

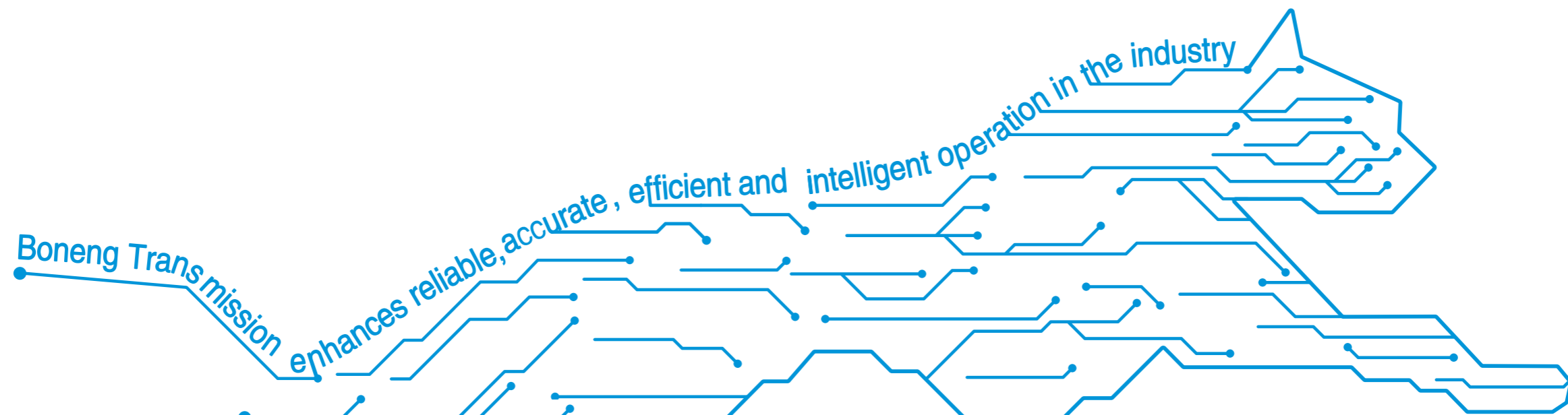
BONENG



JB Ball Screw Jack

Modified date 01/2023
Selection Sample C05.0035-EN

Boneng Transmission



Controller/ Drive/ Motor/ Gearmotor/ Gearbox

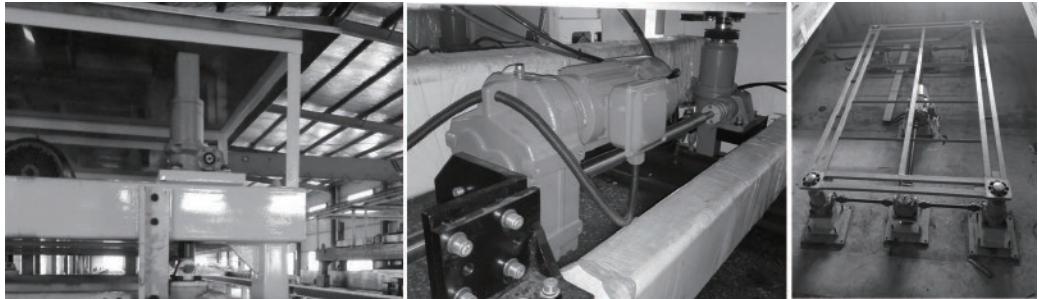
BONENG

Ball Screw Jack



On the basis of ball screw jack design and manufacturing experiences in the past twenty years,analyzing and absorbing advanced technology of international ball screw jack production, Boneng Transmission makes innovative development,pushing forward new type JB ball screw jack to better satisfy customer requirements.

Compared with internationally advanced ball screw jack and the original JWB ball screw jack of Boneng,the new type JB ball screw jack has the following characteristics:



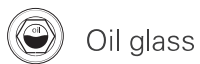
In the iron and steel, stage equipment, medical equipment and other various fields, Boneng combines various kinds of applications, dedicates to manufacture satisfying products for you.

- ◆ Unique outline structure design, thus forming excellent design concept with world-level intellectual property rights for Boneng;
- ◆ Unique modular design, components are categorized to different types; standard components are stored in large amount, which are changeable, so delivery period of worm gear unit is short, and it's easy to get spare parts; (international production, fast delivery, more appropriate for storage, in-time production);
- ◆ It applies cabinet with nodular cast iron, good rigidity, easy to cut, inner structure design is reasonable, impact-proof performance is good;
- ◆ Germany imported worm wheel hob is used to process turbine, which optimizes contact area, ensures intensity; hand finishing transmission worm processed by fine grinding has high efficiency, large output torque;
- ◆ Using high-precision ball screw, high efficiency, high speed, long service life;
- ◆ Output mode: motor direct-linking output, gear unit direct-linking input;
- ◆ Various kinds of output type screw rod top thread, top flange, type pin joint, column joint and flexible nut, etc, it can be equipped with frame and foundation to satisfy lifting requirements on different directions;
- ◆ Various kinds of products, each type has various kinds of strokes and various kinds of lifting load range.

Note: You must conform to the following instructions

- ◆ The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement, (The unmarked dimension units are mm).
- ◆ We can only refer to the marked weight in the manual.
- ◆ To prevent accidents, all the rotation parts should be added with protective covers according to local safety regulations and laws.
- ◆ Before testing, users should read instruction manual carefully.
- ◆ Jack has been tested before delivered, users should add lubrication oil before running.
- ◆ We can only refer to the marked oil in the manual. Actual oil filling level should be the same with the mark on oil immersion lens.
- ◆ Lubrication oil viscosity should be selected according to working conditions and the temperature of local environment.
- ◆ Users can only use high quality lubrication oil.

Product Function Mark



Oil glass



Breather



Oil filler

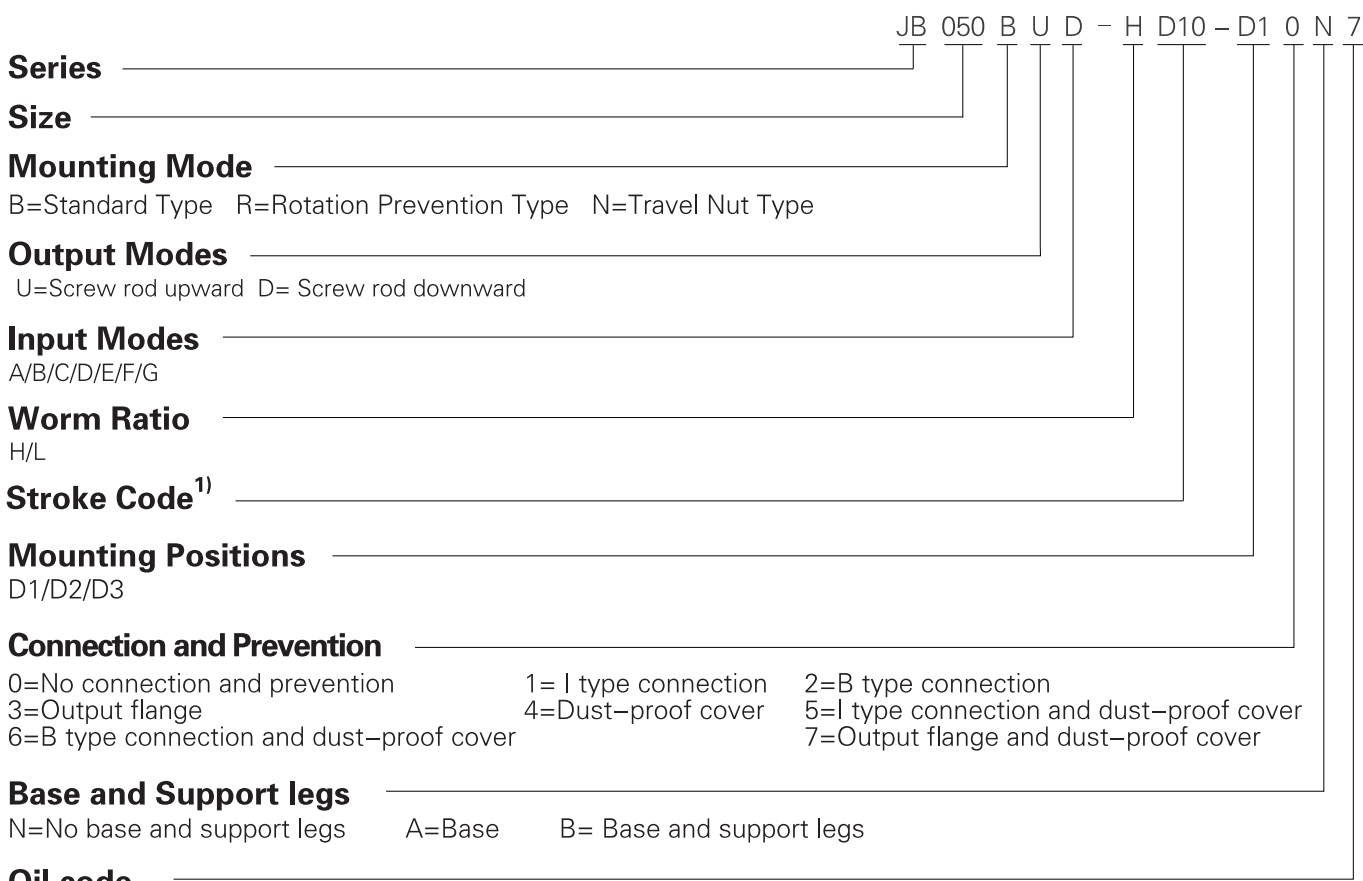


Oil drain

Contents

01.Type Designation	01
02.Structure Scheme	03
03.Mounting Positions	04
04.Basic Parameters	05
05.Type Selection	06
06.Examples	16
07.Arrangement Type Examples	17
08.Examples Of Type Selection	18
09.Notes	20
10.Outline Dimension	21
11.Input Modes	33
12.Direct-linking Input	33
13.Combined-type	34
14.Attachment	36

1 Type Designation



0=Without oil filling (Please select this option when you do not need lubricating oil);
 1=With mineral oil VG220 (Please select this option when the ambient temperature is -20°C ~ +40°C, and you need lubricating oil);
 5=With synthetic lubricating oil VG220 (It is recommended to select this option when you need lubricating oil and the ambient temperature is below 0°C);
 7=000# extreme lubricating oil (JB010 ~ JB150 has been added when delivery)

Note¹⁾Stroke Code

Code	Stroke (mm)	Code	Stroke (mm)	Code	Stroke (mm)	Code	Stroke (mm)
D03	25	D25	250	D50	500	D80	800
D05	50	D30	300	D55	550	E10	1000
D10	100	D35	350	D60	600	E12	1200
D15	150	D40	400	D65	650	E15	1500
D20	200	D45	450	D70	700	E20	2000

MH090S4B11FL 1-A 0 N 0 0-1 1 1

Cable Entry Position

1/2/3/4

Terminal Box Position

1/2/3/4

Motor mounting Position

1/2/3/4/5/6

Motor protection

0=standard configuration 1=with rain cover J=with metal joint
 K=with metal joint and rain cover 4=IP65/ with metal joint
 5=IP65/ with metal joint and rain cover

Thermal Protection and Heating Protection

0=no winding protection 1=thermistor 2=thermoswitch
 3=PT100 temperature sensor 4=heating belt 5=thermistor and heating belt
 6= thermoswitch and heating belt 7= PT100 temperature and heating belt sensor

Brake	N=Without brake A=Brake 220-240VAC D=Brake with release handle 220-240VAC B=Brake 380-415VAC E=Brake with release handle 380-415VAC R=Double-brake with release handle 220-240VAC S=Double-brake with release handle 380-415VAC	Brake	N=Without brake B=Brake 380-415VAC E=Brake with release handle 380-415VAC S=Double-brake with release handle 380-415VAC
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Encoder

0=no encoder 4=high-performance TTL encoder (1024P)
 3=economic HTL encoder (1024P) 1=high-performance HTL encoder (1024P)
 2=standard encoder accessories

Cooling

A= self-fan cooling F=forced-fan cooling (it must be chosen with encoder,otherwise,it is not advised to choose)

Frequency / Voltage Code	1=50hz 220V Δ /380VY 2=50Hz 230V Δ /400VY 7=60Hz 440VY 8=60Hz 460VY A=50Hz 240V Δ /415VY C=60Hz 480VY E=60Hz 220V Δ /380VY	Frequency / Voltage Code	3=50Hz 380V Δ /660VY 4=50Hz 400V Δ /690VY 5=60Hz 440V Δ 6=60Hz 460V Δ B=50Hz 415V Δ D=60Hz 480V Δ F=60Hz 380V Δ
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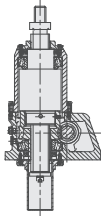
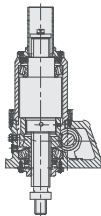
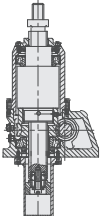
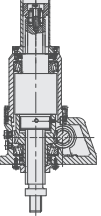
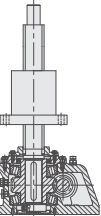
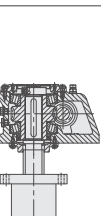
Power (kW)	MH=IE2 Three-Phase Asynchronous Motor 4 pole MP=IE3 Three-Phase Asynchronous Motor 4 pole	Power (kW)	MH=IE2 Three-Phase Asynchronous Motor 4 pole MP=IE3 Three-Phase Asynchronous Motor 4 pole
0.12	MH063M4A12FL MP063M4A12FL	4	MH112L4B40FC MP112L4B40FC
0.18	MH063M4A18FL MP063M4A18FL	5.5	MH112S4B55FC MP112M4B55FC
0.25	MH071M4A25FL MP071M4A25FL	7.5	MH132M4B75FC MP132L4B75FC
0.37	MH071M4A37FL MP071M4A37FL		
0.55	MH080M4A55FL MP080M4A55FL		
0.75	MH080M4A75FL MP080M4A75FL		
1.1	MH090S4B11FL MP090S4B11FL		
1.5	MH090S4B15FL MP090M4B15FL		
2.2	MH100M4B22FL MP100M4B22FL		
3	MH100M4B30FL MP100M4B30FL		

◆ Example of product type with input flange: JB050BUD-HD10-D10N7-AF71

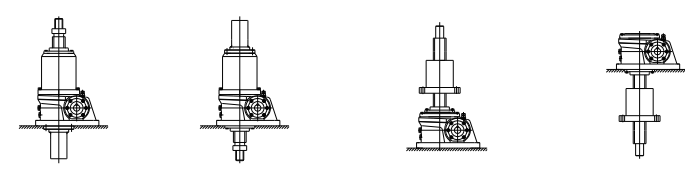
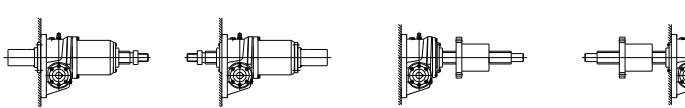
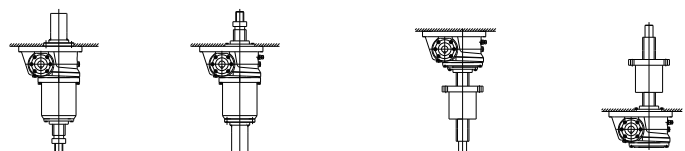
◆ Example of product type with input shaft: JB050BUA-HD10-D10N7-S

◆ Example of combined type: JB050BUD-HD10-D10N7-C303FA-C18-D101-MH080M4A75AL1-A0N00-011

2 Structure Scheme:

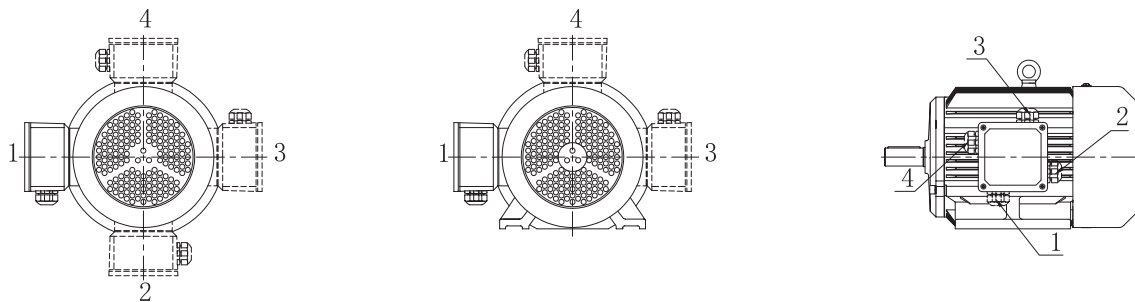
Structure Mode	Output Mode	Structure Drawing	Explanation
Plain mode	JB ..BU		The screw may produce rotary force when lifting,so anti-rotation measures should be adopted.
	JB ..BD		
With Anti-rotation device	JB ..RU		With anti-rotation device,the screw travels up and down only and produces no rotary force.
	JB ..RD		
Structure Traveling nut	JB ..NU		For travelling nut type,the screw rotates to drive the nut move.Due to its cylindric structure,supporting mode is often used at the screw end to ensure good transmission of long stroke.
	JB ..ND		Note:Bellows are not supplied with the travelling nut type screw jack.Consult us if required.

3 Mounting Positions:

D1	
D2	
D3	

⚠ Note: When applying D3 mounting position, performance level of foot-mounting bolts should be above 10.9.

Motor terminal box and cable entry position:



View: Motor afterbody

Assembly colour of jack JB010-JB500 (RAL5015)

4 Basic Parameters:

Type		JB010	JB025	JB050	JB100	JB200	JB300	JB500
Maximum loading (KN)		9.8	24.5	49	98	196	294	490
Screw road external diameter (mm)		20	25	40	50	63	80	100
Screw rod bottom diameter (mm)		16.2	19.3	32.4	41.4	54.4	68.6	88
Screw rod bolt distance L1(mm)		5	8	10	12	12	16	20
Ratio	H Speed	5	5.6	5.2	10.667	9.667	10.667	10.333
	L Speed	20	26	26	24	29	32	31
Comprehenswe efficiency % η	H Speed	61	62	64	63	62	56	60
	L Speed	34	35	39	43	41	34	38
Allowable input maximum Power (KW)	H Speed	0.54	1.3	2.21	2.97	4.87	8.49	12.78
	L Speed	0.27	0.61	0.95	1.87	2.59	3.70	6.37
Empty-loading torque T0	(N · m)	0.29	0.62	1.37	1.96	3.92	9.81	19.6
Holding torque	H Speed	1.27	4.31	10.78	19.6	51.0	68.6	140.1
	L Speed	0.26	0.91	2.4	5.8	15.0	19.5	41.2
Allowable input shaft torque*	(N · m)	20	49	126	247	247	620	973
Input shaft torque for** Maximum loading (N · m)	H Speed	2.85	9.60	24.80	29.81	66.38	135.1	271.2
	L Speed	1.44	4.05	9.06	20.1	35.4	78.6	152.0
Screw movement per revolution of input shaft (mm)	H Speed	1.0	1.43	1.92	1.12	1.24	1.50	1.94
	L Speed	0.25	0.31	0.38	0.50	0.41	0.50	0.65
Allowable input shaft rotation speed(rpm) for maximum loading	H Speed	1500	1300	850	950	700	600	450
	L Speed	1500	1450	1000	890	700	450	400
Screw rod rotation torque during maximum loading	(N · m)	8.7	34.3	87.9	211.9	438.5	867.2	1806.7
Pipe material/	Stainless steel (anti-rotation pipe: common steel pipe)							
Lubrication mode/	Screw:Grease Worm gesr:Worm gear oil							
Cooling method/	Natural cooling							
Common ambient condition	Ambient temperature: $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$, open site has good ventilation, altitude is under 1000 meters, common plant dust.							
Specied ambient condition	High temperature, low temperature, much dust, chemical effect (acid,alkali,etc), oper-air (direct sunshine,ice,water spray,etc), please consult.							

“*” Allowable torque of input shaft of the gear unit.

“**” Include non-loading torque value.

5 Type Selection:

5.1 Determination of screw jack type

(1) Calculation of total equivalent load W_s (N)

$$W_s = W_{max} \cdot f_1(N)$$

Driven Machine Factor :

Load Characteristic	Example	Factor for driven machine
Uniform load, small inertia	Shifting device for switches, valves and conveyors	$1.0 < f_1 \leq 1.3$
Moderate shock load, medium inertia	Moving devices and elevators	$1.3 < f_1 \leq 1.5$
Heavy shock load, large inertia	Transport goods with trolley; keep the positions of calendaring roller	$1.5 < f_1 \leq 3.0$

(2) Calculation of equivalent load of single jac kW(N):

$$W = \frac{W_s}{\text{Arrangement factor} \cdot \text{Number of jacks in arrangement } f_d}$$

Arrangement factor(f_d)

Number of jacks in arrangement	1	2	3	4	5 ~ 8
Arrangement factor	1	0.95	0.9	0.85	0.8

(3) Initial selection of jack type

Make an initial selection of jack type by fully considering load, speed, travel, efficiency and drive source.

(4) Make final determination of screw jack type in view of stroke, ambient environment and top end fittings.

5.2 Verification of input power:

If the input power required is greater than the permissible input power, increase the size of the screw jack or decrease the speed of the screw.

Calculation of input power required:

Input speed required	$n(r / \text{min})$	$n = \frac{V}{L_1} \times i$
Input torque required	$T(N \cdot m)$	$T = \frac{W \times L_1}{2\pi \times i \times \eta} + T_0$
Input power required	$P(kW)$	$P = \frac{T \times n}{9550}$

V : Elevator screw shaft (flexible nut) lifting speed (m/min)

L_1 : Screw rod pitch (m) i : Ratio

w : Equivalent load of single elevator (N) π : Circular constant

η : Comprehensive efficiency of elevator T_0 : Empty loading torque (N · m)

(L_1 、 i 、 η 、 T_0 Refer to basic foundation table)

5.2 Verification of input power:

If the input power required is greater than the permissible input power, increase the size of the screw jack or decrease the speed of the screw.

Calculation of input power required:

Input speed required	$n(r / \text{min})$	$n = \frac{V}{L_1} \times i$
Input torque required	$T(N \cdot m)$	$T = \frac{W \times L_1}{2\pi \times i \times \eta} + T_0$
Input power required	$P(\text{kW})$	$P = \frac{T \times n}{9550}$

V : Elevator screw shaft (flexible nut) lifting speed (m/min)

L1: Screw rod pitch (m) i: Ratio

w: Equivalent load of single elevator (N) π : Circular constant

η : Comprehensive efficiency of elevator T0: Empty loading torque (N · m)

(L1、 i、 η 、 T0 Refer to basic foundation table)

5.3 Verification of the screw stability

Verify the screw stability when the axial compression load exists. If the load is greater than the critical load, increase the sizes before calculation.

The critical load is calculated with the following formula:

$$P_{CR} = f_m \times \left(\frac{d^2}{L_a} \right)^2$$

ensure

$$P_{CR} > W \times S_f (S_f = 4)$$

PCR: critical load

d: screw root diameter mm(see the table of technical data)

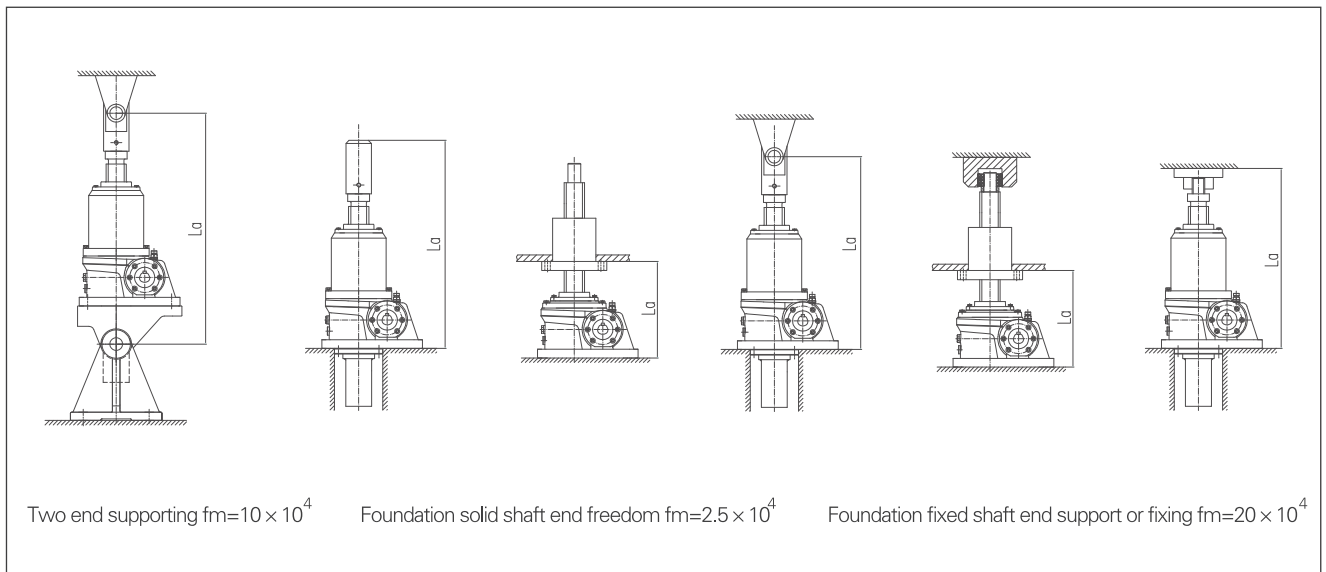
f_m: support factor

L_a: distance between action points, mm

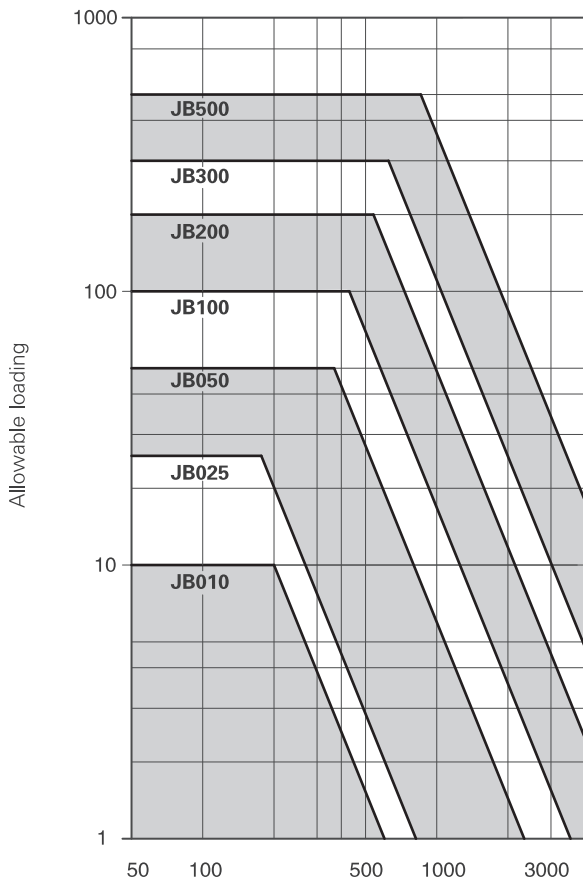
W: equivalent load of single jack(N)

SF: safety factor(generally SF=4)

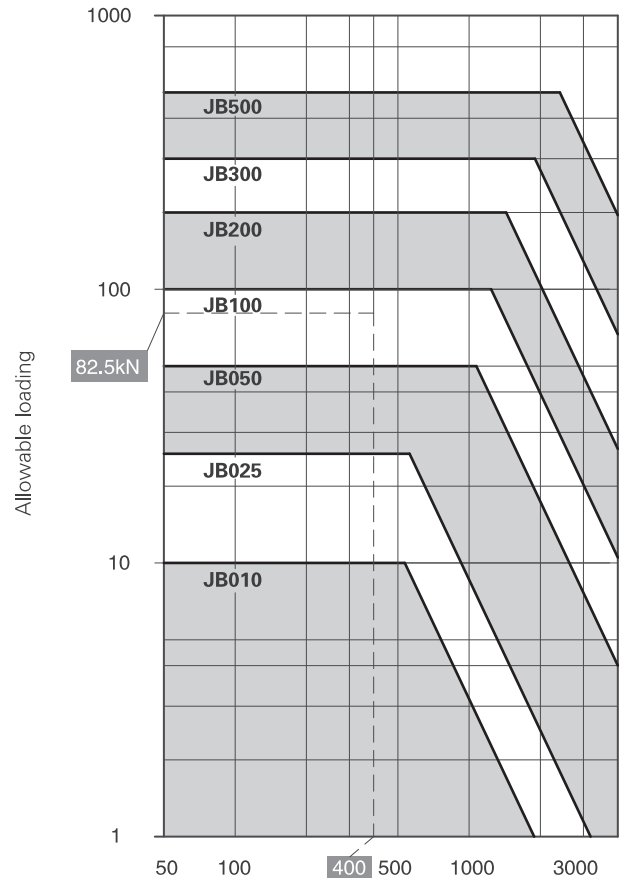
For verification of the screw stability, choose L_a(based on the sizes) and f_m (support factor) as follows



Associated diagram of allowed loading of point distance :



Distance between action points L_a mm ($f_m = 20 \times 10^4$)



Distance between action points L_a mm ($f_m = 2.5 \times 10^4$)

“---” means loading $W=82.5\text{kN}$, (safety coefficient $SF=4$) point distance $L_a=400\text{mm}$ (foundation fixed shaft end supporting fixing $f_m=20 \times 10^4$) as an example; at this time, you can select ladder screw elevator JB100 witch can satisfy crossing point of vertical and horizontal axis.

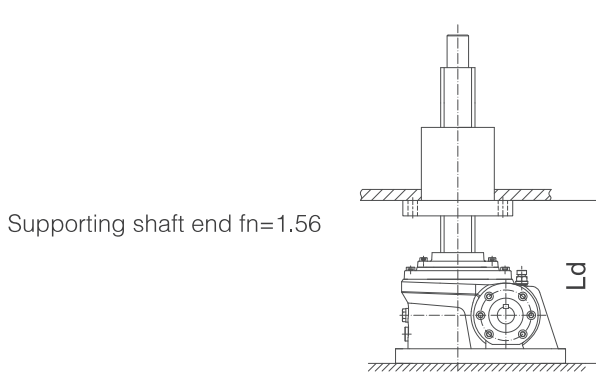
5.4 Verification of critical speed:

If select travelling nut type, the rotary speed of the screw must be lower than the critical speed; if vice versa, increase the size before calculation.

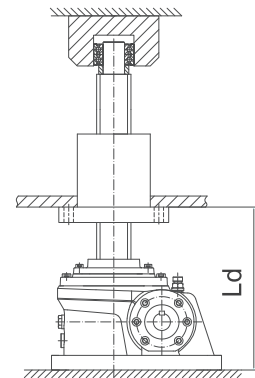
$$n_c = \frac{96 \times f_n \times d \times 10^6}{L_b^2} \qquad n_s = \frac{n_1}{i}$$

- n_c : critical speed r/min
- d : screw root diameter mm(see the table of basic parameters)
- f_n : length factor
- L_b : distance between supports, mm
- n_s : screw speed
- n_1 : input speed r/min
- i : ratio(see the table of basic parameters)

L_b (as per the sizes) and f_n (length factor) are as follows in verifying the rotary speed of screw.



Movable shaft end $f_n=0.36$



Calculation example: JB200NUA-HE12-D10N0-S Input speed is 1200r/min, run under shaft end support, check according to outline dimension and transmisson capacity:
 $i=9.667$ $d=54.4$ $L_b=1419$ E12:1200stroke

$$n_s = \frac{n_1}{i} = \frac{1200}{9.667} = 124 \text{ r/min}$$

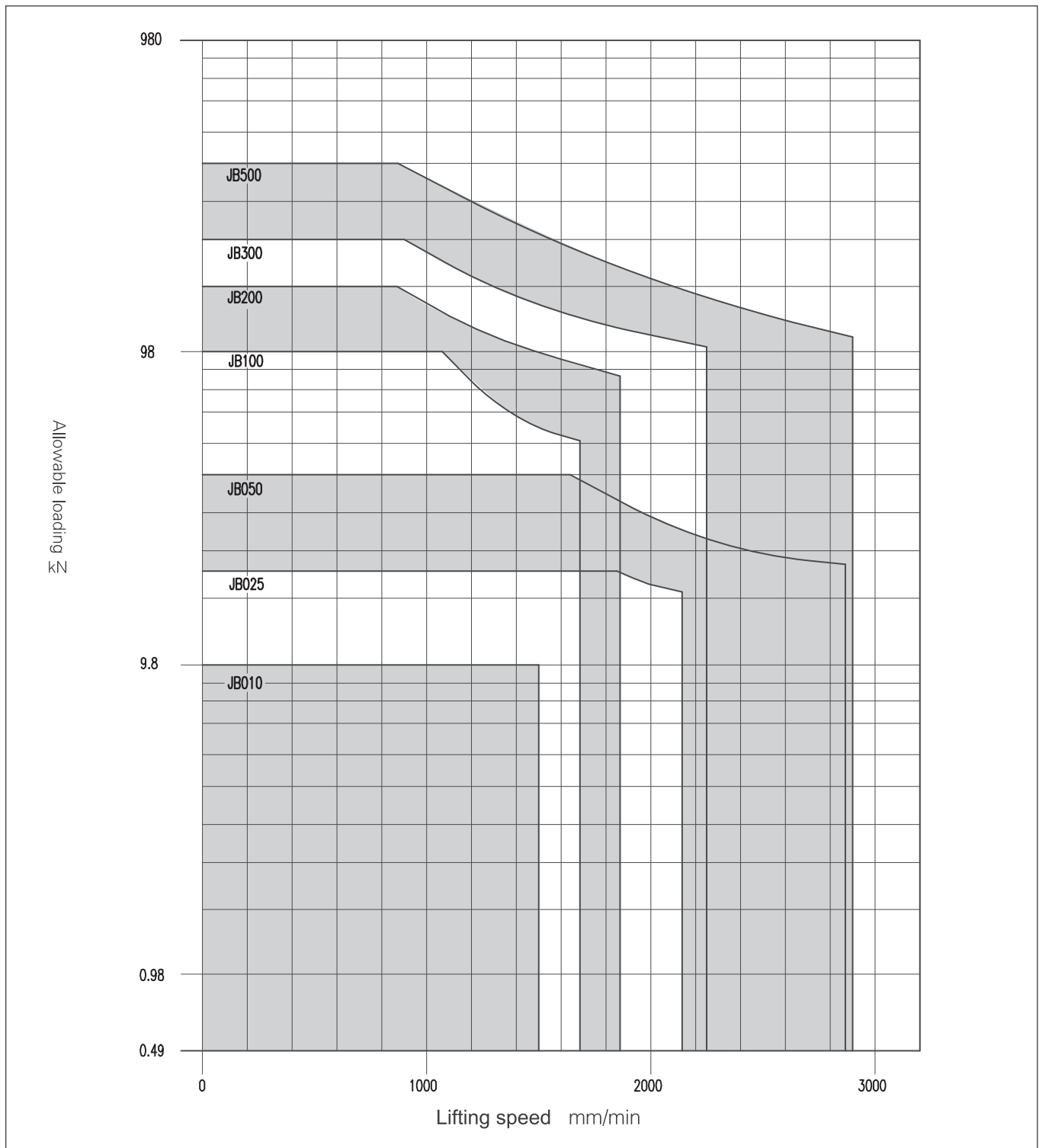
$$n_c = \frac{96 \times f_n \times d \times 10^6}{L_b^2} = \frac{96 \times 1.56 \times 54.4 \times 10^6}{(1419)^2} = 4046 \text{ r/min}$$

$n_c=4046 \text{ r/min} > 124 \text{ r/min} \dots\dots\dots\text{ok}$

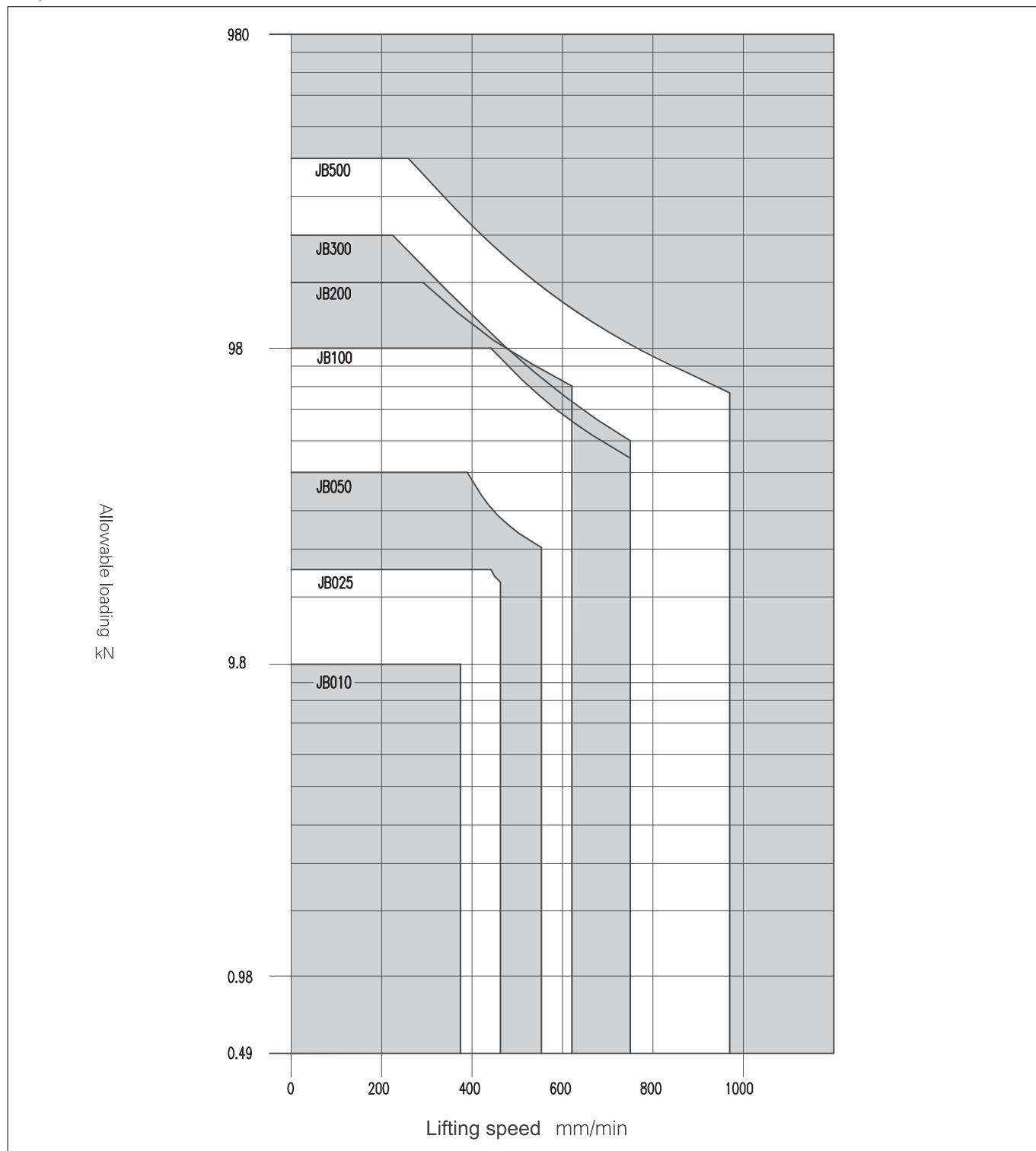
Association diagram of screw rod lifting speed and allowable loading:

The picture is established according to maximum allowable input capacity of screw rod, please check allowable loading according to this picture, determine elevator type. When detailed type is needed, confirm by calculation.

H Speed



L Speed



5.5 Drive source options

Determine the required drive unit capacity for synchronous drive Pt

1. Add the torque required for each jack T_{1-4} on the drive unit side to determine the overall torque T_t

(1) Required torque per jack:

$$T_{1-4} = \frac{T}{\text{Gearbox efficiency}^{\text{No. of gearbox}}}$$

(2) Required torque for the drive unit:

$$T_t = T_1 + T_2 + T_3 + T_4$$

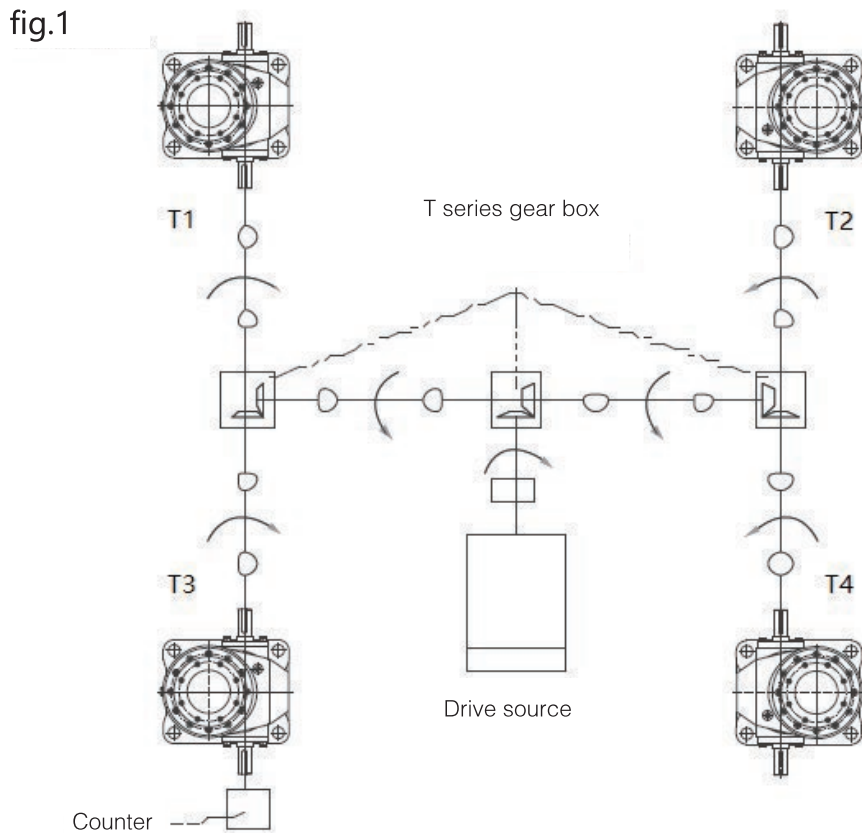
T_{1-4} : Required torque for each jack on the drive unit side N.m

T : Required input torque per jack N.m

T_t : Required torque for the drive unit N.m

Gearbox efficiency: Assume 0.9

For a four unit system (fig.1), $T_{1-4} = \frac{T}{0.9^2}$



2. Determine the required drive unit capacity P_t with input n and overall T_t determined in 1.

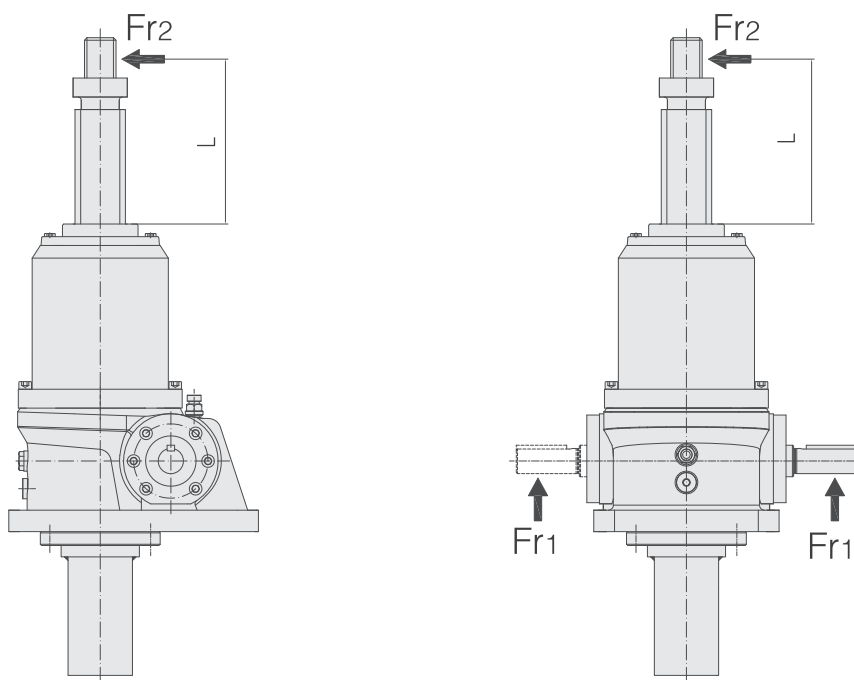
$$P_t = \frac{T_t \times n}{9550}$$

5.6 Allowable radial force of input shaft Fr1

When installing chain wheel, gear, belt on input shaft, please confirm radial force exerted on input shaft is under allowable radial force.

Ratio	Allowable radial force Fr1						Unit (N)
	JB010	JB025	JB050	JB100	JB200	JB300	JB500
H Speed	380	710	1500	2270	4320	6110	10100
L Speed	220	420	820	1430	2800	4400	6650

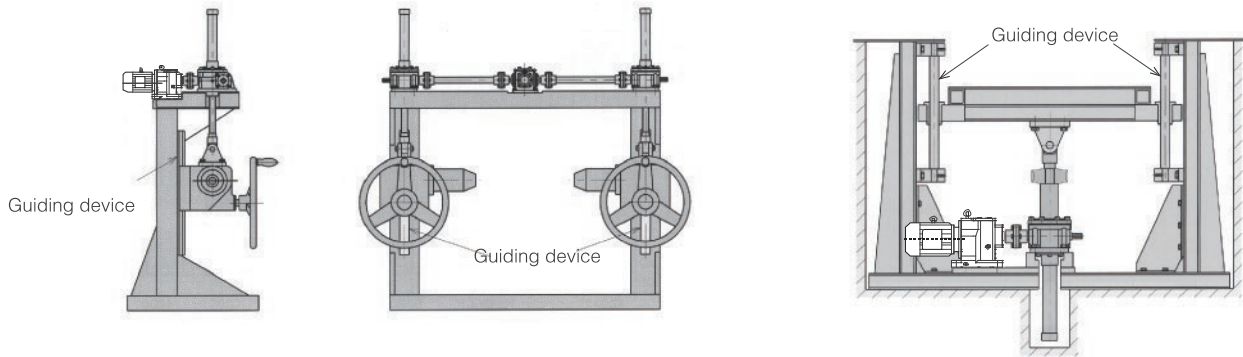
5.7 Allowable radial force of screw rod output end Fr2



When exerting force on screw rod output end, please confirm radial force exerted on screw rod output end, under allowable radial force

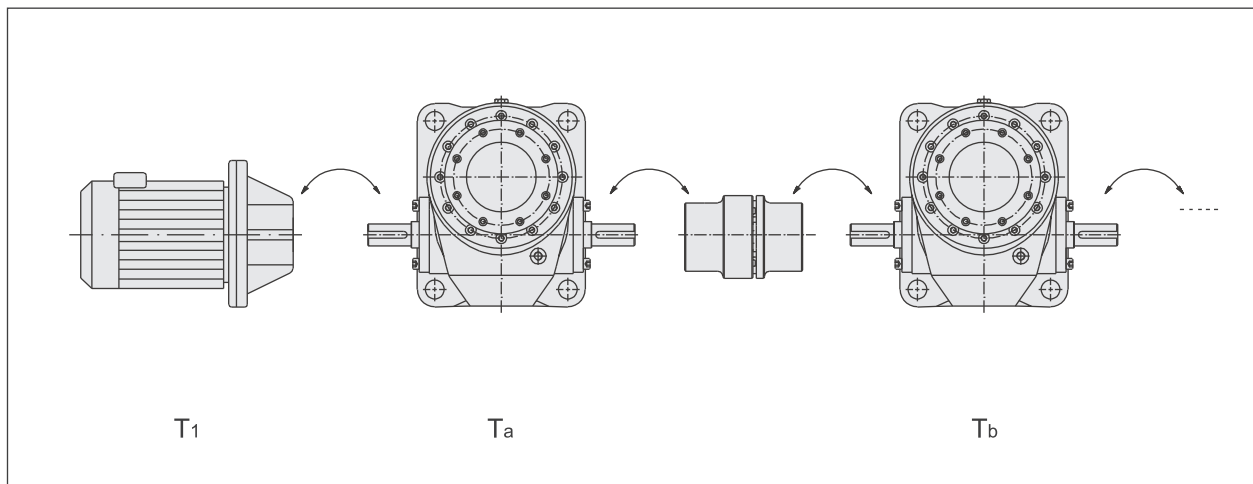
Type Highlighted quantity of screw rod (mm)	Allowable radial force Fr2						Unit (N)
	JB010	JB025	JB050	JB100	JB200	JB300	JB500
100	318	570	2500	4010	8210	38200	85300
200	159	290	1250	2010	4110	23000	50400
300	106	190	830	1340	2740	15300	33600
400	79	140	620	1000	2050	11400	25200
500	64	110	500	800	1640	9100	20200
600	53	100	420	670	1370	7600	16800
700	51	90	360	570	1170	6500	14400
800	48	90	310	500	1030	5700	12600
900	45	90	280	450	910	5000	11200
1000	42	90	250	400	820	4500	10100

If external diameter force exceeds allowable radial force of screw rod, please add guide device, For example:



5.8 When elevator transmission is in series (that means the same axial line is equipped with two or more elevators)

Make strenght examination to input shaft end of each elevator:

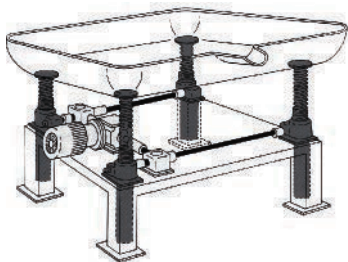


Ta: Input torque needed by elevator a

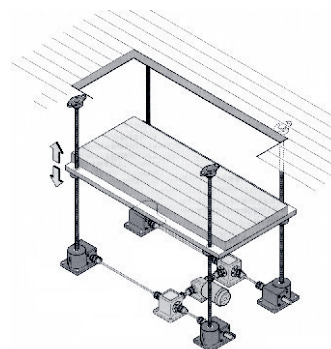
Tb: Input torque needed by elevator b

Torque needed by motor $T_1 = T_a + T_b < \text{Allowable input shaft torque of elevator a}$

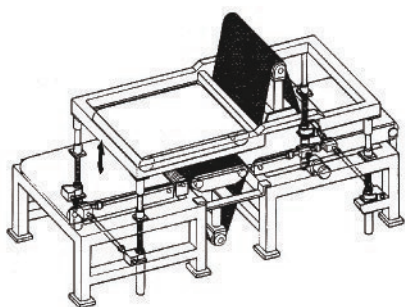
6 Examples:



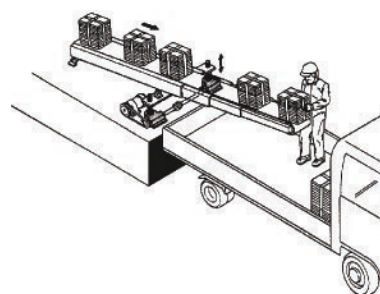
Lifting platform



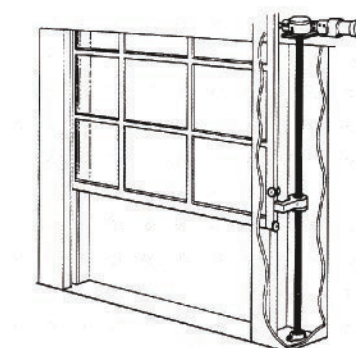
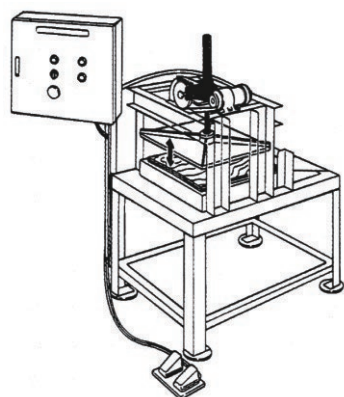
Inclination adjustment of the sliding belt



Height adjustment of surface machining tool



Height adjustment of straightening machine



Auto opening of large windows or doors

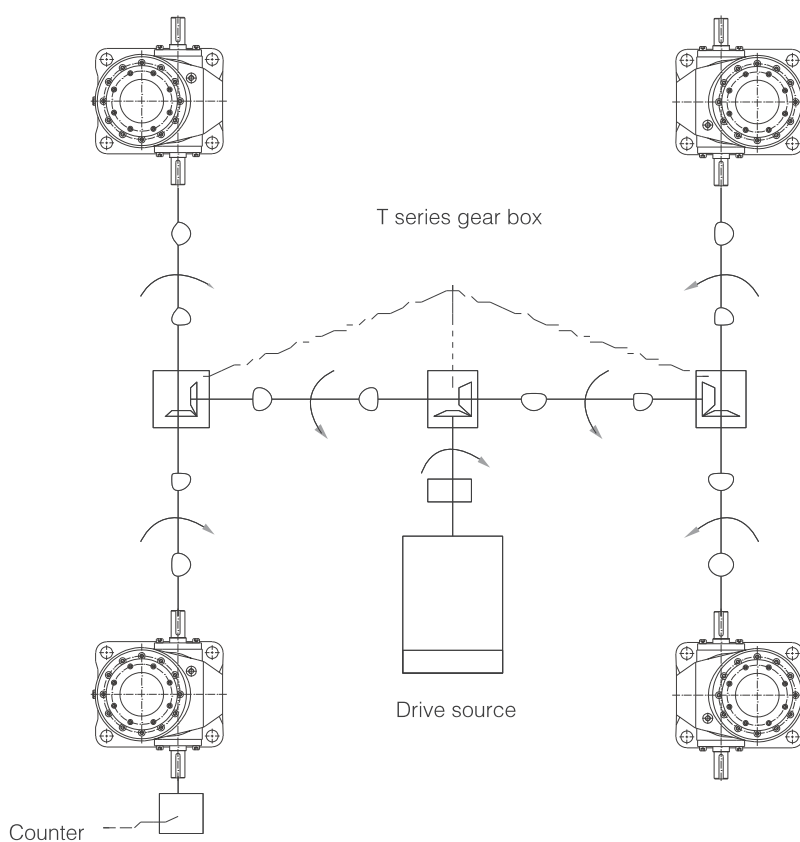
7 Arrangement Type Examples:

<h3>7.1 Two sets interlock</h3>	
<p>Linear</p> <p>Drive source</p> <p>Counter</p>	<p>Layout T</p> <p>Counter</p> <p>T series gear box</p> <p>Drive source</p> <p>1-LR-O</p>
<h3>7.2 Four sets interlock</h3>	
<p>Layout T</p> <p>Counter</p> <p>T series gear box</p> <p>Drive source</p> <p>1-LR-O</p>	<p>Layout U</p> <p>Counter</p> <p>T series gear box</p> <p>Drive source</p> <p>1-R</p> <p>1-LR-O</p> <p>1-L-O</p>
<p>Layout H</p> <p>T series gear box</p> <p>Drive source</p> <p>Counter</p> <p>1-LR</p> <p>1-LR-O</p> <p>1-LR-O</p>	
<h3>7.3 Eight sets interlock</h3>	
<p>Layout H</p> <p>Counter</p> <p>T series gear box</p> <p>Drive source</p> <p>1-LR-O</p> <p>1-LR-O</p> <p>1-LR</p>	<p>Layout 2H</p> <p>Counter</p> <p>T series gear box</p> <p>Drive source</p> <p>1-LR-O</p> <p>1-LR</p> <p>1-LR-O</p> <p>1-LR-O</p>

8 Examples Of Type Selection:

Known Criteria:

1. The axial load of the lifting platform: 88KN, lifting speed: 1200mm/min, stroke: 260mm
2. Normal motor: 4 pole, speed $n_1=1450\text{r/min}$
3. Load characteristic: moderate, operating 16h/d, starts per hour:10
4. Mounting mode: 4 jacks, Layout H(See 14), foot-mounted with fixed shaft end, accessories with dust-proof cover and output flange.
5. Lateral load, guiding device on one side of the jack.



Selection steps:

1. Calculation of total equivalent load W_s (driven machine factor $f_1=1.3$)

$$W_s = W_{\max} \cdot f_1 = 88000 \times 1.3 = 114400\text{N}$$

2. Calculation of equivalent load of single jack

$$W(\text{arrangement factor } f_d=0.85)$$

$$W = 114400 / (4 \times 0.85) = 33647\text{N}$$

3. Initial selection of jack type:

JB050BUA-HD30-D17N7-S selected after considering speed, efficiency, drive source, load and stroke allowance (In reference to the table of technical data, permissible load and distance between action points. If H/L ratio is difficult to determine, use H ratio temporarily)

4. Verification of input power of single jack:

(1) Input power required by single jack:

$$\textcircled{1} n = \frac{v_1}{L_1} \times i = \frac{1.2}{0.01} \times 5.2 = 624 \text{ r/min}$$

$$\textcircled{2} T = \frac{W \times L_1}{2\pi \times i \times \eta} + T_0 = \frac{33647 \times 0.01}{2 \times 3.14 \times 5.2 \times 0.64} + 1.37 = 17.46\text{N} \cdot \text{m}$$

$$\textcircled{3} P = \frac{T \times n}{9550} = \frac{17.46 \times 624}{9550} = 1.14\text{kW}$$

(2) According to the table of technical data,

$$P_{\max} = 2.05\text{kW} > P \text{ is OK.}$$

5. Verification of screw stability:

According to the table of technical data (page 03) , associated diagram of allowed loading of point distance (page 05~06) and dimension diagram (page 23~24).

$$d=32.4, L_a = (604+33) = 637, f_m = 20 \times 10^4, S_F = 4$$

$$P_{CR} = f_m \times \left(\frac{d^2}{L_a} \right)^2 = 20 \times 10^4 \times \left(\frac{32.4^2}{637} \right) = 473073\text{N}$$

$$P_{CR} = 473073\text{N} > W \times S_F = 33647 \times 4 = 134456\text{N}, \dots \text{OK.}$$

6. Verification of critical speed:

Because of none travelling nut type and low rotary speed, the verification of critical speed can be ignored.

7. Drive source options

(1) Required torque per jack:

$$T_{1-4} = \frac{T}{\text{Gearbox efficiency}^{\text{No. of gearbox}}} = \frac{17.46}{0.9^2} = 21.56\text{N.m}$$

(2) Required torque for the drive unit:

$$T_t = T_1 + T_2 + T_3 + T_4 = 86.24\text{N.m}$$

(3) required drive unit capacity:

$$P_t = \frac{T_t \times n}{9550} = \frac{86.64 \times 624}{9550} = 5.63\text{kW}$$

(4) Drive source = required drive unit capacity \times drive unit factor

$$= 5.63 \times 1.3 = 7.32\text{kW}$$

Based on above data, we select 7.5KW motor.

⚠ Note: If the above verifications fail, select the larger size jack. For selection of T series gear units, refer to T series brochures.

9 Notes:

- ◆ None of static, dynamic or shock loads should exceed the max permissible load. Selection of a jack with sufficient capacity must be based on safety factor, stroke and screw stability.
- ◆ Make sure that the speed matches the load. Verify the max permissible load, external permissible load and permitted rotary speed of the screw. In case these figures exceed those of the product, severe damage may occur in the machine.
- ◆ The surface temperature of the reduction part and the travelling nut should be within $-15 \sim 80^{\circ}\text{C}$.
- ◆ Permissible speed of the input shaft is 1500r/min. Higher speed are not allowed.
- ◆ JB screw jacks are not designed for continuous duty circle.
The unit of %ED for single screw jack is 30min JB (Ball screw screw) duty circle must be less than 30%ED

$$\text{ED} = \frac{\text{work time in one load circle}}{\text{work time in one load circle} + \text{rest time in one load circle}} \times 100\%$$

- ◆ If several screw jacks are arranged in an axial line, verify the strength of the input shaft and make sure the torque of each jack stay within the permissible input torque.
- ◆ Make sure the starting torque of the drive source is greater than 200% of the service torque.
- ◆ When working under below 0°C , the screw jack must be guaranteed by sufficient drive source, for its efficiency decreases as a result of the viscosity change in the grease.
- ◆ JB Ball screw Jack does not have a self-locking device, therefore, a brake mechanism is required.
- ◆ The normal ambient environment: ambient temperature -10 to 40°C , ample space, good ventilation, altitude not exceeding 1000m and normal plant dust.
- ◆ When working in places with volume of dust, bellows should be supplied to guard the screw. In the open air, use the covers to protect the machine against rains and sunlight.
- ◆ Do not halt the screw jack intentionally during its operation, for it may cause severe damage to the product. Since JB Ball screw Jack is highly efficient, sufficient brake that over powers the “holding torque” is required to sustain its shaft.

10 Outline Dimension:

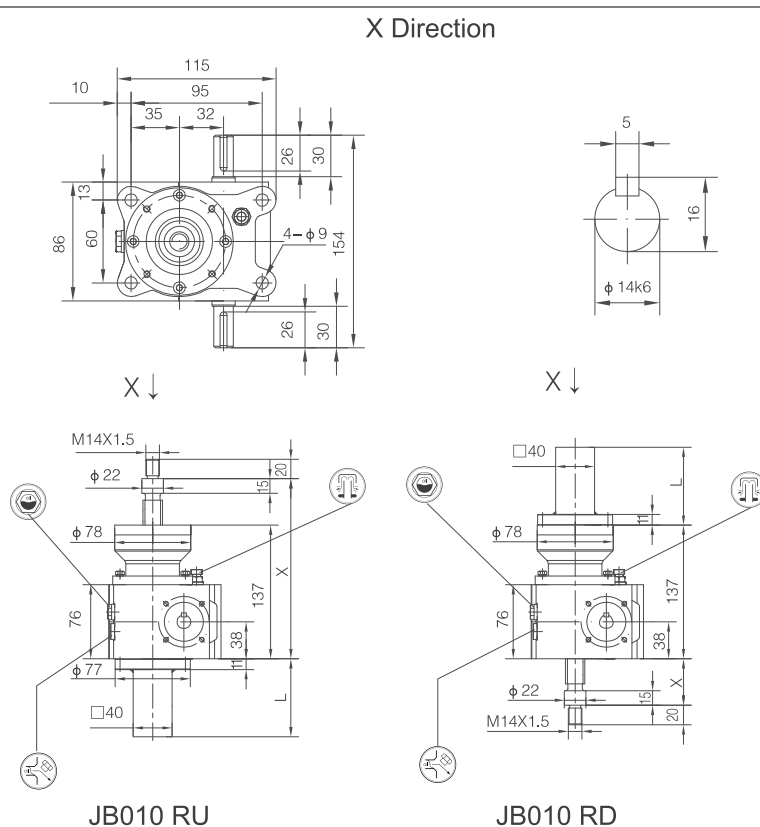
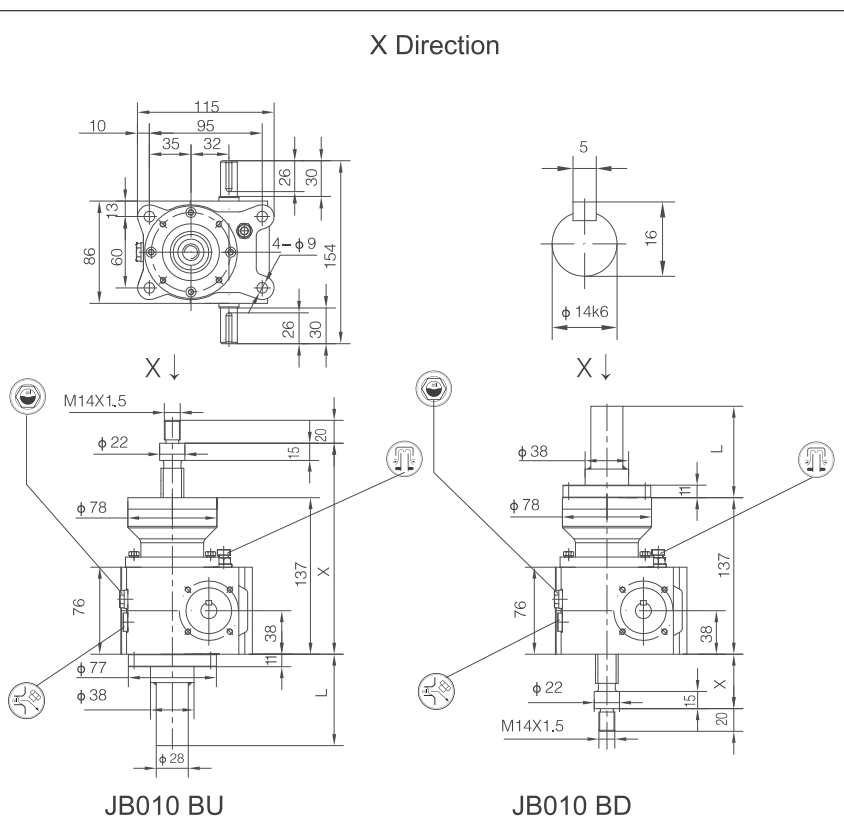
JB010

Stroke (mm)	BU					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
25	162	187	212	237	119	6.5	
50	162	212	212	262	144	6.6	
100	162	262	212	312	194	6.7	
150	162	312	212	362	244	6.8	
200	162	362	212	412	294	7	
250	162	412	252	502	384	7.2	
300	162	462	252	552	434	7.4	
350	162	512	252	602	484	7.5	
400	162	562	252	652	534	7.6	
500	162	662	287	787	669	8	
600	162	762	287	887	769	8.2	
800	162	962	322	1122	1004	8.7	
1000	162	1162	352	1352	1234	9.2	

Stroke (mm)	BD					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
25	25	50	75	100	119	6.5	
50	25	75	75	125	144	6.6	
100	25	125	75	175	194	6.7	
150	25	175	75	225	244	6.8	
200	25	225	75	275	294	7	
250	25	275	115	365	384	7.2	
300	25	325	115	415	434	7.4	
350	25	375	115	465	484	7.5	
400	25	425	115	515	534	7.6	
500	25	525	150	650	669	8	
600	25	625	150	750	769	8.2	
800	25	825	185	985	1004	8.7	
1000	25	1025	215	1215	1234	9.2	

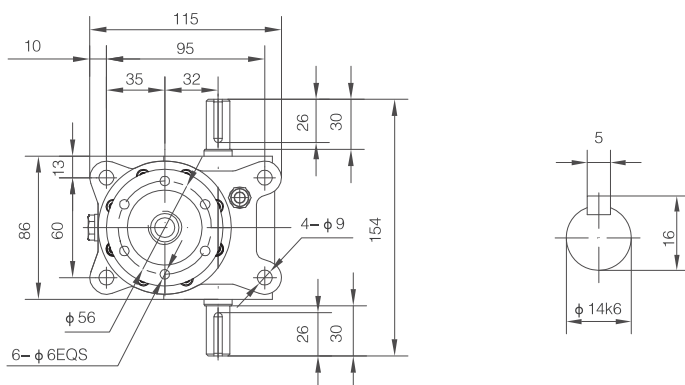
Stroke (mm)	RU					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
25	162	187	212	237	119	6.8	
50	162	212	212	262	144	7.1	
100	162	262	212	312	194	7.5	
150	162	312	212	362	244	7.9	
200	162	362	212	412	294	8.2	
250	162	412	252	502	384	8.7	
300	162	462	252	552	434	9.1	
350	162	512	252	602	484	9.5	
400	162	562	252	652	534	9.8	
500	162	662	287	787	669	11	
600	162	762	287	887	769	12	
800	162	962	322	1122	1004	13.5	
1000	162	1162	352	1352	1234	15	

Stroke (mm)	RD					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
25	25	50	75	100	119	6.8	
50	25	75	75	125	144	7.1	
100	25	125	75	175	194	7.5	
150	25	175	75	225	244	7.9	
200	25	225	75	275	294	8.2	
250	25	275	115	365	384	8.7	
300	25	325	115	415	434	9.1	
350	25	375	115	465	484	9.5	
400	25	425	115	515	534	9.8	
500	25	525	150	650	669	11	
600	25	625	150	750	769	12	
800	25	825	185	985	1004	13.5	
1000	25	1025	215	1215	1234	15	

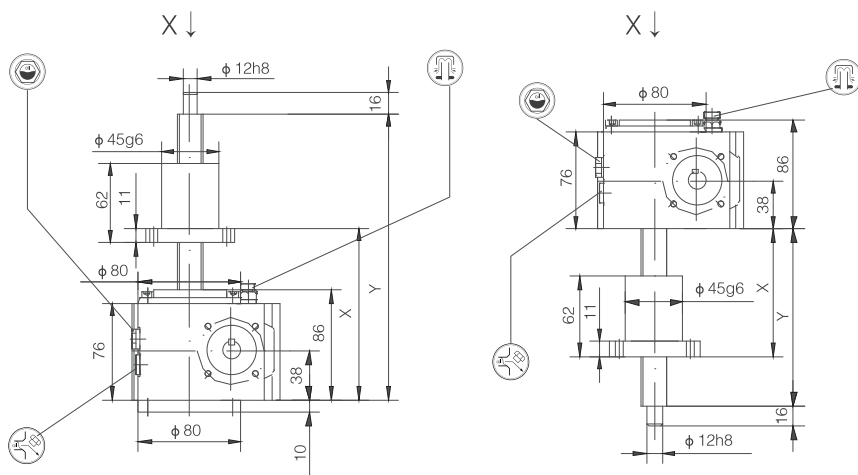


⚠ Note: X⁽¹⁾ dimension with dust-proof cover.

X Direction



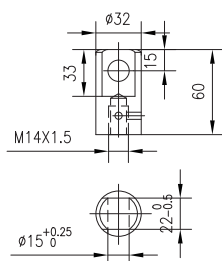
Stroke (mm)	NU			m (kg)
	X		Y	
	MIN	MAX		
25	107	132	193	5.7
50	107	157	218	5.8
100	107	207	268	5.9
150	107	257	318	6
200	107	307	368	6.1
250	107	357	418	6.2
300	107	407	468	6.4
350	107	457	518	6.5
400	107	507	568	6.6
500	107	607	668	6.8
600	107	707	768	7
800	107	907	968	7.4
1000	107	1107	1168	7.8



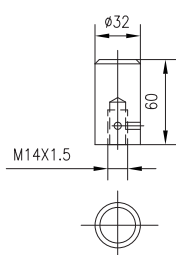
JB010 NU

JB010 ND

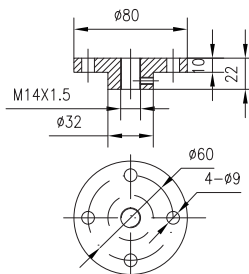
Stroke (mm)	ND			m (kg)
	X		Y	
	MIN	MAX		
25	82	107	117	5.7
50	82	132	142	5.8
100	82	182	192	5.9
150	82	232	242	6
200	82	282	292	6.1
250	82	332	342	6.2
300	82	382	392	6.4
350	82	432	442	6.5
400	82	482	492	6.6
500	82	582	592	6.8
600	82	682	692	7
800	82	882	892	7.4
1000	82	1082	1092	7.8



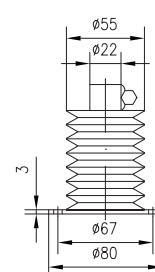
I type connection



B type connection



Output flange



Dust-proof cover

10 Outline Dimension:

JB025

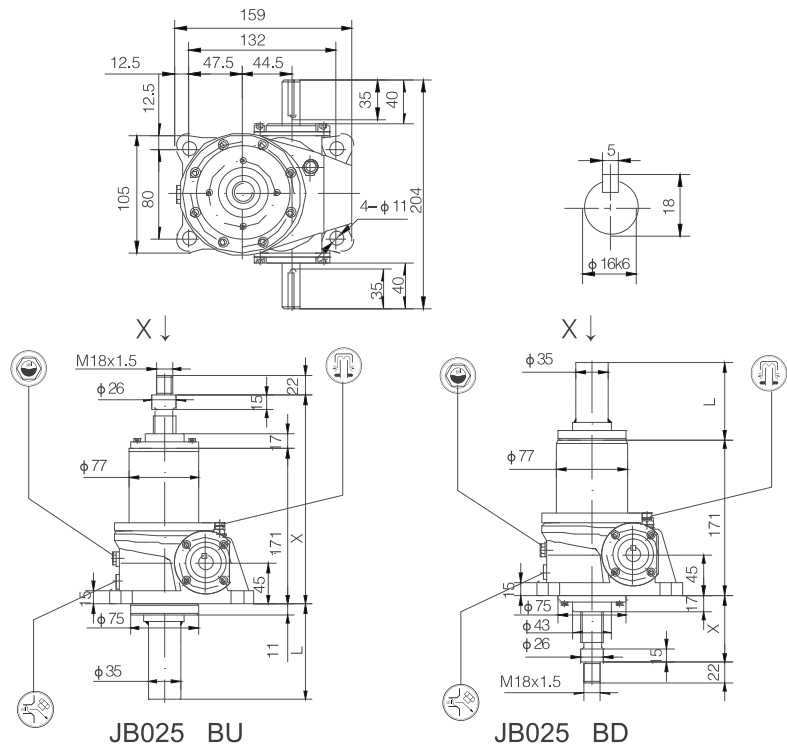
Stroke (mm)	BU					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	213	263	228	278	99	10.9
100	213	313	228	328	149	11
150	213	363	228	378	199	11.1
200	213	413	228	428	249	11.3
250	213	463	248	498	319	11.5
300	213	513	248	548	369	11.6
350	213	563	248	598	419	11.8
400	213	613	248	648	469	12
500	213	713	268	768	589	12.5
600	213	813	268	868	689	13
800	213	1013	288	1088	909	14
1000	213	1213	308	1308	1129	15
1200	213	1413	323	1523	1334	16

Stroke (mm)	BD					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	42	92	57	107	99	10.9
100	42	142	57	157	149	11
150	42	192	57	207	199	11.1
200	42	242	57	257	249	11.3
250	42	292	77	327	319	11.5
300	42	342	77	377	369	11.6
350	42	392	77	427	419	11.8
400	42	442	77	477	469	12
500	42	542	97	597	589	12.5
600	42	642	97	697	689	13
800	42	842	117	917	909	14
1000	42	1042	137	1137	1129	15
1200	42	1242	152	1352	1334	16

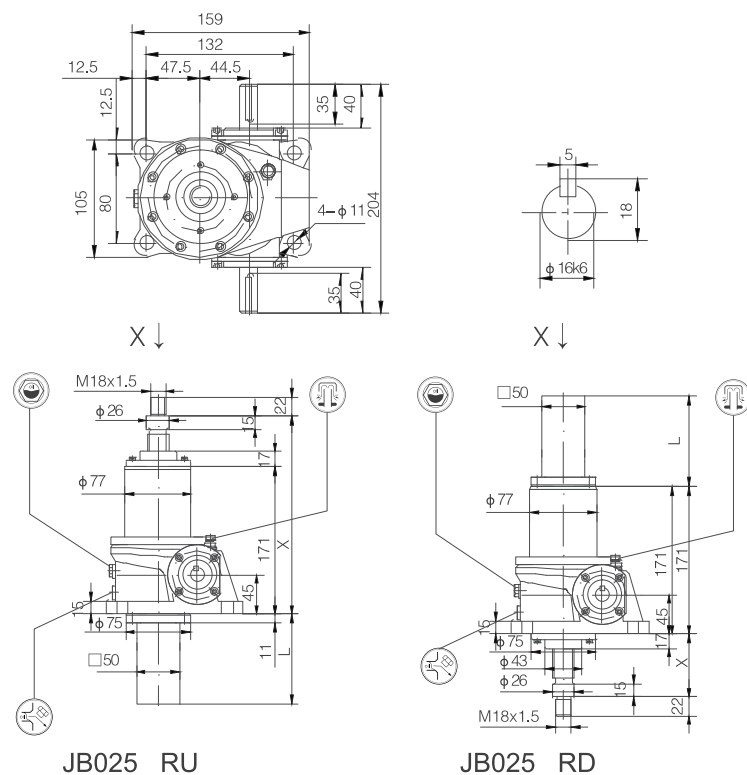
Stroke (mm)	RU					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	213	263	228	278	125	11.5
100	213	313	228	328	175	12
150	213	363	228	378	225	12.5
200	213	413	228	428	275	13
250	213	463	248	498	345	14
300	213	513	248	548	395	15
350	213	563	248	598	445	15.5
400	213	613	248	648	495	16
500	213	713	268	768	615	17
600	213	813	268	868	715	18
800	213	1013	288	1088	935	21
1000	213	1213	308	1308	1155	24
1200	213	1413	323	1523	1370	27

Stroke (mm)	RD					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	42	92	57	107	125	11.5
100	42	142	57	157	175	12
150	42	192	57	207	225	12.5
200	42	242	57	257	275	13
250	42	292	77	327	345	14
300	42	342	77	377	395	15
350	42	392	77	427	445	15.5
400	42	442	77	477	495	16
500	42	542	97	597	615	17
600	42	642	97	697	715	18
800	42	842	117	917	935	21
1000	42	1042	137	1137	1155	24
1200	42	1242	152	1352	1370	27

X Direction

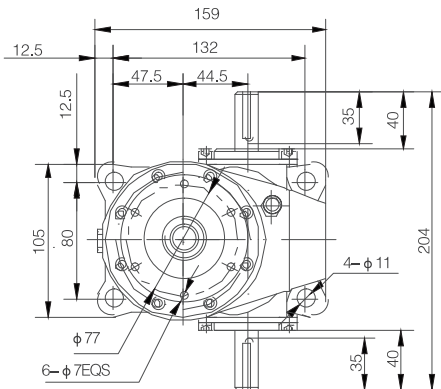


X Direction



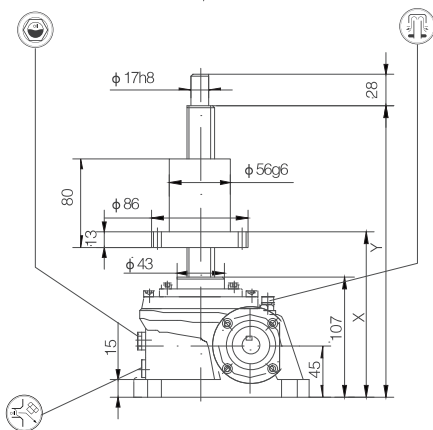
⚠ Note: X⁽¹⁾ dimension with dust-proof cover.

X Direction

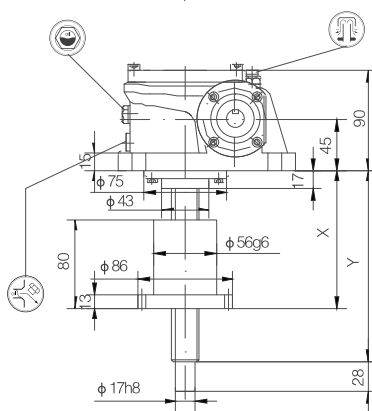


X ↓

X ↓



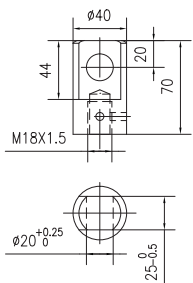
JB025 NU



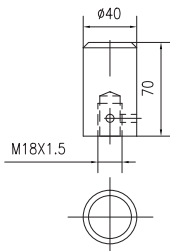
JB025 ND

Stroke (mm)	NU			m (kg)
	X		Y	
	MIN	MAX		
50	130	180	257	9.1
100	130	230	307	9.2
150	130	280	357	9.3
200	130	330	407	9.5
250	130	380	457	9.7
300	130	430	507	9.9
350	130	480	557	10.5
400	130	530	607	11
500	130	630	707	11.3
600	130	730	807	11.6
800	130	930	1007	12
1000	130	1130	1207	13
1200	130	1330	1407	14

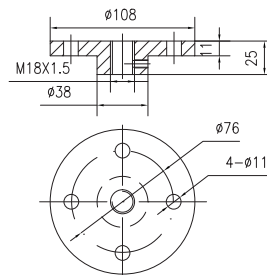
Stroke (mm)	ND			m (kg)
	X		Y	
	MIN	MAX		
50	107	157	167	9.1
100	107	207	217	9.2
150	107	257	267	9.3
200	107	307	317	9.5
250	107	357	367	9.7
300	107	407	417	9.9
350	107	457	467	10.5
400	107	507	517	11
500	107	607	617	11.3
600	107	707	717	11.6
800	107	907	917	12
1000	107	1107	1117	13
1200	107	1307	1317	14



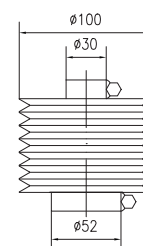
I type connection



B type connection



Output flange



Dust-proof cover

10 Outline Dimension:

JB050

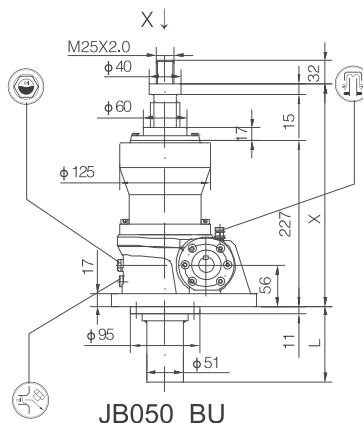
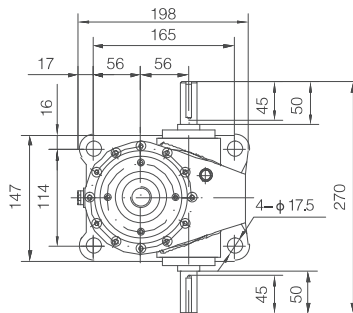
Stroke (mm)	BU					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	269	319	284	334	105	22.5
100	269	369	284	384	155	23
150	269	419	284	434	205	23.3
200	269	469	284	484	255	23.5
250	269	519	304	554	325	23.7
300	269	569	304	604	375	24
350	269	619	304	654	425	24.5
400	269	669	304	704	475	25
450	269	719	324	774	545	25.5
500	269	769	324	824	595	26
550	269	819	324	874	645	26.5
600	269	869	324	924	695	27
650	269	919	344	994	765	27.5
700	269	969	344	1044	815	28
800	269	1069	344	1144	915	29
1000	269	1269	364	1364	1135	30
1200	269	1469	379	1579	1350	32
1500	269	1769	404	1904	1675	34

Stroke (mm)	BD					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	42	92	57	107	105	22.5
100	42	142	57	157	155	23
150	42	192	57	207	205	23.3
200	42	242	57	257	255	23.5
250	42	292	77	327	325	23.7
300	42	342	77	377	375	24
350	42	392	77	427	425	24.5
400	42	442	77	477	475	25
450	42	492	97	547	545	25.5
500	42	542	97	597	595	26
550	42	592	97	647	645	26.5
600	42	642	97	697	695	27
650	42	692	117	767	765	27.5
700	42	742	117	817	815	28
800	42	842	117	917	915	29
1000	42	1042	137	1137	1135	30
1200	42	1242	152	1352	1350	32
1500	42	1542	177	1677	1675	34

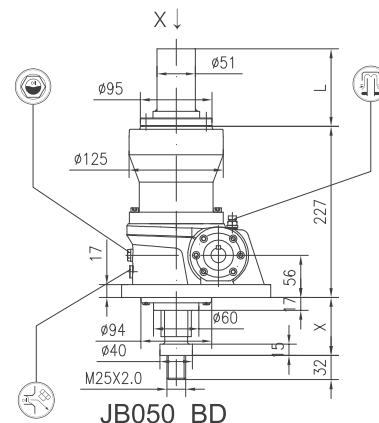
Stroke (mm)	RU					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	269	319	284	334	133	24
100	269	369	284	384	183	25
150	269	419	284	434	233	26
200	269	469	284	484	283	27
250	269	519	304	554	353	28
300	269	569	304	604	403	29
350	269	619	304	654	453	30
400	269	669	304	704	503	31
450	269	719	324	774	573	32
500	269	769	324	824	623	33
550	269	819	324	874	673	34
600	269	869	324	924	723	35
650	269	919	344	994	793	37
700	269	969	344	1044	843	38
800	269	1069	344	1144	943	39
1000	269	1269	364	1364	1163	43
1200	269	1469	379	1579	1399	47
1500	269	1769	404	1904	1724	51

Stroke (mm)	RD					
	X		X ⁽¹⁾		L	m (kg)
	MIN	MAX	MIN	MAX		
50	42	92	57	107	133	24
100	42	142	57	157	183	25
150	42	192	57	207	233	26
200	42	242	57	257	283	27
250	42	292	77	327	353	28
300	42	342	77	377	403	29
350	42	392	77	427	453	30
400	42	442	77	477	503	31
450	42	492	97	547	573	32
500	42	542	97	597	623	33
550	42	592	97	647	673	34
600	42	642	97	697	723	35
650	42	692	117	767	793	37
700	42	742	117	817	843	38
800	42	842	117	917	943	39
1000	42	1042	137	1137	1163	43
1200	42	1242	152	1352	1399	47
1500	42	1542	177	1677	1724	51

X Direction

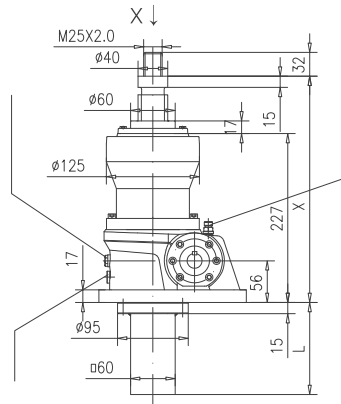
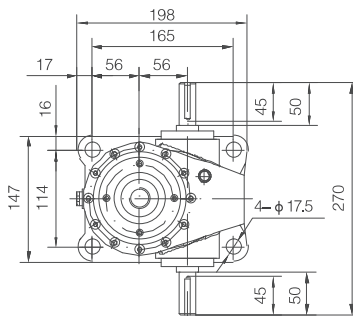


JB050 BU

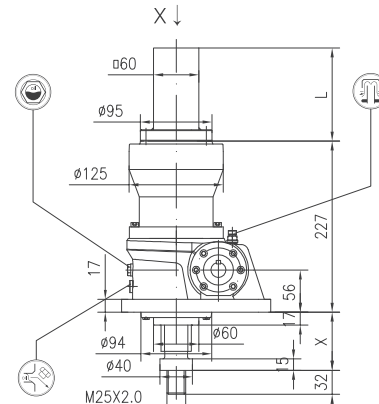


JB050 BD

X Direction



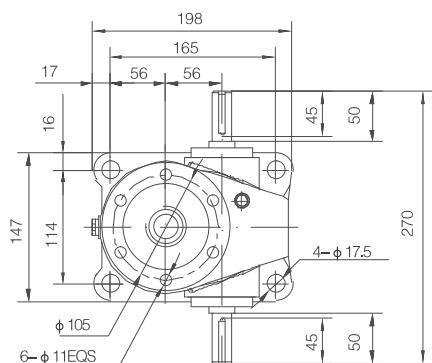
JB050 RU



JB050 RD

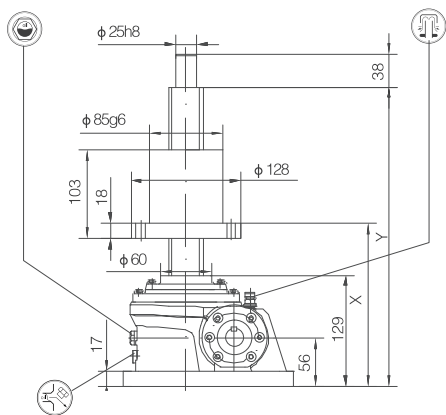
⚠ Note: X⁽¹⁾ dimension with dust-proof cover.

X Direction

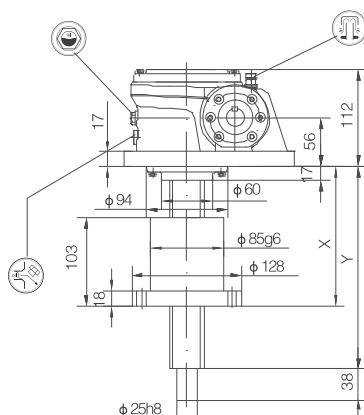


X ↓

X ↓



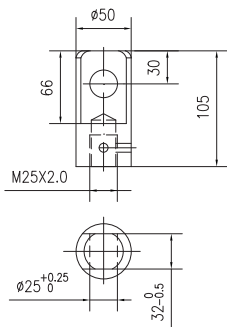
JB050 NU



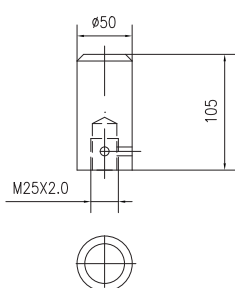
JB050 ND

Stroke (mm)	NU			
	X		Y	m (kg)
	MIN	MAX		
50	157	207	302	30.5
100	157	257	352	31
150	157	307	402	31.5
200	157	357	452	32
250	157	407	502	32.5
300	157	457	552	33
350	157	507	602	33.5
400	157	557	652	34
450	157	607	702	34.5
500	157	657	752	35
550	157	707	802	35.5
600	157	757	852	36
650	157	807	902	37
700	157	857	952	38
800	157	957	1052	39
1000	157	1157	1252	41
1200	157	1357	1452	43
1500	157	1657	1752	46

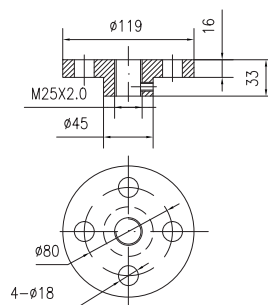
Stroke (mm)	ND			
	X		Y	m (kg)
	MIN	MAX		
50	130	180	190	30.5
100	130	230	240	31
150	130	280	290	31.5
200	130	330	340	32
250	130	380	390	32.5
300	130	430	440	33
350	130	480	490	33.5
400	130	530	540	34
450	130	580	590	34.5
500	130	630	640	35
550	130	680	690	35.5
600	130	730	740	36
650	130	780	790	37
700	130	830	840	38
800	130	930	940	39
1000	130	1130	1140	41
1200	130	1330	1340	43
1500	130	1630	1640	46



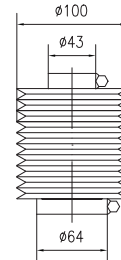
I type connection



B type connection



Output flange



Dust-proof cover

10 Outline Dimension:

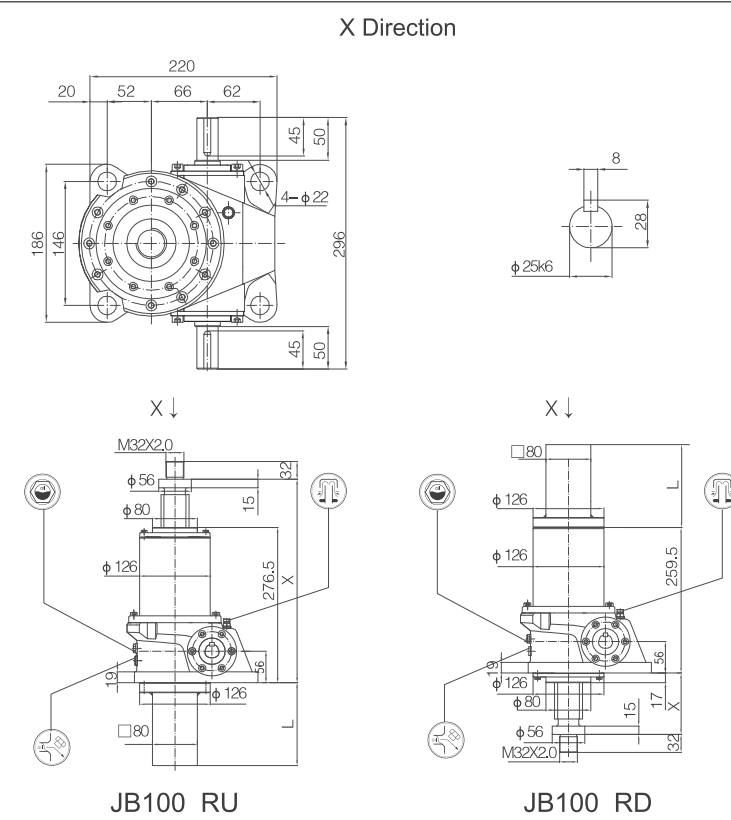
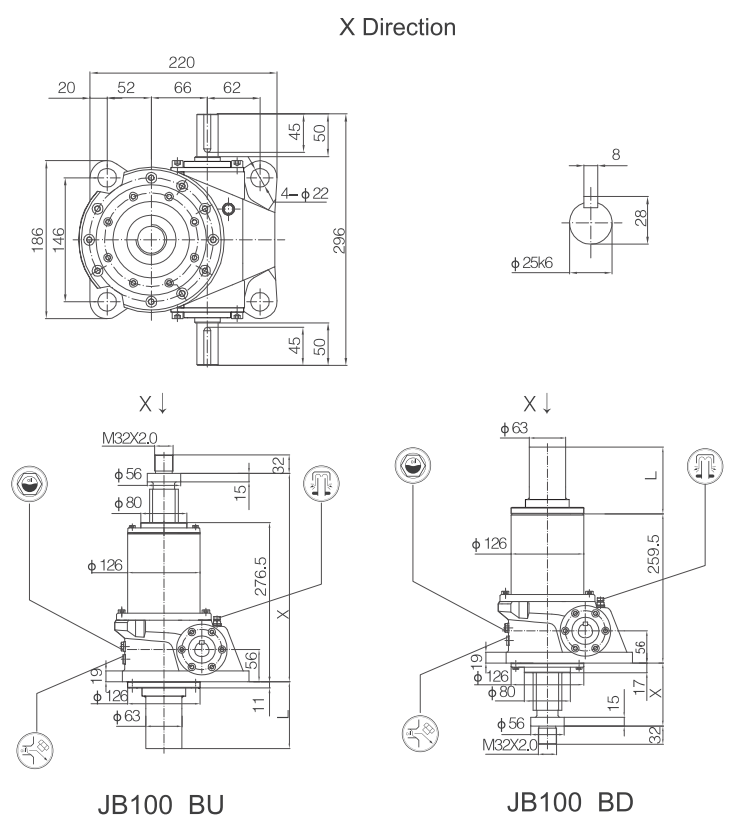
JB100

Stroke (mm)	BU				L	m (kg)
	X		X ⁽¹⁾			
	MIN	MAX	MIN	MAX		
50	302	352	312	362	101	35
100	302	402	312	412	151	36
150	302	452	312	462	202	37
200	302	502	312	512	252	38
250	302	552	327	577	316	40
300	302	602	327	627	366	41
350	302	652	327	677	416	42
400	302	702	327	727	466	43
450	302	752	352	802	541	45
500	302	802	352	852	591	46
550	302	852	352	902	641	47
600	302	902	352	952	691	48
650	302	952	367	1017	756	49
700	302	1002	367	1067	806	51
800	302	1102	367	1167	906	53
1000	302	1302	377	1377	1116	58
1200	302	1502	402	1602	1341	63
1500	302	1802	427	1927	1666	71

Stroke (mm)	BD				L	m (kg)
	X		X ⁽¹⁾			
	MIN	MAX	MIN	MAX		
50	42	92	52	102	101	35
100	42	142	52	152	151	36
150	42	192	52	202	202	37
200	42	242	52	252	252	38
250	42	292	67	317	316	40
300	42	342	67	367	366	41
350	42	392	67	417	416	42
400	42	442	67	467	466	43
450	42	492	92	542	541	45
500	42	542	92	592	591	46
550	42	592	92	642	641	47
600	42	642	92	692	691	48
650	42	692	107	757	756	49
700	42	742	107	807	806	51
800	42	842	107	907	906	53
1000	42	1042	117	1117	1116	58
1200	42	1242	142	1342	1341	63
1500	42	1542	167	1667	1666	71

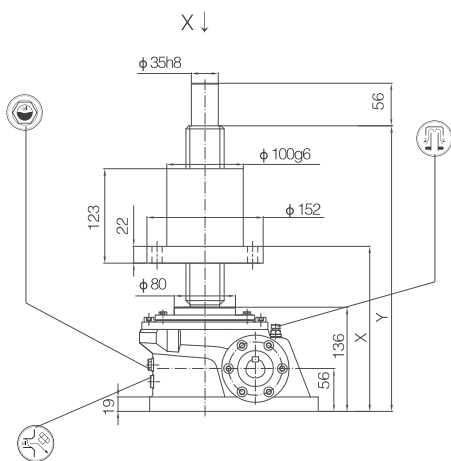
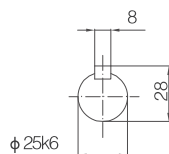
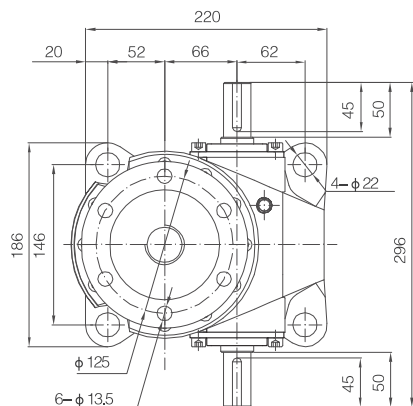
Stroke (mm)	RU				L	m (kg)
	X		X ⁽¹⁾			
	MIN	MAX	MIN	MAX		
50	302	352	312	362	130	38
100	302	402	312	412	180	39
150	302	452	312	462	232	41
200	302	502	312	512	282	42
250	302	552	327	577	346	43
300	302	602	327	627	396	45
350	302	652	327	677	446	46
400	302	702	327	727	496	48
450	302	752	352	802	571	50
500	302	802	352	852	621	52
550	302	852	352	902	671	53
600	302	902	352	952	721	55
650	302	952	367	1017	786	57
700	302	1002	367	1067	836	59
800	302	1102	367	1167	936	61
1000	302	1302	377	1377	1146	67
1200	302	1502	402	1602	1371	74
1500	302	1802	427	1927	1707	84

Stroke (mm)	RD				L	m (kg)
	X		X ⁽¹⁾			
	MIN	MAX	MIN	MAX		
50	42	92	52	102	130	38
100	42	142	52	152	180	39
150	42	192	52	202	232	41
200	42	242	52	252	282	42
250	42	292	67	317	346	43
300	42	342	67	367	396	45
350	42	392	67	417	446	46
400	42	442	67	467	496	48
450	42	492	92	542	571	50
500	42	542	92	592	621	52
550	42	592	92	642	671	53
600	42	642	92	692	721	55
650	42	692	107	757	786	57
700	42	742	107	807	836	59
800	42	842	107	907	936	61
1000	42	1042	117	1117	1146	67
1200	42	1242	142	1342	1371	74
1500	42	1542	167	1667	1707	84

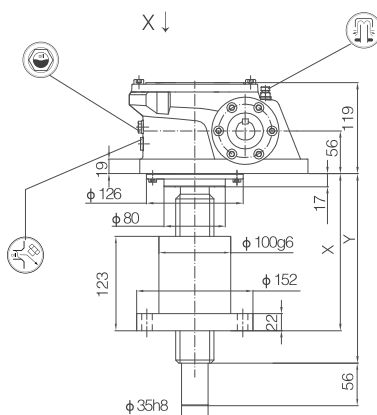


⚠ Note: X⁽¹⁾ dimension with dust-proof cover.

X Direction



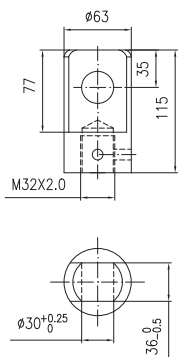
JB100 NU



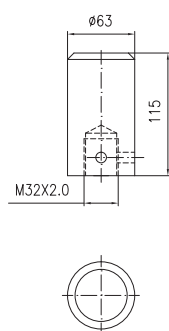
JB100 ND

Stroke (mm)	NU			m (kg)
	X		Y	
	MIN	MAX		
50	169	219	330	30
100	169	269	380	31
150	169	319	430	31.5
200	169	369	480	32
250	169	419	530	32.5
300	169	469	580	33
350	169	519	630	33.5
400	169	569	680	34
450	169	619	730	34.5
500	169	669	780	35
550	169	719	830	35.5
600	169	769	880	36
650	169	819	930	37
700	169	869	980	38
800	169	969	1080	39
1000	169	1169	1280	41
1200	169	1369	1480	43
1500	169	1669	1780	45

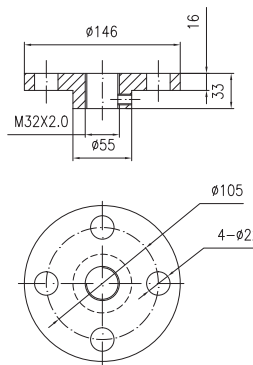
Stroke (mm)	ND			m (kg)
	X		Y	
	MIN	MAX		
50	158	208	218	30
100	158	258	268	31
150	158	308	318	31.5
200	158	358	368	32
250	158	408	418	32.5
300	158	458	468	33
350	158	508	518	33.5
400	158	558	568	34
450	158	608	618	34.5
500	158	658	668	35
550	158	708	718	35.5
600	158	758	768	36
650	158	808	818	37
700	158	858	868	38
800	158	958	968	39
1000	158	1158	1168	41
1200	158	1358	1368	43
1500	158	1658	1668	45



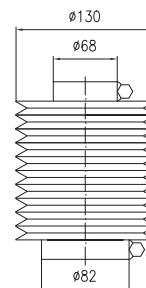
I type connection



B type connection

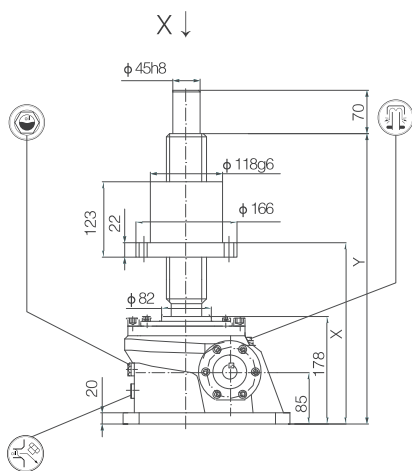
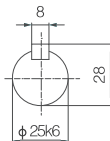
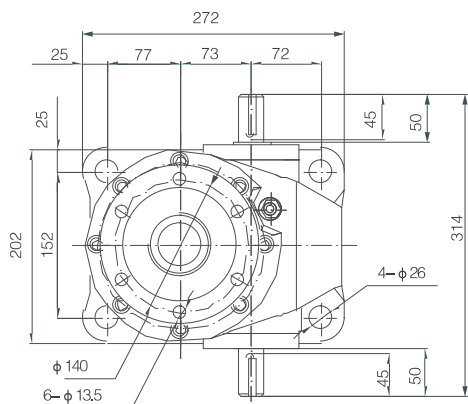


Output flange

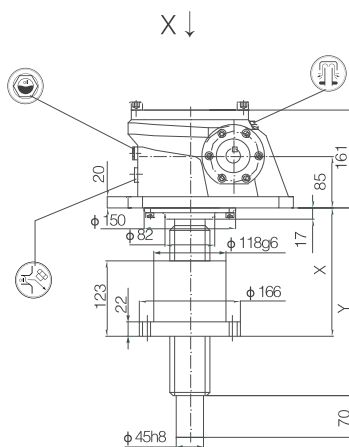


Dust-proof cover

X Direction



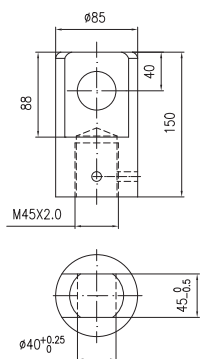
JB200 NU



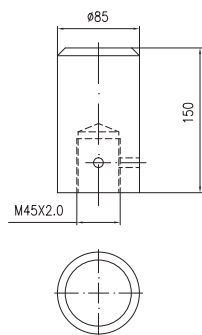
JB200 ND

Stroke (mm)	NU			m (kg)
	X		Y	
	MIN	MAX		
100	219	319	430	56
150	219	369	480	57
200	219	419	530	58
250	219	469	580	59
300	219	519	630	60
350	219	569	680	61
400	219	619	730	62
450	219	669	780	63
500	219	719	830	65
550	219	769	880	66
600	219	819	930	67
650	219	869	980	68
700	219	919	1030	70
800	219	1019	1130	71
1000	219	1219	1330	76
1200	219	1419	1530	80
1500	219	1719	1830	88
2000	219	2219	2330	101

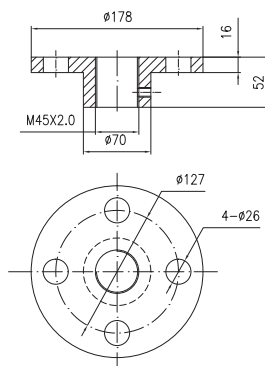
Stroke (mm)	ND			m (kg)
	X		Y	
	MIN	MAX		
100	150	250	260	56
150	150	300	310	57
200	150	350	360	58
250	150	400	410	59
300	150	450	460	60
350	150	500	510	61
400	150	550	560	62
450	150	600	610	63
500	150	650	660	65
550	150	700	710	66
600	150	750	760	67
650	150	800	810	68
700	150	850	860	70
800	150	950	960	71
1000	150	1150	1160	76
1200	150	1350	1360	80
1500	150	1650	1660	88
2000	150	2150	2160	101



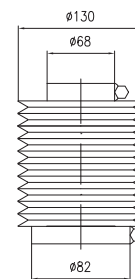
I type connection



B type connection



Output flange

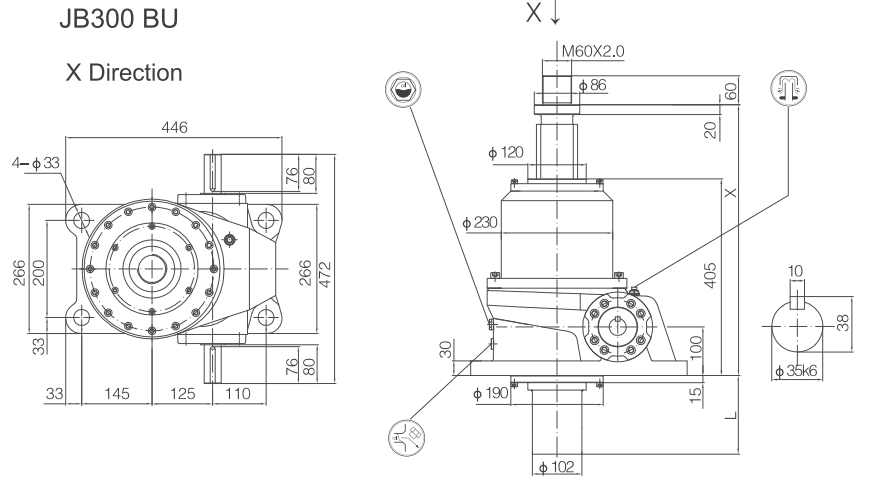


Dust-proof cover

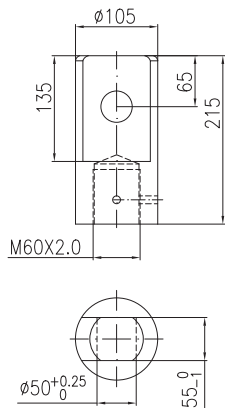
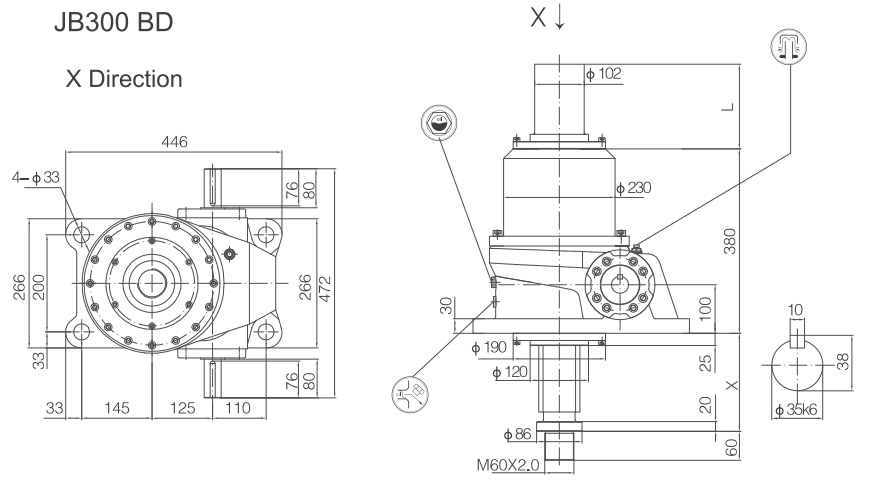
10 Outline Dimension:

JB300

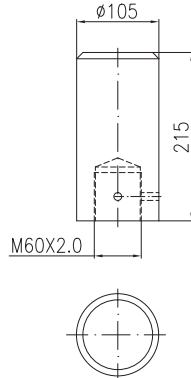
Stroke (mm)	BU					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
100	435	535	445	545	160	153	
150	435	585	445	595	210	157	
200	435	635	445	645	260	159	
250	435	685	460	710	325	163	
300	435	735	460	760	375	166	
350	435	785	460	810	425	169	
400	435	835	460	860	475	172	
450	435	885	475	925	540	175	
500	435	935	475	975	590	178	
550	435	985	475	1025	640	182	
600	435	1035	475	1075	690	184	
650	435	1085	490	1140	755	188	
700	435	1135	490	1190	805	192	
800	435	1235	490	1290	905	197	
1000	435	1435	510	1510	1125	210	
1200	435	1635	520	1720	1335	223	
1500	435	1935	545	2045	1660	242	
2000	435	2435	580	2580	2195	276	



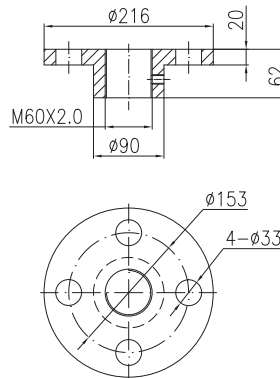
Stroke (mm)	BD					L	m (kg)
	X		X ⁽¹⁾				
	MIN	MAX	MIN	MAX			
100	55	155	65	165	160	153	
150	55	205	65	215	210	157	
200	55	255	65	265	260	159	
250	55	305	80	330	325	163	
300	55	355	80	380	375	166	
350	55	405	80	430	425	169	
400	55	455	80	480	475	172	
450	55	505	95	545	540	175	
500	55	555	95	595	590	178	
550	55	605	95	645	640	182	
600	55	655	95	695	690	184	
650	55	705	110	760	755	188	
700	55	755	110	810	805	192	
800	55	855	110	910	905	197	
1000	55	1055	130	1130	1125	210	
1200	55	1255	140	1340	1335	223	
1500	55	1555	165	1665	1660	242	
2000	55	2055	200	2200	2195	276	



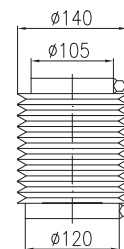
I type connection



B type connection



Output flange

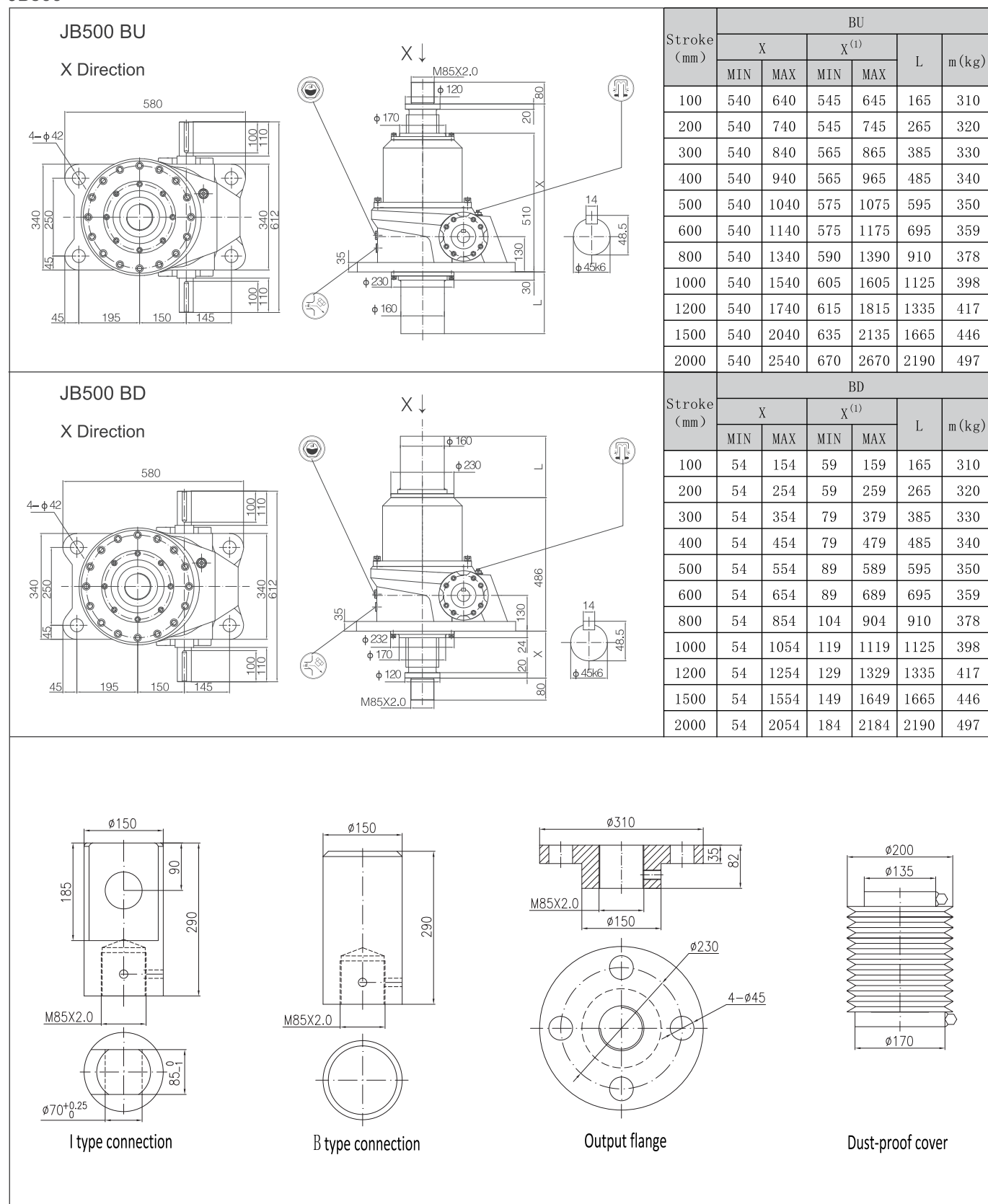


Dust-proof cover

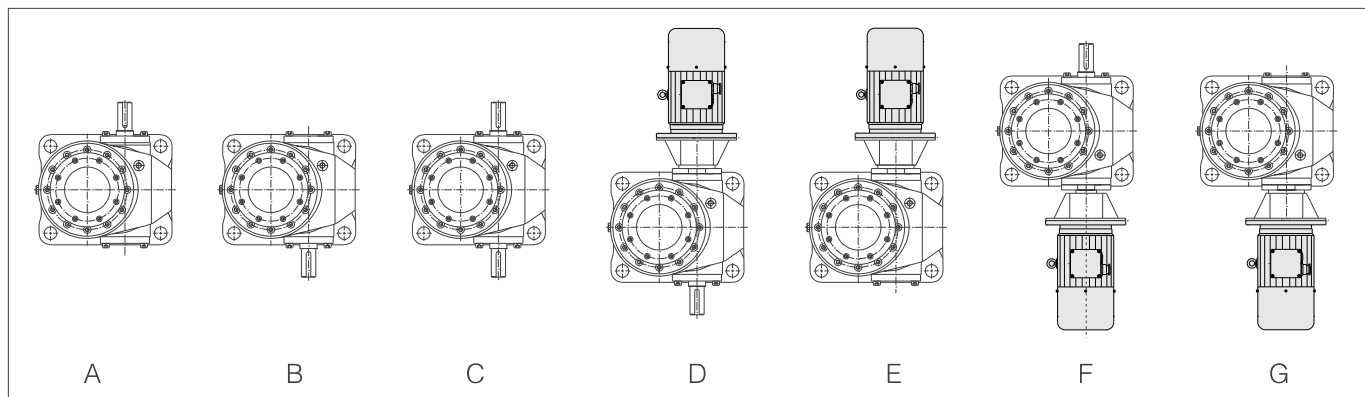
⚠ Note: X⁽¹⁾ dimension with dust-proof cover.

10 Outline Dimension:

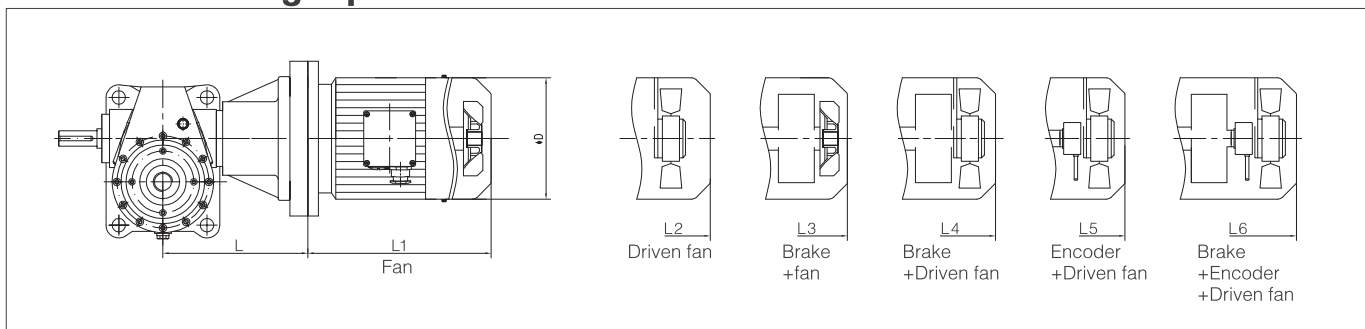
JB500



11 Input Modes:



12 Direct-linking Input:



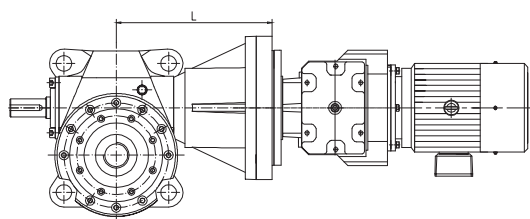
Type	Power (kW)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	D (mm)	L (mm)
JB010	0.12	192	247	227	282	/	/	124	118
	0.18	192	247	227	282	/	/	124	118
	0.25	214	259	254	304	304	344	139	120
	0.37	214	259	254	304	304	344	139	120
JB025	0.12	192	247	227	282	/	/	124	145
	0.18	192	247	227	282	/	/	124	145
	0.25	214	259	254	304	304	344	139	145
	0.37	214	259	254	304	304	344	139	145
	0.55	261	306	321	366	366	416	159	145
JB050	0.75	261	306	321	366	366	416	159	145
	0.25	214	259	254	304	304	344	139	187
	0.37	214	259	254	304	304	344	139	187
	0.55	261	306	321	366	366	416	159	187
	0.75	261	306	321	366	366	416	159	187
	1.1	284	329	339	384	384	439	176	187
JB100	1.5	284	329	339	384	384	439	176	187
	0.37	214	259	254	304	304	344	139	220
	0.55	261	306	321	366	366	416	159	223
	0.75	261	306	321	366	366	416	159	223
	1.1	284	329	339	384	384	439	176	223
	1.5	284	329	339	384	384	439	176	223
JB200	2.2	349	389	424	464	464	519	199	230
	0.75	261	306	321	366	366	416	159	241
	1.1	284	329	339	384	384	439	176	241
	1.5	284	329	339	384	384	439	176	241
	2.2	349	389	424	464	464	519	199	248
	3	349	389	424	464	464	519	199	248
JB200	4	412	462	487	537	537	592	220	248

Note:1:Power of motor should be conformed with the transmission capacity.

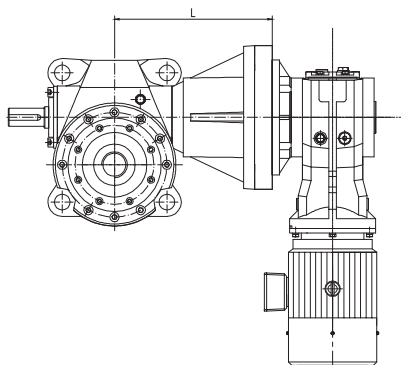
2:The power is for 4-pole motor

13 Combined-type

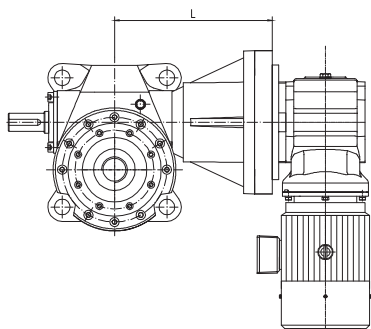
13.1 Dimensions of combined-type



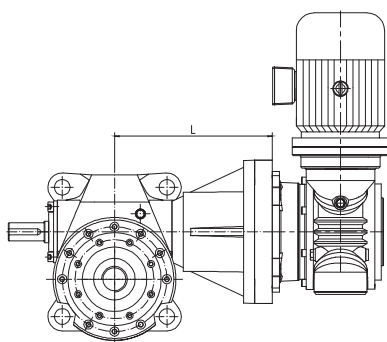
JB/C Combined type



JB/K Combined type



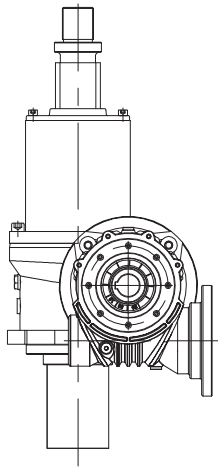
JB/S Combined type



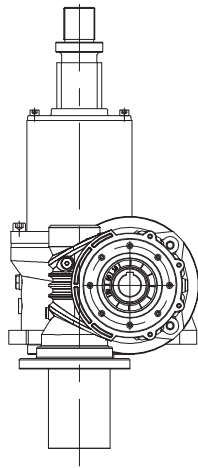
JB/R Combined type

Type	L
JB025. . /C. 01FA	145
JB025. . /R050FG (FH)	145
JB050. . /C. 03FA	187
JB050. . /K303FA (FE)	187
JB050. . /S203FA (FE)	187
JB050. . /R063FA (FD)	187
JB100. . /C. 03FA	223
JB100. . /K303FA (FE)	223
JB100. . /S203FA (FE)	223
JB100. . /C. 04FA	223
JB100. . /K304FM (FR)	223
JB100. . /S204FA (FE)	223
JB100. . /R063FA (FD)	223
JB100. . /R080FA (FD)	223
JB200. . /C. 03FA	241
JB200. . /K303FA (FE)	241
JB200. . /S203FA (FE)	241
JB200. . /C. 04FA	241
JB200. . /K304FM (FR)	241
JB200. . /S204FA (FE)	241
JB200. . /C. 06FA	248
JB200. . /K306FA (FE)	248
JB200. . /S206FA (FE)	248
JB200. . /R080FA (FD)	241
JB200. . /R100FA (FD)	248

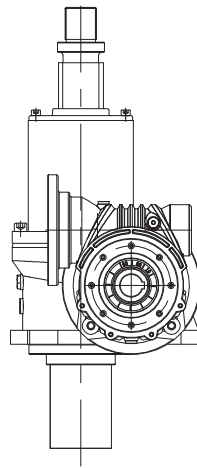
13.2 Arrangement of combined type



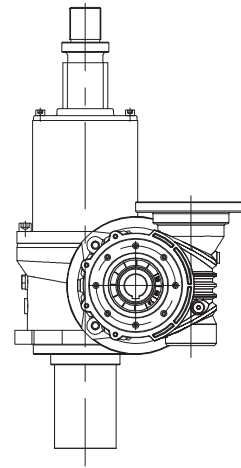
ZR01



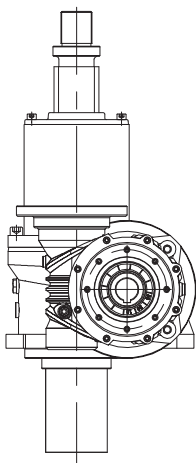
ZR02



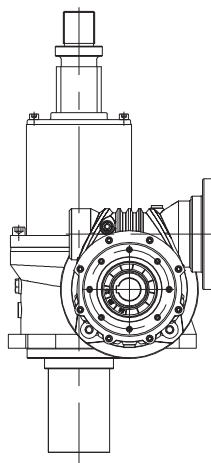
ZR03



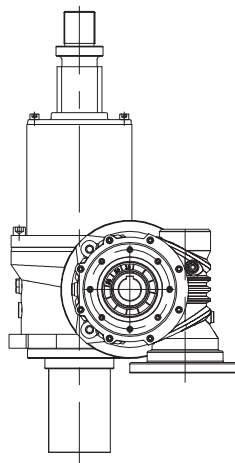
ZR04



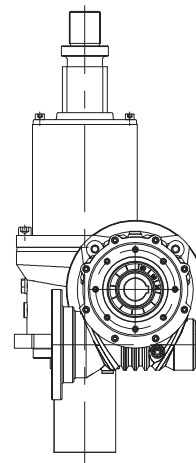
ZR05



ZR06



ZR07

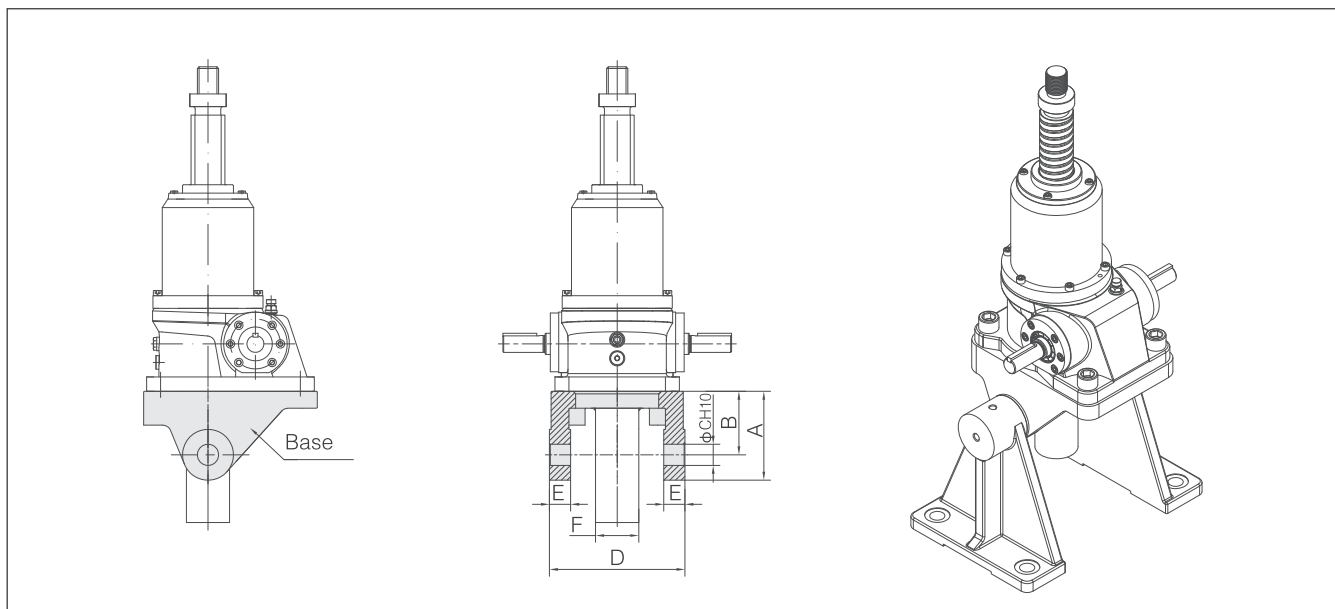


ZR08

14 Attachment:

14.1 Base

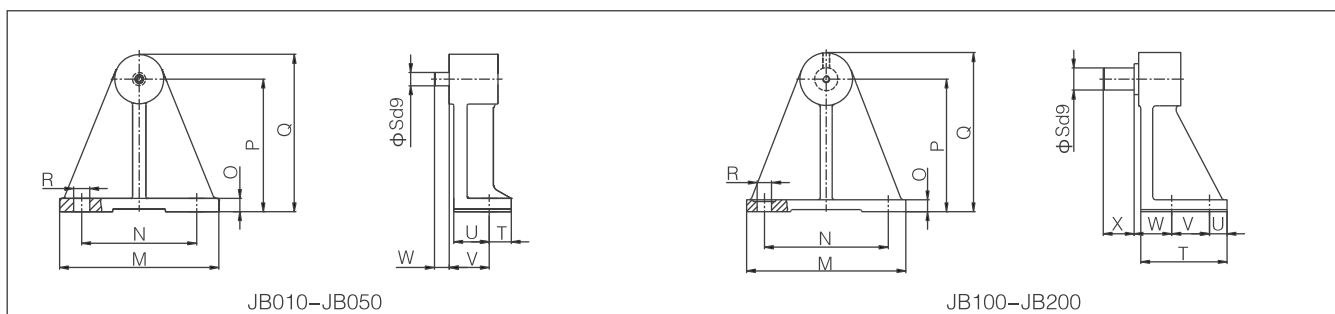
Bases are widely used in switching and inclining devices.



Type	A	B	C	D	E	F
JB010	75	60	15	86	15	40
JB025	100	75	20	115	20	50
JB050	105	75	25	158	25	60
JB100	145	100	40	201	30	80
JB200	173	110	63	244	50	100

14.2 Support legs

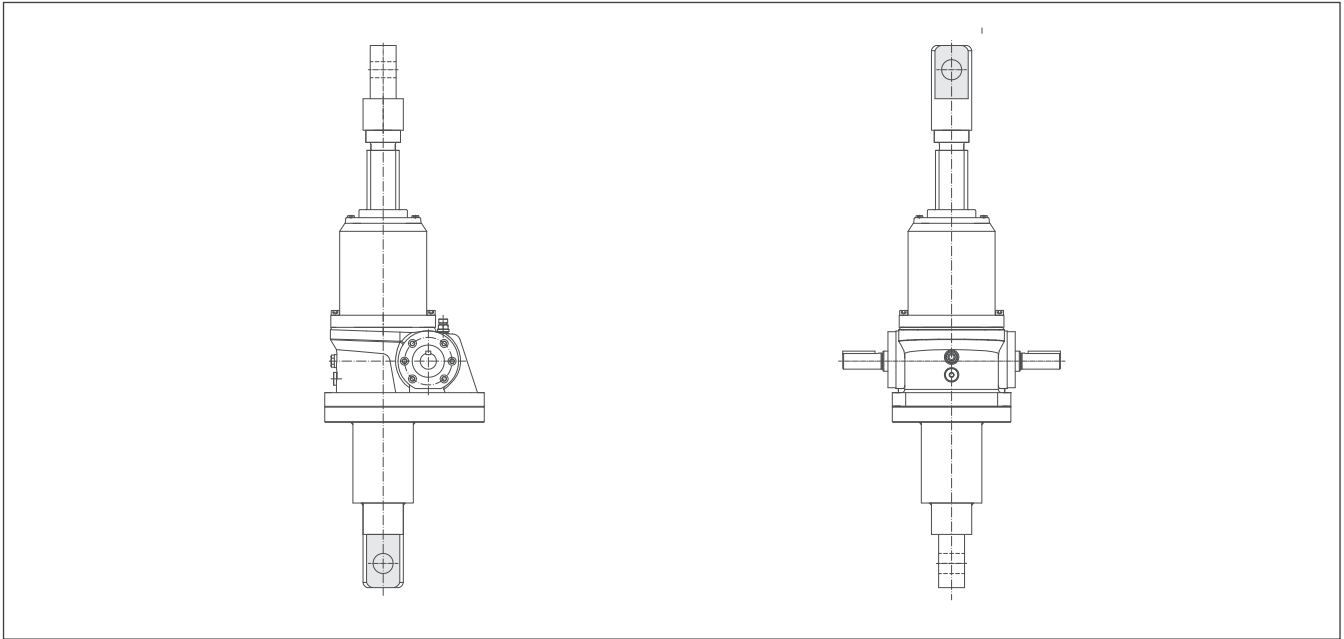
Bases and support legs are often used together to make lifting function in multiple directions.



Type /型号	M	N	O	P	Q	R	S	T	U	V	W	X
JB010	180	130	15	150	178	2- ϕ 17.5	15	25	40	45	17	-
JB025	180	130	15	150	178	2- ϕ 17.5	20	25	40	45	30	-
JB050	200	150	15	170	200	2- ϕ 17.5	25	25	40	45	35	-
JB100	280	220	22	240	290	4- ϕ 22	40	159	30	70	70	55
JB200	400	320	30	380	450	4- ϕ 33	63	210	40	90	90	65

14.3 Torque-arm mounted(Please consult)

Applicable to opening and reversing devices.



14.4 Oil

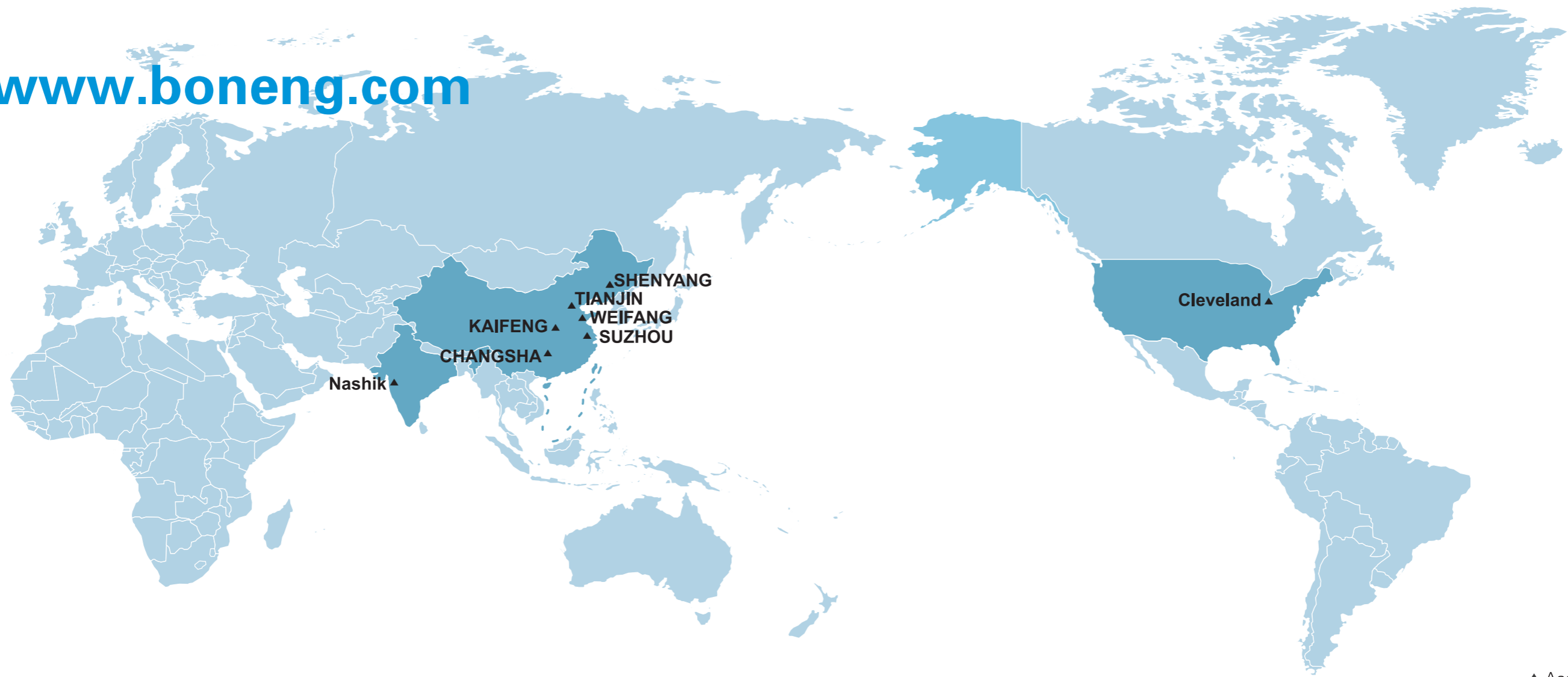
Oil amount reference table:

BU/BD/RU/RD		Oil Amount Reference Table						Unit:(L)
Assembly Position	Type	000#Extreme Pressure Grease				VG220 (Worm Gear Oil)		
		JB010	JB025	JB050	JB100	JB200	JB300	JB500
D1、 D3		0.13	0.16	0.2	0.27	0.75	3.1	7.3
D2		0.12	0.13	0.18	0.23	0.65	2.6	5.3

NU/ND		Oil Amount Reference Table					Unit:(L)
Assembly Position	Type	000#Extreme Pressure Grease				VG220 (Worm Gear Oil)	
		JB010	JB025	JB050	JB100	JB200	
D1、 D3		0.1	0.12	0.15	0.22	0.6	
D2		0.1	0.12	0.15	0.22	0.5	

 Note: Elevator operation process screw(nut) need to grease

Along with the technology advancedet.,the product of the manual of Boneng will be changed,please forgive.



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