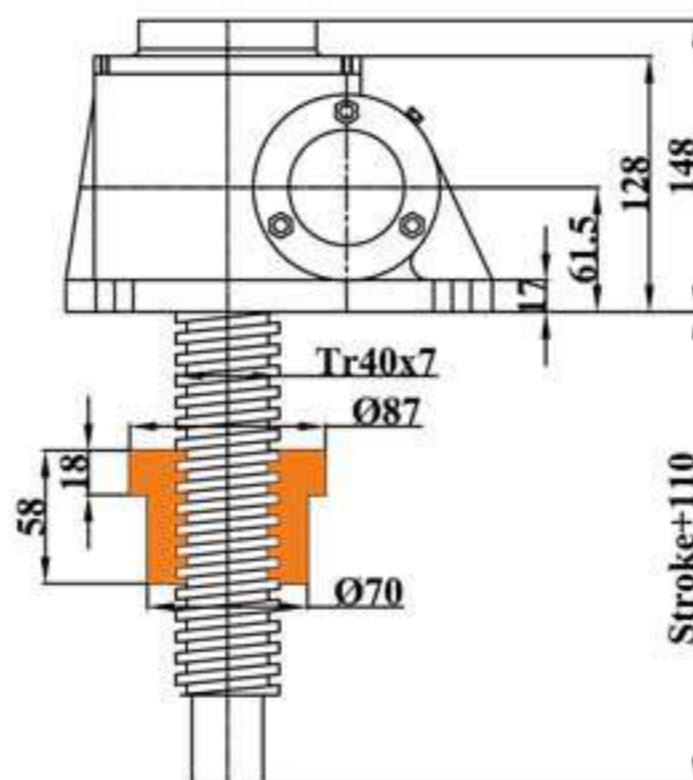
Upright



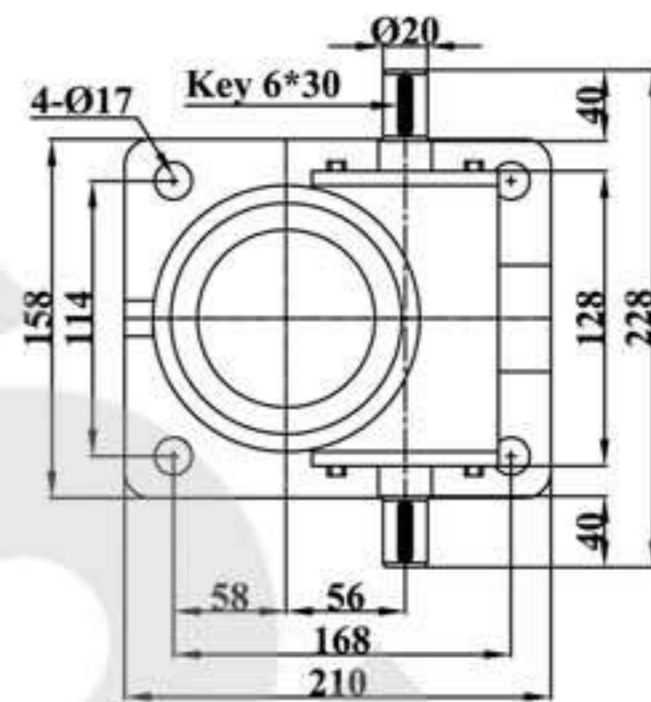
Inverted



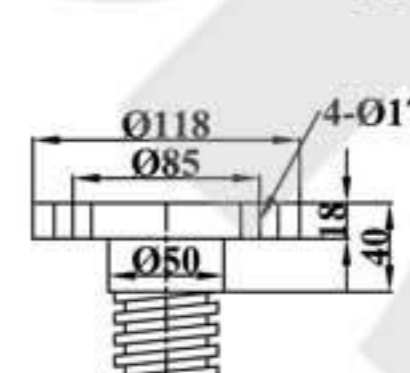
Upright



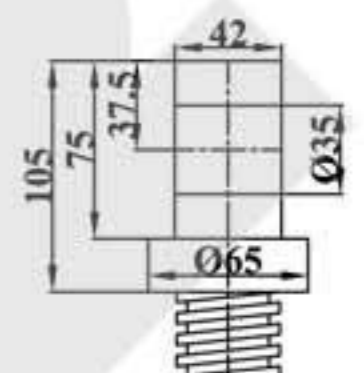
Inverted



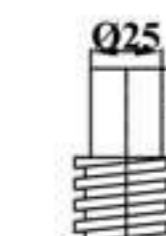
Screw End Types and Dimensions



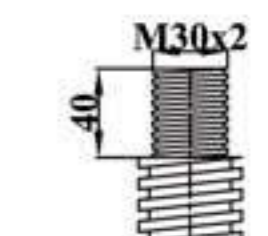
I Top Plate



II Clevis End



III Plain End

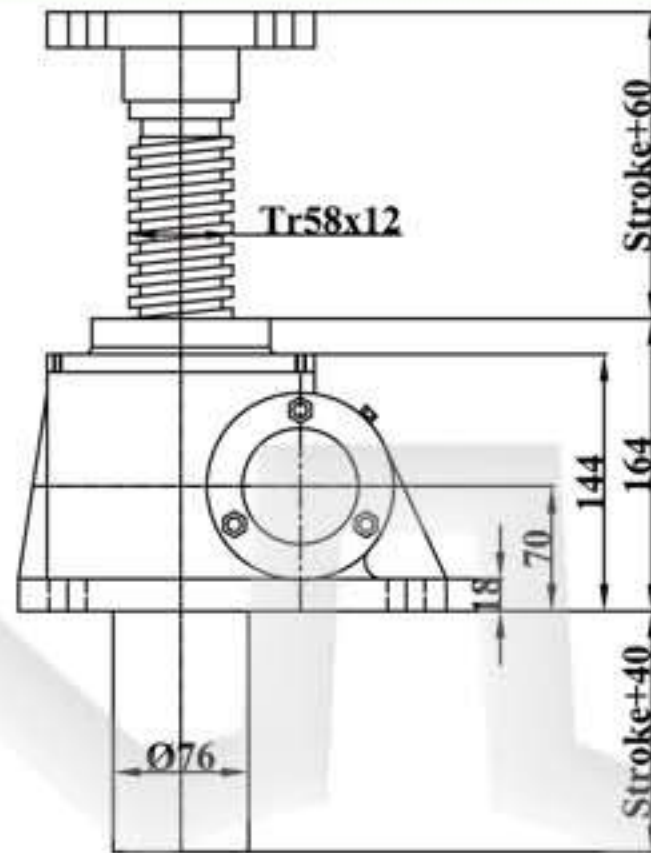


IV Thread End

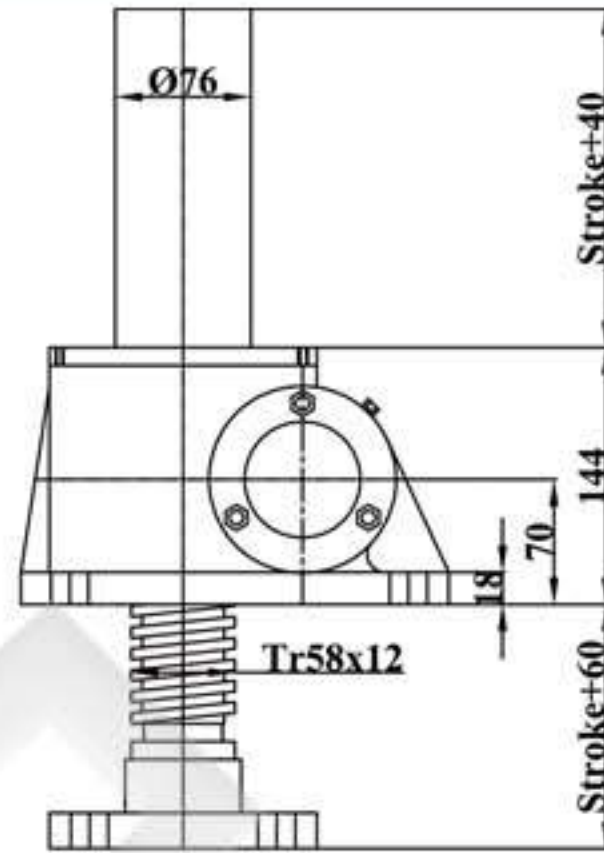


Dimensions

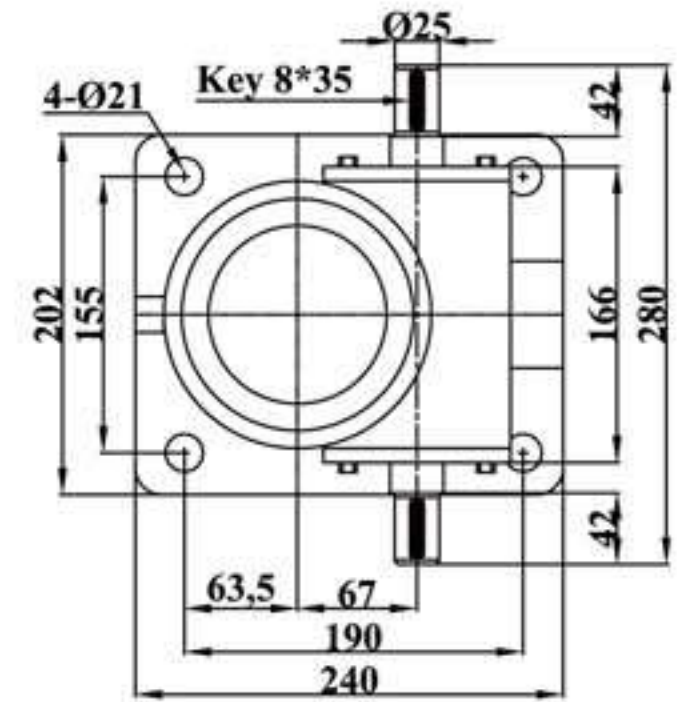
JSS-10T



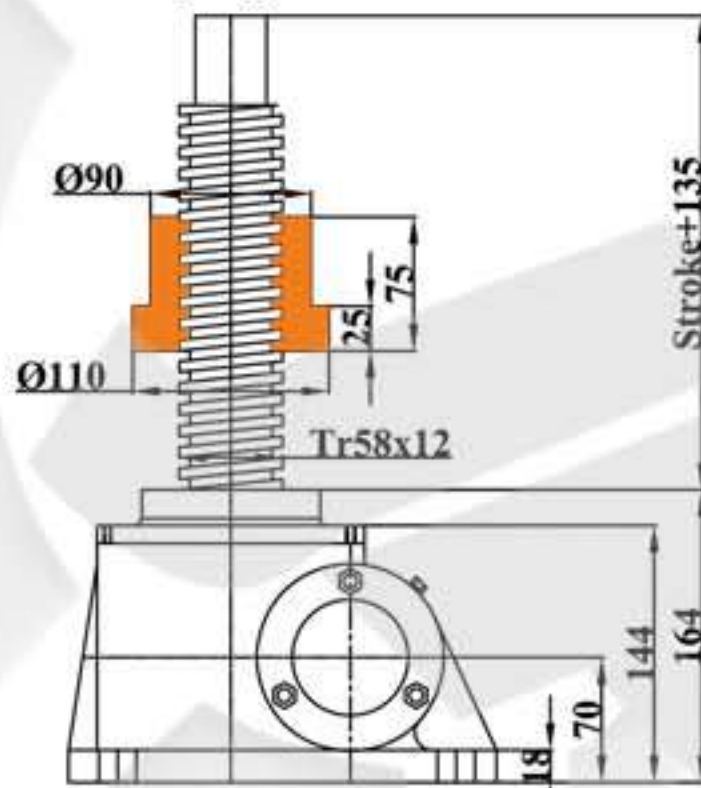
Upright



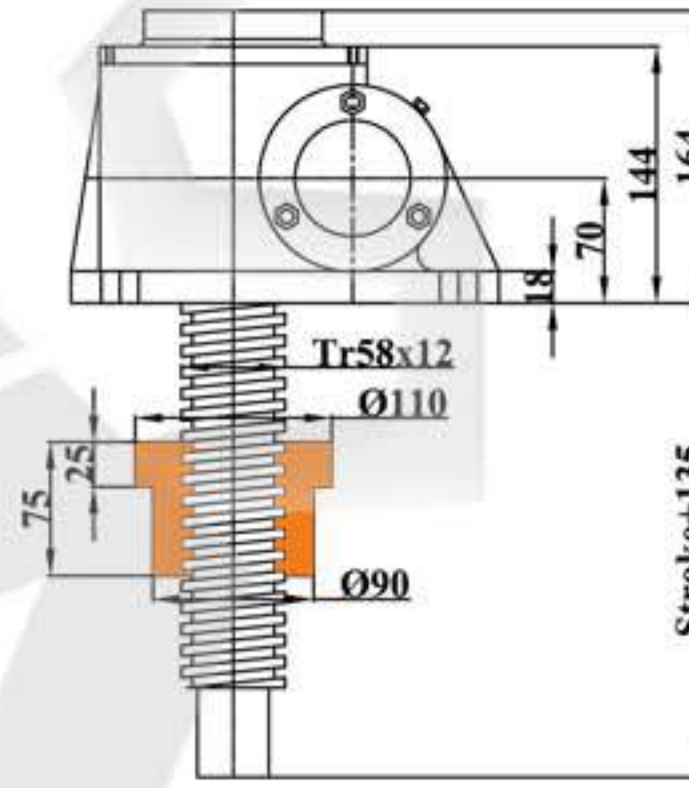
Inverted



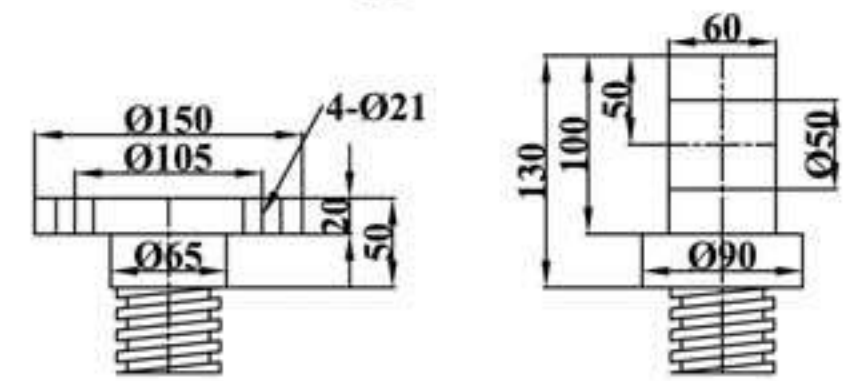
Screw End Types and Dimensions



Upright

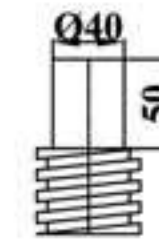


Inverted

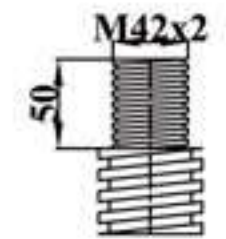


I Top Plate

II Clevis End

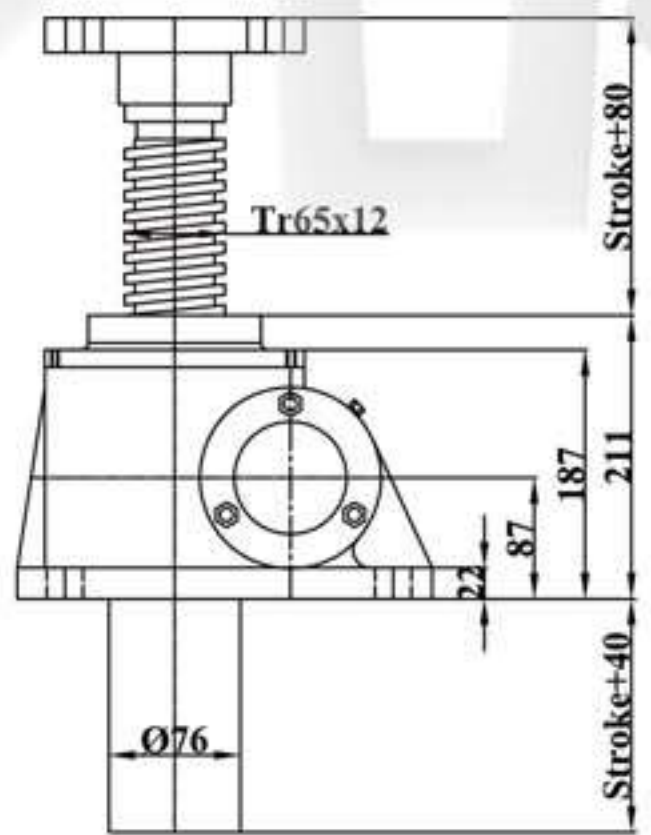


III Plain End

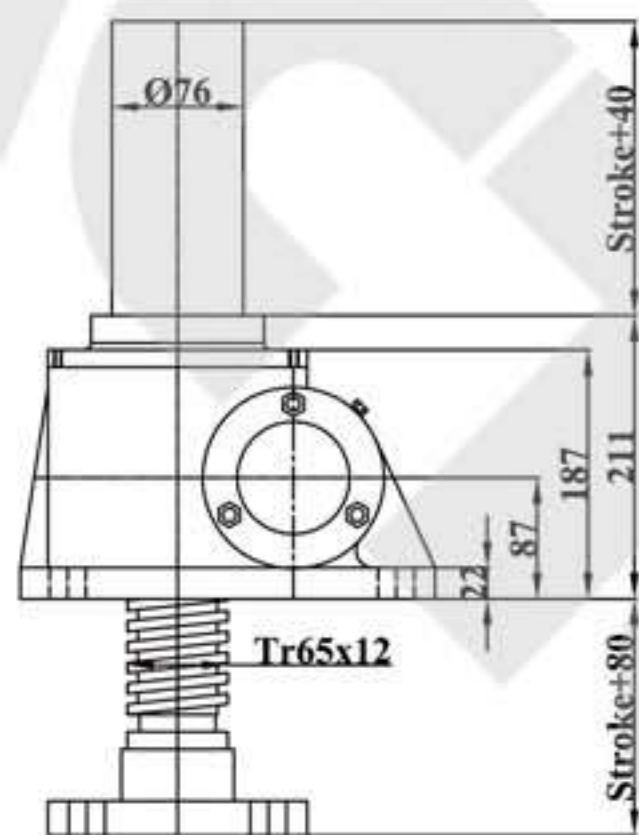


IV Thread End

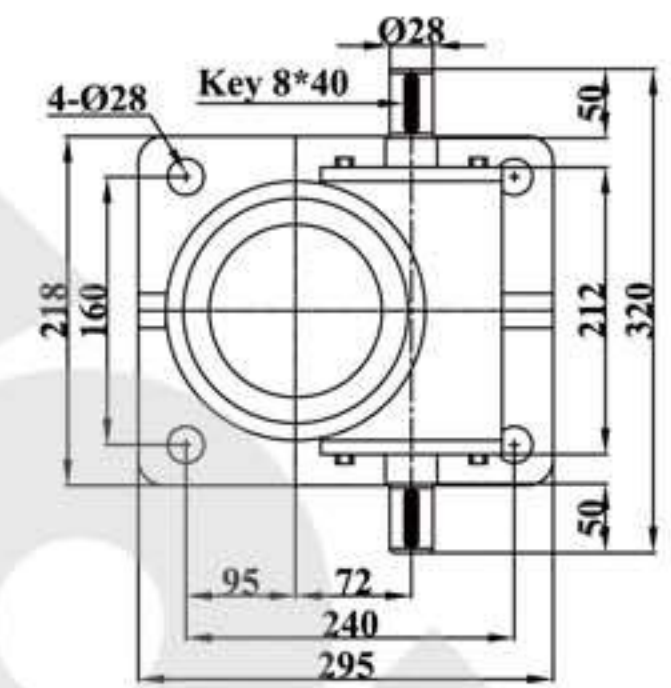
JSS-20T



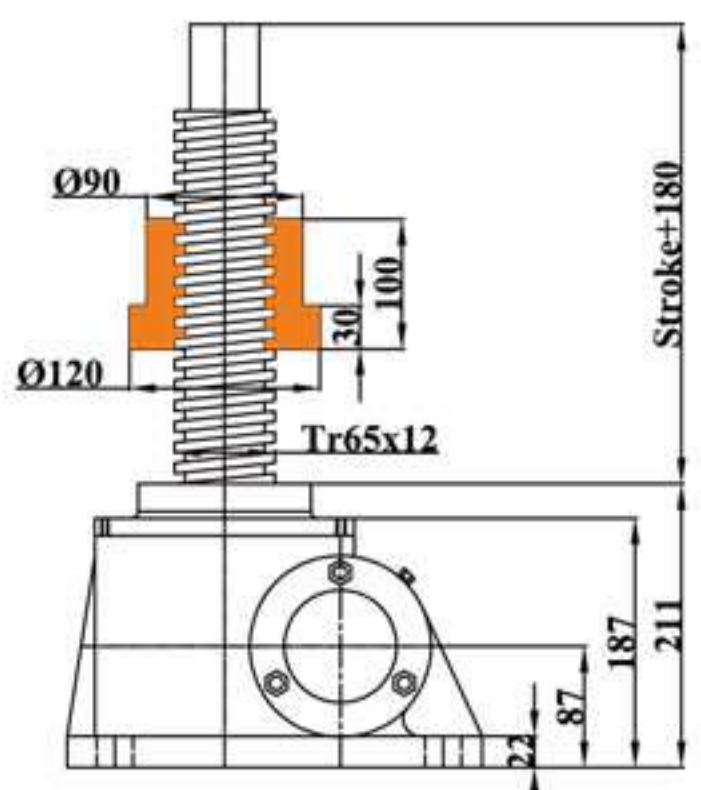
Upright



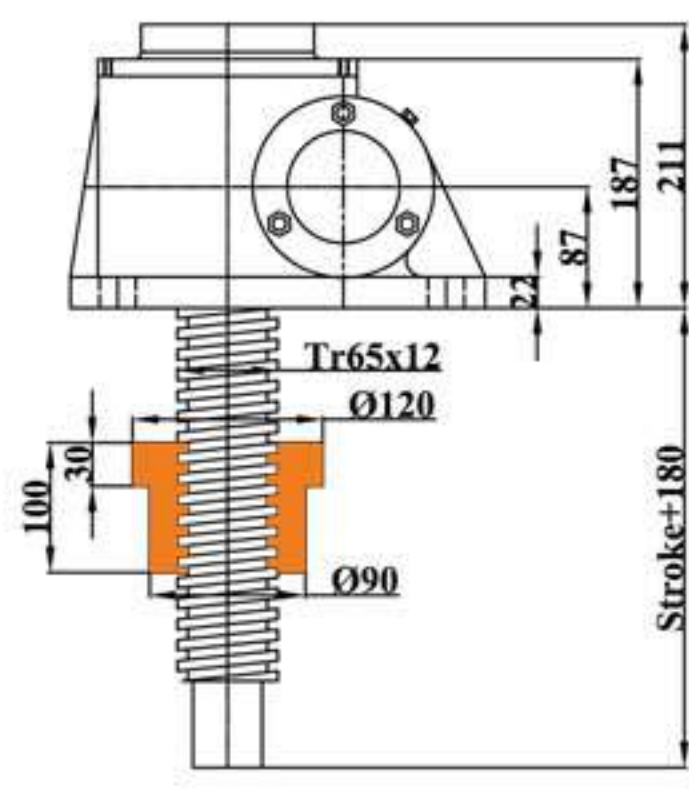
Inverted



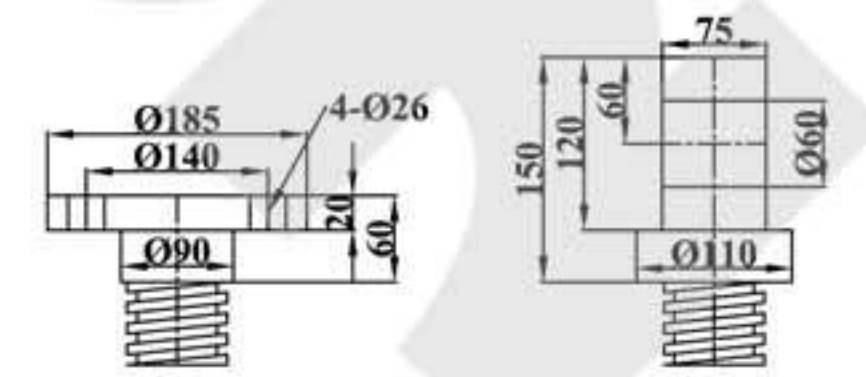
Screw End Types and Dimensions



Upright

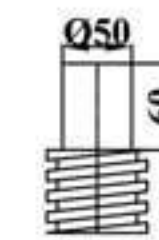


Inverted

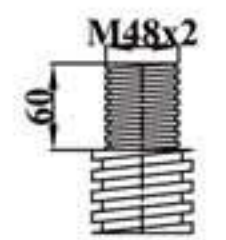


I Top Plate

II Clevis End



III Plain End



IV Thread End