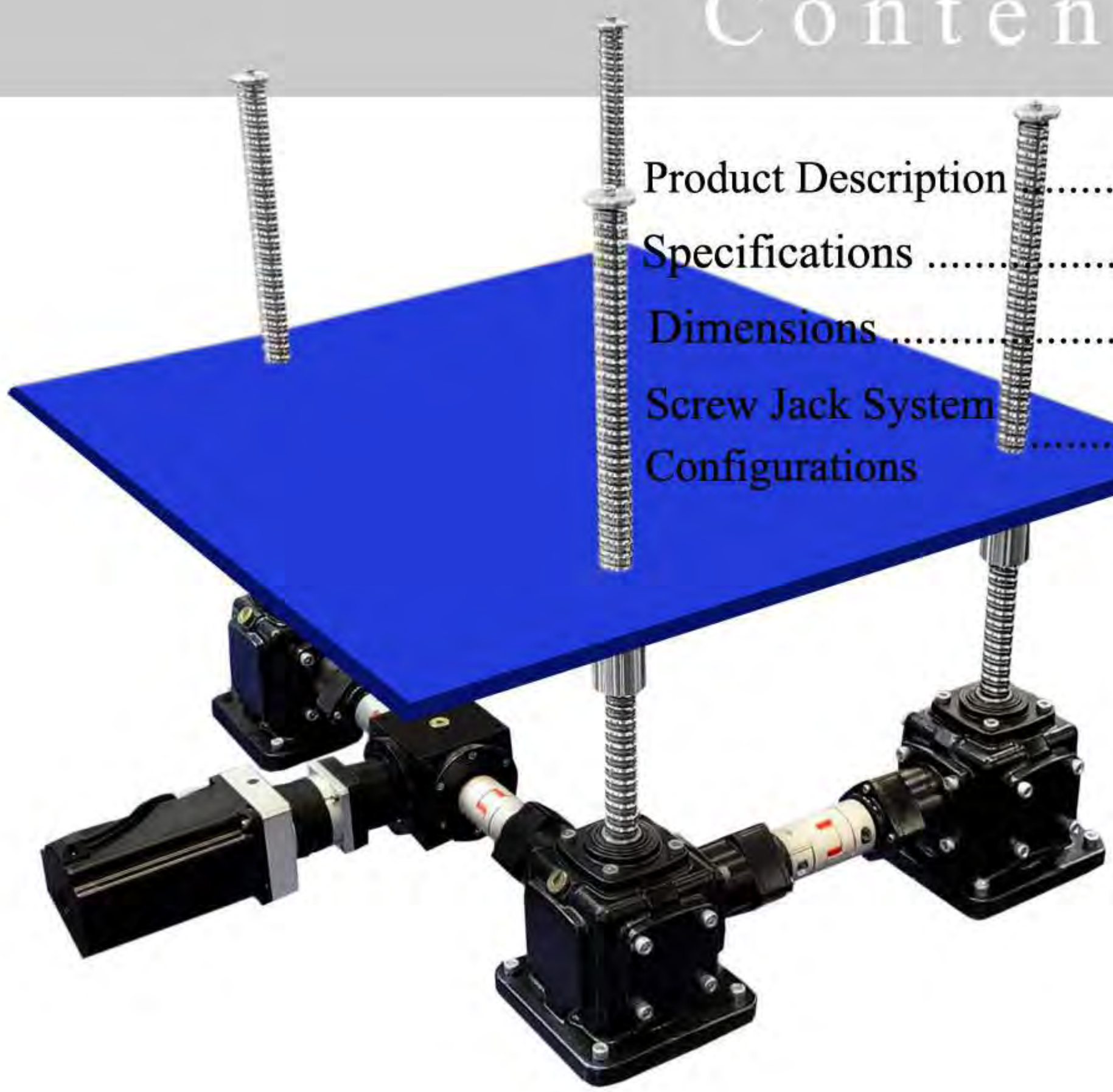
www.motiontech.com.au

JTG

Bevel Gear Screw Jack

Contents



2D/3D CAD

JACTON®

Product Description

JACTON JTG Series Bevel Gear Screw Jack have same sizes as JT Series Bevel Gearboxes. Means, same center distance, making them an ideal choice for complete lifting systems. These improvements will require a less in human and material resources, also save much cost and time. 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. 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 JTG19 to JTG40 (trapezoidal screw), and 4 sizes from JTGB19 to JTGB40 (ball screw).
* Static load capacity from 3000 kgf to 15000 kgf. Dynamic load capacity from 1000 kgf to 2600 kgf.
* Trapezoidal screw diameter from 32 mm to 63 mm. Ball screw diameter from 32 mm to 63 mm.
* There are no "standard" travel lengths. Standard trapezoidal/ball 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 one ratio, 2.5:1 - 3:1.
* Standard with 1-start trapezoidal/ball screw, custom 2-starts trapezoidal screw/ball which offers increased travel speed and require a brake or external locking device to hold position.
* Custom-made trapezoidal/ball screw diameter and pitch, gear ratios, and worm shaft sizes.
* Trapezoidal/Ball 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

Product Description

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.

* Ball Screw: SCM 450, S55C, Hardness: HRC 58-62

* Ball Nut: SCM415H, Hardness: HRC 58-62

* Steel Ball: SUJ2, Hardness: HRC 60 UP

* 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.

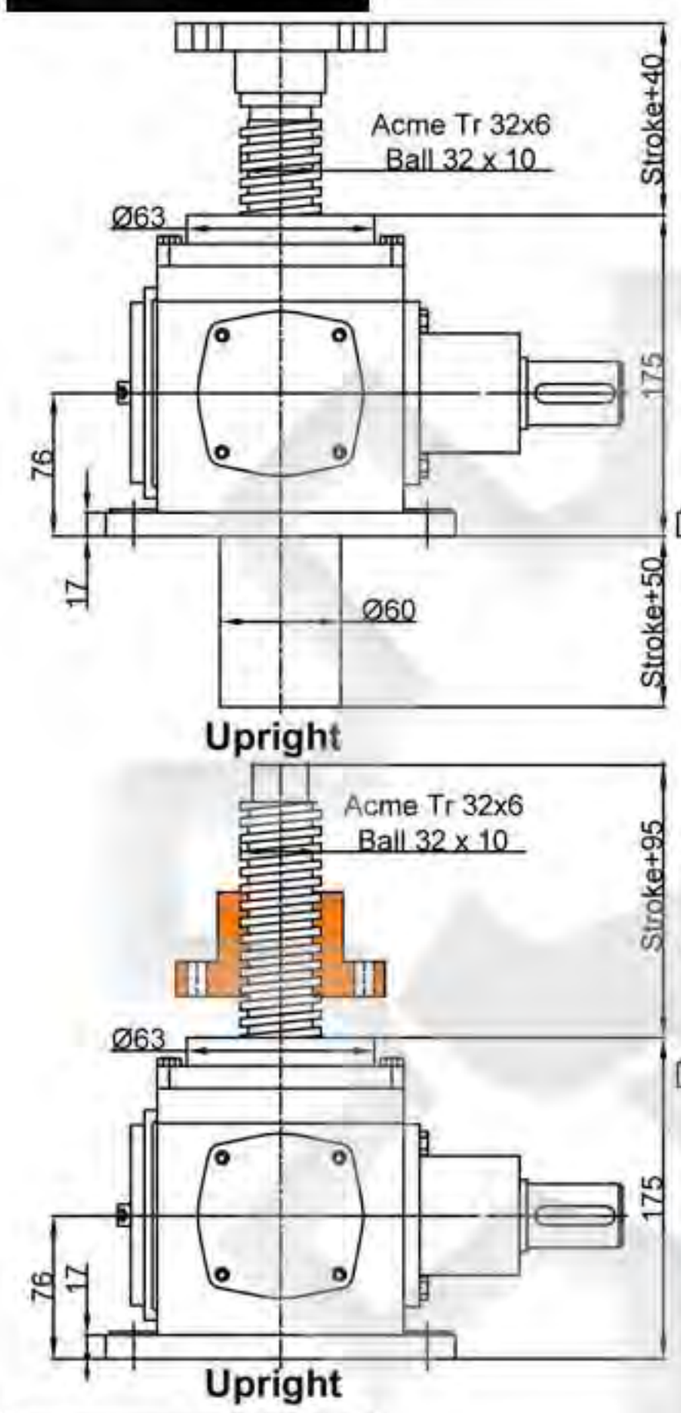
Specifications

Remarks:
1) Overall efficiency is under grease lubrication.
2) Self-locking under static conditions.

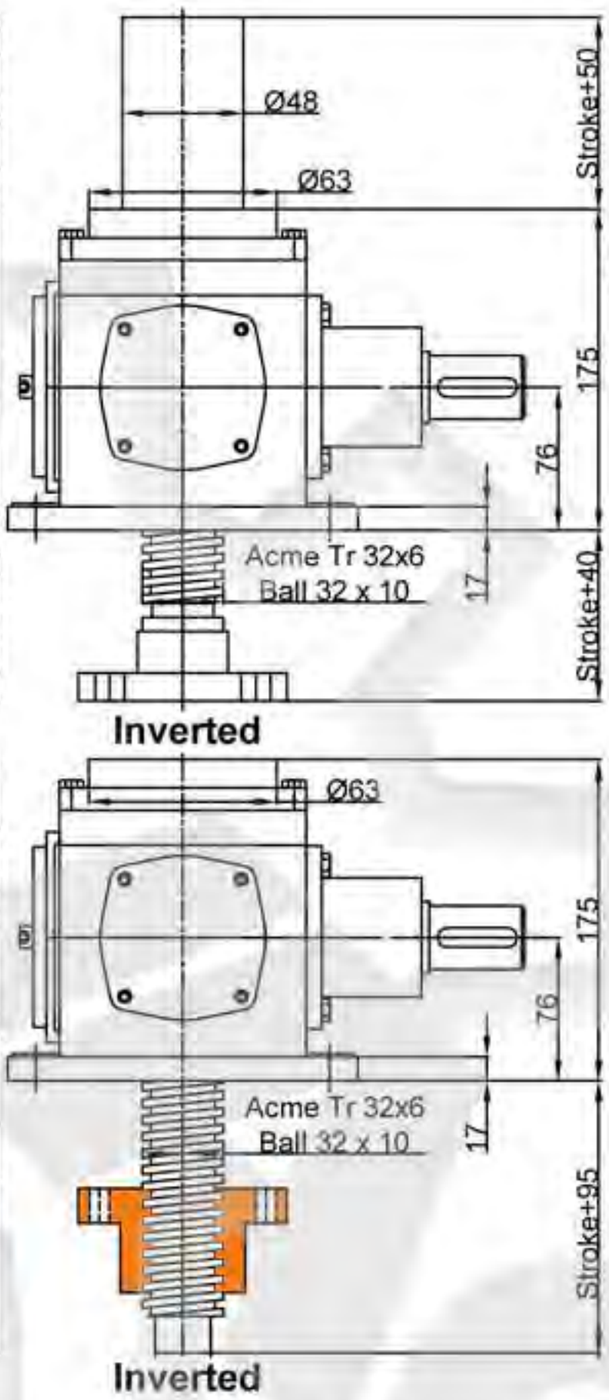
Model	JTG19	JTGB19	JTG25	JTGB25	JTG32	JTGB32	JTG40	JTGB40
Maximum static load capcity (kgf)	3000	3000	4500	4500	9000	9000	15000	15000
Maximum dynamic load capcity (kgf)	1000	1000	1500	1500	2000	2000	2600	2600
Lift screw sizes (mm)	Tr32 x 6	32 x 10	Tr40 x 6	40 x 10	Tr50 x 8	50 x 10	Tr63 x 10	63 x 10
Gear ratio	2.5:1	2.5:1	3:1	3:1	3:1	3:1	3:1	3:1
Lift screw travel (mm), per turn of input shaft	2.4	4	2	3.33	2.67	3.33	3.33	3.33
Efficiency %	36	60	32	60	32	60	30	60

Dimensions

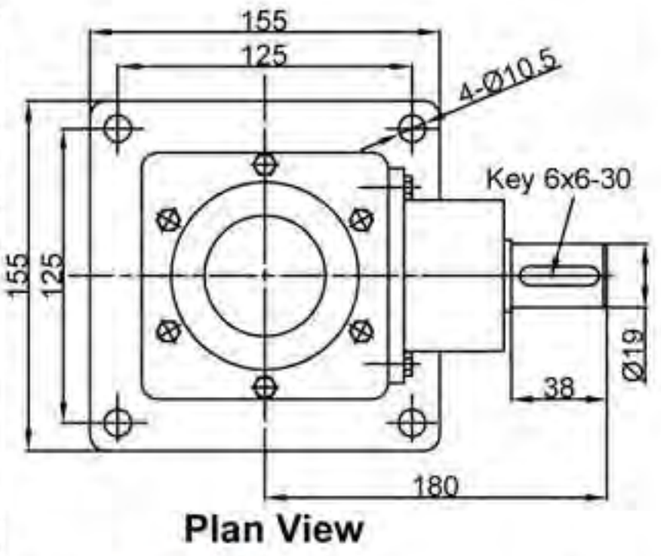
JTG19



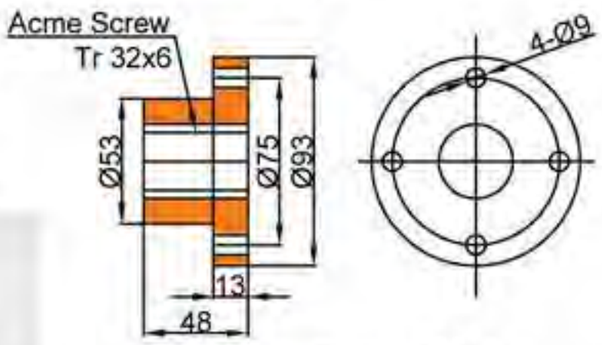
Upright



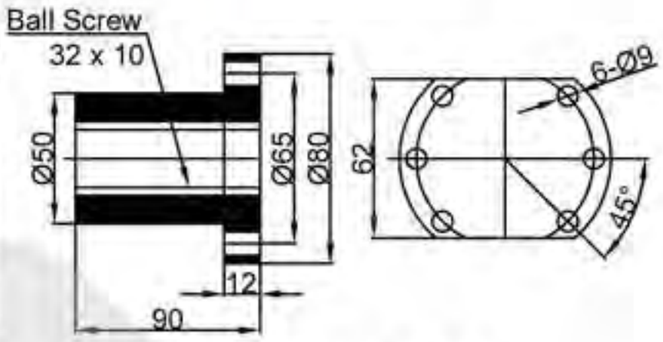
Inverted



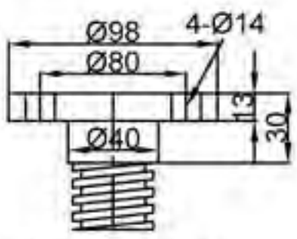
Plan View



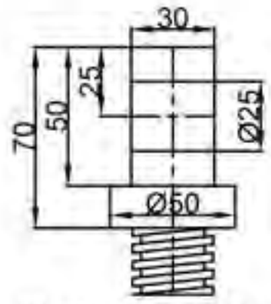
Acme Screw Nut



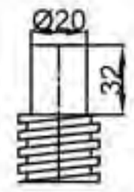
Ball Screw Nut



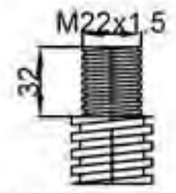
I Top Plate



II Clevis End



III Plain End

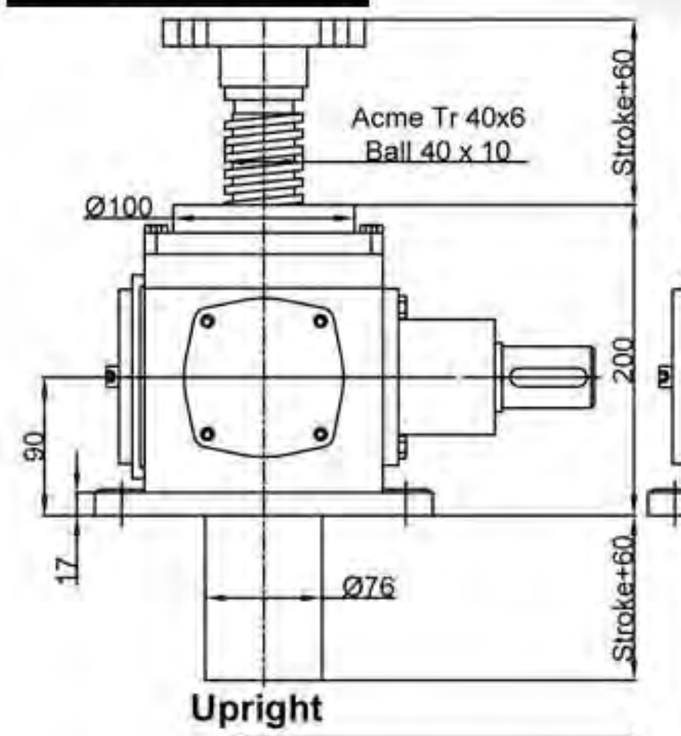


IV Thread End

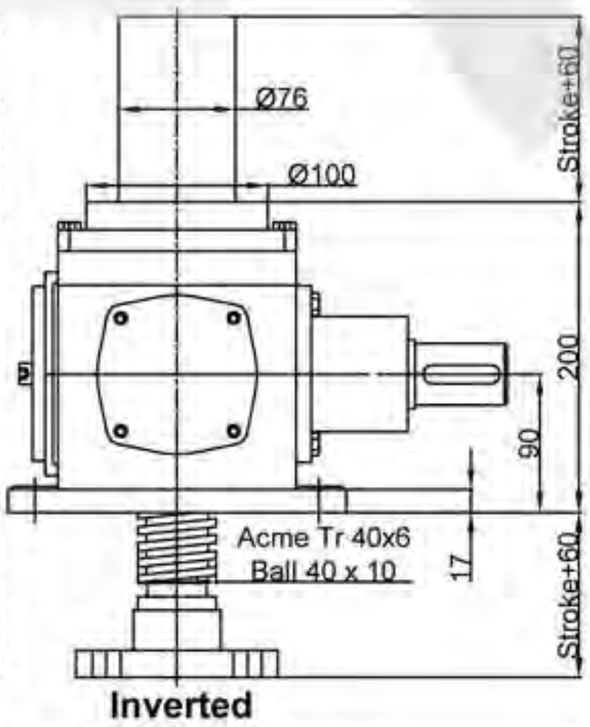
Upright

Inverted

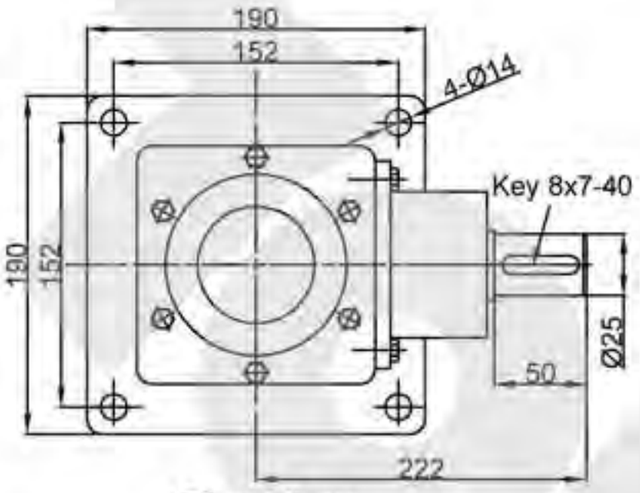
JTG25



Upright

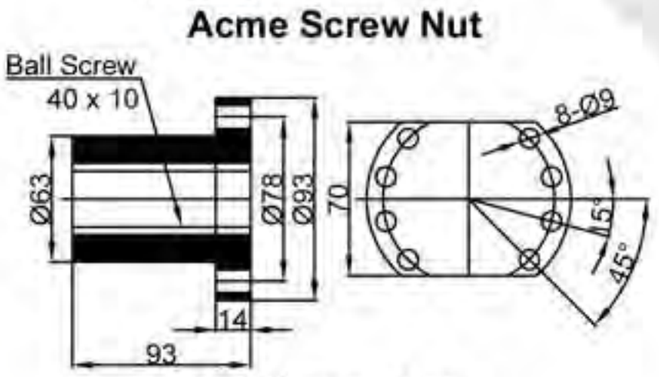


Inverted

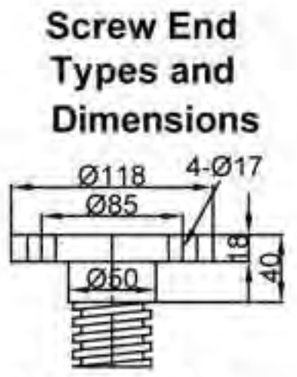


Plan View

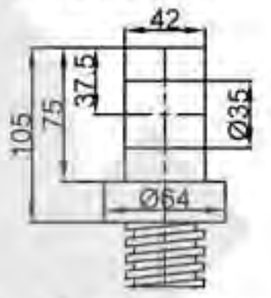
Acme Screw Nut



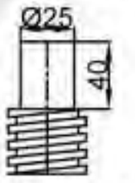
Ball Screw Nut



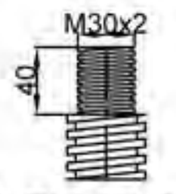
I Top Plate



II Clevis End



III Plain End



IV Thread End

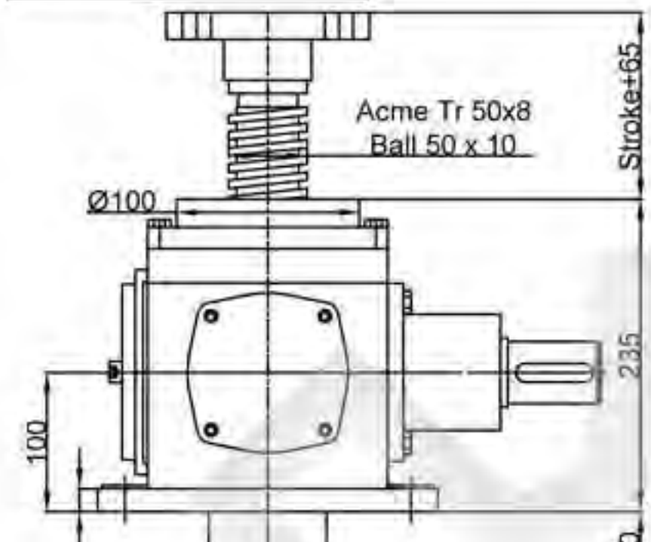
Upright

Inverted

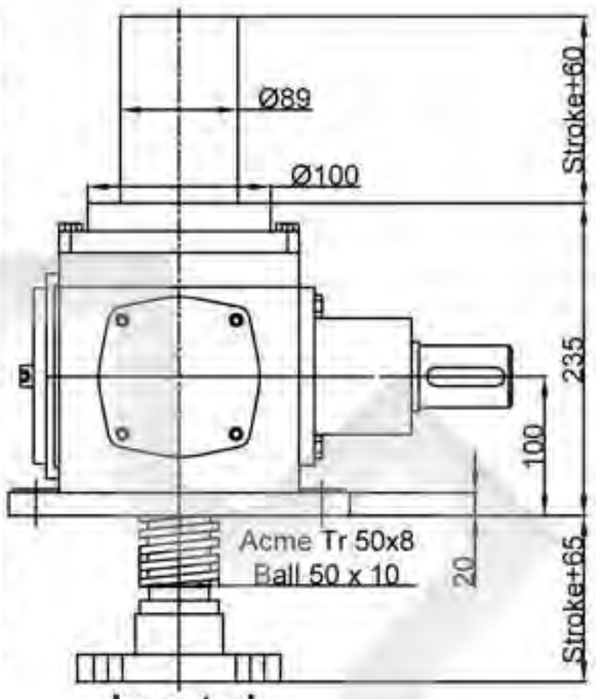
*. Dimensions are subject to change without notice

Dimensions

JTG32

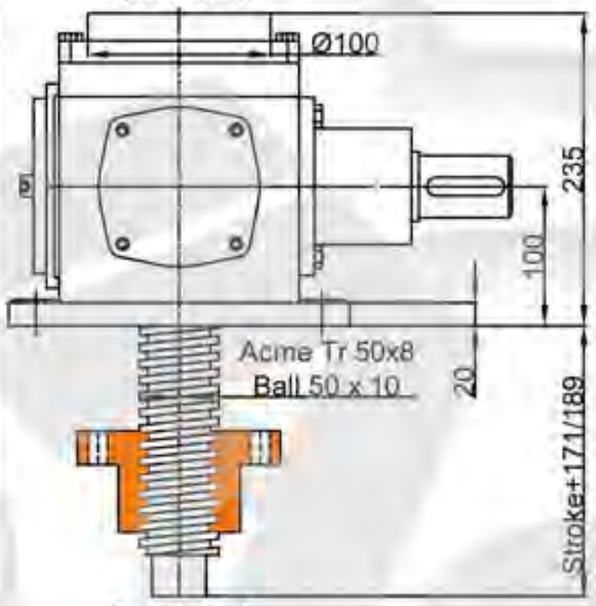


Upright

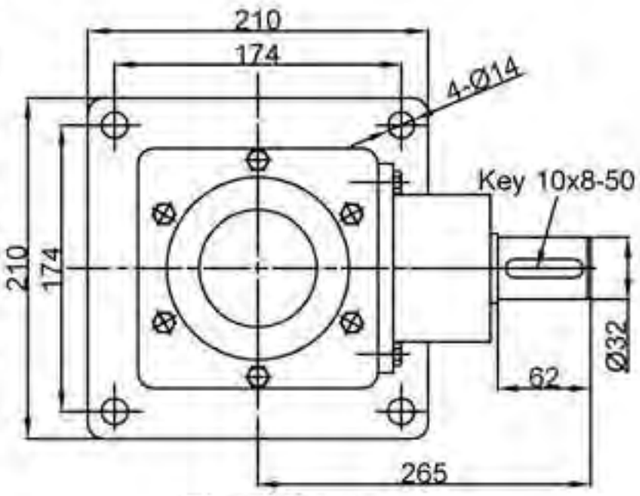


Inverted

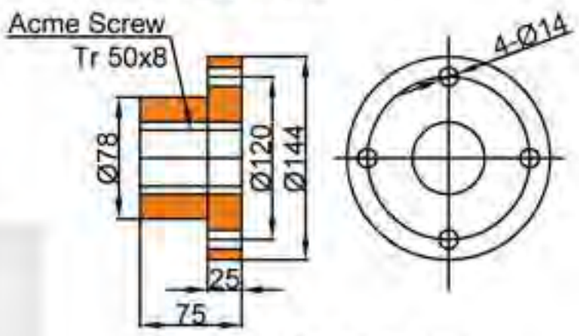
Upright



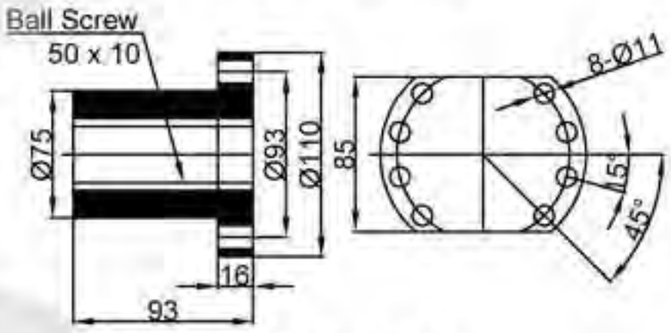
Inverted



Plan View

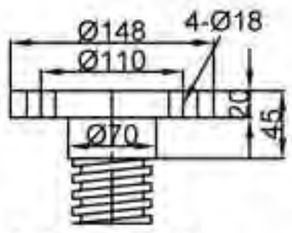


Acme Screw Nut

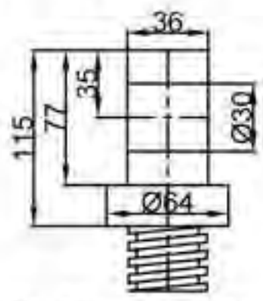


Ball Screw Nut

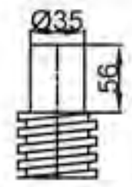
Screw End Types and Dimensions



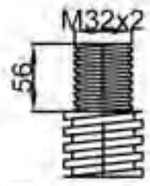
I Top Plate



II Clevis End

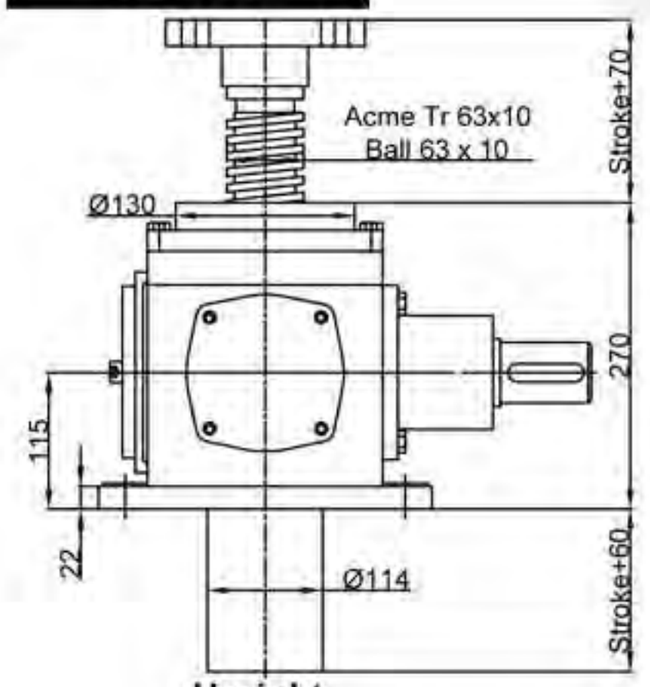


III Plain End

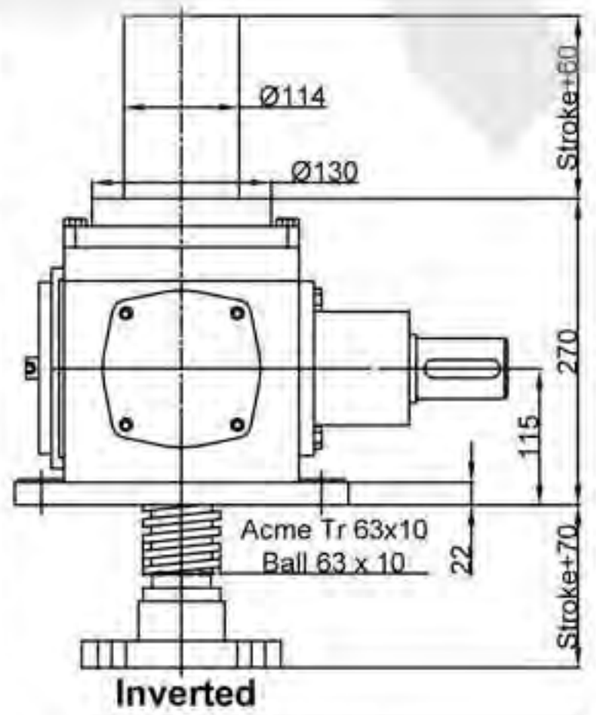


IV Thread End

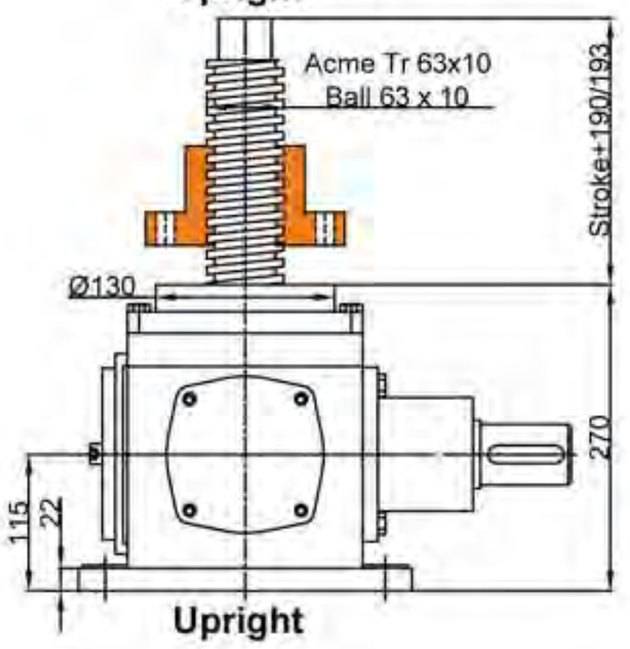
JTG40



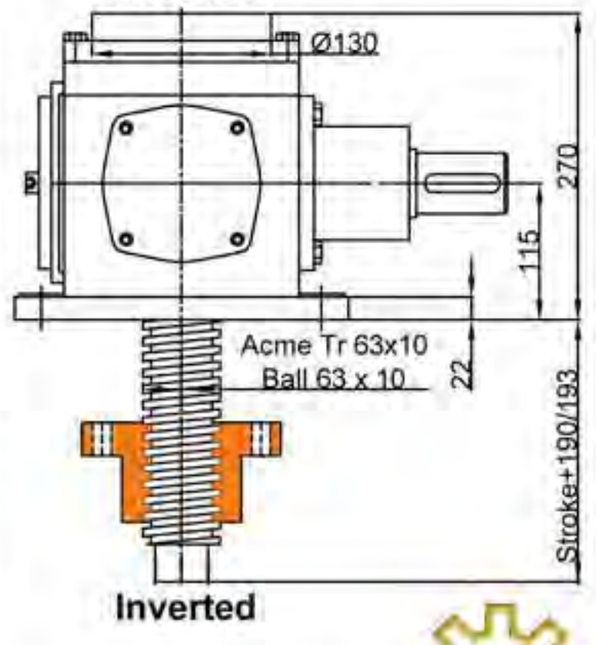
Upright



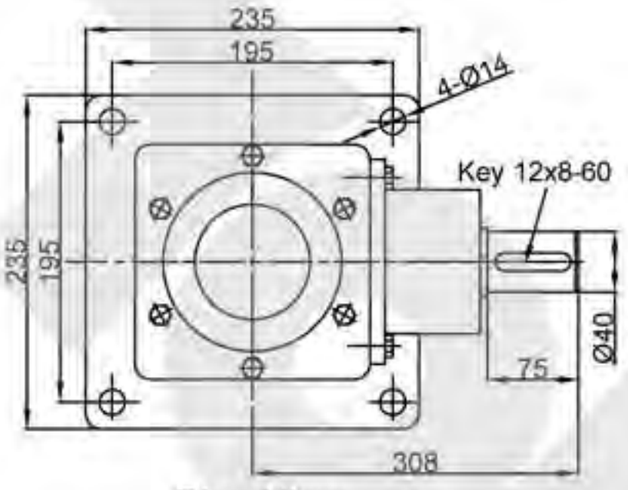
Inverted



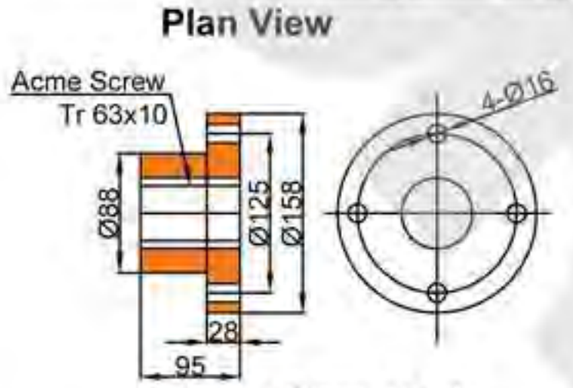
Upright



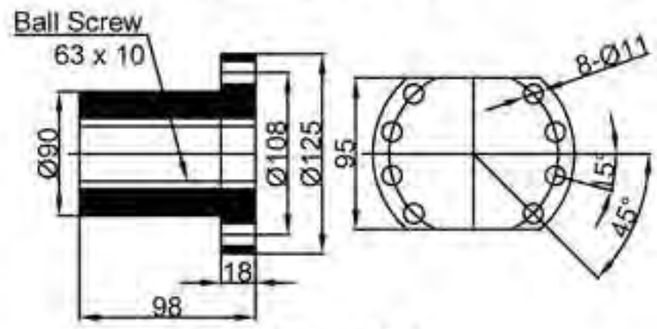
Inverted



Plan View

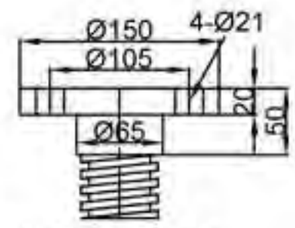


Acme Screw Nut

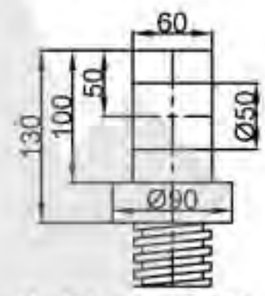


Ball Screw Nut

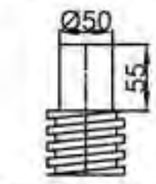
Screw End Types and Dimensions



I Top Plate



II Clevis End



III Plain End

IV Thread End

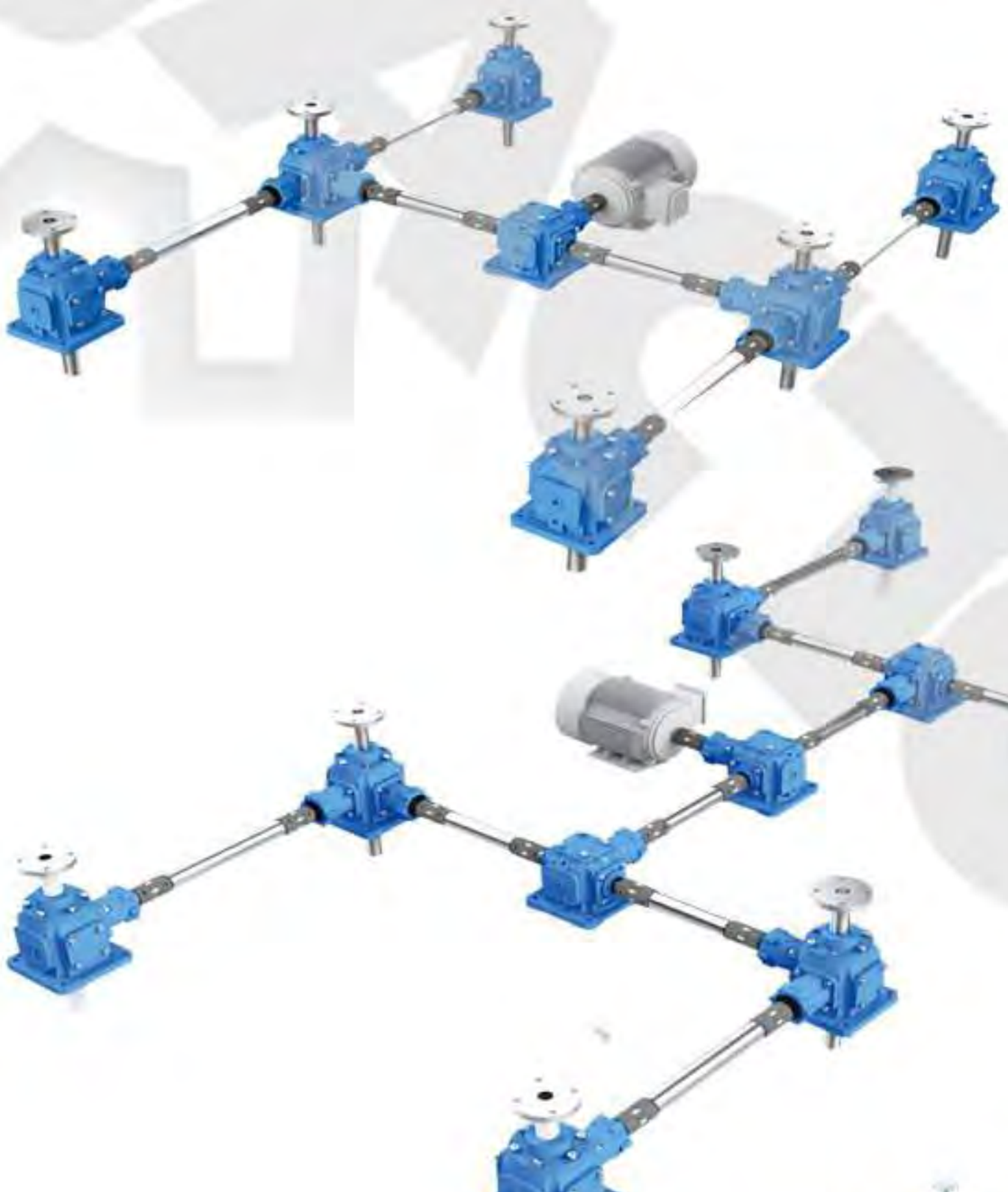
*. Dimensions are subject to change without notice

Screw Jack System Configurations

Two Jacks

Four Jacks

Six Jacks



Eight Jacks

Fourteen Jacks