Bevel Gear Screw Jack

Features & Benefits

- Versatile Mounting - Unit can me mounted upright or inverted
- Eliminates the need for miter boxes
- Contemporary design for improved aesthetics
- Fast Delivery - Selected models are in stock
- German Engineering

Specifications

- ☐ Capacities from 15 kN to 90 kN (1.7 Ton to 10 Ton)
- ☐ Speeds up to 3,000 RPM
- ☐ Operating Temperature: 32°F up to 122°F
- ☐ Trapezoidal Screw models are standard
- ☐ Translating screw (type 1) and rotating screw (type 2) model available in all capacities

Options

- ☐ Top plate, threaded end, male clevis and female clevis screw ends available.
- ☐ Ball Screw is optional.
- ☐ Bellows Boots.
- ☐ Hand wheel for manual operation.
- ☐ Shaft encoder.
- ☐ Trunnion mount.
- ☐ Electrical Limit Switch.
- ☐ Anti-rotation device (translating screw) using a square cover pipe and square screw end.

Bevel Gear Screw Jack Performance Table

Capacity Size	G15	G25	G50	G90
Lifting capacity kN (Tons)	15 (1.7)	25 (2.8)	50 (5.6)	90 (10)
Lifting screw (Trapezoidal)	24x5	35x8	40x7	60x9
Worm Gear Ratio Standard (N)	2:1	2:1	2:1	2:1
Worm Gear Ratio Optional (L)	3:1	3:1	3:1	3:1
Travel Per Worm Turn - Standard (N) mm (in)	2.5 (0.10)	4 (0.16)	3.5 (0.14)	4.5 (0.18)
Travel Per Worm Turn - Optional (L) mm (in)	1.66 (.06)	2.67 (0.10)	2.33 (0.09)	3 (0.11)
Worm Torque at Full load - Standard (N) Nm (ft-lb)	16 (11.8)	40 (29.5)	80 (59)	207 (152)
Worm Torque at Full load - Optional (L) Nm (ft-lb)	12 (8.8)	28 (20.6)	54 (40)	140 (103)
Efficiency Rating (%) Standard (N)	37	38	33	30
Efficiency Rating (%) Optional (L)	33	38	33	30
Maximum Power per Screw Jack kW (hp)	1.3 (1.7)	2.6 (3.4)	3.8 (5)	13 (17)
Key Torque Nm (ft-lb)	29.4 (21.6)	73.2 (54)	123.4 (91)	398.5 (294)
Maximum Input Shaft Torque Nm (ft-lb)	50 (36.8)	125 (92)	175 (129)	1,600 (1,180)
Housing Weight kg (lbs)	9 (19.8)	13.5 (29.7)	23 (50.7)	85 (187)
Screw and Pipe Weight Per 100mm Stroke kg (lbs)	0.8 (1.7)	0.59 (1.3)	1.5 (3.3)	2.5 (5.5)

BEVEL GEAR SCREW JACK Part Numbering Tables

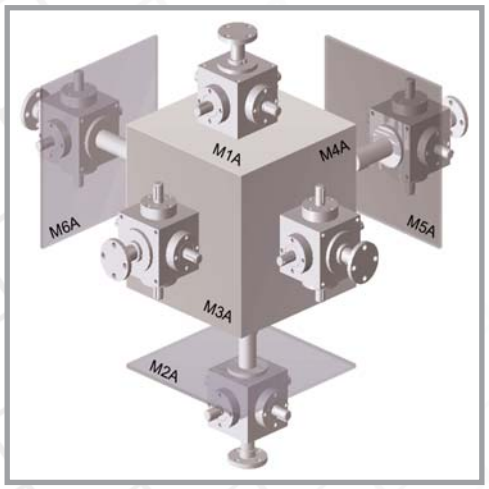
Bevel Gear Screw Jack Part Number Table (G15, G25, G50, G90)

G15 I F Sf M1A I 100 0 0 N Tr18x4 W1b Ru (options contact factory)

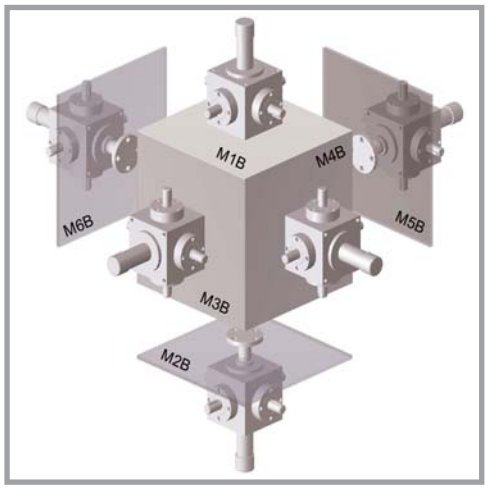
Size	Configuration Type	Layout on Screw Side	Layout on Protection Tube Side	Mounting Position	Screw End Type	Stroke	Closed Height (Type 1)	Screw Length (Type 2)	Ratio	Screw	Shaft Layout	Bevel Gear Position
G15	Type 1	F	Sf/V	M1A	I	mm	mm	mm	Normal (N)	Tr(DxP)	W1b	Ru
G25	Type 2	(Type 1)	(Type 1)	M1B	II				Low (L)	Ku(DxP)	W1c	(Standard)
G50				M2A	III						W1d	
G90		K/H	F	M2B	IV						W2lb	Ro
		(Type 2)	(Type 2)	M3A	GK						W2ld	(on request)
				M3B							W2Lb	
			F/S/SF/V	M4A							W2Lc	
			(G25 Type 1)	M4B							W3c	
				M5A							W4	
			K	M5B								
			(G25 Type 2)	M6A								
				M6B								

Bevel Gear Screw Jack Mounting Position

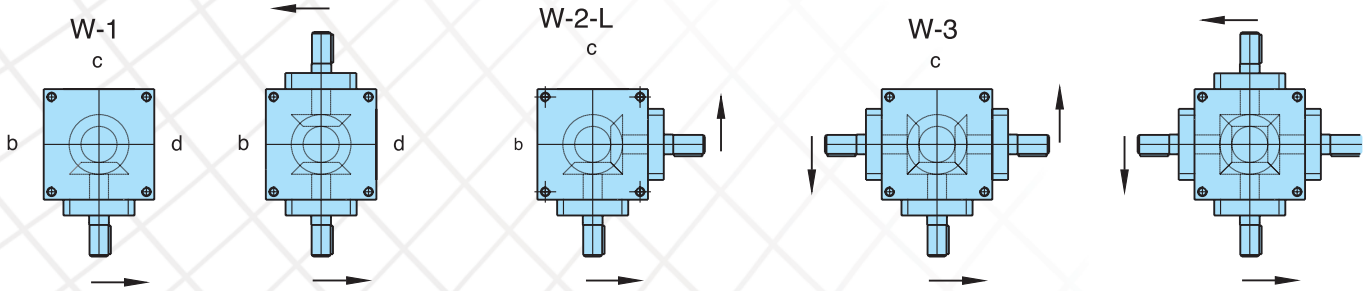
Design A



Design B



Shaft layout/Position of the oil fitting (b/c/d)



Size (kN) ..... See the Bevel Gear Screw Jack Performance table on page 19

Configuration Type ..... Type 1 - Translating screw. The screw moves through the housing
Type 2 - Rotating screw. The traveling nut moves as the screw turns.

Layout on Screw Side .....

F	Guide ring (standard) for translating screw or rotating screw
K	Guide ring for G25 rotating screw only
H	Guide ring for G25 rotating screw only

Layout on Protective Tube Side .....

S	Protective tube
V	Anti-turn device (square protective tube)
Sf	Protective tube with guide ring
Al	With mounting bracket

Mounting Position ..... This determines the orientation that the screw jack will be installed. (see page 20 of the catalog)

Screw End Type .....

Type I:	Plain End (G25)
Type II:	End plate (G15, G25, G50, G90)
Type III:	Threaded End (G15, G25, G50, G90)
Type IV:	Clevis End (G15, G25, G50, G90)
Type GK:	Female Clevis End (G15, G50, G90)

Stroke (mm) ..... Specify the stoke length in millimeters. Stoke lengths are offered in 10mm increments (ie 100 mm, 110 mm or 120 mm).

Closed Height (mm) ..... For translating screw (type 1) models. For type 2 models, value is zero

Screw Length (mm) ..... For rotating screw (type 2) models. For type 1 models, value is zero

Ratio ..... Normal Ratio (N) or Low Ratio (L). Refer to page 19 for ratios and speeds. This refers to the Cubic Screw Jack performance table.

Screw Type ..... Refer to the Cubic Screw Jack performance table on page 19 for the trapezoidal screw that comes with each size. Ball screws are available upon request.

Shaft Layout ..... This determines the position of the grease fittings based on the orientation of the bevel gear screw jack. See the chart below for shaft layout codes. W2L is the standard layout. Other configurations are available upon request. Use the drawing at the bottom of page 20.

Bevel Gear Position .....

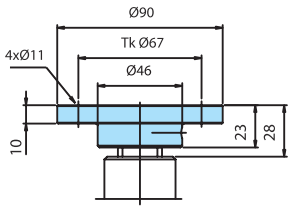
Ru	Bevel gear teeth are facing up (standard)
Ro	Bevel gear teeth are facing downward (on request)

Options for .....

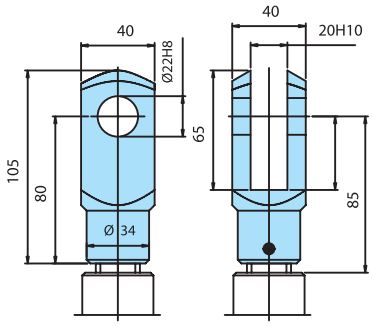
AL	Mounting bracket

G15 Bevel Gear Translating Screw (type 1)

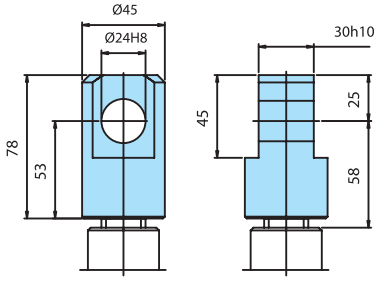
Head type II



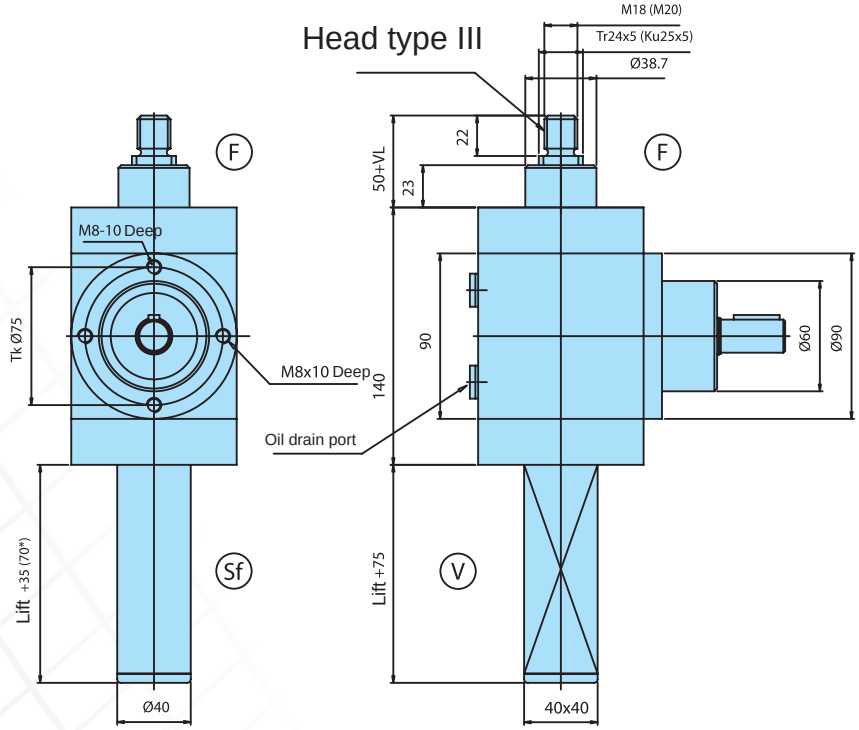
Head type GK

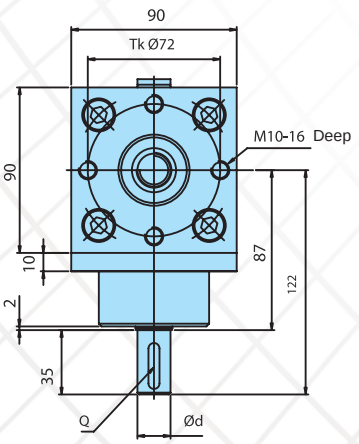


Head type IV

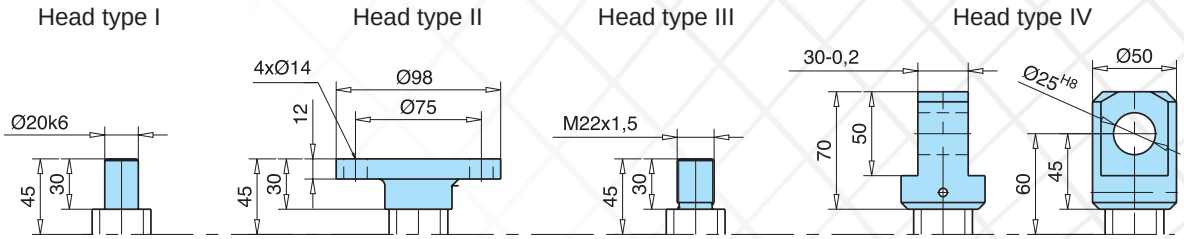


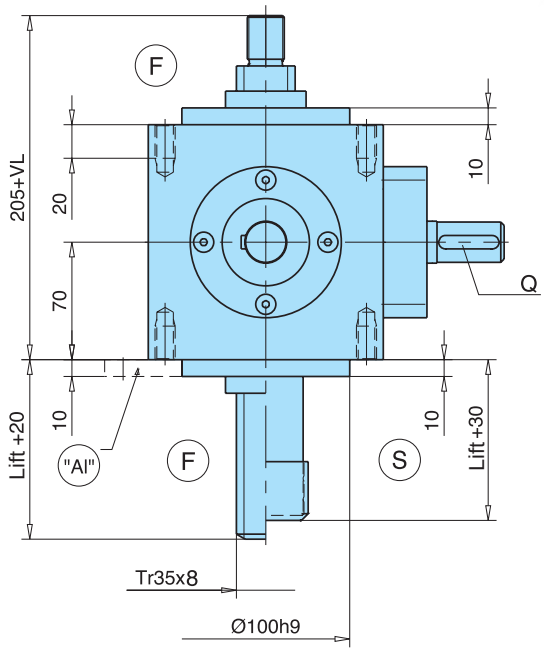
Head type III

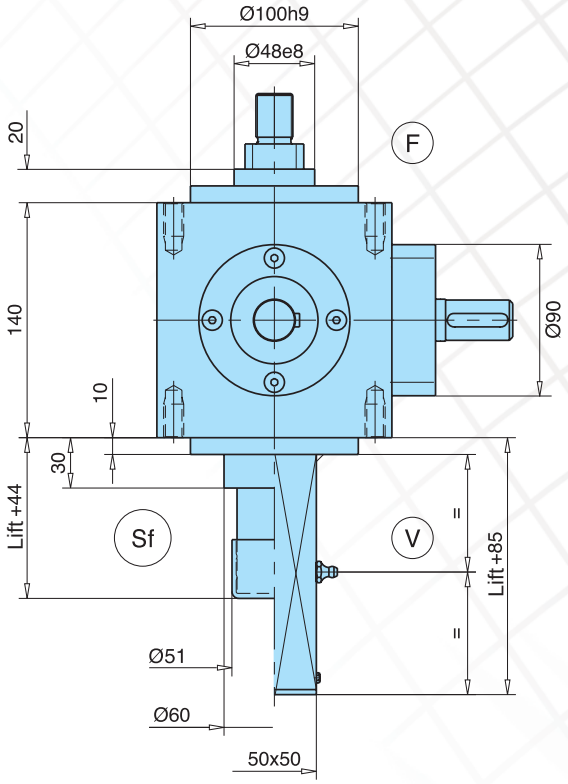


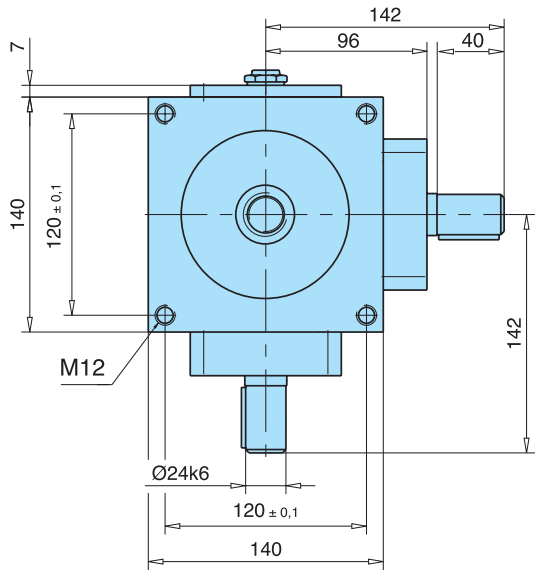


G25 Bevel Gear Translating Screw (type 1)

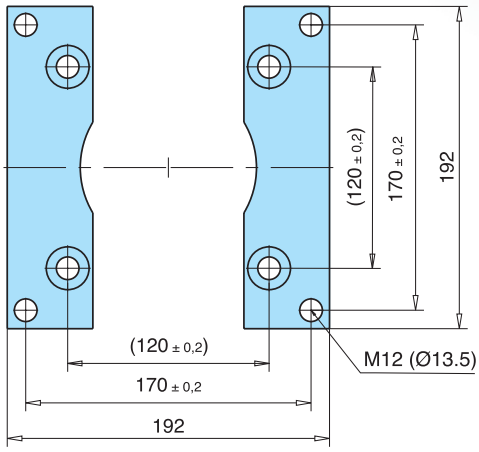






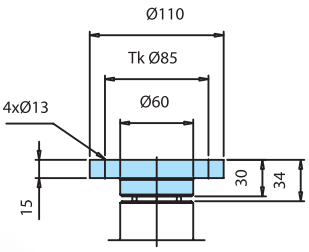


Mounting brackets "Al"

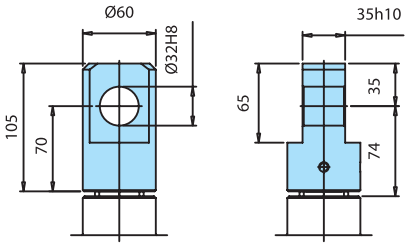


G50 Bevel Gear Translating Screw (type 1)

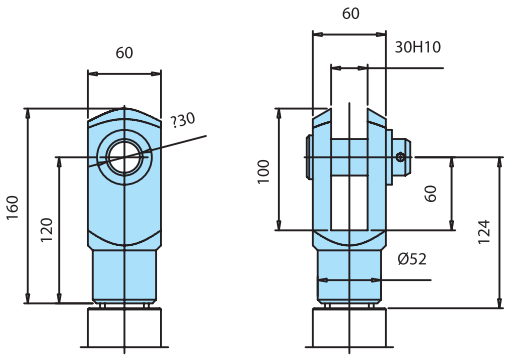
Head type II



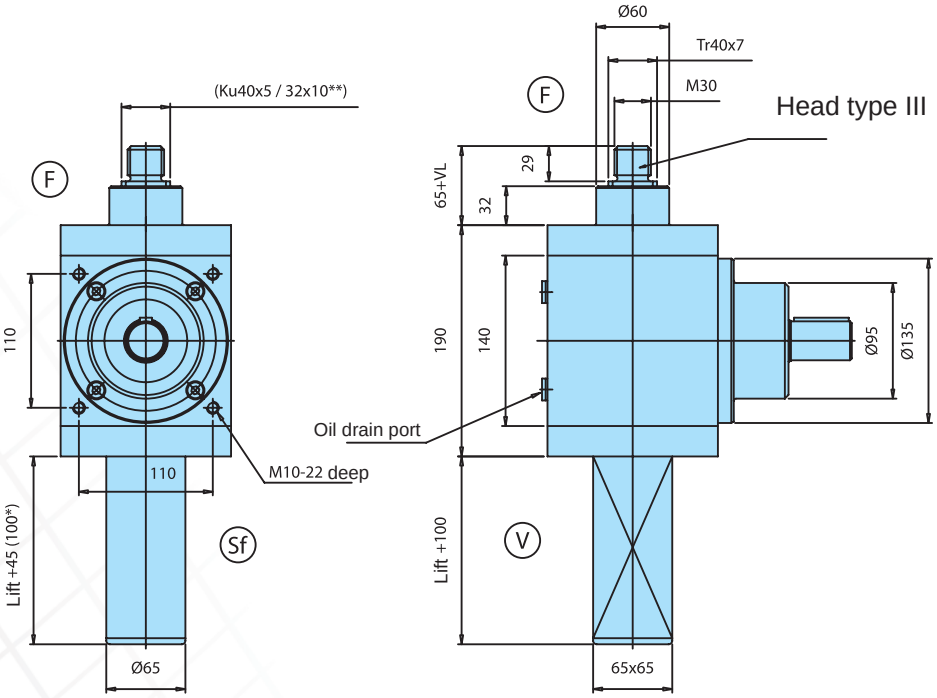
Head type IV

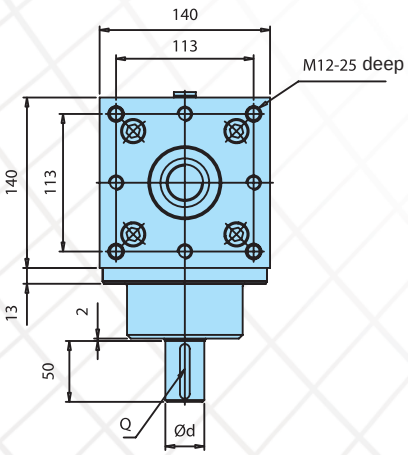


Head type GK



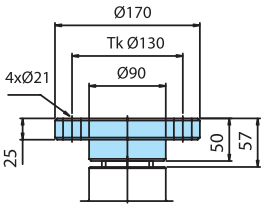
Head type III



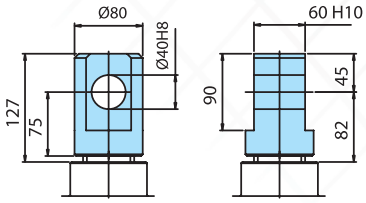


G90 Bevel Gear Translating Screw (type 1)

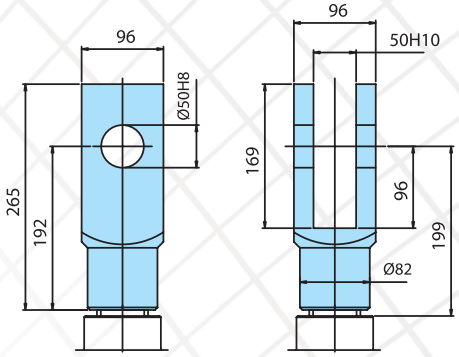
Head type II



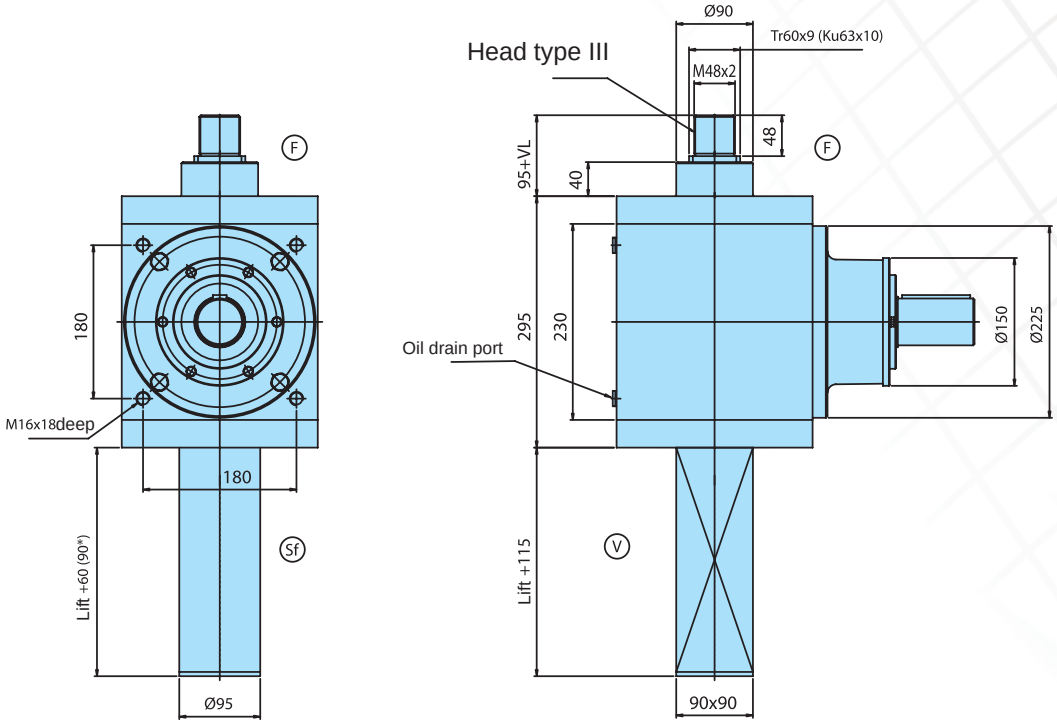
Head type IV

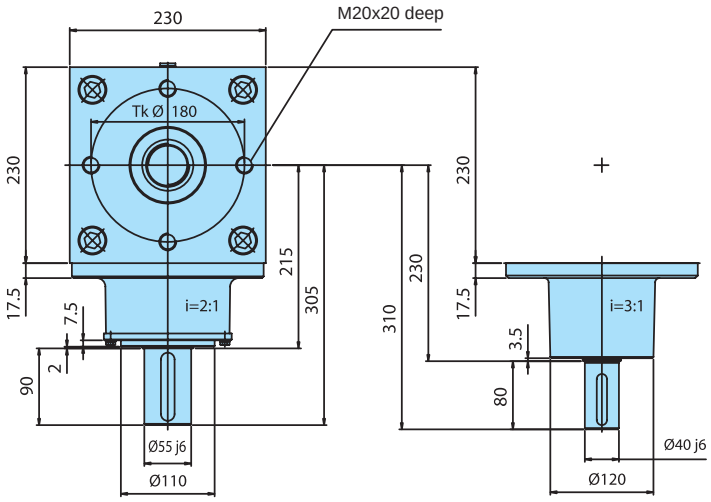


Head type GK

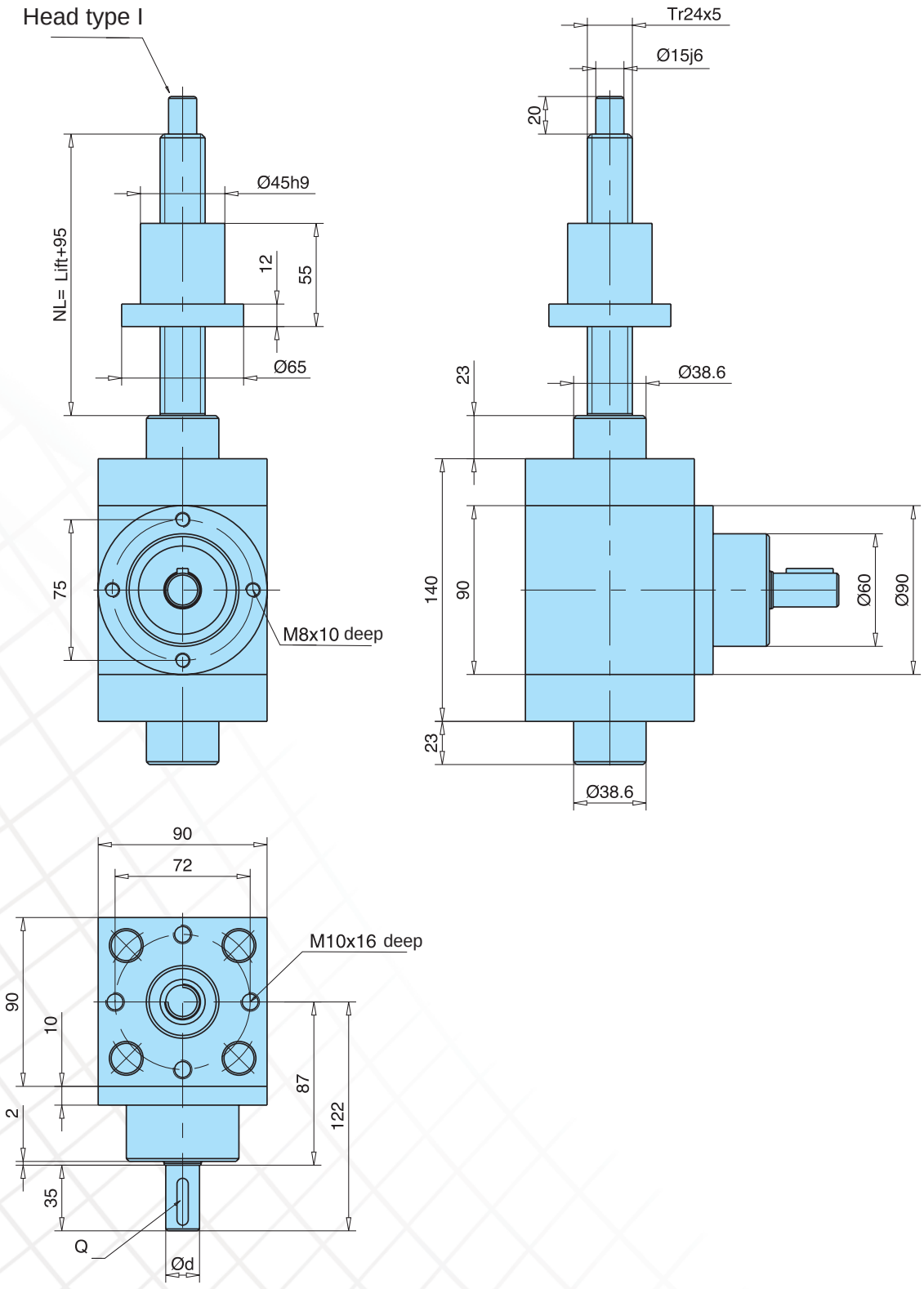


Head type III

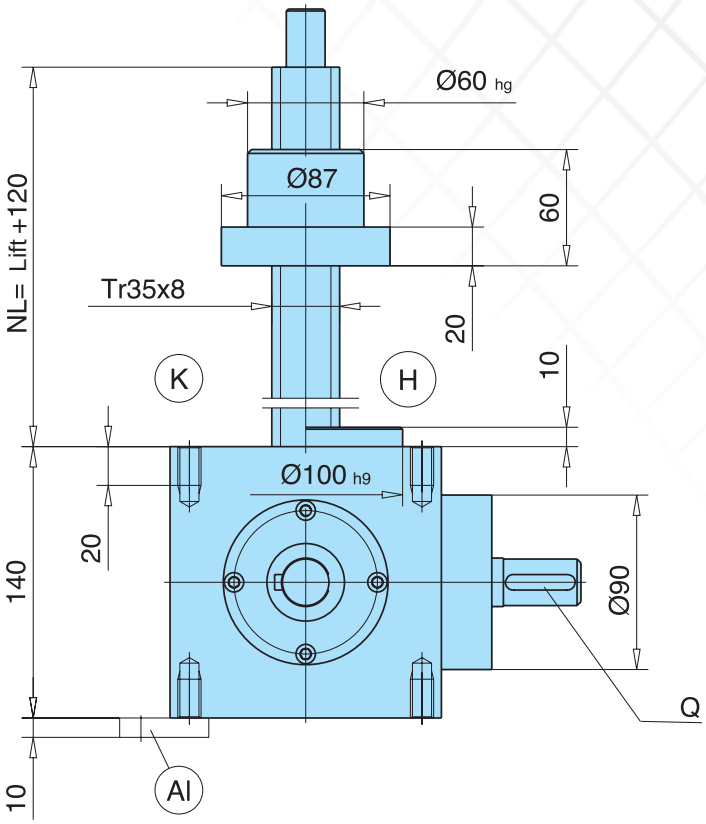




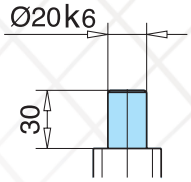
G15 Bevel Gear Traveling Nut (type 2)



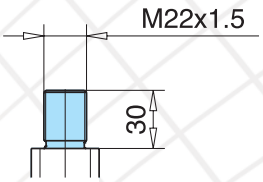
G25 Bevel Gear Traveling Nut (type 2)

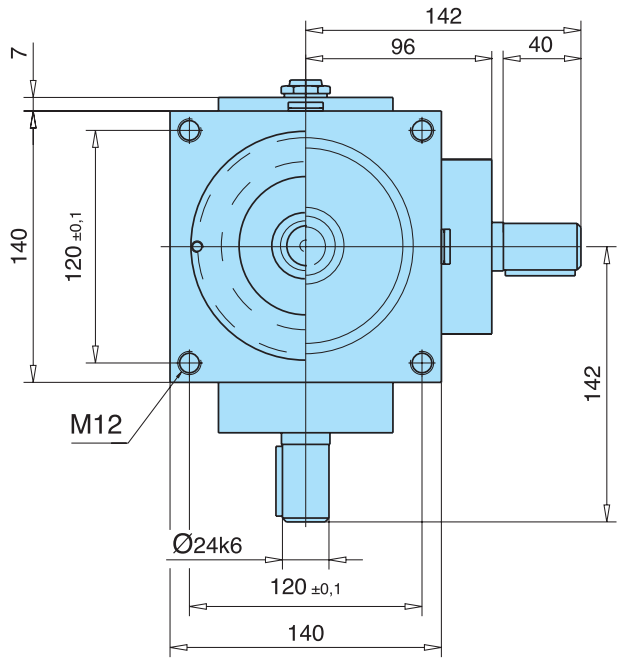


Head type I

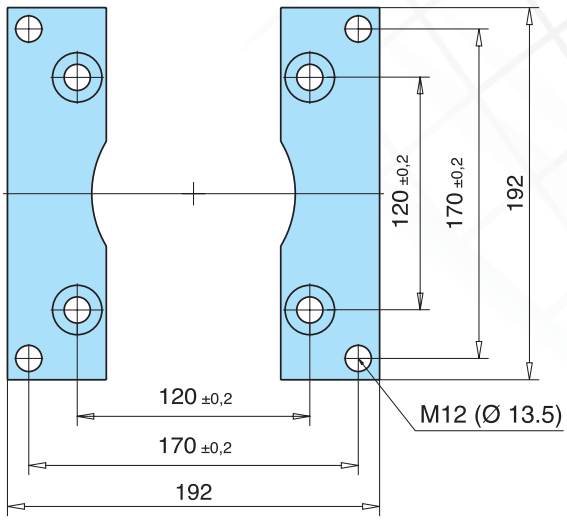


Head type III

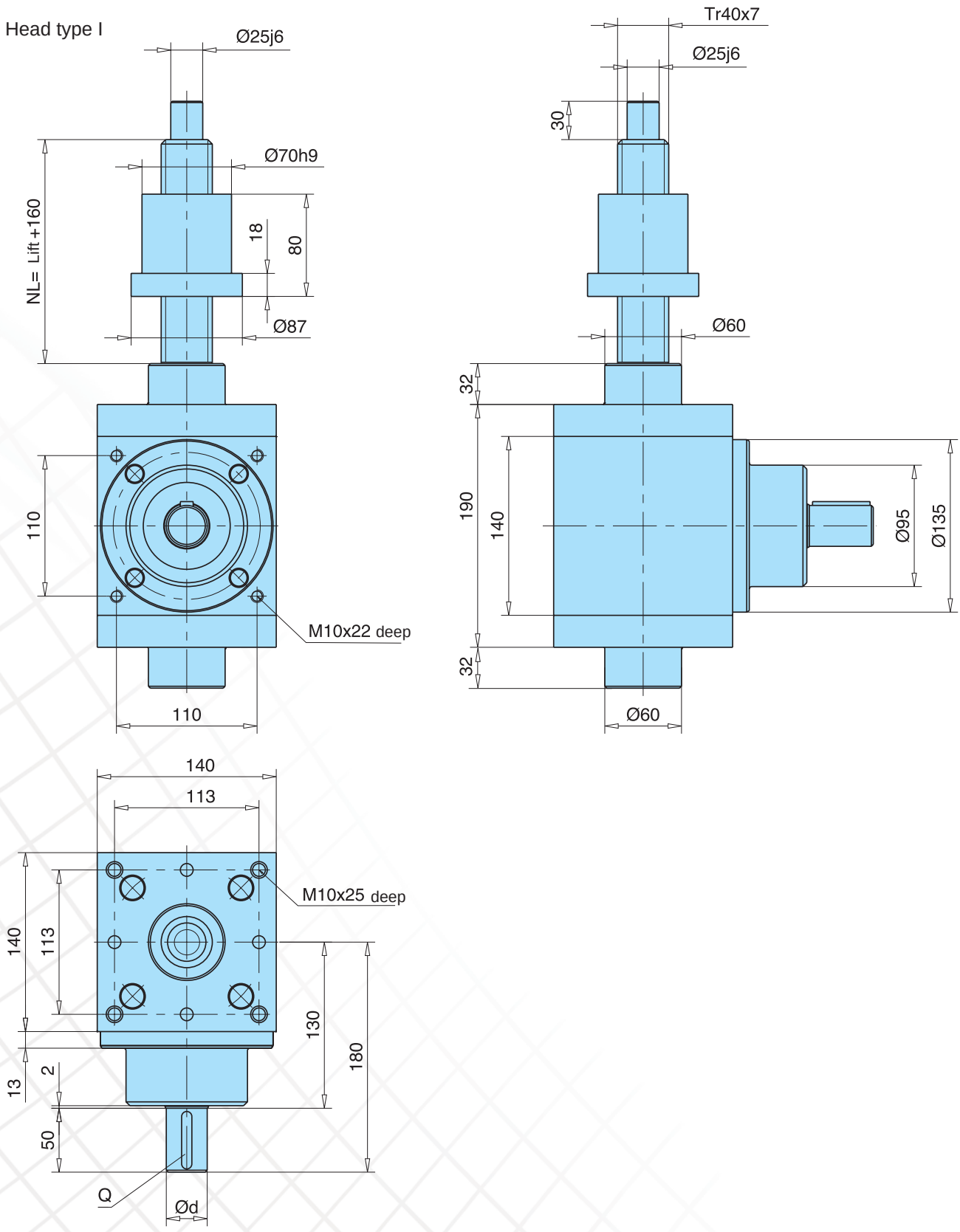




Mounting brackets AI



G50 Bevel Gear Traveling Nut (type 2)



G90 Bevel Gear Traveling Nut (type 2)