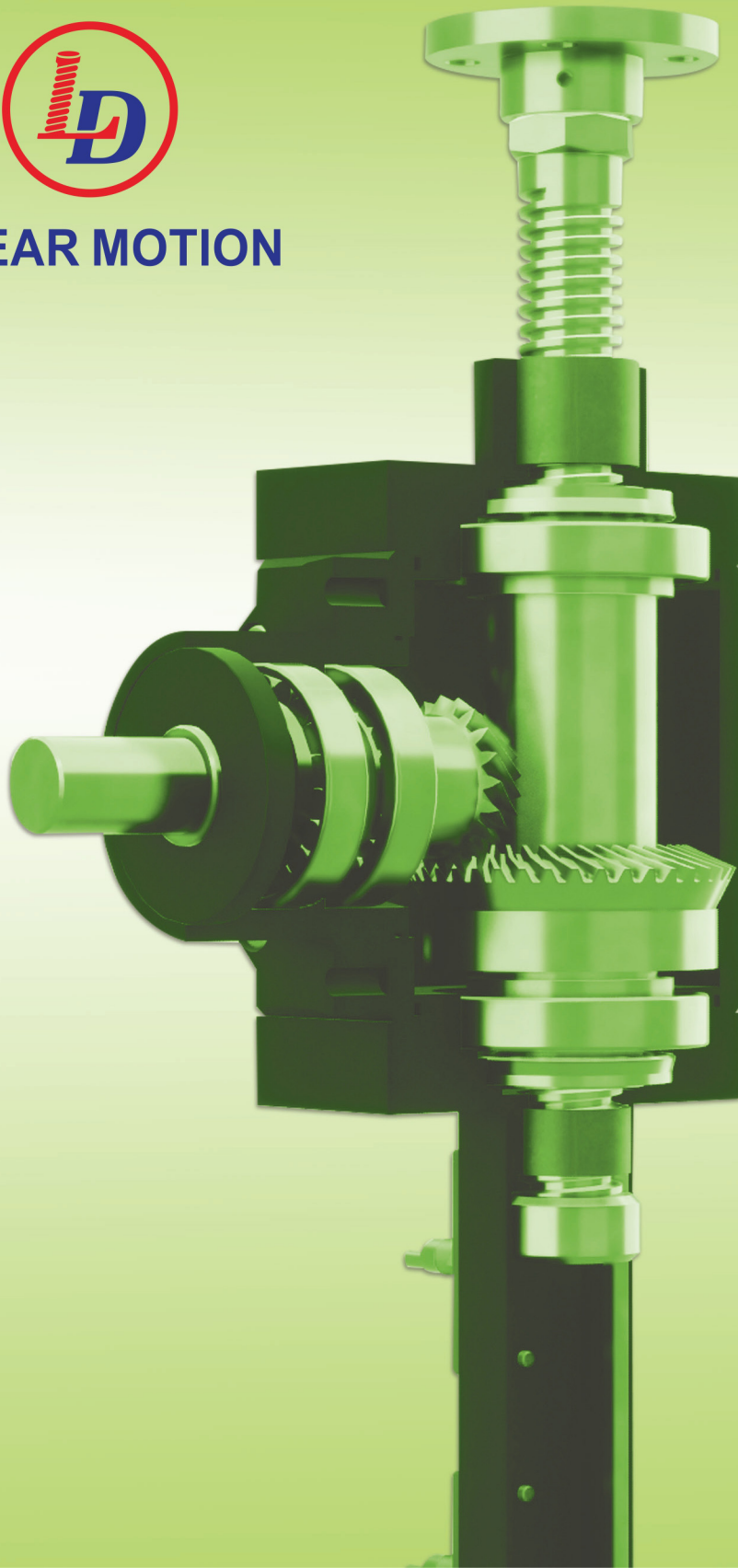


Bevel Gear Screw Jack



LINEAR MOTION



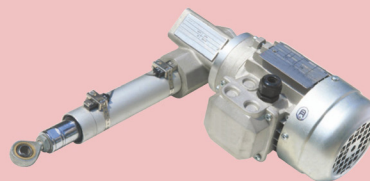
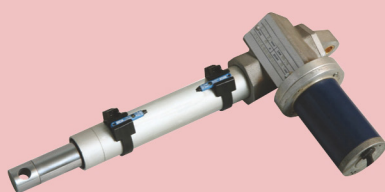


- LAP Series
- LBP Series
- SJA Series
- SJB Series
- DHB Series
- SCA Series
- SCB Series
- KVL Series
- HD Series
- DMB Series

Linear Actuator

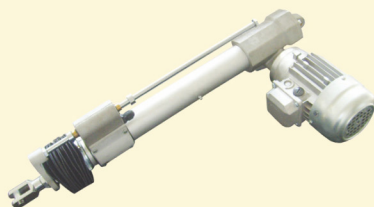
Acme screw

LAP Series



Ball screw

LBP Series



Screw Jack

Acme screw

SJA Series



Ball screw

SJB Series



Bevel Gear Screw Jack

Ball screw

DHB Series



Screw Jack Actuator

Acme screw

Ball Screw

SCA Series
SCB Series

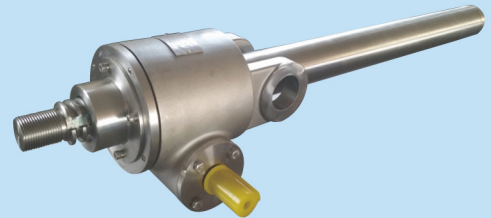


Stainless Screw Jack

Acme screw

KVL Series

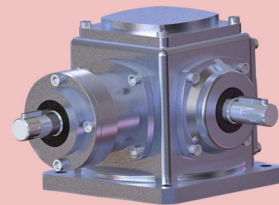
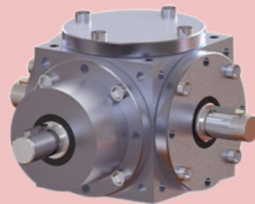
KVK Series



Bevel Gearbox

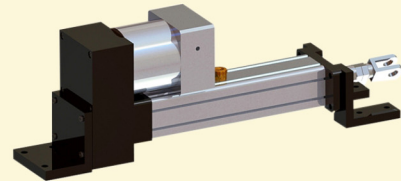
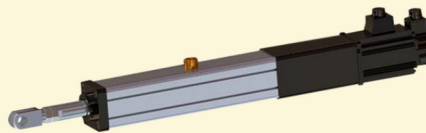
HD Series

T Series



Servo motor cylinder

DMB Series





LINEAR MOTION

Bevel Gear Screw Jack Application

Input Form:

Single-shaft layout



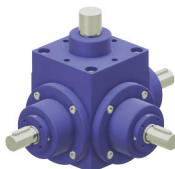
Linear double-shaft layout



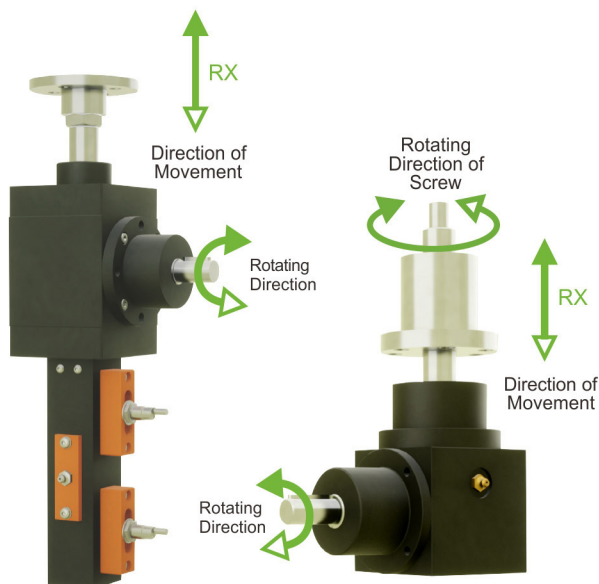
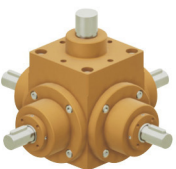
Right angle double-shaft layout



Three-shaft layout



Four-shaft layout



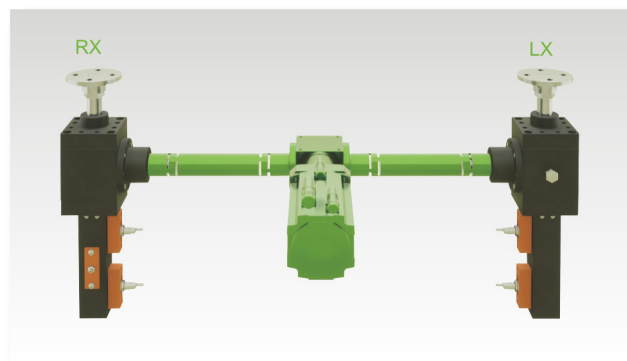
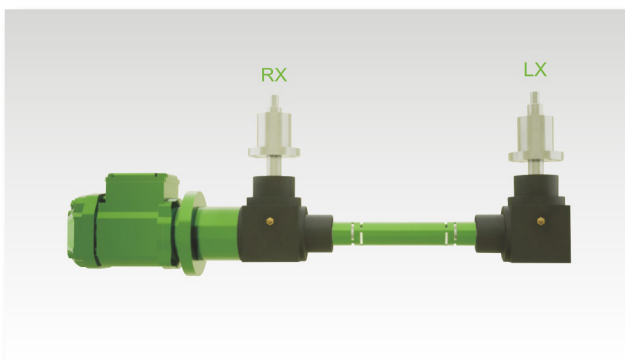
Application

Lude Transmission provides complete lifting system design and complete system components. System components include: bevel gear jack, gear motor, motor, gear reducer, transmission shaft, coupling, brake, clutch, etc. Limtec engineers will provide detailed calculation process, system component configuration, and CAD final assembly drawings, as long as the clients provide specific technical requirements: total load, speed, stroke and dimensions, etc.

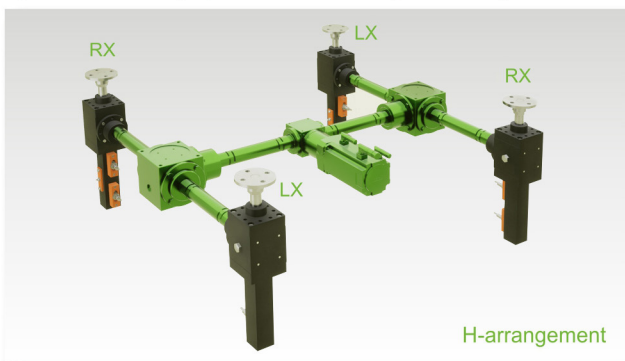
Our technical support will be the most professional.

Mature and reliable technical solutions will be the guarantee of your equipment safety.

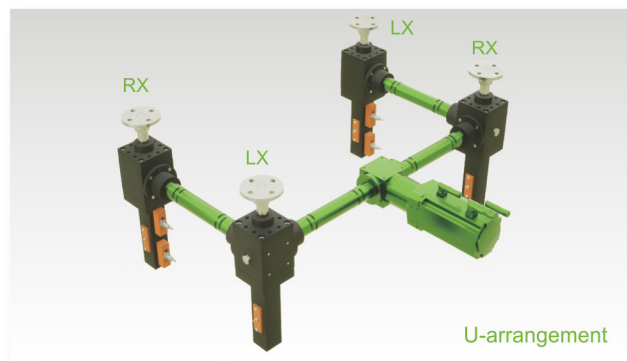
Synchronized lifting system of two bevel gear screw jacks



Synchronized lifting system of four bevel gear screw jacks



H-arrangement



U-arrangement

Selection Table Guide:

Performance Table

Size	DHB065		DHB090		DHB140		DHB160		DHB210		DHB250		DHB300	
Rated dynamic load KN	2.5		15		20		42		53		71		80	145
Rated static load KN	5		25		30		62		80		93		110	220
Screw dia x pitch mm	12x5	25x5	25x10	32x10	32x20	40x10	40x20	50x10	50x20	63x10	63x20	80x20 (Model S)	80x20 (Model R)	
Bevel gear ratio	1: 2		1: 2		1: 2		1: 2		1: 2		1: 2		1: 2	1: 2
Stroke for one input turn mm	2.5		2.5	5	5	10	5	10	5	10	5	10	10	10
Max input power kw	0.25		1.2	1.2	1.8	1.8	2.2	2.2	3	3	5	5	7	7
Max starting torque at full load Nm	1.6		5.6	5.6	22.1	22.1	39	39	45	45	174	174	183	183
Efficiency	0.78		0.75	0.78	0.77	0.78	0.76	0.78	0.75	0.78	0.74	0.77	0.76	0.76
Housing material	Spheroidal graphite iron (Stainless steel SS316 is also available)													
Weight kg	2.5		6.5	6.5	25	25	37	37	85	85	143	143	247	247
Weight per 100mm screw & protective tube kg	0.25		0.58	0.58	0.8	0.8	1.6	1.6	2.5	2.5	3.2	3.2	4.6	4.6

Note: Ambient temperature for all product: - 20°C - + 40°C (Please contact us if - 40°C - + 70°C is needed)

Within 0-500mm stroke, the positioning accuracy of the bevel gear jack is 0.05mm, the repeatability accuracy is 0.03mm, and the closed-loop accuracy is higher. Ball screw bevel gear screw jacks, can work continuously in S1 duty circle.

Lifetime calculation:

The lifetime of bevel gear Jack DHB series is mainly determined by the lifetime of ball screw, bevel gear and bearing, we just need to calculate the lifetime of ball screw and bearing. Bevel gear will wear but normally lifetime is longer than ball screw.

Theoretically Ball screw lifetime L10 is 90% of stroke ability that screw could reach before metal fatigue, Unit is million millimeter.

Theoretically lifetime is not guarantee lifetime. In order to reach max lifetime, the screw need been appropriate maintenance and lubricate.

- 95%: L10x62% 96%: L10x53%
- 97%: L10x44% 98%: L10x33%
- 99%: L10x21%

Standard Ball Nut Lifetime calculation:

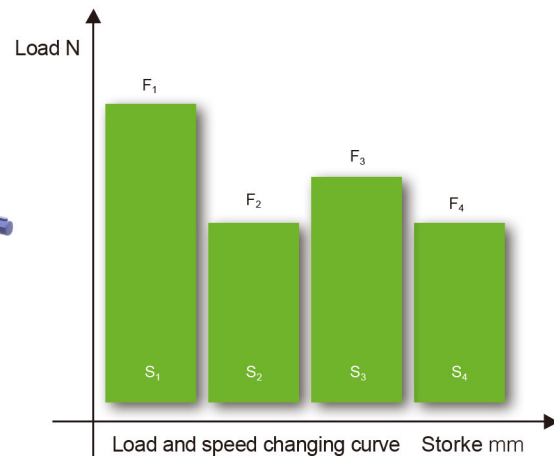
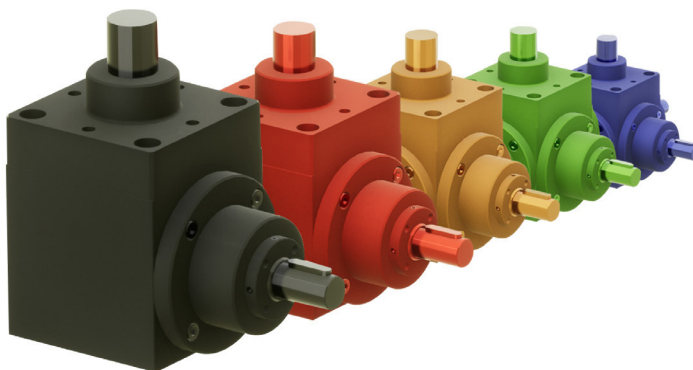
$$L_{10} = (C / F_m)^3 \times S$$

L10: theoretic lifetime km Fm: mean load N

C: Rated dynamic load N S: Ball screw lead mm

Fm mean load calculation:

$$F_m = \sqrt[3]{\frac{F_1^3 S_1 + F_2^3 S_2 + F_3^3 S_3 + F_4^3 S_4}{S_1 + S_2 + S_3 + S_4}}$$





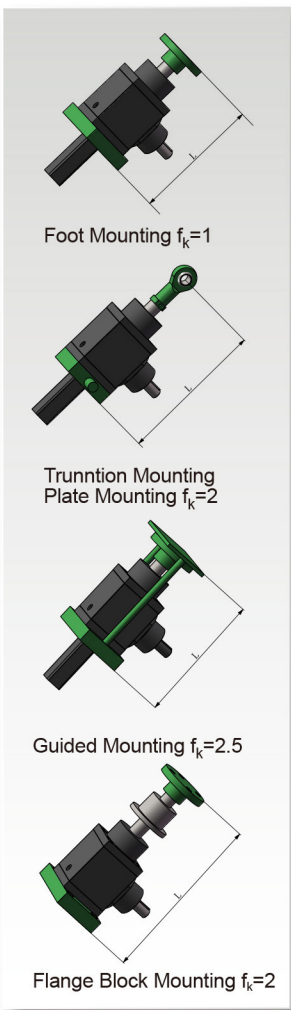
Selection Table Guide

Coding:

Type	Size	Model	Screw dia x pitch	Ratio	Stroke	Front Attachment	Screw Rotating Direction	Accessories
DHB	065	S Traveling screw	screw dia x5	1:2 Standard	100	NF Standard head	RX right-handed screw	BRE Brake
DIB	090	R Traveling nut	screw dia x10	1:1 Customized	200	TS Ball joint	LX left-handed screw	FCG Mechanical Limit switches
DLB	140		screw dia x20	1:1.5 Customized	300	TF Rod end		FPC Inductive proximity switches (PNP normally closed)
DUB	160				400	FL Flange end		B Bellows
DQB	210				500	FO Clevis end		SA Stainless steel screw
	250				Special	FQ Spherical flange		HBP Hinged bearing plate
	300							STR Protection tube rear clevis
								AR Anti-turn device
								FMP Foot plate mounting
								GE Gear motor
								HW Hand wheel
								IEC Motor flange

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

Critical Bucking Force Graphs:



Note: The rated static load of bevel gear jack is 1.5 time of the rated Dynamic Load. The extreme wreck load is 2.5-4 time of rated dynamic load, and screw length ect. will affect that. Screw Jack working in tension load are not need for stability checking.

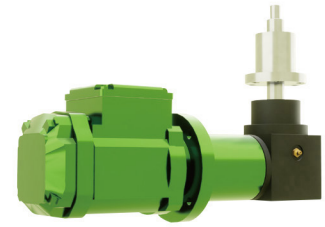
The primary screw jack size selection factor is the bucking resistance of screw, also know as Euler cures, the graphs above give safety operating atate for each size of screw jack

Buckling limits are relevant for compressive load only.

Max allowed axial load $L = Lk \times f_k$

Lk theoretical critical bucking force
 f_k correction value

Performance Table



n1=input speed Nm=input torque required kW=input power required

DHB65-12x05		Lifting Load							
		2.5kN		2kN		1.5kN		1kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	58.33	1.190	0.187	0.952	0.150	0.714	0.112	0.476	0.075
1000	37.50	1.148	0.120	0.918	0.096	0.689	0.072	0.459	0.048
750	29.17	1.190	0.093	0.952	0.075	0.714	0.056	0.476	0.037
500	20.83	1.275	0.067	1.020	0.053	0.765	0.040	0.510	0.027
300	12.50	1.275	0.040	1.020	0.032	0.765	0.024	0.510	0.016
100	4.17	1.275	0.013	1.020	0.011	0.765	0.008	0.510	0.005
50	2.08	1.275	0.007	1.020	0.005	0.765	0.004	0.510	0.003

DHB90-25x05		Lifting Load							
		15kN		10kN		5kN		2kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	62.50	7.958	1.250	5.306	0.833	2.653	0.417	1.061	0.167
1000	41.67	7.958	0.833	5.306	0.556	2.653	0.278	1.061	0.111
750	31.25	7.958	0.625	5.306	0.417	2.653	0.208	1.061	0.083
500	20.83	7.958	0.417	5.306	0.278	2.653	0.139	1.061	0.056
300	12.50	7.958	0.250	5.306	0.167	2.653	0.083	1.061	0.033
100	4.17	7.958	0.083	5.306	0.056	2.653	0.028	1.061	0.011
50	2.08	7.958	0.042	5.306	0.028	2.653	0.014	1.061	0.006

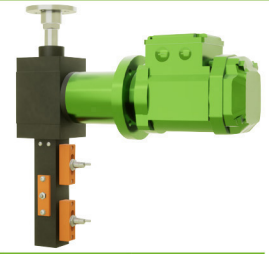
DHB90-25x10		Lifting Load							
		15kN		10kN		5kN		2kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	125.00	15.304	2.404	10.203	1.603	5.101	0.801	2.041	0.321
1000	83.33	15.304	1.603	10.203	1.068	5.101	0.534	2.041	0.214
750	62.50	15.304	1.202	10.203	0.801	5.101	0.401	2.041	0.160
500	41.67	15.304	0.801	10.203	0.534	5.101	0.267	2.041	0.107
300	25.00	15.304	0.481	10.203	0.321	5.101	0.160	2.041	0.064
100	8.33	15.304	0.160	10.203	0.107	5.101	0.053	2.041	0.021
50	4.17	15.304	0.080	10.203	0.053	5.101	0.027	2.041	0.011

Note: The green area in the table indicates that the selected model has exceeded the maximum allowable input power of that model. If selected, reduce working duty cycle, consult Lude Transmission engineers.



Selection Table Guide

Performance Table



DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

n1=input speed Nm=input torque required kW=input power required

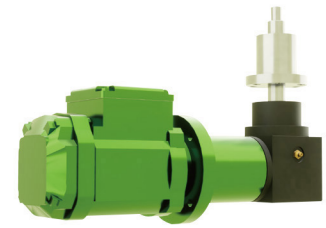
DHB140-32x10		Lifting Load							
		20kN		15kN		10kN		5kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	125.00	20.671	3.247	15.503	2.435	10.335	1.623	5.168	0.812
1000	83.33	20.671	2.165	15.503	1.623	10.335	1.082	5.168	0.541
750	62.50	20.671	1.623	15.503	1.218	10.335	0.812	5.168	0.406
500	41.67	20.671	1.082	15.503	0.812	10.335	0.541	5.168	0.271
300	25.00	20.671	0.649	15.503	0.487	10.335	0.325	5.168	0.162
100	8.33	20.671	0.216	15.503	0.162	10.335	0.108	5.168	0.054
50	4.17	20.671	0.108	15.503	0.081	10.335	0.054	5.168	0.027

DHB140-32x20		Lifting Load							
		20kN		15kN		10kN		5kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	250.00	40.812	6.410	30.609	4.808	20.406	3.205	10.203	1.603
1000	166.67	40.812	4.274	30.609	3.205	20.406	2.137	10.203	1.068
750	125.00	40.812	3.205	30.609	2.404	20.406	1.603	10.203	0.801
500	83.33	40.812	2.137	30.609	1.603	20.406	1.068	10.203	0.534
300	50.00	40.812	1.282	30.609	0.962	20.406	0.641	10.203	0.321
100	16.67	40.812	0.427	30.609	0.321	20.406	0.214	10.203	0.107
50	8.33	40.812	0.214	30.609	0.160	20.406	0.107	10.203	0.053

DHB160-40x10		Lifting Load							
		42kN		35kN		25kN		10kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	125.00	43.980	6.908	36.650	5.757	26.179	4.112	10.471	1.645
1000	83.33	43.980	4.605	36.650	3.838	26.179	2.741	10.471	1.096
750	62.50	43.980	3.454	36.650	2.878	26.179	2.056	10.471	0.822
500	41.67	43.980	2.303	36.650	1.919	26.179	1.371	10.471	0.548
300	25.00	43.980	1.382	36.650	1.151	26.179	0.822	10.471	0.329
100	8.33	43.980	0.461	36.650	0.384	26.179	0.274	10.471	0.110
50	4.17	43.980	0.230	36.650	0.192	26.179	0.137	10.471	0.055

DHB160-40x20		Lifting Load							
		42kN		35kN		25kN		10kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	250.00	85.705	13.462	71.421	11.218	51.015	8.013	20.406	3.205
1000	166.67	85.705	8.974	71.421	7.479	51.015	5.342	20.406	2.137
750	125.00	85.705	6.731	71.421	5.609	51.015	4.006	20.406	1.603
500	83.33	85.705	4.487	71.421	3.739	51.015	2.671	20.406	1.068
300	50.00	85.705	2.692	71.421	2.244	51.015	1.603	20.406	0.641
100	16.67	85.705	0.897	71.421	0.748	51.015	0.534	20.406	0.214
50	8.33	85.705	0.449	71.421	0.374	51.015	0.267	20.406	0.107

Note: The green area in the table indicates that the selected model has exceeded the maximum allowable input power of that model. If selected, reduce working duty cycle, consult Lude Transmission engineers.



n1=input speed Nm=input torque required kW=input power required

DHB210-50x10		Lifting Load							
		53kN		35kN		25kN		10kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	125.00	56.239	8.833	37.139	5.833	26.528	4.167	10.611	1.667
1000	83.33	56.239	5.889	37.139	3.889	26.528	2.778	10.611	1.111
750	62.50	56.239	4.417	37.139	2.917	26.528	2.083	10.611	0.833
500	41.67	56.239	2.944	37.139	1.944	26.528	1.389	10.611	0.556
300	25.00	56.239	1.767	37.139	1.167	26.528	0.833	10.611	0.333
100	8.33	56.239	0.589	37.139	0.389	26.528	0.278	10.611	0.111
50	4.17	56.239	0.294	37.139	0.194	26.528	0.139	10.611	0.056

DHB210-50x20		Lifting Load							
		53kN		35kN		25kN		10kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	250.00	108.152	16.987	71.421	11.218	51.015	8.013	20.406	3.205
1000	166.67	108.152	11.325	71.421	7.479	51.015	5.342	20.406	2.137
750	125.00	108.152	8.494	71.421	5.609	51.015	4.006	20.406	1.603
500	83.33	108.152	5.662	71.421	3.739	51.015	2.671	20.406	1.068
300	50.00	108.152	3.397	71.421	2.244	51.015	1.603	20.406	0.641
100	16.67	108.152	1.132	71.421	0.748	51.015	0.534	20.406	0.214
50	8.33	108.152	0.566	71.421	0.374	51.015	0.267	20.406	0.107

DHB250-63x10		Lifting Load							
		71kN		60kN		40kN		20kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	125.00	76.357	11.993	64.527	10.135	43.018	6.757	21.509	3.378
1000	83.33	76.357	7.995	64.527	6.757	43.018	4.505	21.509	2.252
750	62.50	76.357	5.997	64.527	5.068	43.018	3.378	21.509	1.689
500	41.67	76.357	3.998	64.527	3.378	43.018	2.252	21.509	1.126
300	25.00	76.357	2.399	64.527	2.027	43.018	1.351	21.509	0.676
100	8.33	76.357	0.800	64.527	0.676	43.018	0.450	21.509	0.225
50	4.17	76.357	0.400	64.527	0.338	43.018	0.225	21.509	0.113

DHB250-63x20		Lifting Load							
		71kN		60kN		40kN		20kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	250.00	146.764	23.052	124.026	19.481	82.684	12.987	41.342	6.494
1000	166.67	146.764	15.368	124.026	12.987	82.684	8.658	41.342	4.329
750	125.00	146.764	11.526	124.026	9.740	82.684	6.494	41.342	3.247
500	83.33	146.764	7.684	124.026	6.494	82.684	4.329	41.342	2.165
300	50.00	146.764	4.610	124.026	3.896	82.684	2.597	41.342	1.299
100	16.67	146.764	1.537	124.026	1.299	82.684	0.866	41.342	0.433
50	8.33	146.764	0.768	124.026	0.649	82.684	0.433	41.342	0.216

Note: The green area in the table indicates that the selected model has exceeded the maximum allowable input power of that model. If selected, reduce working duty cycle, consult Lude Transmission engineers.



Selection Table Guide

Performance Table



DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

n1=input speed Nm=input torque required kW=input power required

DHB300-80x20 Traveling Screw		Lifting Load							
		80kN		60kN		40kN		20kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	233.33	167.544	24.561	125.658	18.421	83.772	12.281	41.886	6.140
900	150.00	167.544	15.789	125.658	11.842	83.772	7.895	41.886	3.947
700	116.67	167.544	12.281	125.658	9.211	83.772	6.140	41.886	3.070
500	83.33	167.544	8.772	125.658	6.579	83.772	4.386	41.886	2.193
300	50.00	167.544	5.263	125.658	3.947	83.772	2.632	41.886	1.316
100	16.67	167.544	1.754	125.658	1.316	83.772	0.877	41.886	0.439
50	8.33	167.544	0.877	125.658	0.658	83.772	0.439	41.886	0.219

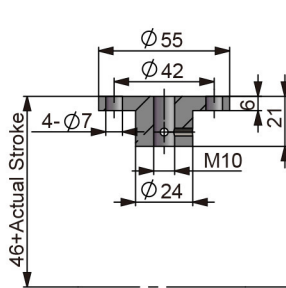
DHB300-80x20 Traveling Nut		Lifting Load							
		145kN		120kN		80kN		40kN	
n1	Lifting speed	Ratio 1:2							
RPM	mm/s	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	233.33	303.673	44.518	251.316	36.842	167.544	24.561	83.772	12.281
900	150.00	303.673	28.618	251.316	23.684	167.544	15.789	83.772	7.895
700	116.67	303.673	22.259	251.316	18.421	167.544	12.281	83.772	6.140
500	83.33	303.673	15.899	251.316	13.158	167.544	8.772	83.772	4.386
300	50.00	303.673	9.539	251.316	7.895	167.544	5.263	83.772	2.632
100	16.67	303.673	3.180	251.316	2.632	167.544	1.754	83.772	0.877
50	8.33	303.673	1.590	251.316	1.316	167.544	0.877	83.772	0.439

Note: The green area in the table indicates that the selected model has exceeded the maximum allowable input power of that model. If selected, reduce working duty cycle, consult Lude Transmission engineers.

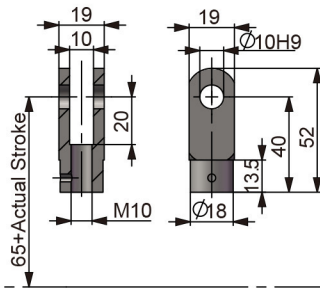
Overall Dimensions of Bevel Gear Screw Jack

DHB065-12x05

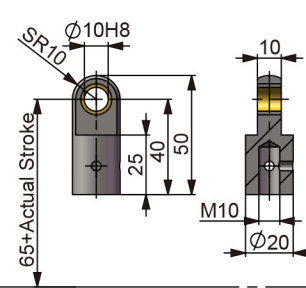
Flange end FL



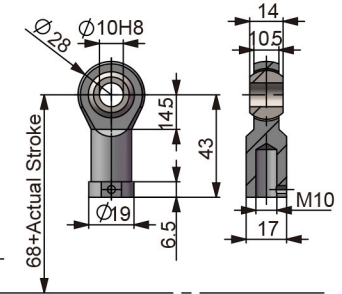
Clevis end FO



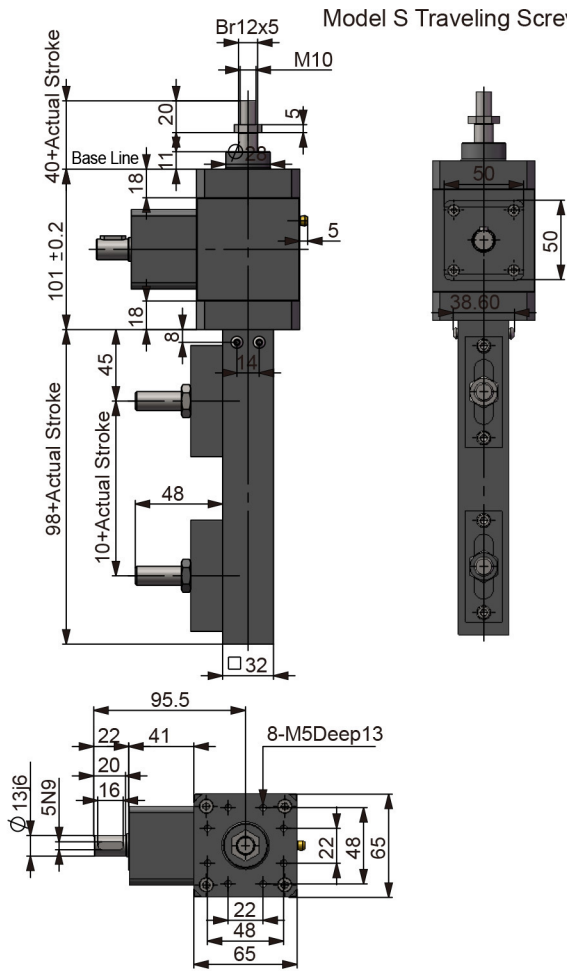
Rod end TF



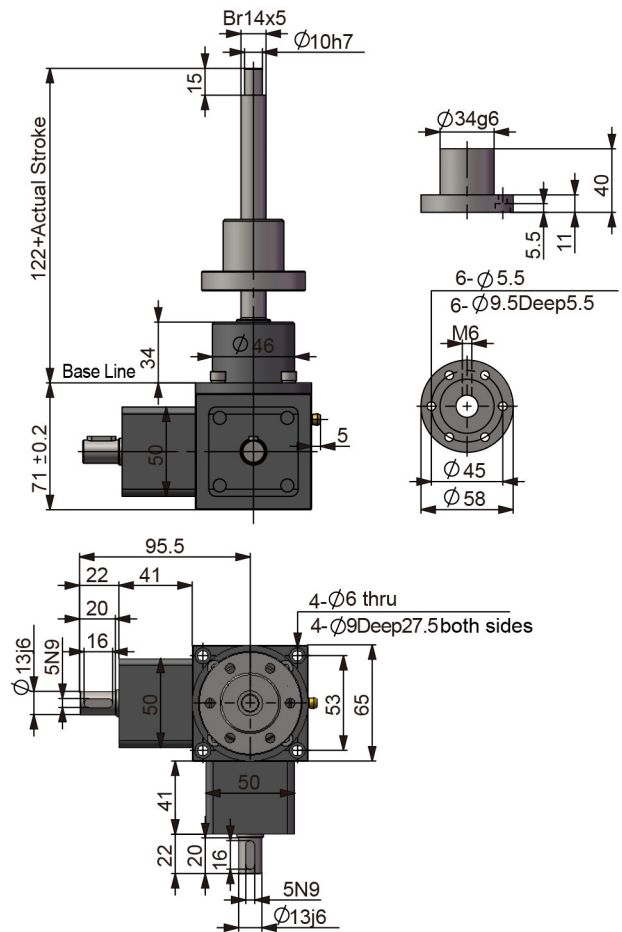
Ball joint TS



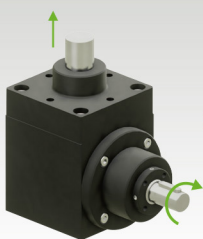
Model S Traveling Screw



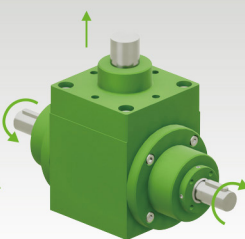
Model R Traveling Nut



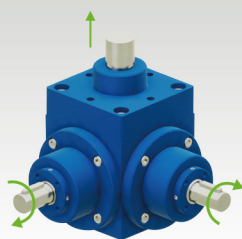
Note: The screw diameter of model R bevel gear screw jack can be customized to Ø16.



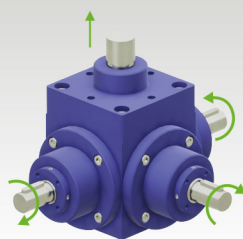
DHB-RX



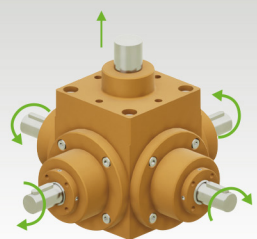
DIB-RX



DLB-RX

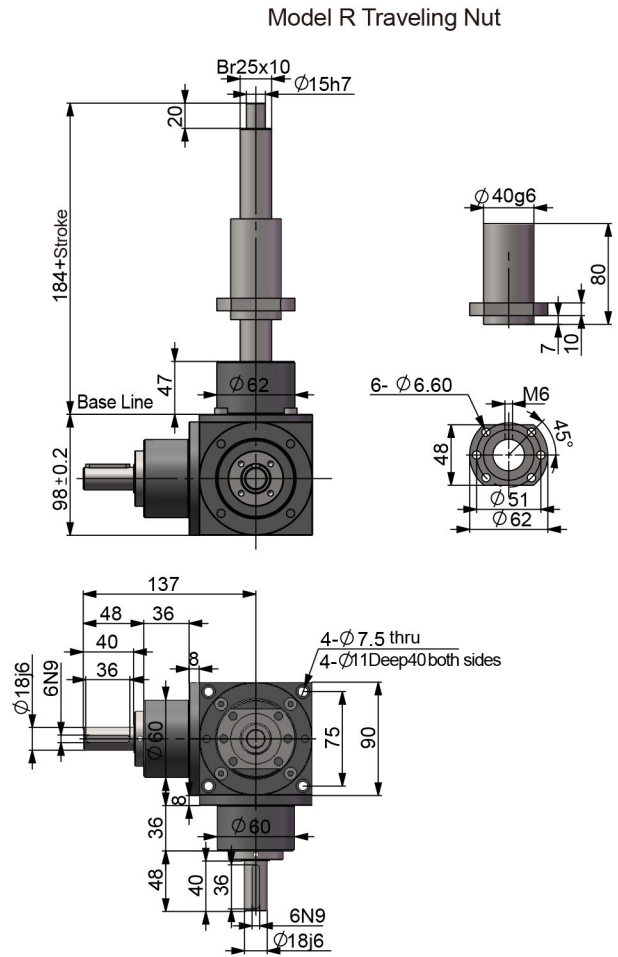
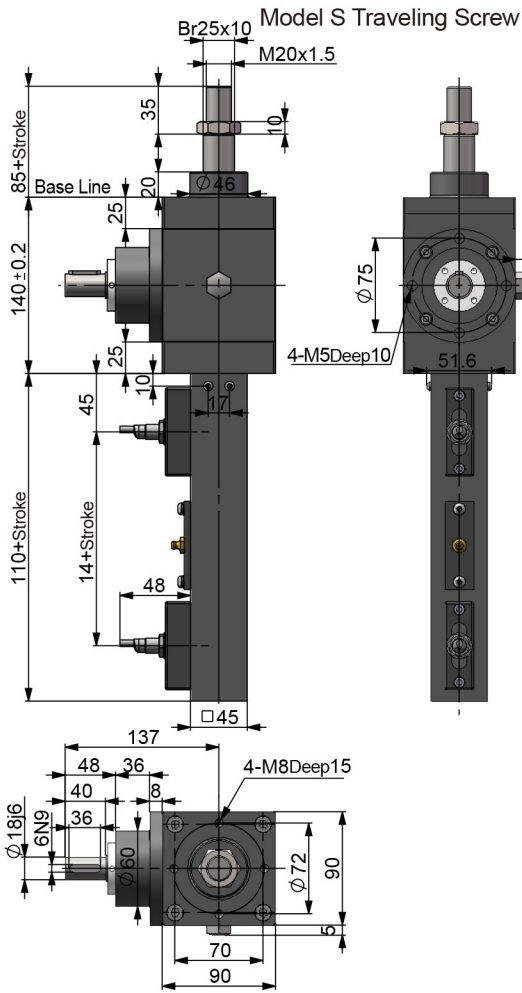
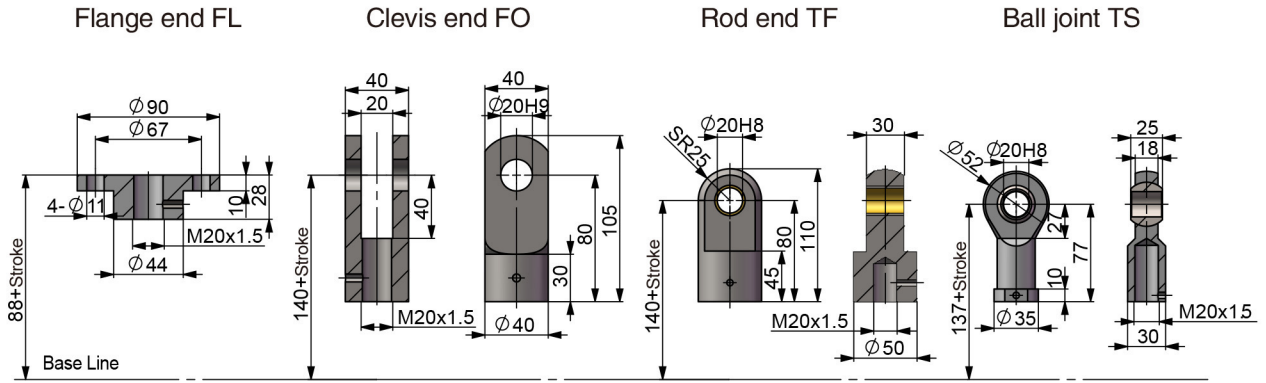


DUB-RX

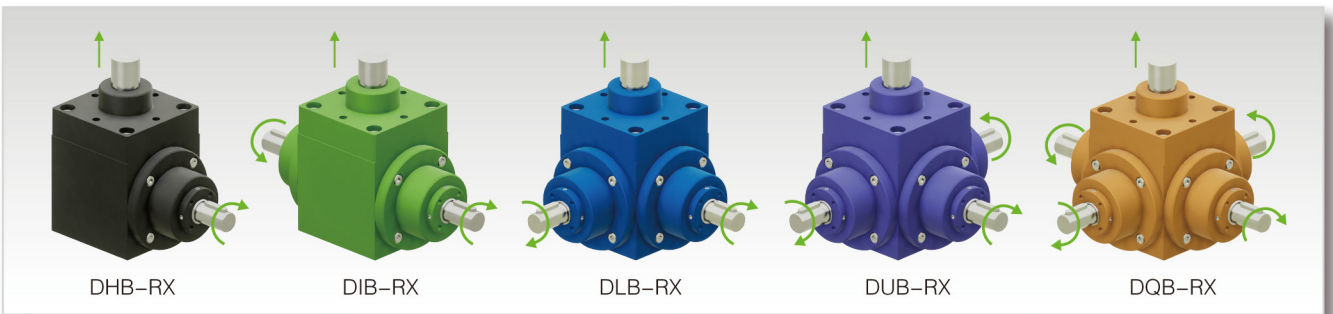


DQB-RX

DHB090-25x10



Note: The screw diameter of model R bevel gear screw jack can be customized to $\phi 32$.





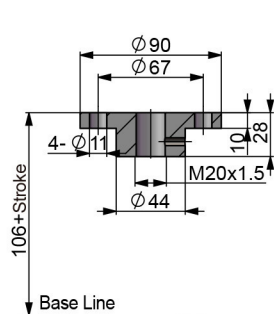
Overall Dimensions of Bevel Gear Screw Jack

DHB140-32x10

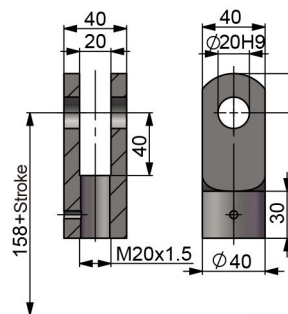
DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

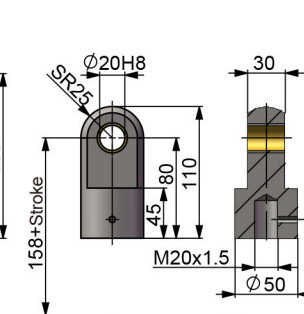
Flange end FL



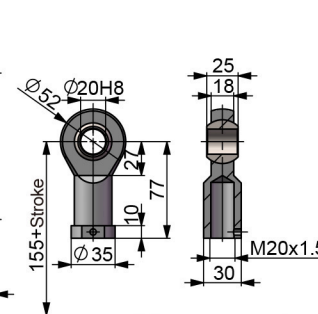
Clevis end FO



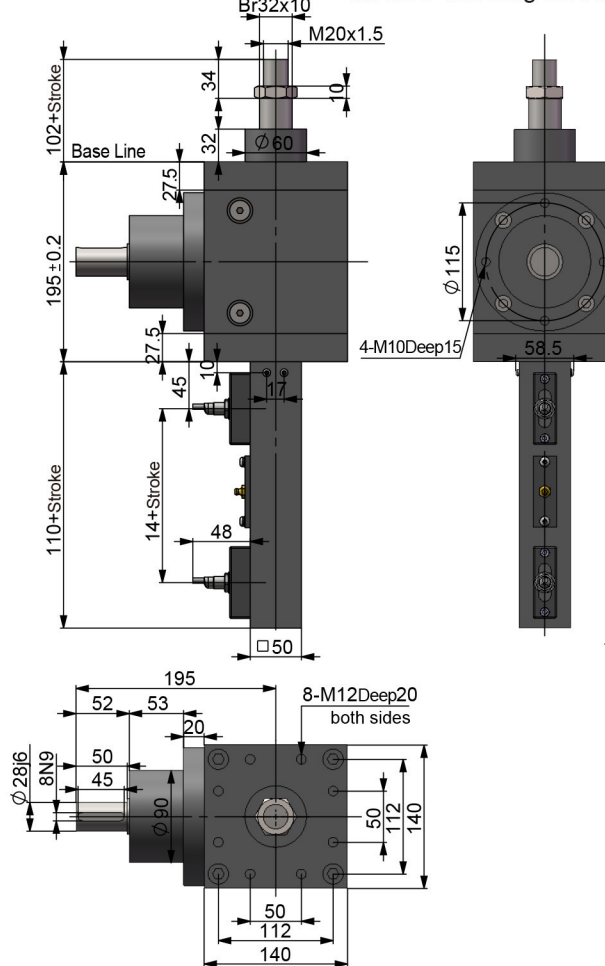
Rod end TF



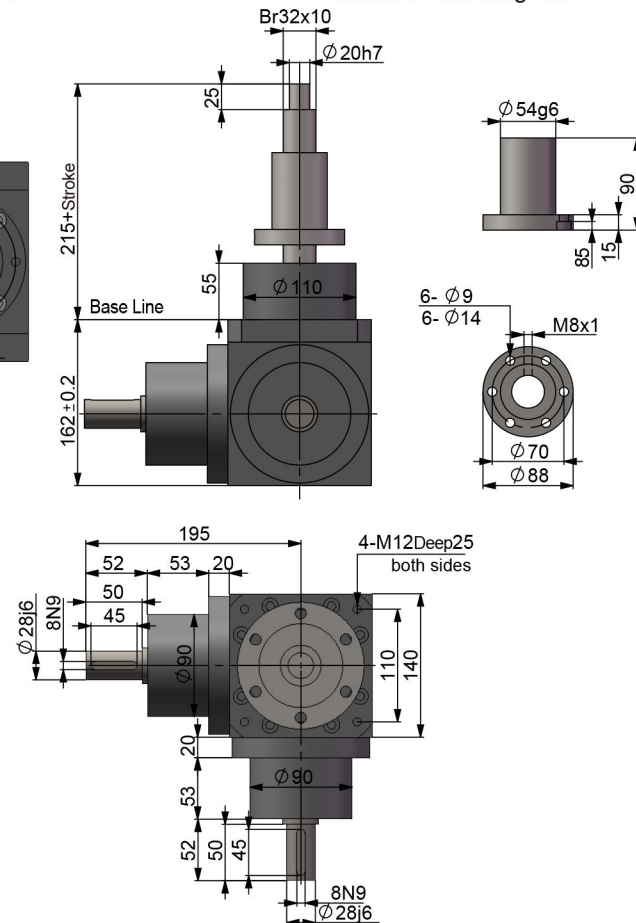
Ball joint TS



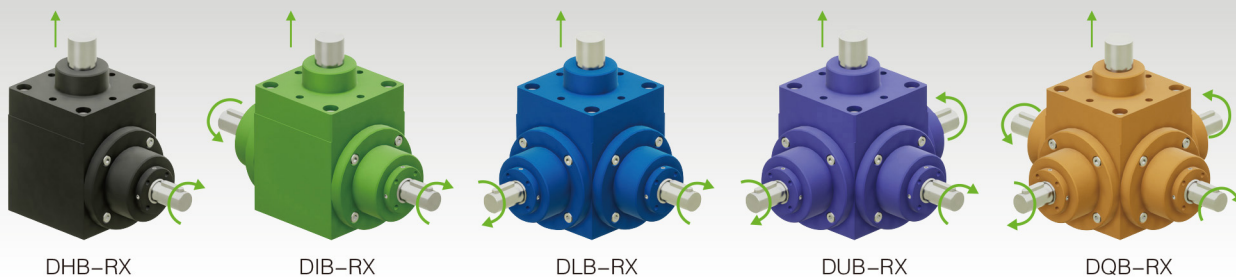
Model S Traveling Screw



Model R Traveling Nut

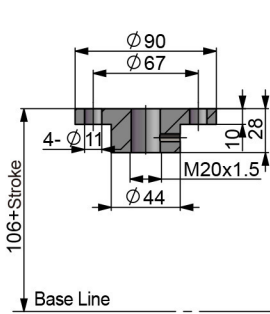


Note: The screw diameter of model R bevel gear screw jack can be customized to Ø40.

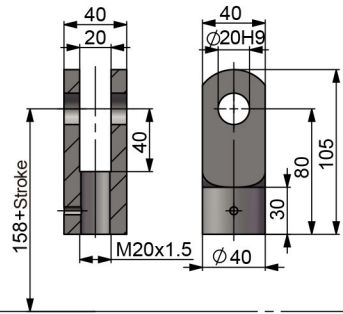


DHB140-32x20

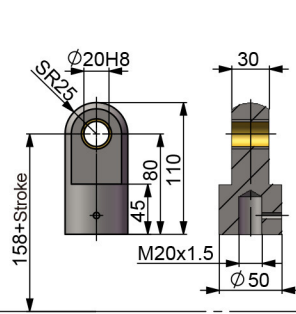
Flange end FL



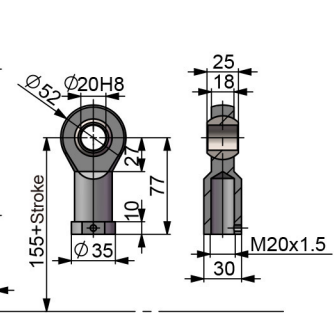
Clevis end FO



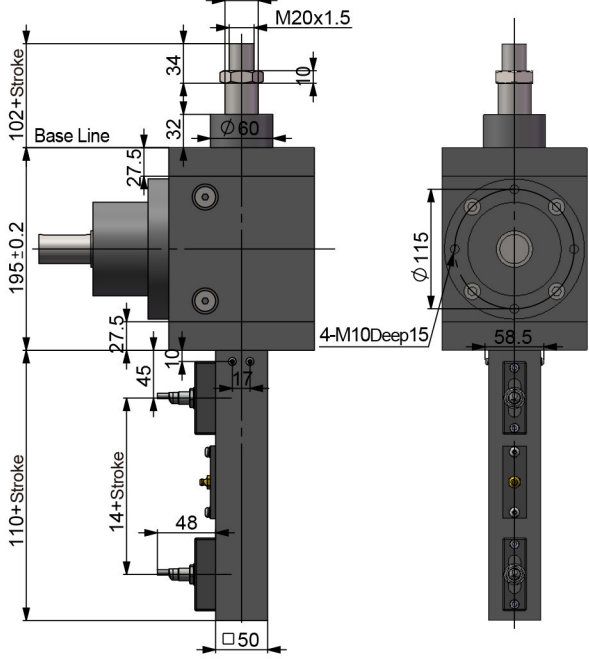
Rod end TF



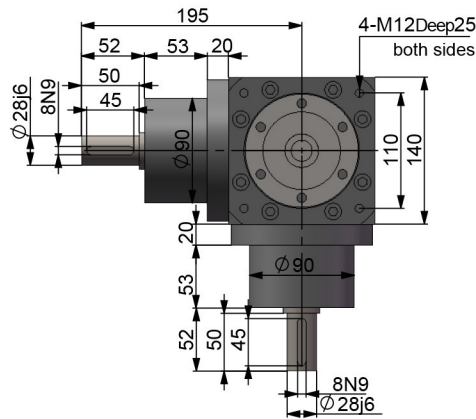
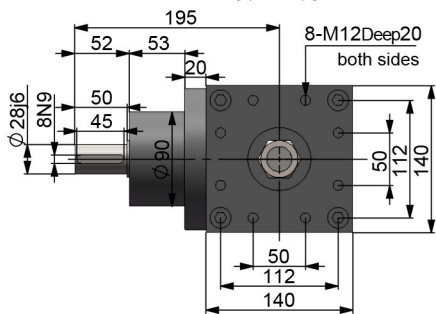
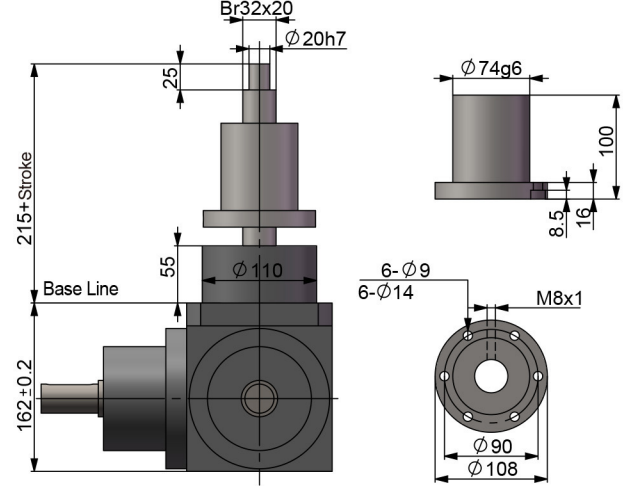
Ball joint TS



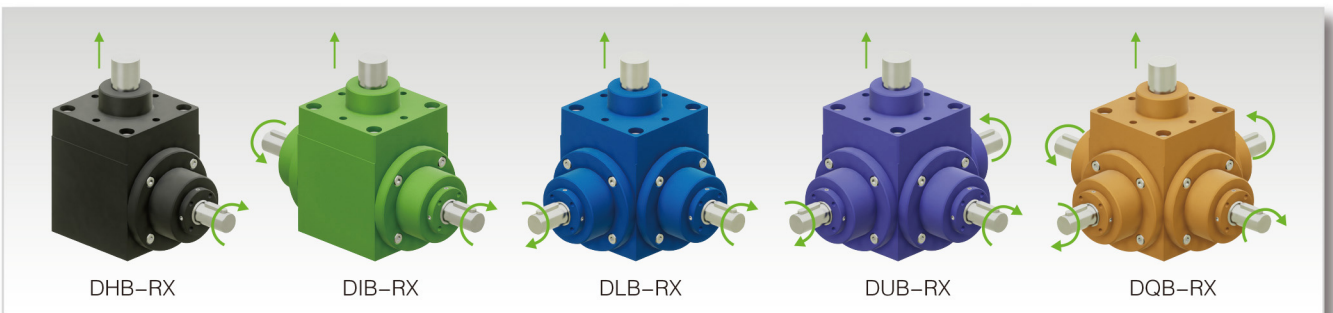
Model S Traveling Screw



Model R Traveling Nut



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø40.



DHB-RX

DIB-RX

DLB-RX

DUB-RX

DQB-RX



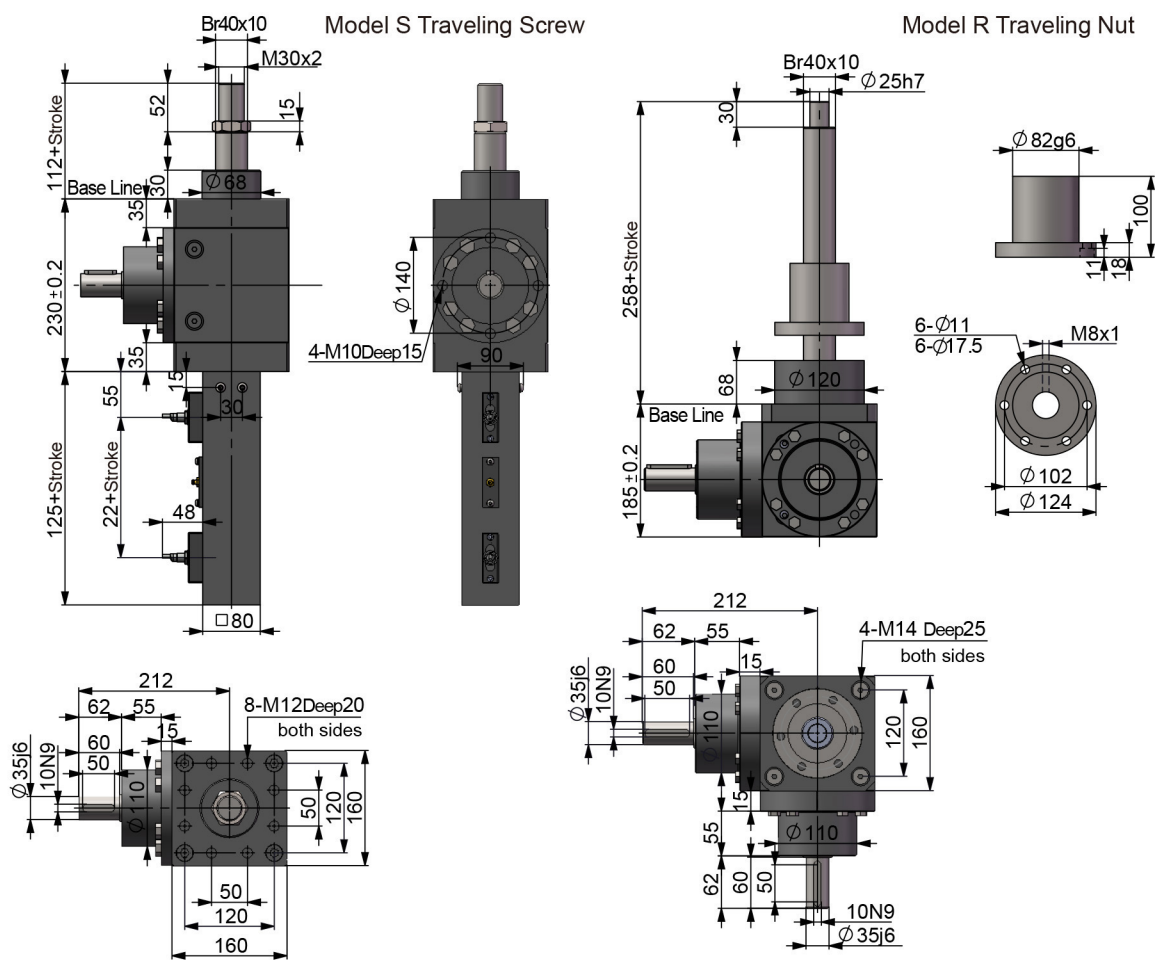
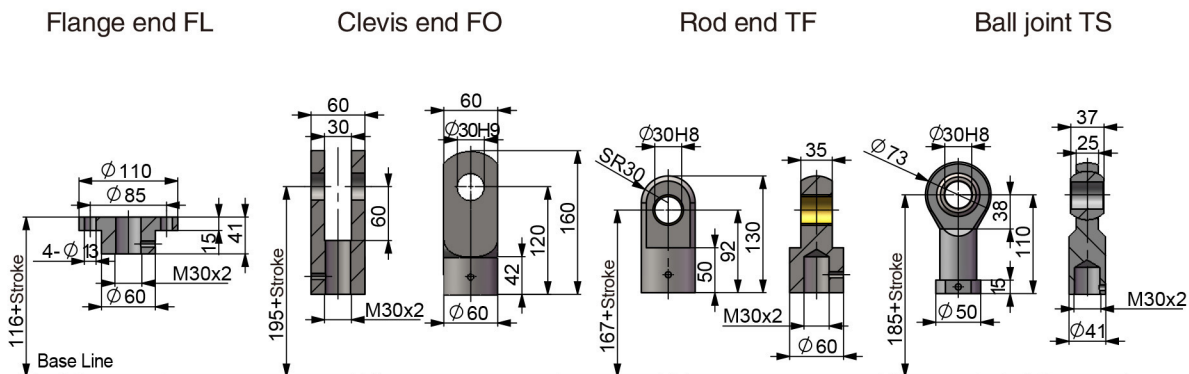
LINEAR MOTION

Overall Dimensions of Bevel Gear Screw Jack

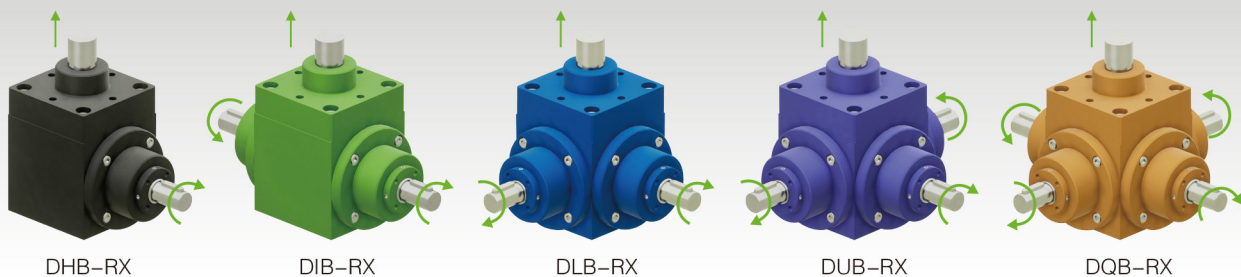
DHB160-40x10

DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø50.



DHB-RX

DIB-RX

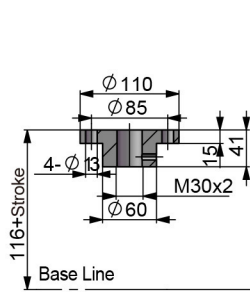
DLB-RX

DUB-RX

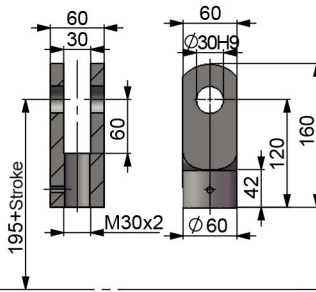
DQB-RX

DHB160-40x20

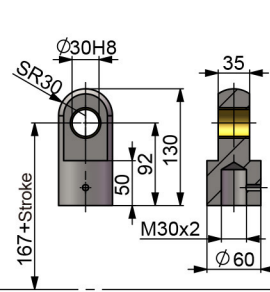
Flange end FL



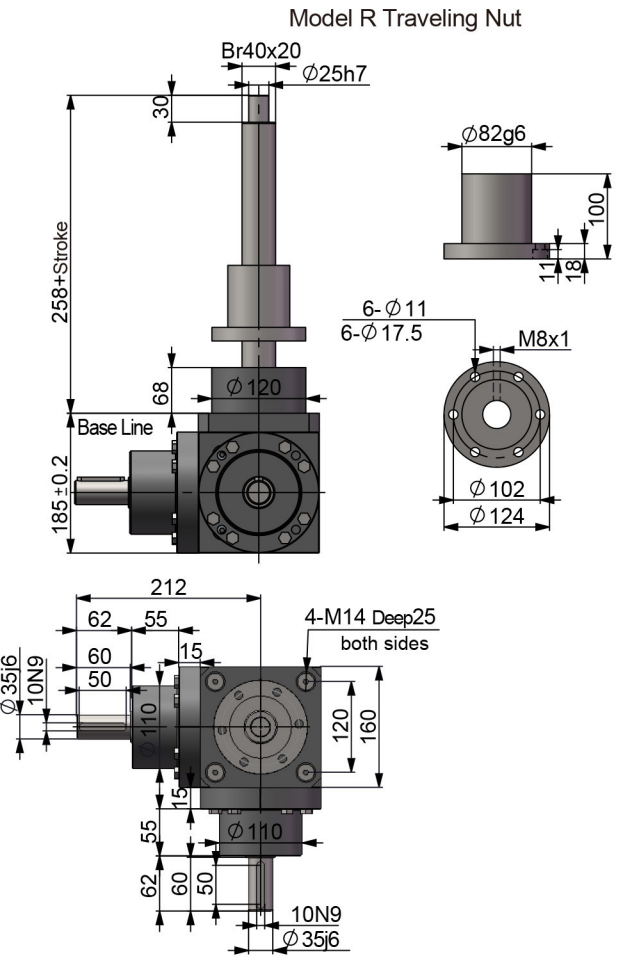
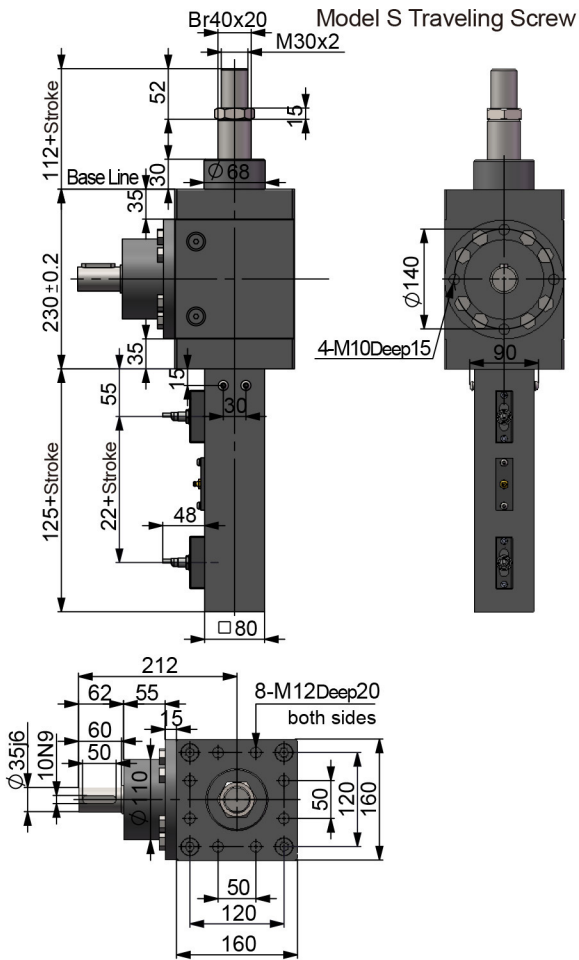
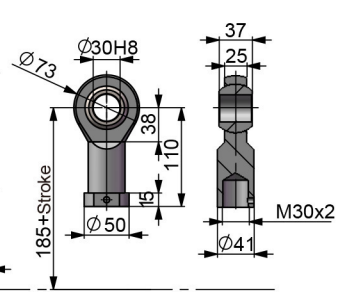
Clevis end FO



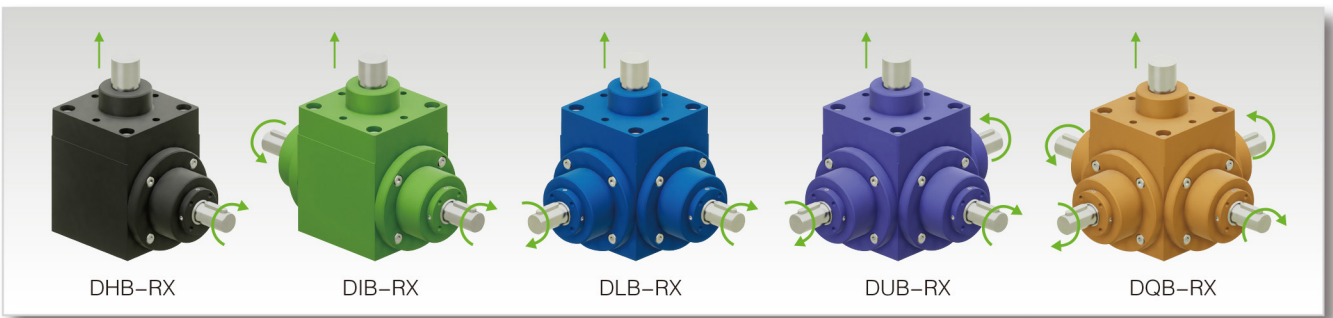
Rod end TF



Ball joint TS



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø50.



DHB-RX

DIB-RX

DLB-RX

DUB-RX

DQB-RX



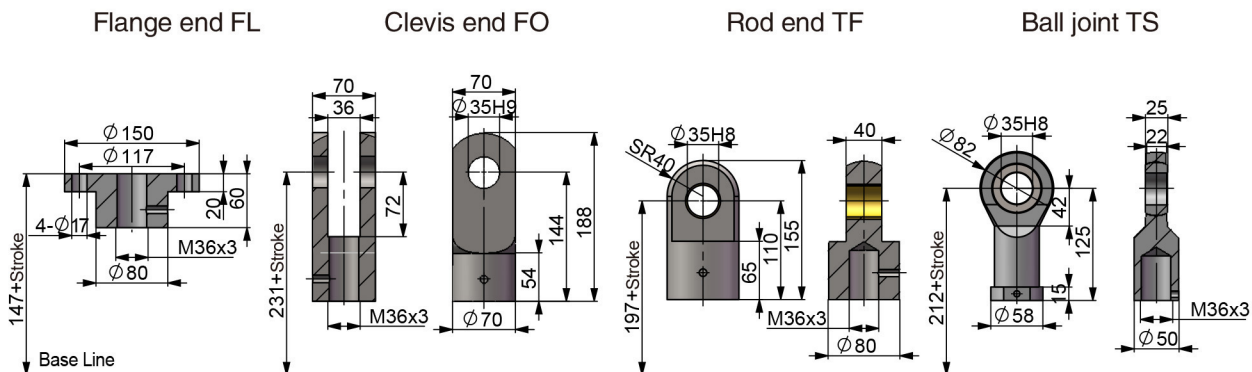
LINEAR MOTION

Overall Dimensions of Bevel Gear Screw Jack

DHB210-50x10

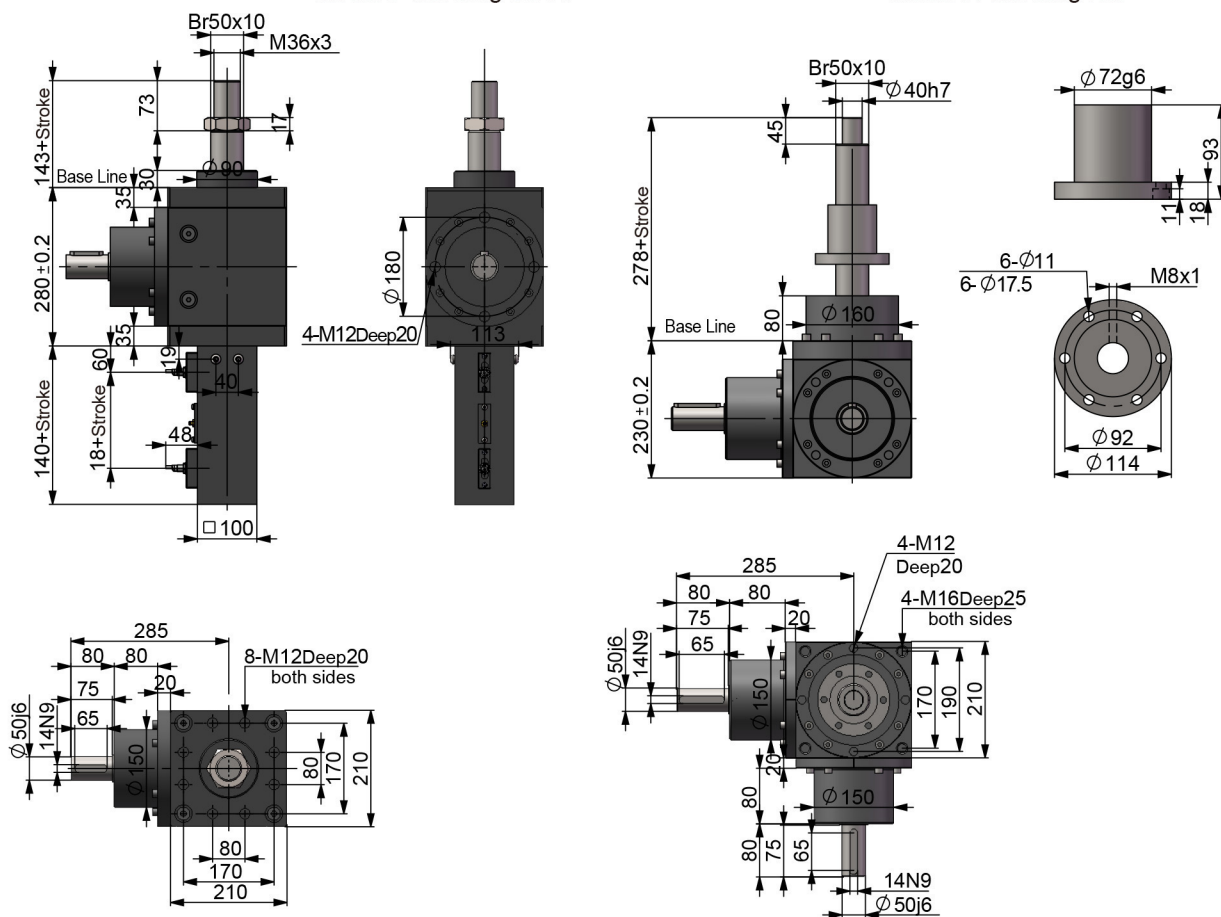
DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

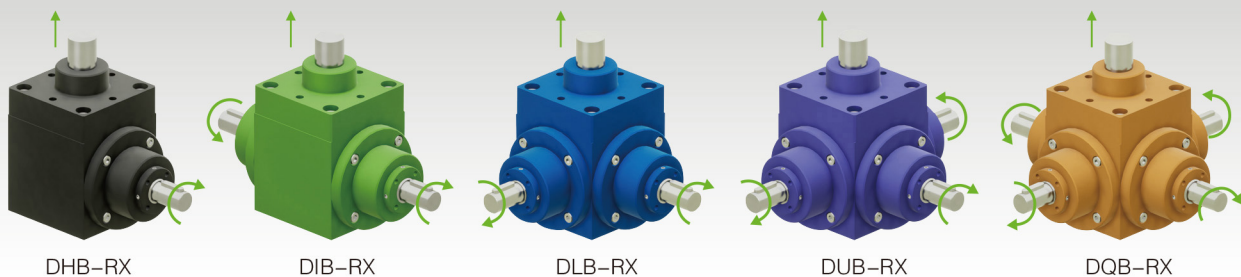


Model S Traveling Screw

Model R Traveling Nut

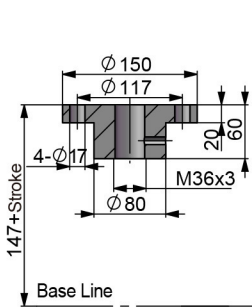


Note: The screw diameter of model R bevel gear screw jack can be customized to $\phi 63$.

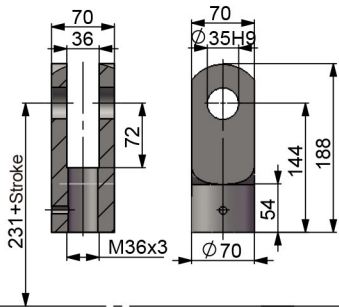


DHB210-50x20

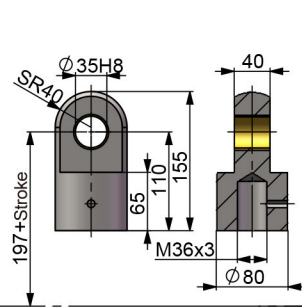
Flange end FL



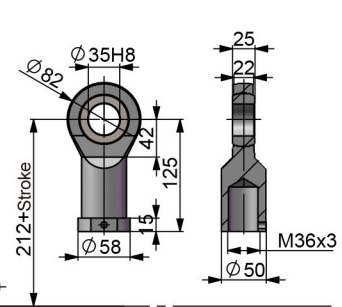
Clevis end FO



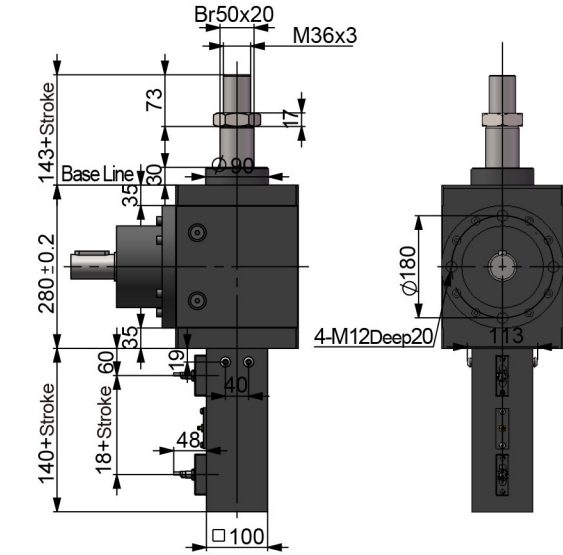
Rod end TF



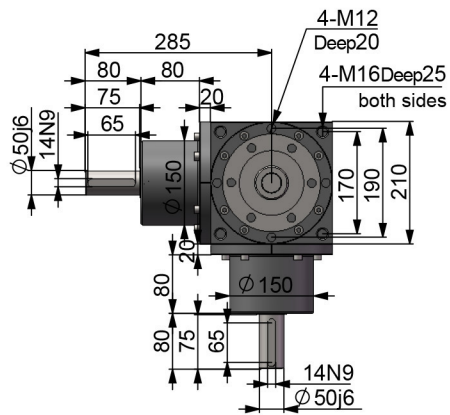
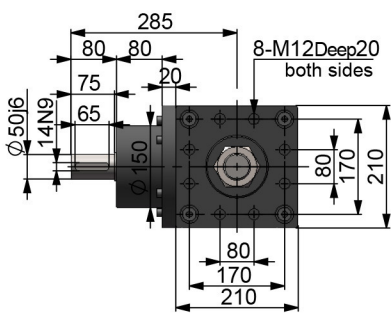
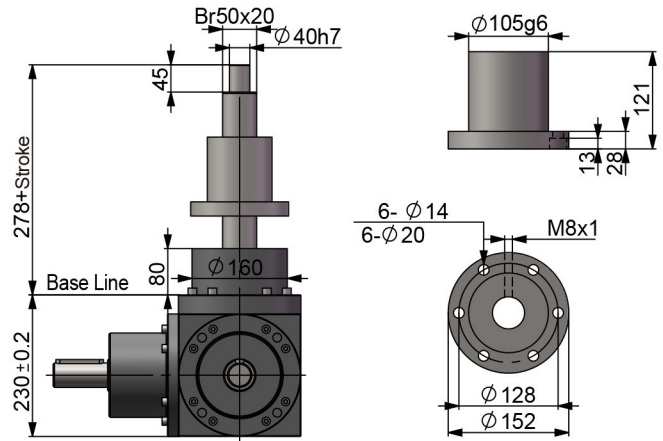
Ball joint TS



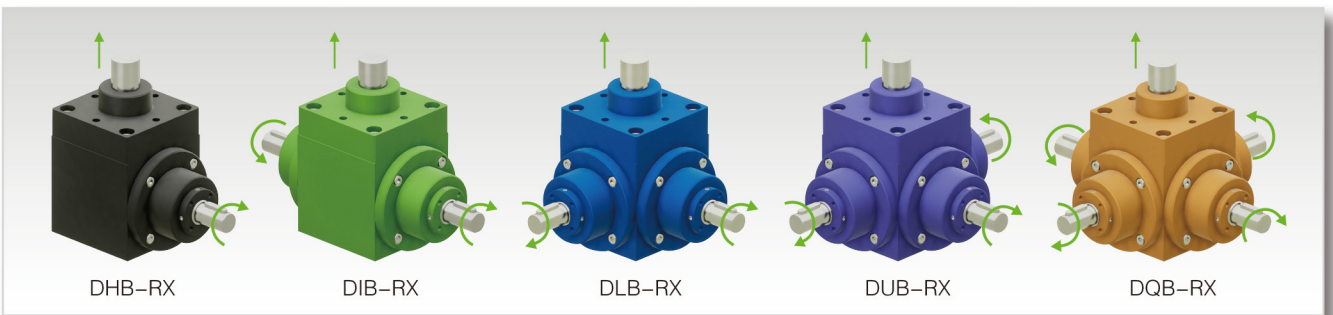
Model S Traveling Screw



Model R Traveling Nut



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø63.



DHB-RX

DIB-RX

DLB-RX

DUB-RX

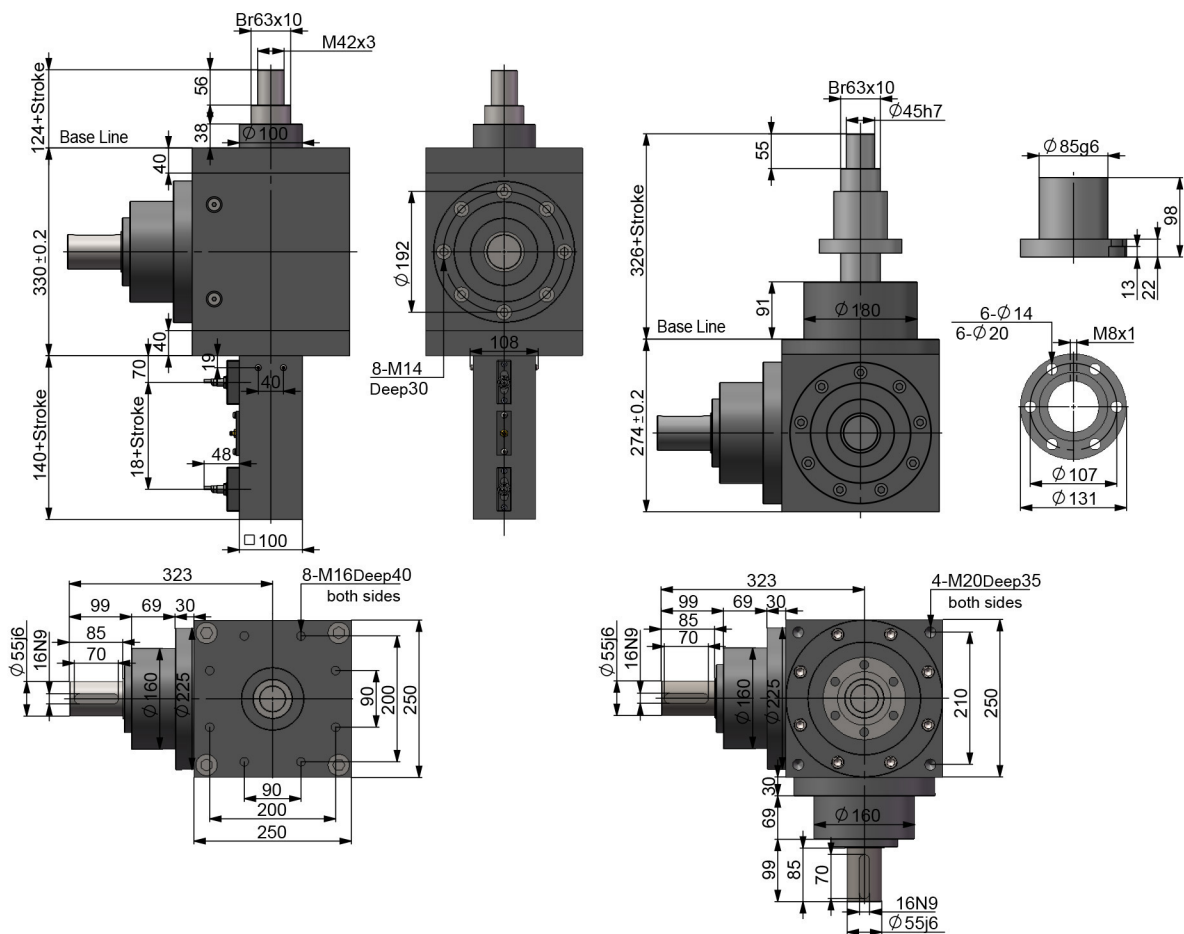
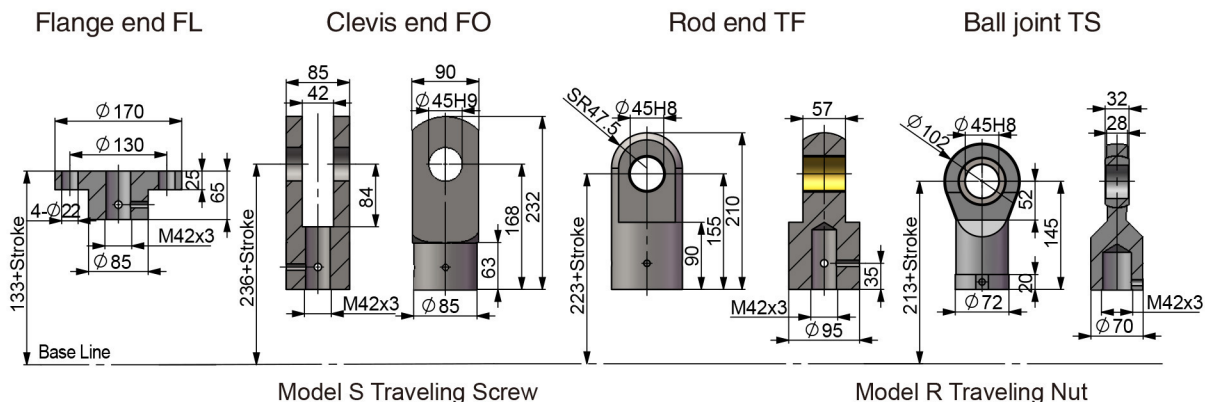
DQB-RX



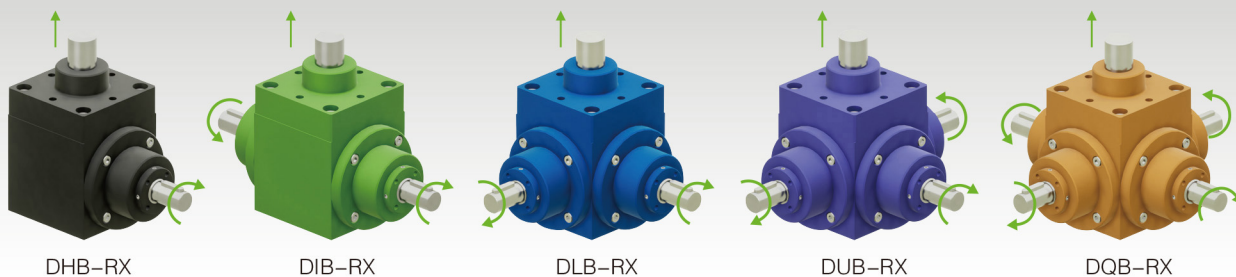
Overall Dimensions of Bevel Gear Screw Jack

DHB250-63x10

DHB

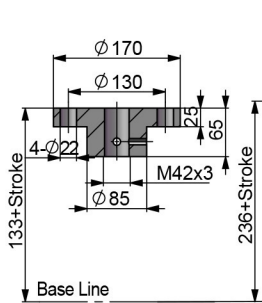


Note: The screw diameter of model R bevel gear screw jack can be customized to $\varnothing 80$.

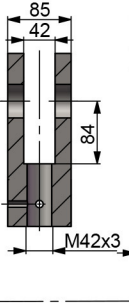


DHB250-63x20

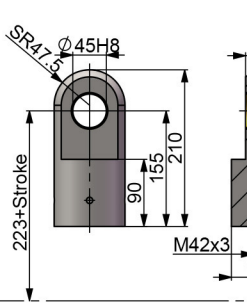
Flange end FL



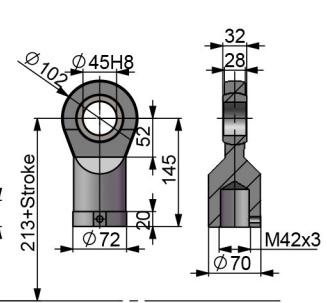
Clevis end FO



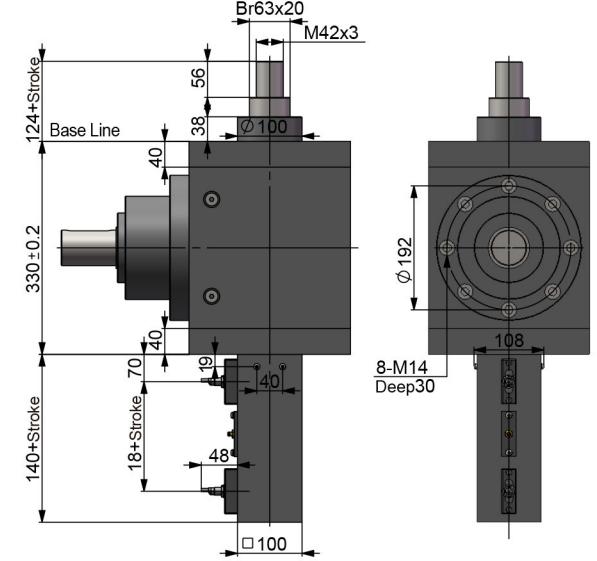
Rod end TF



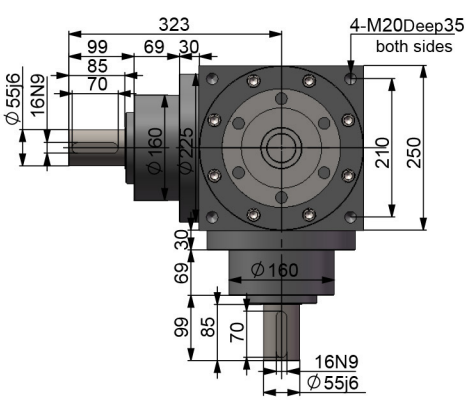
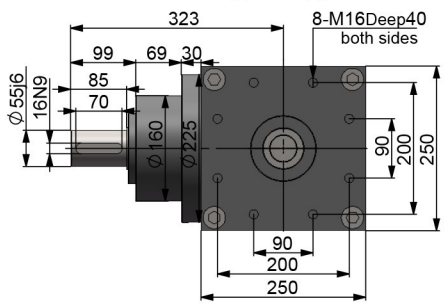
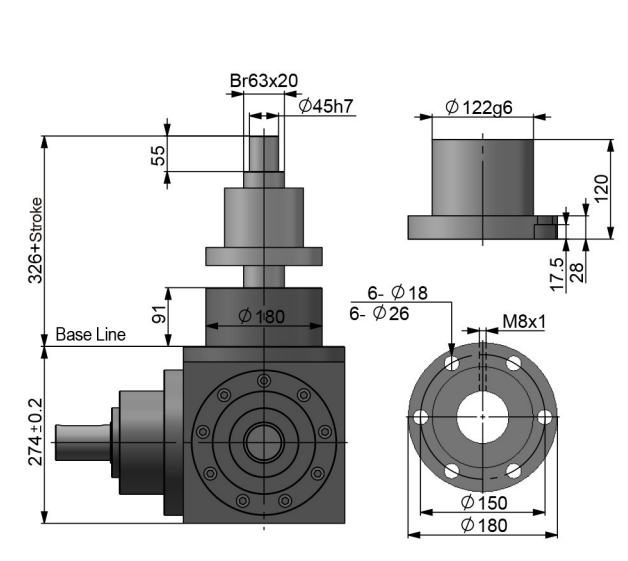
Ball joint TS



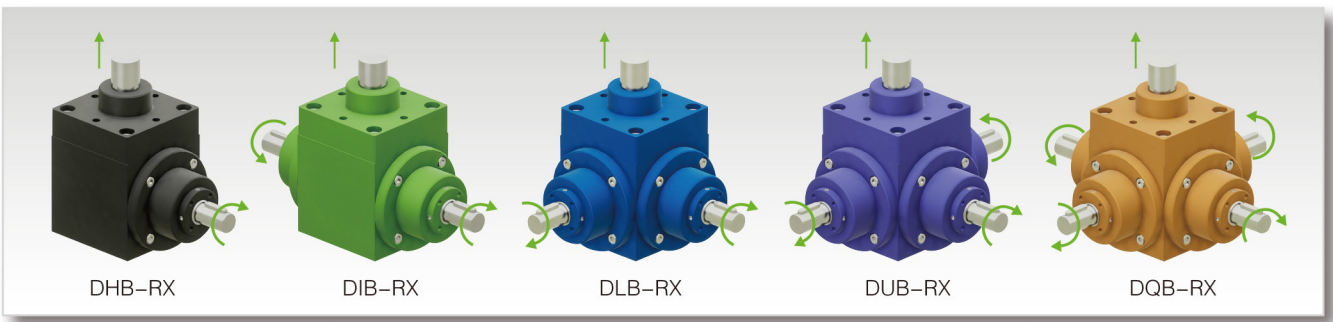
Model S Traveling Screw



Model R Traveling Nut



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø80.



DHB-RX

DIB-RX

DLB-RX

DUB-RX

DQB-RX



LINEAR MOTION

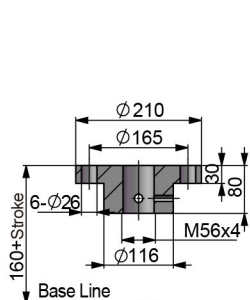
Overall Dimensions of Bevel Gear Screw Jack

DHB300-80x20

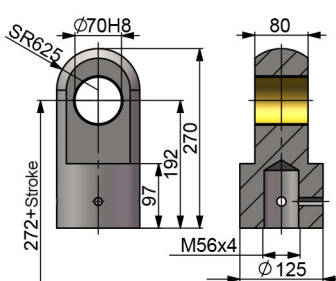
DHB

- DHB065-12x05
- DHB090-25x05
- DHB090-25x10
- DHB140-32x10
- DHB140-32x20
- DHB160-40x10
- DHB160-40x20
- DHB210-50x10
- DHB210-50x20
- DHB250-63x10
- DHB250-63x20
- DHB300-80x20

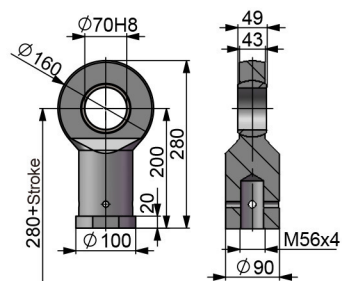
Flange end FL



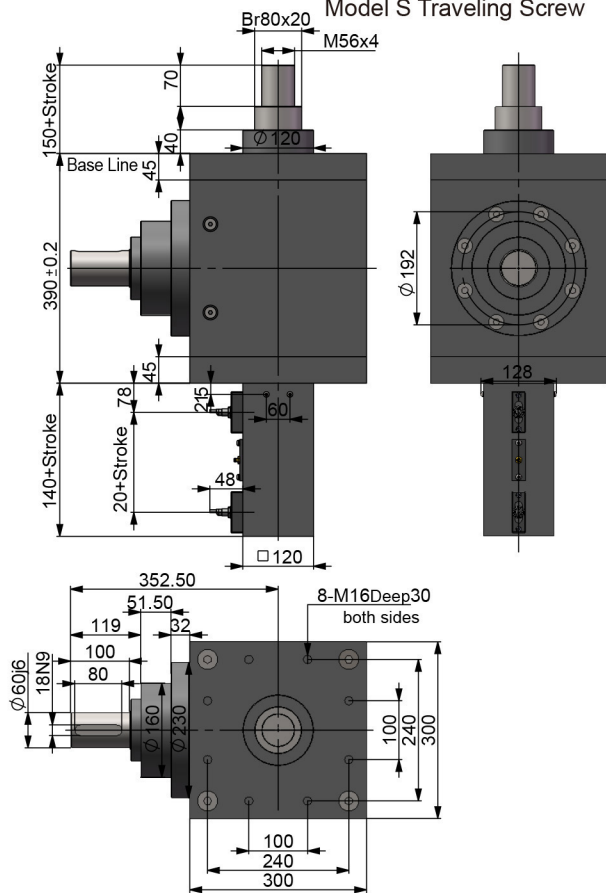
Rod end TF



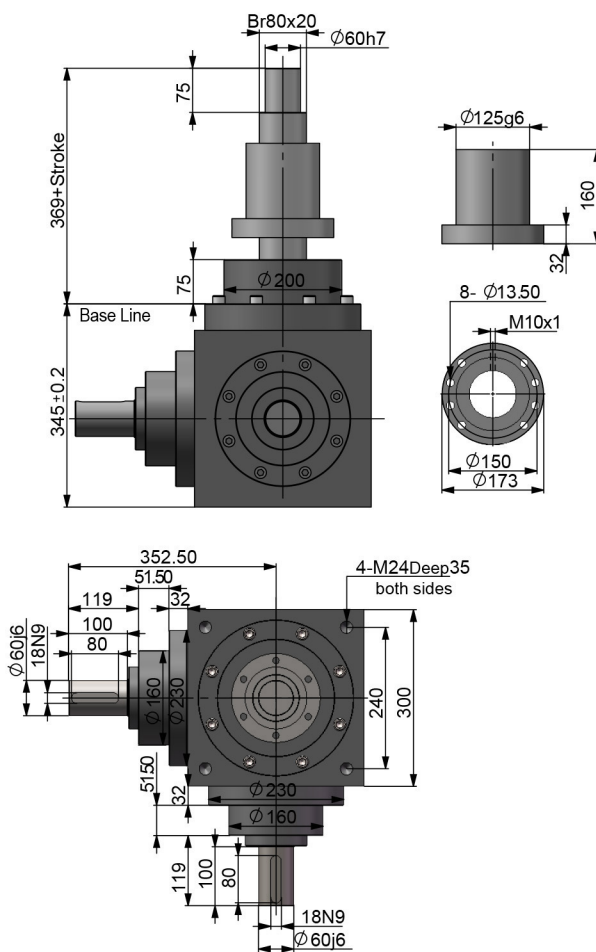
Ball joint TS



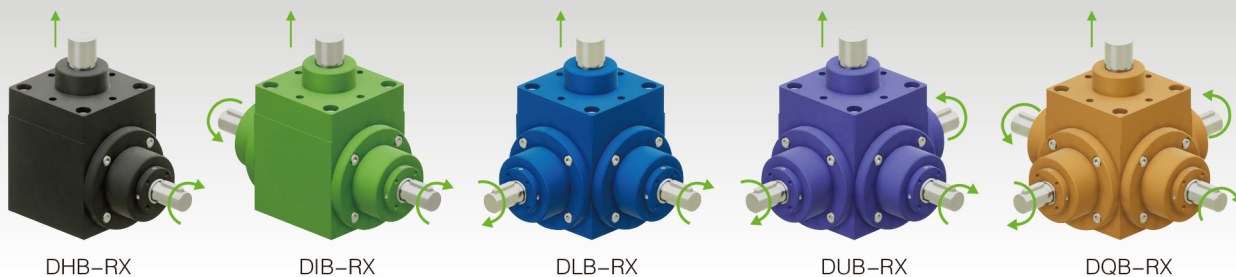
Model S Traveling Screw



Model R Traveling Nut



Note: The screw diameter of model R bevel gear screw jack can be customized to Ø100.





System Accessories:

Magnetic Reed Switch (FCM)

The magnetic reed switches have two types: normally closed reed switch (standard) and the normally open limit switch.

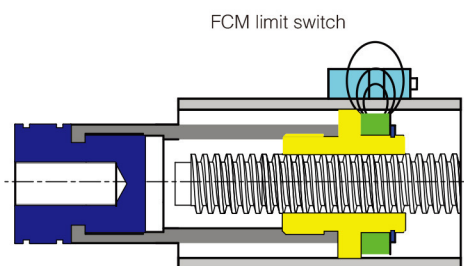
the magnetic ring at the end of the screw shaft moves along with the screw shaft, when the magnetic ring get close to the limit switch, the state of the limit switch will be changed through the magnetic field.

More reed switch can be placed along the stroke length, while the minimal distance between the two switches is 10mm and the magnetic limit switch must be connected to the control circuit. Cable length 1m

Control voltage: 3-130VDC/AC Current: 100mA

Repetitive accuracy: 0.1mm Ambient temperature: -10°C -70°C

Anti-turn device is not available when the actuator is equipped with FCM



External Limit Switches FCE

The FCE device consists of a sealed aluminum alloy box and steel rod. Adjust the position of the rings on steel rod which fixed by screw,we can get the stop position of actuator. Cable length 1m

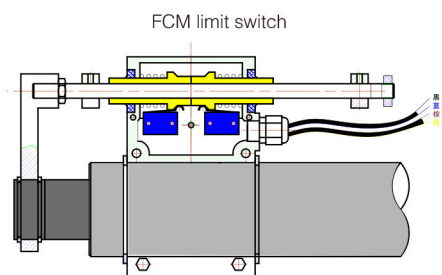
Control voltage: 3-130VDC/AC

Current: 100mA

Repetitive accuracy: 0.1mm

Ambient temperature: -30°C - 70°C

Note:The FCE device is recommended for linear speed lower than 30mm/s, for higher speed it is better to use FCM or use brake.



Limit Switch Box FCH

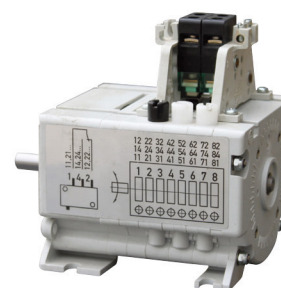
Mounting in shaft of SJ Screw Jack or SC Actuator.FCH is able to control the extreme position.

Structure with planet gear reducer + cam limit switch + potentiometer. Numbers of control position depends on number of cam switch, Max. 4 position control. Potentiometer is optional, could monitor the position of actuator to achieve close loop control.

Ambient Temperature -40°C - 80°C

Volt: 380V/220V

Protection: IP55, IP67



Proximity limit switch (FCP)

The thread is fixed on the required position outside the protective tube, and can not be adjusted; the normally closed limit switch is the standard.

Control voltage: 10-30VDC

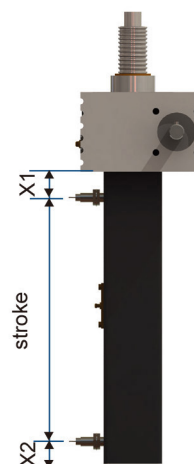
Max output current: 200mA

Repetitive accuracy: 0.04mm

Ambient temperature: -25°C -70°C

Cable length 1m

Type	X1	X2
SJA5	40	45
SJA10/SJB10	40	55
SJA20/SJB20/21/22	45	50
SJA50/SJB50/51	55	45
SJA80/SJB80/81	60	60
SJA100/SJB100/101	70	50
SJA200/SJB200/201	75	50
SJA300/SJB300	95	60

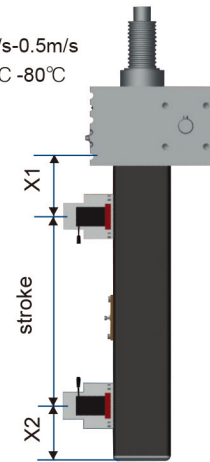


FCG limit switch

Fixed on the rear tube of the screw jack to control the extreme position of the screw shaft. Can be adjusted +5mm up and down when mounted. The configuration dimension of the limit switch: 80 × 70 × 22cm
 Control voltage: 220AC
 Operation current: 10A

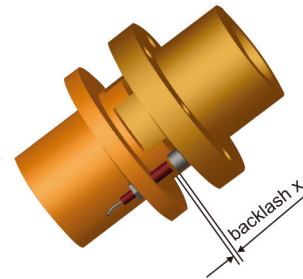
Operation speed: 0.05mm/s-0.5m/s
 Ambient temperature: -10°C -80°C
 Protective class: IP67
 Lifetime: 10,000,000 times
 Cable length 1m

Type	X1	X2
SJA5	40	45
SJA10/SJB10	40	55
SJA20/SJB20/21/22	45	50
SJA50/SJB50/51	55	45
SJA80/SJB80/81	60	60
SJA100/SJB100/101	70	50
SJA200/SJB200/201	75	50
SJA300/SJB300	95	60



Safety nut SN

SN-S safety nut is used in the screw jack with the traveling screw model
 SN-R safety nut is used in the screw jack with the traveling nut movement style.
 The safety nut is mounted below / above the main nut and normally will not withstand the axial load and only works against the lateral load. The safety nut will hold the whole load if the nut screw does not function. Replacement for the nut is imperative if the wear of the screw exceeds 20% of the pitch (clearance × changing volume = wear volume). The wear degree can be checked either with eyes or through connecting the sensor to the control circuit, which can sound the alarm timely. Mounting the safety nut will increase the length of the nut, therefore change the configuration of the screw jack, for the specific dimensions please contact the sales engineer.



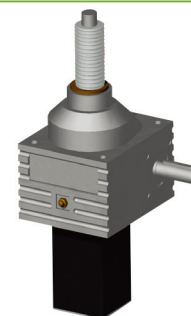
Bellow

Made of PVC polyester material with sewn construction.
 Applicable temperature: -15°C -70°C
 The minimum compressed length of the bellow should be taken into account when mounting the bellow. The compress ratio of the bellow is 10:1
 Bellow is preferred for the acme and ball screw jack to prevent the dust and contaminants from damaging the screw.
 Both ends of the bellows need to be fixed with the clamps, the position of the bellows need to be confirmed when the order is issued. The BS bellow is also a choice to protect the screw in the harsh environment.



Anti-backlash device AB

Used to adjust the opposite clearance of the acme thread nut. The preload will eliminate the teeth clearance of the screw nut, the smaller the clearance; the higher the position accuracy, but the appropriate clearance > 0.02mm must be guaranteed. Mounting the anti-backlash will decrease the transmission efficiency therefore changing the mechanical parameters of the screw jack. It is advised to lower the duty cycle accordingly.



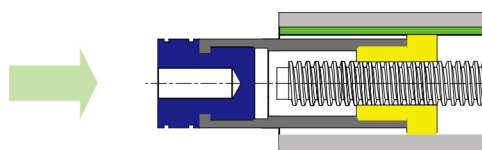


System Accessories:

Anti-turn device AR

Apply to the LAP/LBP series of actuators and SCA/SCB series actuators.
 It is recommended that the anti-turn device be used in the application, which requires that actuator will not self-rotate in the process of movement. A key groove is made on the nut, which ensures the nut and the actuator move in the direction of the key thus prevent the rotating of the actuator.

Caution: aution: Anti-turn device should not be used simultaneously with the magnetic limit switch FCM
 AR is standard configuration for SJA/SJB-S screw Jacks and DHB-S bevel gear screw jacks.



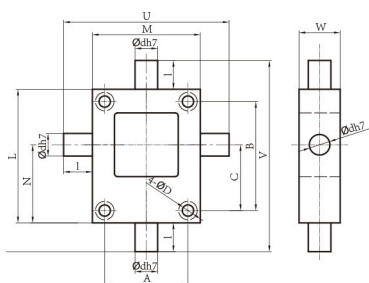
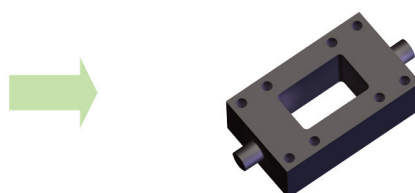
Incremental rotary encoder IRE

Mounted on the input shaft of the screw jack or the screw actuator, the feedback signal forms the closed loop to control the movement of the actuator
 Impulse value: 100/500 impulse per running
 Voltage: 5VDC
 Power supply voltage:5-30VDC
 Ambient temperature: -20°C -110°C
 Protective class: IP65

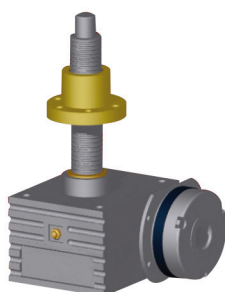


Trunnion mounting panel HBP

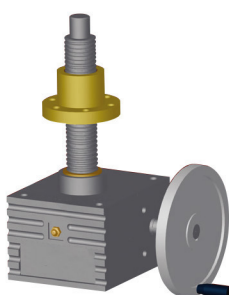
Fixed on the housing of the screw jack, enable the screw jack to rotate at a certain degree.
 The specific dimensions is related to the model type of the screw jack



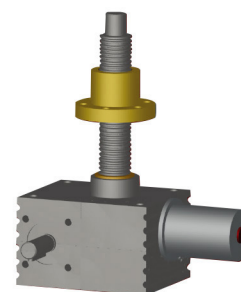
Model	Trunnion											
	A	B	C	D	L	M	N	U	V	W	d	l
SJA5-S...HBP	52	60	39	9	80	72	49	108	116	28	15	18
SJA10-S...HBP	63	78	49	9	100	85	60	127	142	30	17	21
SJA20-S...HBP	81	106	64	11	130	105	76	161	186	40	22	28
SJA50-S...HBP	115	150	87	13	180	145	102	225	260	50	32	40
SJA80-S...HBP	131	166	100	17	200	175	117	277	302	70	42	51
SJA100-S...HBP	155	170	100	21	220	205	125	321	336	75	48	58
SJA200-S...HBP	170	200	116.5	26	250	220	141.5	360	390	105	63	70
SJA300-S...HBP	200	235	135	30	295	270	165	420	445	115	68	75



Disk brake

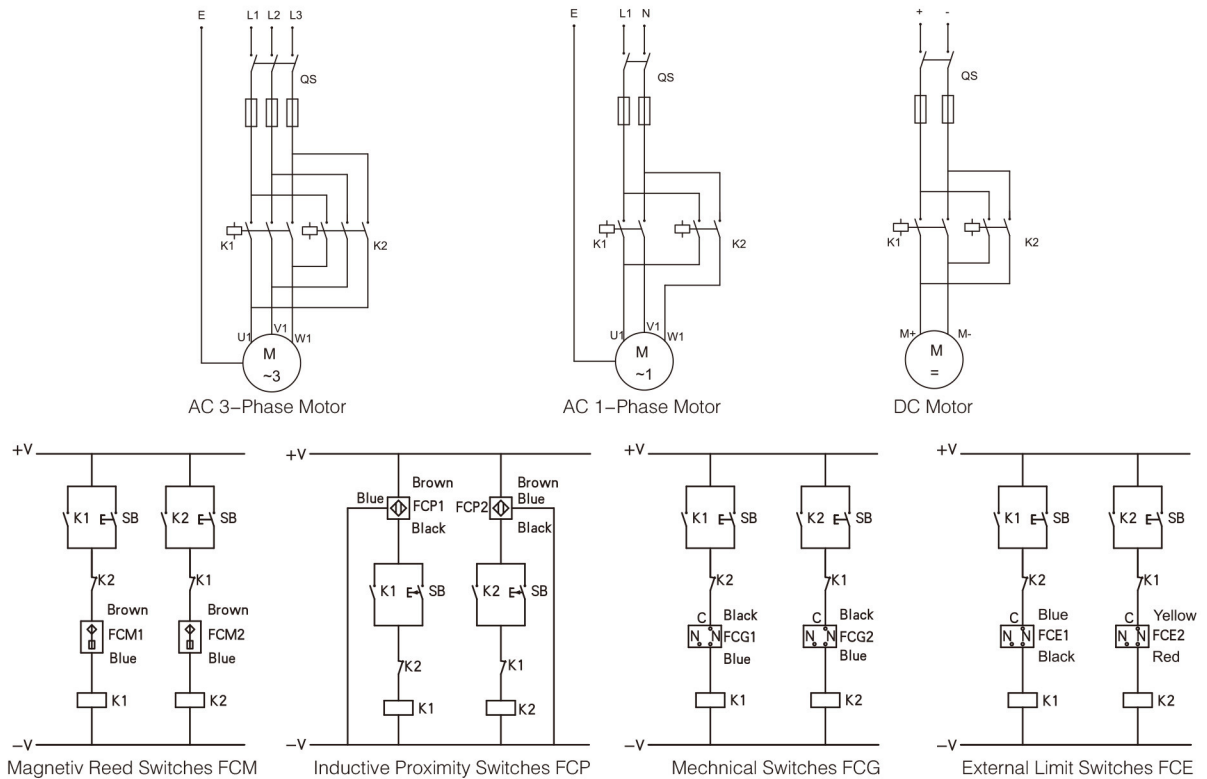


Hand Wheel



Automatic Lubricator

Wiring:



Lubrication and Maintenance:

LAP/LBP series of actuator

Long life lubricated, free from maintenance.

The worm gear, worm shaft, bearing and the screw has been well lubricated in the factory, unless there is some leakage of oil or damage, please lubricate the actuators according to the following table.

SJA/SJB/SCA/SCB series of screw jack

The worm gear, worm shaft, bearing and the screw has been well lubricated at the factory, the lubricating volume exceeding the volume stated in the table will impinge the mechanical efficiency of the screw jack meantime increase the possibility of the oil leakage.

Actuator	Worm gearbox		Actuating parts		Screw Jack	Worm gearbox		Actuating parts	
	Lubricant	Quantity [g]	Lubricant	Quantity Per 1m [g]		Lubricant	Quantity [g]	Lubricant	Quantity Per 1m [g]
LAP/LBP22	MOBILEP3 or equivalente	30	MOBIL XHP222 or equivalent	100	SJA5	MOBILEP3 or equivalent	80	MOBIL XHP222 or equivalent	300
LAP/LBP25		45		150	SJA/SJB10		130		400
LAP/LBP28		60		200	SJA/SJB/SCA/SCB20/21/22		170		550
LAP/LBP32		60		300	SJA/SJB/SCA/SCB50/51		430		650
LAP/LBP35		90		400	SJA/SJB/SCA/SCB80/81		850		750
LAP/LBP40		130		500	SJA/SJB/SCA/SCB100/101		1100		850
LAP/LBP56		350		700	SJA/SJB/SCA/SCB200/201		1700		1000
LAP/LBP63		700		950	SJA/SJB300/SCA/SCB300		2550		1500
LAP/LBP80		1500		1200	SJA/SJB450		3570		2000
LAP/LBP120		2500		1500	SJA/SJB700		5100		2600
LAP/LBP200		3600		2000	SJA/SJB1000		7200		3300
LAP/LBP300		5500		2800					

Choose different types of grease according to different working environments (high or low temperature environment)

Special grease for the food industry is also available

For the high duty cycle screw jack, the grease will lose its lubricating function; entry of granule contaminants might deteriorate the working performance. It is advised to do a thorough cleaning and re-lubricating the screw jack.

It is recommend to use the grease can which is able to supply the continuous lubrication to the inside surface of the housing automatically.

Appropriate lubrication to the lubricating board inside the rear tube should be carried out periodically.

The nut and the screw should be lubricated appropriately every 200 working hours or according to the specific environment.

AC MOTOR

Actuator and Screw Jack are configured with IEC standard AC 3 Phase motor

Depends Motor RPM we supply 2 Poles , 4 Poles and 6 Poles motor for Linear Actuator

Standard Motor Flange diemsnion are IEC B14 or B5, we also supply non standard flange to meet customer's requirements.

Customer can also choose AC single phase motor, DC motor , Step Motor , Servo motor or Explosion-Proof motor.

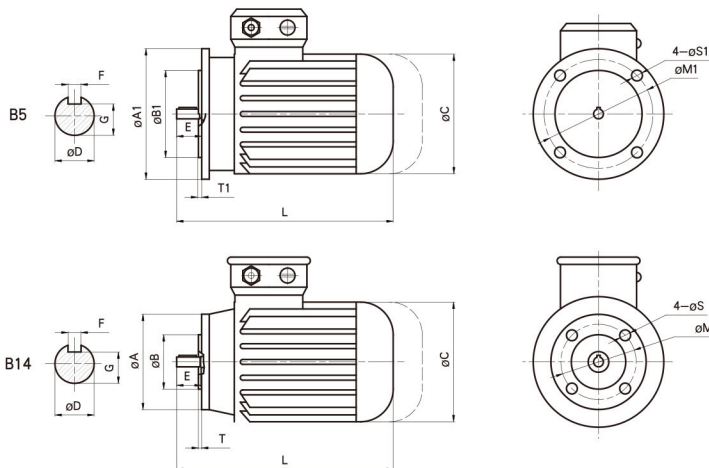
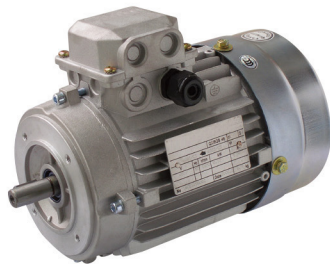
Protection Class: Standard IP54 and Optional : IP55 IP56 IP65 IP66

Insulation Class: F , Optional H

Voltage: 380/220V 50Hz, 440V/255 60Hz

Frequency range: 10-60Hz

Accessories: Brake, Temperature pretection device, Encoder



Frame Size	Power kw	Speed RPM	Rated Torque Nm	Current A/400V	Weight kg
56	0.09	1300	0.66	0.45	4
	0.09	2750	0.31	0.42	
	0.12	2750	0.42	0.48	
63	0.18	2780	0.86	0.68	4.5
	0.12	1330	1.29	0.85	
	0.18	1330	0.62	0.51	
	0.25	2780	0.86	0.78	
71	0.18	900	1.91	0.85	6.2
	0.25	900	2.65	1	
	0.25	1360	1.76	0.9	
	0.37	1360	2.6	1.2	
	0.37	2800	1.26	1.3	
	0.55	2800	1.88	2	
80	0.18	690	2.49	0.76	17
	0.25	690	3.46	0.97	
	0.37	925	3.82	1.22	
	0.55	925	5.68	1.63	
	0.55	1430	3.67	1.7	
	0.75	1430	5.01	2	
	0.75	2870	2.5	1.8	
	1.1	2875	3.65	2.5	
90S	0.37	695	5.08	1.3	29
	0.55	695	7.56	1.9	
	0.75	945	7.58	2.5	
	1.1	950	11.1	3.3	
	1.1	1430	7.35	3.8	
	1.5	1430	10	4.6	
	1.5	2880	4.97	3.7	
	2.2	2880	7.3	4.6	
100	0.75	705	10.2	2.3	37
	1.1	705	14.9	3.1	
	1.5	950	15.1	4.4	
	2.2	1440	14.6	7.3	
	3	1440	19.9	8.9	
	3	2880	9.95	7.2	
112	1.5	710	20.2	4.1	50
	2.2	965	21.8	7.2	
	4	1455	26.3	8.4	
132	2.2	725	29	5.7	77
	3	725	39.5	7.5	
	3	975	29.4	7.2	
	4	975	39.2	9.5	
	5.5	1465	35.9	11.2	
	7.5	1465	48.9	15	
160	4	730	52.3	9.8	146
	5.5	730	72.0	13.1	
	7.5	980	73.1	16.2	
	11	980	107	23.1	
	11	1470	71.5	21.5	
	15	1470	97.4	28.8	

Frame Size	A	A1	B	B1	C	D	E	F	G	L	M	M1	S	S1	T	T1
56M	80	120	50	80	115	9	20	3	7.2	198	65	100	M5	7	2.5	3
63M	90	140	60	95	127	11	23	4	8.5	225	75	115	M5	10	2.5	3
71M	105	160	70	110	145	14	30	5	11	255	85	130	M6	10	2.5	3.5
80M	120	200	80	130	165	19	40	6	15.5	295	100	165	M6	12	3	3.5
90S	140	200	95	130	180	24	50	8	20	345	115	165	M8	12	3	3.5
90L	140	200	95	130	180	24	50	8	20	385	115	165	M8	12	3	3.5
100L	160	250	110	180	205	28	60	8	24	390	130	215	M8	15	3.5	4
112M	160	250	110	180	225	28	60	8	24	455	130	215	M8	15	3.5	4
132S	200	300	130	230	270	38	80	10	33	475	165	265	M10	15	4	4
132M	200	300	130	230	270	38	80	10	33	510	165	265	M10	15	4	4
160M	300	350	230	250	320	42	110	12	37	610	265	300	M12	18.5	4	5
160L	300	350	230	250	320	42	110	12	37	655	265	300	M12	18.5	4	5



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