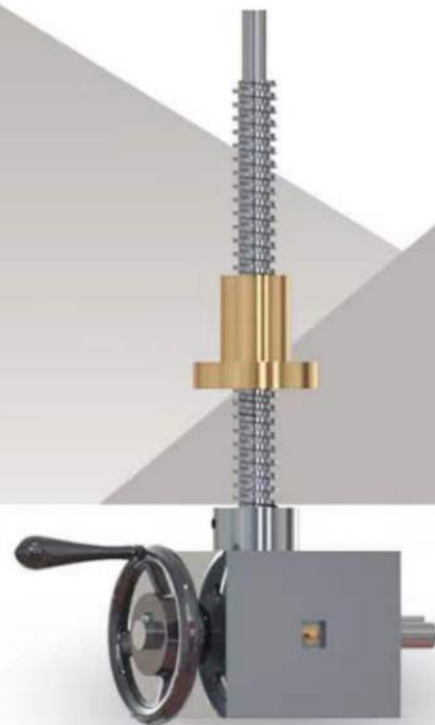
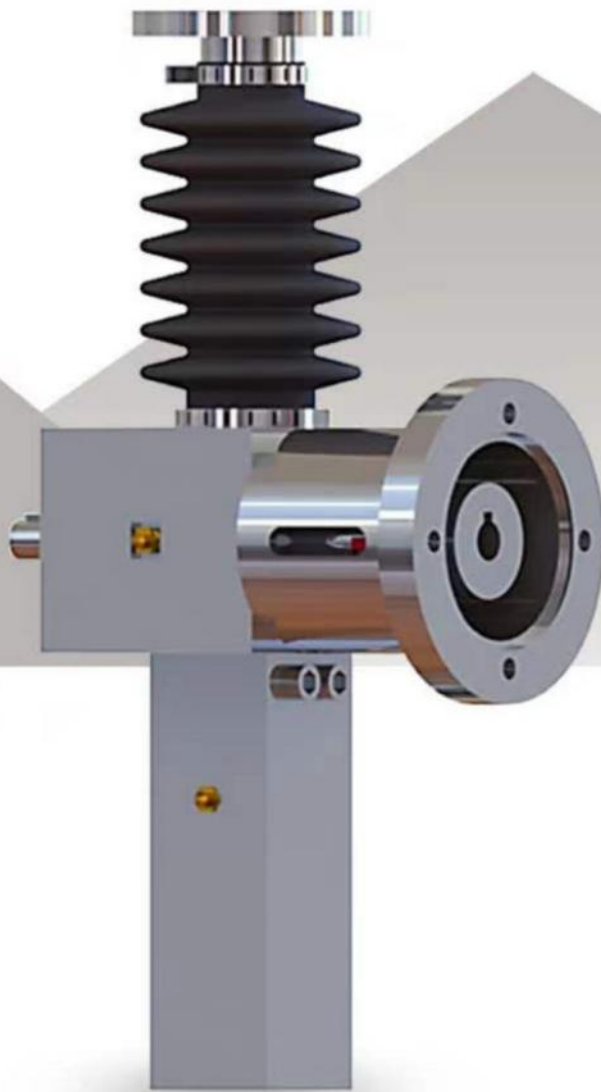




LINEAR MOTION



LUDE TRANSMISSION

SJA Series Stainless Steel Screw Jack



Product categories

Linear Motion - Explanation

The compact integrations of the motor and gear reducer with the acme screw, ball screw and the satellite roller screw, unique advantages in terms of the price and the performance provide much more space to the engineer for designing. The new idea dispensed with the consideration of the hydraulic and pneumatic leakage as well as the pipes and valves.

Self-locking: The majority of the products possess the self-locking function, thus increasing the performance security.

Positioning: the positioning accuracy can reach 0.1 mm, and the positioning accuracy of servo actuator can reach 6µm.

Precise control: equipped with encoder/potentiometer/rotary transformer, the closed loop positioning can also be realized through the inverter, PLC controller and the servo controller.

Synchronousness: the synchronous lifting can be achieved through the mechanical connection of multiple screw actuators and screw jacks

Overload protection: can be equipped with the safety clutch, and the over-load sensor.

High load capacity: wide range of load capacity from 5kg to 250 tons, with the stroke 6 meters to the maximum.

High speed: the speed of the of the roller screw actuator can reach 2m/s, the continuous traveling life is 15 times than that of the ball screw actuators.

Others advantages: Easy maintenance, low noise, can work normally under the harsh environment of high/low temperature, corrosive and explosive-prone environment.

Product category

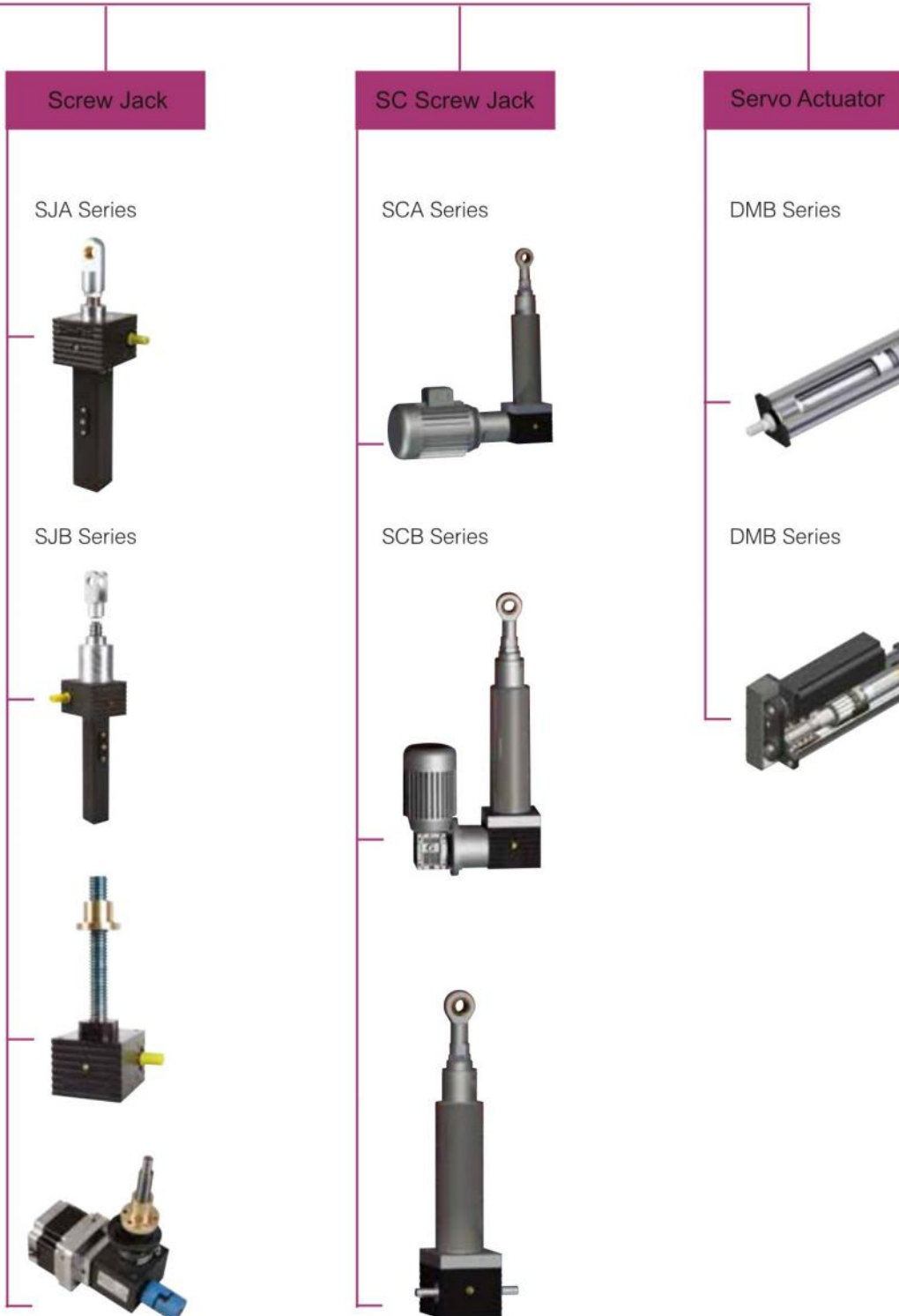
Linear actuator

LAP Series



LBP Series





Screw Jack





Mounting Position&Application

Model S Traveling Screw

Model S : traveling screw



acme screw jack



ball screw jack



anti-backlash screw jack



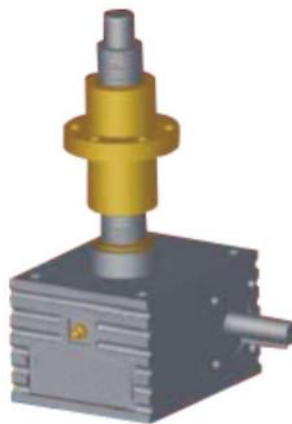
safety nut screw jack

High performance spheroidal cast iron grooved housing
 Patented rectangle protection tube prevent screw from rotating
 Synchronous-Mechanical system
 Safety nut designed to monitor abrasion of product
 Available for various motors and gearmotors
 Load capacity range from 500kg to 20ton

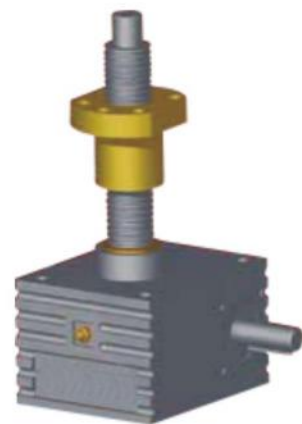
Model R : traveling nut



acme screw jack



ball screw jack



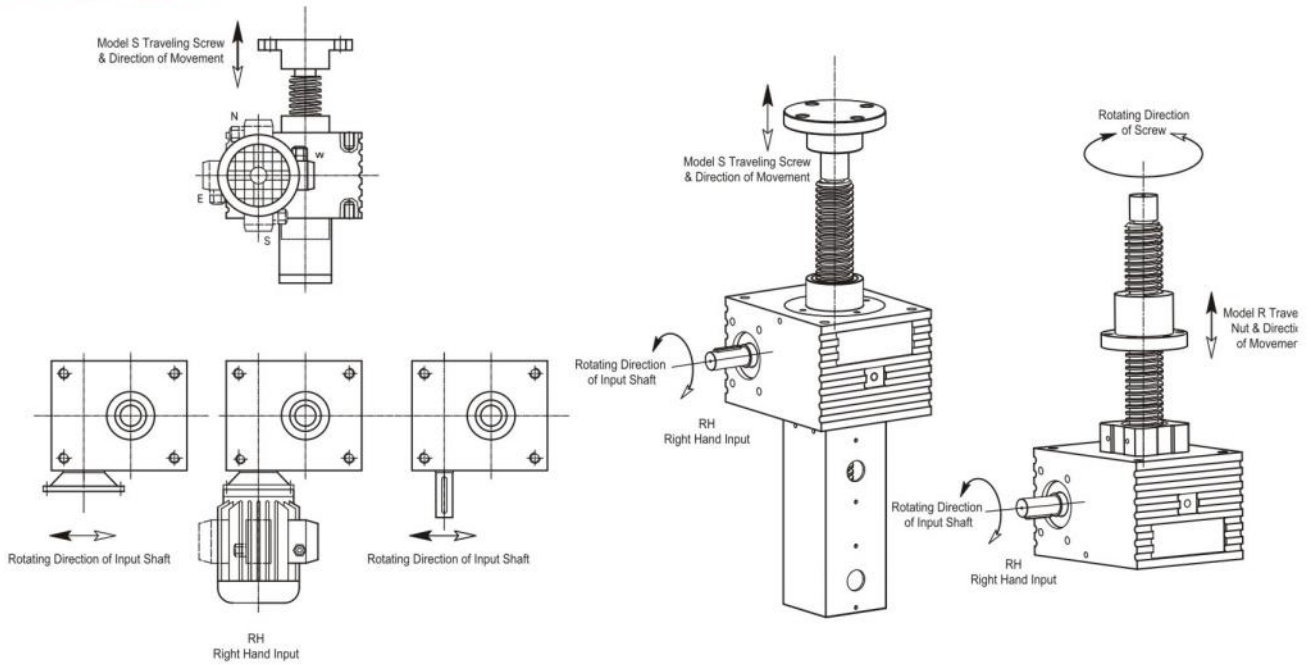
safety nut screw jack



LINEAR MOTION

Mounting Position & Application

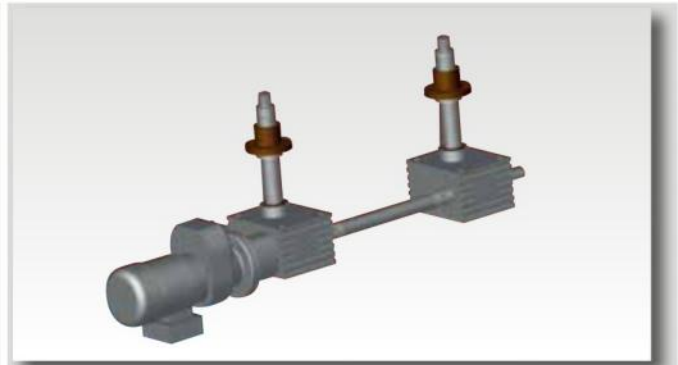
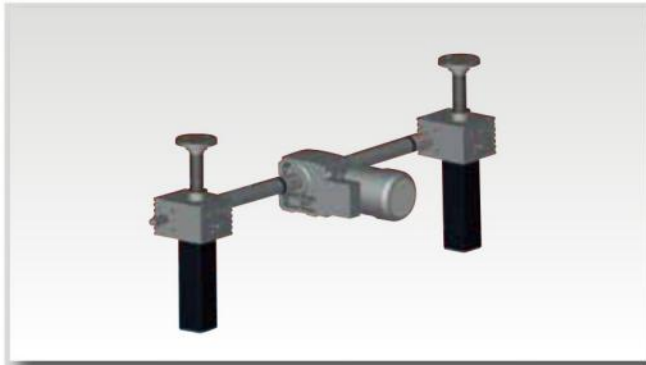
Mounting Position:



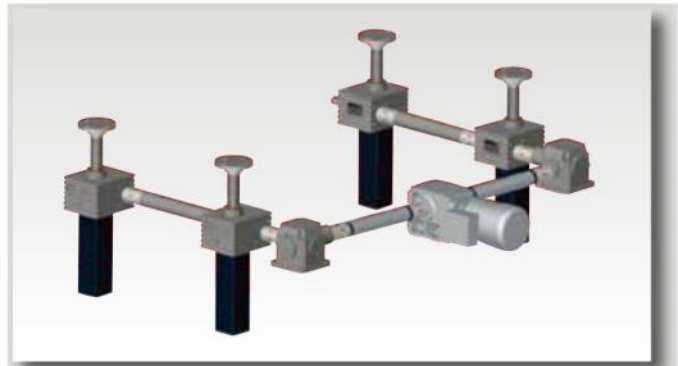
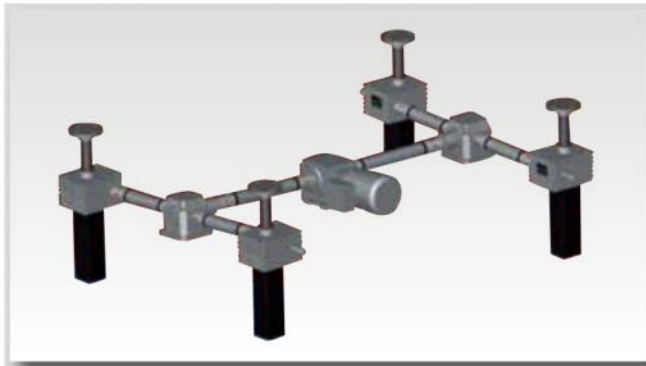
LAY-OUT AND APPLICATION OF SCREW JACK:

Lude Transmission supply complete system design and system accessories including Screw Jack, gear reducer, motor, shaft, coupling etc. System design and calculation need to know total rated load, Speed, Stroke and dimension requirement.

Synchronous Lifting System of Two Screw Jacks



Synchronous Lifting System of Four Screw Jacks





LINEAR MOTION

Selection Table Guide

Performance Table

Size		SJA5	SJA10	SJA20	SJA50	SJA80	SJA100
Max lifting load [kN]		5	10	20	50	80	100
Screw dia x pitch [mm]		Tr18x 4	Tr20 x 4	Tr30 x 6	Tr40 x 7	Tr50x8	Tr60 x 9
Warm ratio	V1	1:4	1:4	1:6	1:7	1:8	1:8
	L1	1:16	1:16	1:24	1:28	1:32	1:32
Stroke for one input turn [mm]	V1	1	1	1	1	1	1.125
	L1	0.25	0.25	0.25	0.25	0.25	0.281
Max input power [kW]	V1	0.30	0.57	1.14	2.2	2.5	3
	L1	0.15	0.27	0.55	1.1	1.5	2.2
Max starting torque at full load[Nm]	V1	4.2	8	18	48.5	75	100
	L1	1.5	3.1	6.7	20	30	41
Starting efficiency	V1	0.24	0.25	0.19	0.18	0.17	0.18
	L1	0.16	0.16	0.12	0.11	0.10	0.11
Running efficiency at 1500mm	V1	0.34	0.35	0.33	0.32	0.31	0.33
	L1	0.25	0.25	0.24	0.23	0.22	0.23
Torque without load[Nm]	V1	0.11	0.29	0.40	0.84	1.85	2.1
	L1	0.09	0.18	0.29	0.59	1.12	1.4
Housing material		Spheroidal graphite iron					
Weight[kg]		3.2	5	8.5	21.5	36	58
Weight per 100mm screw & protective tube[kg]		0.36	0.50	0.75	1.52	2.44	3.02

Size		SJA200	SJA300	SJA450	SJA700	SJA1000
Max lifting load [kN]		200	300	450	700	1000
Screw dia x pitch [mm]		Tr80x 12	Tr100 x 16	Tr120 x 16	Tr140 x 20	Tr160x20
Warm ratio	V1	1:8:7.5	1:10.25	1:10.75	1:13.33	1:13.33
	L1	1:35	1:41	1:43	1:40	1:40
Stroke for one input turn [mm]	V1	1.371	1.56	1.49	1.5	1.5
	L1	0.343	0.39	0.37	0.5	0.5
Max input power [kW]	V1	4	7	11.5	18.5	22
	L1	3.5	5.5	5.5	7.5	9.5
Max starting torque at full load[Nm]	V1	265	460	675	1050	1620
	L1	106	180	275	510	820
Starting efficiency	V1	0.17	0.18	0.16	0.16	0.15
	L1	0.11	0.12	0.10	0.11	0.10
Running efficiency at 1500mm	V1	0.33	0.33	0.30	0.31	0.29
	L1	0.22	0.23	0.20	0.21	0.19
Torque without load[Nm]	V1	2.8	3.8	5.5	8.5	11
	L1	2.1	3.1	4.5	5.5	7.5
Housing material		Spheroidal graphite iron			cast steel	
Weight[kg]		75	110	200	400	800
Weight per 100mm screw & protective tube[kg]		4.5	6.8	9.0	12.5	16.5

Note: Ambient temperature of SJ screw jack is -10°C – +40°C (-40°C – +70°C are available)

Acme screw with two or three start threads are available.

Selection Guide:

- Cautions for choosing the model type of the screw jack. The percentage of the duty cycle within 10 minutes: SJA series acme screw jack: 30%. Ball screw and satellite roller screw jack: 50%. The duty cycle can be increased if the actual load is less than the rated loads, please consult with the engineers of Lude Transmission for the specifics.
- The maximum input running speed : 1800rpm
- If the actual load is above 25% and less than 100% (inclusive) of the full load, the required input torque=load ratio × torque at full load
- For the stroke exceeding 300mm, the stability should be checked, please refer to the chart reflecting the relationship between the load and the stroke.
- Adjust the safety coefficient according to the load, 1.0-1.2 for the even load; 1.3-1.5 for the moderate load; 1.6-2.5 for the heavy load.
- For the normal performance, the input power should not exceed the max input power, input power=(torque at full load × load ratio × input speed RPM)/9550
- The working temperature affects the max input power. Actual max input power=rated max input power × the temperature coefficient. The temperature coefficient varies in terms of the temperature: -10°C -25°C temperature coefficient=1.30°C temperature coefficient=0.85, 40°C temperature coefficient=0.65
- For the application of synchronous lifting platform, the combination coefficient should be considered, the losing of combination should also be reckoned in calculating the total power. The combination coefficient varies according to the quantity of screw jacks in the synchronous platform: For 2 PCS screw jack in a platform, the combination coefficient is 0.95, For 3 PCS screw jack in a platform, the combination coefficient is 0.9, For 4 PCS screw jack in a platform, the combination coefficient is 0.85, For 6-8 PCS screw jack in a platform, the combination coefficient is 0.8. It is recommended to increase the combination coefficients appropriately if the double clevis mounting of the screw jack is adopted
- The acme screw jack with big ratio possess the self-locking function, while that with small ratio has uncertain self-locking, the brake needs to be equipped in the safety and vibrating application. (situation)
- The axial error of the acme and ball screw jack with the stroke of 300mm is 0.1 mm, while that of the screw jack equipped with anti-backlash fixings is 0.02mm.
- To avoid the lateral load, the guide device can be used to offset the lateral load.
- The catalogue only lists the parameters and dimensions of the acme screw jack, as for the parameters and dimensions of the ball screw jack, please consult with local engineer.
- For non-standard screw jack, please consult with local engineer.



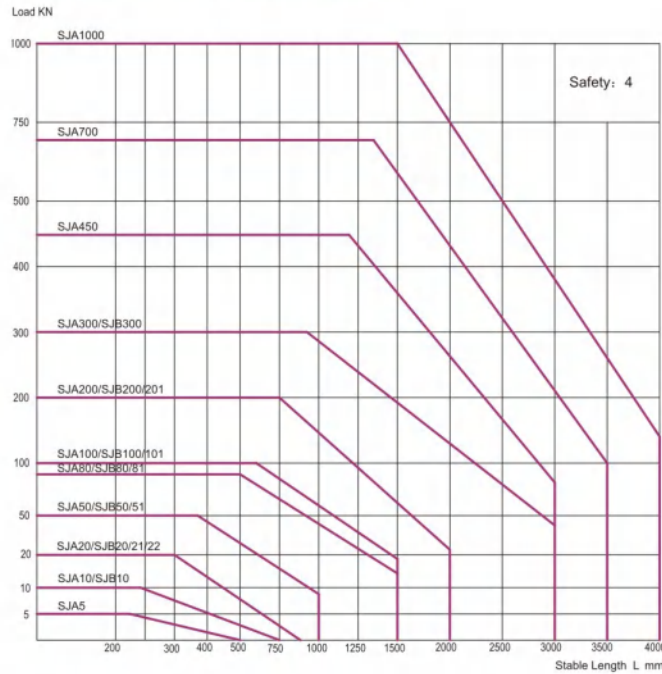
LINEAR MOTION

Selection Table Guide

CODING

Type	Size	Model	Ratio	Stroke	Front Attachment	Input Version	Input Shaft	Accessories
SJA Acme screw	5	S Traveling screw	V1	Special	NF Standard head	P1 Single input shaft	RH Right hand	BRE Brake
	10	R Traveling nut	L1		TS Ball joint	P2 Double input shaft	LH left hand	FCG Mechanical Limit switches
SJB Ball screw	20				TF Rod end	P3 Motor flange		FCP Inductive proximity switches (PNP normally closed)
	50				FL Flange end	P4 Flange and extended shaft		B Bellows
	80				FO Clevis end			SN Safety nut
	100				FQ Spherical flange			SS Stainless steel housing
	200							SA Stainless steel screw
	300							AB Anti-bachlash device
	450							HBP Hinged bearing plate
	700							IRE Encoder
	1000							FS Safety clutch
								PS Potentiometer
								STR Protection tube rear clevis
								AR Anti-turn device
								FMP Foot plate mounting
								XFM Housing casting with Foot mounting

Critical Bucking Force Graphs



The rated static load of Screw 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 forstability 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 $L=lk \times fk$

LK theoretical critical bucking force

fk correction value



LINEAR MOTION

Selection Table Guide



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

SJA5			Lifting Load															
			5kN				4kN				3kN				1kN			
n1	Lifting speed mm/s		Ratio				Ratio				Ratio				Ratio			
	V1	L1	V1		L1		V1		L1		V1		L1		V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	23.3	5.8	2.34	0.34	0.80	0.12	1.87	0.27	0.64	0.09	1.40	0.206	0.477	0.070	0.468	0.069	0.159	0.023
900	15.0	3.7	2.49	0.23	0.83	0.08	1.99	0.19	0.66	0.06	1.49	0.141	0.497	0.047	0.497	0.047	0.166	0.016
700	11.7	2.9	2.57	0.19	0.90	0.07	2.05	0.15	0.72	0.05	1.54	0.113	0.543	0.040	0.513	0.038	0.181	0.013
500	8.3	2.1	2.74	0.14	0.95	0.05	2.20	0.11	0.76	0.04	1.65	0.086	0.568	0.030	0.549	0.029	0.189	0.010
300	5.0	1.2	2.84	0.09	1.05	0.03	2.27	0.07	0.84	0.03	1.72	0.054	0.628	0.020	0.568	0.054	0.209	0.007
100	1.7	0.4	3.06	0.03	1.17	0.01	2.45	0.03	0.94	0.01	1.84	0.019	0.702	0.007	0.612	0.006	0.234	0.002
50	0.8	0.2	3.18	0.02	1.24	0.01	2.55	0.01	0.99	0.01	1.91	0.010	0.746	0.004	0.637	0.003	0.249	0.001

SJA10			Lifting Load															
			10kN				8kN				5kN				2kN			
n1	Lifting speed mm/s		Ratio				Ratio				Ratio				Ratio			
	V1	L1	V1		L1		V1		L1		V1		L1		V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	23.3	5.8	4.55	0.67	1.59	0.23	3.64	0.53	1.27	0.19	2.27	0.333	0.796	0.117	0.910	0.133	0.318	0.047
900	15.0	3.7	4.82	0.45	1.66	0.16	3.86	0.36	1.33	0.12	2.41	0.227	0.829	0.078	0.965	0.091	0.332	0.031
700	11.7	2.9	4.97	0.36	1.73	0.13	3.98	0.29	1.38	0.10	2.49	0.182	0.865	0.063	0.995	0.073	0.346	0.025
500	8.3	2.1	5.13	0.27	1.89	0.10	4.11	0.22	1.52	0.08	2.57	0.134	0.947	0.050	1.027	0.054	0.379	0.020
300	5.0	1.2	5.49	0.17	1.99	0.06	4.39	0.14	1.59	0.05	2.74	0.086	0.995	0.031	1.098	0.034	0.398	0.012
100	1.7	0.4	5.90	0.06	2.21	0.02	4.72	0.05	1.77	0.02	2.95	0.031	1.105	0.012	1.179	0.012	0.442	0.005
50	0.8	0.2	6.37	0.03	2.49	0.01	5.09	0.03	1.99	0.01	3.18	0.017	1.243	0.007	1.273	0.007	0.497	0.003

SJA20			Lifting Load															
			20kN				15kN				10kN				5kN			
n1	Lifting speed mm/s		Ratio				Ratio				Ratio				Ratio			
	V1	L1	V1		L1		V1		L1		V1		L1		V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	23.3	5.8	9.65	1.41	3.32	0.49	7.23	1.06	2.49	0.36	4.82	0.707	1.658	0.243	2.412	0.354	0.829	0.122
900	15.0	3.7	10.27	0.97	3.62	0.34	7.70	0.73	2.71	0.26	5.13	0.484	1.809	0.170	2.567	0.242	0.904	0.085
700	11.7	2.9	10.61	0.78	3.98	0.29	7.96	0.58	2.98	0.22	5.31	0.389	1.990	0.146	2.653	0.194	0.995	0.073
500	8.3	2.1	11.37	0.60	4.19	0.22	8.53	0.45	3.14	0.16	5.68	0.298	2.094	0.110	2.842	0.149	1.047	0.055
300	5.0	1.2	11.79	0.37	4.42	0.14	8.84	0.28	3.32	0.10	5.90	0.185	2.211	0.069	2.948	0.093	1.105	0.035
100	1.7	0.4	12.73	0.13	4.97	0.05	9.55	0.10	3.73	0.04	6.37	0.067	2.487	0.026	3.183	0.033	1.243	0.013
50	0.8	0.2	12.73	0.07	6.63	0.03	9.55	0.05	4.97	0.03	6.37	0.033	3.316	0.017	3.183	0.017	1.658	0.009

SJA50			Lifting Load															
			50kN				35kN				25kN				10kN			
n1	Lifting speed mm/s		Ratio				Ratio				Ratio				Ratio			
	V1	L1	V1		L1		V1		L1		V1		L1		V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	23.3	5.8	24.87	3.65	8.65	1.27	17.41	2.55	6.06	0.89	12.43	1.823	4.325	0.634	4.974	0.729	1.730	0.254
900	15.0	3.7	27.44	2.59	9.04	0.85	19.21	1.81	6.33	0.60	13.72	1.293	4.522	0.426	5.489	0.517	1.809	0.170
700	11.7	2.9	28.42	2.08	9.47	0.69	19.90	1.46	6.63	0.49	14.21	1.042	4.737	0.347	5.685	0.417	1.895	0.139
500	8.3	2.1	29.48	1.54	10.47	0.55	20.63	1.08	7.33	0.38	14.74	0.772	5.236	0.274	5.895	0.309	2.094	0.110
300	5.0	1.2	31.83	1.00	11.70	0.37	22.28	0.70	8.19	0.26	15.92	0.500	5.852	0.184	6.367	0.200	2.341	0.074
100	1.7	0.4	34.60	0.36	13.26	0.14	24.22	0.25	9.28	0.10	17.30	0.181	6.632	0.069	6.920	0.072	2.653	0.028
50	0.8	0.2	36.17	0.19	18.09	0.09	25.32	0.13	12.66	0.07	18.09	0.095	9.044	0.047	7.235	0.038	3.617	0.019

Note:The purple figures in the tables indicates operational restrictions due to thermal limits.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 shaded purple,you will need to reduce duty cycle or choose the bigger size screw jack in order to allow effective heat dissipation.



Selection Table Guide

Selection Table Guide



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

SJA80			Lifting Load															
n1	Lifting speed mm/s		80kN				60kN				40kN				20kN			
			Ratio		Ratio		Ratio		Ratio		Ratio		Ratio					
			V1	L1	V1	L1	V1	L1	V1	L1	V1	L1	V1	L1				
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW		
1400	23.3	5.8	41.08	6.02	14.47	2.12	30.81	4.52	10.85	1.59	20.54	3.011	7.235	1.061	10.269	1.505	3.617	0.530
900	15.0	3.7	43.91	4.14	15.16	1.43	32.93	3.10	11.37	1.07	21.95	2.069	7.579	0.714	10.977	1.034	3.790	0.357
700	11.7	2.9	45.48	3.33	15.92	1.17	34.11	2.50	11.94	0.87	22.74	1.667	7.958	0.583	11.369	0.833	3.979	0.292
500	8.3	2.1	48.97	2.56	16.75	0.88	36.73	1.92	12.57	0.66	24.49	1.282	8.377	0.439	12.244	0.641	4.189	0.219
300	5.0	1.2	53.06	1.67	17.69	0.56	39.79	1.25	13.26	0.42	26.53	0.833	8.843	0.278	13.264	0.417	4.421	0.139
100	1.7	0.4	57.88	0.61	19.90	0.21	43.41	0.45	14.92	0.16	28.94	0.303	9.948	0.104	14.470	0.152	4.974	0.052
50	0.8	0.2	60.63	0.32	21.22	0.11	45.48	0.24	15.92	0.08	30.32	0.159	10.611	0.056	15.159	0.079	5.306	0.028

SJA100			Lifting Load															
n1	Lifting speed mm/s		100kN				80kN				50kN				20kN			
			Ratio		Ratio		Ratio		Ratio		Ratio		Ratio					
			V1	L1	V1	L1	V1	L1	V1	L1	V1	L1						
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW		
1400	26.2	6.6	54.26	7.95	19.46	2.85	43.41	6.36	15.57	2.28	27.13	3.977	9.732	1.427	10.852	1.591	3.893	0.571
900	16.9	4.2	57.76	5.44	21.32	2.01	46.21	4.35	17.05	1.61	28.88	2.722	10.658	1.004	11.552	1.089	4.263	0.402
700	13.1	3.3	59.69	4.37	23.56	1.73	47.75	3.50	18.85	1.38	29.84	2.187	11.780	0.863	11.937	0.875	4.712	0.345
500	9.4	2.3	63.95	3.35	24.87	1.30	51.16	2.68	19.90	1.04	31.98	1.674	12.435	0.651	12.790	0.670	4.974	0.260
300	5.6	1.4	68.87	2.16	27.98	0.88	55.10	1.73	22.38	0.70	34.44	1.082	13.989	0.439	13.774	0.433	5.596	0.176
100	1.9	0.5	74.61	0.78	31.98	0.33	59.69	0.62	25.58	0.27	37.30	0.391	15.988	0.167	14.922	0.156	6.395	0.067
50	0.9	0.2	77.85	0.41	34.44	0.18	62.28	0.33	27.55	0.14	38.93	0.204	17.218	0.090	15.571	0.082	6.887	0.036

SJA200			Lifting Load															
n1	Lifting speed mm/s		200kN				150kN				100kN				50kN			
			Ratio		Ratio		Ratio		Ratio		Ratio							
			V1	L1	V1	L1	V1	L1	V1	L1	V1	L1						
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW		
1400	32.0	8.0	132.25	19.39	49.59	7.27	99.19	14.54	37.20	5.45	66.13	9.694	24.797	3.635	33.063	4.847	12.399	1.818
900	20.6	5.1	145.48	13.71	54.55	5.14	109.11	10.28	40.92	3.86	72.74	6.855	27.277	2.571	36.370	3.427	13.639	1.285
700	16.0	4.0	155.87	11.42	57.43	4.21	116.90	8.57	43.07	3.16	77.93	5.712	28.713	2.105	38.967	2.856	14.356	1.052
500	11.4	2.9	161.64	8.46	60.62	3.17	121.23	6.35	45.46	2.38	80.82	4.231	30.308	1.587	40.411	2.116	15.154	0.793
300	6.9	1.7	174.57	5.48	68.19	2.14	130.93	4.11	51.14	1.61	87.29	2.742	34.096	1.071	43.643	1.371	17.048	0.536
100	2.3	0.6	198.38	2.08	83.93	0.88	148.78	1.56	62.95	0.66	99.19	1.039	41.965	0.439	49.595	0.519	20.982	0.220
50	1.1	0.3	207.83	1.09	90.92	0.48	155.87	0.82	68.19	0.36	103.91	0.544	45.462	0.238	51.957	0.272	22.731	0.119

SJA300			Lifting Load															
n1	Lifting speed mm/s		300kN				200kN				150kN				100kN			
			Ratio		Ratio		Ratio		Ratio									
			V1	L1	V1	L1	V1	L1	V1	L1								
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW		
1400	37.3	9.3	231.52	33.94	83.04	12.17	154.34	22.63	55.36	8.12	115.76	16.97	41.52	6.09	77.17	11.31	27.68	4.06
900	24.0	6.0	254.67	24.00	90.95	8.57	169.78	16.00	60.63	5.71	127.33	12.00	45.48	4.29	84.89	8.00	30.32	2.86
700	18.7	4.7	272.86	20.00	100.53	7.37	181.90	13.33	67.02	4.91	136.43	10.00	50.26	3.68	90.95	6.67	33.51	2.46
500	13.3	3.3	282.96	14.81	106.11	5.56	188.64	9.88	70.74	3.70	141.48	7.41	53.06	2.78	94.32	4.94	35.37	1.85
300	8.0	2.0	305.60	9.60	119.37	3.75	203.73	6.40	79.58	2.50	152.80	4.80	59.69	1.88	101.88	3.20	39.79	1.25
100	2.7	0.7	347.27	3.64	146.92	1.54	231.52	2.42	97.95	1.03	173.64	1.82	73.46	0.77	115.76	1.21	48.97	0.51
50	1.3	0.3	363.81	1.90	159.17	0.83	242.54	1.27	106.11	0.56	181.90	0.95	79.58	0.42	121.27	0.64	53.06	0.28

Note:The purple figures in the tables indicates operational restrictions due to thermal limits.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 shaded purple,you will need to reduce duty cycle or choose the bigger size screw jack in order to allow effective heat dissipation.



LINEAR MOTION

Selection Table Guide



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

SJA450			Lifting Load															
n1	Lifting speed mm/s		450kN				350kN				200kN				100kN			
			Ratio		Ratio		Ratio		Ratio		Ratio							
			V1	L1	V1	L1	V1	L1	V1	L1	V1	L1						
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	34.7	8.68	355	52.1	133	19.5	276	40.5	104	15.2	158	23.2	59.2	8.68	79	11.6	29.6	4.34
900	22.3	5.58	381	35.9	148	14	296	27.9	115	10.9	169	15.9	65.8	6.2	84.6	7.97	32.9	3.1
700	17.4	4.34	410	30.1	157	11.5	319	23.4	122	8.94	182	13.4	69.7	5.11	91.1	6.68	34.8	2.55
500	12.4	3.1	444	23.3	167	8.72	345	18.1	130	6.78	197	10.3	74	3.88	98.7	5.17	37	1.94
300	7.44	1.86	485	15.2	190	5.98	377	11.8	148	4.65	215	6.76	84.6	2.66	108	3.38	42.3	1.33
100	2.48	0.62	561	5.87	222	2.33	436	4.57	173	1.81	249	2.61	98.7	1.03	125	1.31	49.4	0.52
50	1.24	0.31	666	3.49	266	1.4	518	2.71	207	1.09	296	1.55	118	0.62	148	0.78	59.2	0.31

SJA700			Lifting Load															
n1	Lifting speed mm/s		700kN				550kN				400kN				200kN			
			Ratio		Ratio		Ratio		Ratio									
			V1	L1	V1	L1	V1	L1	V1	L1								
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	35	11.7	539	79	265	38.9	424	62.1	208	30.6	308	45.2	152	22.2	154	22.6	75.8	11.1
900	22.5	7.5	576	54.3	293	27.6	453	42.7	230	21.7	329	31	168	15.8	165	15.5	83.8	7.89
700	17.5	5.83	619	45.4	309	22.7	486	35.7	243	17.8	354	25.9	177	13	177	13	88.4	6.48
500	12.5	4.17	669	35	328	17.2	525	27.5	257	13.5	382	20	187	9.8	191	10	93.6	4.9
300	7.5	2.5	760	23.9	371	11.7	597	18.8	292	9.17	434	13.6	212	6.67	217	6.82	106	3.33
100	2.5	0.83	880	9.21	428	4.49	691	7.24	337	3.53	503	5.26	245	2.56	251	2.63	122	1.28
50	1.25	0.42	1045	5.47	506	2.65	821	4.3	398	2.08	597	3.13	289	1.52	298	1.56	145	0.76

SJA1000			Lifting Load															
n1	Lifting speed mm/s		1000kN				800kN				600kN				400kN			
			Ratio		Ratio		Ratio		Ratio									
			V1	L1	V1	L1	V1	L1	V1	L1								
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	35	11.7	823	121	419	61.4	659	96.6	335	49.1	494	72.4	251	36.8	329	48.3	168	24.6
900	22.5	7.5	884	83.3	442	41.7	708	66.7	354	33.3	531	50	265	25	354	33.3	177	16.7
700	17.5	5.83	955	70	468	34.3	764	56	374	27.4	573	42	281	20.6	382	28	187	13.7
500	12.5	4.17	1038	54.4	497	26	831	43.5	398	20.8	623	32.6	298	15.6	415	21.7	199	10.4
300	7.5	2.5	1137	35.7	568	17.9	910	28.6	455	14.3	682	21.4	341	10.7	455	14.3	227	7.14
100	2.5	0.83	1327	13.89	663	6.94	1061	11.1	531	5.56	796	8.34	398	4.17	531	5.56	265	2.78
50	1.25	0.42	1592	8.33	796	4.17	1274	6.67	637	3.33	955	5	477	2.5	637	3.33	318	1.67



NON-STANDARD SCREW JACK



STAINLESS SCREW JACK

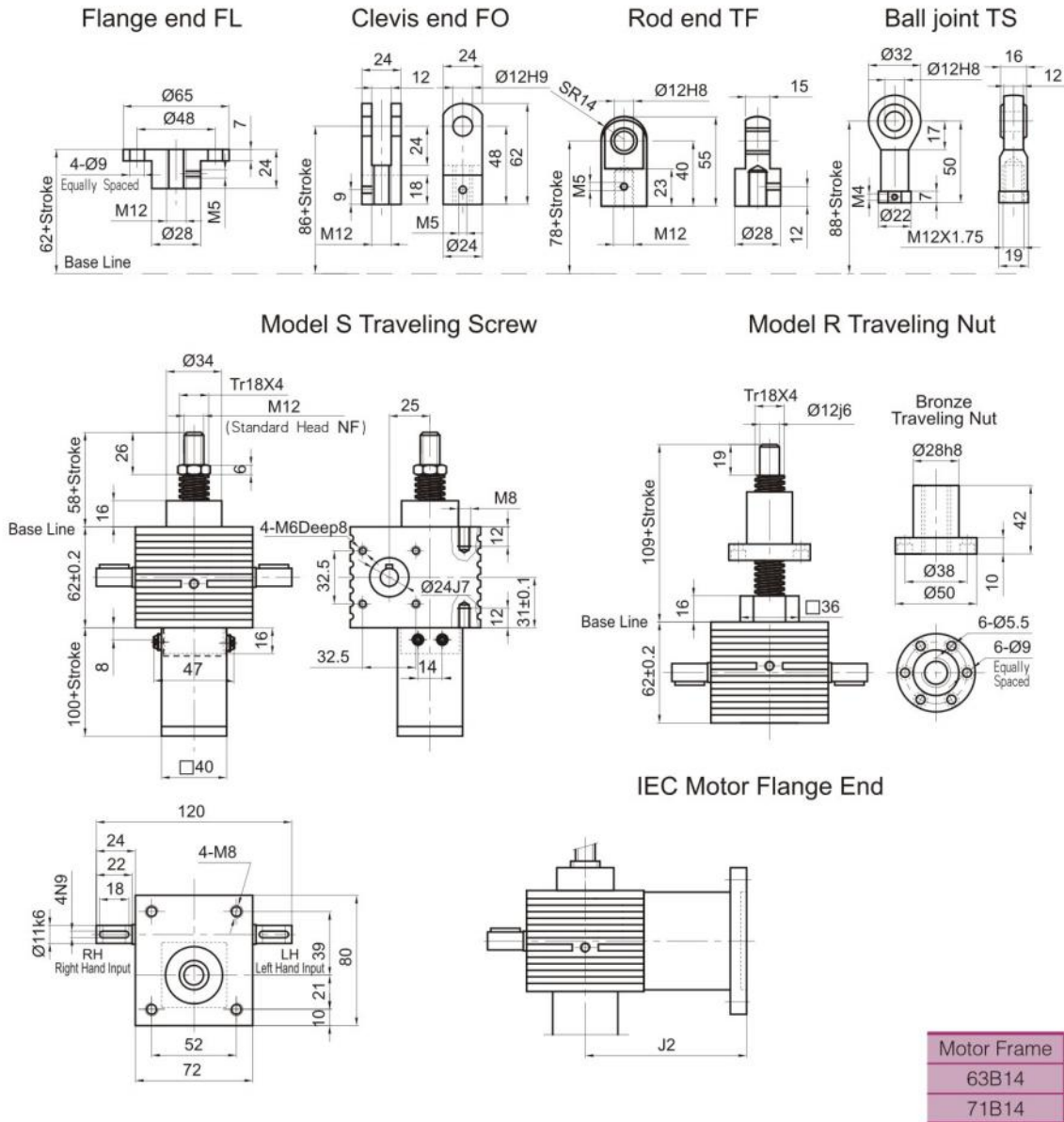
Note: The purple figures in the tables indicate operational restrictions due to thermal limits. Selection of screw jacks using these figures should only be carried out in consultation with our engineers. When your selection is made within the areas shaded purple, you will need to reduce duty cycle or choose the bigger size screw jack in order to allow effective heat dissipation.



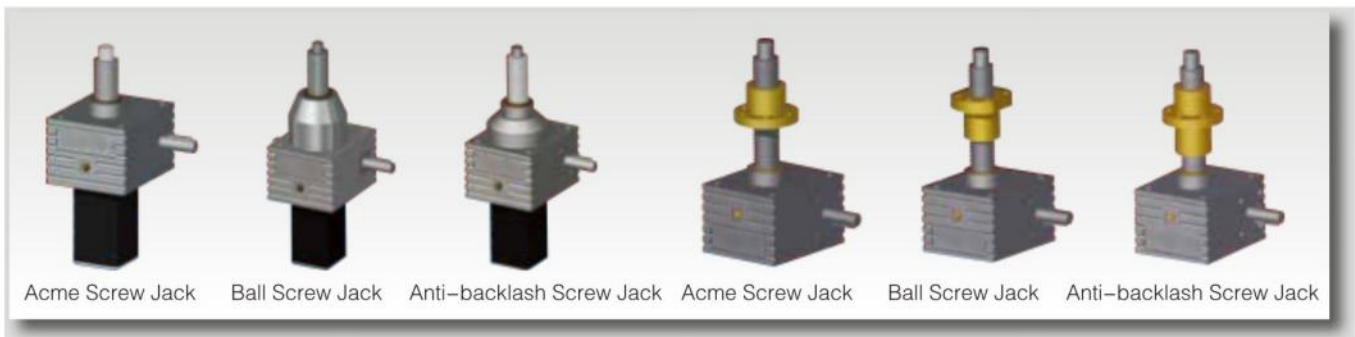
LINEAR MOTION

Overall Dimensions of Screw Jack

SJA5 Screw Jack

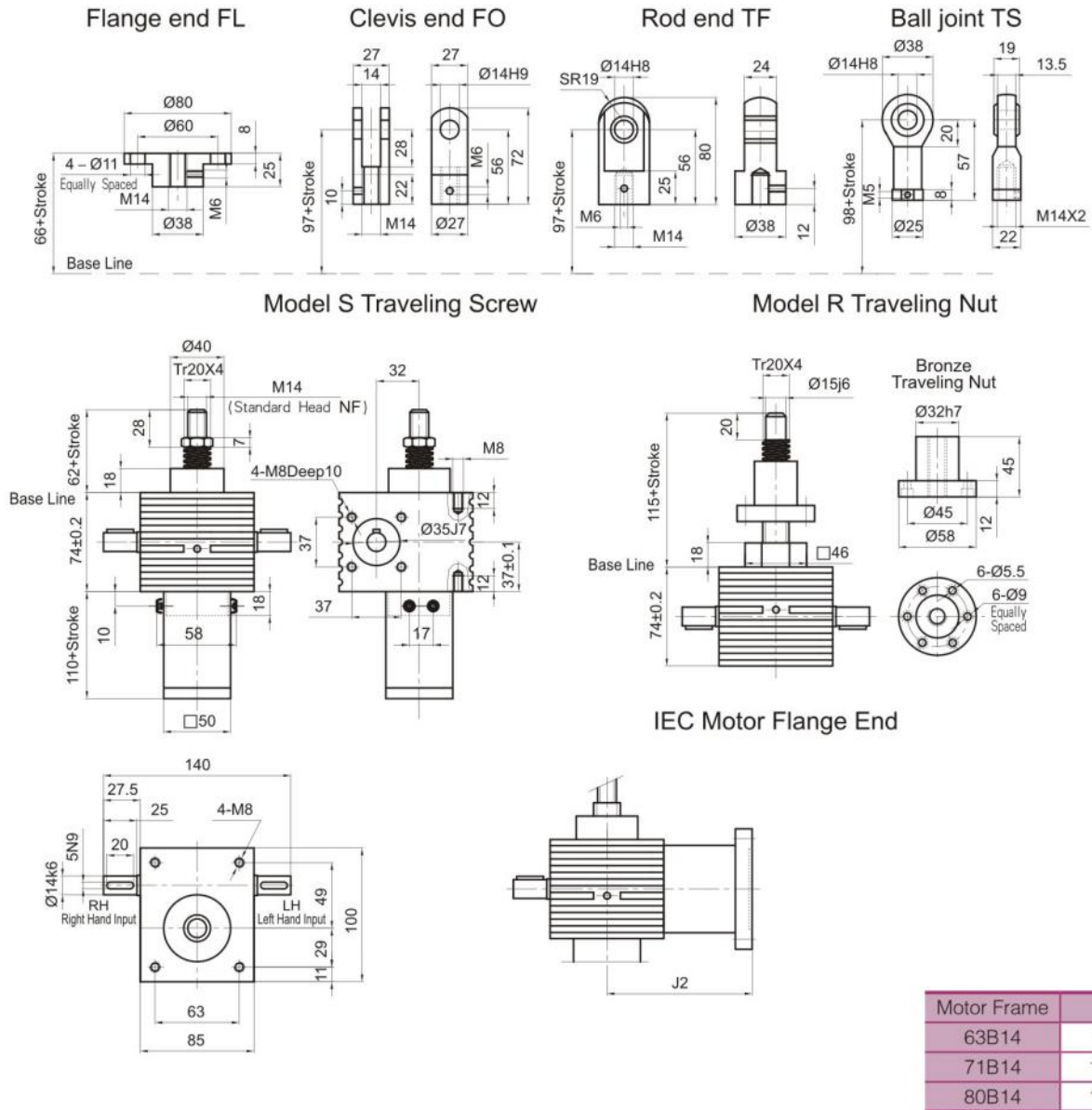


Note: If you need safety nut screw jacks or anti-backlash screw jacks with changing the overall dimensions, please consult Lude Transmission's engineers.

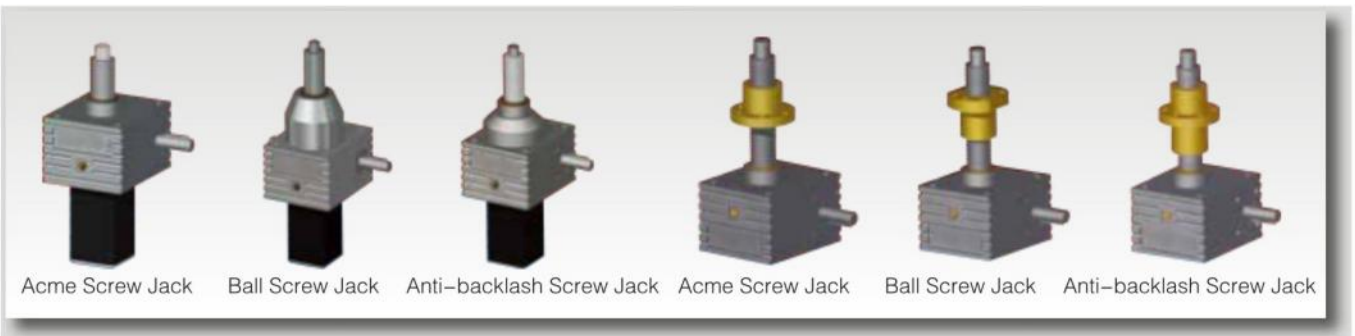




SJA10 Screw Jack



Note: If you need safety nut screw jack or anti-backlash screw jack, the overall dimension will be changed, please consult Lude Transmission's engineers.

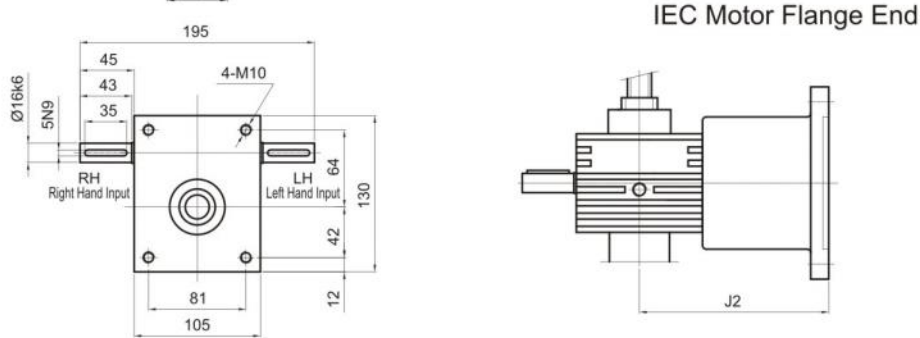
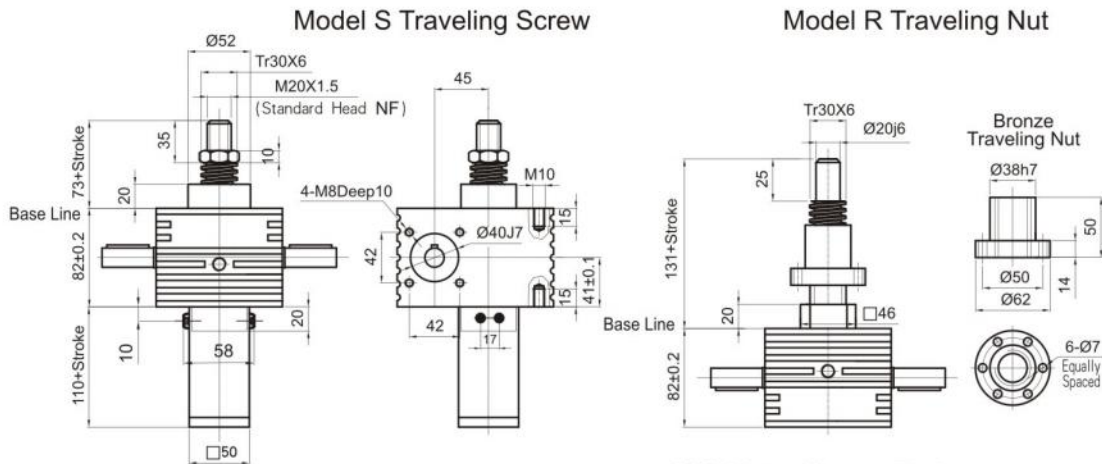
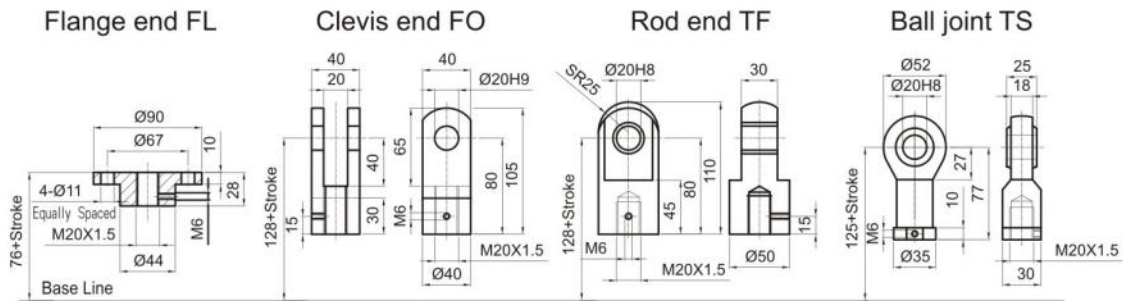




LINEAR MOTION

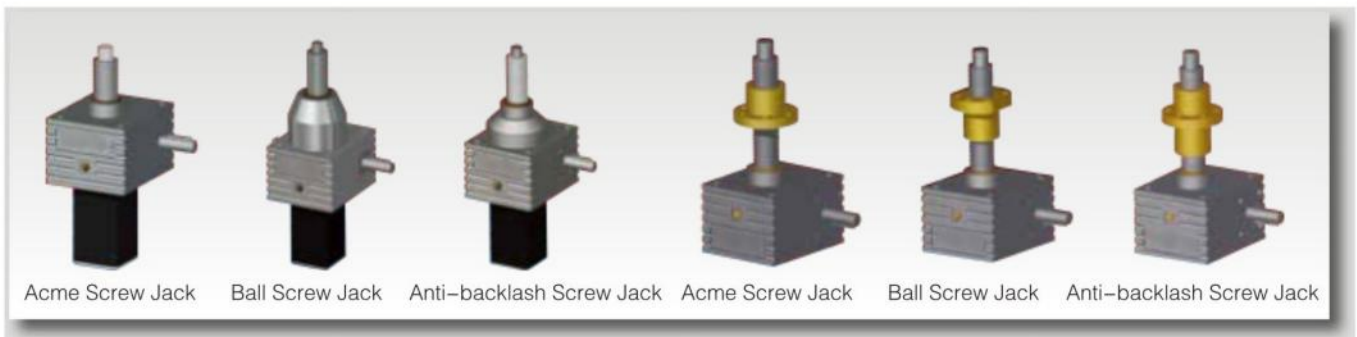
Overall Dimensions of Screw Jack

SJA20 Screw Jack



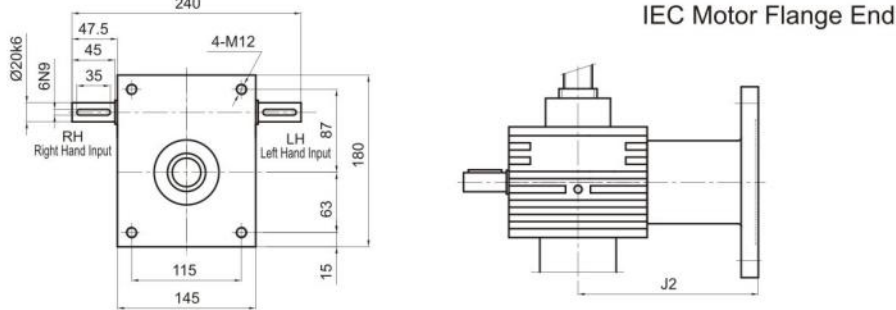
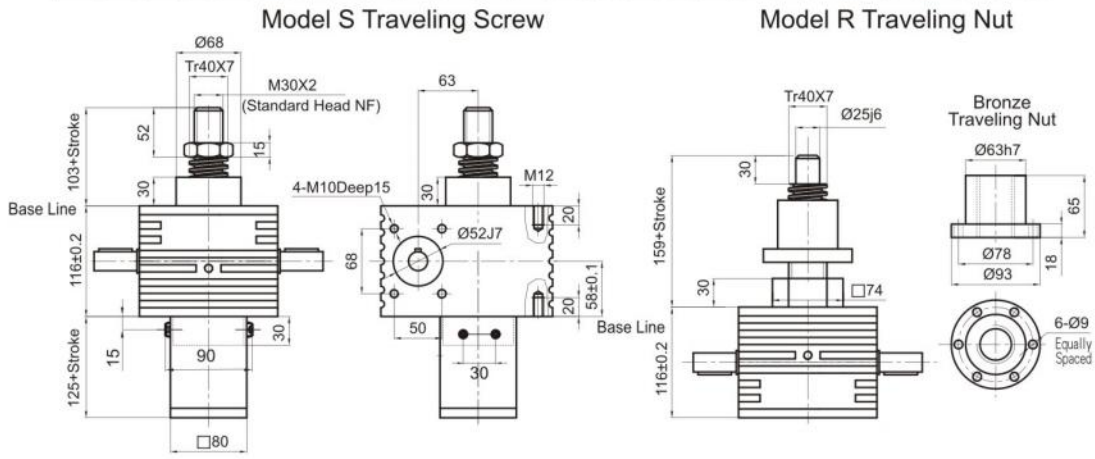
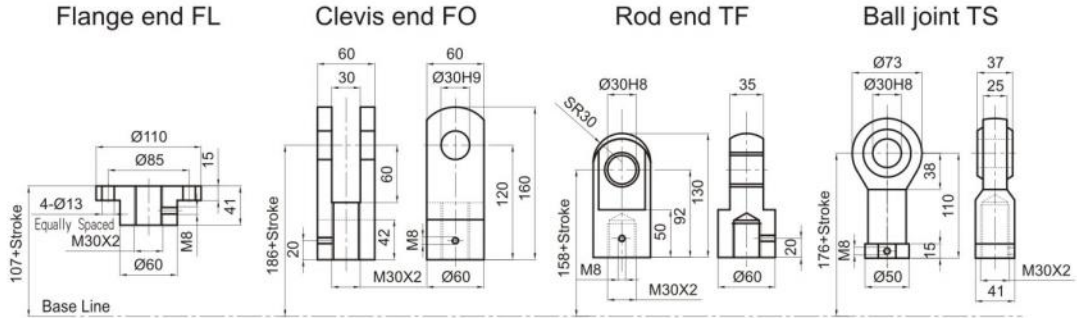
Motor Frame	J2
71B14	75
80B14	155
90B14	165

Note: If you need safety nut screw jacks or anti-backlash screw jacks with changing the overall dimensions, please consult Lude Transmission's engineers.



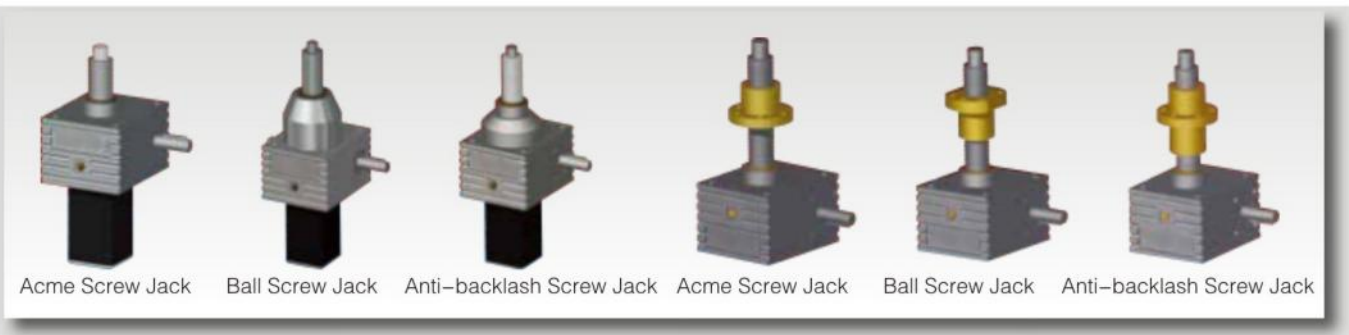


SJA50 Screw Jack



Motor Frame	J2
80B14	98
90B14	190
100B14	200

Note: If you need safety nut screw jack or anti-backlash screw jack, the overall dimension will be changed, please consult Lude Transmission's engineers.

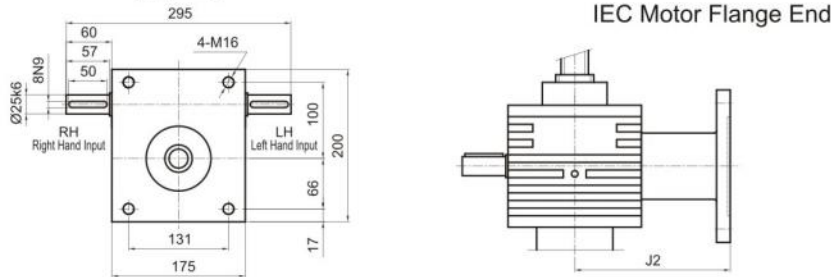
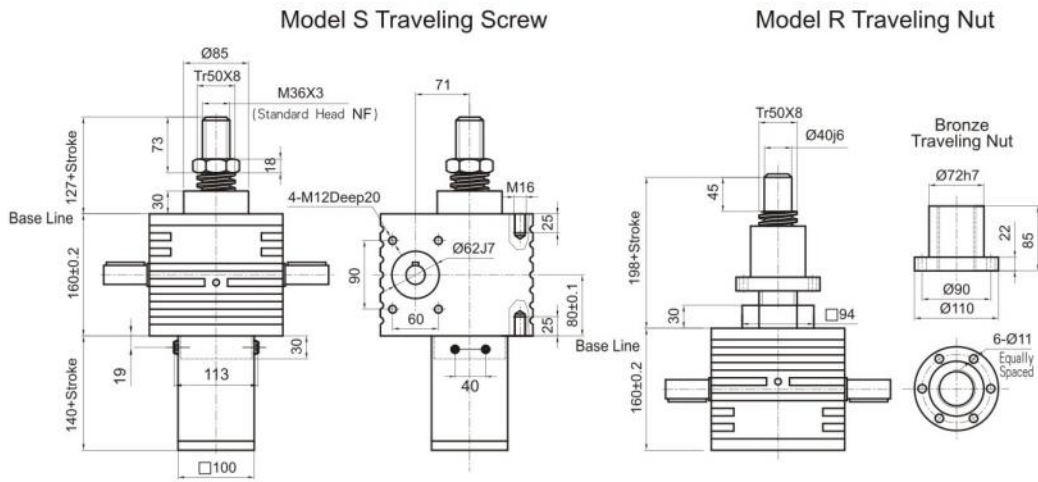
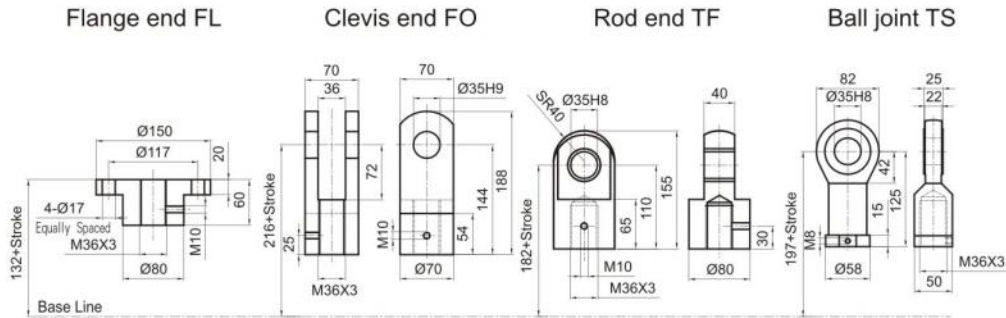




LINEAR MOTION

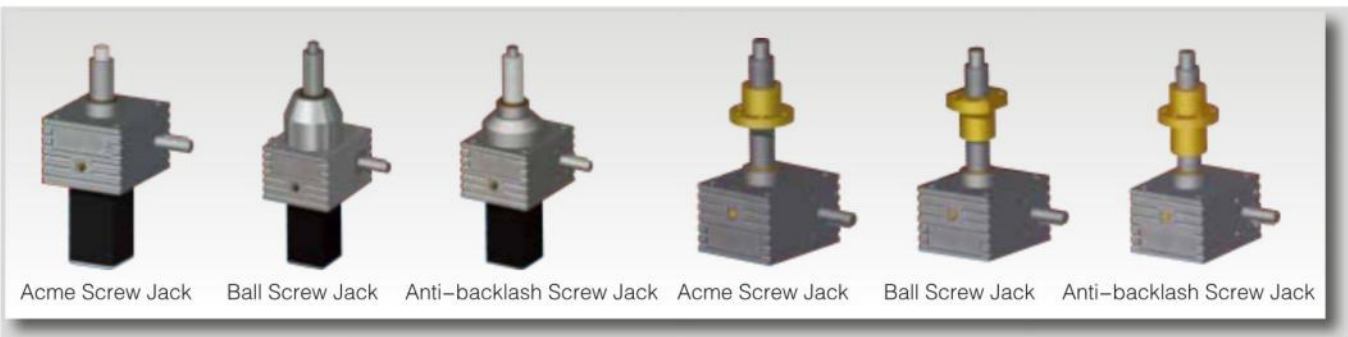
Overall Dimensions of Screw Jack

SJA80 Screw Jack



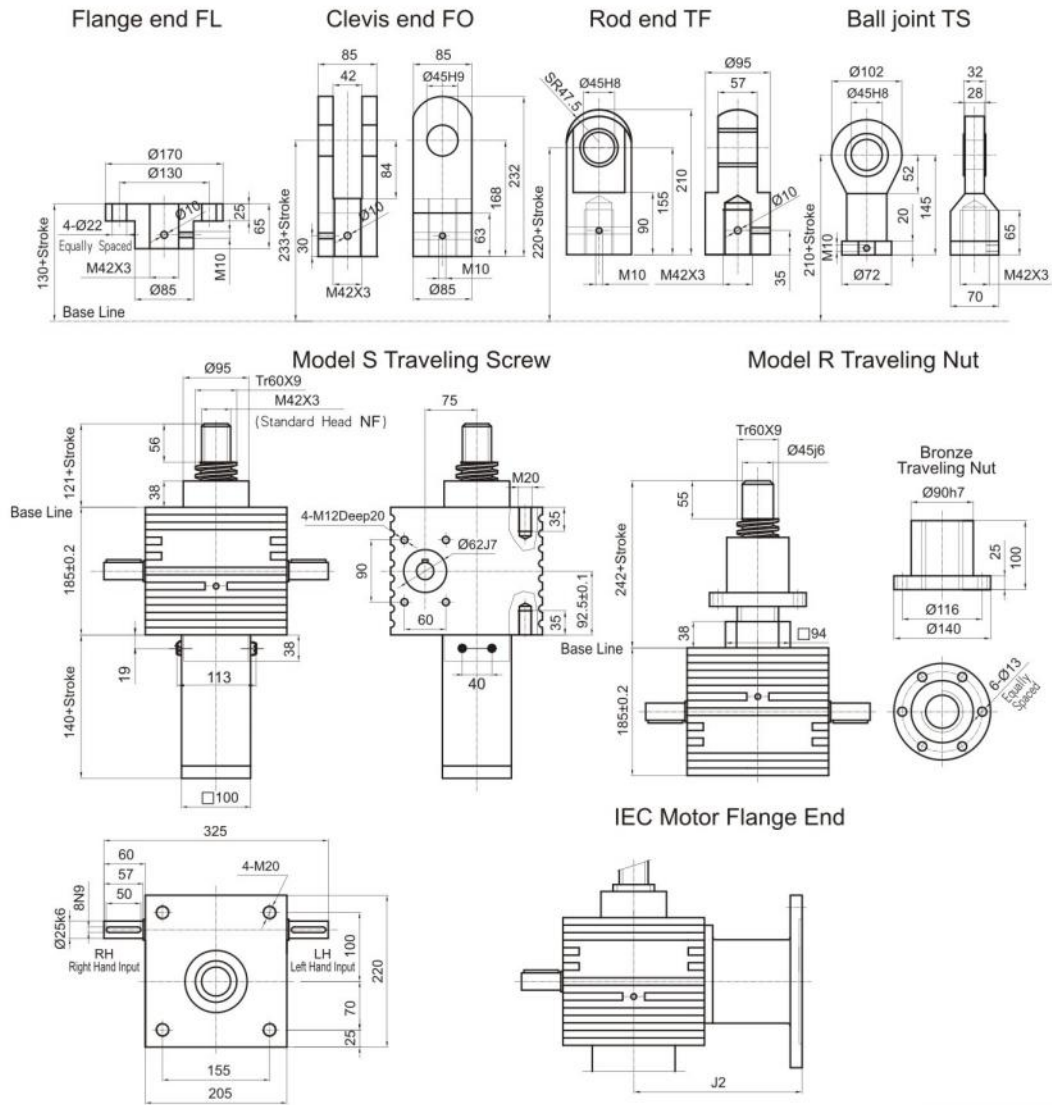
Motor Frame	J2
80B14	115
90B14	115
100B5	231

Note: If you need safety nut screw jacks or anti-backlash screw jacks with changing the overall dimensions, please consult Lude Transmission's engineers.



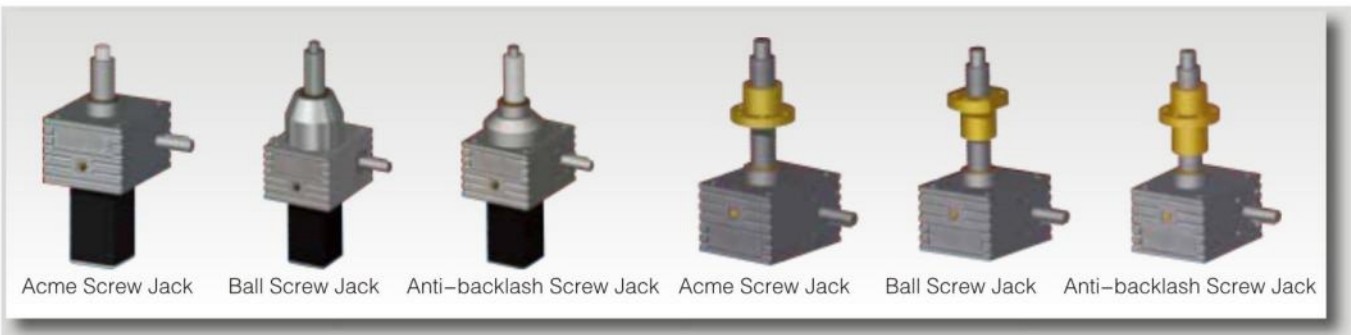


SJA100 Screw Jack



Motor Frame	J2
90B14	130
100B5	246

Note: If you need safety nut screw jack or anti-backlash screw jack, the overall dimension will be changed, please consult Lude Transmission's engineers.

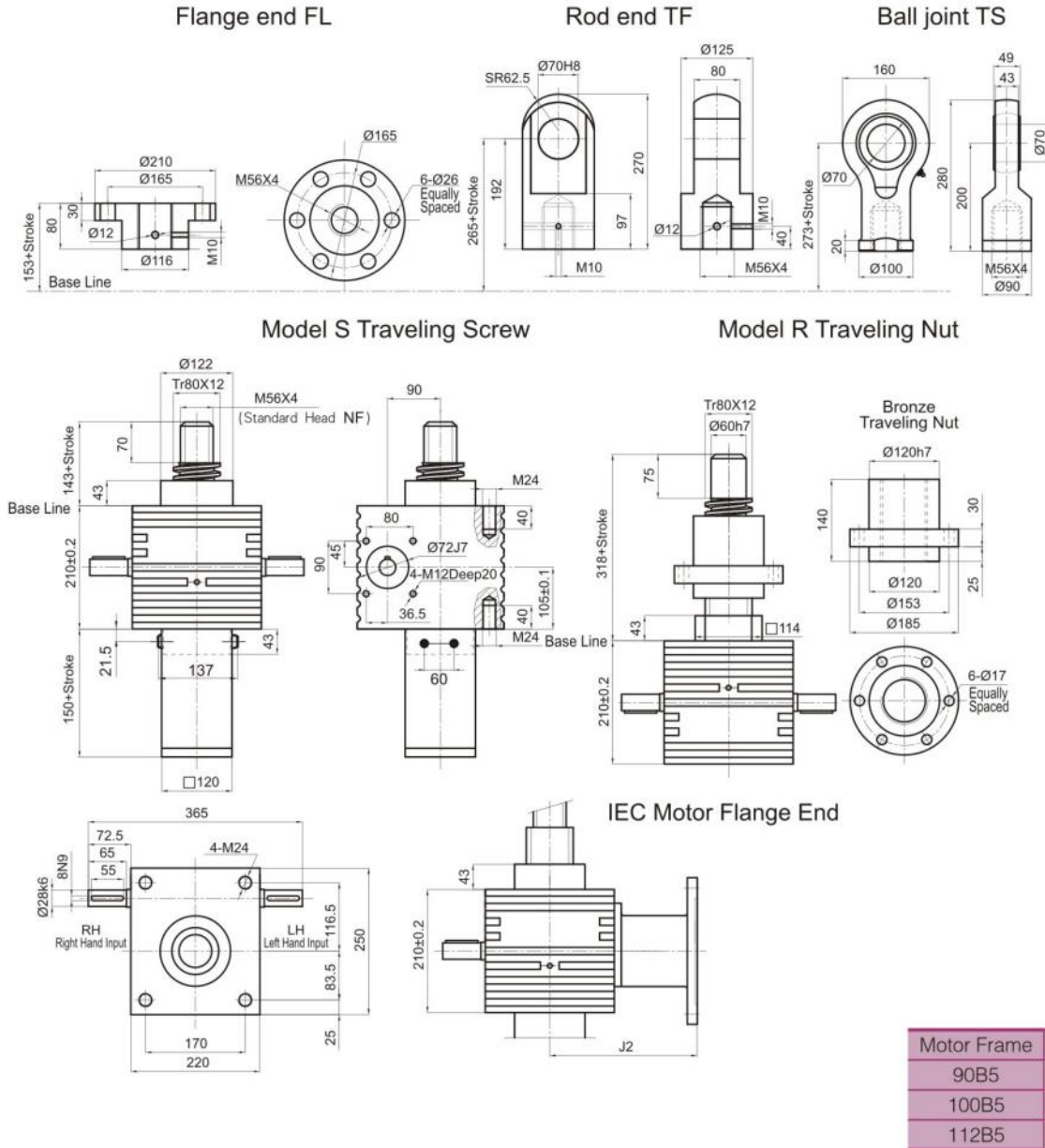




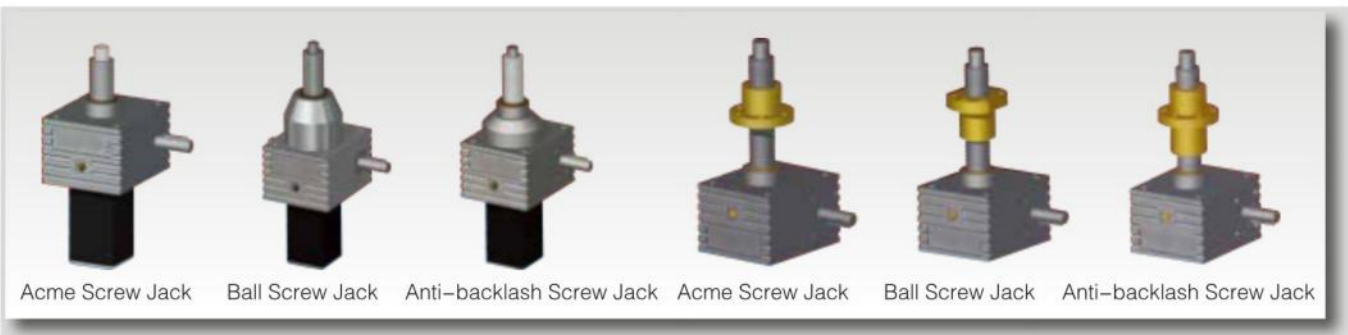
LINEAR MOTION

Overall Dimensions of Screw Jack

SJA200 Screw Jack



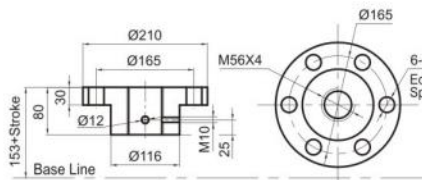
Note: If you need safety nut screw jacks or anti-backlash screw jacks with changing the overall dimensions, please consult Lude Transmission's engineers.



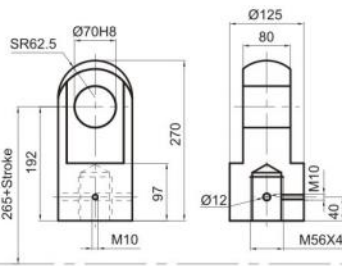


Foot Mounting SJA200-XFM SCREW JACK

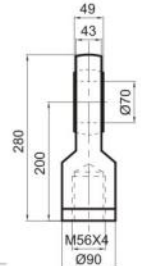
Flange end FL



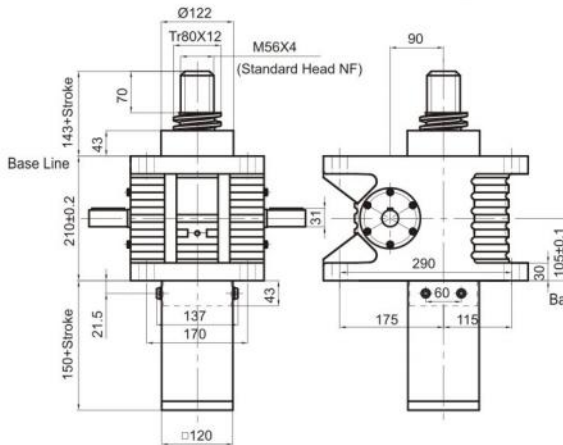
Rod end TF



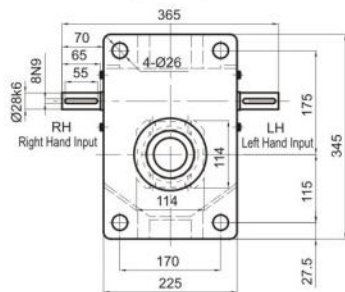
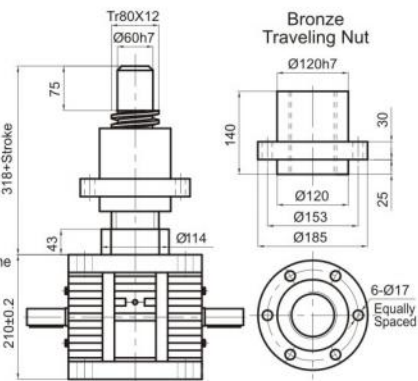
Ball joint TS



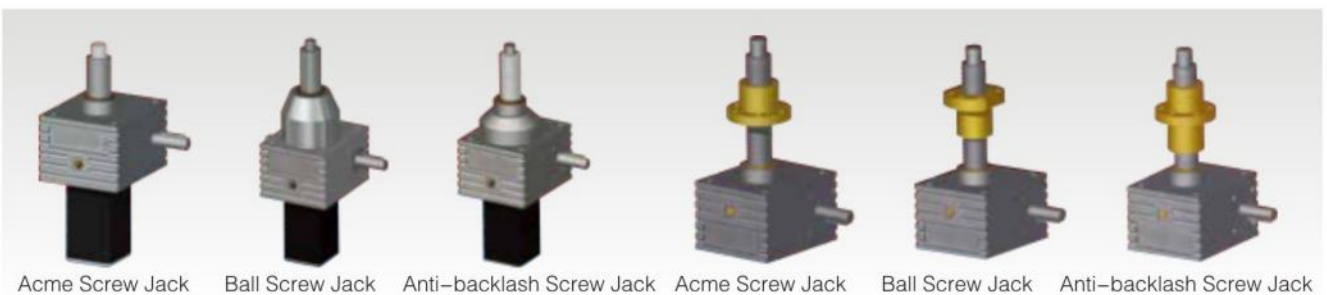
Model S Traveling Screw



Model R Traveling Nut



Note: If you need safety nut screw jack or anti-backlash screw jack, the overall dimension will be changed, please consult Lude Transmission's engineers.



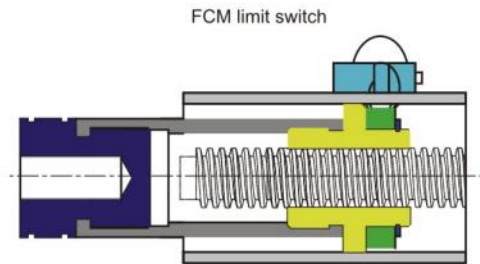


LINEAR MOTION

System Accessories:

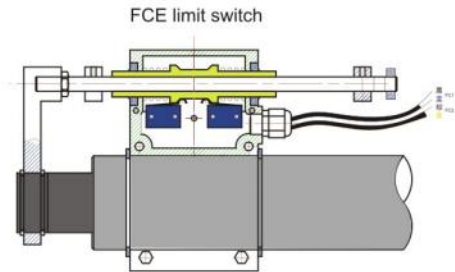
Magnetic Reed Switch (FCM)

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

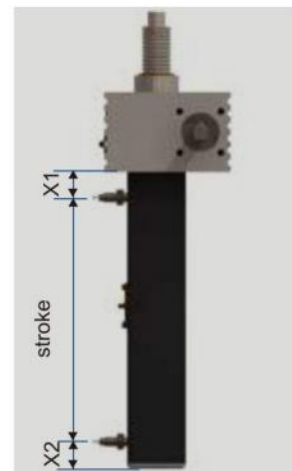


Proximity limit switch (FCP)

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





LINEAR MOTION

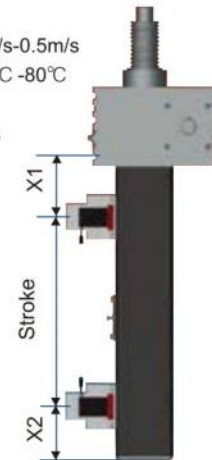
System Accessories

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: $80 \times 70 \times 22\text{cm}$
Control voltage: 220AC
Operation current: 10A

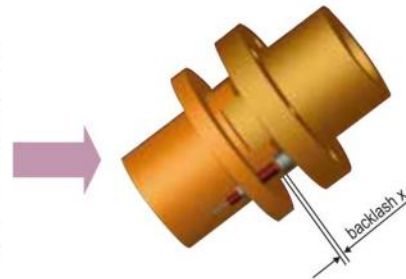
Type	X1	X2
SJA5	40	45
SJA10/SJB10	40	55
SJA20/SJB20/21/22	45	50
SJA50/SJB50/51	55	45
SJA80/SJB80/81	60	60
SJA100/SJB100/101	70	50
SJA200/SJB200/201	75	50
SJA300/SJB300	95	60

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



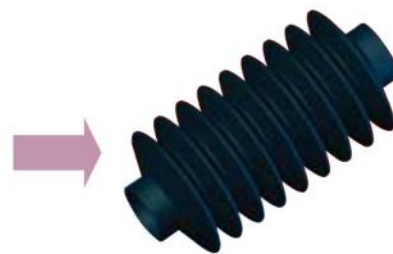
Safety nut (SN)

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 \times 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.



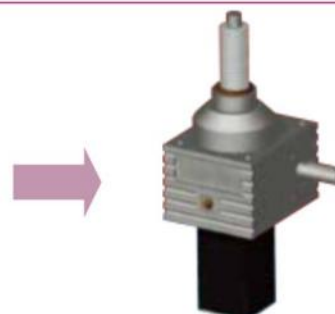
Bellow Sealed (BS)

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 $> 0.02\text{mm}$ 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.





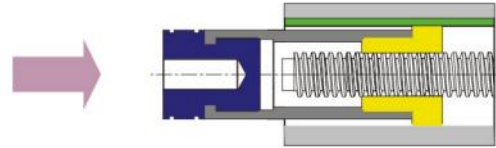
LINEAR MOTION

Anti-turn device (AR)

Apply to the LAP series of actuators.

It is recommended that the anti-turn device be used in the applicatidelete, 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: due to the mounting interference, anti-turn device should not be used simultaneously in conjunction with the magnetic limit switch FCM.



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

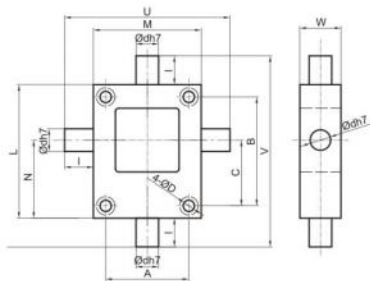
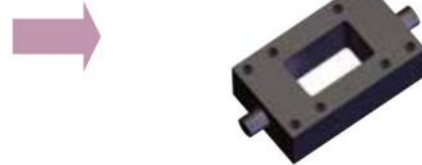
Protective class: IP65



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



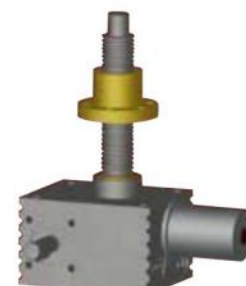
Model	Trunnion											
	A	B	C	D	L	M	N	U	V	W	d	i
SJA5-S...-HBP	52	60	39	9	80	72	49	108	116	28	15	18
SJA10-S...-HBP	63	78	49	9	100	85	60	127	142	30	17	21
SJA20-S...-HBP	81	106	64	11	130	105	76	161	186	40	22	28
SJA50-S...-HBP	115	150	87	13	180	145	102	225	260	50	32	40
SJA80-S...-HBP	131	166	100	17	200	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

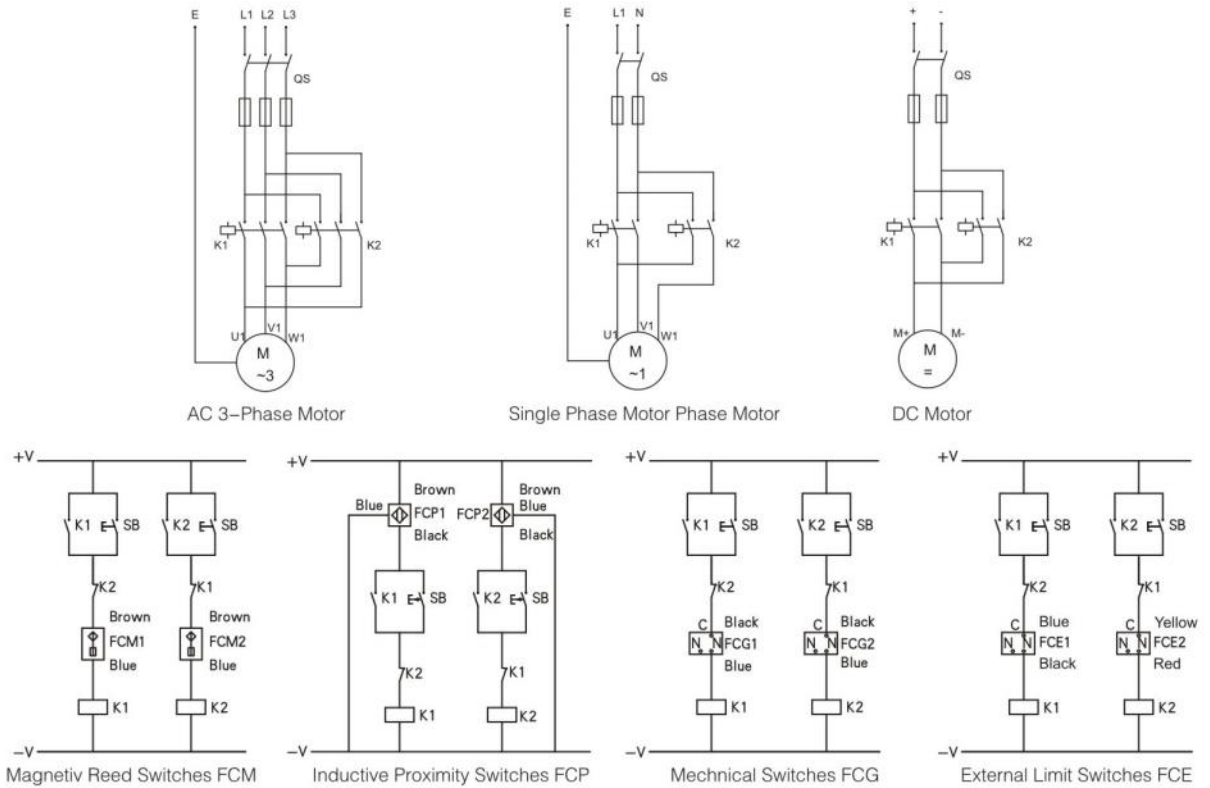


Automatic Lubricator



LINEAR MOTION

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 equivalent	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		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

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.



LINEAR MOTION

AC MOTOR

Actuator and Screw Jace 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 requirement.

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

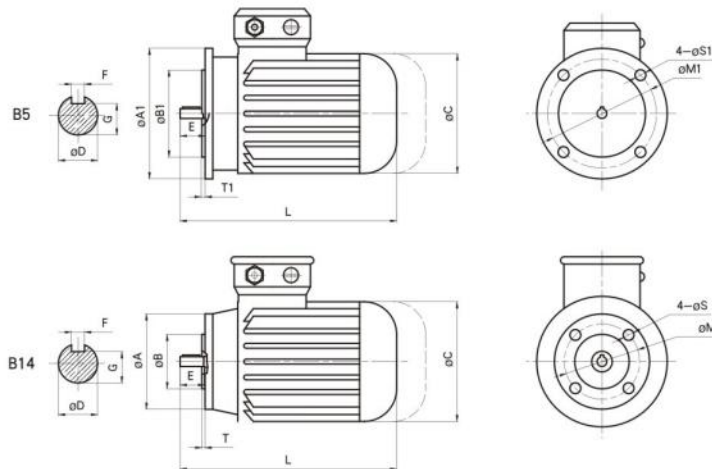
Protection Class: Standard IP54 and Optional : IP55 IP56 IP65 IP66

Insulation Class: F , Optional H

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

Frequency range: 10-60Hz

Accessories: Brake, Temperature protection device, Encoder



Frame Size	Power kw	Speed RPM	Rated Torque Nm	Current A/400V	Weight kg
56	0.09	1380	0.65	0.45	3.2
	0.09	2830	0.31	0.42	
	0.12	2710	0.48	0.48	
63	0.09	800	1.0	0.5	4.4
	0.12	880	1.3	0.7	
	0.18	2800	0.61	0.51	
	0.12	1370	0.92	0.68	
	0.18	1370	1.3	0.85	
71	0.25	2800	0.9	0.78	7.5
	0.18	890	1.9	0.85	
	0.25	900	2.7	1.0	
	0.25	1400	1.7	0.9	
	0.37	1380	2.5	1.2	
80	0.37	2880	1.1	1.3	12.2
	0.55	2860	1.8	2.0	
	0.37	900	3.9	1.22	
	0.55	1400	3.8	1.7	
90S	0.75	1410	5.0	2.0	15.4
	0.75	2870	2.56	1.8	
	0.75	920	7.8	2.5	
	1.1	1390	10.7	3.8	
100	1.5	2800	5.2	3.7	26.5
	1.5	1400	12.8	4.6	
	2.2	2800	7.37	4.53	
	1.5	940	15.4	4.4	
112	2.2	1425	14.8	7.3	36
	3.0	1430	20.2	8.9	
	3.0	2860	10.8	7.2	
112	2.2	950	22.0	7.0	36
	4.0	1440	27.0	8.9	

Frame Size	A	A1	B	B1	C	D	E	F	G	L	M	M1	S	S1	T	T1
56	80	120	50	80	110	9	20	3	7.2	189	65	100	M5	7	3.0	3.0
63	90	140	60	95	122	11	23	4	8.5	225	75	115	M5	9	3.0	3.0
71	105	160	70	110	138	14	30	5	11.0	251	85	130	M6	9	3.5	3.5
80	120	200	80	130	157	19	40	6	15.5	286	100	165	M6	12	3.5	3.5
90S	140	200	95	130	175	24	50	8	20.0	320	115	165	M8	12	3.5	3.5
90L	140	200	95	130	175	24	50	8	20.0	335	115	165	M8	12	3.5	3.5
100	160	250	110	180	196	28	60	8	24.0	377	130	215	M8	15	4.0	4.0
112	160	250	110	180	220	28	60	8	24.0	395	130	215	M8	15	4.0	4.0



LINEAR MOTION

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