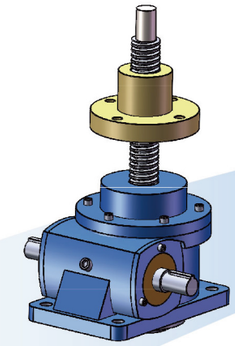
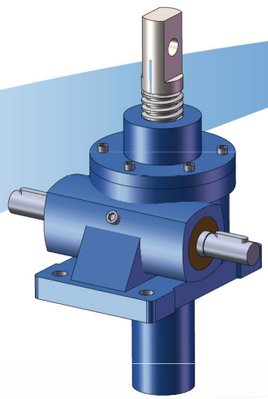
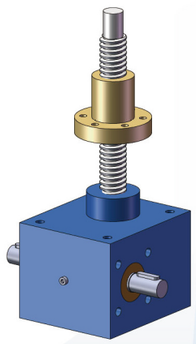


GEAR格尔

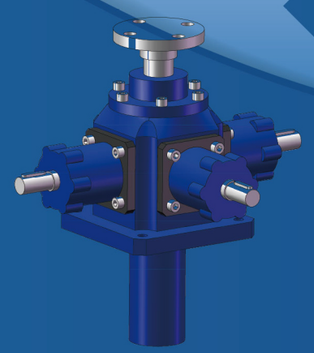












公司简介

浙江格尔减速机有限公司引进先进的技术和完整的加工设备，使产品质量不断提高，产品主要有丝杆升降机、丝杆升降平台、SWL蜗轮丝杆升降机、JRSS丝杆升降机、SJA丝杆升降机、JMM丝杆升降机、T螺施伞齿轮转向箱、RV蜗轮蜗杆减速机等等。

公司以“一站式传动技术解决方案专家”为经营宗旨，公司的传动技术工程师及售后服务部为您提供迅速全面的技术咨询和完善的售后服务，客户的满意是我们减速机有限公司的追求理念。公司成立以来，一直致力于开发、生产高效、节能、环保型传动系列产品，具有一支高素质的技术开发、科技管理和技工队伍。先进的技术和可靠的质量保证使产品成为国内外广大用户的首选品牌，被广泛用于冶金、矿山、建材、造船、石油、化工、塑料、橡胶、食品、航空航天、食品行业、医药行业、包装行业、超重输送、纺织造纸、轻工立体停车库、流水线、通用机械以及国防科研等领域中。

面对千变万化的市场需求和层出不穷的挑战，我们将以不变应万变，坚持为每位客户提供专属的个性化传动方案；凭借我们以人为本的管理理念、精益求精的专业技术。质量好，价格实惠，交货周期快，售后服务好，质保一年终身维修！

我们致力于创造精良卓越的产品，打造行业经典品牌，这不仅是我们人的使命，梦想和责任，更是我们发展追求的终极目标。秉承务实诚信，稳健经营的作风，我们在未来的发展过程中必将始终保持当初创业的赤子之心：不张扬、不冒进、不懈愈、不放弃。因为有了梦想有了坚持我们才从无到有、从小到大、从优秀走向卓越、前行的脚步从未停滞。



Company profile

Zhejiang Gear Reducer Co., Ltd. has introduced advanced technologies and complete processing equipment, which has continuously improved product quality. Our main products include screw jacks, screw lifting platforms, SWL worm gear screw acks, JRSS screw jacks, SJA screw jacks, JMM screw jacks, T spiral bevel gear steering boxes, RV worm gear reducers, and so on.

With the business tenet of "One-stop drive technology solutions expert", our transmission technology engineers and after-sales service department provide you with prompt and comprehensive technical consulting services and perfect after-sales support. Customer satisfaction is the core pursuit of our reducer company. Since its establishment, the company has been committed to the development and production of high-efficiency, energy-saving and environment-friendly transmission series products, and has a high-quality team of technical R&D, scientific and technological management, and skilled workers. Advanced technologies and reliable quality assurance have made our products the preferred brand for a large number of domestic and foreign users. They are widely used in fields such as metallurgy, mining, building materials, shipbuilding, petroleum, chemical industry, plastics, rubber, food, aerospace, pharmaceutical industry, packaging industry, lifting and conveying, textile and papermaking, light industry three-dimensional parking garages, assembly lines, general machinery, and national defense scientific research.

Faced with ever-changing market demands and emerging challenges, we will remain steadfast to cope with changes, and insist on providing each customer with exclusive and personalized transmission solutions. Relying on our people-oriented management philosophy and sophisticated professional technology, we offer products with superior quality, favorable prices, fast delivery cycles, excellent after-sales service, along with a one-year warranty and lifelong maintenance!

We are committed to creating sophisticated and outstanding products and building a classic brand in the industry. This is not only our mission, dream and responsibility, but also the ultimate goal of our development and pursuit. Adhering to the style of pragmatism, integrity and steady operation, we will always maintain the original entrepreneurial sincerity in the future development: not being ostentatious, not rushing forward, not slacking off, and never giving up. With dreams and perseverance, we have grown from scratch, from small to large, and from excellence to outstanding, and our pace of moving forward has never stopped.

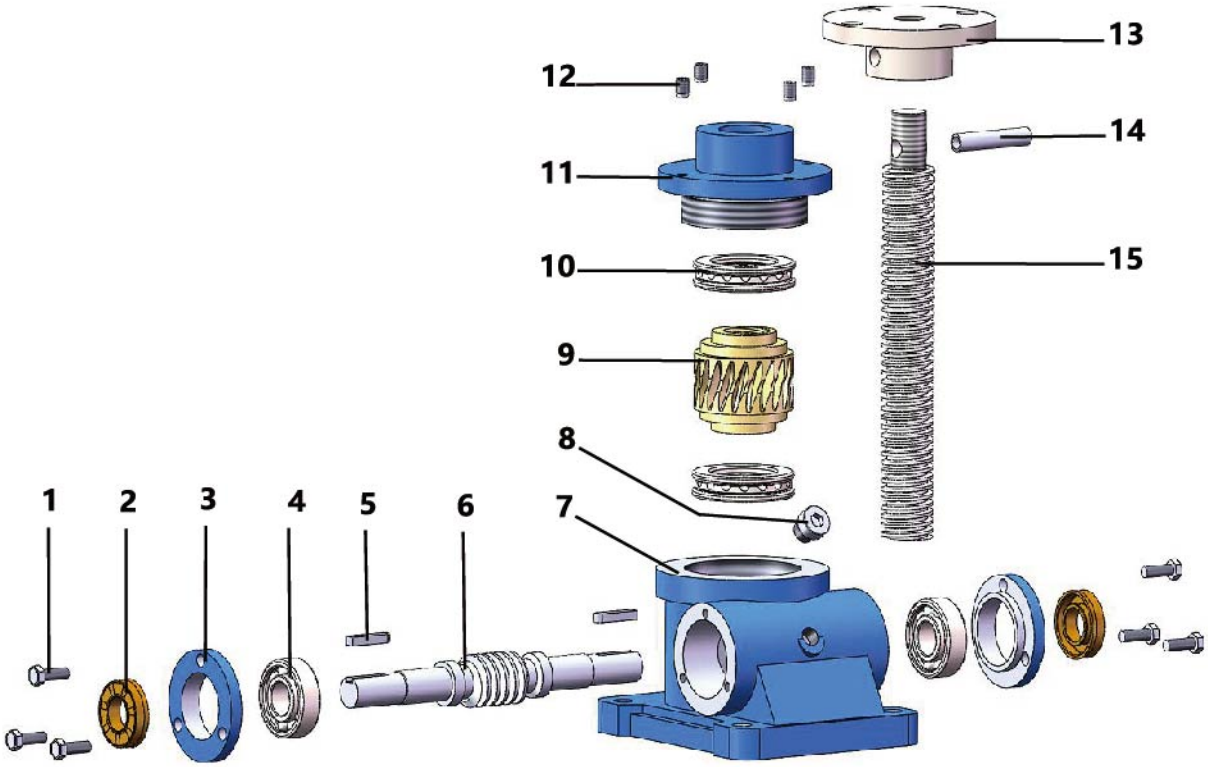


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SWL系列结构分解/SWL Series Structure decomposition



零组件/Components

1.外六角螺丝/External hexagon screws
2.油封/Oil Seal
3.蜗杆端盖/Worm end cap
4.蜗杆轴承/Worm bearing
5.轴键/Axis key-Input shaft
6.蜗杆/Worm
7.机座/Housing
8.注油口螺栓/Oil Inlet Bolt
9.蜗轮/Worm gear
10.蜗轮轴承/Worm gear bearing
11.上端盖/Upper end cover of worm gear
12.紧定螺丝/Tighten the screws
13.II型法兰头部/Type II flange head
14.固定空心销/Fixed Hollow Pin
15.梯形丝杆/Trapezoidal screw rod

基本结构/Basic structure display



1A 基本型
1A Basic type



1B 基本型
1B Basic type



2A 基本型
2A Basic type



2B 基本型
2B Basic type

1、概述 Profile

蜗轮丝杆升降机广泛应用于机械、冶金、建筑、水利设备等行业，具有起升、下降及借助辅件推进、翻转及各种高度位置调整等诸多功能。

蜗轮丝杆升降机是一种基础起重部件，具有结构紧凑、体积小、重量轻、动力源广泛、无噪音、安装方便、使用灵活、功能多、配套形式多、可靠性高、使用寿命长等许多优点。可以单台或组合使用，能按一定程序准确地控制调整提升或推进的高度，可以用电动机或其他动力直接带动，也可以手动。它有不同的结构形式和装配形式，且提升高度可按用户的要求定制。

Worm wheel screw elevator is widely applied in industries such as machinery, metallurgy, construction, and hydraulic equipment, and has many functions such as lifting and pushing and turning with the help of accessories or adjusting height and position. This series worm screw elevator is one model of basic hoisting parts and has numerous features of compact structure, small volume, light weight, wide drive sourses, low noise, high reliability, and long lifespan. In addition, they are easy to be mounted, flesible in use and enjoy multiple functions. This series, driven by motor or other power or manually, can be used both single and combined with others to accurately control the height of lifting or pushing by certain programs. For there are many structures and mounting positions, the lifting height can be adjusted to the customers requirements.

一、SWL/HK 梯形丝杆型-低速、低频率 SWL/HK Trapezoid scew-LOW SPEED LOW FREQUENCY

SWL/HK型（梯形丝杆型）适用于低速、低频率场合，主要构成部件为：精密梯形丝杆副与高精度蜗轮蜗杆副。

1：价格经济、结构紧凑、操作简便、保养方便。

2：低速、低频率：主要用于大负荷、低速与无需频繁工作的场所。

3：保持载重：梯形丝杆具有自锁功能，即使没有制动装置也可保持载重。

＊ **在受到较大震动，冲击载荷时，可能会使自锁功能失效，此时请外加制动装置。**

SWL/HK Trapezoid scew is suitable for low speed and low frequency. Main components: Precision trapezoid screw pair and high precision worm-gears pair.

1：Economical: Compact design, easy operation, convenient maintenance.

2：Low speed, low frequency: Be suitable for heavy load, low speed, low sewice frequency.

3：Self-lock Trapezoid screw has self-lock function, it can hold up load without braking device when screw stops traveling.

＊ Braking device equippet for self-lock will be of malfunction accidentally when large jolt & impact load occur.

二、SWLG/HKG 滚珠丝杆型-高速、高频率 SWLG/HKG General ball scew-HIGH SPEED HIGH FREQUENCY

SWLG/HKG型（普通滚珠丝杆型），适用于高速，高频率和高性能的装置中，主要构成部件为精密滚珠丝杆副与高精度蜗轮蜗杆副。

1：高效率：只需很小的驱动源，就可以产生很大的推动力。

2：高速化：与梯形丝杆相比，速度有很大的提高，能轻松而高速的运转。

3：使用寿命长：采用高质量的滚珠丝杆，使其工作寿命提高3备以上。

＊ **本身无自锁功能，需外加制动装置或选择带有制动的驱动源。**

SWLG/HKG (General ball scew) is suitable for high speed, high frequency and excellent performance. Main components: Precision ball screw pai r and high precision worm-gears pair.

1：High efficiency: Rolling friction improve efficiency greatly, only a little drive power can generate great thruust force.

2：High speed: Rolling friction speed up travel of screw easily.

3：Lifetime longer: High precision ball screw can make SWLG is lifetime longer by 3 times comparing with SWLG/HKG.

＊ Braking devices or motor with braking devices are necessay when choosing SWLG/HKG.

2、型式

2.1 结构型式

1型——丝杆同时作旋转运动和轴向移动（见图1）；

2型——丝杆作旋转运动，丝杆上的螺母作轴向移动（见图2）；

2.2 型装配型式

升降机每种结构型式又分为两种装配装配型式：

A型——丝杆(或螺母)向上移动（见图1和图2）；

B型——丝杆(或螺母)向下移动（见图1和图2）。

2.3 丝杆头部型式

——1型结构型式的丝杆头部分为：Ⅰ型（圆柱型）、Ⅱ型（法兰型）、Ⅲ（螺纹型）和Ⅳ型（扁头型）四种型式（见图1）；

——2型结构型式的丝杆头部分为Ⅰ型（圆柱型）和Ⅲ（螺纹型）两种型式（见图2）。

2.4 传动化

升降机分为两种传动比，即普通(P)和慢速(M)。

2.5 丝杆的防护

1型升降机丝杆的防护分为：基本型、防旋转型(F)和带防护罩型(Z)；

2型升降机丝杆的防护分为：基本型和带防护罩型(Z)；

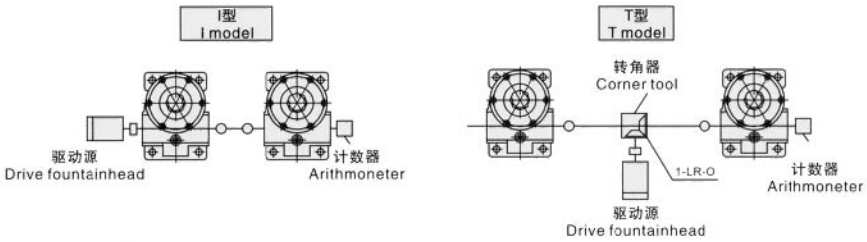
2.6 标记示例

SW	L	2.5	M-5	1	A	II	500	A	F	Z	Y	5.5KW/4P	°	M4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

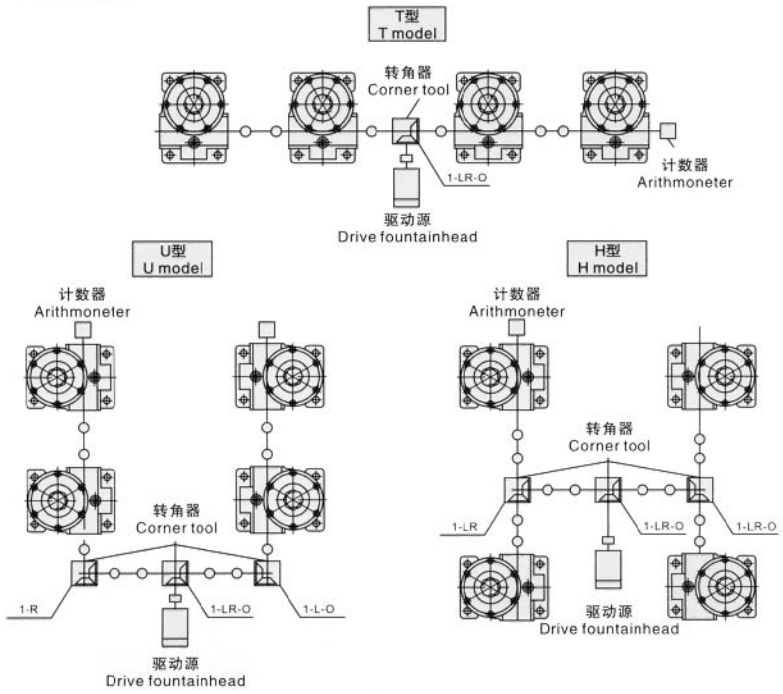
1 **产品代码及其类型** SW系列蜗轮－丝杆升降机	2 **入力轴形式:** L:双轴输入S:单轴输入 P:通过电机法兰接口，装配好电机 D:装配电机法兰接口，电机用户自配 B:一边轴输入，一边装配电机法兰接口，电机用户自配 C:一边轴输入，一边通过电机法兰接口，装配好电机	3 **型号** 2.5 SW1-SW200	4 **传动比代号** M:慢速 P:快速	5 **结构形式** 1:丝杆作升降 2:螺母作升降
6 **装配形式:** A:丝杆(或螺母)在安装面之上作升降 B:丝杆(或螺母)在安装面之下作升降	7 **丝杆头部形式:** Ⅰ:圆柱型 Ⅱ:法兰型 (2型结构无代码) Ⅲ:螺纹型 Ⅳ:扁头型 (2型结构无代码)	8 **行程:500** 见选型参数表	9 **轴指向:** A	10 **F: 丝杆防旋转型** (2型结构无代码)
11 Z:带钢管防护罩 X:带塑料防护罩 Q:带钢管及塑料防护罩 (2型结构无代码)	12 **电机的代号：** Y:普通电机B:防爆电机 S:伺服电机Z:直流电机 G:辊道电机 YEJ:制动电机 YVP:变频电机 YVPJ:变频制动电机 YCT:电磁调速电机 MB:无级变速电机 (轴输入无代码)	13 **电机功率及级数:** 5.5KW/4P (轴输入无代码)	14 **接线盒位置:** 0° 0° -270°	15 **安装形式:** M4

3、应用示例 Application Example

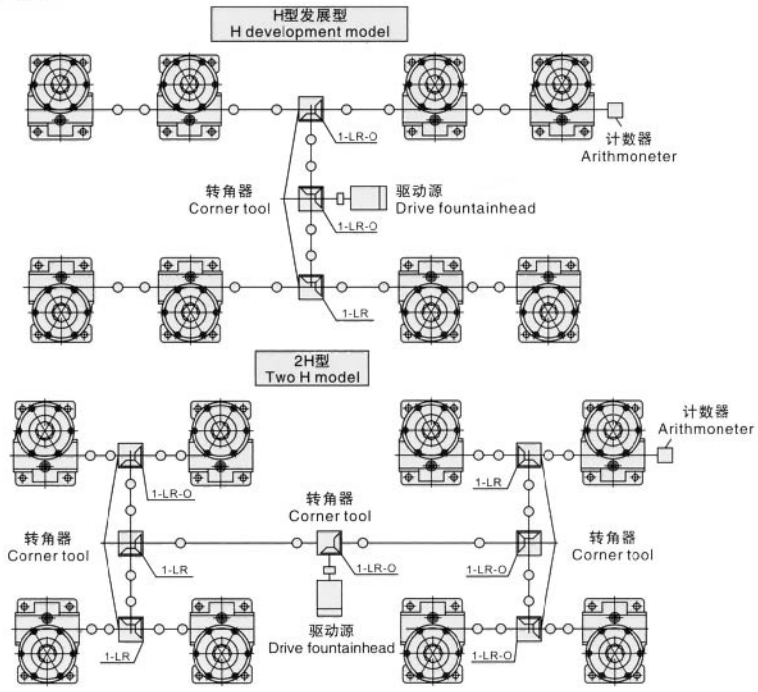
3.1 两台联动 Two sets linkage



3.2 四台联动 Four sets linkage



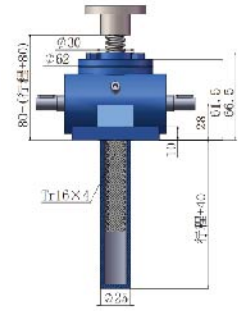
3.3 八台联动 Eight sets linkage



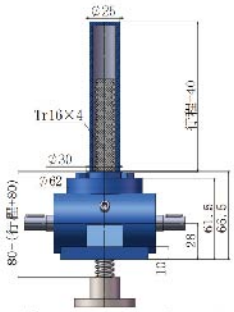
SWL0.5装配型式/SWL0.5T Assembly type

1型结构/Type1 structure

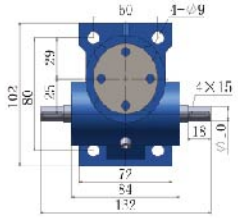
1A丝杆头部在上
1A Upright translating screw optional

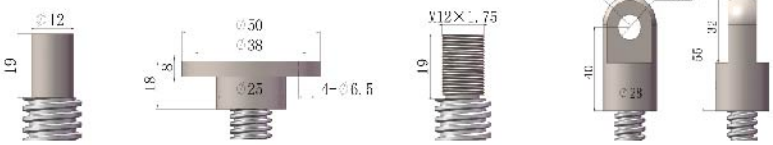


1B丝杆头部在下
1B Inverted translating screw optional



丝杆头部可选/Screw head optional

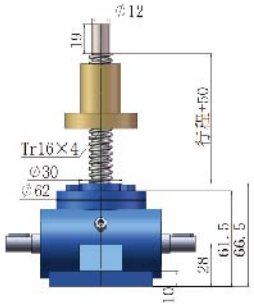


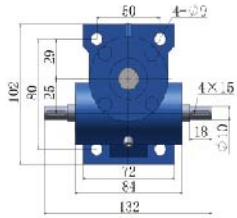


I型/TypeI **II型/TypeII** **III型/TypeIII** **IV型/TypeIV**

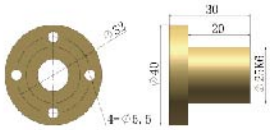
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

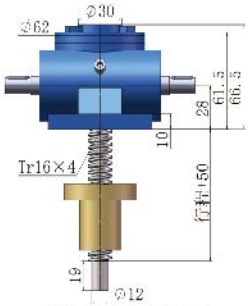




2型丝杆螺母/Type 2 screw nut



2B螺母在下
2B Inverted rotating screw

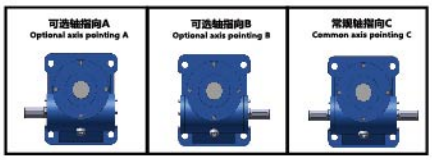


丝杆头部可选/Screw head optional



I型/TypeI **III型/TypeIII**

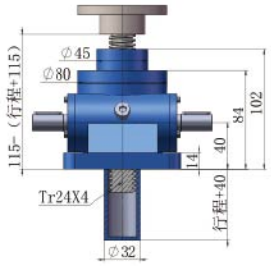
轴指向/Shaft direction



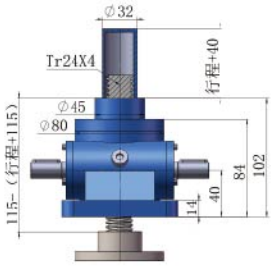
SWL1T装配型式/SWL1T Assembly type

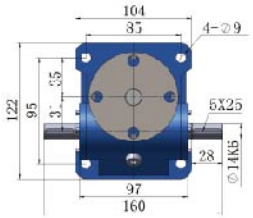
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

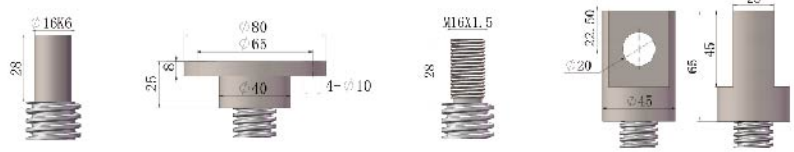


1B丝杆头部在下
1B Inverted translating screw optional





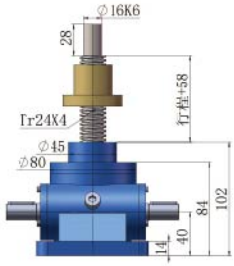
丝杆头部可选/Screw head optional



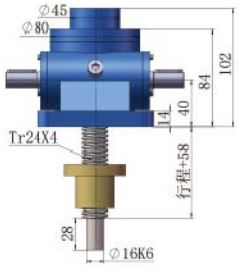
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

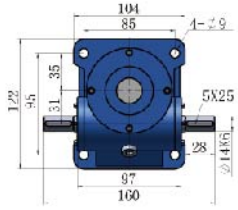
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

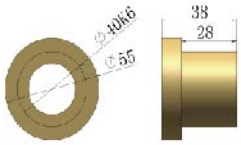


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut

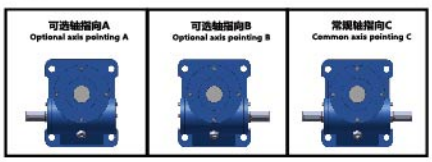


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

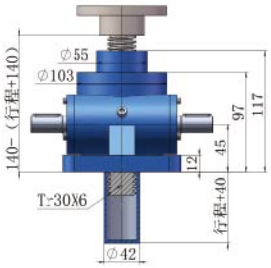
轴指向/Shaft direction



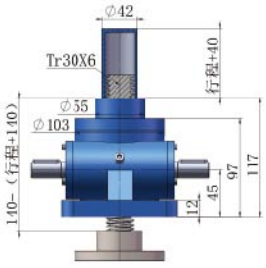
SWL2.5T装配型式/SWL2.5T Assembly type

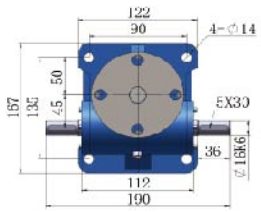
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

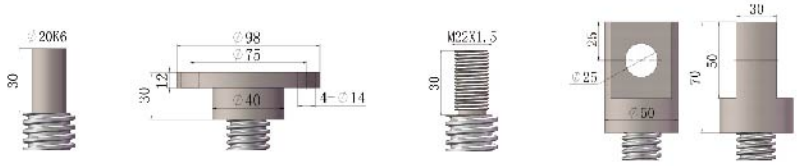


1B丝杆头部在下
1B Inverted translating screw optional





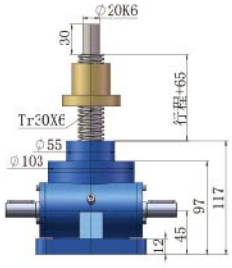
丝杆头部可选/Screw head optional



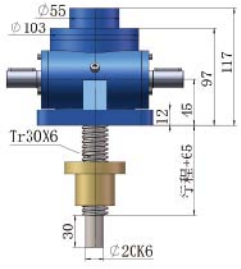
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

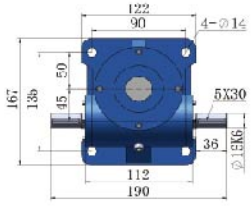
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

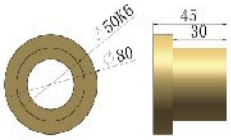


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut

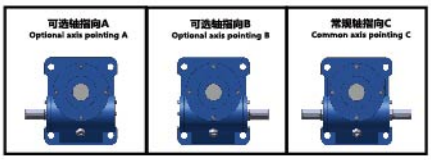


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

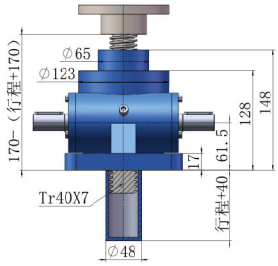
轴指向/Shaft direction



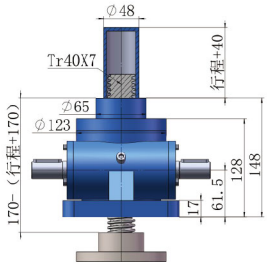
SWL5T装配型式/SWL5T Assembly type

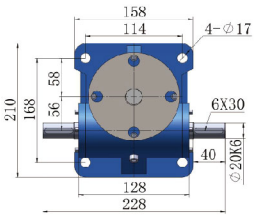
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

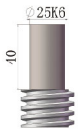


1B丝杆头部在下
1B Inverted translating screw optional

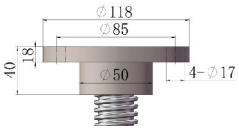




丝杆头部可选/Screw head optional



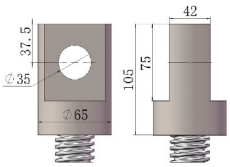
I型/TypeI



II型/TypeII



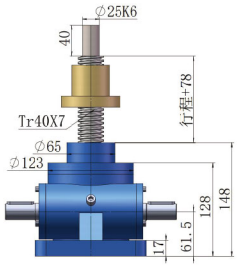
III型/TypeIII



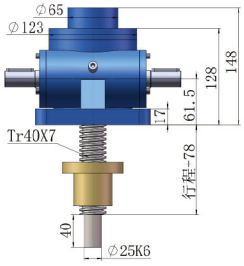
IV型/TypeIV

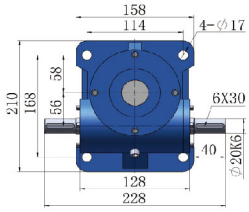
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

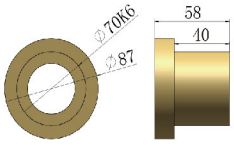


2B螺母在下
2B Inverted rotating screw

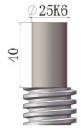




2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional

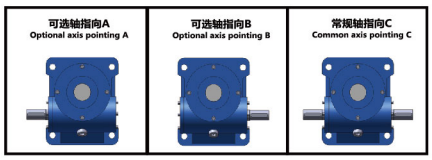


I型/TypeI



III型/TypeIII

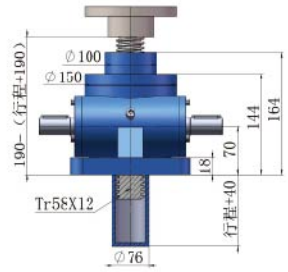
轴指向/Shaft direction



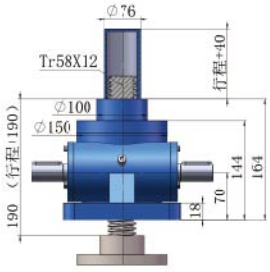
SWL10T(SWL15T)装配型式/SWL10T(SWL15T)Assembly type

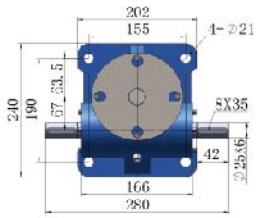
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

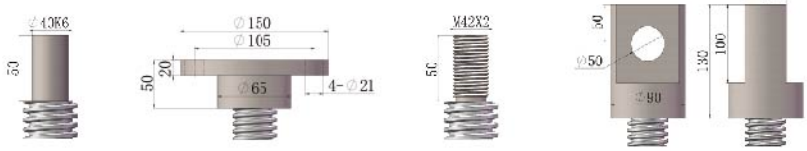


1B丝杆头部在下
1B Inverted translating screw optional





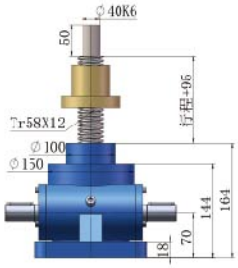
丝杆头部可选/Screw head optional



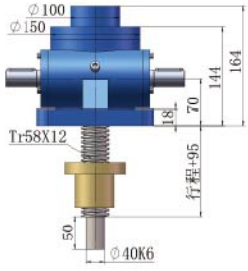
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

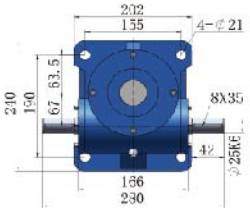
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

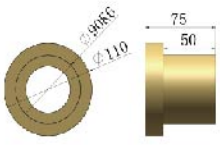


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut

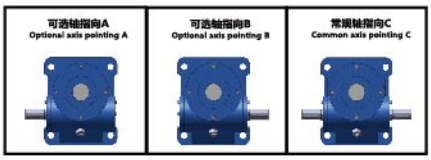


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

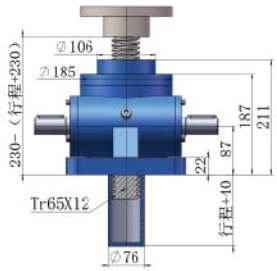
轴指向/Shaft direction



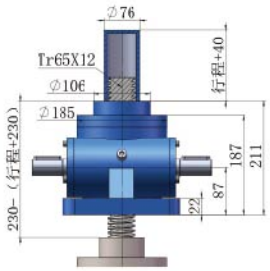
SWL20T装配型式/SWL20T Assembly type

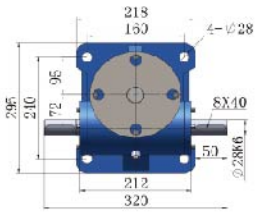
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

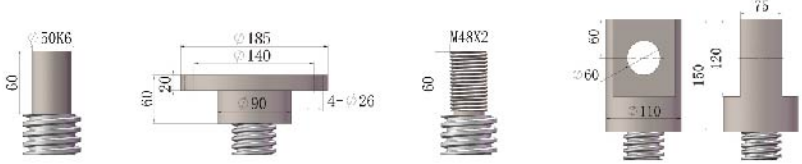


1B丝杆头部在下
1B Inverted translating screw optional





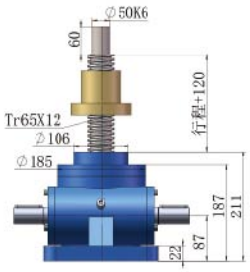
丝杆头部可选/Screw head optional



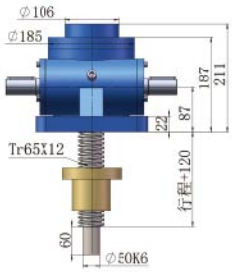
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

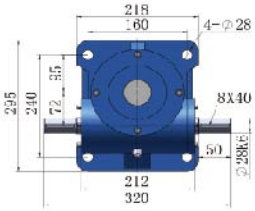
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

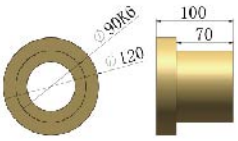


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

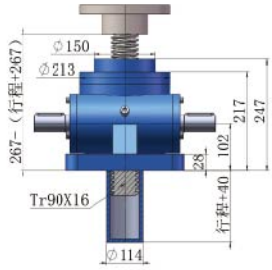
轴指向/Shaft direction



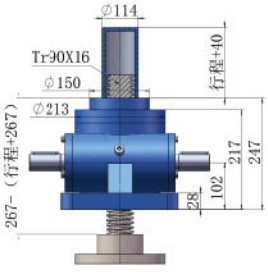
SWL25T装配型式/SWL25T Assembly typer

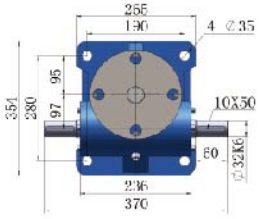
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional



1B丝杆头部在下
1B Inverted translating screw optional





丝杆头部可选/Screw head optional



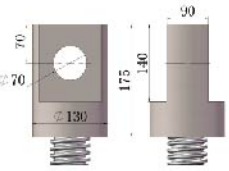
I型/TypeI



II型/TypeII



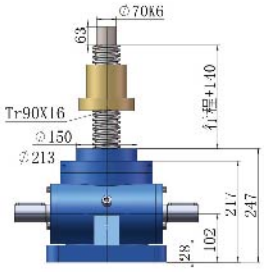
III型/TypeIII



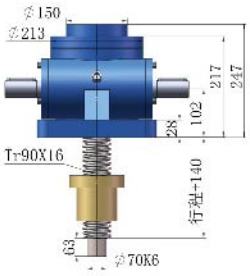
IV型/TypeIV

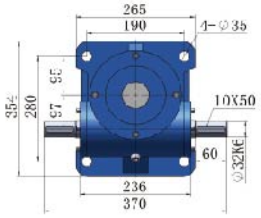
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

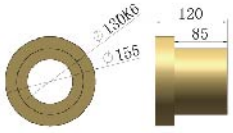


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI



III型/TypeIII

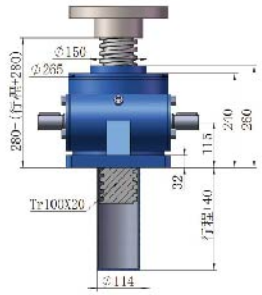
轴指向/Shaft direction



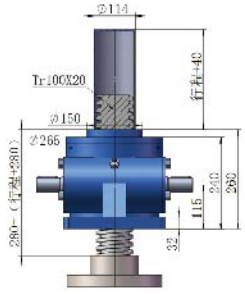
SWL35T装配型式/SWL35T Assembly type

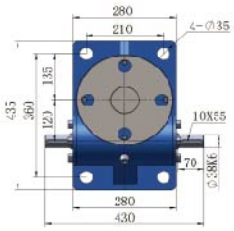
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

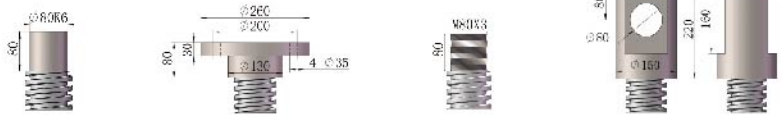


1B丝杆头部在下
1B Inverted translating screw optional





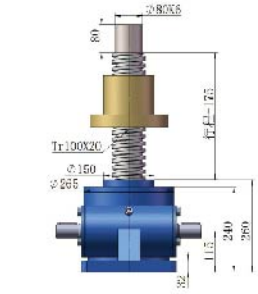
丝杆头部可选/Screw head optional

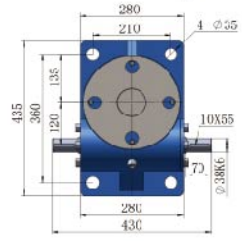


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

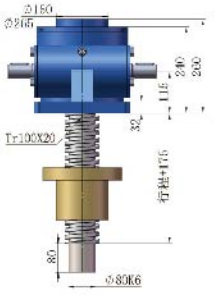
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

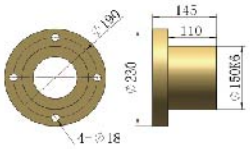




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

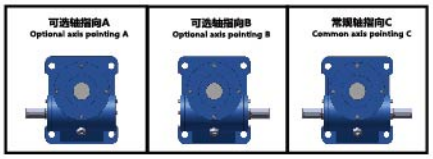


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

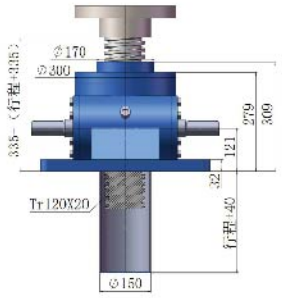
轴指向/Shaft direction

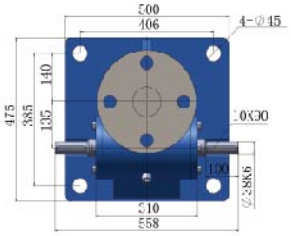


SWL50T装配型式/SWL50T Assembly type

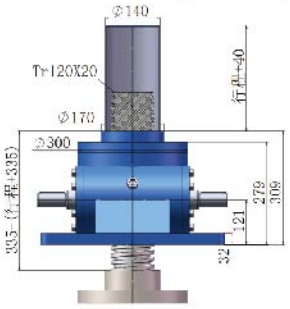
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional





1B丝杆头部在下
1B Inverted translating screw optional



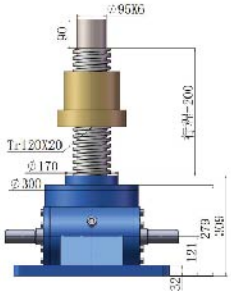
丝杆头部可选/Screw head optional

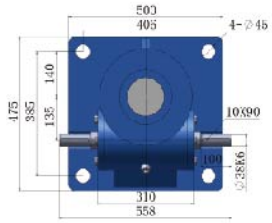


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

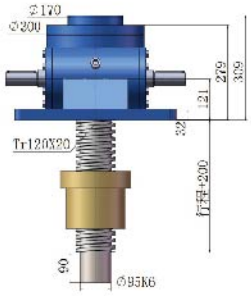
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

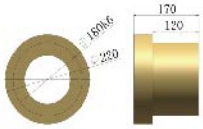




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

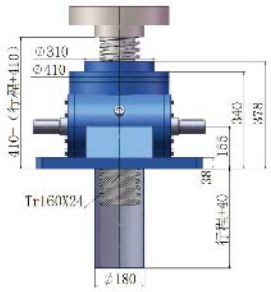
轴指向/Shaft direction



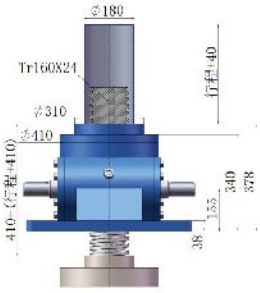
SWL100T装配型式/SWL100T Assembly type

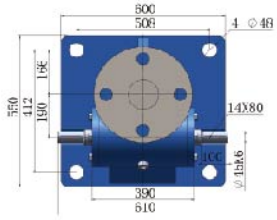
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional



1B丝杆头部在下
1B Inverted translating screw optional





丝杆头部可选/Screw head optional



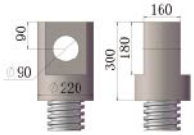
I型/TypeI



II型/TypeII



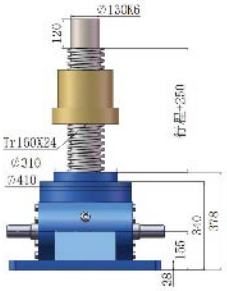
III型/TypeIII



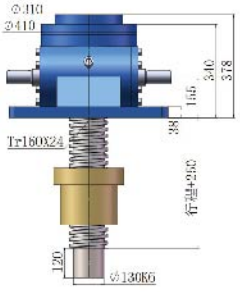
IV型/TypeIV

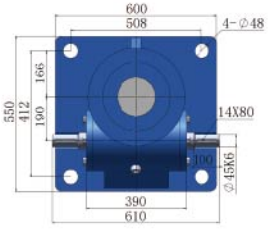
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

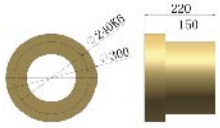


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional

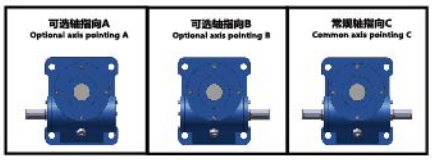


I型/TypeI



III型/TypeIII

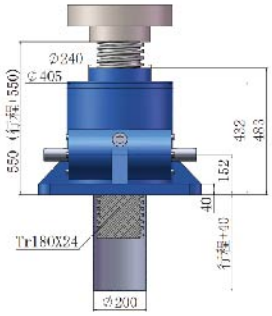
轴指向/Shaft direction



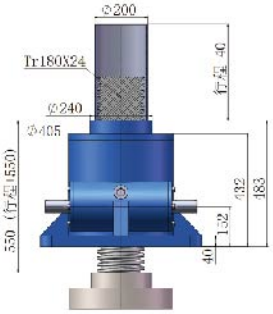
SWL150T装配型式/SWL150T Assembly type

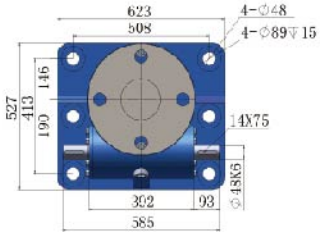
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

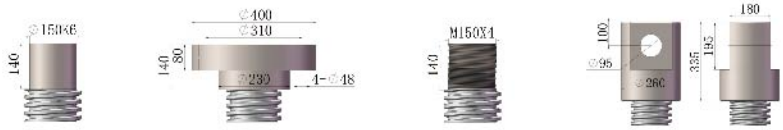


1B丝杆头部在下
1B Inverted translating screw optional





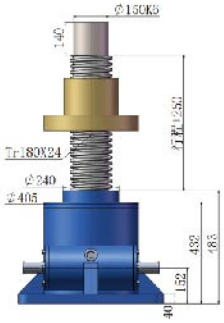
丝杆头部可选/Screw head optional



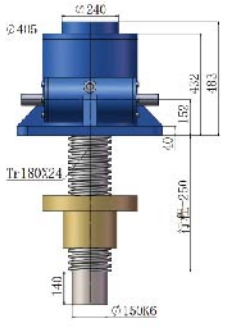
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

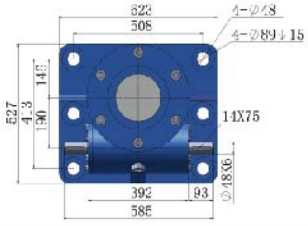
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

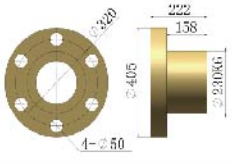


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut

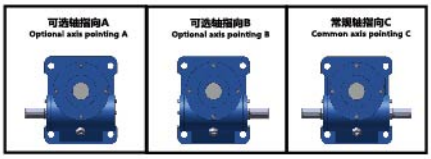


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction



SWLB1T装配型式/SWLB1T Assembly type

1型结构/Type1 structure

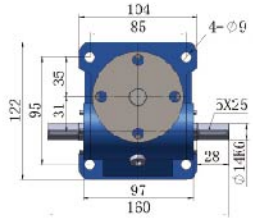
1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional





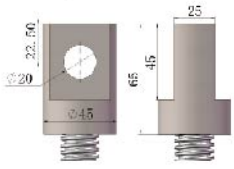
I型/TypeI



II型/TypeII



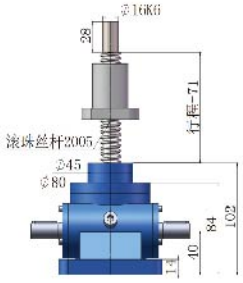
III型/TypeIII

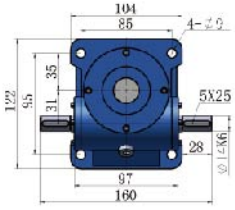


IV型/TypeIV

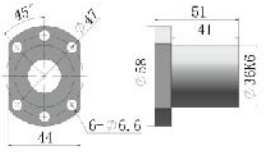
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

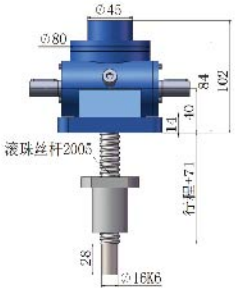




2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴指向/Shaft direction

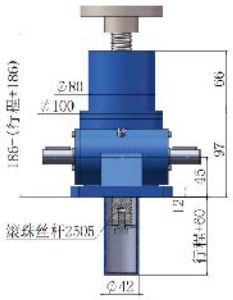


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø20X10、Ø20X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø20X10、Ø20X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

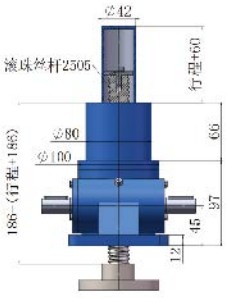
SWLB2.5T装配型式/SWLB2.5T Assembly type

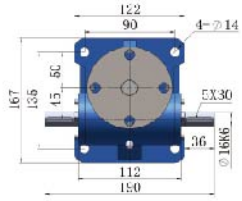
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

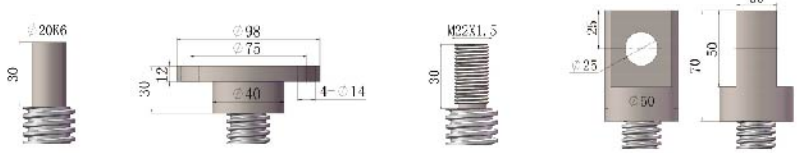


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





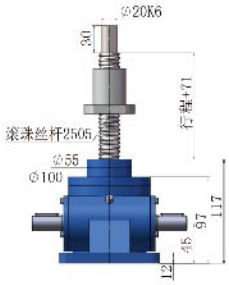
滚珠丝杆头部可选/Ball screw head optional



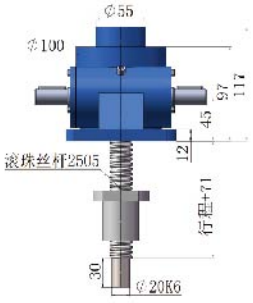
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

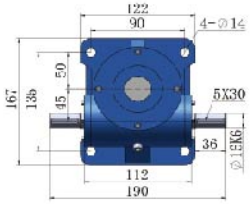
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

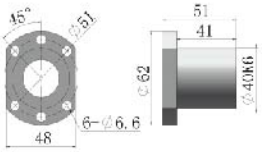


2B螺母在下
2B Inverted rotating screw





2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

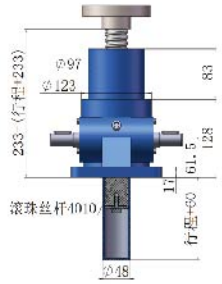


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø25X10、Ø25X25、Ø32X5、Ø32X10、Ø32X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø25X10、Ø25X25、Ø32X5、Ø32X10、Ø32X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

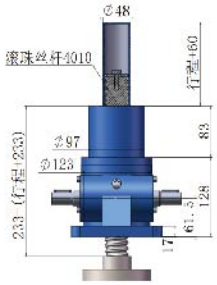
SWLB5T装配型式/SWLB5T Assembly type

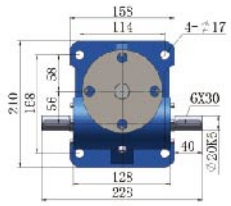
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





滚珠丝杆头部可选/Ball screw head optional



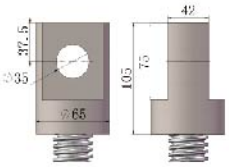
I型/TypeI



II型/TypeII



III型/TypeIII



IV型/TypeIV

2型结构/Type2 structure

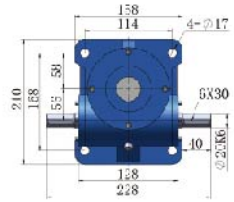
2A螺母在上
2A Upright rotating screw

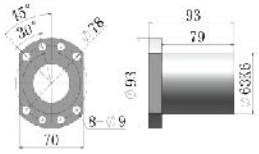


2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut





滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴指向/Shaft direction

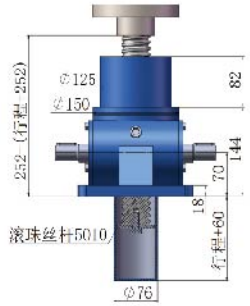


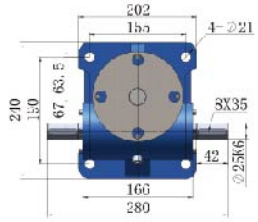
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø40X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø40X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

SWLB10T装配型式/SWLB10T Assembly type

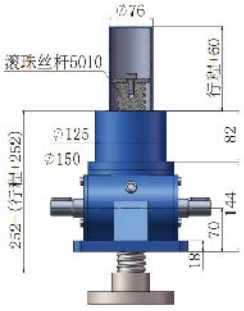
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional





1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional



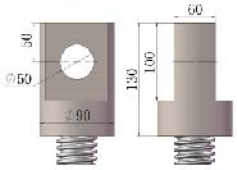
I型/TypeI



II型/TypeII



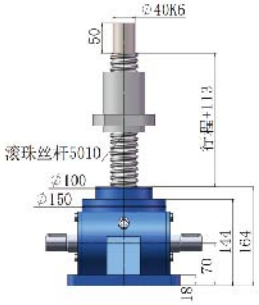
III型/TypeIII

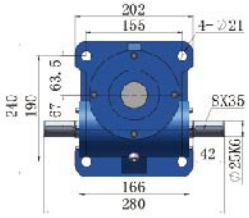


IV型/TypeIV

2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

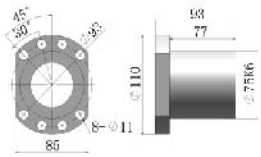




2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴指向/Shaft direction

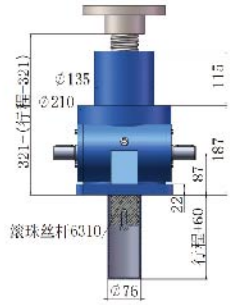


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø50X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø50X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

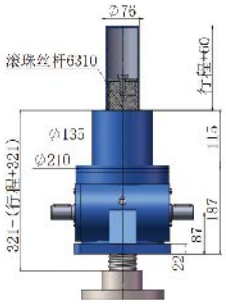
SWLB20T装配型式/SWLB20T Assembly type

1型结构/Type1 structure

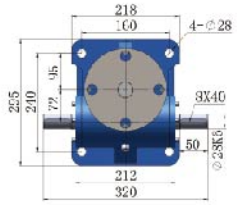
1A滚珠丝杆头部在上
1A Upright translating ball screw optional

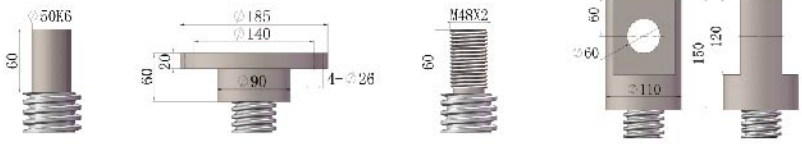


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional

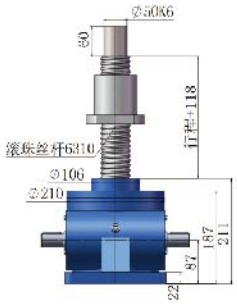




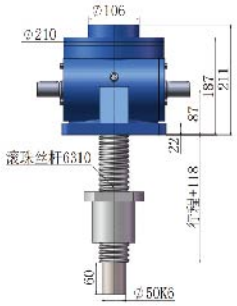
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

2型结构/Type2 structure

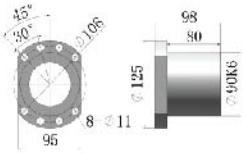
2A螺母在上
2A Upright rotating screw

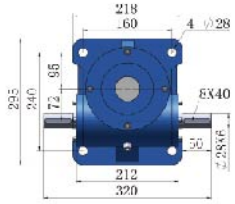


2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut





滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

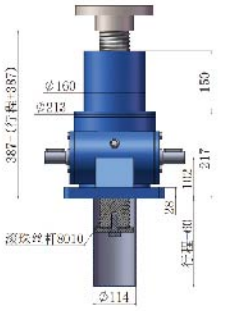


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø63X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø63X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

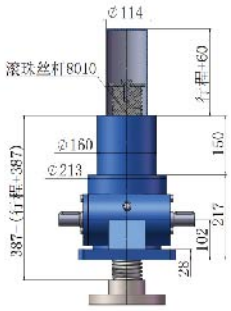
SWLB25T装配型式/SWLB25T Assembly type

1型结构/Type1 structure

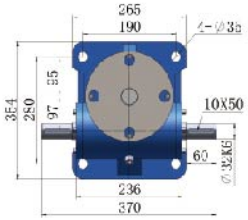
1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional





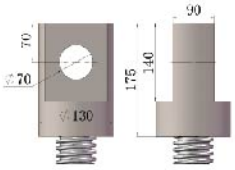
I型/TypeI



II型/TypeII



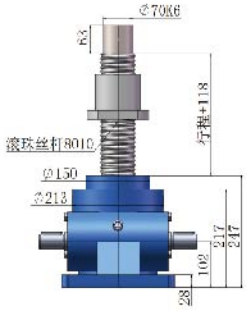
III型/TypeIII

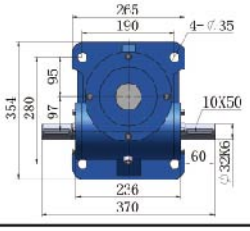


IV型/TypeIV

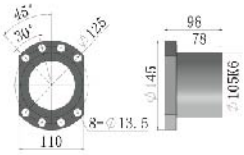
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

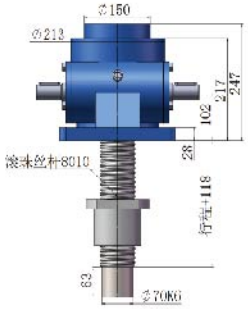




2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball screw head optional

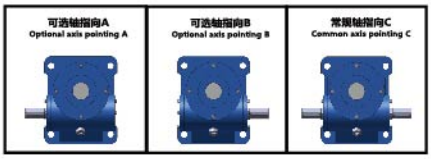


I型/TypeI



III型/TypeIII

轴指向/Shaft direction

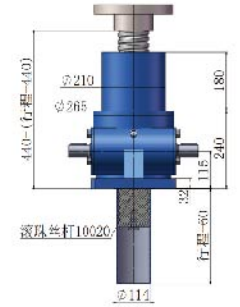


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø80X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø80X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

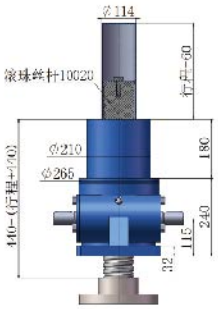
SWLB35T装配型式/SWLB35T Assembly type

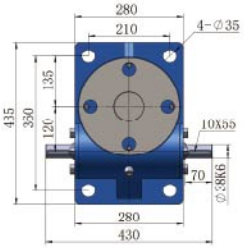
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





滚珠丝杆头部可选/Ball screw head optional



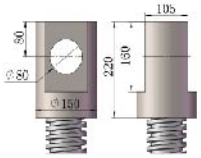
I型/TypeI



II型/TypeII



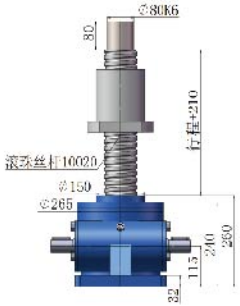
III型/TypeIII



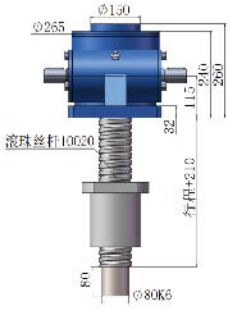
IV型/TypeIV

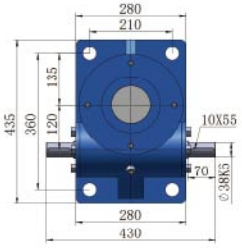
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

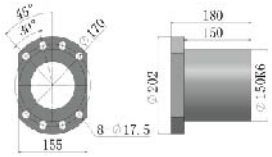


2B螺母在下
2B Inverted rotating screw





2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional

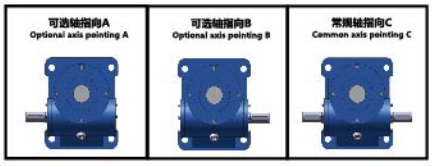


I型/TypeI



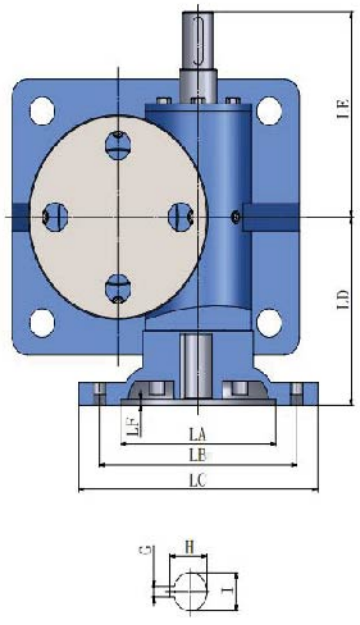
III型/TypeIII

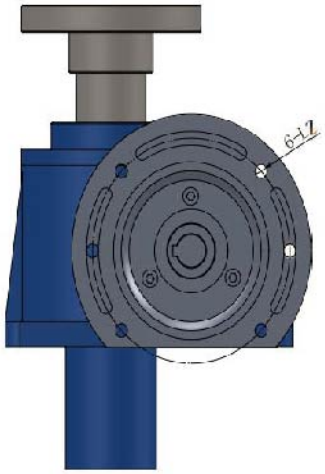
轴指向/Shaft direction



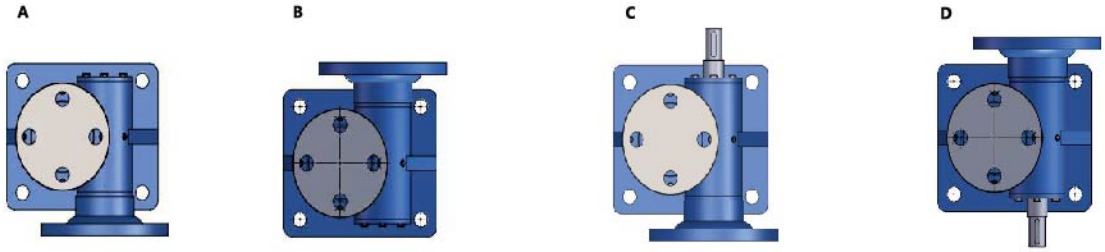
注：①滚珠丝杆型号选择，更多不同方案，详询选型工程师
①Selection of ball screw models, please consult the selection engineer for details based on different schemes

SWLD安装尺寸





轴指向



型号规格	法兰规格	LA	LB	LC	LD	LE	LF	G	H	I	LZ
SWLD1T	63B5	95	115	140	72	80	4	4	13	11	M8
SWLD1T	71B5	110	130	160	80	80	4	5	16.5	14	M8
SWLD2.5T	71B5	110	130	160	77	95	4	5	16.5	14	M8
SWLD2.5T	80B5	130	165	200	91	95	4	6	22	19	M10
SWLD5T	80B5	130	165	200	99	114	4	6	22	19	M10
SWLD5T	90B5	130	165	200	99	114	5	8	27.5	24	M10
SWLD5T	100B5	180	215	250	109	114	5	8	31.5	28	M12
SWLD10T	90B5	130	165	200	117	140	5	8	27.5	24	M10
SWLD10T	100B5	180	215	250	154	140	5	8	31.5	28	M12
SWLD15T	90B5	130	165	200	117	140	5	8	27.5	24	M10
SWLD15T	100B5	180	215	250	154	140	5	8	31.5	28	M12
SWLD20T	112B5	180	215	250	148	160	5	8	31.5	28	M12
SWLD20T	132B5	230	265	300	170	185	6	10	41.5	38	M12
SWLD25T	132B5	230	265	300	175	185	6	10	41.5	38	M12
SWLD35T	132B5	230	265	300	202	215	6	10	41.5	38	M12
SWLD35T	160B5	250	300	350	232	215	7	12	46	42	M16
SWLD35T	180B5	250	300	350	232	215	7	14	52	48	M16

5、性能参数

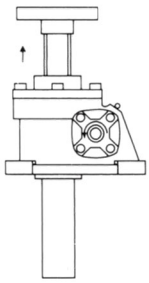
5.1 升降机的主要性能参数

表4

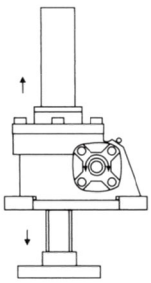
	SWL1	SWL2.5	SWL5	SWL10/15	SWL20	SWL25	SWL35	SWL50	SWL100	SWL150
最大起升力KN	10	25	50	100/50	200	250	350	500	1000	1500
最大拉力KN	10	25	50	99	166	250	350	300	1000	1500
丝杆螺纹尺寸	Tr24×4	Tr30×6	Tr40×7	Tr58×12	Tr65×12	Tr90×16	Tr100×20	Tr120×20	Tr160×24	Tr180×24
蜗轮蜗杆传动比(P)	6:1	6:1	6:1	8:1	8:1	$10\frac{2}{3}$:1	$10\frac{2}{3}$:1	$10\frac{2}{3}$:1	12:1	12:1
蜗杆每转行程mm	0.667	1.0	1.167	1.5	1.5	1.5	1.875	1.875	2.0	2.0
蜗轮蜗杆传动比(M)	24:1	24:1	24:1	24:1	24:1	32:1	32:1	32:1	36:1	36:1
蜗杆每转行程mm	0.167	0.250	0.292	0.5	0.5	0.5	0.625	0.625	0.667	0.667
拉力负荷时螺杆的最大伸长mm	1200	1500	2000	2500	3000	3500	4000	5500	6500	7000
最大许用功率KW	0.37	0.75	2.2	4	7.5	7.5	15	15	30	45
普通比(P)总效率%	21	23	21	23	21	23	18	15	13	12
慢速比(M)总效率%	13	14	12	15	13	15	11	11	10	8
润滑油量Kg	0.05	0.1	0.25	0.5	0.75	1.4	1.9	2	2.5	3.5
不加行程的的质量kg	4	7.3	16.2	25	36	68	87	420	1010	1520
丝杆每100mm的重量Kg	0.30	0.45	0.82	1.67	2.15	4.20	5.18	7.45	13.6	17.3

6、装配型式及结构型式

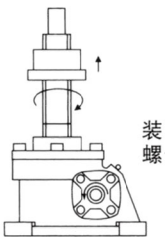
I 型结构　丝杆作轴向运动



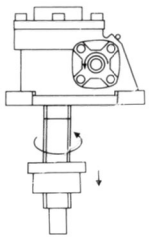
装配方式A
丝杆向上运动



装配方式B
丝杆向上运动



装配方式A
螺母向上运动



装配方式B
螺母向上运动

7、丝杆传动的许用起升速度、扭矩和功率（按表5～表11）

表5(SWL1)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																							
			10				8				6				4				3				2				1			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	1.250	0.313	6.6	1.00	2.7	0.40	5.3	0.08	2.1	0.32	4	0.60	1.6	0.240	2.7	0.400	1	0.160	2	0.300	0.8	0.120	1.3	0.200	0.53	0.080	0.66	0.100	0.27	0.040
1000	0.833	0.208	6.6	0.67	2.7	0.27	5.3	0.53	2.1	0.21	4	0.40	1.6	0.160	2.7	0.267	1	0.107	2	0.200	0.8	0.080	1.3	0.133	0.53	0.053	0.66	0.067	0.27	0.027
750	0.625	0.156	6.6	0.50	2.7	0.20	5.3	0.40	2.1	0.16	4	0.30	1.6	0.120	2.7	0.200	1	0.080	2	0.150	0.8	0.060	1.3	0.100	0.53	0.040	0.66	0.050	0.27	0.020
500	0.417	0.104	6.6	0.33	2.7	0.13	5.3	0.27	2.1	0.11	4	0.20	1.6	0.080	2.7	0.133	1	0.053	2	0.100	0.8	0.040	1.3	0.067	0.53	0.027	0.66	0.033	0.27	0.013
300	0.250	0.063	6.6	0.20	2.7	0.08	5.3	0.16	2.1	0.06	4	0.12	1.6	0.048	2.7	0.080	1	0.032	2	0.060	0.8	0.024	1.3	0.040	0.53	0.016	0.66	0.020	0.27	0.008
200	0.167	0.042	6.6	0.13	2.7	0.05	5.3	0.11	2.1	0.04	4	0.08	1.6	0.032	2.7	0.053	1	0.021	2	0.040	0.8	0.016	1.3	0.027	0.53	0.011	0.66	0.013	0.27	0.005
100	0.083	0.021	6.6	0.07	2.7	0.03	5.3	0.05	2.1	0.02	4	0.04	1.6	0.016	2.7	0.027	1	0.011	2	0.020	0.8	0.008	1.3	0.013	0.53	0.005	0.66	0.007	0.27	0.003
50	0.042	0.010	6.6	0.03	2.7	0.01	5.3	0.03	2.1	0.01	4	0.02	1.6	0.008	2.7	0.013	1	0.005	2	0.010	0.8	0.004	1.3	0.007	0.53	0.003	0.66	0.003	0.27	0.001

注：表4～表10中的参数适用于环境温度为20℃、工作持续率为20%/h或30%/10min的条件下；
对粗线范围内的参数。使用时丝杆会产生过热。应严加注意。

表6(SWL2.5)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			25				20				15				10				5				2.5				1			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	1500	0.375	18	2.7	7.1	1.2	14	2.2	5.7	0.89	11	1.7	4.3	0.67	6.9	1.10	2.9	0.45	3.5	0.54	1.4	0.22	1.7	0.27	0.71	0.11	0.7	0.11	0.28	0.05
1000	1.000	0.250	18	1.8	7.1	0.74	14	1.5	5.7	0.60	11	1.1	4.3	0.45	6.9	0.72	2.9	0.30	3.5	0.36	1.4	0.15	1.7	0.18	0.71	0.07	0.7	0.07	0.28	0.05
750	0.750	0.188	18	1.4	7.1	0.56	14	1.1	5.7	0.45	11	0.82	4.3	0.33	6.9	0.54	2.9	0.22	3.5	0.27	1.4	0.11	1.7	0.14	0.71	0.06	0.7	0.05	0.28	0.05
500	0.500	0.125	18	0.91	7.1	0.37	14	0.72	5.7	0.30	11	0.54	4.3	0.22	6.9	0.36	2.9	0.15	3.5	0.18	1.4	0.07	1.7	0.09	0.71	0.05	0.7	0.05	0.28	0.05
300	0.300	0.075	18	0.54	7.1	0.22	14	0.43	5.7	0.18	11	0.33	4.3	0.13	6.9	0.22	2.9	0.09	3.5	0.11	1.4	0.05	1.7	0.05	0.71	0.05	0.7	0.05	0.28	0.05
200	0.200	0.050	18	0.36	7.1	0.15	14	0.29	5.7	0.12	11	0.22	4.3	0.09	6.9	0.14	2.9	0.06	3.5	0.07	1.4	0.05	1.7	0.05	0.71	0.05	0.7	0.05	0.28	0.05
100	0.100	0.025	18	0.18	7.1	0.07	14	0.14	5.7	0.06	11	0.11	4.3	0.05	6.9	0.07	2.9	0.05	3.5	0.05	1.4	0.05	1.7	0.05	0.71	0.05	0.7	0.05	0.28	0.05
50	0.050	0.013	18	0.09	7.1	0.05	14	0.07	5.7	0.05	11	0.05	4.3	0.05	6.9	0.05	2.9	0.05	3.5	0.05	1.4	0.05	1.7	0.05	0.71	0.05	0.7	0.05	0.28	0.05

表7(SWL5)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			50				40				30				20				10				5				2.5			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	1.750	0.438	44.2	6.9	19.3	3.0	35.4	5.6	15.5	2.4	26.5	4.2	11.6	1.8	17.7	2.8	7.7	1.2	8.8	1.4	3.9	0.6	4.4	0.7	1.9	0.3	2.2	0.3	1.0	0.2
1000	10167	0.292	44.2	4.6	19.3	2.0	35.4	3.7	15.5	1.6	26.5	2.8	11.6	1.2	17.7	1.9	7.7	0.8	8.8	0.9	3.9	0.4	4.4	0.5	1.9	0.2	2.2	0.2	1.0	0.1
750	0.875	0.219	44.2	3.5	19.3	1.5	35.4	2.8	15.5	1.2	26.5	2.1	11.6	0.9	17.7	1.4	7.7	0.6	8.8	0.7	3.9	0.3	4.4	0.3	1.9	0.2	2.2	0.2	1.0	0.1
500	0.583	0.146	44.2	2.3	19.3	1.0	35.4	1.9	15.5	0.8	26.5	1.4	11.6	0.6	17.7	0.9	7.7	0.4	8.8	0.5	3.9	0.2	4.4	0.2	1.9	0.1	2.2	0.1	1.0	0.1
300	0.350	0.088	44.2	1.4	19.3	0.6	35.4	1.1	15.5	0.5	26.5	0.8	11.6	0.4	17.7	0.6	7.7	0.2	8.8	0.3	3.9	0.1	4.4	0.1	1.9	0.1	2.2	0.1	1.0	0.1
200	0.233	0.058	44.2	0.9	19.3	0.4	35.4	0.7	15.5	0.3	26.5	0.6	11.6	0.2	17.7	0.4	7.7	0.2	8.8	0.2	3.9	0.1	4.4	0.1	1.9	0.1	2.2	0.1	1.0	0.1
100	0.117	0.029	44.2	0.5	19.3	0.2	35.4	0.4	15.5	0.2	26.5	0.3	11.6	0.1	17.7	0.2	7.7	0.1	8.8	0.1	3.9	0.1	4.4	0.1	1.9	0.1	2.2	0.1	1.0	0.1
50	0.058	0.015	44.2	0.2	19.3	0.1	35.4	0.2	15.5	0.1	26.5	0.1	11.6	0.1	17.7	0.1	7.7	0.1	8.8	0.1	3.9	0.1	4.4	0.1	1.9	0.1	2.2	0.1	1.0	0.1

表7(SWL10/15)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			100				80				60				40				20				10				5			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	2.348	0.750	108	17	53	8.3	87	14	43	6.7	65	11	32	5.0	44	6.8	22	3.3	22	3.4	11	1.7	11	1.7	5.3	0.8	5.4	0.9	2.7	0.4
1000	1.565	0.500	108	12	53	5.6	87	9.1	43	4.4	65	6.8	32	3.3	44	4.5	22	2.2	22	2.3	11	1.1	11	1.1	5.3	0.6	5.4	0.6	2.7	0.3
750	1.174	0.375	108	8.5	53	4.2	87	6.8	43	3.3	65	5.1	32	2.5	44	3.4	22	1.7	22	1.7	11	0.8	11	0.9	5.3	0.4	5.4	0.4	2.7	0.2
500	0.783	0.250	108	5.7	53	2.8	87	4.5	43	2.2	65	3.4	32	1.7	44	2.3	22	1.1	22	1.1	11	0.6	11	0.6	5.3	0.3	5.4	0.3	2.7	
300	0.470	0.150	108	3.4	53	1.7	87	2.7	43	1.3	65	2.0	32	1.0	44	1.4	22	0.7	22	0.7	11	0.3	11	0.3	5.3	0.2	5.4	0.2	2.7	0.1
200	0.313	0.100	108	2.3	53	1.1	87	1.8	43	0.9	65	1.4	32	0.7	44	0.9	22	0.4	22	0.5	11	0.2	11	0.2	5.3	0.1	5.4	0.1	2.7	0.1
100	0.157	0.050	108	1.1	53	0.6	87	0.9	43	0.4	65	0.7	32	0.3	44	0.5	22	0.2	22	0.2	11	0.1	11	0.1	5.3	0.1	5.4	0.1	2.7	0.1
50	0.078	0.025	108	0.6	53	0.3	87	0.5	43	0.2	65	0.3	32	0.2	44	0.2	22	0.1	22	0.1	11	0.1	11	0.1	5.3	0.1	5.4	0.1	2.7	0.1

表9(SWL20)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			200				160				120				100				75				50				25			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	2.250	0.750	228	36	123	20	182	29	98	16	137	22	74	12	114	18	62	9.6	86	14	46	7.2	57	8.9	31	4.8	29	4.5	16	2.4
1000	1.500	0.500	228	24	123	13	182	19	98	11	137	15	74	7.7	114	12	62	6.4	86	8.9	46	4.8	57	6.0	31	3.2	29	3.0	16	1.6
750	1.125	0.375	228	18	123	9.6	182	15	98	7.7	137	11	74	5.8	114	8.9	62	4.8	86	6.7	46	3.6	57	4.5	31	2.4	29	2.2	16	1.2
500	0.750	0.250	228	12	123	6.4	182	9.5	98	5.1	137	7.1	74	3.8	114	6.0	62	3.2	86	4.5	46	2.4	57	3.0	31	1.6	29	1.5	16	0.8
300	0.450	0.150	228	7.1	123	3.8	182	5.7	98	3.1	137	4.3	74	2.3	114	3.6	62	1.9	86	2.7	46	1.4	57	1.8	31	1.0	29	0.9	16	0.5
200	0.300	0.100	228	4.8	123	2.6	182	3.8	98	2.1	137	2.9	74	1.5	114	2.4	62	1.3	86	1.8	46	1.0	57	1.2	31	0.6	29	0.6	16	0.3
100	0.150	0.050	228	2.4	123	1.3	182	1.9	98	1.0	137	1.4	74	0.8	114	1.2	62	0.6	86	0.9	46	0.5	57	0.6	31	0.3	29	0.3	16	0.2
50	0.075	0.025	228	1.2	123	0.6	182	1.0	98	0.5	137	0.7	74	0.4	114	0.6	62	0.3	86	0.4	46	0.2	57	0.3	31	0.2	29	0.1	16	0.1

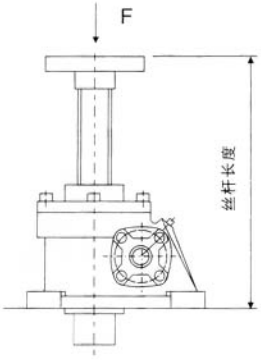
表10(SWL25)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			250				200				160				120				100				75				50			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	1.500	0.500	314	181	33	19	252	27	145	16	201	22	116	13	151	16	87	9.1	126	14	73	7.6	95	9.9	55	5.7	63	6.6	37	3.8
1000	1.125	0.375	314	181	25	15	252	20	145	12	201	16	116	9.1	151	12	87	6.8	126	9.9	73	5.7	95	7.4	55	4.3	63	4.9	37	2.8
750	0.750	0.250	314	181	17	9.5	252	14	145	7.6	201	11	116	6.1	151	7.9	87	4.5	126	6.6	73	3.8	95	4.9	55	2.8	63	3.	37	1.9
500	0.600	0.200	314	181	14	7.6	252	11	145	6.1	201	8.4	116	4.8	151	6.3	87	3.6	126	5.3	73	3.0	95	3.9	55	2.3	63	2.6	37	1.5
300	0.450	0.150	314	181	9.9	5.7	252	7.9	145	4.5	201	6.3	116	3.6	151	4.7	87	2.7	126	3.9	73	2.3	95	3.0	55	1.7	63	2.0	37	1.1
200	0.300	0.100	314	181	6.6	3.8	252	5.3	145	3.0	201	4.2	116	2.4	151	3.2	87	1.8	126	2.6	73	1.5	95	2.0	55	1.1	63	1.3	37	0.8
100	0.150	0.050	314	181	3.3	1.9	252	2.6	145	1.5	201	2.1	116	1.2	151	1.6	87	0.9	126	1.3	73	0.8	95	1.0	55	0.6	63	0.7	37	0.4
50	0.075	0.025	314	181	1.6	0.9	252	1.3	145	0.8	201	1.1	116	0.6	151	0.8	87	0.5	126	0.7	73	0.4	95	0.5	55	0.3	63	0.3	37	0.2

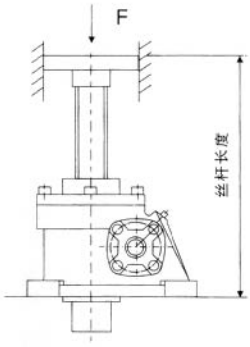
表11(SWL35)

蜗杆转速 n r/min	起升速度 V m/min		起升力KN																									
			350				200				250				200				150				100				50			
			P		M		P		M		P		M		P		M		P		M		P		M		P		M	
	P	M	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw	n.m	kw
1500	1.500	0.500	464	49	253	27	398	42	217	23	332	35	181	19	266	28	145	16	199	21	109	12	133	14	73	7.6	67	6.9	36	3.8
1000	1.125	0.375	464	37	253	20	398	32	217	17	332	26	181	15	266	21	145	12	199	16	109	8.5	133	11	73	5.7	67	5.2	36	2.8
750	0.750	0.250	464	25	253	14	398	21	217	12	332	18	181	9.5	266	14	145	7.6	199	11	109	5.7	133	6.9	73	3.8	67	3.5	36	1.9
500	0.600	0.200	464	20	253	11	398	17	217	9.1	332	14	181	7.6	266	12	145	6.1	199	8.3	109	4.5	133	5.6	73	3.0	67	2.8	36	1.5
300	0.450	0.150	464	15	253	8.0	398	13	217	6.8	332	11	181	5.7	266	8.3	145	4.5	199	6.3	109	3.4	133	4.2	73	2.3	67	2.1	36	1.1
200	0.300	0.100	464	9.8	253	5.3	398	8.4	217	4.5	332	7.0	181	3.8	266	5.6	145	3.0	199	4.2	109	2.3	133	2.8	73	1.5	67	1.4	36	0.8
100	0.150	0.050	464	4.9	253	2.7	398	4.2	217	2.3	332	3.5	181	1.9	266	2.8	145	1.5	199	2.1	109	1.1	133	1.4	73	0.8	67	0.7	36	0.4
50	0.075	0.025	464	2.5	253	1.3	398	2.1	217	1.1	332	1.8	181	0.9	266	1.4	145	0.8	199	1.0	109	0.6	133	0.7	73	0.4	67	0.3	36	0.3

8、升降机的选择



欧拉负荷Ⅰ
Ⅰ型



欧拉负荷Ⅱ

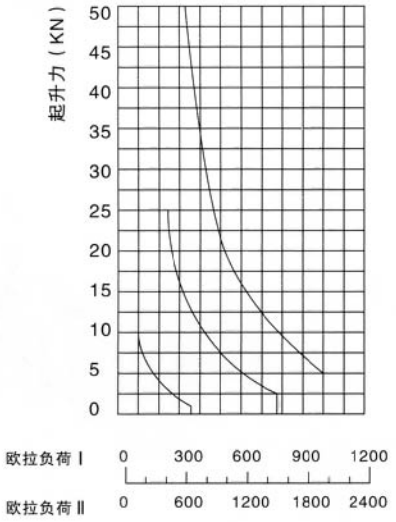


图1 丝杆长度(mm)

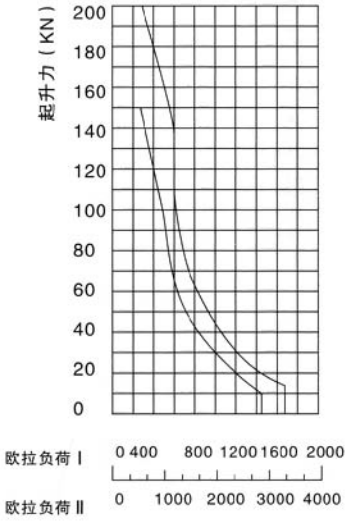


图2 丝杆长度(mm)

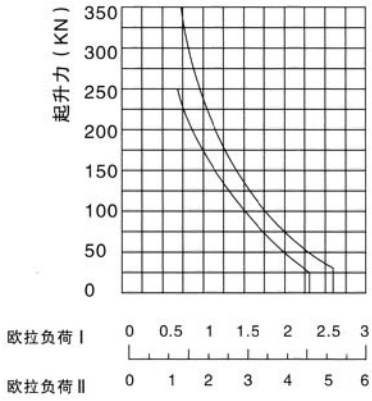


图3 丝杆长度(mm)

根据丝杆行程和提升负荷查图1～图3，找出所需升降机的型号，再查提升力和提升速度表，校核提升速度是否满足要求，若查出的提升速度不能满足要求，建议选择型号大一点的升降机。

例：已知提升符合为F=20kN，丝杆行程=400mm，提升速度V=0.65m/min，试求所需的升降机。

根据F=20kN，丝杆行程=400mm查图1，选择SWL5升降机。再查提升力和提升速度表核对SWL5升降在机20KN负荷下只允许0.526m/min的速度，只有重型大型号的升降机。再查提升力和提升速度表得知SWL10在20KN负荷下允许提升速度为1.44m/min而满足要求。

9、升降机驱动功率的计算

9.1 驱动功率：$P=\frac{Fav}{60\eta}$

式中：P--驱动功率，KW；　　Fa--起升力（或拉力），KN

V--起升速度，m/min；　　η--传递总功率（见表12）

9.2 驱动扭矩： $Mt=9550\times\frac{N}{P}$

式中：Mt--驱动扭矩，N·m；

P--驱动功率，KW；　　n--转速，r/min

表12

型号	SWL													
	1	1M	2.5	2.5M	5	5M	10/15	10M/15M	20	20M	25	25M	35	35M
η	0.21	0.13	0.23	0.14	0.21	0.12	0.23	0.15	0.21	0.13	0.19	0.11	0.18	0.11

10、入力轴的许用径向力

1. 蜗杆轴伸上，由于安装齿轮、链轮或带轮所产生的径向力Er。其最大许用力与起升力和型号有关。在1/2处许用的最大径向力和扭矩见图解和表13。

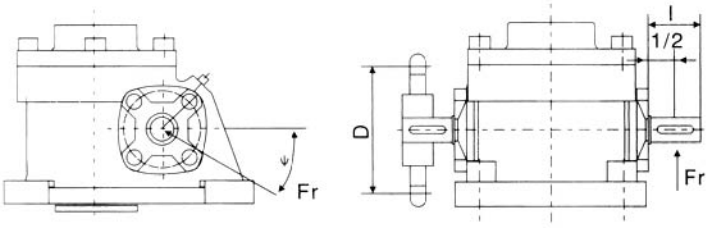


表13

型号	Frmax N	Mt max N·m
SWL1/1M	160	6.6
SWL2.5/2.5M	350	18
SWL5/5M	750	44.2
SWL10/10M/15/15M	1000	108
SWL20/20M	1300	182
SWL25/25M	2000	314
SWL35/35M	2300	398
注：表中参数是按ψ≈30° 或330° 的计算。		

2. 齿轮或带轮的最小直径：

$$D_{min}=19100\times\frac{P}{F_{max}n}=\frac{2M_1}{F_{max}}$$

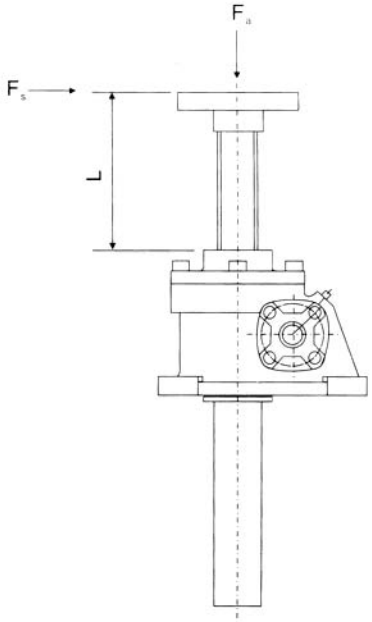
式中：D_{min}--齿轮或带轮的最小直径，m；

P--驱动功率，KW；

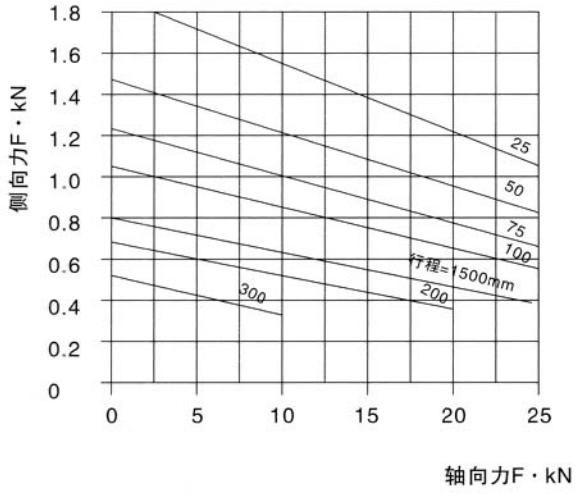
F_{max}--最大径向力，N；

n--蜗杆转速，r/min；

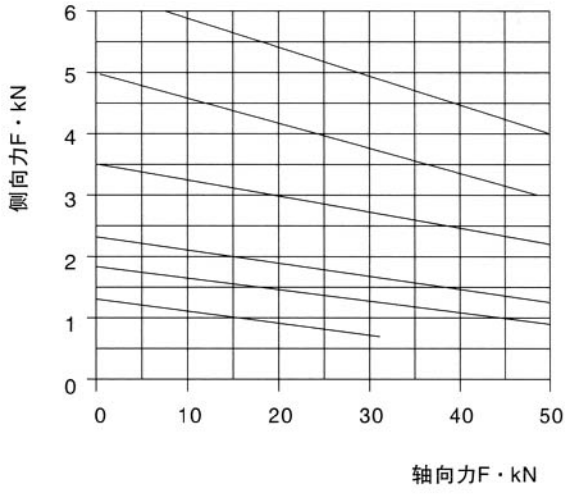
M_1--驱动扭矩，N·m



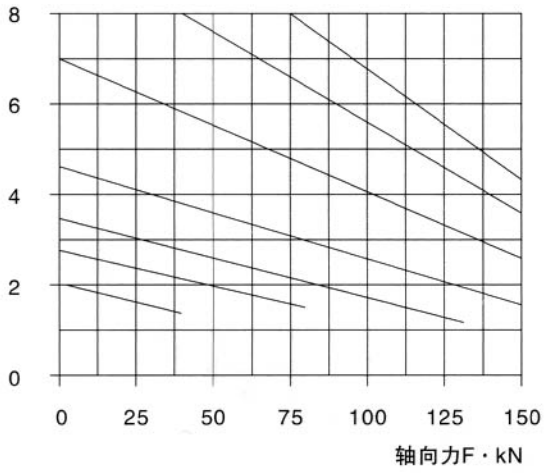
11、丝杆许用径向力Fs和轴向力Fa与行程的关系



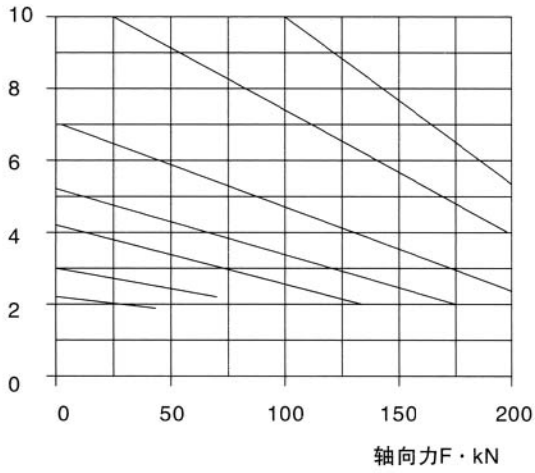
SWL1/2.5



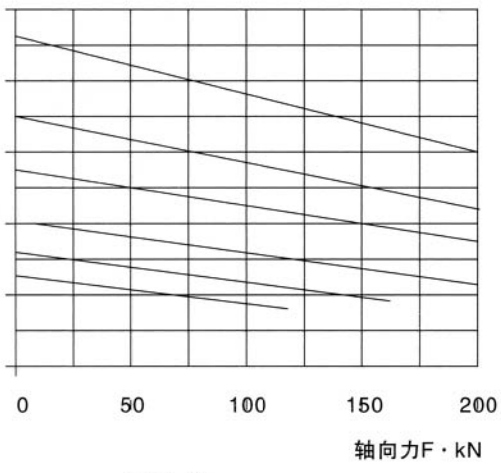
SWL5



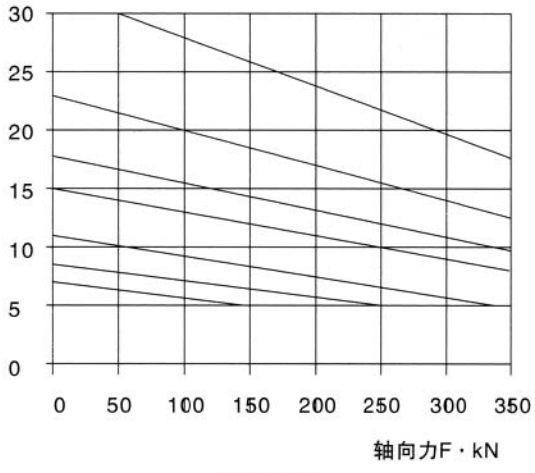
SWL10/15



SWL20



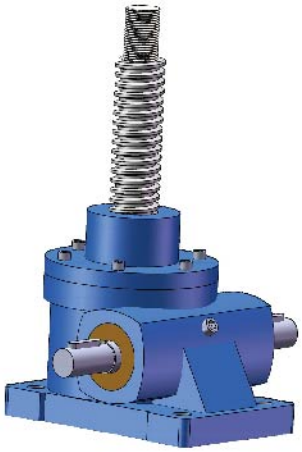
SWL25



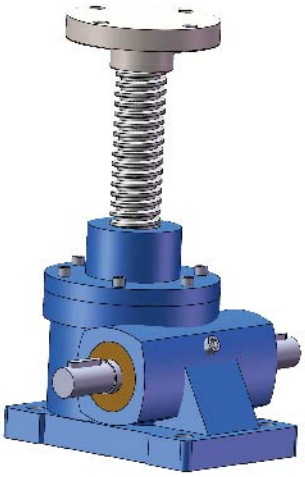
SWL30

产品图片 Picture of products

HK-S



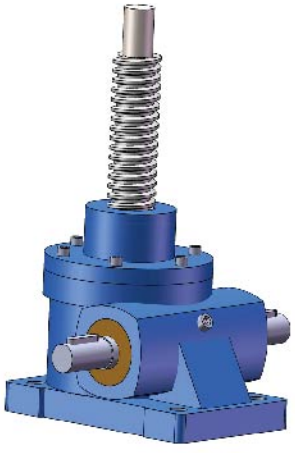
HK-T



HK-H



HK-R

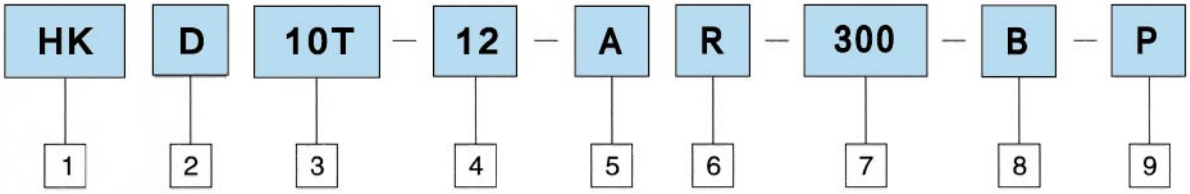


1、产品说明 Product Introduction

1.1 HK系列蜗轮丝杆升降机（又名千斤顶）：
1.2 具有结构紧凑、体积小的特点；
1.3 安装方便、形式多；
1.4 可靠性高、寿命长；
1.5 具有起升、下降及借助辅件推进、翻转等多种功能；
1.6 可单台使用，也可多台组成使用；
1.7 动力源广泛，可用电动机或其它动力直接带动，也可以用手动；
1.8 通常用于低速重载的场合。广泛应用于冶金、机械、建筑、水利、医疗、化工等各个行业。

1.1 HKseries worm gear screw lifter fother name is Jack);
1.2 Compact structure, smalf size;
1.3 Easy mounting, varied types;
1.4 High reliability. Long service life;
1.5 With the function of ascending, descending, thrusting, overturning;
1.6 Can be applied in one unit or multiple units;
1.7 Wide motivity. It can be drived by electrical motor and manual force;
1.8 It is usually used in low speed situation, widely used in the fields of metallurgy, mechanical, construction, chemical, irrigation works, mediat treatment.

1、型号说明 Model Introduction



1 产品代码
HK--蜗轮丝杆升降机
Products code
HK--worm gear linear actuator

2 输入轴联接方式
D--带电机法兰
无代码--基本型
Connector of input shaft
D--with motor frange
Non-code-basic

3 规格用承载吨位标示
Specification expressed by the carrying tonnage

4 传动比
12
Ratio
12

5 安装方式代码 A型
A、B--基本型
C、D--止旋构造型
E、F--活动螺母构造型
详见“3、安装方式”
Mounting option code A
A、B--Basic model
C、D--Screw fluctuate without rotation
E、F--Screw rotate without fluctuation
more information from 3 Mounting option

6 丝杆头部型式代码
Code of screw head
R型
R型（圆柱式）R-Column type
H型（栓孔式）H-Bolt hole type
S型（螺纹式）S-Screw type
T型（顶板式）T-Copinhg type
详见“产品图片”

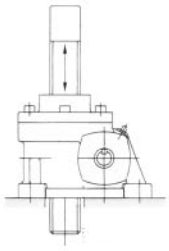
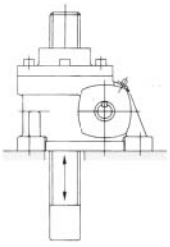
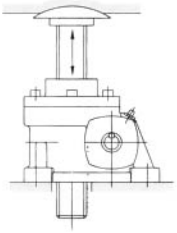
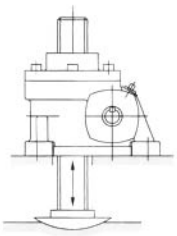
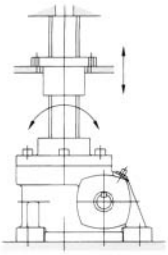
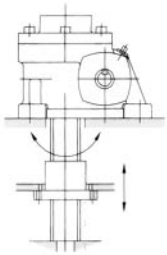
7 丝杆行程
300mm
共有100、200、300、400、500、600、800、1000mm 8种规格，根据使用情况选择，如需要其它长度行程，也可定做
Tetal 8 species model: 100,200,300,400, 500, 600, 700, 800, 1000mm, choose according to using situation. If other model needed, canbe mode to order

8 轴指向
Shaft direction
B
BSL系列共有A、B、C三种
BSLD系列共有A、B、C、D四种详见“轴指向表示”
BSL series have A, B and C three species
BLSD series have A, B, C and D four species

9 护管
Safeguard pipe
P--带护管
无代码--不带护管
P--With safeguard pipe
Non-code-
Without safeguard pipe

10

3、安装方式 Mounting Option

基本型 Basic model		止旋构造型 Screw fluctuate without rotation		活动螺母构造型 Screw rotate without fluctuation	
A	B	C	D	E	F
					

说明：

1、基本形式：螺母(蜗轮)转动丝杆上下移动，此为普通型升降机安装方式。
※注意：丝杆在升降时，会产生旋转力，所以必须做好防止旋转的措施。

2、止旋构造型：适用于顶端无连接下运转等各种不能实现防止旋转的场合。

3、若想在有限的空间增长行程，可选用活动螺母构造型。此构造为丝杆旋转，活动螺母移动。若行程较长时，轴端应采用支撑方式，可得到很好的传动效果。

Explain:

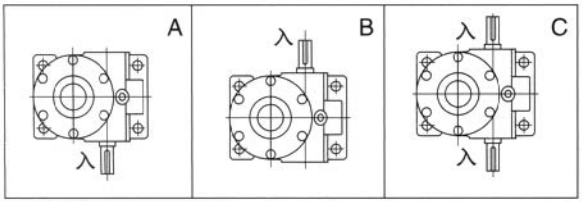
1、Basic Model: Screw fluctuate with rotation. This is the installation for basic screw lifter.
※Notice: There will be rotation force when screw is ascending and decending. So it's needto prevent rotation.

2、Screw fluctuate without rotation: work under the situation than the shofe and hav't connection and the life can't rotate.

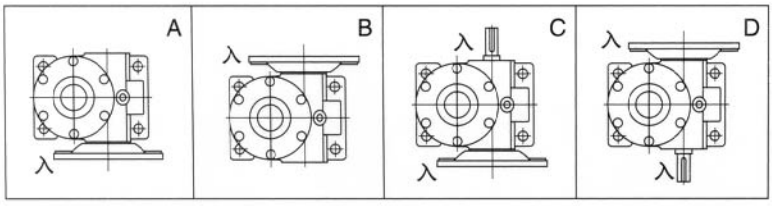
3、Screw rotate without fluctuation: To get the longer travel, this prodel screw rotate without fluctuation is an option, which screw rotate and nut move. If longer travel shaft and with bracket will archien high efficing.

4、轴指向表示 Express of Shaft Orientation

4.1 HK系列轴指向表示
Express of HK series Bearing orientation



4.2 HKD系列轴指向表示
Express of HKD series Bearing orientation



5、承载能力及选型参数 Capacity and Model Selection

型号规格 Model size	传动比 Radio	入力轴转速 1800r/min Input shaft revolution speed 1800r/min			入力轴转速 1500r/min Input shaft revolution speed 1500r/min			入力轴转速 1200r/min Input shaft revolution speed 1200r/min			入力轴转速 900r/min Input shaft revolution speed 900r/min			入力轴转速 600r/min Input shaft revolution speed 600r/min			入力轴转速 300r/min Input shaft revolution speed 300r/min		
		入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)	入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)	入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)	入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)	入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)	入功率(kw) Model size (kw)	起升力(kg) Lifter froce (kg)	起升速度(m/min) Hoist speed (m/min)
HK-2T	1/5	0.69	500	1.80	0.64	550	1.50	0.65	700	1.20	0.63	900	0.90	0.46	1000	0.60	0.37	1000	0.30
	1/10	0.37	500	0.90	0.37	550	0.75	0.37	700	0.60	0.37	950	0.45	0.37	1000	0.30	0.19	1350	0.15
	1/20	0.37	600	0.45	0.37	700	0.38	0.37	900	0.30	0.37	1200	0.23	0.19	1350	0.15	0.19	1350	0.08
HK-3T	1/6	0.98	700	1.80	0.93	800	1.50	0.88	950	1.20	0.91	1300	0.90	0.84	1800	0.60	0.42	1800	0.30
	1/12	0.66	950	0.90	0.64	1100	0.75	0.61	1300	0.60	0.57	1650	0.45	0.46	2000	0.30	0.37	2000	0.15
	1/24	0.37	950	0.45	0.37	1100	0.38	0.37	1300	0.30	0.37	1650	0.23	0.37	2000	0.15	0.19	2000	0.08
HK-5T	1/6	1.39	900	1.80	1.28	1000	1.50	1.24	1200	1.20	1.16	1500	0.90	0.87	1700	0.60	0.54	2100	0.30
	1/12	1.10	1350	0.90	1.01	1500	0.75	0.98	1800	0.60	0.87	2150	0.45	0.58	2150	0.30	0.37	2500	0.15
	1/24	0.78	1800	0.45	0.72	2000	0.38	0.69	2400	0.30	0.55	2550	0.23	0.42	2900	0.15	0.37	2850	0.08
HK-10T	1/8	2.12	1300	1.80	1.97	1450	1.50	1.85	1700	1.20	1.72	2100	0.90	1.66	3050	0.60	1.31	4800	0.30
	1/16	1.12	1300	0.90	1.04	1450	0.75	0.98	1700	0.60	0.95	2200	0.45	0.87	3050	0.30	0.69	4800	0.15
	1/32	0.80	1750	0.45	0.75	1950	0.38	0.69	2250	0.30	0.64	2800	0.23	0.63	4100	0.15	0.48	6400	0.08
HK-15T	1/8	2.00	1300	1.80	1.86	1450	1.50	1.75	1700	1.20	1.62	2100	0.90	1.57	3050	0.60	1.24	4800	0.30
	1/16	1.06	1300	0.90	0.98	1450	0.75	0.93	1700	0.60	0.89	2200	0.45	0.83	3050	0.30	0.65	4800	0.15
	1/32	0.75	1750	0.45	0.70	1950	0.38	0.65	2250	0.30	0.61	2800	0.23	0.59	4100	0.15	0.46	6400	0.08
HK-20T	1/10	2.66	1400	1.80	2.42	1850	1.50	2.25	1950	1.20	2.12	2450	0.90	1.93	3350	0.60	1.41	4900	0.30
	1/20	1.42	1600	0.90	1.47	1850	0.75	1.37	2250	0.60	1.28	2800	0.45	1.18	3850	0.30	0.86	5600	0.15
	1/40	1.14	2400	0.45	1.17	2800	0.38	1.09	3350	0.30	1.07	4400	0.23	0.93	5750	0.15	0.69	8400	0.08
HK-30T	1/12	3.62	1850	1.80	3.51	2150	1.50	3.39	2600	1.20	3.18	3250	0.90	2.94	4500	0.60	2.09	6400	0.30
	1/18	2.65	1900	1.20	2.68	2300	1.00	2.57	2750	0.80	2.45	3500	0.60	2.19	4700	0.40	1.56	6700	0.20
	1/36	1.66	2200	0.60	1.63	2600	0.50	1.60	3200	0.40	1.47	3900	0.30	1.36	5400	0.20	1.20	9600	0.10
HK-40T	1/12	4.15	1975	1.80	4.02	2300	1.50	3.81	2725	1.20	3.80	3625	0.90	3.48	4975	0.60	2.48	7050	0.30
	1/18	3.20	2125	1.20	3.20	2550	1.00	3.04	3025	0.80	3.03	4025	0.60	2.74	5450	0.40	1.94	7725	0.20
	1/36	2.14	2625	0.60	2.07	3050	0.50	1.98	3650	0.40	1.99	4875	0.30	1.80	6600	0.20	1.40	0300	0.10
HK-50T	1/7	9.47	2100	3.60	9.17	2450	3.00	9.02	2850	2.40	8.58	4000	1.80	8.20	5450	1.20	5.84	7750	0.60
	1/14	5.76	2350	1.80	5.71	2800	1.50	5.57	3300	1.20	5.39	4550	0.90	5.06	6200	0.60	3.57	8750	0.30
	1/28	4.07	3050	0.90	3.89	3500	0.75	3.91	4100	0.60	3.65	5850	0.45	3.48	7800	0.30	2.45	11000	0.15
HK-100T	1/8	16.3	3500	3.60	16.1	4000	3.00	15.8	5400	2.40	15.1	7100	1.80	14.8	9850	1.20	9.70	12950	0.60
	1/16	11.7	4300	1.80	11.6	5400	1.50	10.5	7200	1.20	11.00	9450	0.90	9.62	11800	0.60	7.08	17350	0.30
	1/32	8.65	5500	0.90	9.55	6800	0.75	7.35	10000	0.60	7.53	14300	0.45	7.02	15750	0.30	5.80	26050	0.15

6、升降机选型

6.1 总当量载荷计算

Ws=WmaxXfs

Ws--当量载荷　Wmax--最大载荷　fs--使用系数（详见附表1）

表1 使用系数 fs　Table 1 using coefficient(fs)

使用工况 using situation	平稳载荷，负荷惯性小 smooth load; light load inertia	轻微冲击载荷，负荷惯性中等 light shock load; mid load inertia	强冲击负荷，负荷惯性大 strong shock load; heavy load inertia
使用系数 using coefficient	1.0～1.3	1.3～1.5	1.5～3.0

6.2 单台升降机的当量载荷的计算

W=Ws/(S×fd)

W--单台当量载荷　Ws--当量载荷　S--联动台数　fd--联动系数（详见附表2）

表2 联动系数 fd　Table 2 linkage coefficient(fd)

联动台数 Linkage quantity	1	2	3	4	5～8
使用系数using coefficient	1	0.95	0.9	0.85	0.8

6.3 丝杆行程选定

在充分考虑丝杆运动惯性、各种顶端输出部件等各种情况，选择有充分余量的丝杆行程。

6.4 暂定升降机型号

根据载重、升降速度、行程、驱动源暂时选定升降机型号（详情可参考“5、承载能力与选型参数”）。

6.5 丝杆计算（详见表3，丝杆行程用L表示，单位(unit)：mm）

表3 丝杆计算　Table 3 screw calculate

型号 Model	丝杆直径 Screw dia	护管长 length of protect pip	丝杆头部S型 "S" type screw end		丝杆头部H型 "H" type screw end		丝杆头部R型 "R" type screw end		丝杆头部T型 "T" type screw end	
			总长=L+SC	牙长=总长+SD	总长=L+HB+HD	牙长=总长-HB-HE	总长=L+RB	牙长=总长+RC	总长=L+TE	牙长=总长-TF
HK-2T	Tr26×5	L+55		总长-40		总长-55-20	L+165	总长-55	L+135	总长-25
HK-3T	Tr32×6	L+60	L+180	总长-50	L+25+195	总长-65-25	L+195	总长-65	L+160	总长-30
HK-5T	Tr38×6	L+60		总长-50		总长-65-25	L+195	总长-65	L+160	总长-30
HK-10T	Tr46×8	L+65	L+220	总长-60	L+32+255	总长-95-32	L+225	总长-65	L+200	总长-40
HK-15T	Tr52×8	L+65		总长-60		总长-95-32	L+225	总长-65	L+210	总长-50
HK-20T	Tr65×10	L+75	L+260	总长-80	L+35+295	总长-115-35	L+250	总长-70	L+235	总长-55
HK-30T	Tr75×12			总长-80		总长-135-44	L+295	总长-75	L+285	总长-65
HK-40T	Tr80×12		L+360	总长-100	L+54+410	总长-150-54	L+355	总长-95	L+330	总长-70
HK-50T	Tr90×14			总长-120		总长-165-64	L+430	总长-115	L+390	总长-75
HK-100T	Tr100×16		L+495	总长-150	L+70+545	总长-200-70	L+485	总长-140	L+445	总长-100

6.6 丝杆稳定性校核

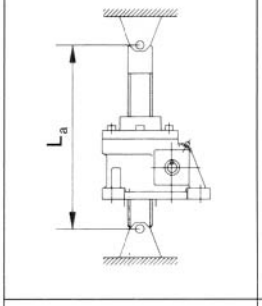
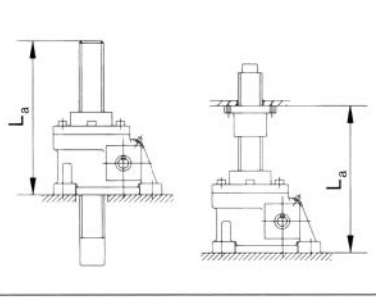
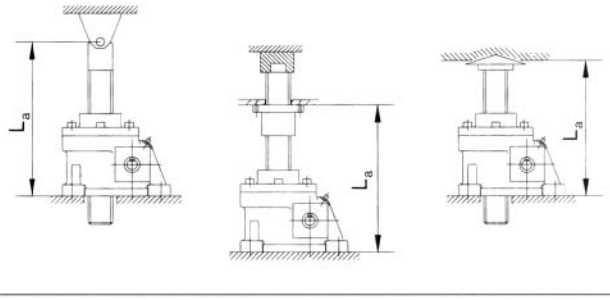
$P_{cr}=f_m\times(d^2/L_a)^2$

应确保$P_{cr}>w\times S_f$(一般$S_f=4$)

Pcr--丝杆临界载荷(N)　fm--长度系数(详见附表4)　d--丝杆底径(n3m)(详见附表5)

La--作用点间距离(rrlm)　W--单台升降机当量载荷(N)　Sf--安全系数(一般取4)

表4 长度系数(fm) Table 4 Length coefficient

		
两端支撑 $fm=10\times10^4$ Two ends sustation	底座固定轴端自由 $fm=2.5\times10^4$ One shaft end fixed the other free	底座固定轴端支撑或固定 $fm=20\times10^4$ Base shaft end fixed the other side uphold or fixed

6.7 丝杆转速校核

$n_c=96\times10^6\times f_n\times d/L_b^2$

ns=nl/i应确保nc>ns

nc--丝杆许用转速(r/min)　ns--丝杆回转转速(r/min)　d--丝杆底径(mm)　i--减速比

nl--输入轴回转转速(r/min)　fn--支撑系数(详见附表6)　L_b--支撑间距离(mm)

6.8 输入功率校核

$p=n_1\times p_1\times w\times10^{-3}/(60\times i\times\eta)$ 应确保P<P额

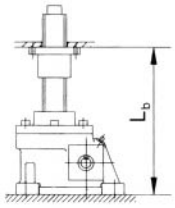
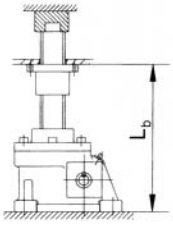
p--所需输入功率(KW)　p_1--丝杆螺距(mm)　n_1--输入轴回转转速(r/min)

W--当量载荷(KN)　i--减速比　η--综合效率

表5 丝杆底径 D Table 5 Diameter of screw bottom

型号 Model	HK-2T	HK-3T	HK-5T	HK-10T	HK-15T	HK-20T	HK-30T	HK-40T	HK-50T	HK-100T
	HK35	HK40	HK50	HK60	HK60B	HK70	HK100	HK120	HK130	HK150
丝杆底经 Diameter of screwing bottom	20.5	25	31	37	43	54	62	67	74	82

表6 支撑系数fn Table 6 Sustaion coefficient(fn)

	
两端自由 Two shaft end free fn=0.36	两端支撑 Two shaft end fixed fn=1.56

6、Model Selection for Screw Lifter

6.1 Total current load calculate

Ws=Wmax×fs

Ws--current load Wmax--max load fs--using coefficient (more information from table1)

6.2 Current load calculate of unit screw lifter

W=Ws/(S×fd)

W--unit current load Ws--current load S--linkage quantity

fd--linkage coefficient(more information from table 2)

6.3 Stroke of screw option

Choose adequate stroke of screw with concerning enough screw movement inertia...

6.4 Choose screw model

Choose screw model according to capacity, lifting speed, stroke and driveing fountainhead.

6.5 Screw calculate(more information from table 3)

6.6 Screw stability check

$P_{cr}=fm\times(d^2/La)^2$ Should insure $P_{cr}>w\times Sf$(usual Sf=4)

Pcr--Screw critical loading(N) fm--Length coefficient(more information from table 4)

d--diameter of screw bottom(mm)(more information from table 5) La--working length(mm)

W--Current load of unit screw lifter(N) Sf--security coefficient(usual Sf=4)

6.7 Screw speed check

$nc=96\times10^6\times fn\times d/Lb^2$

ns=nl/i should insure nc>ns

nc--screw allowed speed(r/min); ns--screw screwing speed(r/min);

d--diameter of screw bottom(mm); i--ratio; nl--input shaft screwing speed(r/min);

fn--Sustation coefficient(more information from table 6); Lb--the distance between sustation(mm)

6.8 Input power check

$p=n_1 \times p_1 \times w \times 10^{-3}/(60 \times i \times \eta)$ should insure $P<P_{rated}$

p--needed input power(KW); p_1--axial pitch distance(mm); n_1--input shaft screwing speed(r/min)

W--current load(KN); i--ratio; η--general efficiency

7、注意事项

7.1 请严格按承载能力表选择合适的速比和与之对应的具有充分裕度的载荷的升降机；

7.2 升降机工作时应控制减速机表面和升降螺母表面温度在-15℃～80℃；

7.3 升降机不得连续运转，单台升降机的负荷时间率(T%)以30分钟为单位计算，不得超过20%；

$$\text{负荷率T\%}=\frac{\text{1动作周期的工作时间}}{\text{1动作周期的工作时间+1动作周期的停歇时间}}\times 100\%$$

7.4 必须保证有充足的驱动源动力；

7.5 升降机理论上有自锁功能，但在振动冲击较大的场合会造成自锁功能失灵，请务必加制动装置；

7.6 升降机使用环境：

使用环境 Usingsituation	室内无雨水侵入的场所 Norain and water
周围空气 Ambient air	灰尘为一般工厂状况 Dust: usual condition for mill
环境温度 Ambient temperature	-15℃～40℃
相对湿度 Comparatively humidity	85%以下 Below 85%

7.7 升降机工作时一般不允许有横向载荷，若有横向载荷时，请加导向装置。

7、Notes

7.1 Select the model with proper ratio and load;

7.2 The surface temperation of speed reducer and nut should be controlled in -15℃～80℃, when the screw lifter is working;

7.3 The screw lifter cannot work all the time. The unit is thirty mins for duty ratio of unit one and can not exceed 20%;

$$\text{Duty ratio (T\%)}=\frac{\text{Time under working/cycle}}{\text{Time under working/cycle+interval/cycle}}\times 100\%$$

7.4 Insure adequate drive fountainhead;

7.5 Theoretically screw has self-lock function, butthe self-lockfunction may not work in heavy shockcondition;

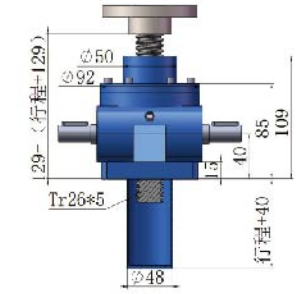
7.6 Using situation for screw lifter;

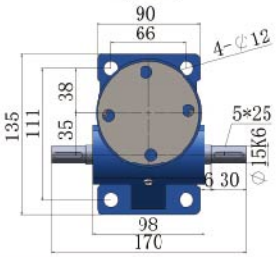
7.7 Transverse load is not allowed when screw lifter is wo rking. If transve rse load occured, pls add direction setting.

HK2T装配型式/HK2T Worm gear secrw lifter

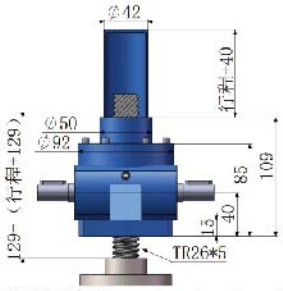
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional





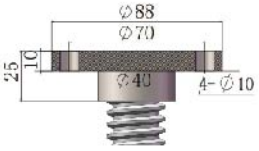
B丝杆头部在下
B Inverted translating screw optional



丝杆头部可选/Screw head optional



R型/TypeR



T型/TypeT



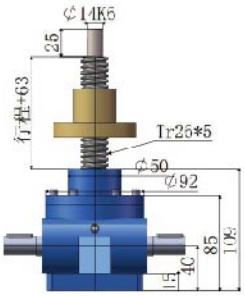
S型/TypeS

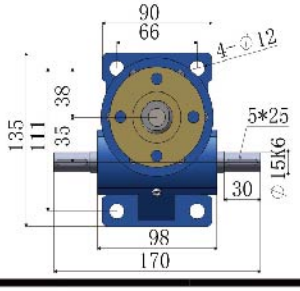


H型/TypeH

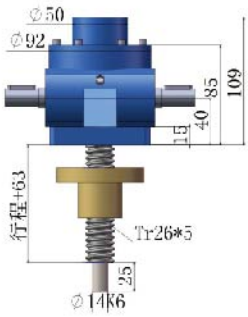
2型结构/Type2 structure

E螺母在上
E Upright rotating screw

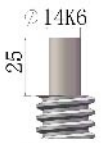




F螺母在下
F Inverted rotating screw



丝杆头部可选/Screw head optional

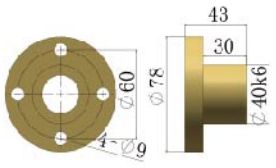


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



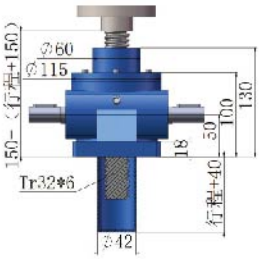
轴指向/Shaft direction



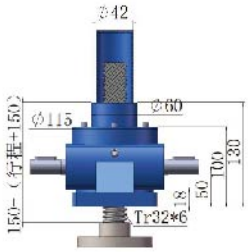
HK3T装配型式/HK3T Worm gear secrw lifter

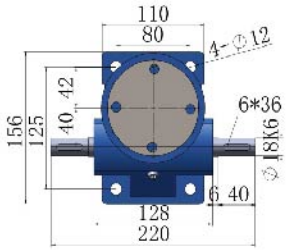
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional

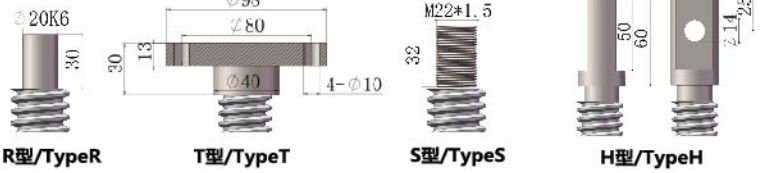


B丝杆头部在下
B Inverted translating screw optional



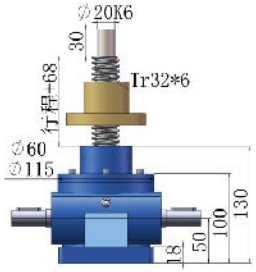


丝杆头部可选/Screw head optional

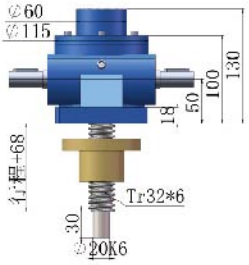


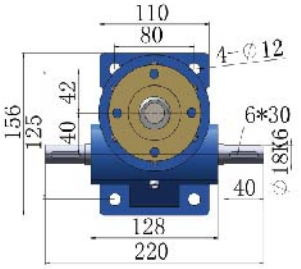
2型结构/Type2 structure

E螺母在上
E Upright rotating screw

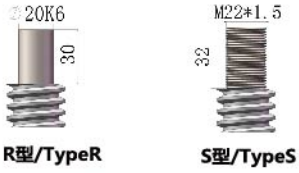


F螺母在下
F Inverted rotating screw

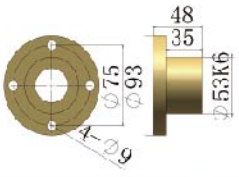




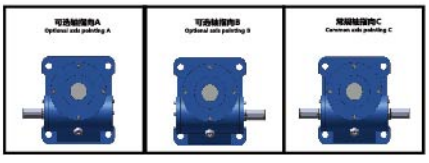
丝杆头部可选/Screw head optional



2型丝杆螺母/Tyble 2 screw nut



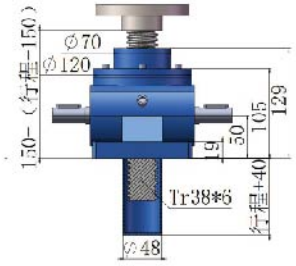
轴指向/Shaft direction

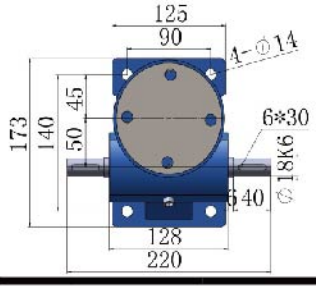


HK5T装配型式/HK5T Worm gear secrw lifter

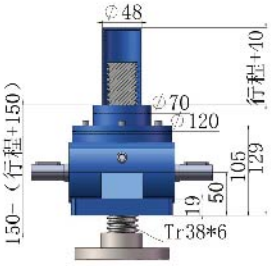
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional





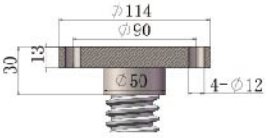
B丝杆头部在下
B Inverted translating screw optional



丝杆头部可选/Screw head optional



R型/TypeR



T型/TypeT



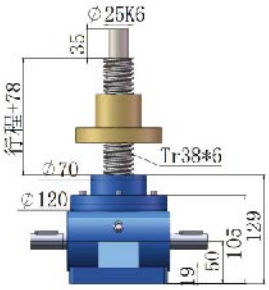
S型/TypeS

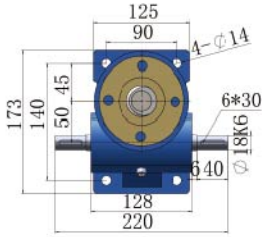


H型/TypeH

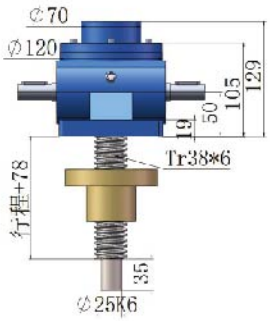
2型结构/Type2 structure

E螺母在上
E Upright rotating screw





F螺母在下
F Inverted rotating screw



丝杆头部可选/Screw head optional

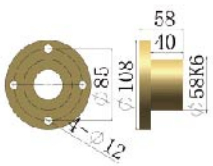


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



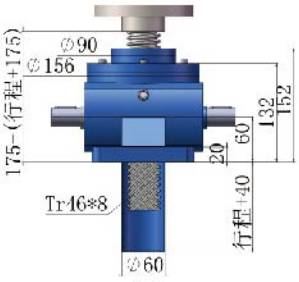
轴指向/Shaft direction



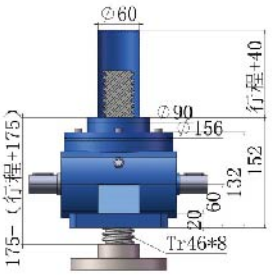
HK10T装配型式/HK10T Worm gear secrw lifter

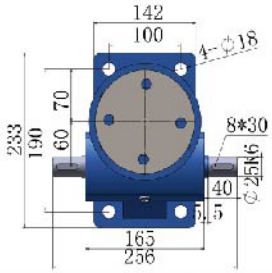
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional

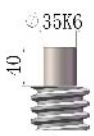


B丝杆头部在下
B Inverted translating screw optional

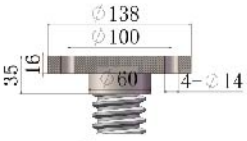




丝杆头部可选/Screw head optional



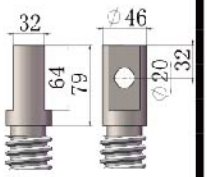
R型/TypeR



T型/TypeT



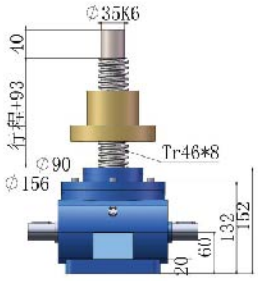
S型/TypeS



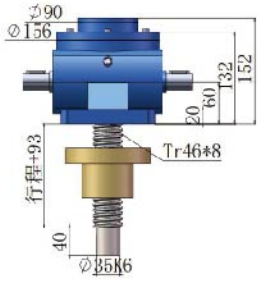
H型/TypeH

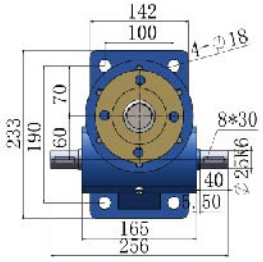
2型结构/Type2 structure

E螺母在上
E Upright rotating screw



F螺母在下
F Inverted rotating screw





丝杆头部可选/Screw head optional

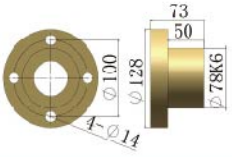


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



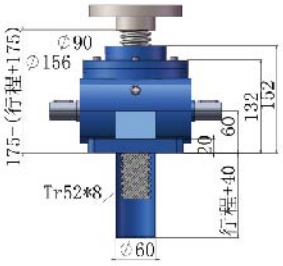
轴指向/Shaft direction



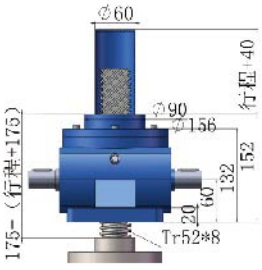
HK15T装配型式/HK15T Worm gear secrw lifter

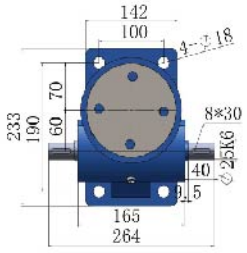
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional



B丝杆头部在下
B Inverted translating screw optional





丝杆头部可选/Screw head optional



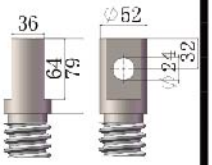
R型/TypeR



T型/TypeT



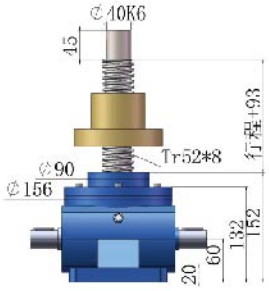
S型/TypeS



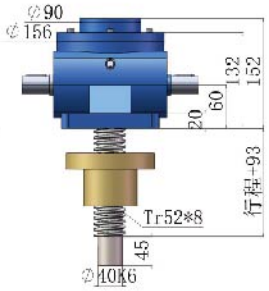
H型/TypeH

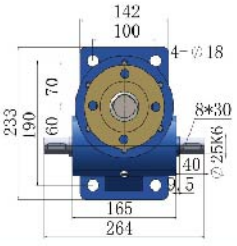
2型结构/Type2 structure

E螺母在上
E Upright rotating screw

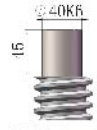


F螺母在下
F Inverted rotating screw





丝杆头部可选/Screw head optional

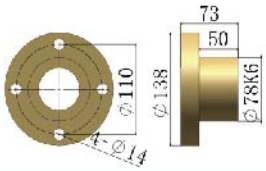


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



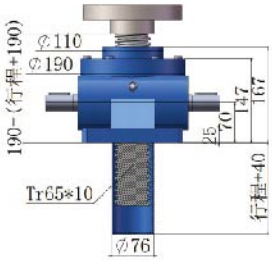
轴指向/Shaft direction



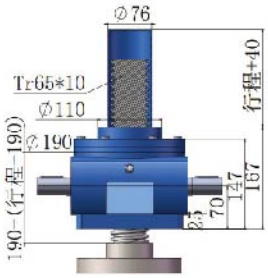
HK20T装配型式/HK20T Worm gear secrw lifter

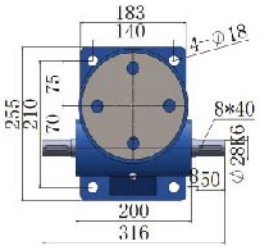
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional



B丝杆头部在下
B Inverted translating screw optional

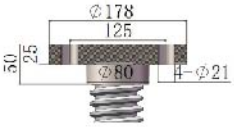




丝杆头部可选/Screw head optional



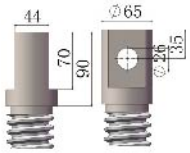
R型/TypeR



T型/TypeT



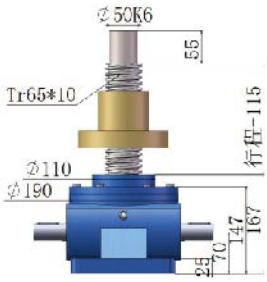
S型/TypeS

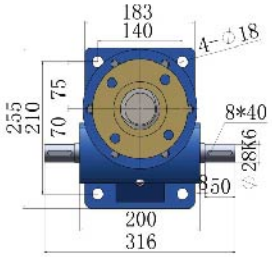


H型/TypeH

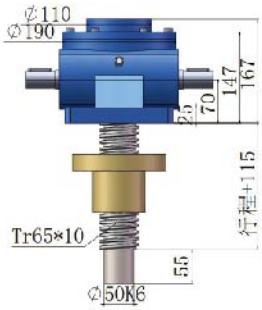
2型结构/Type2 structure

E螺母在上
E Upright rotating screw





F螺母在下
F Inverted rotating screw



丝杆头部可选/Screw head optional

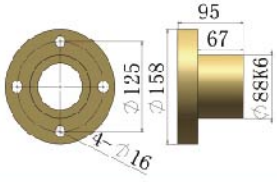


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



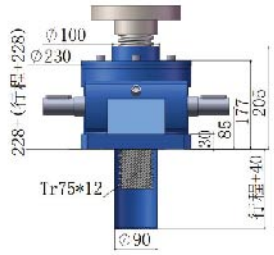
轴指向/Shaft direction

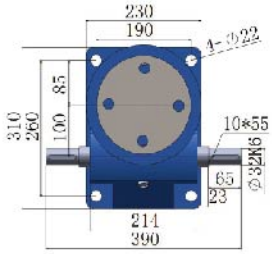


HK30T装配型式/HK30T Worm gear secrw lifter

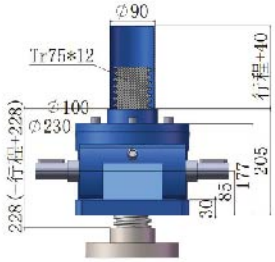
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional





B丝杆头部在下
B Inverted translating screw optional



丝杆头部可选/Screw head optional



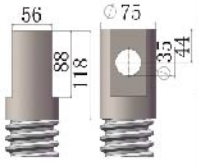
R型/TypeR



T型/TypeT



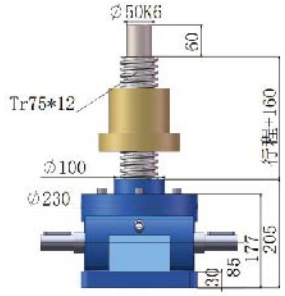
S型/TypeS

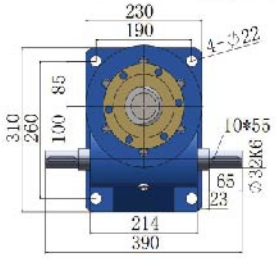


H型/TypeH

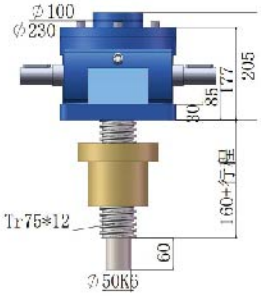
2型结构/Type2 structure

E螺母在上
E Upright rotating screw





F螺母在下
F Inverted rotating screw



丝杆头部可选/Screw head optional

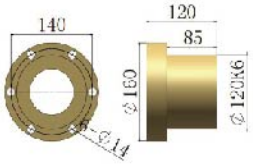


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



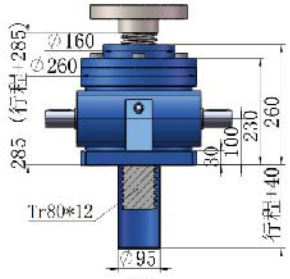
轴指向/Shaft direction

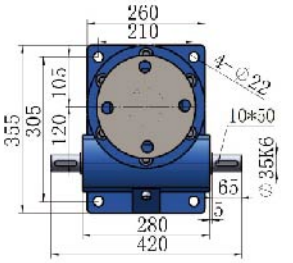


HK40T装配型式/HK40T Worm gear secrw lifter

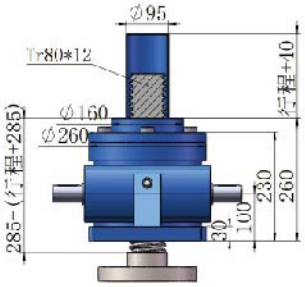
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional





B丝杆头部在下
B Inverted translating screw optional



丝杆头部可选/Screw head optional



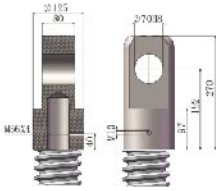
R型/TypeR



T型/TypeT



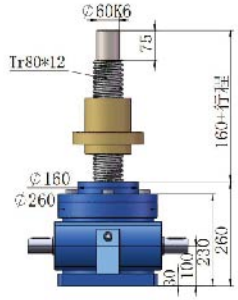
S型/TypeS

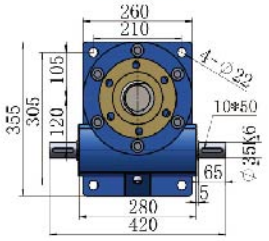


H型/TypeH

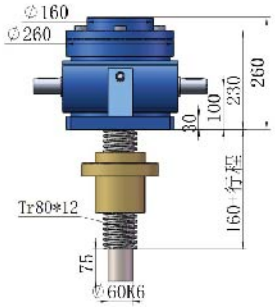
2型结构/Type2 structure

E螺母在上
E Upright rotating screw





F螺母在下
F Inverted rotating screw



丝杆头部可选/Screw head optional

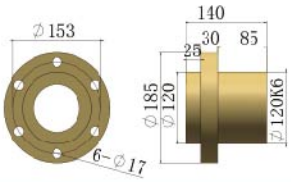


R型/TypeR



S型/TypeS

2型丝杆螺母/Tyble 2 screw nut



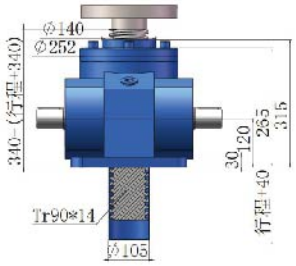
轴指向/Shaft direction



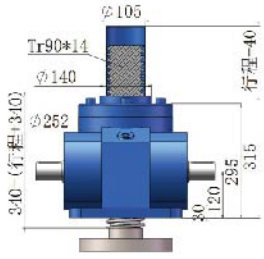
HK50T装配型式/HK50T Worm gear secrw lifter

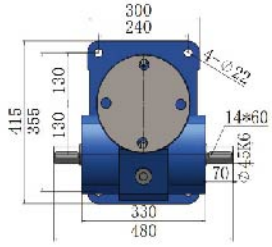
1型结构/Type1 structure

A丝杆头部在上
A Upright translating screw optional



B丝杆头部在下
B Inverted translating screw optional





丝杆头部可选/Screw head optional



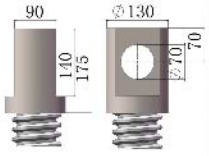
R型/TypeR



T型/TypeT



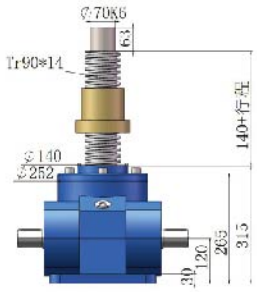
S型/TypeS



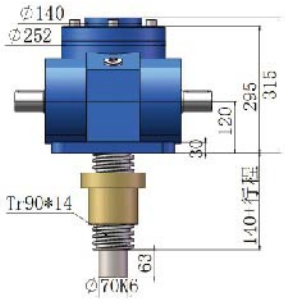
H型/TypeH

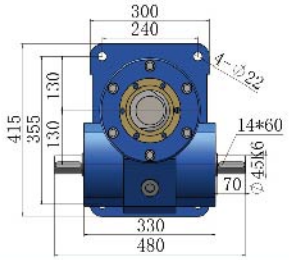
2型结构/Type2 structure

E螺母在上
E Upright rotating screw



F螺母在下
F Inverted rotating screw





丝杆头部可选/Screw head optional

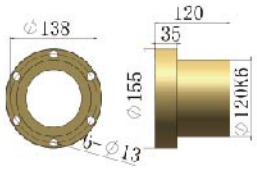


R型/TypeR



S型/TypeS

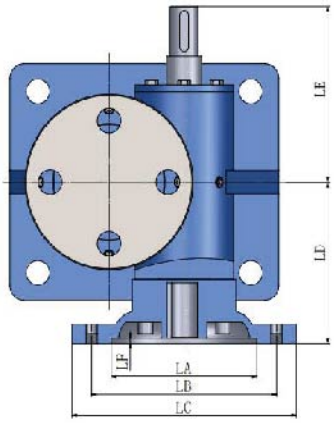
2型丝杆螺母/Tyble 2 screw nut

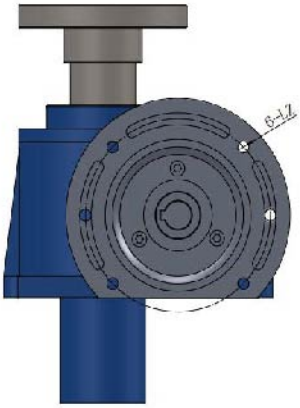


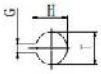
轴指向/Shaft direction



HKD法兰安装尺寸







轴指向

A



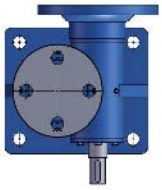
B



C



D



型号规格	法兰规格	LA	LB	LC	LD	LE	LF	G	H	I	LZ
HK2T	63B5	95	115	140	78	85	4	4	13	11	M8
HK2T	71B5	110	130	160	76	85	4	5	16.5	14	M8
HK3T	71B5	110	130	160	91	110	4	5	16.5	14	M8
HK3T	80B5	130	165	200	105	110	4	6	22	19	M10
HK5T	80B5	130	165	200	105	110	4	6	22	19	M10
HK5T	90B5	130	165	200	105	110	5	8	27.5	24	M10
HK10T	90B5	130	165	200	125	128	5	8	27.5	24	M10
HK10T	100B5	180	215	250	162	128	5	8	31.5	28	M12
HK15T	90B5	130	165	200	125	132	5	8	27.5	24	M10
HK15T	100B5	180	215	250	162	132	5	8	31.5	28	M12
HK20T	112B5	180	215	250	179	158	5	8	31.5	28	M12
HK30T	132B5	230	265	300	177	195	6	10	41.5	38	M12

JWM 系列

丝杆升降机

JWM series screw jack







JWMM梯形丝杆系列

1、JWM丝杆升降机概述

1.1 JWMM型（梯形丝杆型）

低速、低频率

JWMM型（梯形丝杆型）适用于低速、低频率的场合，主要构成部件为：精密梯形丝杆副与高精度蜗轮蜗杆副。

1）价格经济、结构紧凑、操作简单、保养方便。

2）低速、低频率：
主要用于大负荷、低速与无需频繁工作的场所。

3）保持载重：梯形丝杆具有自动锁定功能，即使没有制动装置也可保持载重。

＊在受到较大振动，冲击载荷时，可能会使自锁功能失效，此时请外加制动装置。

1、JWM series screw jack overview:

1.1 JWMM (Trapezoid screw)

LOW SPEED LOW FREQUENCY

JWMM (trapezoidal screw) is suitable for low speed and low frequency.

Main components: Precision trapezoid screw pair and high precision worm-gears pair.

1) Economical:
Compact design,easy operation,convenient maintenance.

2) Low speed,low frequency:
Be suitable for heavy load,low speed,low service frequency.

3) Self-lock
Trapezoid screw has self-lock function,it can hold up load without braking device when screw stops traveling.

＊Braking device equipped for self-lock will be of malfunction accidentally when large jolt & impact load occur.



1.2 JWMB型（普通滚珠丝杆型）

高速 高频率

HMB型（普通滚珠丝杆型），适用于高速，高频率和高性能的装置中，主要构成部件为精密滚珠丝杆副与高精度蜗轮蜗杆副。

1）高效率：只需很小的驱动源，就可以产生很大的推动力。

2）高速化：与梯形丝杆相比，速度有很大的提高，能轻松而高速地运转。

3）使用寿命长：采用高质量的滚珠丝杆，使其工作寿命提高3倍以上。

＊本身无自锁功能，需外加制动装置或选择带有制动的驱动源。

1.2 JWMB (General ball screw)

HIGH SPEED HIGH FREQUENCY

HMB (General ball screw) is suitable for high speed, high frequency and excellent performance.

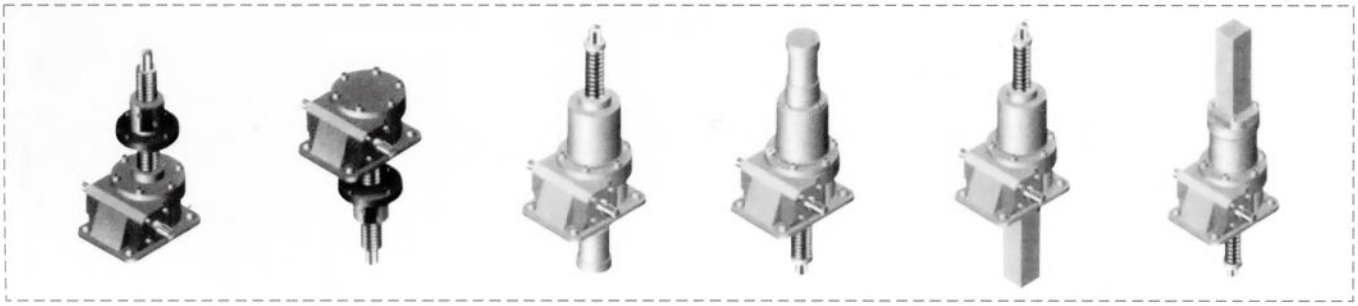
Main components:Precision ball screw pair and high precision worm-gears pair.

1) High efficiency
Rolling friction improve efficiency greatly,only a little drive power can generate great thrust force.

2) High speed
Rolling friction speed up travel of screw easily.

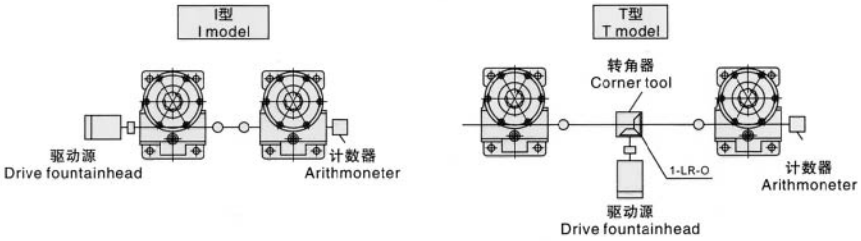
3) Lifetime longer
High precision ball screw can make HMB's lifetime longer by 3 times comparing with HMM.

＊Braking deviees or motor with braking devices are necessary when choosing HMB

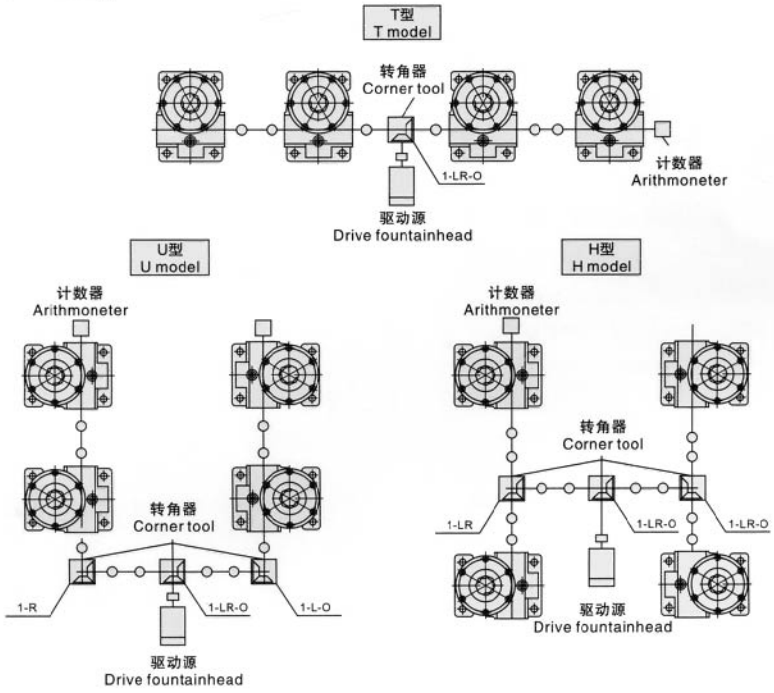


2、应用示例 Application Example

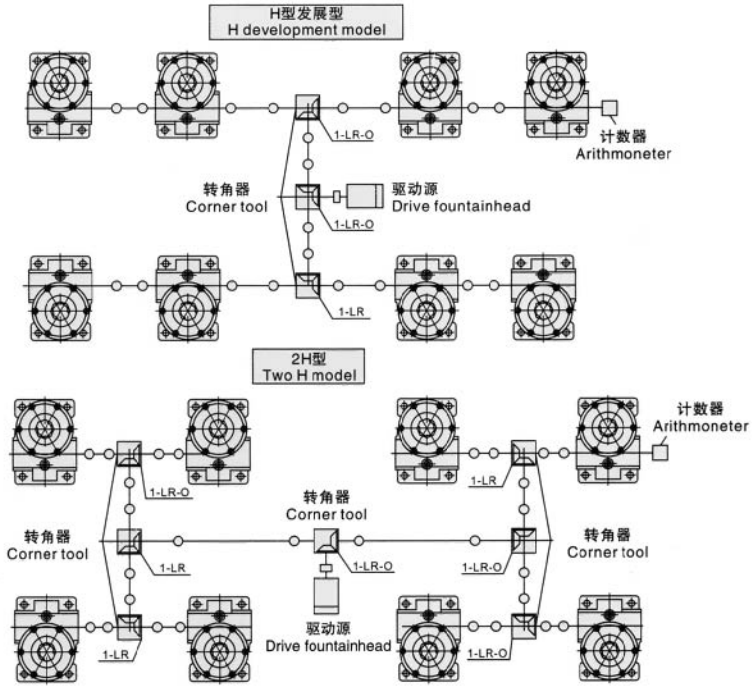
2.1 两台联动 Two sets linkage



2.2 四台联动 Four sets linkage

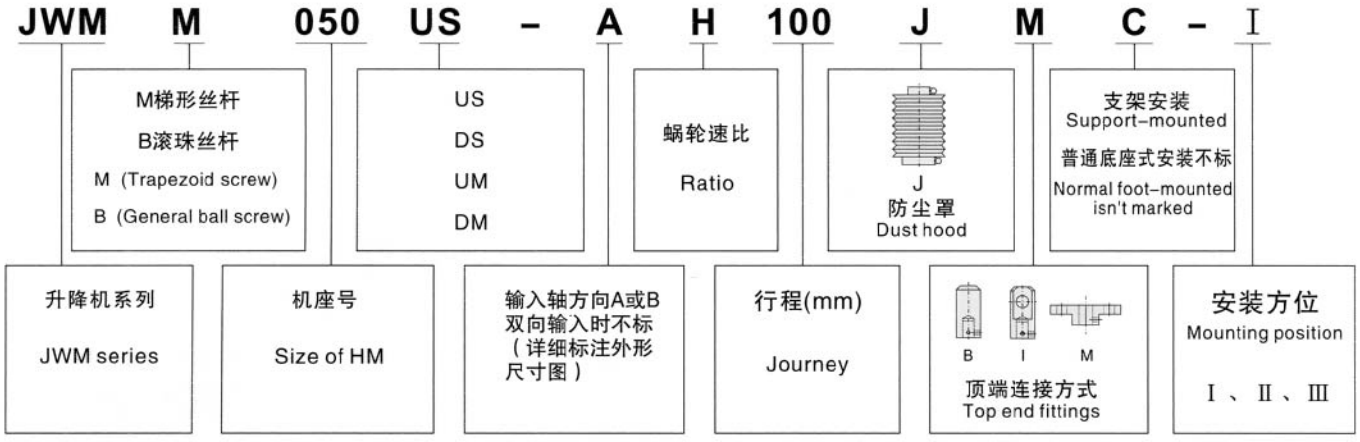


2.3 八台联动 Eight sets linkage



3、型号表示方法举例：

3.1 基本形式和止旋构造升降机的型号表示方法：

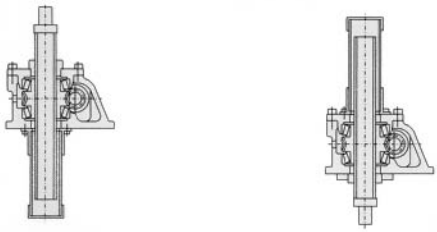


3.1.1基本形式（US，DS）

螺母转动，丝杆上下移动并伴随附加的旋转运动，（如下图）

US：押上　　DS：吊下

* 请根据载荷方向、安装方向来选择合适的升降机（US或DS）。
* 丝杆轴在升降时，会产生旋转力，所以必须做好防止旋转措施。

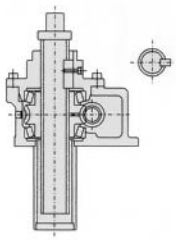


US　　DS

3.1.2 止旋构造（UN，DM）

UM：押上　　DM：吊下

* 丝杆只能上下移动
* 请根据载荷方向、安装方向来选择合适的升降机（UM或DM）。



(JWM100–JWM200)
UM

3、Illustration of types:

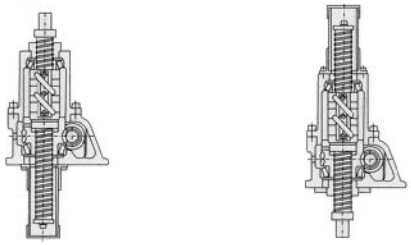
3.1 Plain mode and Mode with anti-rotation device:

3.1.1Plain mode（US，DS）

Wor wheel rotating,threaded spidles travel up and diwn.
Ordinary mounting mode is applied here,

US:UPRISE DS:DROP

* Select US or DS according to the load and mounting positiins.
* Anti–rotation measures must be taken because torque on screw will be caused when screw traveling up and down.

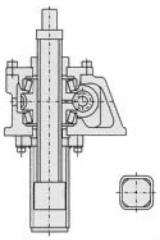


US　　DS

3.1.2 With Anti-rotation device.

UM:UPRISE　DM:DROP

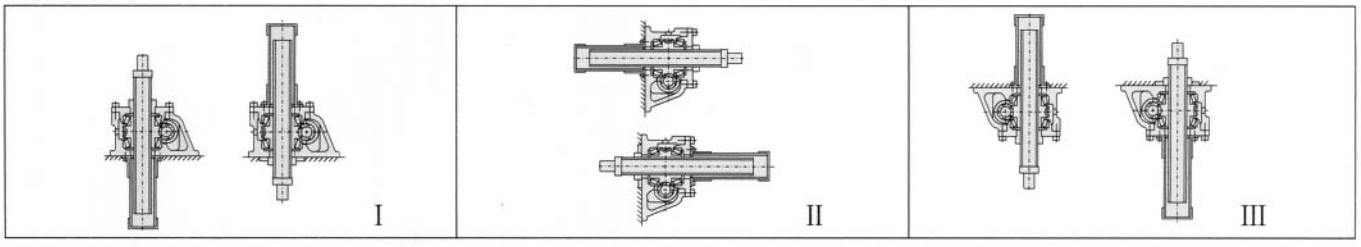
* No rotaion of screw,which only travel up and down.
* Select UM or DM according to the load and mounting positions.



(JWM010–JWM050)(JWB010–JWB200)
DM

3.1.3 安装方位

3.1.3 Mounting position

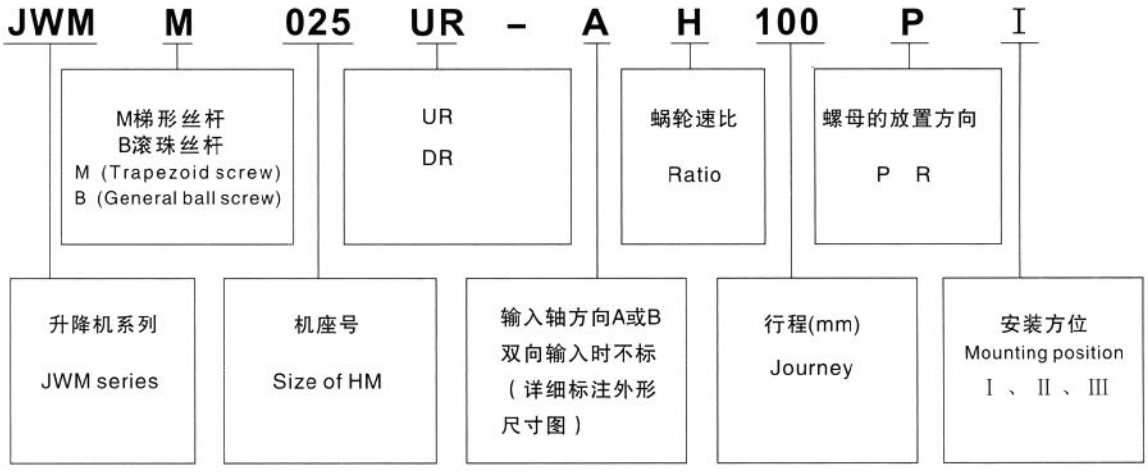


注：采用Ⅲ型安装方位时，底脚安装螺栓的性能等级须为10.9级以上。

Note:Selecting mounting position Ⅲ,the quality of bolt on housing feet reaches 10.9.

3.2 活动螺母构造升降机的型号表示方法：

3.2 Illustration of type of type with traveling nut



3.2.1 活动螺母构造（UR，DR）

一般情况下，升降机必须具有因丝杆轴的升降而产生的行程和丝杆罩所需的空间，若想在有限的空间内增长行程时，使用此活动螺母构造非常适应（丝杆轴旋转，活动螺母移动）。丝杆轴顶端为圆柱形，所以在长行程时，在轴端采用支撑方式，可以得到很好的传动效果。

UR：押上　　DR：吊下

请根据载荷方向，安装方向来选择合适的升降机（押上或吊下）

3.2.1 JW with Traveling nut

In general,Jack need enough space for screw's traveling journey and dust-hood.Using travling nut can help jacjk realize longer travling journey in limited space.The top end fittings are columm, it can be a supporting point for a good transmossion effect when a long traveling journey is selected.

UR: uprise　DR: drop

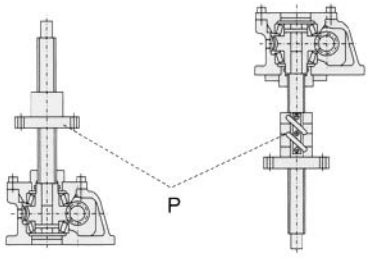
Select UR or DR according to the load and mounting positiins.

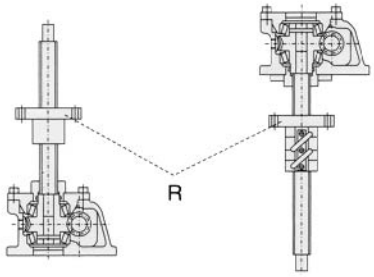
3.2.2 活动螺母的安装方向（P，R）

选型和型号表示方法中，还需注明螺母的放置方向（如下图）。

3.2.2 Mounting direction of traveling nut(P,R)

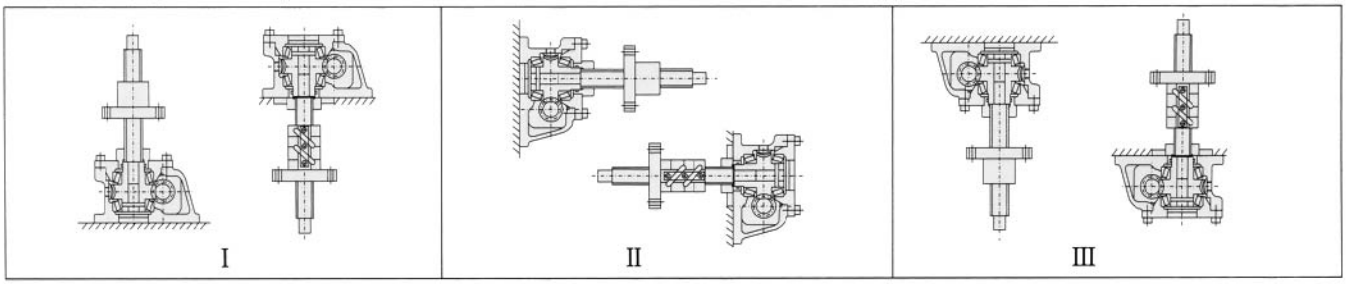
The mounting direction of traveling nut should be signed on drawing when selecting types.





3.2.3 安装方位（Ⅰ、Ⅱ、Ⅲ）

3.2.3 Mounting position of Jack（Ⅰ、Ⅱ、Ⅲ）



注：采用Ⅲ型安装方位时，底脚安装螺栓的性能等级须为10.9级以上。

Note:Selecting mounting position Ⅲ,the quality of bolt on housing feet reaches 10.9.

4、JWMM（梯形丝杆类型）基本参数一览表 JWMM（Trapezoid screw）basic parameter table:

型号 Type			HMM010	HMM025	HMM050	HMM100	HMM150	HMM200	HMM300	HMM500	HMM750	HMM1000
最大负荷 Maximal load		(kN)	9.80	24.5	49.0	98.0	147	196	294	490	735	980
丝杆外径 Outer diameter of screw		(mm)	20	26	40	50	55	65	85	120	130	150
丝杆底径 Small diameter of screw d		(mm)	14.8	19.7	30.5	38.4	43.4	49.3	67	102	112	127
丝杆螺距 Pitch of screw L_1		(mm)	4	5	8	10	10	12	16	16	16	20
减速比 Ratio i	H 速度 Speed		5	6	6	8	8	8	$10^{2}/_{3}$	$10^{2}/_{3}$	$10^{2}/_{3}$	12
	L 速度 Speed		20	24	24	24	24	24	32	32	32	36
综合效率 % Integrated efficiency η	H 速度 Speed		21	21	22	22	20	20	19	15	13	13
	L 速度 Speed		12	12	14	15	14	13	11	10	8	8
容许输入最大功率（kW） Permissible output maximal power	H 速度 Speed		0.49	1.0	2.0	2.8	3.1	5.0	8.4	13.4	14.4	21.4
	L 速度 Speed		0.36	0.40	0.63	1.4	2.2	3.2	4.6	5.7	7.2	9.4
空载扭矩 No-load torque To		(N·m)	0.29	0.62	1.4	2.0	2.6	3.9	9.8	19.6	29.4	39.2
容许输入轴扭矩* Permissible torque of input shaft		(N·m)	19.6	49.0	153.9	292.0	292.0	292.0	735.5	1372.0	1764.0	2450.0
最大载荷时所需输入轴扭矩** Required torque of input shaft at maximal load	H 速度 Speed	(N·m)	6.2	16.1	48.7	90.7	149.0	238.1	400.0	856.0	1380.5	2040.9
	L 速度 Speed		2.9	7.4	20.0	45.3	72.3	124.0	244.0	453.3	761.3	1278.3
输入轴每回转一圈丝杆（活动螺母）轴向位移量 Axial journey of screw, when input shaft rotate a circle.	H 速度 Speed	(mm)	0.80	0.83	1.33	1.25	1.25	1.50	1.50	1.50	1.50	1.67
	L 速度 Speed		0.20	0.21	0.33	0.42	0.42	0.50	0.50	0.50	0.50	0.56
最大载荷时容许输入轴回转速度 Permissible rotational speed of screw shaft at maximal load	H 速度 Speed	(rpm)	750	600	400	300	200	200	200	150	100	100
	L 速度 Speed		1200	600	300	300	290	250	180	120	90	70
最大载荷时丝杆回转扭矩 Rotational torque of screw at maximal load		(N·m)	20.1	65.1	201.5	503.6	813.2	1287.7	2531.9	5551.3	8921.8	13878.3

* 减速机输入轴的容许扭矩。（连动运转时请确认）
** 包括无负荷空转扭矩的数值。

* Permission torque of shaft of reducer.
** Include torque under the condition of no-load operating.

5、JWMB（普通滚珠丝杆）基本参数一览表 JWMB（General ball screw）basic parameter table:

型号 Type			HMB010	HMB025	HMB050	HMB100	HMB150	HMB200	HMB300	HMB500
最大载荷 Maximal load		(kN)	9.80	24.5	49.0	98.0	147	196	294	490
丝杆外径 Outer diameter of screw		(mm)	20	25	40	50	50	63	80	100
丝杆底径 Small diameter of screw d		(mm)	17.5	21.4	31.3	39.1	43.1	55.7	74.8	87
丝杆螺距 Pitch of screw L_1		(mm)	5	5	10	10	10	10	10	20
减速比 Ratio i	H 速度 Speed		5	6	6	8	8	8	$10^{2}/_{3}$	$10^{2}/_{3}$
	L 速度 Speed		20	24	24	24	24	24	32	32
综合效率 % Integrated efficiency η	H 速度 Speed		45	45	45	45	45	45	45	45
	L 速度 Speed		35	35	35	35	35	35	35	35
容许输入最大功率 Permissible output maximal power	H 速度 Speed	(kW)	0.54	1.3	2.2	3.6	4.0	5.5	8.9	13.3
	L 速度 Speed		0.27	0.63	1.0	1.9	2.1	2.8	4.1	6.5
空载扭矩 No-load torque To		(N·m)	0.29	0.62	1.37	1.96	2.65	3.92	9.81	19.6
保持扭矩 Keepong torque	H 速度 Speed	(N·m)	1.27	4.31	10.78	19.6	39.2	51.0	68.6	140.1
	L 速度 Speed		0.26	0.91	2.4	5.8	11.8	15.0	19.5	41.2
容许输入轴扭矩* Permissible torque of input shaft		(N·m)	19.6	49.0	153.9	292.0	292.0	292.0	735.0	1372.0
最大载荷时所需输入轴扭矩** Required torque of input shaft at maximal load	H 速度 Speed	(N·m)	2.8	9.0	21.5	39.1	77.0	104.5	169.6	317.5
	L 速度 Speed		1.4	4.3	9.6	20.4	39.6	54.2	98.5	177.9
输入轴每回转一圈对应丝杆（活动螺母）轴向位移量 Axial displacement of screw, when input shaft rotate a circle.	H 速度 Speed	(mm)	1	0.833	1.67	1.25	1.25	1.25	0.937	1.88
	L 速度 Speed		0.25	0.208	0.42	0.417	0.417	0.417	0.3125	0.63
最大载荷时容许输入轴回转速度 Permissible rotational speed of screw shaft at maximal load	H 速度 Speed	(rpm)	1500	1400	1000	890	500	500	500	400
	L 速度 Speed		1500	1400	1000	890	500	500	400	350
最大载荷时丝杆回转扭矩 Rotational torque of screw at maximal load		(N·m)	8.7	34.7	86.7	208.2	416.3	555.1	1040.9	2081.7

* 减速机输入轴的容许扭矩。（连动运转时请确认）
** 包括无负荷空转扭矩的数值。

* Permission torque of shaft of reducer.
** Include torque under the condition of no-load operating.

6、注意事项：

1）选择升降机时不论静载、动载、冲击载荷均不得超过其允许承受的最大载荷，根据安全系数、使用行程、校对丝杆的稳定性选择具有充分容量的升降机；

2）一定要注意丝杆轴转速与承受的载荷进行搭配，对于升降机的容许最大载荷、容许外加负载、容许丝杆轴的旋转速等项目进行校验，如果超过产品的数据将会造成升降机设备整体的重大损伤；

3）升降机在工作时其减速部表面温度应控制在-15℃～80℃的范围以内，确保活动螺母的表面温度也在上述范围以内；

4）输入轴容许转速为1500r/min，输入轴不得超过此转速；

5）JWMM和JWMB都不可连续运转：
单台升降机的负村时间率（%ED）以30分为单位计算，JWMM（梯形丝杆类型）的负荷时间内不得超过20%ED，JWMB（普通滚珠丝杆）的负荷时间率不得超过30%ED，

负荷时间率%ED=

$$\frac{\text{1动作周期的工作时间}}{\text{1动作周期的工作时间+1动作周期的停歇时间}} \times 100\%$$

6）对于在同一轴线上连接数台升降机时，请务必对输入轴强度进行校核，使每台升降机所承担的扭矩都应在其容许输入轴扭矩以内；

7）驱动源的起动扭矩应确保在使用扭矩的200%以上；

8）在零摄氏度以下工作时因受润滑油粘性变化的影响使得整机效率下降，所以必须选行充足的驱动源；

9）JWM型理论上具有自锁功能，但工作在振动冲击较大的场合时会导致自锁功能失灵，因此须外加一制动装置或选择带有制动的驱动源。

JWMB型升降机本身不具有自锁功能，为了防止由于轴向载荷和丝杆的自重而产生逆转，必须外加制动装置或选择带有制动的驱动源，请确保制动扭矩大于保持扭矩；

10）升降机使用的环境如下

使用场所	Working Location	室内无雨水侵入的场所 Indoor location without rainwater
周围空气	Ambient Air	灰尘为一般工厂状态 Normal
环境温度	Ambient Temperature	-15℃～40℃
相对湿度	Relatine Himidity	85%以下 Less than 85%

11）当升降机工作在多灰尘的场所中时请务必选择防尘罩伸缩会附件来保护丝杆，在室外使用时请务必考虑使用罩壳等装置，使机器不直接受到风吹雨打；

12）在升降机工作时，不得进行人为的强行停机，否则将使升降机受到严重破损；

13）在有负载的情况下，请不要将JWMB型的输入轴驱动方式变为手动操作，负载有可能会造成输入轴旋转非常危险。

6、Note:

1) Select a Jack with sufficient capacity according to safety factor, service journey and stability. And stationary load, dynamic load and shock load must be 1ower than permissiblc maximum load.

2) Please note that rotation speed of screw must match load, permissible maximum load, permissible maximum outer 1oad, and permissible rotation speed of screw must be verified. If these figures exceed that of products, jacks will be damaged greatly.

3) The surface temperature will be 1imited in -15° ~80° when jack working to ensure the temperature of traveling nuts in -15° ~80° .

4) Maximum input speed is 1500r/min.

5) JWMM and JWB aren't suitab1e for continous operation, Jack Duty(%ED)
JWMM duty(%E'D) cannot exceed 20%ED,
JWMB duty(%ED) cannot exceed 30%ED.

Duty %ED=

$$\frac{\text{Jack operating time(lift \&lower cycle)}}{\text{Elapsed cycle time}} \times 100\%$$

6) When severa1 Jacks are connected on the same axial line, the loaded torque with each Jack must be verified and limited within permissiblc input torque.

7) Starting torque must be 200% of service torque.

8) At below 0° ambient temperature, changed adhesion of lubrication will lower Jack,s efficiency so that sufficient drive is necessary.

9) JWMM has self-lock function, but an Extra braking device or drive source with braking device is necessary to be equipped because self-lock wi1l be of mal-function when Jack is loaded a heavy shock.
JWMB has no self-lock function, to avoid backspin of screw under axial load and its weight, a braking device or drive source with braking device is necessary to be equipped and braking torque must be larger than operating torcue of Jack.

10）Jack's operating conditions

11) When working in dusty space, Jack must be equipped with elastic dust-hood on screw; in open air, shield must be equipped to prevent exposure to wind and rain.

12) When working, Jack cannot be forced to stop, or it will be damaged seriously.

13) Under load, don't change motor drive mode into manual drive, or which will cause backspin of screw and cause great danger.

7、选型方法：

7.1 升降机型号的确定：

7.1.1 计算总机的当量载荷Ws(N)

Ws＝最大载荷Wmax×使用系数f1(N)

被驱动设备系数（f1）表：

载荷性质 Load character	使用举例 example	被驱动设备系数 (f1) Factor for drivcn machine
无冲击载荷，负荷惯性小 shockless load & small inertia load	开关、阀门传送带切换装置 Switch,valve transmission belt swithing devoce	1.0～1.3
轻微冲击载荷，负荷惯性中等 moderate shock & moderate inertia	各种移动装置：升降用各种升降机 All kinds of moving devices,all kinds of elevators	1.3～1.5
大冲击振动载荷，负荷惯性大 heavy shock & large inertia	用台车搬运东西；保持压延滚轮的位置 Carrying something by trolley; to keep the posotion of idling gear	1.5～3.0

7.1.2 计算单台升降机的当量载荷W，

$$W=\frac{WS}{\text{连动台数}\times\text{连动系数fd}}$$

连动系数 Linkage factor(fd):

连动台数 Number of linkege jack	1	2	3	4	5～8
连动系数 Linkage factor	1	0.95	0.9	0.85	0.8

7.1.3 确定升降机型号：

充分考虑载重，速度，行程，效率，驱动源后暂时选定型号

7.1.4 根据使用行程、环境条件、输出顶端的联接方式，确定升降机的整体型号。

7.2 输入功率校核：

负载所需输入功率与许容最大输入功率相比较
如果超过请提高型号或降低丝杆轴转速再计算。

负载所需输入功率计算 Calculation of required input power under load:

所需输入轴转速 Rcquired rotation speed of input shaft	n1 (r/min)	$n1=\frac{V}{L_1}\times i$
所需输入轴扭矩 Required torque of input shaft	T1 (N·m)	$T1=\frac{W\times L_1}{2\pi\times i\times\eta}$
所需输入功率 Requored input power	P1 (kW)	$P1=\frac{T_1\times n_1}{9550}$

V:升降机丝杆轴(活动螺母)升降速度 mm/min　L1:丝杆螺距(mm)
i:减速比　W:单台升降机当量载荷(N)　π:圆周率
η:升降机的综合效率　To:空载扭矩(N·m)
(L1、i、η、TO参照基本参数表)

7.3 丝杆稳定性校核

当丝杆承受轴向原缩载荷时，请对其进行稳定性校验，如超过其临界载荷值请提高型号后再计算。

升降机丝杆临界稳定载荷通过以下公式计算：

$$PCR=fm\times\left(\frac{d^2}{La}\right)^2$$　　确保 ensure　　PCR＞W×SF（SF=4）

PCR：临界载荷（N）
d：丝杆底径mm（参照基本参数表）
fm：支撑系数
La：作用点间距离，mm
W：单台升降机当量载荷（N）
SF：安全系数（一般SF＝4）

7、How to select type:

7.1 Determine Jack's type:

7.1.1 Calculate total cquivalent load Ws (N):

Ws＝Wmax×f1

Service factor for driven machine (f1):

载荷性质 Load character	使用举例 example	被驱动设备系数 (f1) Factor for drivcn machine
无冲击载荷，负荷惯性小 shockless load & small inertia load	开关、阀门传送带切换装置 Switch,valve transmission belt swithing devoce	1.0～1.3
轻微冲击载荷，负荷惯性中等 moderate shock & moderate inertia	各种移动装置：升降用各种升降机 All kinds of moving devices,all kinds of elevators	1.3～1.5
大冲击振动载荷，负荷惯性大 heavy shock & large inertia	用台车搬运东西；保持压延滚轮的位置 Carrying something by trolley; to keep the posotion of idling gear	1.5～3.0

7.1.2 Calculate equivalent load of sigle Jack,

$$W=\frac{WS}{\text{Number}\times\text{Linkage factor(fd)}}$$

连动系数 Linkage factor(fd):

连动台数 Number of linkege jack	1	2	3	4	5～8
连动系数 Linkage factor	1	0.95	0.9	0.85	0.8

7.1.3 Temporarily determine Jack type:

Temporarily determine Jack type after taking full consideration of load, speed, journey, efficiency and drive source.

7.1.4 Determine HM type according to service journey, ambient conditions, connection mode of end-fittings.

7.2 Verify input power

If required input power under load exceeds permissible maximum input power, please select larger type or lower the spced of screw rotation.

负载所需输入功率计算 Calculation of required input power under load:

所需输入轴转速 Rcquired rotation speed of input shaft	n1 (r/min)	$n1=\frac{V}{L_1}\times i$
所需输入轴扭矩 Required torque of input shaft	T1 (N·m)	$T1=\frac{W\times L_1}{2\pi\times i\times\eta}$
所需输入功率 Requored input power	P1 (kW)	$P1=\frac{T_1\times n_1}{9550}$

V:linear speed of screw mm/min L:Pitch of screw (m)
i:ratio W:equivalent load of single jack　π:pi
η:Integrated efficiency　TO:No-load torque (Nm)
(L1、i、η、TO refer to basic parameter table)

7.3 Verify the stability of screw:

Please verify the stability of screw under axial load, larger type should be used when load exceed the critical load.

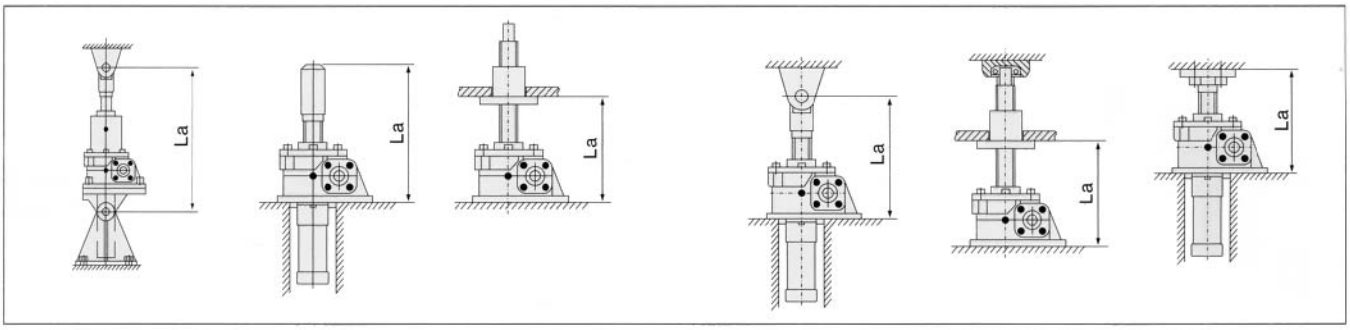
The formula to calculate the eritical load as follows,

$$PCR=fm\times\left(\frac{d^2}{La}\right)^2$$　　ensure　　PCR＞W×SF（SF=4）

Pcr :Critical load (N)
d : small diameter of screw end (mm) (refer to basic parameter table)
fm : support factor
La : distance between load-supporting point and mounting point as drawing.
W : equivalent load of single Jack (N)
SF : safety factor (SF=4 as usual)

＊丝杆轴稳定性校验时，La（La值计算根据各型号尺寸）与fm（支撑系数）选取如下：

＊Verifying the stability of screw,the values of La and fm as follows,



两端支撑$fm=10\times10^4$
support at both ends $fm=10\times10^4$

底座固定轴端自由 $fm=2.5\times10^4$
Foot-mounted & movable shaft end $fm=2.5\times10^4$

底座固定轴端支撑或固定 $fm=20\times10^4$
Foot-mounted & shaft end supporting or fixed $fm=20\times10^4$

7.4 临界转速校核

如为活动螺母选型时，请务必将丝杆轴转速控制在临界转数以下，若超出临界转速，请提高型号再计算。

7.4 verifying critical rotaion speed:

Using traveling nut,the rotation speed of screw must be lower than critical speed,if no,please select larger type and calculate again.

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

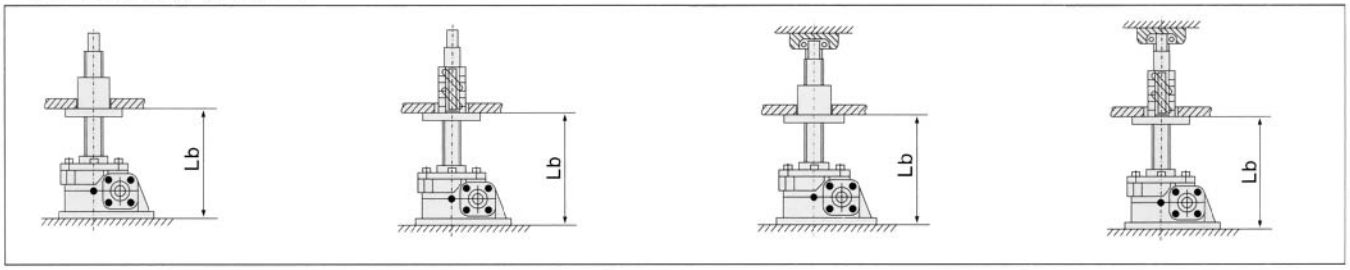
n_c:临界转速 r/min
d:丝杆底径 mm(参照基本参数表)
f_n:长度系数
L_b:支撑间距离 mm

n_s:丝杆转速 r/min
n_1:输入速度 r/min
i:减速比

n_c:Permissible rotaion speed of screw
n_s:Rotational speed of screw
d: Small diameter of screw (refer to basic parameter table)
n_1:Rotaional speed of input shaft
fn: Length factor
i: ratio
L_b:Distance between both supporting face

＊丝杆轴转速校验时；Lb（Lb值计算根据各型号尺寸）与fn（长度系数）选取如下：

＊Verifying the rotation speed of screw,the values of Lb and fn as follows:



轴端自由 fn=0.36
Movable shaft end fn=0.36

轴端支撑 fn=1.56
Shaft end supporting fn=1.56

请确保：$n_c>n_s$

计算举例：HMM200UR-H1200PI在输入转速为1200r/min，

轴端支撑下运转，根据外形尺寸与传动能力表查得：

d=49.3　　Lb=1437

Ensure：$n_c>n_s$

Example for calculation:

Take HMM200UR-H1200PI as example,nl=1200r/min,connecting mode of top-end:I,we can know d=49.3,Lb=1437 referring to dimension and transmission capaeity table.

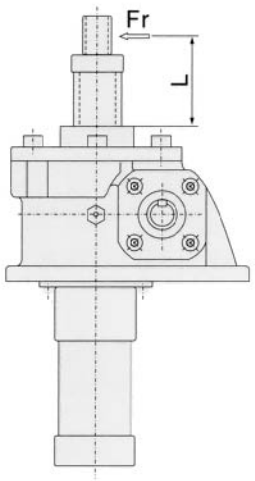
$$n_s=\frac{n_1}{i}=\frac{1200}{8}=150r/min$$

$$n_c=\frac{96\times fn\times d\times 10^6}{Lb^2}=\frac{96\times 1.56\times 49.3\times 10^6}{(1437)^2}=3575r/min$$

$n_c=3575r/min>ns=150r/min$……ok.

7.5 当有横向载荷时，请外加导向器。 **7.5 When there os radial load,please add guiding device.**

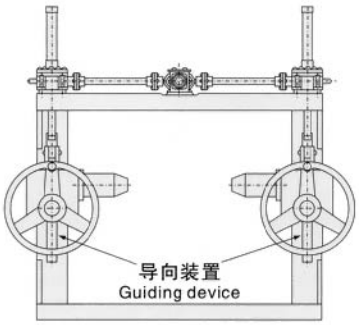
＊JWMM 许用横向载荷Permitted radial load Fr(N):

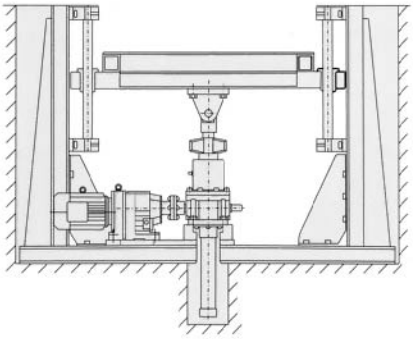


Fr (N) / Type / L (mm)	010	025	050	100	150	200	300	500	750	1000
100	318	570	2500	4010	4610	8210	38200	85300	73500	186200
20	159	290	1250	2010	2300	4110	23000	50400	56800	145000
300	106	190	830	1340	1540	2740	15300	33600	46100	104700
400	79	140	620	1000	1150	2050	11400	25200	39300	78500
500	64	110	500	800	920	1640	9100	20200	33900	62800
600	53	100	420	670	770	1370	7600	16800	29900	52300
700	51	90	360	570	660	1170	6500	14400	26700	44800
800	48	90	310	500	580	1030	5700	12600	24100	39200
900	45	90	280	450	510	910	5000	11200	22000	34800
1000	42	90	250	400	460	820	4500	10100	20200	31300

＊JWMB或JWMM超过许用横向载荷时，请外加导向装置，举例如下：
When oprating radial load exceeds critical radial load,please add guiding device,for example,

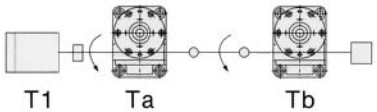






7.6 当升降机传动配置为串联时（即同一轴线配置了两个或以上数量的升降机）如图须对各升降机输入轴端进行强度校核；

7.6 Please verify input torquc of cach Jack when seceral Jack are connected on the same input axial line as the following,



Ta：为升降机a的所需输入扭矩
Tb：为升降机b的所需输入扭矩
电机必需的扭矩 T1=Ta+Tb < 升降机a的容许输入轴扭矩

Ta:Required torque of input shaft of jack a.
Tb:Required torque of input shaft of jack b.
Required torque of motor T1=Ta+Tb <
Promitted input torque of jack a.

8、升降机选择举例：

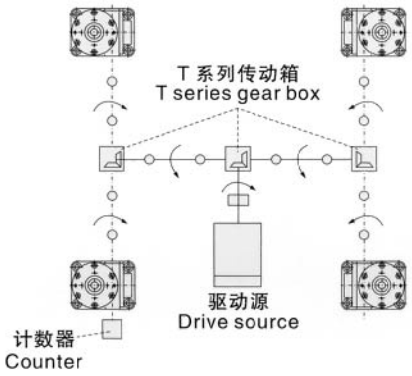
例题：4台连动押上用，结构如下图所示的4台连动模式，工厂内保持常温，有少许灰尘，有横向负荷在升降机侧面设置了导向器，安装状态采用底座固定，轴端采用一固定一支撑，电源为三相380V/50HZ，使用频率为2次/小时×8小时

1. 最大轴向载荷：88.2 KN/4台
2. 升降速度：10mm/s（600mm/min）
3. 使用行程：260mm

8、Jack selection cxample:

Example: Four Jacks,1inked as the following drawing, normal temperature,thin dust,radial load,with guiding devices on one side,foot-mounted, fixed the screw top-end,380v/50Hz,service frequency:2 times/hour,service time:8 hours.

1. Maximum axial 1oad;88.2KN/4 Jacks
2. Linear speed:10mm/s (600mm/min)
3. Service journey:260mm



升降机型号确定：

1>.计算总机当量载荷Ws（取被驱动设备系数为1.3）

$Ws = Wmax \cdot f1 = 88200 \times 1.3 = 114660N$

2>.计算中台当量载荷W

Determine Jack type,

1>Calculate total equivalent load Ws (Factor for driven machine is 1.3)

$Ws = Wmax \cdot f1 = 88200 \times 1.3 = 114660N$

2>Calculate equivalent load of single jack:

$$W = \frac{114660}{4 \times 0.85} = 33724N$$

3>.暂定型号：

考虑速度、效率、驱动源、载重后暂定选择HMB050USH（参照基本参数表）

3>Tcmporarily determine type,

Temporarily determine JWB050USH according to specd, efficiency, drive and Load (refer to basic parameter table)

4>.行程校核：

使用行程为260mm，充分考虑余量后选定行程为300mm（参照JWB050US尺寸表）

4>Verify j ourney :

Service journey is 260mm, determine journey should be 300 after considering surplus.
(Please refer to dimension sheet of JWB050US).

5>.输入功率校核：

(1)所需输入功率计算：

5>Check input power:

(1) Calculate required input power:

① $n1 = \frac{V}{L_1} \times i = \frac{0.60}{0.010} \times 6 = 360r/min$

② $T_1 = \frac{W \times L_1}{2\pi \times i \times \eta} + To = \frac{33724 \times 0.010}{2 \times 3.14 \times 6 \times 0.64} + 1.37 = 15.4Nm$

③ $P_1 = \frac{T_1 \times n_1}{9550} = \frac{15.4 \times 360}{9550} = 0.58kW$

(2)参照基本参数表，Pmax=2.2kW>P1……0K

(2) Refer to basic parameter table,Pmax=2.2kW › P1 ……OK

6>.丝杆稳定性校核：

因为施加压缩载荷，根据传动能力表及外形尺寸图得出：

6>Verify the stability of screw

For under axial load, refer to transmission table and dimension for the following figures,

$D=31.3 \quad La=604+33=637 \quad fm=20\times10^4 \quad SF=4$

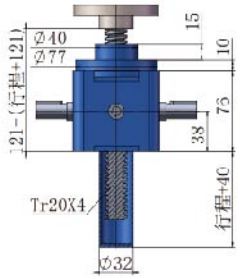
$$P_{CR} = fm \times \left(\frac{d^2}{La}\right)^2 = 20 \times 10^4 \times \left(\frac{31.3^2}{637}\right)^2 = 473073N$$

$$P_E = \frac{P_{CR}}{SF} = \frac{473073}{4} = 118268 > W = 33724 \quad \cdots\cdots OK$$

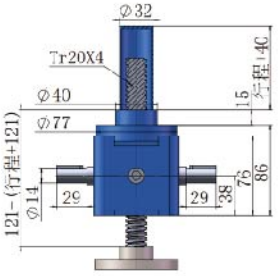
JWM装配型式/JWM010 Worm gear secrw lifter

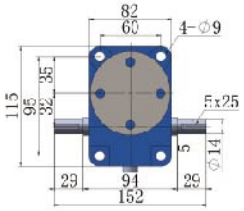
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

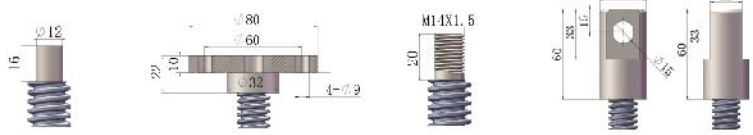


1B丝杆头部在下
1B Inverted translating screw optional





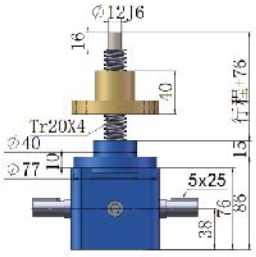
丝杆头部可选/Screw head optional



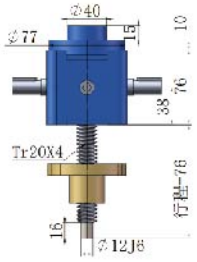
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

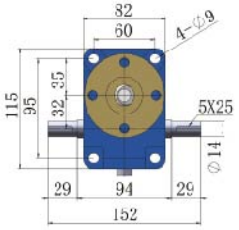
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

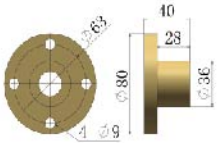


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

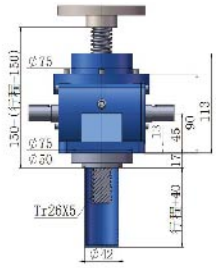
轴指向/Shaft direction

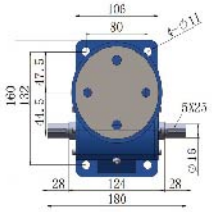


JWM装配型式/JWM025 Worm gear secrw lifter

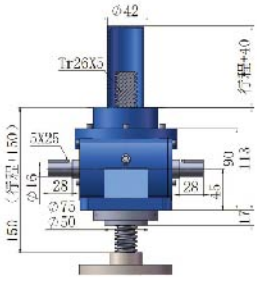
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

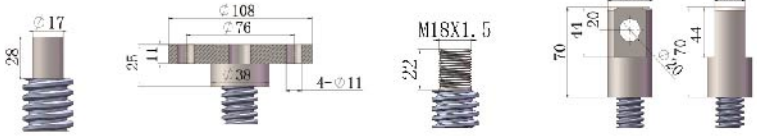




1B丝杆头部在下
1B Inverted translating screw optional



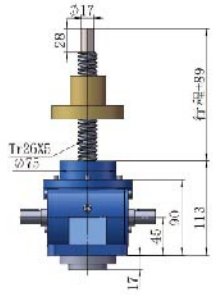
丝杆头部可选/Screw head optional

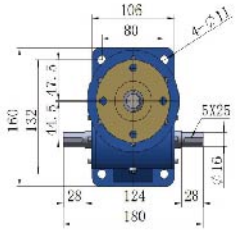


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

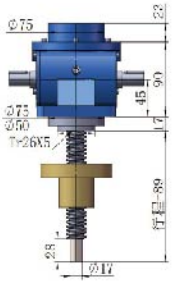
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

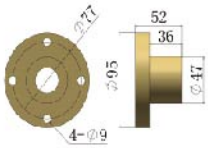




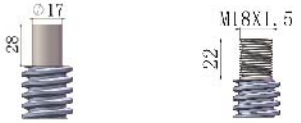
2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

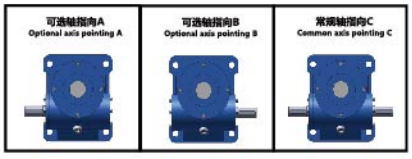


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

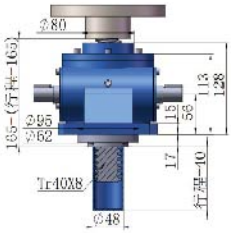
轴指向/Shaft direction

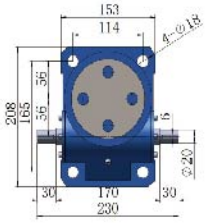


JWM装配型式/JWM050 Worm gear secrw lifter

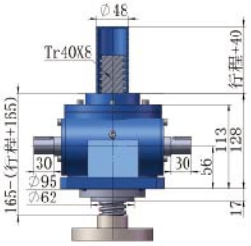
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

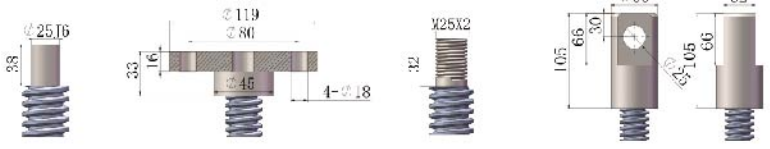




1B丝杆头部在下
1B Inverted translating screw optional



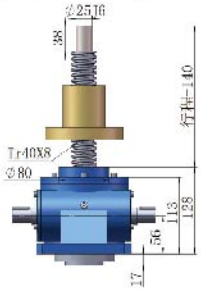
丝杆头部可选/Screw head optional

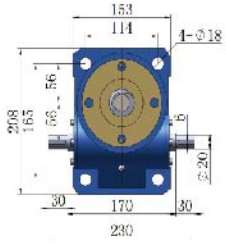


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

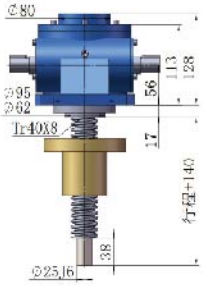
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

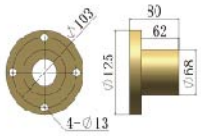




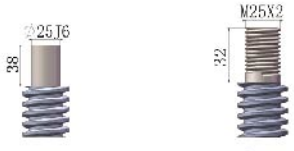
2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

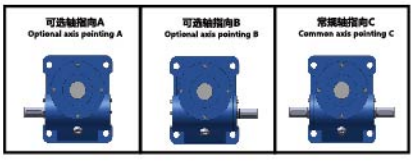


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

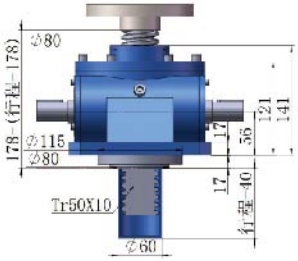
轴指向/Shaft direction

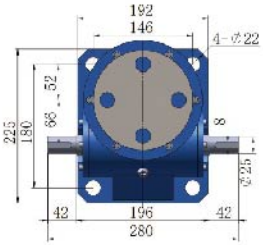


JWM装配型式/JWM100 Worm gear secrw lifter

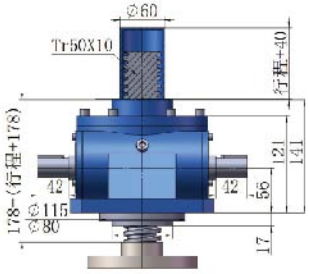
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

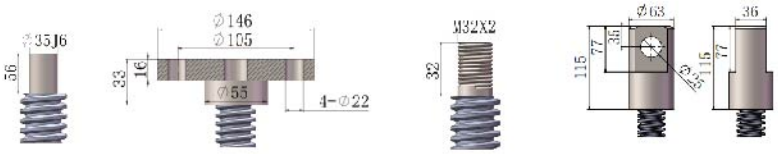




1B丝杆头部在下
1B Inverted translating screw optional



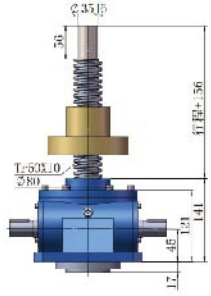
丝杆头部可选/Screw head optional

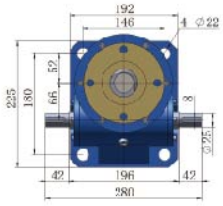


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

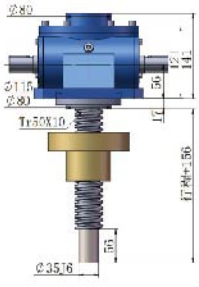
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

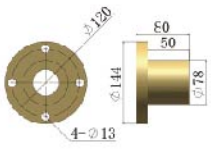




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

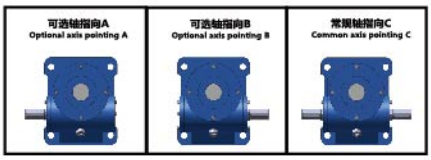


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

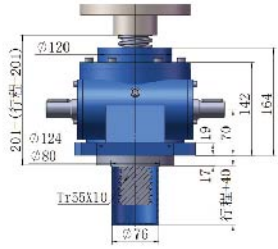
轴指向/Shaft direction

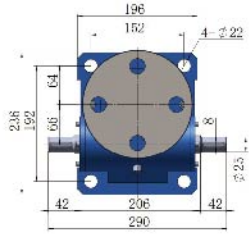


JWM装配型式/JWM150 Worm gear secrw lifter

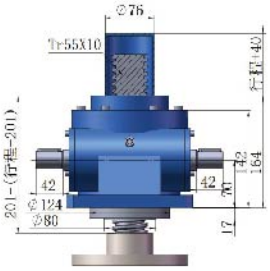
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

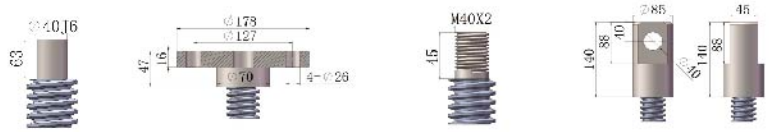




1B丝杆头部在下
1B Inverted translating screw optional



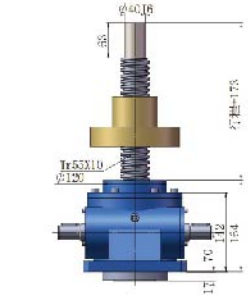
丝杆头部可选/Screw head optional

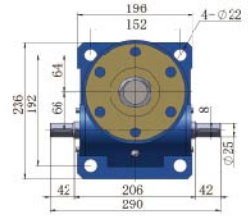


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

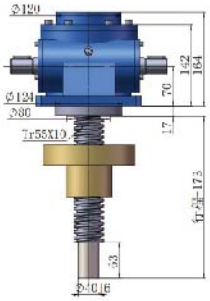
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

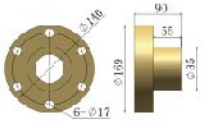




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

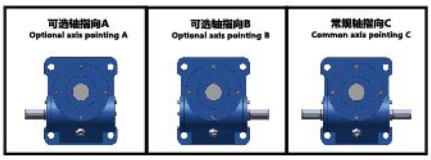


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

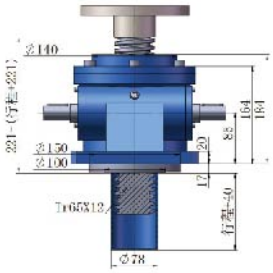
轴指向/Shaft direction

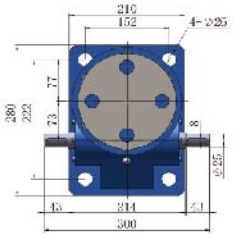


JWM装配型式/JWM200 Worm gear secrw lifter

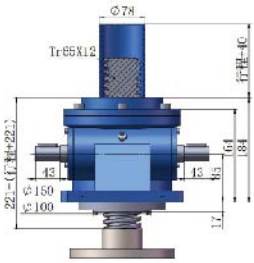
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

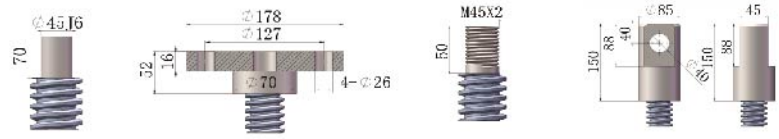




1B丝杆头部在下
1B Inverted translating screw optional



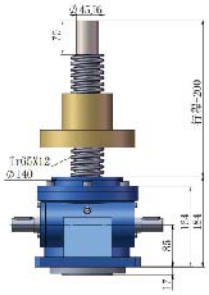
丝杆头部可选/Screw head optional

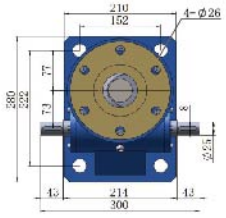


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

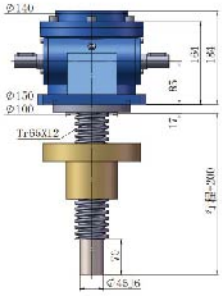
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

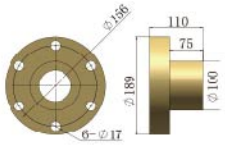




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

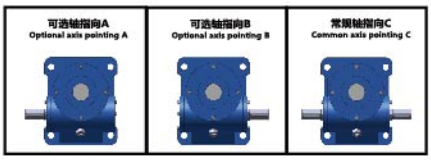


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

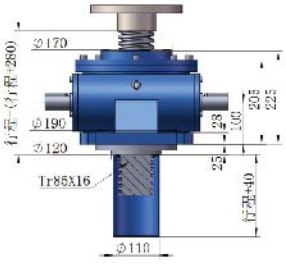
轴指向/Shaft direction

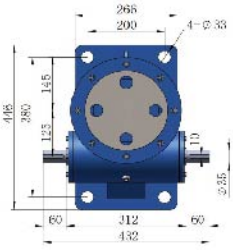


JWM装配型式/JWM300 Worm gear secrw lifter

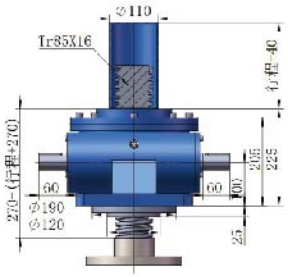
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

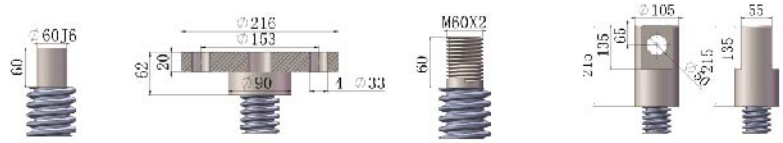




1B丝杆头部在下
1B Inverted translating screw optional



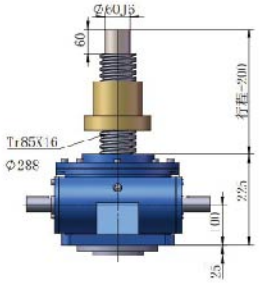
丝杆头部可选/Screw head optional

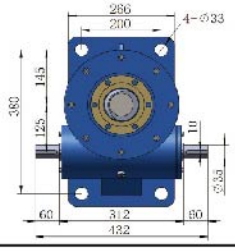


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

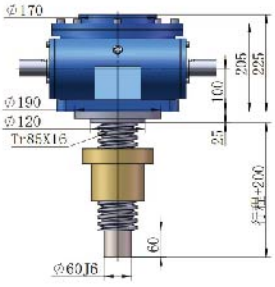
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

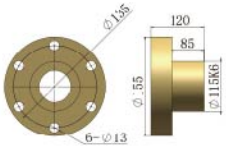




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

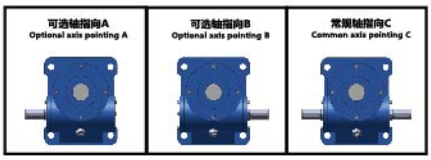


丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

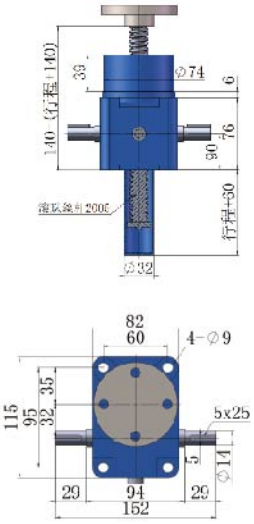
轴指向/Shaft direction



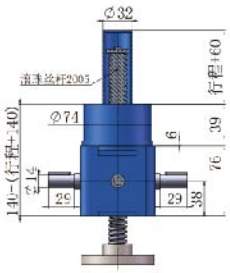
JWMB010装配型式/JWMB010 Assembly type

1型结构/Type1 structure

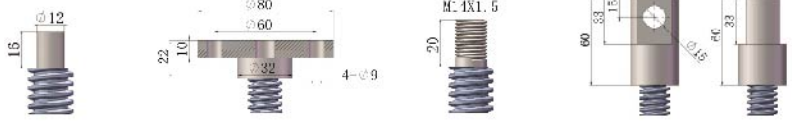
1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



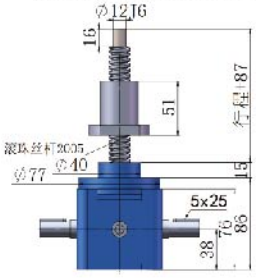
滚珠丝杆头部可选/Ball Screw head optional

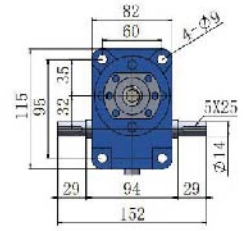


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

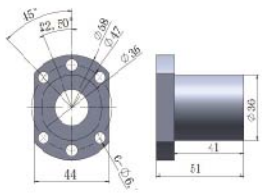
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

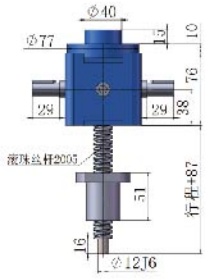




2型滚珠丝杆螺母
Type 2 Ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball Screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

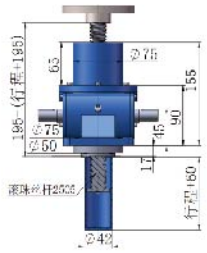


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø20X10、Ø20X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø20X10、Ø20X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

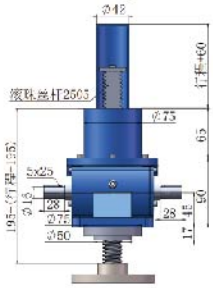
JWMB025装配型式/JWMB025 Assembly type

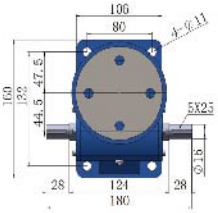
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

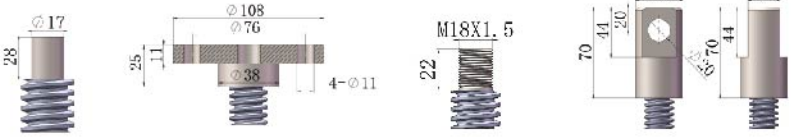


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





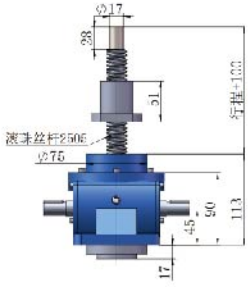
滚珠丝杆头部可选/Ball screw head optional

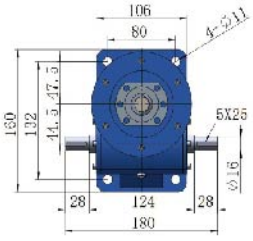


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

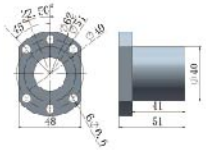




2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 Ball screw nut

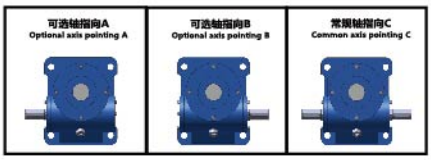


滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

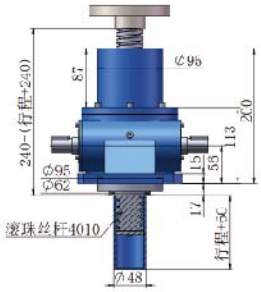


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø25X10、Ø25X25、Ø32X5、Ø32X10、Ø32X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø25X10、Ø25X25、Ø32X5、Ø32X10、Ø32X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

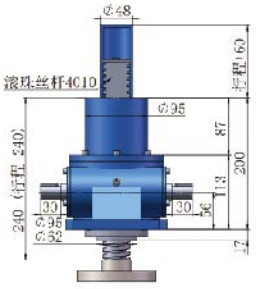
JWMB050装配型式/JWMB050 Assembly type

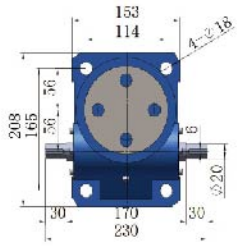
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

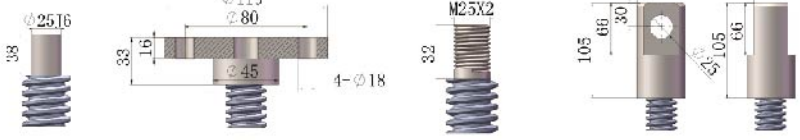


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





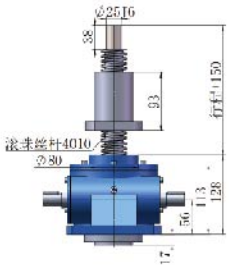
滚珠丝杆头部可选/Ball screw head optional



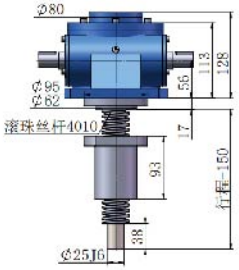
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

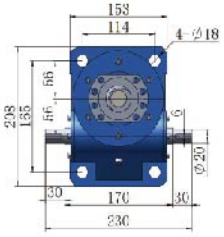
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

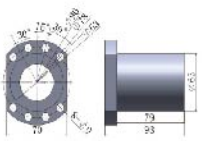


2B螺母在下
2B Inverted rotating screw

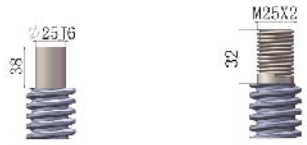




2型滚珠丝杆螺母
Type 2 ball screw nut

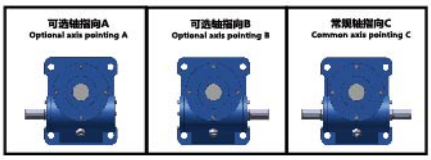


滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

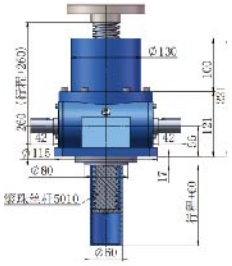


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø40X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø40X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

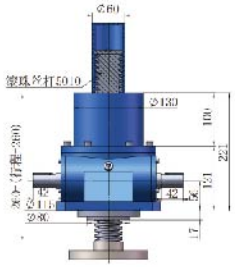
JWMB100装配型式/JWMB100 Assembly type

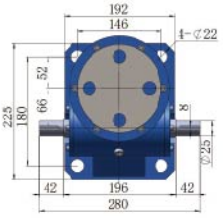
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

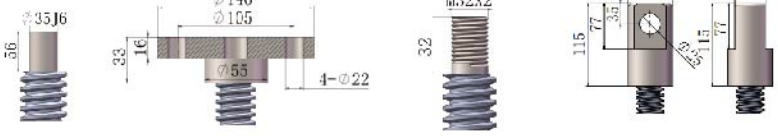


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





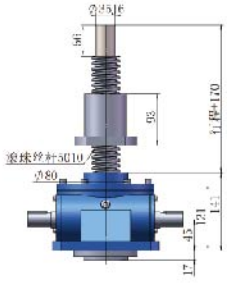
滚珠丝杆头部可选/Ball screw head optional



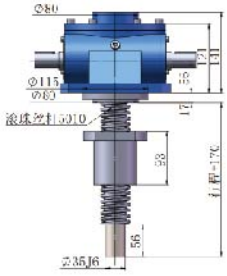
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

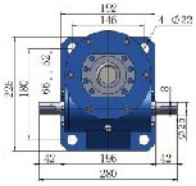
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

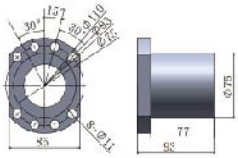


2B螺母在下
2B Inverted rotating screw





2型滚珠丝杆螺母
Type 2 ball screw nut

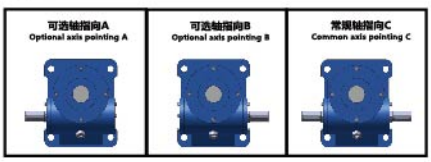


滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

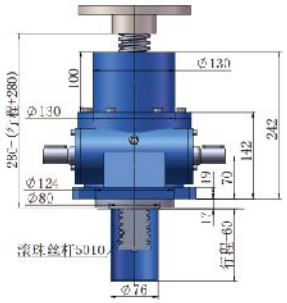


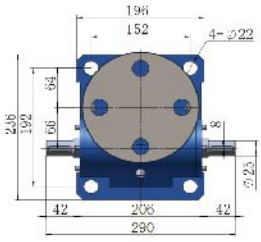
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø50X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø50X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

JWMB150装配型式/JWMB150 Assembly type

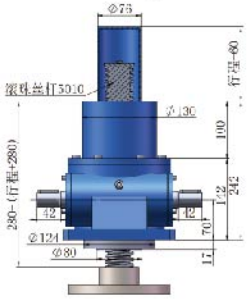
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

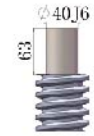




1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional



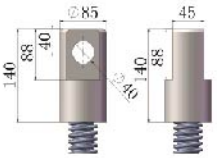
I型/TypeI



II型/TypeII



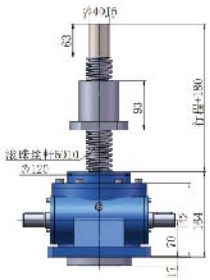
III型/TypeIII

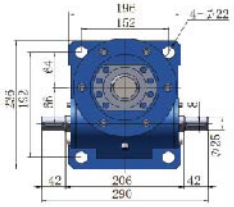


IV型/TypeIV

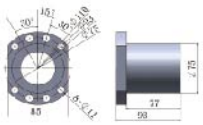
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

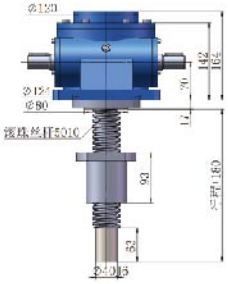




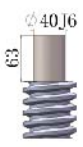
2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball screw head optional

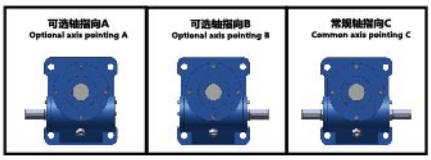


I型/TypeI



III型/TypeIII

轴指向/Shaft direction

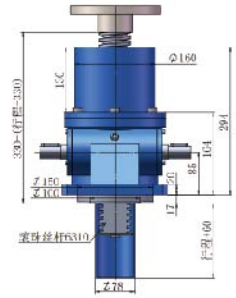


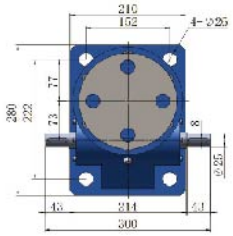
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø50X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø50X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

JWMB200装配型式/JWMB200 Assembly type

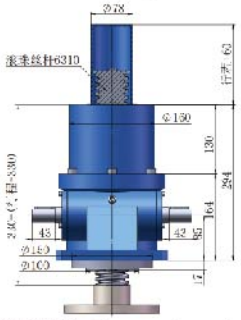
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

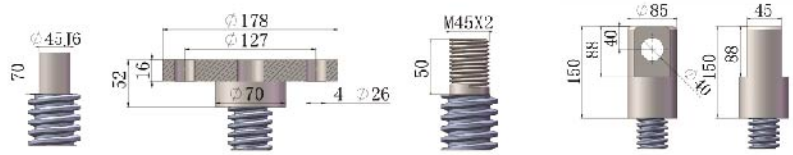




1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



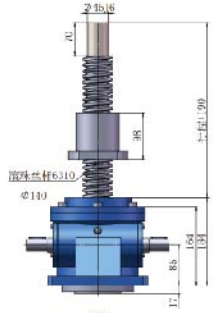
滚珠丝杆头部可选/Ball screw head optional

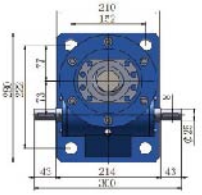


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

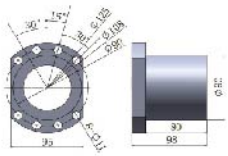
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

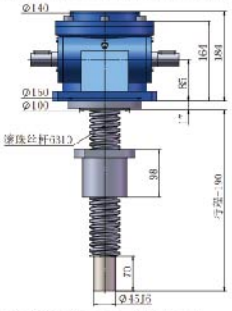




2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw

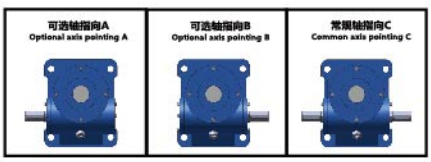


滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

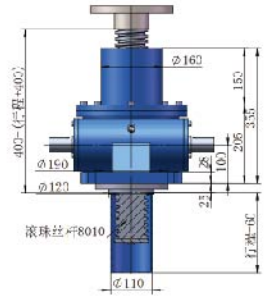


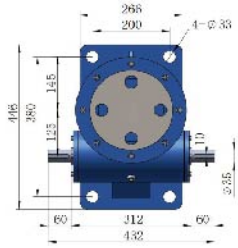
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø63X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø63X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

JWMB300装配型式/JWMB300 Assembly type

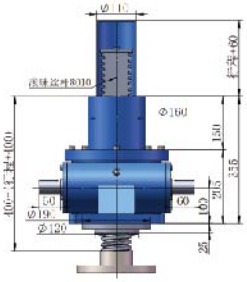
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

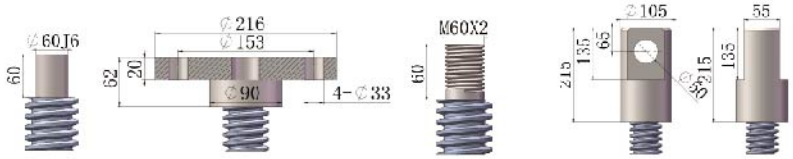




1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



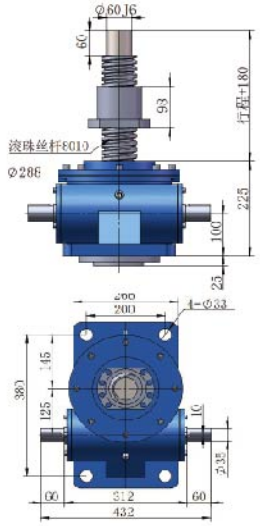
滚珠丝杆头部可选/Ball screw head optional



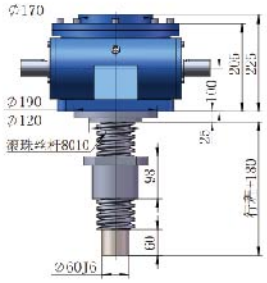
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

2型结构/Type2 structure

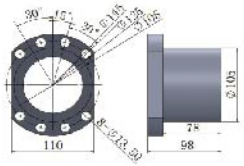
2A螺母在上
2A Upright rotating screw



2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

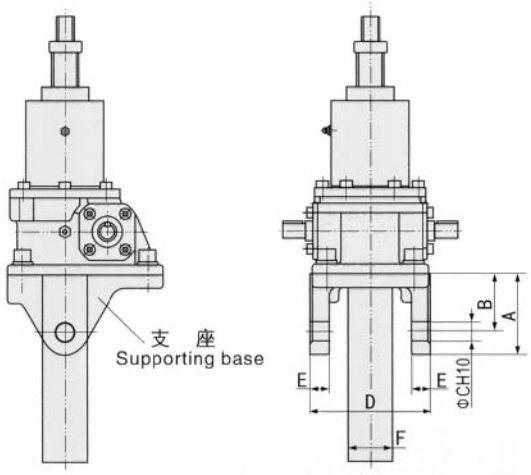


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø80X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection Ø80X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

10、附件的确认:

10.1 C型安装：

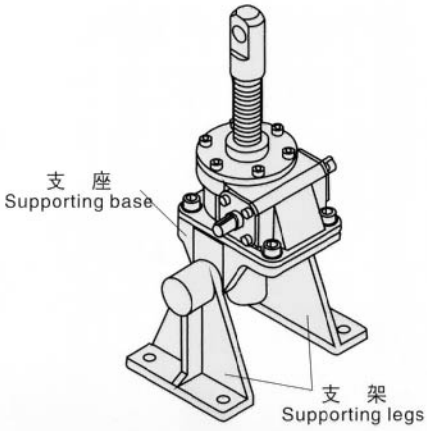
10.1.1支座安装广泛应用于开关装置、倾斜装置。如图：



10、Accessory confirmation:

10.1 Support （Mode C mounting）:

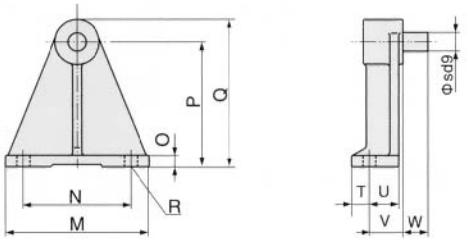
10.1.1 Support–mounted mode widely apply to tilting equipment.



型号	A	B	C	D	E	F
010	75	60	15	86	15	35
025	100	75	20	115	20	45
050	105	75	25	158	25	58
100	145	100	40	201	30	76.3
150	155	105	50	224	44	76.3
200	173	110	63	244	50	89.1

10.1.2 支架

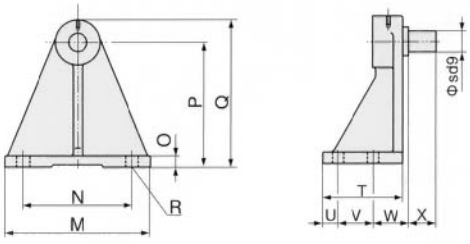
支座与支架配合，实现多方位升降。



JW010–JW050

10.1.2 Supporting legs:

Matching supporting base and legs realizes multi–angles lifting and lowering.



JW100–JW200

型 号	M	N	O	P	Q	R	S	T	U	V	W	X
010	180	130	15	150	178	2–Φ18	15	25	40	45	17	–
025	180	130	15	150	178	2–Φ18	20	25	40	45	30	–
050	200	150	15	170	200	2–Φ18	25	25	40	45	35	–
100	280	220	22	240	290	4–Φ22	40	159	30	70	70	55
150	360	280	27	300	360	4–Φ33	50	195	40	85	85	70
200	400	320	30	380	450	4–Φ33	63	210	40	90	90	75

10.2 手轮盘：

此件只适应于HMM型工作在冲击、振动不大的场合，请不要应用在HMB结构中。

手动操作扭矩=所需输入扭矩/手轮操作盘半径

10.2 Hand wheel:

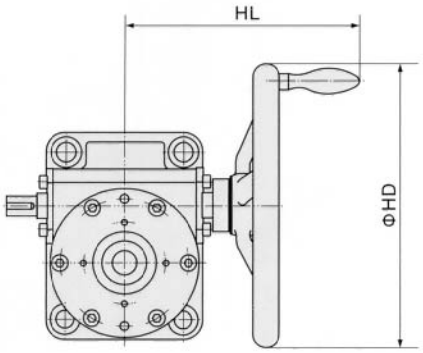
Hand wheel only apply to HMM under light shock or vibration condition but not for HMB.

Mhandwheel=Mrequired/rhandwheel

型号表示:

JWM025US-H200MI – **NV100**

- JWM025US-H200MI：升降机型号（见11.3） / Refer to 11.3
- NV100：手轮盘型号 / Hand wheel mode





尺寸表：

Dimension sheet: (mm)

型 号 Type	NV80		NV100		NV200		NV250		NV450	
	HD	HL	HD	HL	HD	HL	HD	HL	HD	HL
JWM010	80	122	100	125	—	—	—	—	—	—
JWM025	—	—	100	140	200	198	—	—	—	—
JWM050	—	—	—	—	200	221	250	229	—	—
JWM100	—	—	—	—	—	—	250	242	450	295
JWM150	—	—	—	—	—	—	250	247	450	300
JWM200	—	—	—	—	—	—	—	—	450	304

注：手轮为外购件，以定货时实物尺寸为准。

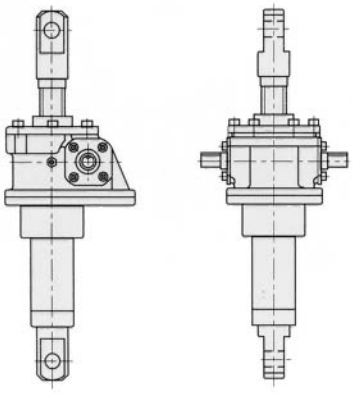
Note: The dimension of hand wheel is subject to product purchased from other factories.

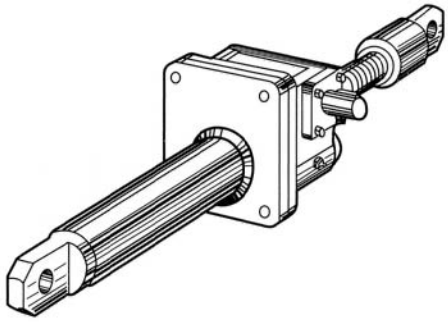
10.3 双头输出：

适用于开闭装置、反转装置。

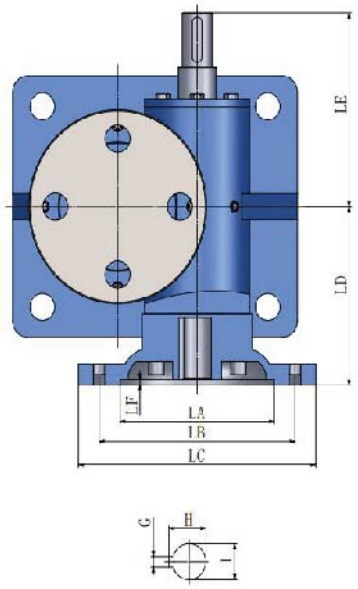
10.3 Double end output:

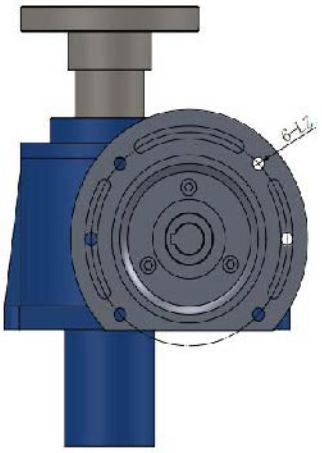
Apply to open and close devices,reversing devices.



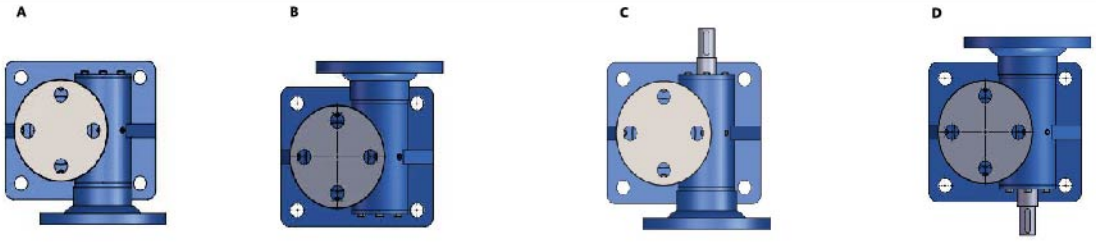


JWM法兰安装尺寸





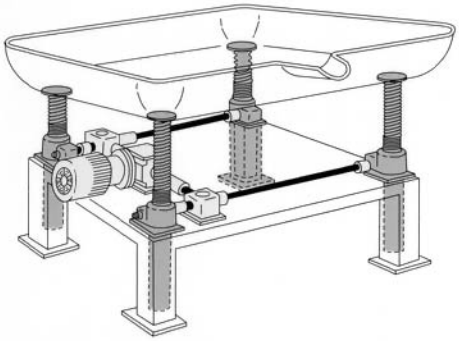
轴指向

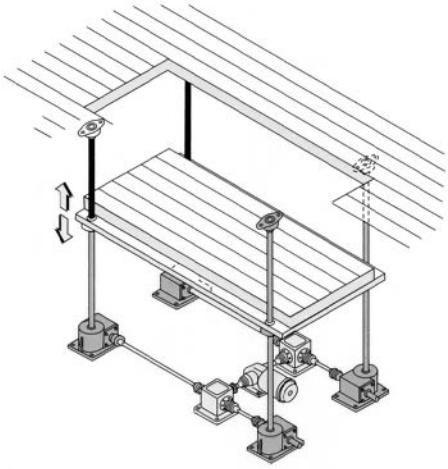


型号规格	法兰规格	LA	LB	LC	LD	LE	LF	G	H	I	LZ
JWM010	63B5	95	115	140	70	76	4	4	13	11	M8
JWM025	71B5	110	130	160	76	90	4	5	16.5	14	M8
JWM025	80B5	130	165	200	90	90	4	6	22	19	M10
JWM050	80B5	130	165	200	111	115	4	6	22	19	M10
JWM050	90B5	130	165	200	111	115	5	8	27.5	24	M10
JWM100	90B5	130	165	200	122	140	5	8	27.5	24	M10
JWM100	100B5	180	215	250	159	140	5	8	31.5	28	M12
JWM150	90B5	130	165	200	126	145	5	8	27.5	24	M10
JWM150	100B5	180	215	250	163	145	5	8	31.5	28	M12
JWM200	112B5	180	215	250	163	150	5	8	31.5	28	M12
JWM300	132B5	230	265	300	208	216	6	10	41.5	38	M12

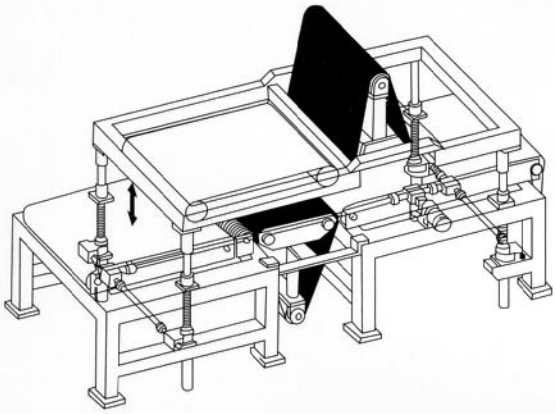
11、应用举例

11、Application example:

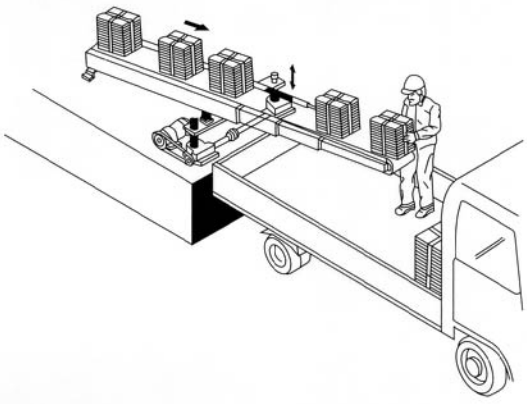




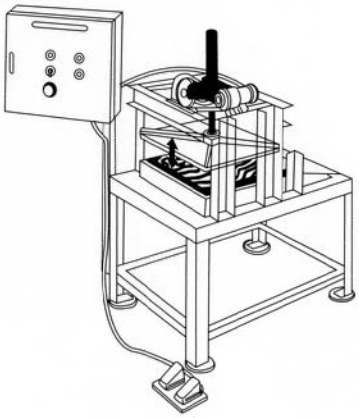
平台升降
Ascending and descending of flat slab



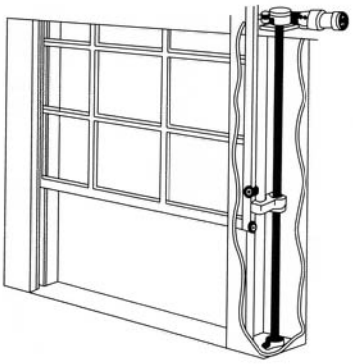
调整表面加工机的工作高度
Adjust operation height of surface machining tool



调整滑动传送带的倾斜程度
Adjust inclination pitch of conveyer apron

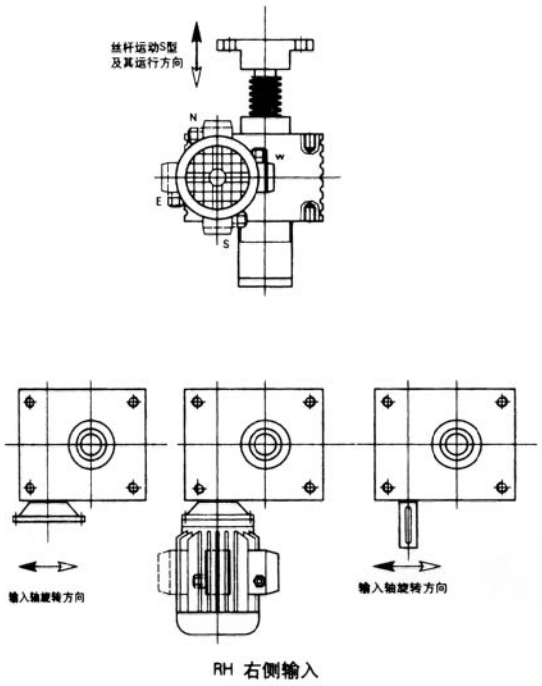


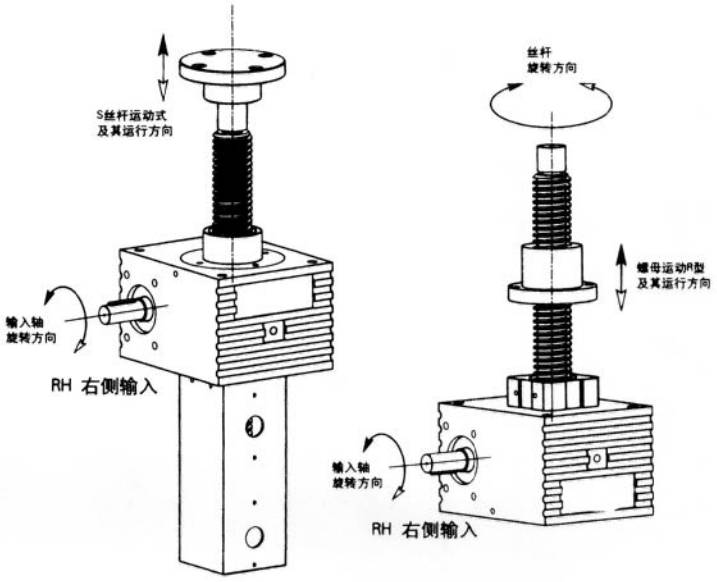
更改校正器的作业高
Operation height of straightening machine



大型窗户（门）自动开关
Automatic switch on large windows (doors)

螺旋升降机种类图示





螺旋升降机应用

本公司提供成套升降系统方案设计及全套系统组件。系统组件包含：螺旋升降机、减速电机、电机、换向器、传动轴、联轴器、制动器、离合器等。只要客户提供具体的技术要求：总负载推力，速度，行程及尺寸要求，工程师将提供详细的计算过程，系统组件的选配，及CAD总装图。

我们的技术支持将是最专业的。

成熟可靠技术方案将是您设备安全的保证。

两台螺旋升降机同步升降



四台螺旋升降机同步升降



螺旋升降机参数表

型号		SJA5	SJA10	SJA20	SJA50	SJA80	SJA100	SJA200	SJA300
最大提升力KN		5	10	20	50	80	100	200	300
丝杠直径×导程mm		Tr18×4	Tr20×4	Tr30×6	Tr40×7	Tr55×9	Tr60×9	Tr80×12	Tr100×16
蜗轮蜗杆减速比	V1	1:5	1:5	1:6	1:7	1:9	1:8	1:8.75	1:10.25
	L1	1:20	1:20	1:24	1:28	1:36	1:32	1:35	1:41
蜗杆输入1转丝杆行程mm	V1	0.8	0.8	1	1	1	1.125	1.371	1.56
	L1	0.2	0.2	0.25	0.25	0.25	0.281	0.343	0.39
最大输入功率KW	V1	0.30	0.57	1.14	2.2	2.5	3	4	7
	L1	0.15	0.27	0.55	1.1	1.5	2.2	3.5	5.5
满载启动扭矩Nm	V1	4.2	8	18	48.5	75	100	265	460
	L1	1.5	3.1	6.7	20	30	41	106	180
启动效率	V1	0.24	0.25	0.19	0.18	0.17	0.18	0.17	0.18
	L1	0.16	0.16	0.12	0.11	0.10	0.11	0.11	0.12
1500rpm时的运转效率	V1	0.34	0.35	0.33	0.32	0.31	0.33	0.33	0.33
	L1	0.25	0.25	0.24	0.23	0.22	0.23	0.22	0.23
空载扭矩Nm	V1	0.11	0.29	0.40	0.84	1.85	2.1	2.8	3.8
	L1	0.09	0.18	0.29	0.59	1.12	1.4	2.1	3.1
箱体材料		球墨铸铁							
箱体重量kg		3.2	5	8.5	21.5	36	58	75	110
每100mm丝杠+护管 重量kg		0.36	0.50	0.75	1.52	2.44	3.02	4.5	6.8

注：所有系列产品的环境工作温度：–10℃–40℃，（如需–35℃–70℃，请资讯工程师）
丝杠可提供双头，提升速度比例提高，具体参数咨询工程师。

选型注意事项：

◆工作制为10分钟内工作时间的百分比
SJA系列普通齿螺旋升降机的工作制为30%
滚珠丝杠螺旋升降机的工作制为50%
当实际负载小于额定负载时，可以适当提高工作制，具体咨询工程师

◆最大输入转速为1800rpm

◆实际载荷为满载的25%至100%时（即负载率为25%–100%），需输入扭矩=负载率X满载扭矩

◆行程大于300mm时，应核对稳定性，请参考负载与行程稳定性曲线图验算。

◆根据负载类型调整选型安全系数。均匀负载1.0–1.2；中度负载1.3–1.5；重度负载1.6–2.5

◆螺旋升降机正常工作状态下的输入功率不能超过最大输入功率输入功率kw=(满载扭矩NmX负载率X输入转速rpm)/9550

◆工作环境温度影响最大输入功率。
实际最大输入功率=额定最大输入功率X温度系数–10℃–25℃温度系数=1，
30℃温度系数=0.85，
40℃温度系数=0.65

◆同步升降台设计时需考虑组合系数，在计算总功率时考虑联动损耗。两台组合系数—0.95；三台组合–0.9；四台组合–0.85；6–8台组合—0.8。当螺旋升降机两端铰接安装时适当提高组合系数。

◆普通齿丝杠螺旋升降机大减速比的型号有自锁功能，小减速比的为不确定自锁，在安全场合和振动场合必须配置制动器。

◆普通齿丝杠和滚珠丝杠升降机在300mm行程上的导程误差为0.1mm。

◆螺旋升降机避免承受侧向力，可考虑导轨，导向装置等抵消侧向力或使用调心螺母螺旋升降机

◆非标特殊要求设计，请与工程师联系。

型号标注

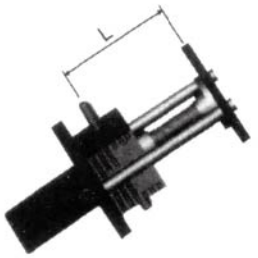
系列型号	基座号	运动形式	减速比	行程	接头型号	输入形式	输入轴方向	附件
SJA普通齿	5	S 丝杠运动	V1	非标	NF 标准外螺纹	P1 单轴输入	RH 右侧输入	FCP 接近限位开关
SJB滚珠丝杠	10	R 螺母运动	L1		TS 球形铰接	P2 双轴输入	LH 左侧输入	B 防尘罩
	20				TF 销孔端	P3 法兰输入		SN 安全螺母
	50				FL 法兰端	P4 法兰+轴输入		HBP 耳轴安装板
	80				FO 叉销端			
	100							
	200							
	300							



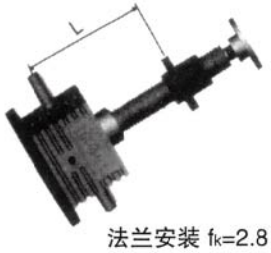
地脚安装 f_k=1



耳轴安装 f_k=2

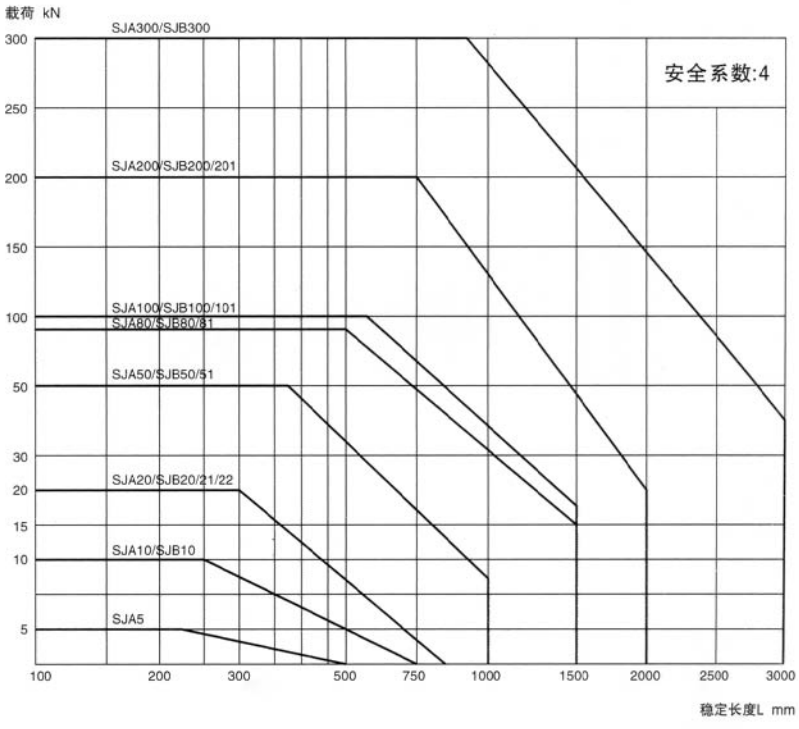


导向杆安装 f_k=2.5



法兰安装 f_k=2.8

稳定性曲线图



在压载荷作用下推杆稳定行程

在压载荷作用下，细的推进丝杠可能会压弯。在确定丝杠的稳定行程前应考虑安全系数及安装方式。

最大的稳定行程L=LkXfk

Lk图示实际负载对应的稳定行程峰值

fk 稳定性系数，根据安装方式及丝杠轴承类型提出的修正系数。

螺旋升降机选型表



n1=输入转速　Nm=需要输入扭矩　kW=需要输入功率

SJA5			提升负载															
			5kN				4kN				3kN				2kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 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	0.57	0.018	0.628	0.020	0.568	0.018	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			提升负载															
			10kN				8kN				5kN				2kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 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			提升负载															
			20kN				15kN				10kN				5kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 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	0.094	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	5.8	0.298	20.94	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	1.685	0.009

SJA50			提升负载															
			50kN				35kN				25kN				10kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 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	17.30	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

注：表格中灰色区域表明所选型号已经超出该型号的最大允许输入功率，如选用则适当降低工作制，具体选型咨询当地办事处。



n1=输入转速　Nm=需要输入扭矩　kW=需要输入功率

SJA80			提升负载															
			80kN				60kN				40kN				20kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 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	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			提升负载															
			100kN				80kN				50kN				20kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	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	13.98	0.439	13.774	0.433	5.595	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

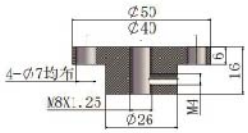
SJA00			提升负载															
			200kN				150kN				100kN				50kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	kW	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	32.0	8.0	132.25	19.39	49.59	7.27	99.19	14.54	37.20	5.45	66.13	9.694	24.797	3.635	33.063	4.847	12.399	1.818
900	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	57.46	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			提升负载															
			300kN				200kN				150kN				100kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	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	1.91	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

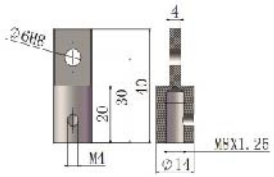
注：表格中灰色区域表明所选型号已经超出该型号的最大允许输入功率，如选用则适当降低工作制，具体选型咨询当地办事处。

SJA2.5螺旋升降机

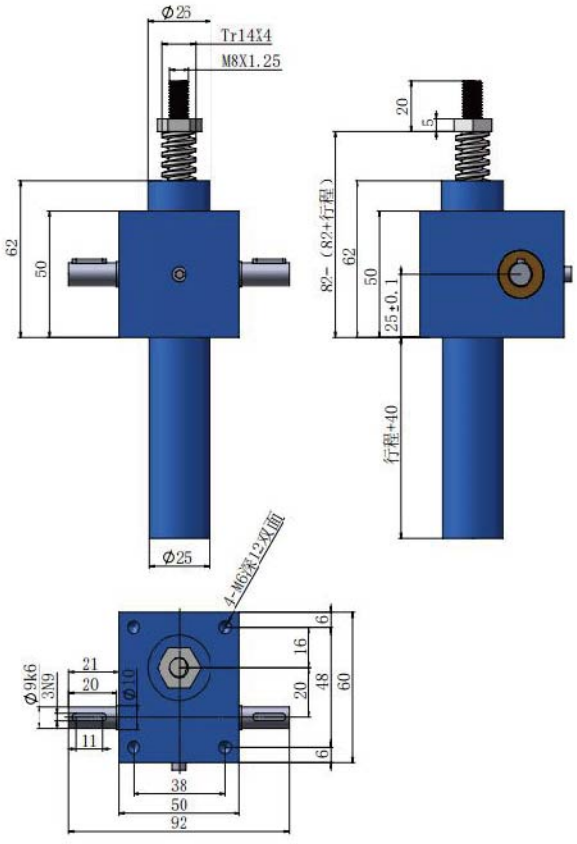
法兰端FL
Flange end FL



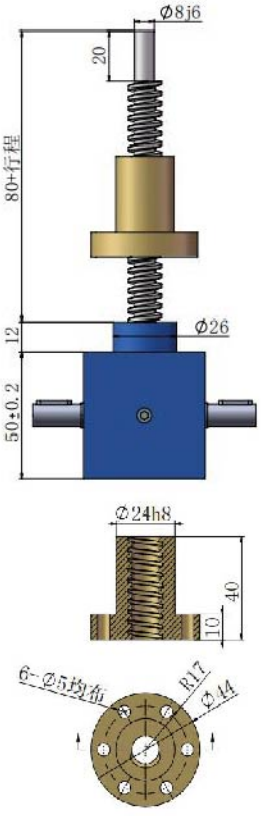
销孔端TF
Pin hole end TF



S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



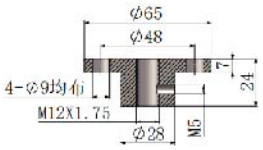
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

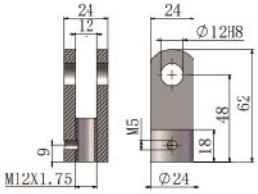
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA5螺旋升降机

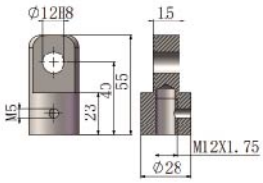
法兰端FL
Flange end FL



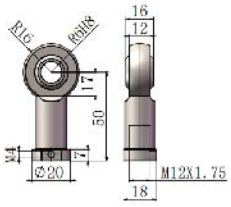
叉销端FO
Fork Pin End FO



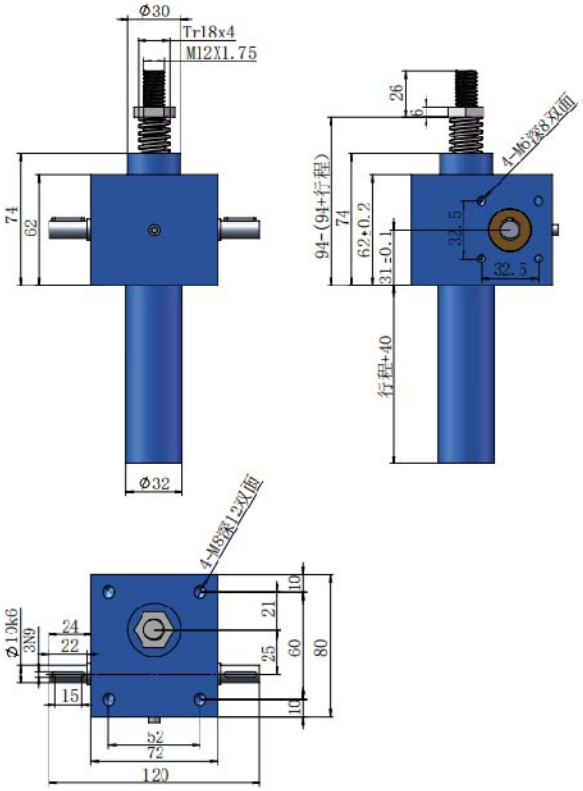
销孔端TF
Pin hole end TF



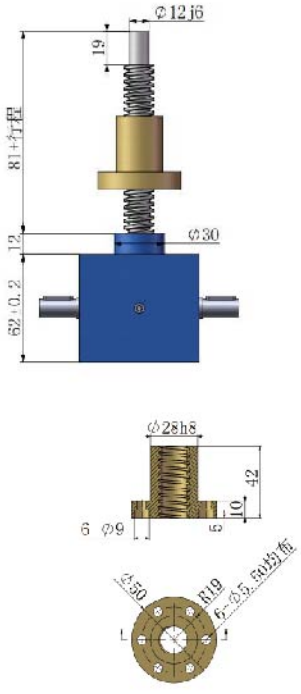
球型铰接TS
Spherical joint TS



S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



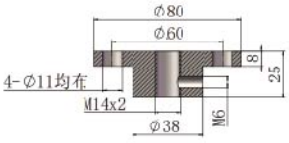
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

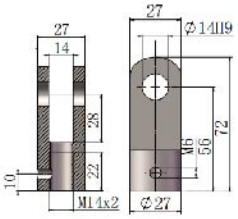
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA10螺旋升降机

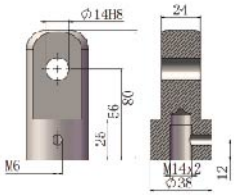
法兰端FL
Flange end FL



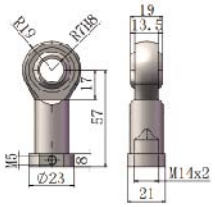
叉销端FO
Fork Pin End FO



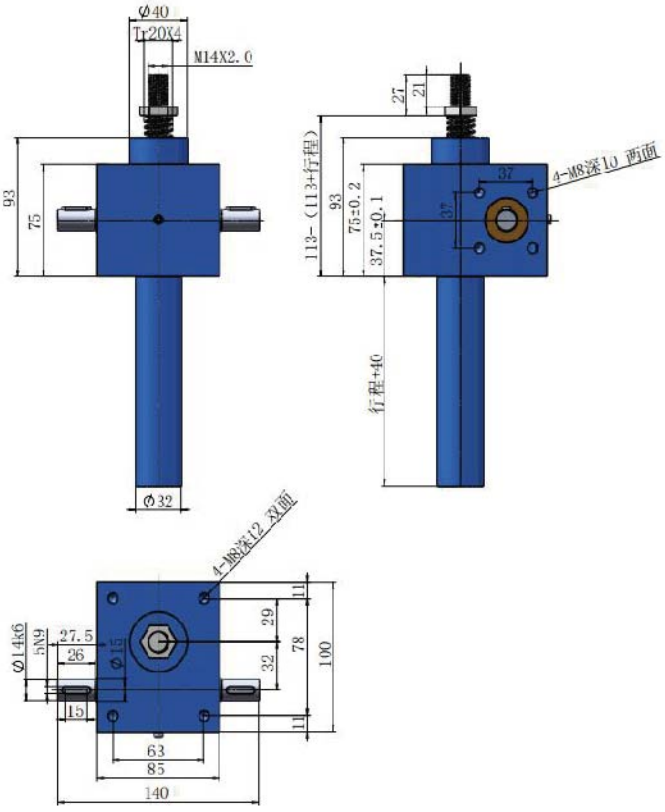
销孔端TF
Pin hole end TF



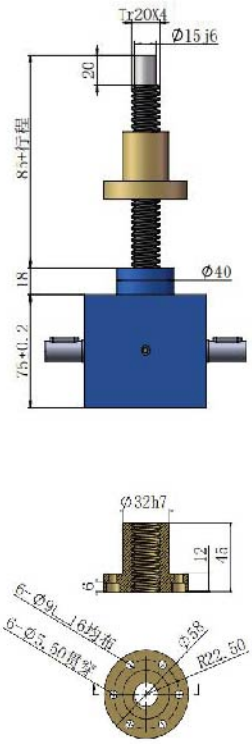
球型铰接TS
Spherical joint TS



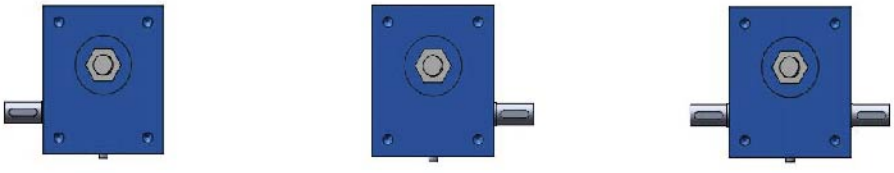
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



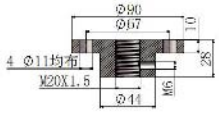
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

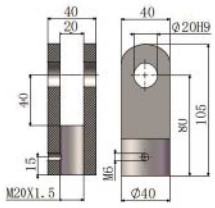
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA20螺旋升降机

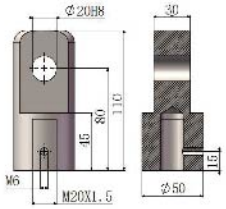
法兰端FL
Flange end FL



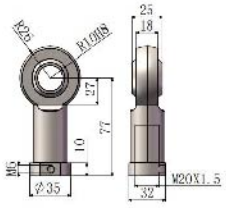
叉销端FO
Fork Pin End FO



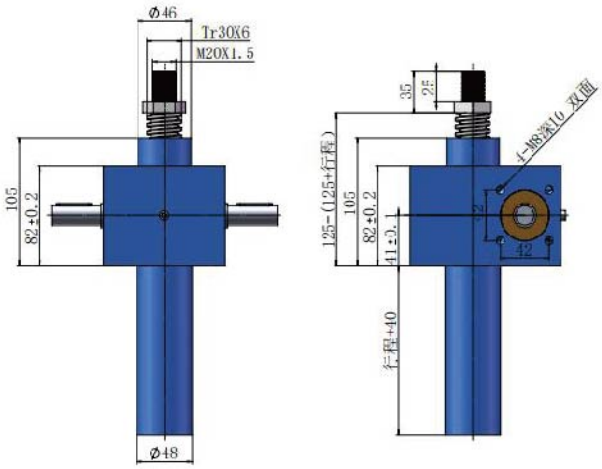
销孔端TF
Pin hole end TF

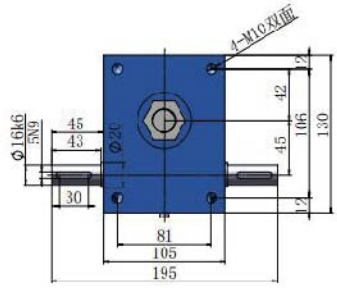


球型铰接TS
Spherical joint TS

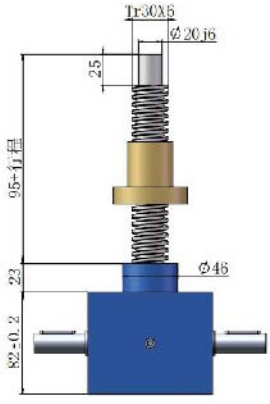


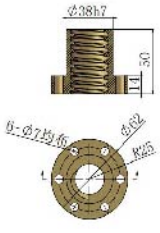
S型结构/Type S structure



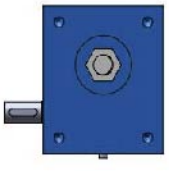


R型结构/Type R structure

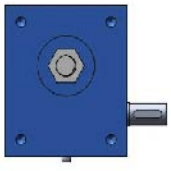




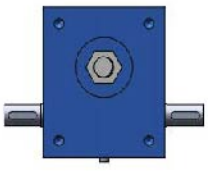
轴指向/Shaft direction



可选轴指向LH
Optional axis pointing LH



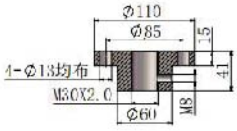
可选轴指向RH
Optional axis pointing RH



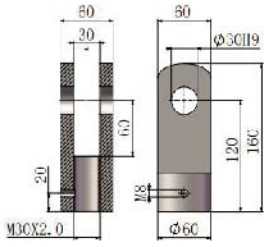
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA50螺旋升降机

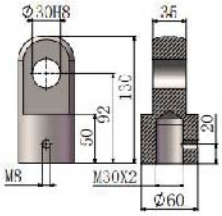
法兰端FL
Flange end FL



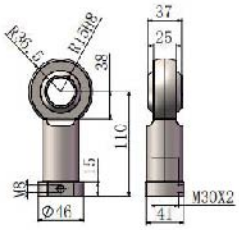
叉销端FO
Fork Pin End FO



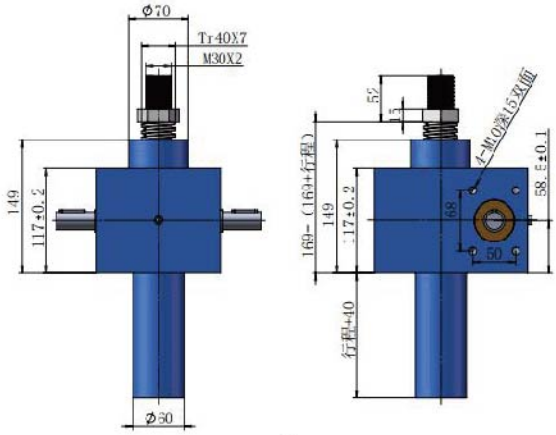
销孔端TF
Pin hole end TF

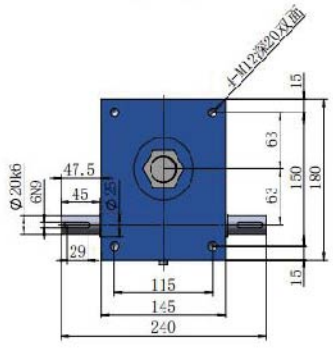


球型铰接TS
Spherical joint TS

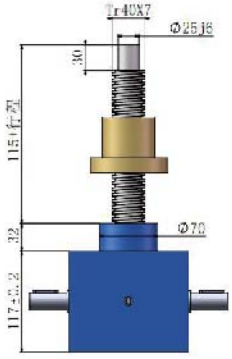


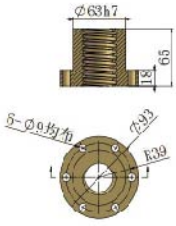
S型结构/Type S structure





R型结构/Type R structure

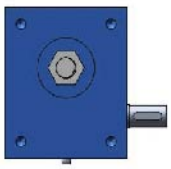




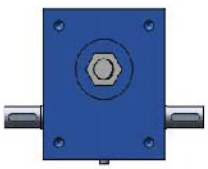
轴指向/Shaft direction



可选轴指向LH
Optional axis pointing LH



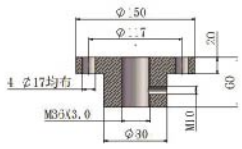
可选轴指向RH
Optional axis pointing RH



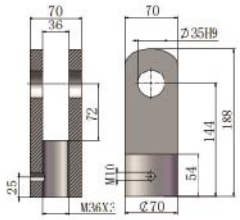
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA80螺旋升降机

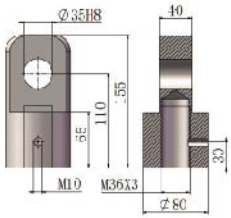
法兰端FL
Flange end FL



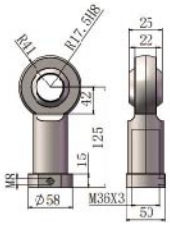
叉销端FO
Fork Pin End FO



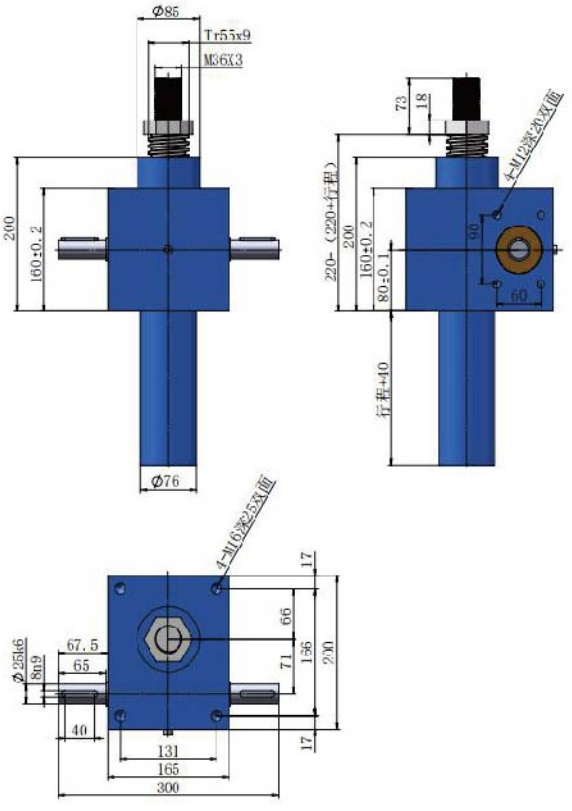
销孔端TF
Pin hole end TF



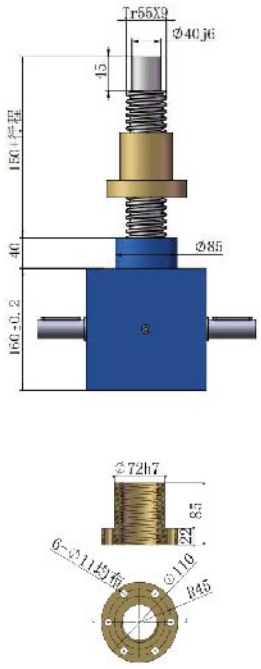
球型铰接TS
Spherical joint TS



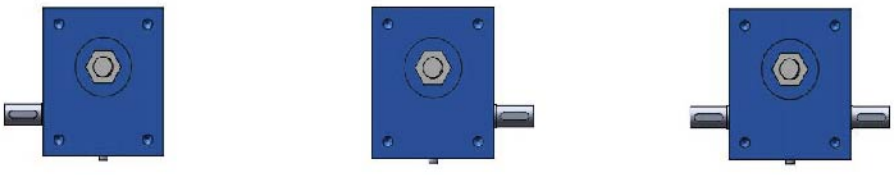
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



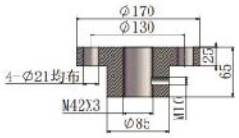
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

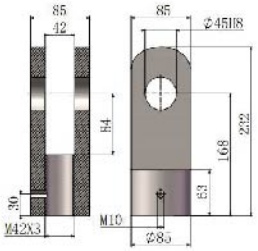
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA100螺旋升降机

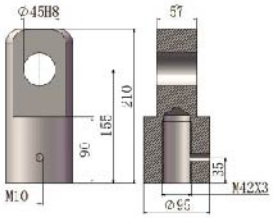
法兰端FL
Flange end FL



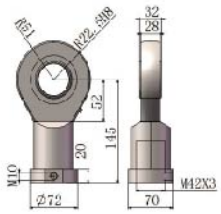
叉销端FO
Fork Pin End FO



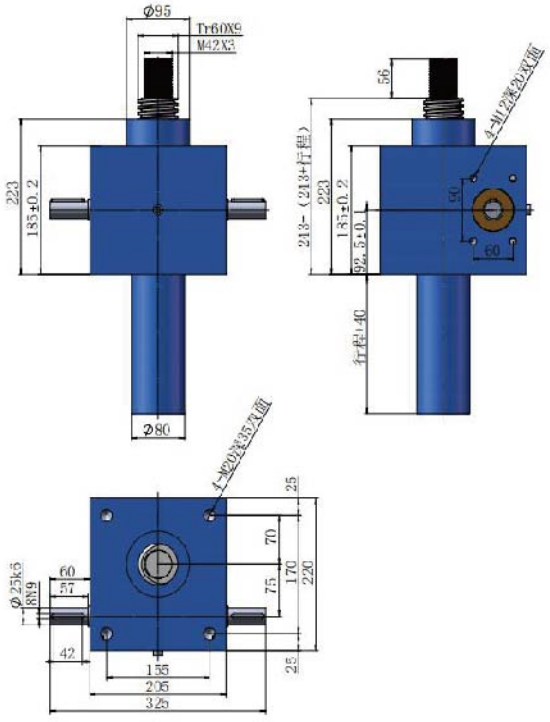
销孔端TF
Pin hole end TF



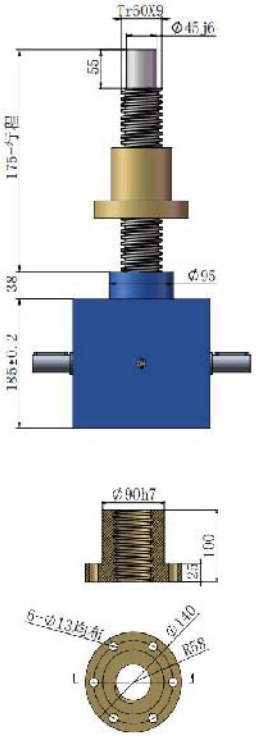
球型铰接TS
Spherical joint TS



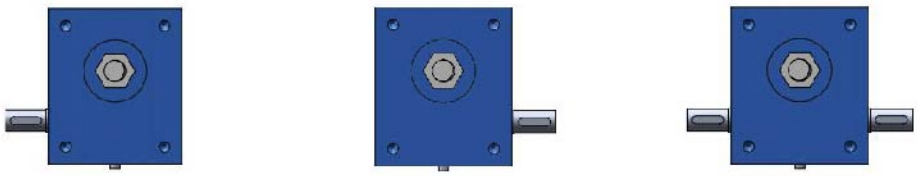
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



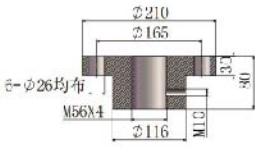
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

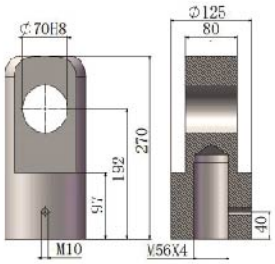
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA200螺旋升降机

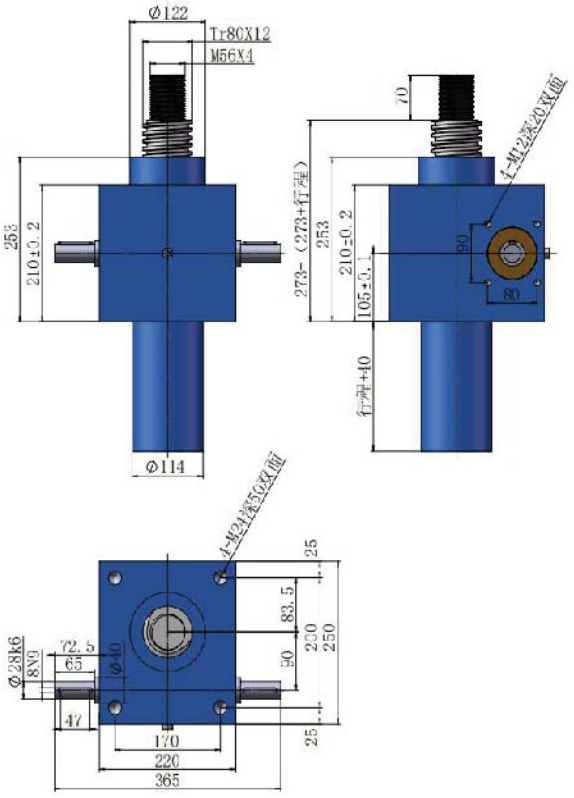
法兰端FL
Flange end FL



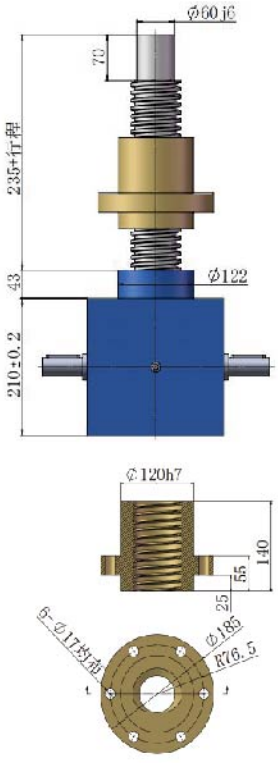
销孔端TF
Pin hole end TF



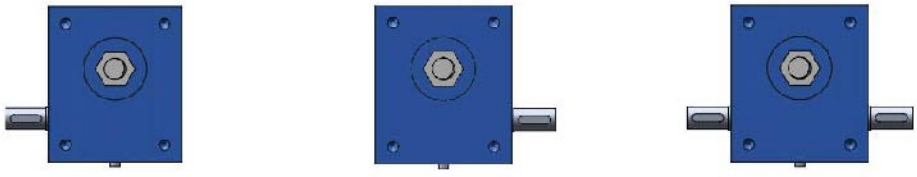
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



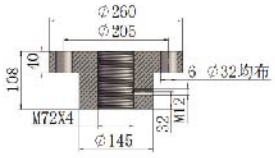
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

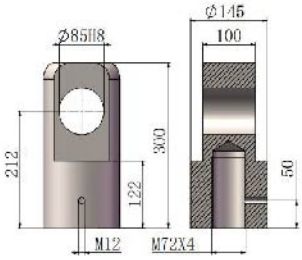
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA300螺旋升降机

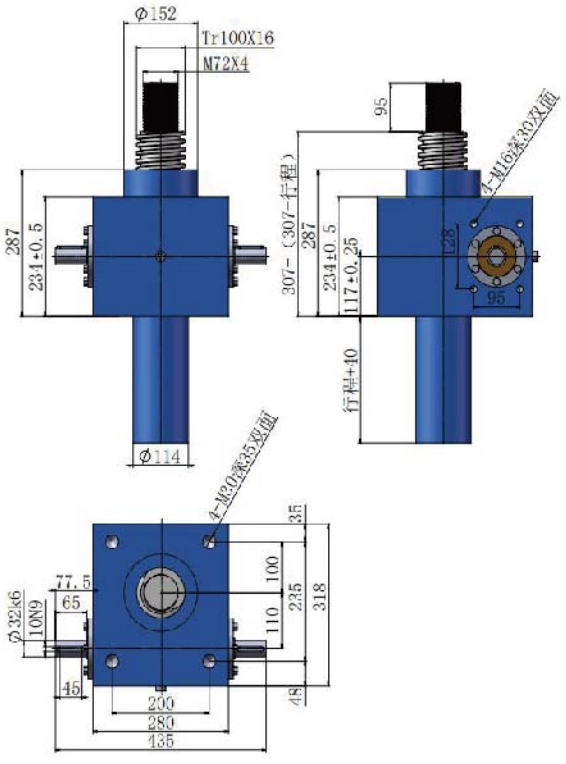
法兰端FL
Flange end FL



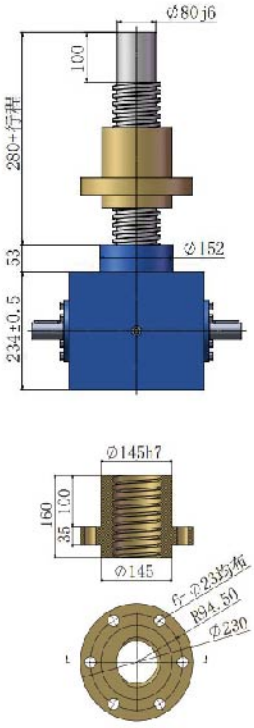
销孔端TF
Pin hole end TF



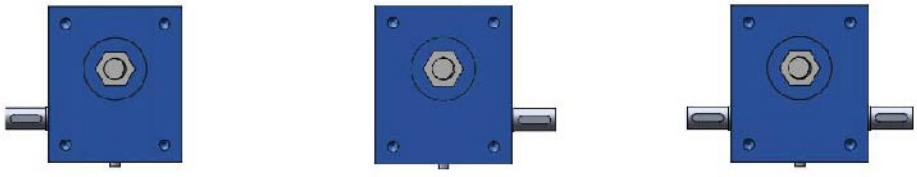
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



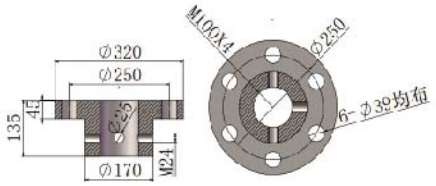
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

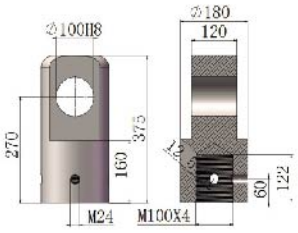
可选轴指向LH+RH
Optional axis pointing LH+RH

SJA450螺旋升降机

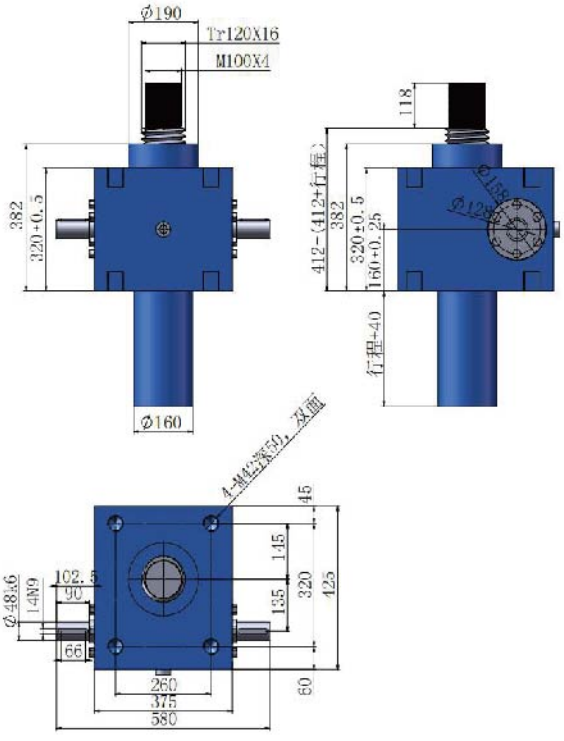
法兰端FL
Flange end FL



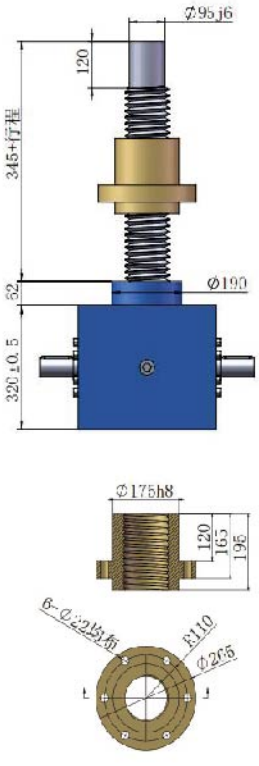
销孔端TF
Pin hole end TF



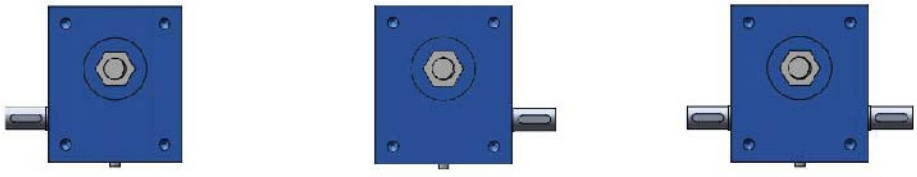
S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction



可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

可选轴指向LH+RH
Optional axis pointing LH+RH

滚珠丝杆螺旋升降机参数表

型号		SJB10	SJB20	SJB21	SJB22	SJB50	SJB51	SJB80	SJB81	SJB100	SJB101	SJB200	SJB201	SJB300
最大提升力kN		10	20	20	20	50	35	60	60	80	70	90	100	150
额定动载kN		11	17	25	25	46	30	53	56	71	62	78	97	111
丝杠直径×导程mm		20×5	32×5	32×10	32×20	40×10	40×20	50×10	50×20	63×10	63×20	80×10	80×20	100×20
蜗轮蜗杆减速比	V1	1:5	1:6	1:6	1:6	1:7	1:7	1:9	1:9	1:8	1:8	1:8.75	1:8.75	1:10.25
	L1	1:20	1:24	1:24	1:24	1:28	1:28	1:36	1:36	1:32	1:32	1:32	1:35	1:41
蜗杆输入1转丝杠行程mm	V1	1	0.83	1.67	3.34	1.43	2.86	1.11	2.22	1.25	2.5	2.28	2.28	1.95
	L1	0.25	0.21	0.42	0.84	0.36	0.72	0.27	0.55	0.31	0.62	0.58	0.58	0.488
最大输入功率KW	V1	0.57	1.14	1.14	1.14	2.2	2.2	2.5	2.5	3	3	4	4	7
	L1	0.27	0.55	0.55	0.55	1.1	1.1	1.5	1.5	2.2	2.2	3.5	3.5	5.5
满载启动扭矩Nm	V1	4.8	8.2	15.3	29.2	34.4	47.4	36.8	72.3	49.0	82.9	53.2	118	157
	L1	1.8	3.4	6.3	12.1	14.6	19.4	15.3	29.9	20.4	34	23.4	52	66.7
启动效率	V1	41	32	35	36	33	34	32	33	32	34	31	31	30
	L1	27	20	21	22	20	21	20	20	20	21	18	18	18
1500rpm时的运转效率	V1	59	58	62	65	59	60	58	59	58	60	55	55	53
	L1	42	39	42	44	39	41	39	40	39	41	35	35	35
箱体材料		球墨铸铁												
箱体重量kg		6	9.5	9.5	10	23	24	38	40	62	64	78	78	125
每100mm丝杠+护管 重量kg		0.5	0.8	0.8	0.8	1.6	1.6	2.5	2.5	3.2	3.2	4.6	4.6	7.3

注：所有系列产品的环境温度：–20度–+40度（如需要–35度–+70度，咨询技术部）

滚珠丝杆螺旋升降机寿命计算

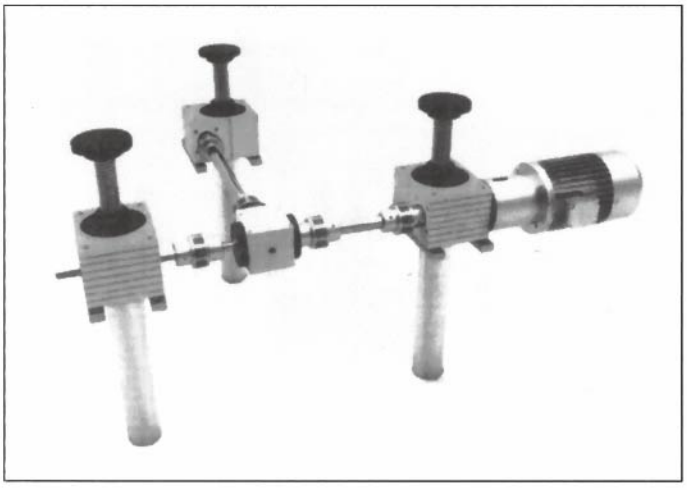
滚珠丝杠螺旋升降机SJB系列产品的寿命主要由滚珠丝杠的寿命及蜗轮蜗杆等零部件寿命决定；我们主要校核滚珠丝杠的寿命，蜗轮蜗杆会有磨损，但寿命一般比滚珠丝杠长。

滚珠丝杠的预期寿命L10是90%的滚珠丝杠在金属材料疲劳失效前所能达到或超过的运行距离。单位为百万毫米。滚珠丝杠预期寿命L10并非是保质承诺，同时寿命的预期要在正确的维护，无污染物和正确的润滑。

假如滚珠丝杠的预期寿命需要高于90%，则将预期寿命乘以如下系数

95%：L10X62% 96%：L10X53% 97%：L10X44%

98%：L10x33% 99%：L10X21%



标准滚珠螺母寿命计算公式

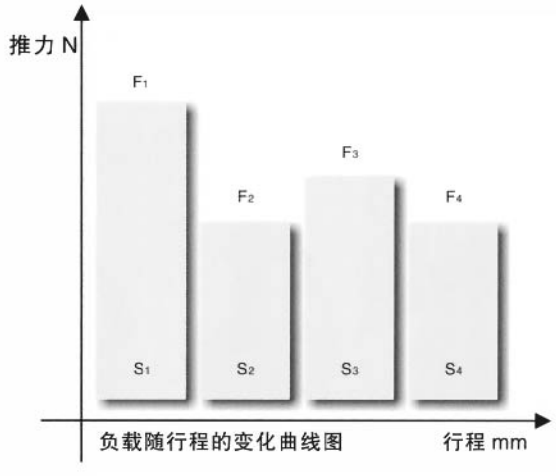
$$L10=(C/Fm)^3\times S$$

L10：理论寿命公里数km　　Fm：加权平均载荷N

C：额定动载N　　S：滚珠丝杠导程mm

其中Fm加权平均载荷的计算如下公式：

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



螺旋升降机选型表



n1=输入转速　Nm=需要输入扭矩　kW=需要输入功率

SJB10			提升负载															
			10kN				8kN				5kN				2kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	29.2	7.3	3.37	0.49	1.18	0.17	2.70	0.40	0.95	0.14	1.69	0.247	0.592	0.087	0.674	0.099	0.237	0.035
900	18.7	4.7	3.62	0.34	1.28	0.12	2.89	0.27	1.02	0.10	1.81	0.170	0.638	0.060	0.723	0.068	0.255	0.024
700	14.6	3.6	3.75	0.28	1.31	0.10	3.00	0.22	1.05	0.08	1.88	0.138	0.654	0.048	0.751	0.055	0.262	0.019
500	10.4	2.6	3.98	0.21	1.38	0.07	3.18	0.17	1.11	0.06	1.99	0.104	0.691	0.036	0.796	0.042	0.276	0.014
300	6.2	1.6	4.14	0.13	1.51	0.05	3.32	0.10	1.21	0.04	2.07	0.065	0.754	0.024	0.829	0.026	0.301	0.009
100	2.1	0.5	4.42	0.05	1.66	0.02	3.54	0.04	1.33	0.01	2.21	0.023	0.829	0.009	0.884	0.009	0.332	0.003
50	1.0	0.3	4.63	0.02	1.78	0.01	3.70	0.02	1.42	0.01	2.31	0.012	0.888	0.005	0.925	0.005	0.355	0.002

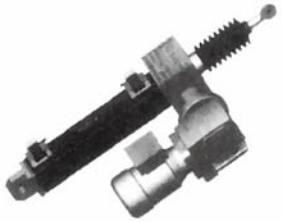
SJB20			提升负载															
			20kN				15kN				10kN				5kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	19.4	4.8	4.56	0.67	1.69	0.25	3.42	0.50	1.27	0.19	2.28	0.334	0.847	0.124	1.139	0.167	0.423	0.062
900	12.4	3.1	4.80	0.45	1.74	0.16	3.60	0.34	1.30	0.12	2.40	0.226	0.869	0.082	1.201	0.113	0.435	0.041
700	9.7	2.4	4.99	0.37	1.79	0.13	3.74	0.27	1.34	0.10	2.49	0.183	0.893	0.065	1.246	0.091	0.446	0.033
500	6.9	1.7	5.28	0.28	1.83	0.10	3.96	0.21	1.38	0.07	2.64	0.138	0.917	0.048	1.321	0.069	0.459	0.024
300	4.1	1.0	5.50	0.17	2.00	0.06	4.13	0.13	1.50	0.05	2.75	0.086	1.001	0.031	1.376	0.043	0.500	0.016
100	1.4	0.3	5.87	0.06	2.20	0.02	4.40	0.05	1.65	0.02	2.94	0.031	1.101	0.012	1.468	0.015	0.550	0.006
50	0.7	0.2	6.14	0.03	2.36	0.01	4.61	0.02	1.77	0.01	3.07	0.016	1.180	0.006	1.536	0.008	0.590	0.003

SJB21			提升负载															
			20kN				15kN				10kN				5kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	39.0	9.7	8.57	1.26	3.16	0.46	6.43	0.94	2.37	0.35	4.29	0.628	1.582	0.232	2.144	0.314	0.791	0.116
900	25.0	6.3	9.01	0.85	3.32	0.31	6.76	0.64	2.49	0.23	4.51	0.425	1.661	0.157	2.253	0.212	0.831	0.078
700	19.5	4.9	9.49	0.70	3.50	0.26	7.12	0.52	2.62	0.19	4.75	0.348	1.749	0.128	2.373	0.174	0.874	0.064
500	13.9	3.5	10.03	0.53	3.69	0.19	7.52	0.39	2.77	0.14	5.02	0.263	1.846	0.097	2.508	0.131	0.923	0.048
300	8.3	2.1	10.63	0.33	4.03	0.13	7.97	0.25	3.02	0.09	5.32	0.167	2.014	0.063	2.658	0.083	1.007	0.032
100	2.8	0.7	11.56	0.12	4.43	0.05	8.67	0.09	3.32	0.03	5.78	0.061	2.215	0.023	2.889	0.030	1.108	0.012
50	1.4	0.3	12.08	0.03	4.58	0.02	9.06	0.05	3.44	0.02	6.04	0.032	2.291	0.012	3.021	0.016	1.146	0.006

SJB22			提升负载															
			20kN				15kN				10kN				5kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	77.9	19.5	16.61	2.44	6.04	0.89	12.46	1.83	4.53	0.66	8.31	1.218	3.021	0.443	4.153	0.609	1.510	0.221
900	50.1	12.5	17.43	1.64	6.48	0.61	13.07	1.23	4.86	0.46	8.72	0.821	3.242	0.305	4.358	0.411	1.621	0.153
700	39.0	9.7	18.33	1.34	6.82	0.50	13.75	1.01	5.11	0.37	9.17	0.672	3.408	0.250	4.583	0.336	1.704	0.125
500	27.8	7.0	19.33	1.01	7.18	0.38	14.50	0.76	5.39	0.28	9.67	0.506	3.592	0.188	4.833	0.253	1.796	0.094
300	16.7	4.2	20.45	0.64	7.59	0.24	15.34	0.48	5.70	0.18	10.22	0.321	3.797	0.119	5.112	0.161	1.899	0.060
100	5.6	1.4	22.15	0.23	8.31	0.09	16.61	0.17	6.23	0.07	11.08	0.116	4.153	0.043	5.538	0.058	2.077	0.022
50	2.8	0.7	23.63	0.12	8.86	0.05	17.72	0.09	6.65	0.03	11.81	0.062	4.430	0.023	5.907	0.031	2.215	0.012

注：表格中灰色区域表明所选型号已经超出该型号的最大允许输入功率，如选用则适当降低工作制，具体选型咨询当地办事处。

螺旋升降机选型表



n1=输入转速　Nm=需要输入扭矩　kW=需要输入功率

SJB50			提升负载															
			50kN				35kN				25kN				10kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	33.4	8.3	19.29	2.83	7.30	1.07	13.50	1.98	5.11	0.75	9.64	1.414	3.648	0.535	3.858	0.566	1.459	0.214
900	21.4	5.4	20.69	1.95	7.49	0.71	14.48	1.36	5.24	0.49	10.35	0.975	3.744	0.353	4.138	0.390	1.497	0.141
700	16.7	4.2	21.47	1.357	7.69	0.56	15.03	1.10	5.38	0.369	10.74	0.787	3.845	0.282	4.294	0.315	1.538	0.113
500	11.9	3.0	22.76	1.19	7.90	0.41	15.93	0.83	5.53	0.29	11.38	0.596	3.952	0.207	4.552	0.238	1.581	0.083
300	7.1	1.8	23.71	0.74	8.62	0.27	16.60	0.52	6.04	0.19	11.85	0.372	4.311	0.135	4.742	0.149	1.724	0.054
100	2.4	0.6	25.29	0.26	9.48	0.10	17.70	0.19	6.64	0.07	12.64	0.132	4.742	0.050	5.058	0.053	1.897	0.020
50	1.2	0.3	26.47	0.14	10.16	0.05	18.53	0.10	7.11	0.04	13.23	0.069	5.081	0.027	5.293	0.028	2.032	0.011

SJB51			提升负载															
			50kN				35kN				25kN				10kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	66.7	16.7	37.31	5.47	13.88	2.03	26.12	3.83	9.71	1.42	18.66	2.735	6.939	1.017	7.463	1.094	2.776	0.407
900	42.9	10.7	35.58	3.64	14.59	1.37	27.00	2.54	10.21	0.96	19.29	1.818	7.295	0.687	7.716	0.727	2.918	0.275
700	33.4	8.3	39.93	2.93	15.38	1.13	27.95	2.05	10.77	0.79	19.97	1.463	7.689	0.564	7.986	0.585	3.076	0.225
500	23.8	6.0	42.94	2.25	15.81	0.83	30.06	1.57	11.06	0.58	21.47	1.124	7.903	0.414	8.589	0.450	3.161	0.166
300	14.3	3.6	44.63	1.40	17.24	0.54	31.24	0.98	12.07	0.38	22.31	0.701	8.622	0.271	8.926	0.280	3.449	0.108
100	4.8	1.2	47.42	0.50	18.97	0.20	33.19	0.35	13.28	0.14	23.71	0.248	9.484	0.099	9.484	0.099	3.793	0.040
50	2.4	0.6	50.58	0.26	20.32	0.11	35.41	0.19	14.23	0.07	25.29	0.132	10.161	0.053	10.116	0.053	4.064	0.021

SJB80			提升负载															
			80kN				60kN				40kN				20kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	29.2	7.3	27.44	4.02	10.20	1.50	20.58	3.02	7.65	1.12	13.72	2.011	5.101	0.748	6.681	1.006	2.551	0.374
900	18.7	4.7	28.94	2.73	10.47	0.99	21.70	2.05	7.85	0.74	14.47	1.364	5.236	0.493	7.235	0.682	2.618	0.247
700	14.6	3.6	30.03	2.20	10.75	0.79	22.52	1.65	8.07	0.59	15.02	1.101	5.377	0.394	7.508	0.550	2.689	0.197
500	10.4	2.6	31.83	1.67	11.05	0.58	23.87	1.25	8.29	0.43	15.92	0.833	5.527	0.289	7.958	0.417	2.762	0.145
300	6.2	1.6	33.16	1.04	12.06	0.38	24.87	0.78	9.04	0.28	16.58	0.521	6.029	0.189	8.290	0.260	3.105	0.095
100	2.1	0.5	35.37	0.37	13.26	0.14	26.53	0.28	9.95	0.10	17.69	0.185	6.632	0.069	8.843	0.093	3.316	0.035
50	1.0	0.3	37.02	0.19	14.21	0.07	27.76	0.15	10.66	0.06	18.51	0.097	7.106	0.037	9.254	0.048	3.553	0.019

SJB81			提升负载															
			80kN				60kN				40kN				20kN			
n1	提升速度 mm/s		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1		减速比 V1		L1	
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	58.3	14.6	53.95	7.91	19.90	2.92	40.47	5.93	14.92	2.19	26.98	3.955	9.948	1.458	13.489	1.977	4.974	0.729
900	37.5	93.4	57.88	5.45	20.94	1.97	43.41	4.09	15.71	1.48	28.94	2.727	10.471	0.987	14.470	1.364	5.236	0.493
700	29.2	7.3	60.06	4.40	21.51	1.58	45.05	3.30	16.13	1.18	30.03	2.201	10.755	0.788	15.016	1.101	5.377	0.394
500	20.8	5.2	63.67	3.33	22.11	1.16	47.75	2.50	16.58	0.87	31.83	1.667	11.053	0.579	15.917	0.833	5.527	0.289
300	12.5	3.1	66.32	2.08	24.12	0.76	49.74	1.56	18.09	0.57	33.16	1.042	12.058	0.379	16.580	0.521	6.029	0.189
100	4.2	1.0	70.74	0.74	26.53	0.28	53.06	0.56	19.90	0.21	35.37	0.370	13.264	0.139	17.685	0.185	0.632	0.069
50	2.1	0.5	74.03	0.39	28.42	0.15	55.52	0.29	21.32	0.11	37.02	0.194	14.211	0.074	18.508	0.097	7.106	0.037

注：表格中灰色区域表明所选型号已经超出该型号的最大允许输入功率，如选用则适当降低工作制，具体选型咨询当地办事处。

螺旋升降机选型表



n1=输入转速　Nm=需要输入扭矩　kW=需要输入功率

SJB100			提升负载															
			100kN				80kN				50kN				20kN			
n1	提升速度 mm/s		减速比 V1 L1				减速比 V1 L1				减速比 V1 L1				减速比 V1 L1			
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	29.2	7.3	34.30	5.03	12.75	1.87	27.44	4.02	10.20	1.50	17.15	2.514	6.377	0.935	6.861	1.006	2.551	0.374
900	18.7	4.7	36.17	3.41	13.09	1.23	28.94	2.73	10.47	0.99	18.09	1.705	6.545	0.617	7.235	0.682	2.618	0.247
700	14.6	3.6	37.54	2.75	13.44	0.99	30.03	2.20	10.75	0.79	18.77	1.376	6.722	0.493	7.508	0.550	2.689	0.197
500	10.4	2.6	39.79	2.08	13.82	0.72	31.83	1.67	11.05	0.58	19.90	1.042	6.908	0.362	7.958	0.417	3.763	0.145
300	6.2	1.6	41.45	1.30	15.07	0.47	33.16	1.04	12.06	0.38	20.72	0.651	7.536	0.237	8.290	0.260	3.015	10.095
100	2.1	0.5	44.21	0.46	16.58	0.17	35.37	0.37	13.26	0.14	22.11	0.231	8.290	0.087	8.843	0.093	3.316	0.035
50	1.0	0.3	46.27	0.24	17.76	0.09	37.02	0.19	14.21	0.07	23.13	0.121	8.882	0.047	9.254	0.048	3.553	0.019

SJB101			提升负载															
			100kN				80kN				50kN				20kN			
n1	提升速度 mm/s		减速比 V1 L1				减速比 V1 L1				减速比 V1 L1				减速比 V1 L1			
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	58.3	14.6	66.32	9.72	24.26	3.56	53.06	7.78	19.41	2.85	33.16	4.861	12.132	1.778	13.264	1.944	4.853	0.711
900	37.5	9.4	68.61	6.47	25.51	2.40	54.89	5.17	20.41	1.92	34.30	3.233	12.754	1.202	13.721	1.293	5.101	0.481
700	29.2	7.3	71.06	5.21	26.18	1.92	56.85	4.17	20.94	1.54	35.53	2.064	13.089	0.959	14.211	1.042	5.236	0.384
500	20.8	5.2	75.08	3.93	26.89	1.41	60.06	3.14	21.51	1.13	37.54	1.965	13.443	0.704	15.016	0.786	5.377	0.282
300	12.5	3.1	79.58	2.50	28.42	0.89	63.67	2.00	22.74	0.71	39.79	1.250	14.211	0.446	15.917	0.500	5.685	0.179
100	4.2	1.0	82.90	0.87	31.09	0.33	66.32	0.69	24.87	0.26	41.45	0.434	15.544	0.163	16.580	0.174	6.217	0.065
50	2.1	0.5	88.43	0.46	33.16	0.17	70.74	0.37	26.53	0.14	44.21	0.231	16.580	0.087	17.685	0.093	6.632	0.035

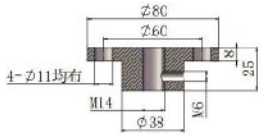
SJB201			提升负载															
			200kN				150kN				100kN				50kN			
n1	提升速度 mm/s		减速比 V1 L1				减速比 V1 L1				减速比 V1 L1				减速比 V1 L1			
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	53.2	13.3	131.96	19.35	51.84	7.60	98.97	14.51	38.88	5.70	65.98	9.673	25.921	3.800	32.991	4.836	12.961	1.900
900	34.2	8.5	136.94	12.91	54.98	5.18	102.71	9.68	41.24	3.89	68.47	6.453	27.492	2.519	34.236	3.226	13.746	1.295
700	26.6	6.6	142.31	10.43	58.53	4.29	106.74	7.82	43.90	3.22	71.16	5.216	29.266	2.145	35.578	2.608	14.633	1.073
500	19.0	4.7	148.12	7.76	62.57	3.28	111.09	5.82	46.93	2.46	74.06	3.878	31.284	1.638	37.031	1.939	15.642	0.819
300	11.4	2.8	154.43	4.85	64.80	2.04	115.82	3.64	48.60	1.53	77.21	2.426	32.402	1.018	38.606	1.213	16.201	0.509
100	3.8	0.9	161.29	1.69	67.20	0.70	120.97	1.27	50.40	0.53	80.64	0.844	33.602	0.352	40.322	0.422	16.801	0.176
50	1.9	0.5	168.79	0.88	69.79	0.37	126.59	0.66	42.34	0.27	84.80	0.442	34.894	0.183	41.198	0.221	17.447	0.091

SJB300			提升负载															
			300kN				200kN				150kN				100kN			
n1	提升速度 mm/s		减速比 V1 L1				减速比 V1 L1				减速比 V1 L1				减速比 V1 L1			
RPM	V1	L1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1400	45.5	11.4	175.68	25.75	66.51	9.75	117.12	17.17	44.34	6.50	87.84	12.877	33.254	4.875	58.561	8.585	22.170	3.250
900	29.2	7.3	182.57	17.21	70.54	6.65	121.72	11.47	47.03	4.43	91.29	8.063	35.270	3.324	60.858	5.735	23.513	2.216
700	22.7	5.7	186.22	13.65	75.09	5.50	124.15	9.10	50.06	3.67	93.11	6.825	37.545	2.752	62.075	4.550	25.030	1.835
500	16.2	4.1	190.03	9.95	80.27	4.20	126.68	6.63	53.51	2.80	95.01	4.974	40.135	2.101	63.342	3.316	26.756	1.401
300	9.7	2.4	198.11	6.22	83.14	2.61	132.07	4.15	55.42	1.74	99.06	3.112	41.568	1.306	66.037	2.074	27.712	0.871
100	3.2	0.8	206.92	2.17	86.22	0.90	137.94	1.44	57.48	0.60	103.46	1.083	43.108	0.451	68.972	0.722	28.738	0.301
50	1.6	0.4	216.54	1.13	89.53	0.47	144.36	0.76	59.69	0.31	108.27	0.567	29.844	0.156	72.180	0.378	29.844	0.156

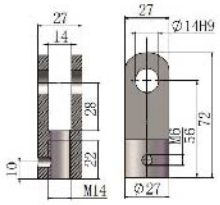
注：表格中灰色区域表明所选型号已经超出该型号的最大允许输入功率，如选用则适当降低工作制，具体选型咨询当地办事处。

SJB10螺旋升降机

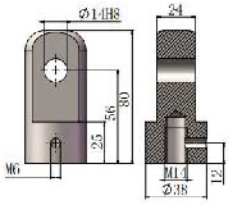
法兰端FL
Flange end FL



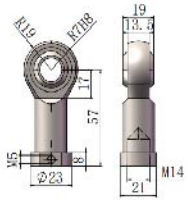
叉销端FO
Fork Pin End FO



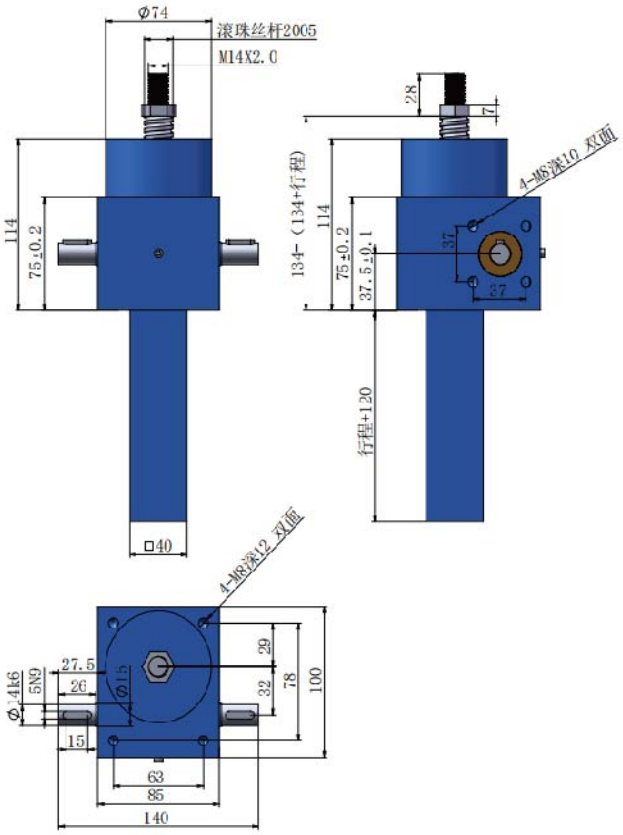
销孔端TF
Pin hole end TF



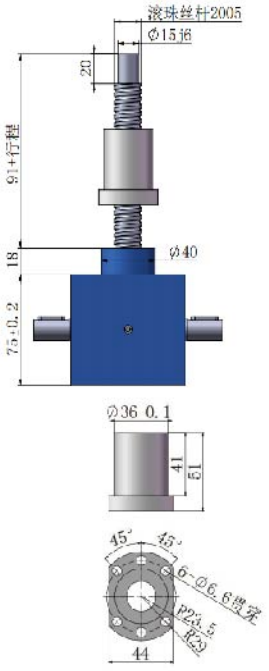
球型铰接TS
Spherical joint TS



S型结构/Type S structure



R型结构/Type R structure



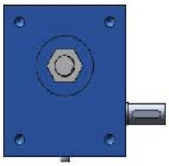
可选滚珠丝杆类型：2005,2010,2020

注：其他滚珠规格尺寸可联系工程师

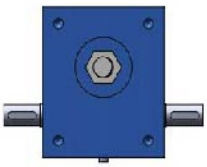
轴指向/Shaft direction



可选轴指向LH
Optional axis pointing LH



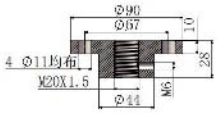
可选轴指向RH
Optional axis pointing RH



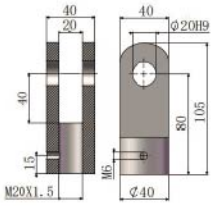
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB20螺旋升降机

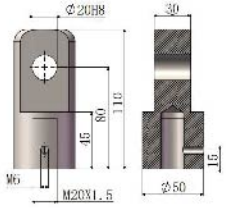
法兰端FL
Flange end FL



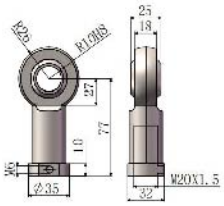
叉销端FO
Fork Pin End FO



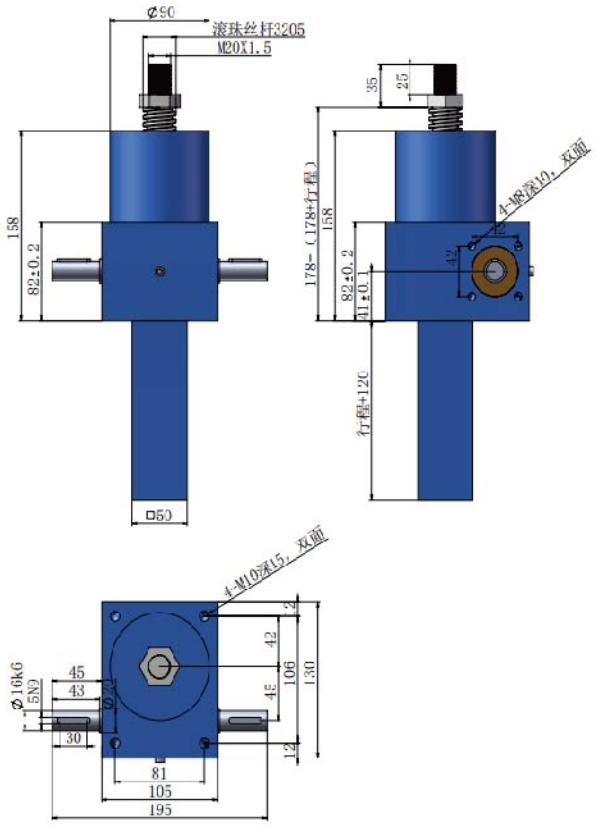
销孔端TF
Pin hole end TF



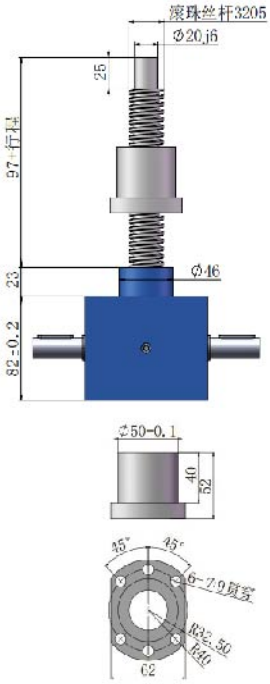
球型铰接TS
Spherical joint TS



S型结构/Type S structure



R型结构/Type R structure



可选滚珠丝杆类型：2505,2510

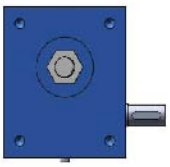
可选滚珠丝杆类型：3205,3210,3220

注：其他滚珠规格尺寸可联系工程师

轴指向/Shaft direction



可选轴指向LH
Optional axis pointing LH



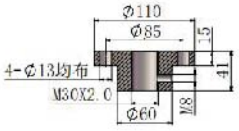
可选轴指向RH
Optional axis pointing RH



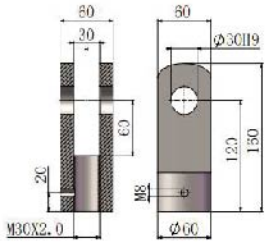
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB50螺旋升降机

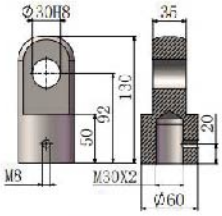
法兰端FL
Flange end FL



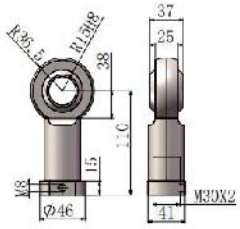
叉销端FO
Fork Pin End FO



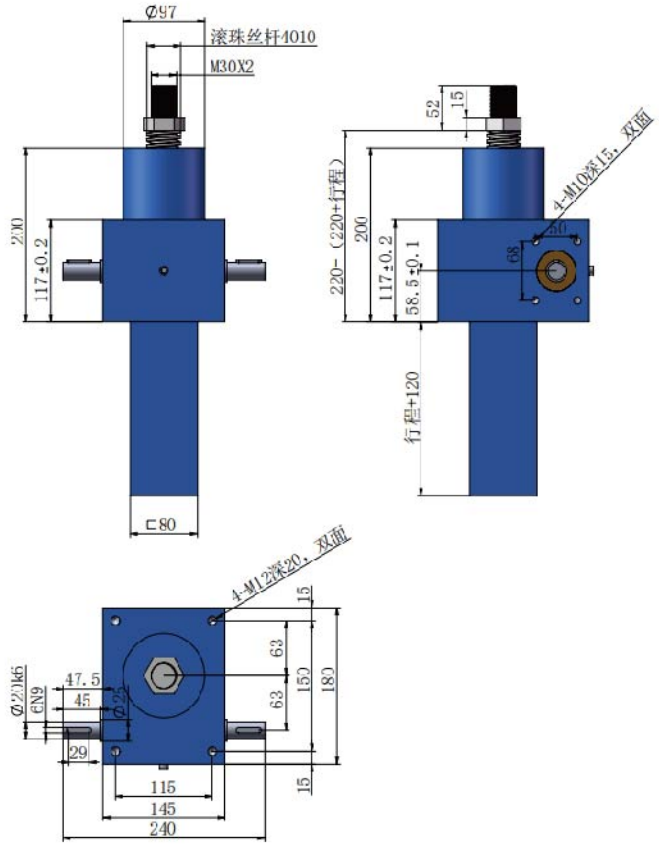
销孔端TF
Pin hole end TF



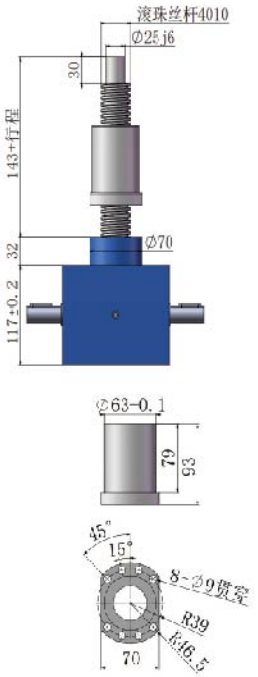
球型铰接TS
Spherical joint TS



S型结构/Type S structure



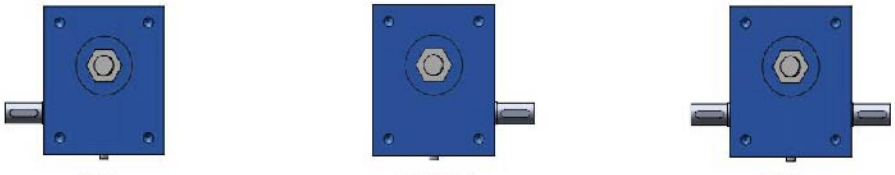
R型结构/Type R structure



可选滚珠丝杆类型：4010,4020

注：其他滚珠规格尺寸可联系工程师

轴指向/Shaft direction



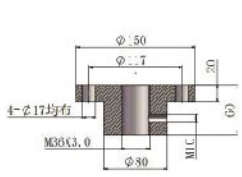
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

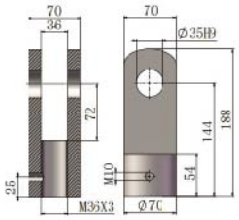
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB80螺旋升降机

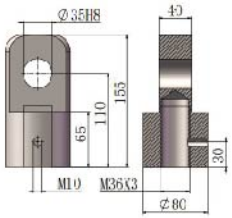
法兰端FL
Flange end FL



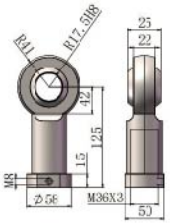
叉销端FO
Fork Pin End FO



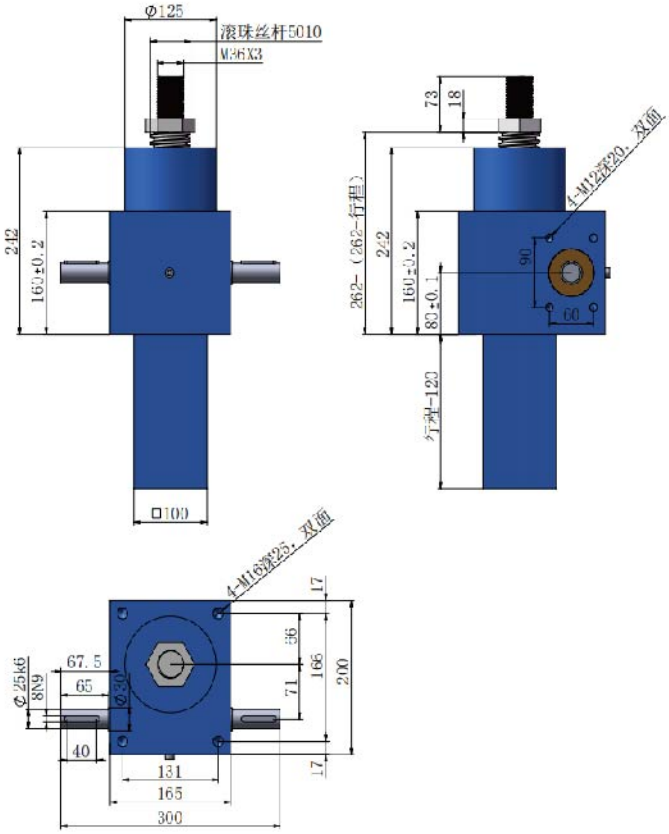
销孔端TF
Pin hole end TF



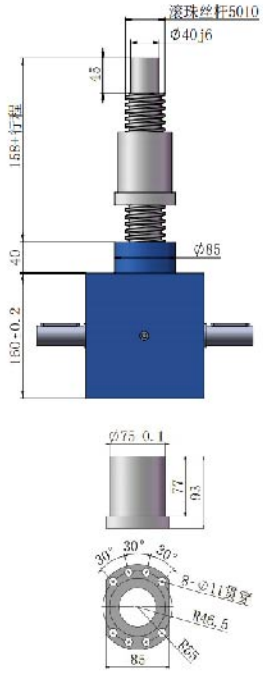
球型铰接TS
Spherical joint TS



S型结构/Type S structure



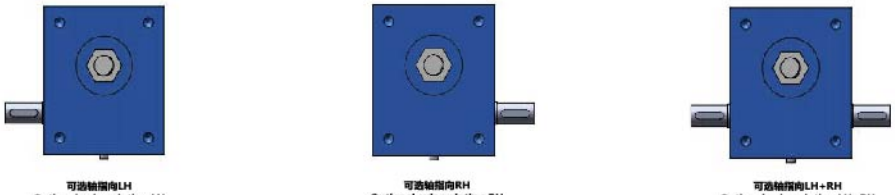
R型结构/Type R structure



可选滚珠丝杆类型：5010,5020

注：其他滚珠规格尺寸可联系工程师

轴指向/Shaft direction



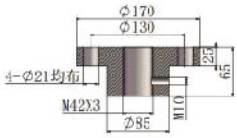
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

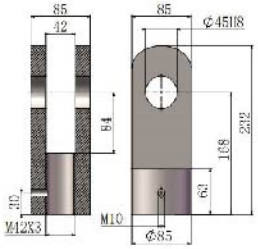
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB100螺旋升降机

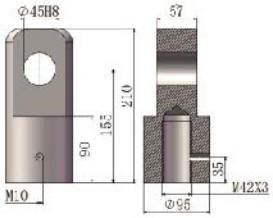
法兰端FL
Flange end FL



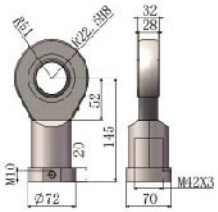
叉销端FO
Fork Pin End FO



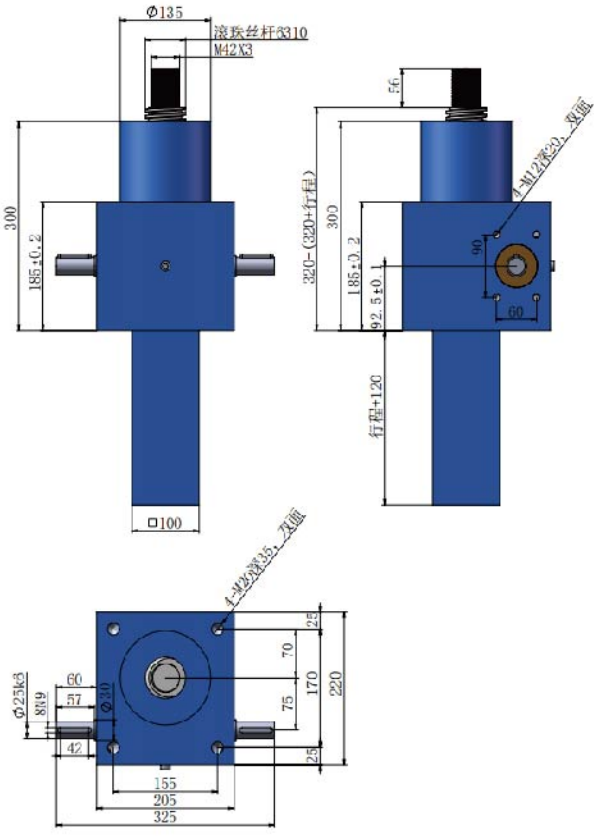
销孔端TF
Pin hole end TF



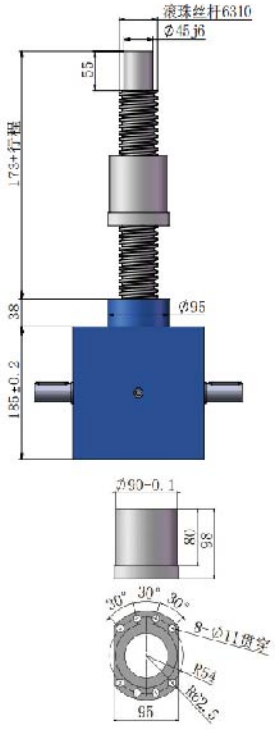
球型铰接TS
Spherical joint TS



S型结构/Type S structure



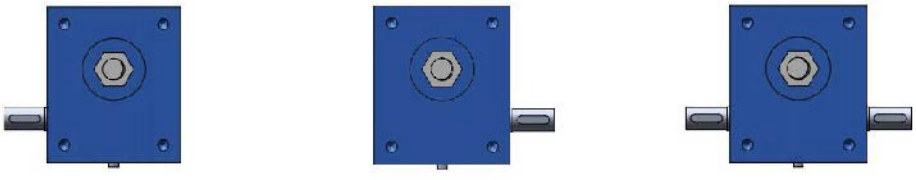
R型结构/Type R structure



可选滚珠丝杆类型：6310,6320

注：其他滚珠规格尺寸可联系工程师

轴指向/Shaft direction



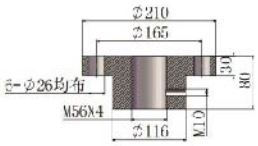
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

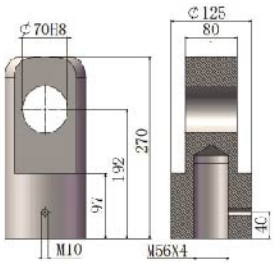
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB200螺旋升降机

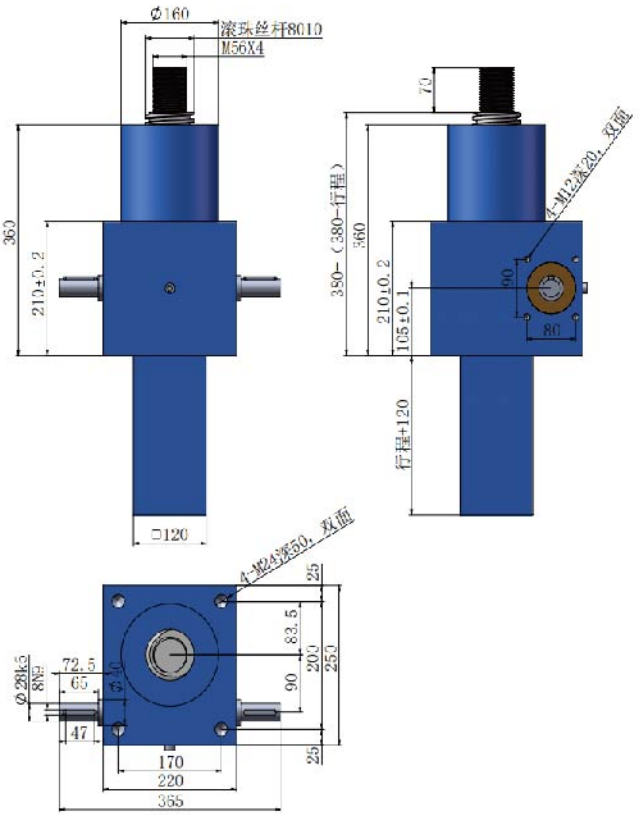
法兰端FL
Flange end FL



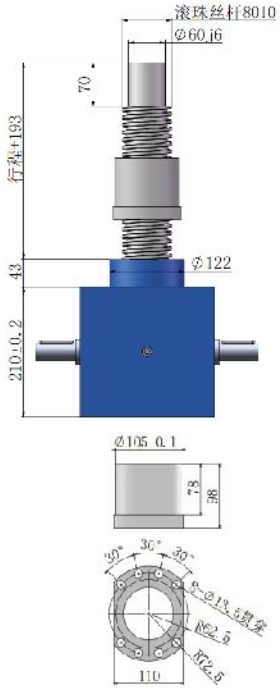
销孔端TF
Pin hole end TF



S型结构/Type S structure



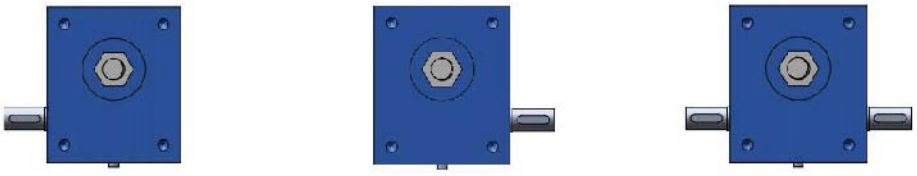
R型结构/Type R structure



可选滚珠丝杆类型：8010,8020

注：其他滚珠规格尺寸可联系工程师

轴指向/Shaft direction



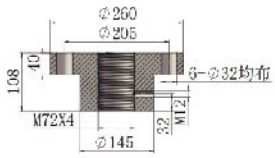
可选轴指向LH
Optional axis pointing LH

可选轴指向RH
Optional axis pointing RH

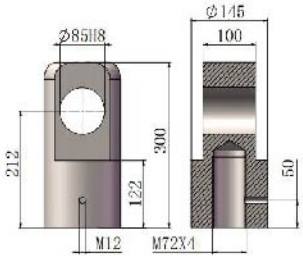
可选轴指向LH+RH
Optional axis pointing LH+RH

SJB300螺旋升降机

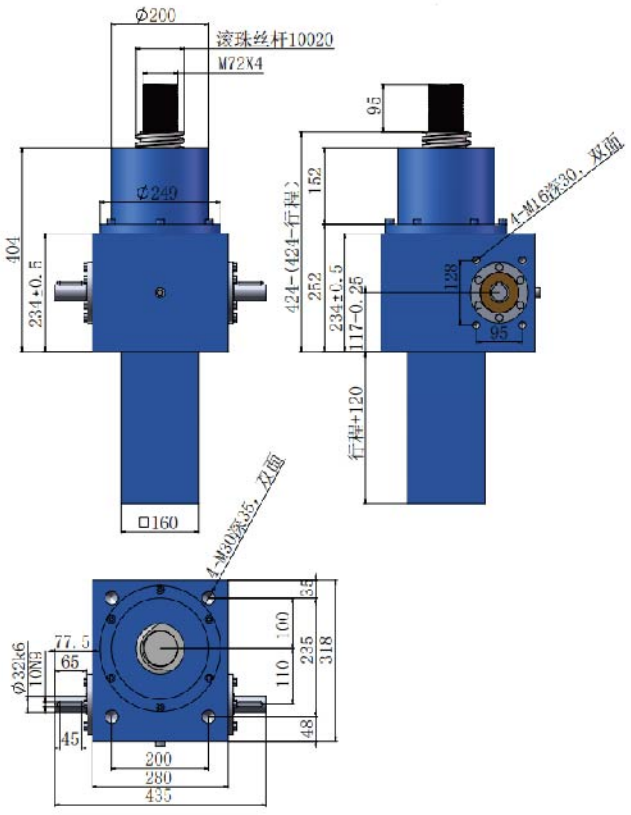
法兰端FL
Flange end FL



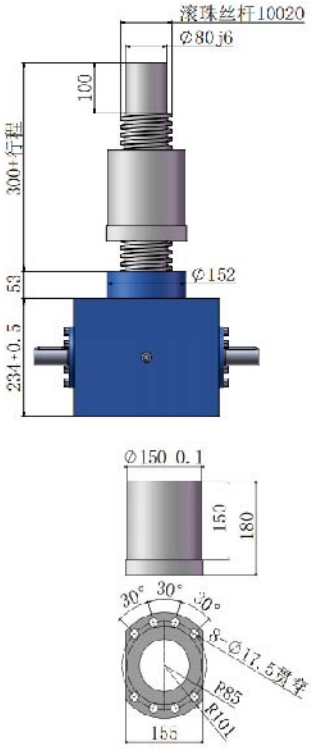
销孔端TF
Pin hole end TF



S型结构/Type S structure



R型结构/Type R structure



轴指向/Shaft direction

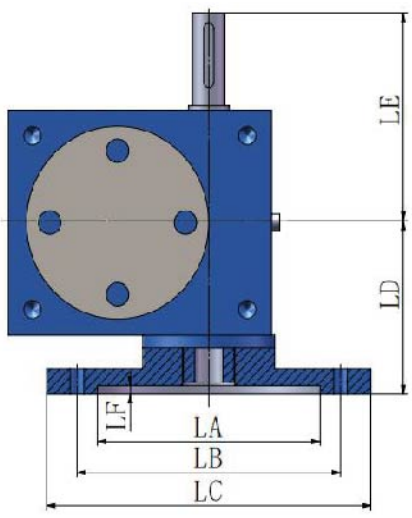


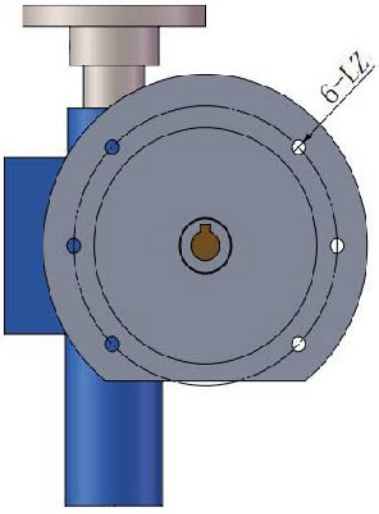
可选轴指向LH
Optional axis pointing LH

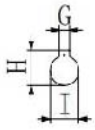
可选轴指向RH
Optional axis pointing RH

可选轴指向LH+RH
Optional axis pointing LH+RH

SJA法兰安装尺寸

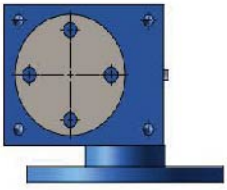




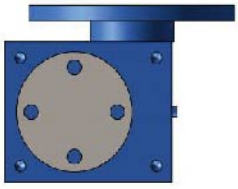


轴指向

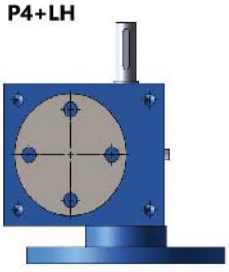
P3+LH



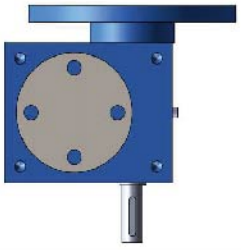
P3+RH



P4+LH

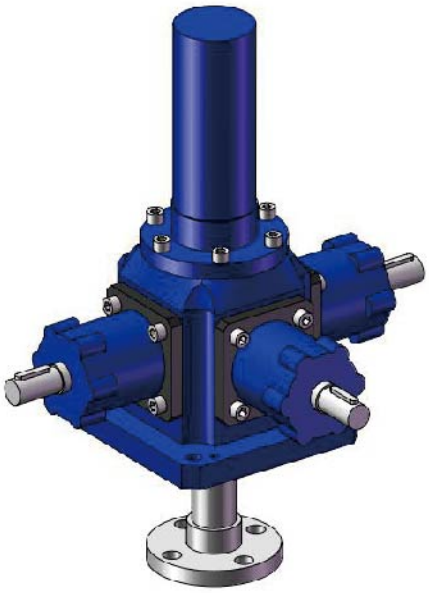


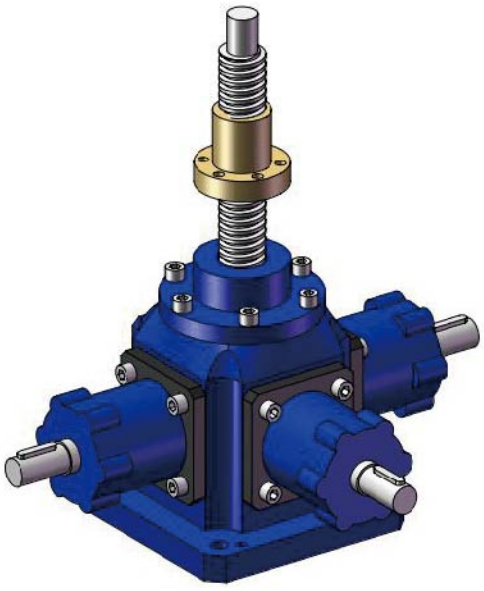
P4+RH

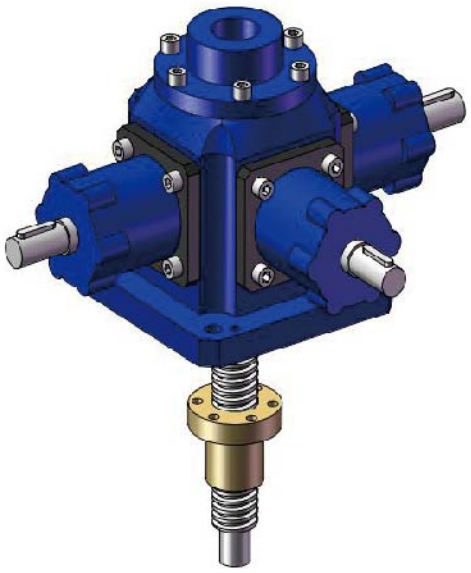


型号规格	法兰规格	LA	LB	LC	LD	LE	LF	G	H	I	LZ
SJA10	63B5	95	115	140	72	70	4	4	13	11	M8
SJA10	71B5	110	130	160	72	70	4	5	16.5	14	M8
SJA20	71B5	110	130	160	80	97.5	4	5	16.5	14	M8
SJA20	80B5	130	165	200	94	97.5	4	6	22	19	M10
SJA50	80B5	130	165	200	114	120	4	6	22	19	M10
SJA50	90B5	130	165	200	114	120	5	8	27.5	24	M10
SJA80	90B5	130	165	200	125	150	5	8	27.5	24	M10
SJA80	100B5	180	215	250	162	150	5	8	31.5	28	M12
SJA100	90B5	130	165	200	145	162.5	5	8	27.5	24	M10
SJA100	100B5	180	215	250	182	162.5	5	8	31.5	28	M12
SJA200	112B5	180	215	250	177	182.5	5	8	31.5	28	M12
SJA300	132B5	230	265	300	210	217.5	6	10	41.5	38	M12









S 型平台 S-type platform

设计要求：
一电机同时驱动 5 个平台，5 个平台呈 S 型布置，每个平台互不干涉，电机动作时每个平台分别同时动作，上升或下降，并且升降的距离均等。（X1=X2=X3=X4=X5）。
应用场合：舞台机械，自动化流水线等场合。

Design requirements:
Motor drives 5 platforms at the same time. The platforms are S-shaped layout. Each platform does not interfere with each other. When the motor moves, each platform moves at the same time, rises or falls, and the distance is equal. (X1 = X2 = X3 = X4 = X5). Application: Stage machines, automated assembly line and so on.



三角型平台 Triangular platform

设计要求：
一电机同时驱动 3 个平台，3 个平台呈三角型布置，每个平台互不干涉。电机动作时每个平台分别同时动作，上升或下降，并且升降的距离均等。（X1=X2=X3）。
应用场合：舞台机械，自动化流水线等场合

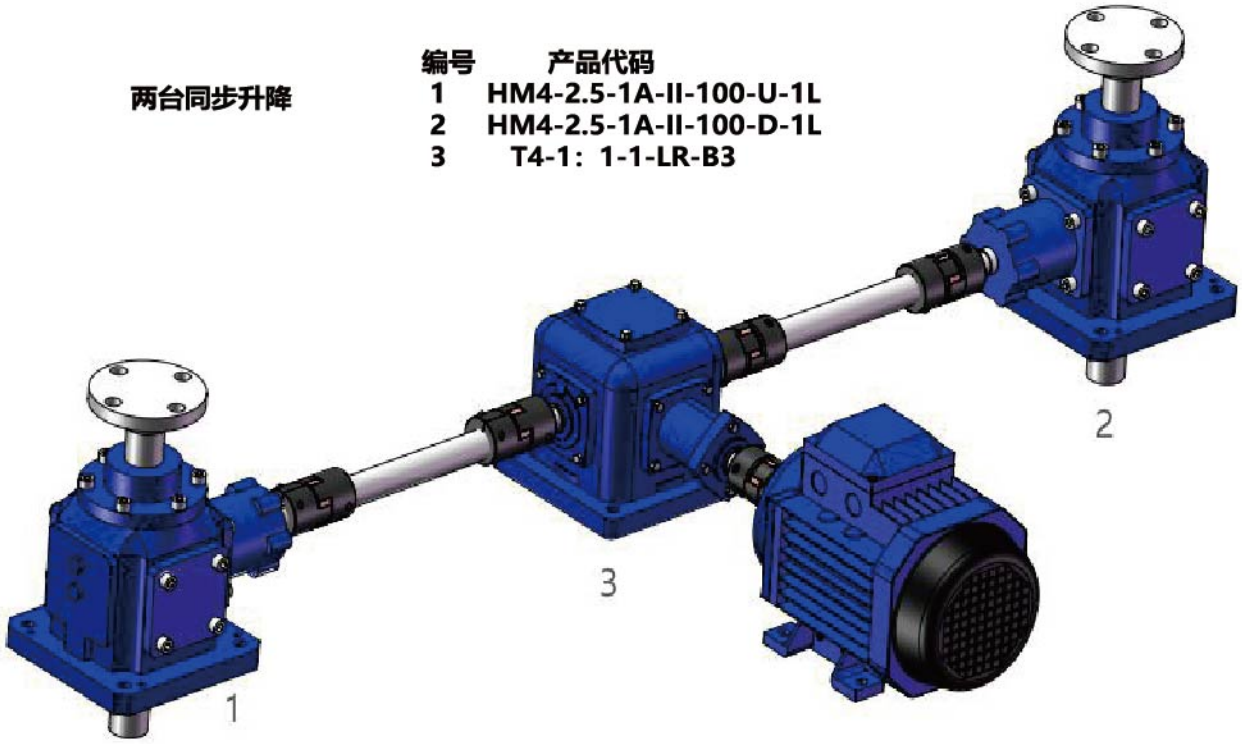
Design requirements:
A motor drive three platforms, three platforms were triangular layout, each platform does not interfere with each other. When the motor moves, each platform moves at the same time, rises or falls, and the distance is equal. (X1 = X2 = X3). Application: Stage machines; automated assembly line etc.



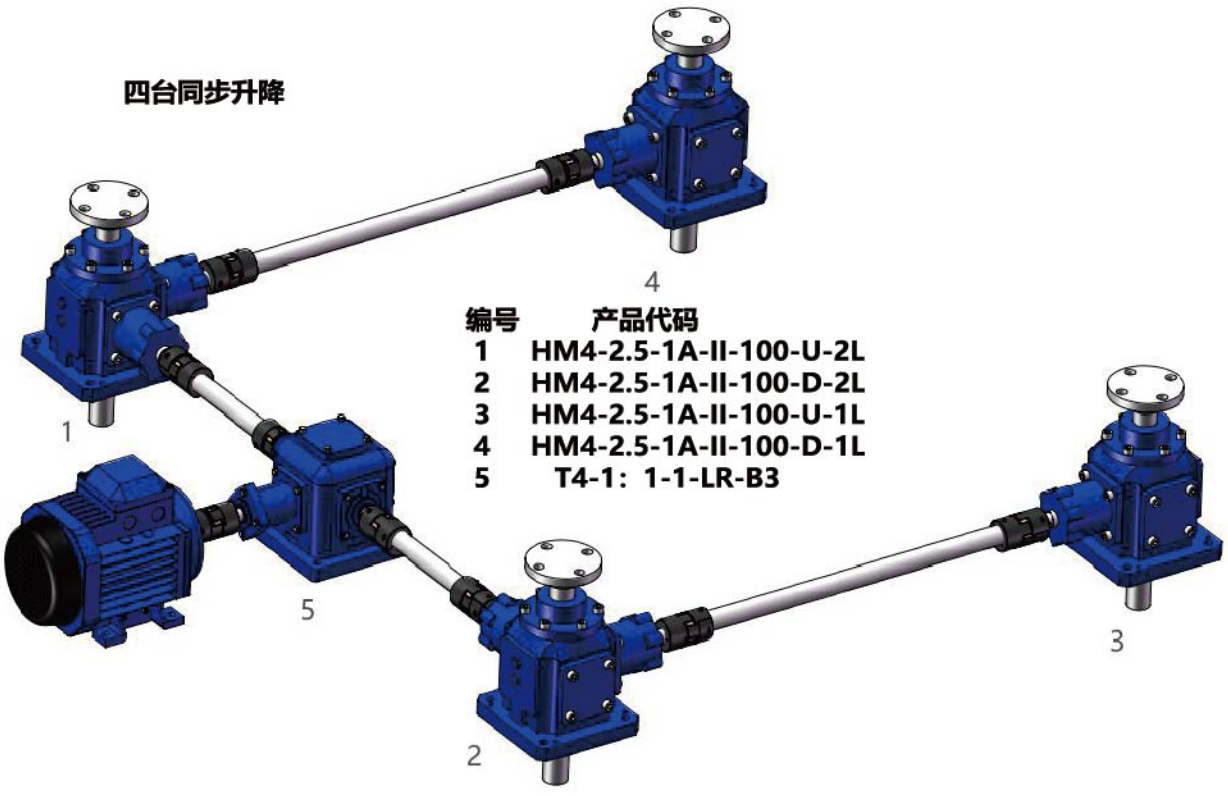
使用范例（升降示意图）

两台同步升降

编号	产品代码
1	HM4-2.5-1A-II-100-U-1L
2	HM4-2.5-1A-II-100-D-1L
3	T4-1：1-1-LR-B3



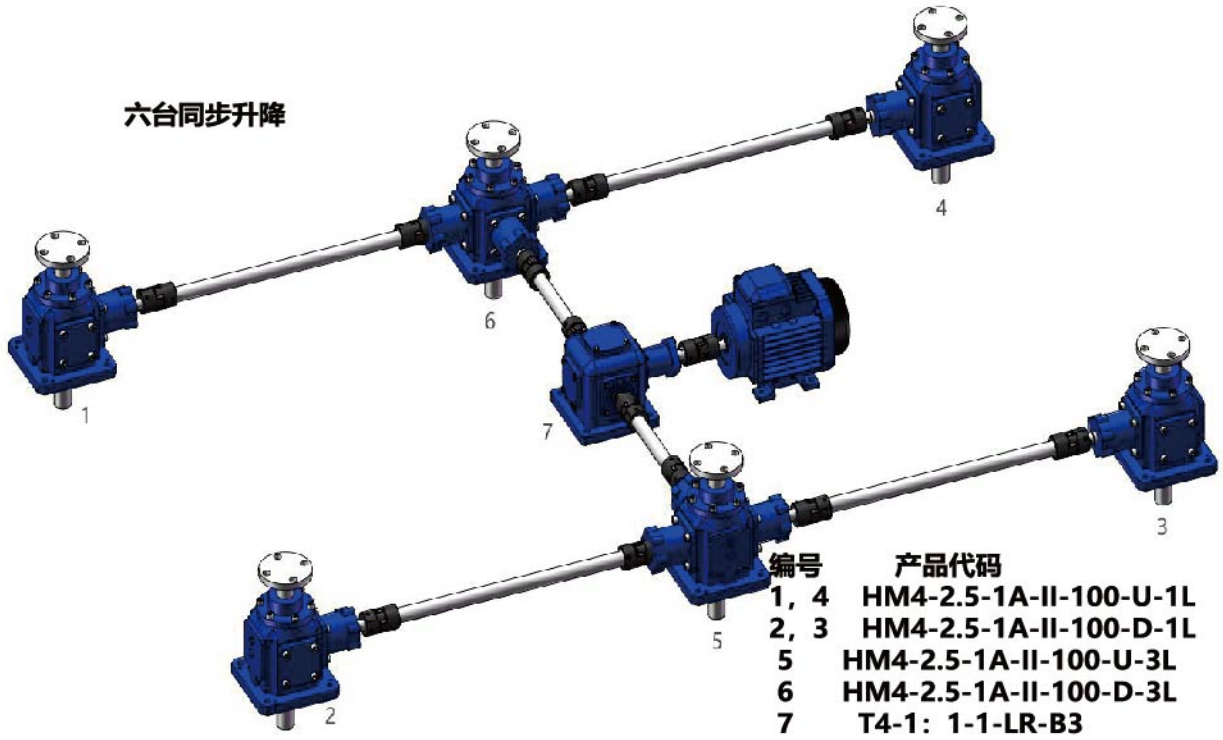
四台同步升降



编号	产品代码
1	HM4-2.5-1A-II-100-U-2L
2	HM4-2.5-1A-II-100-D-2L
3	HM4-2.5-1A-II-100-U-1L
4	HM4-2.5-1A-II-100-D-1L
5	T4-1：1-1-LR-B3

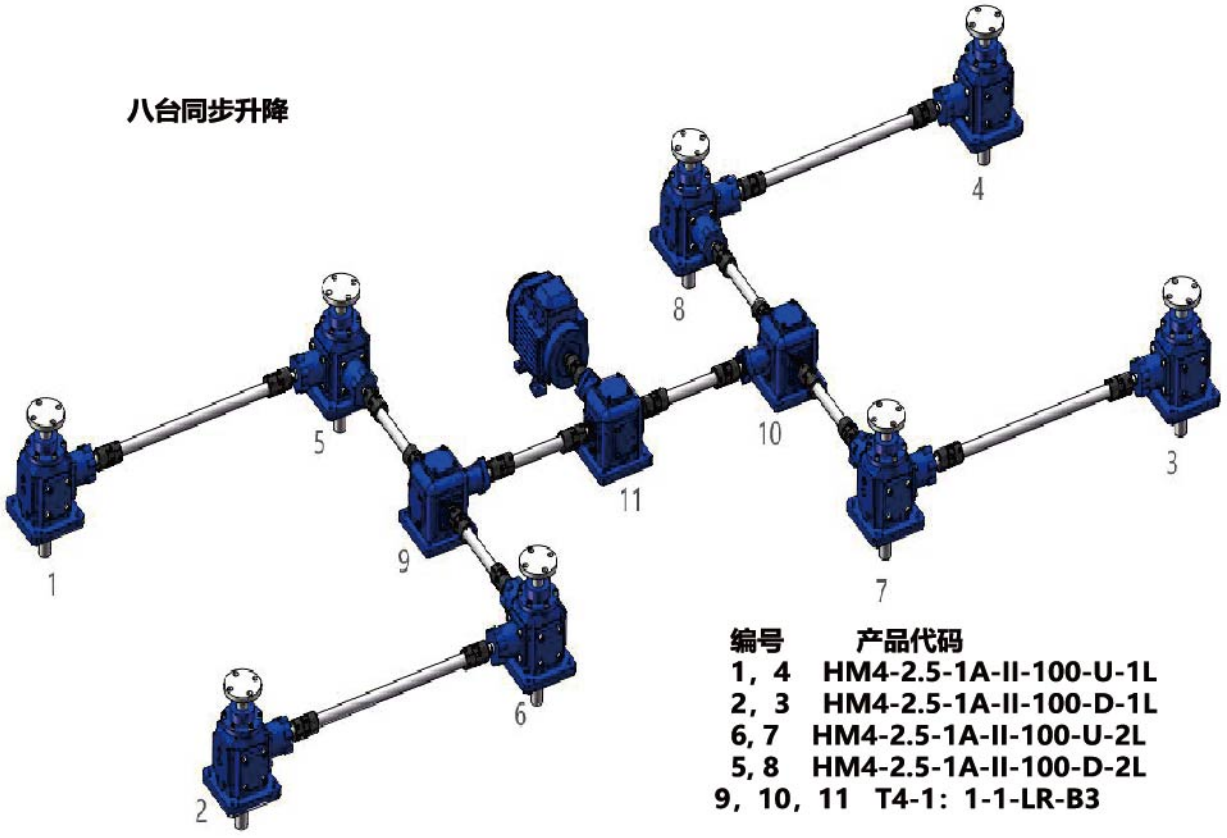
使用范例（升降示意图）

六台同步升降



编号	产品代码
1，4	HM4-2.5-1A-II-100-U-1L
2，3	HM4-2.5-1A-II-100-D-1L
5	HM4-2.5-1A-II-100-U-3L
6	HM4-2.5-1A-II-100-D-3L
7	T4-1：1-1-LR-B3

八台同步升降



编号	产品代码
1，4	HM4-2.5-1A-II-100-U-1L
2，3	HM4-2.5-1A-II-100-D-1L
6，7	HM4-2.5-1A-II-100-U-2L
5，8	HM4-2.5-1A-II-100-D-2L
9，10，11	T4-1：1-1-LR-B3

HM 说明

当今社会的发展朝着快速，绿色,精准方向在不断迭代，“中国制造 2025”亦是如此。“中国制造 2025”可以解析成两个“五五”，即是五条方针:创新驱动、质量为先、绿色发展、结构优化和人才为本;即五大工程:1.制造业创新中心(工业技术研究基地)建设工程;2.智能制造工程;3.工业强基工程;4.绿色制造工程;5.高端装备创新工程;

通过解析这两个“五五”,可以看到中国制造势必是基于智能机械,海量数据,云计算,物联网建立一个工业强国。

制作的产品是处于智能机械的基础部件，要想制作成更好地智能机械就必须更智能的线性运动件。基于这个基础建设要求，公司的技术团队确立开发更高升降速度、更精准的定位精度、更节能的线性运动产品。HM系列升降机经过技术团队数十个月的计算和设计，通过1年多的现场应用积累，终于应运而生:HM系列螺旋伞齿轮-T型丝杆升降机(可以在更紧凑的结构下完成更高速和更高的承载能力)和HMB系列螺旋伞齿轮滚珠丝杆升降机(可以在更紧凑的结构下完成更高速和更精准的定位精度)。

HM Description

Nowadays, the society development is constantly iterating in a fast, green, and precise direction,the same true of "Made in China 2025."Made in China 2025" can be parsed into two "Five - Five", that is, five principles: innovation - driven, quality first, green development,structural optimization and talent-based; five major projects:1.Manufacturing Innovation Center (Industrial Technology Research Base) Construction Project;2.Intelligent Manufacturing Engineering;3.Industrial Foundation Engineering;4.Green Manufacturing Project;5.High-end Equipment Innovation Project

By analyzing the "Five- Five", we can see that Chinese manufacturing is bound to build an industrial power based on intelligent machinery, massive data,cloud computing and the Internet of things.

The products produced are the basic components of intelligent machinery, and in order to make better intelligent machinery, more intelligent linear motion parts are necessary. Based on this infrastructure requirement, the company's technical team has established the development of linear motion products with higher lifting speed, more accurate positioning accuracy, and greater energy efficiency. After decades of calculation and design by the technical team, and more than a year of on-site application accumulation, the HM series elevators have finally emerged: the HM series spiral bevel gear-T type screw elevator (which can achieve higher speed and load capacity in a more compact structure) and the HMB series spiral bevel gearball screw elevator (which can achieve higher speed and more accurate positioning accuracy in a more compact structure).

HM 初选表

类别 / 型号	HM2	HMB2	HM4	HMB4	HM6	HMB6	HM7	HMB7	HM8	HMB8	HM10	HMB10
静载	2000Kgf	2000Kgf	9766Kgf	9766Kgf	12400Kgf	12400Kgf	12691Kgf	12691Kgf	20288Kgf	20288Kgf	24960Kgf	24960Kgf
最大动载	950Kgf	950Kgf	3844Kgf	3844Kgf	4319Kgf	4319Kgf	4803Kgf	4803Kgf	5375Kgf	5375Kgf	6025Kgf	6025Kgf
丝杆参数	Tr24x4	2005/2010	Tr32x6	3210/3220	Tr40x7	4010/4020	Tr50x10	5010/5020	Tr65x12	6310/6320	Tr80x12	8010/8020
速比	2.5	2.5	2.5	2.5	3	3	3	3	3	3	3	3
转一圈丝杆变化量	1.6MM	2MM/4MM	2.4MM	4MM/8MM	2.3MM	3.3MM/6.7MM	3.3MM	3.3MM/6.7MM	4MM	3.3MM/6.7MM	4MM	3.3MM/6.7MM
升降效率	40%	80%	40%	80%	40%	80%	40%	80%	40%	80%	40%	80%
II 型螺母材质	铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15	铝青铜	Gcr15
外壳材质	球墨	球墨	球墨	球墨	球墨	球墨	球墨	球墨	球墨	球墨	球墨	球墨

注：表格中动载值需满足有良好导向，丝杆安装垂直度和平行度小于 0.05mm,II 型结构可以通过多导程方式加大承载。

HM 2- 2.5 - 1A - II - 100 - F - Z - U - 3L

1 2 3 4 5 6 7 8 9 10

1 HM:T 型丝杆伞齿轮升降机;

HMB:滚珠丝杆伞齿轮升降机;

2 2：伞齿轮升降机型号：2 (T2), 4 (T4), 6 (T6), 7 (T7), 8 (T8), 10 (T10);

3 3：速比：2.5,3

4 1A:升降机安装方式:

1A:丝杆运动丝杆在上；1B:丝杆运动丝杆在下;

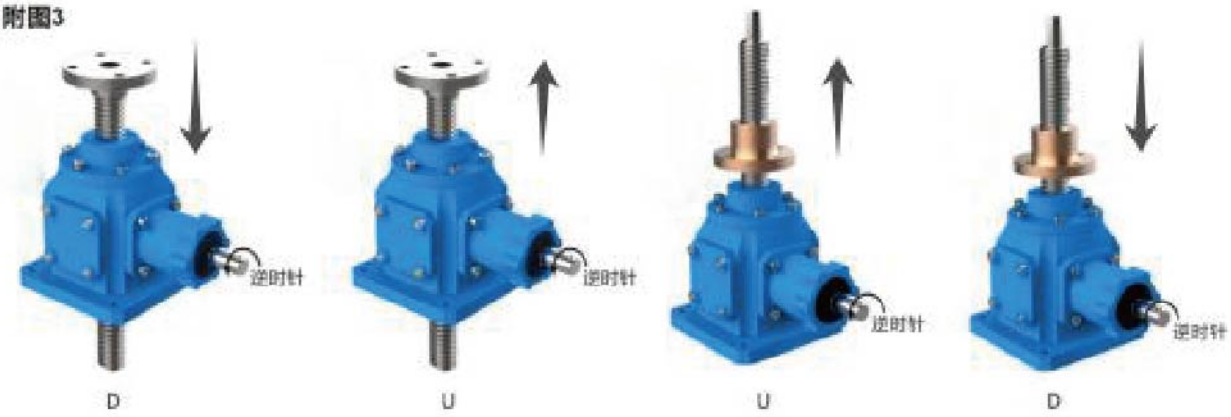
附图1



附图2



附图3



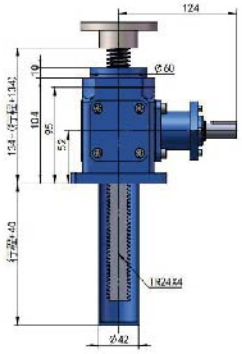
附图4



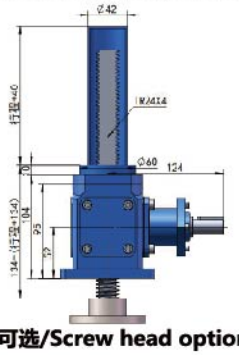
HM2装配型式/HM2 Assembly type

1型结构/Type1 structure

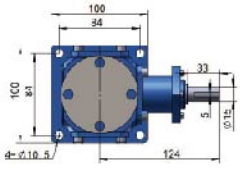
1A丝杆头部在上
1A Upright translating screw optional

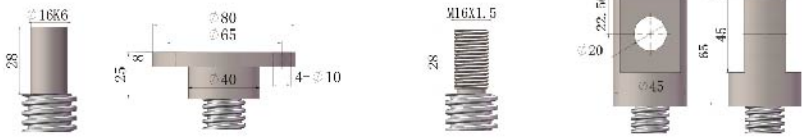


1B丝杆头部在下
1B Inverted translating screw optional



丝杆头部可选/Screw head optional

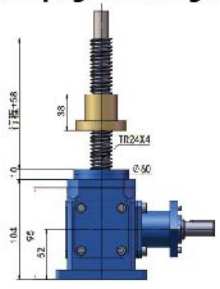




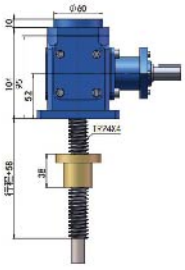
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

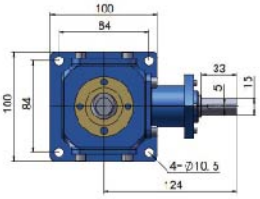
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

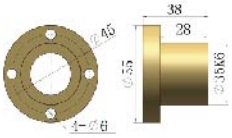


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

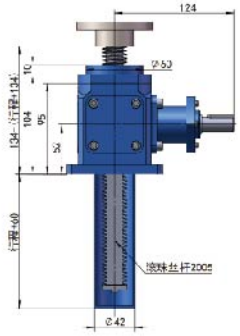
轴指向/Shaft direction



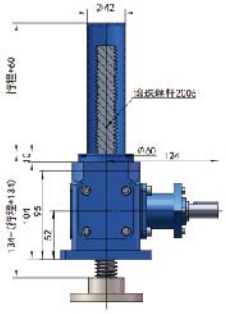
HMB2装配型式/HMB2 Assembly type

1型结构/Type1 structure

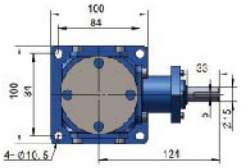
1A滚珠丝杆头部在上
1A Upright translating ball screw optional

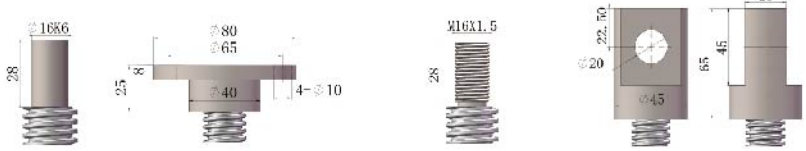


1B丝杆滚珠头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball Screw head optional

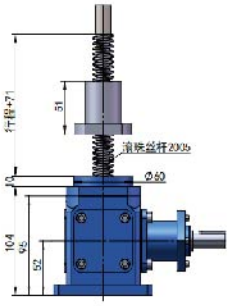




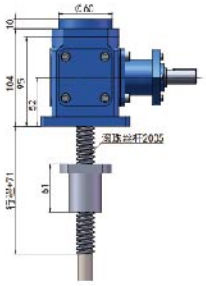
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

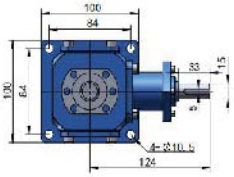
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

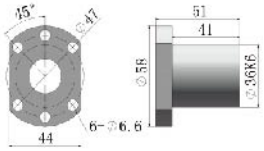


2B螺母在下
2B Inverted rotating screw





2型滚珠丝杆螺母
Type 2 Ball screw nut



滚珠丝杆头部可选/Ball Screw head optional



I型/TypeI　III型/TypeIII

轴指向/Shaft direction

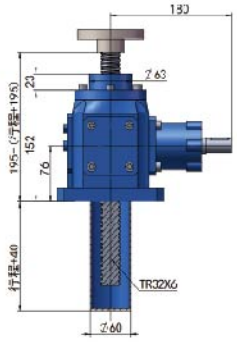


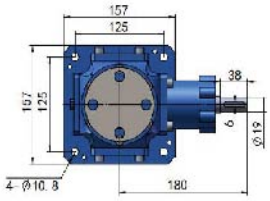
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø20X10
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø20X10
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

HM4装配型式/HM4 Assembly type

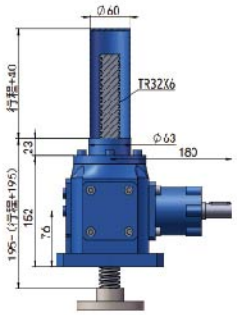
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional





1B丝杆头部在下
1B Inverted translating screw optional



丝杆头部可选/Screw head optional



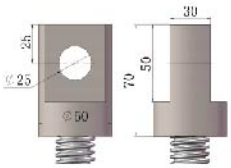
I型/TypeI



II型/TypeII



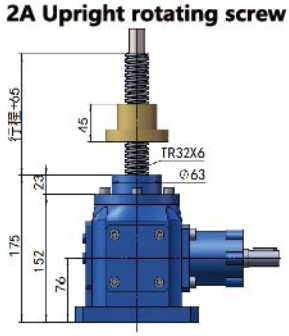
III型/TypeIII

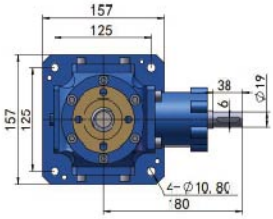


IV型/TypeIV

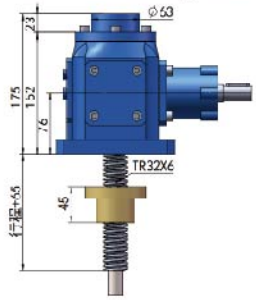
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

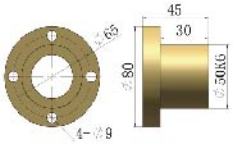




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI



III型/TypeIII

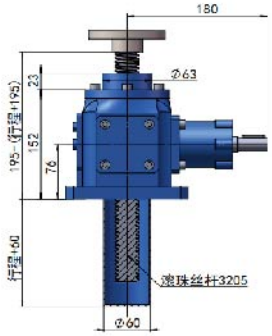
轴指向/Shaft direction

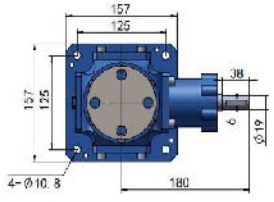


HMB4装配型式/HMB4 Assembly type

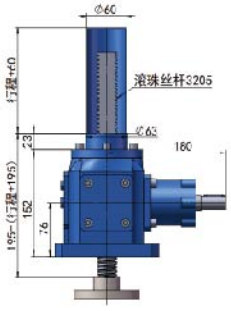
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional





1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional



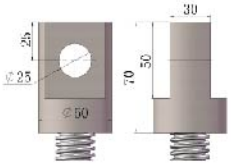
I型/TypeI



II型/TypeII



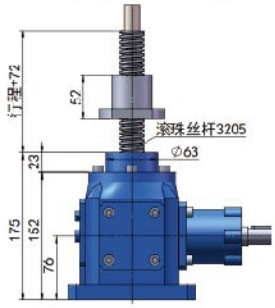
III型/TypeIII

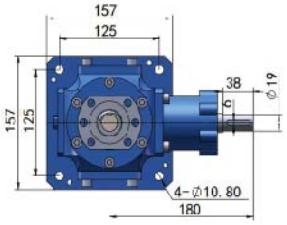


IV型/TypeIV

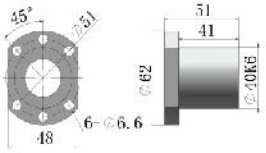
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

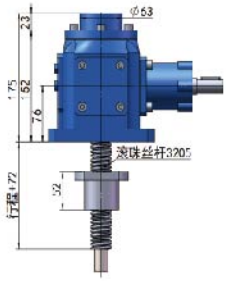




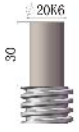
2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴指向/Shaft direction

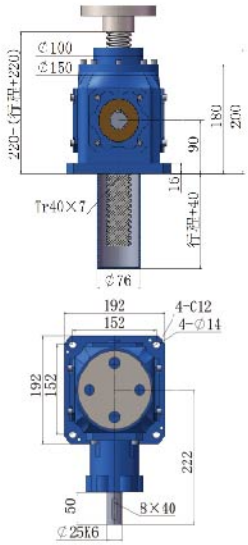


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø32X10、Ø32X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø32X10、Ø32X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

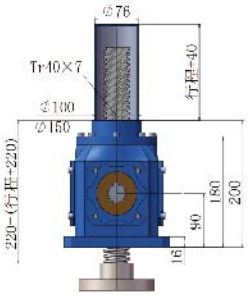
HM6装配型式/HM6 Assembly type

1型结构/Type1 structure

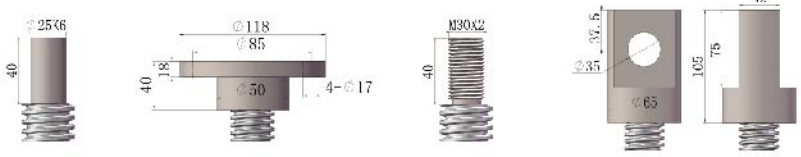
1A丝杆头部在上
1A Upright translating screw optional



1B丝杆头部在下
1B Inverted translating screw optional



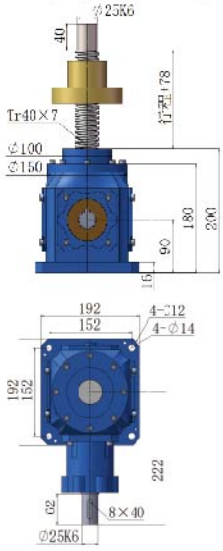
丝杆头部可选/Screw head optional



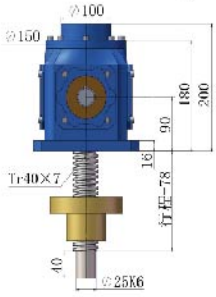
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

2型结构/Type2 structure

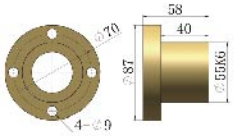
2A螺母在上
2A Upright rotating screw



2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

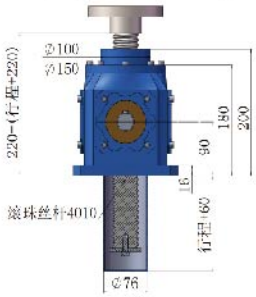
轴数结构/Axis structure

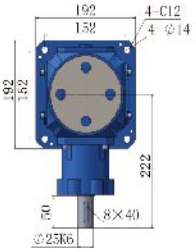


HMB6装配型式/HMB6 Assembly type

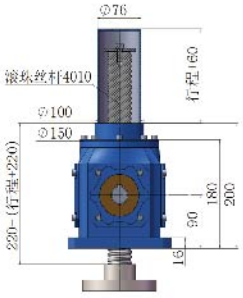
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional





1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional



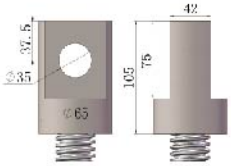
I型/TypeI



II型/TypeII



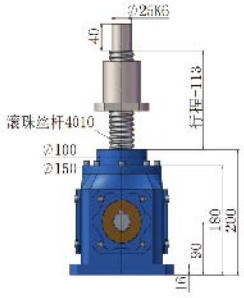
III型/TypeIII

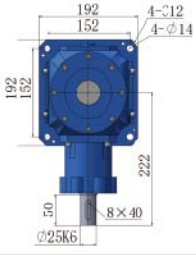


IV型/TypeIV

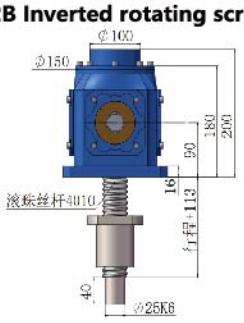
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

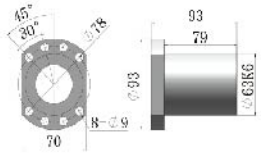




2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴数结构/Axis structure

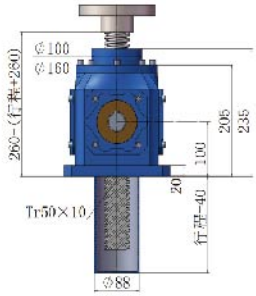


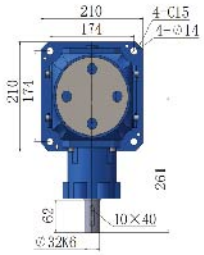
注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø40X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø40X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

HM7装配型式/HM7 Assembly type

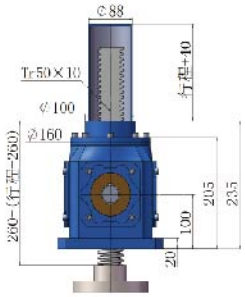
1型结构/Type1 structure

1A丝杆头部在上
1A Upright translating screw optional

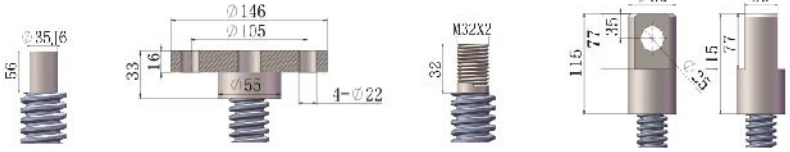




1B丝杆头部在下
1B Inverted translating screw optional



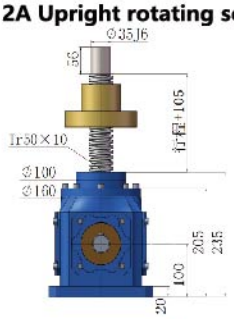
丝杆头部可选/Screw head optional

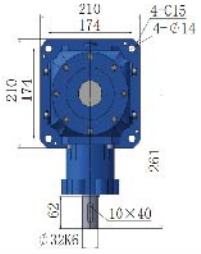


I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

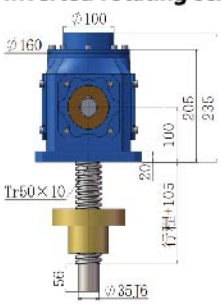
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

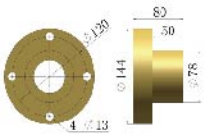




2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI　III型/TypeIII

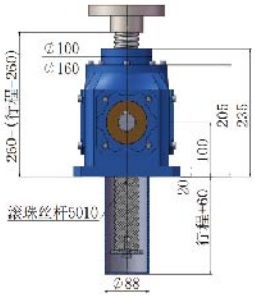
轴数结构/Axis structure



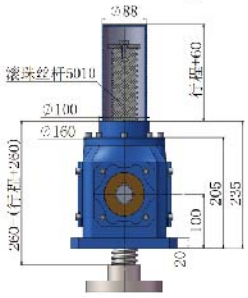
HMB7装配型式/HMB7 Assembly type

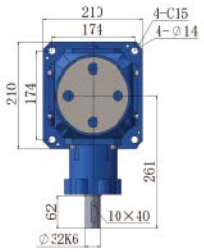
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional

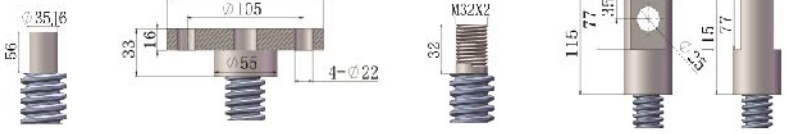


1B滚珠丝杆头部在下
1B Inverted translating ball screw optional





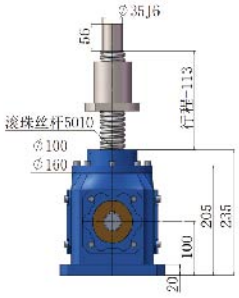
滚珠丝杆头部可选/Ball screw head optional



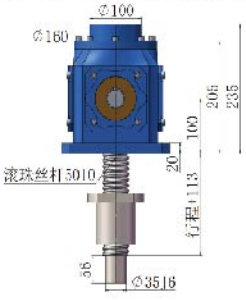
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

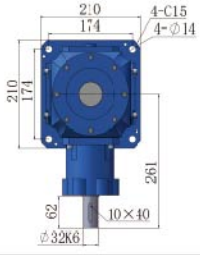
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

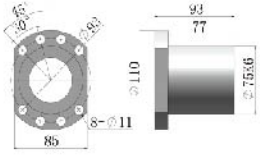


2B螺母在下
2B Inverted rotating screw





2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴数结构/Axis structure

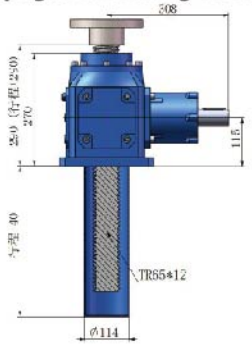


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø50X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø50X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

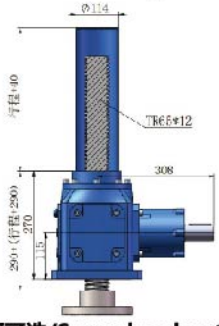
HM8装配型式/HM8 Assembly type

1型结构/Type1 structure

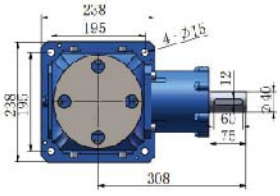
1A丝杆头部在上
1A Upright translating screw optional



1B丝杆头部在下
1B Inverted translating screw optional

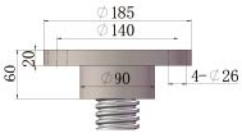


丝杆头部可选/Screw head optional





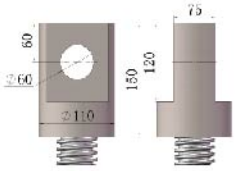
I型/TypeI



II型/TypeII



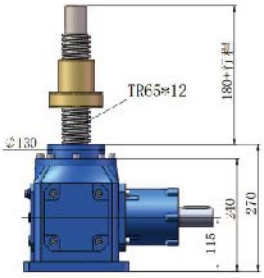
III型/TypeIII



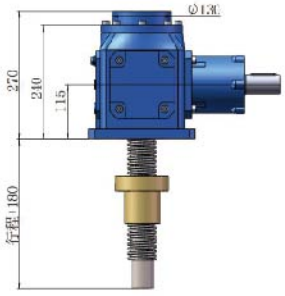
IV型/TypeIV

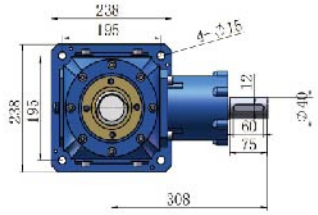
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

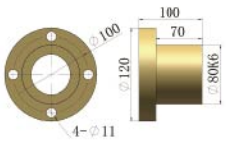


2B螺母在下
2B Inverted rotating screw





2型丝杆螺母/Type 2 screw nut



丝杆头部可选/Screw head optional



I型/TypeI



III型/TypeIII

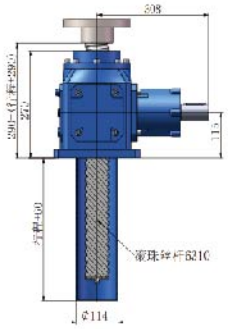
轴数结构/Axis structure

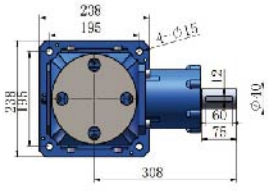


HMB8装配型式/HMB8 Assembly type

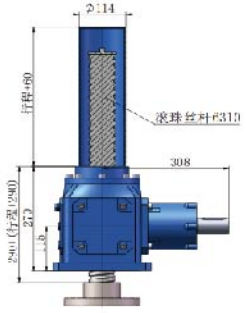
1型结构/Type1 structure

1A滚珠丝杆头部在上
1A Upright translating ball screw optional





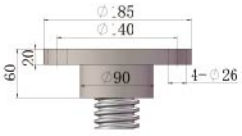
1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



滚珠丝杆头部可选/Ball screw head optional



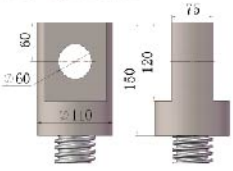
I型/TypeI



II型/TypeII



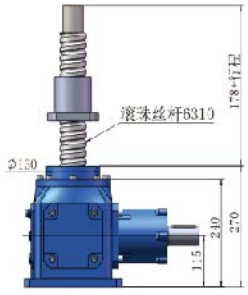
III型/TypeIII

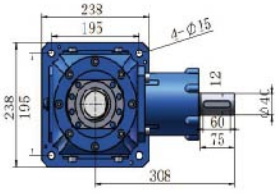


IV型/TypeIV

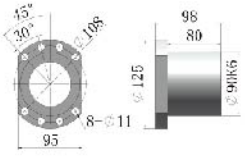
2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

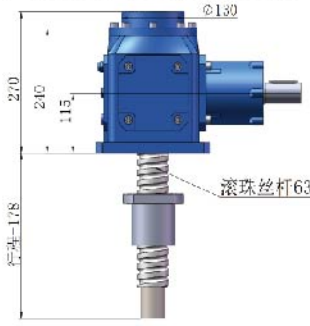




2型滚珠丝杆螺母
Type 2 ball screw nut



2B螺母在下
2B Inverted rotating screw



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI



III型/TypeIII

轴数结构/Axis structure

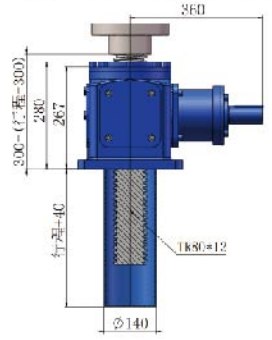


注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø63X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø63X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

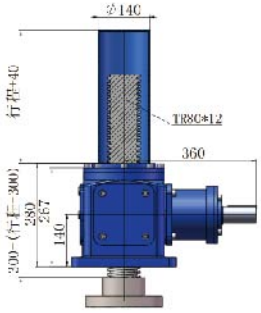
HM10装配型式/HM10 Assembly typer

1型结构/Type1 structure

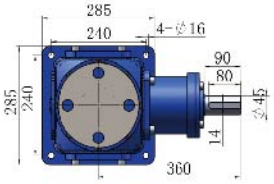
1A丝杆头部在上
1A Upright translating screw optional



1B丝杆头部在下
1B Inverted translating screw optional



丝杆头部可选/Screw head optional





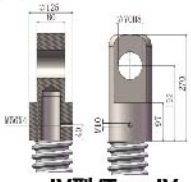
I型/TypeI



II型/TypeII



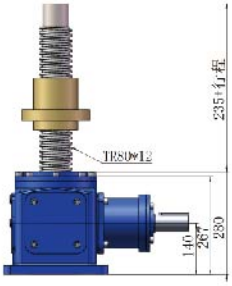
III型/TypeIII



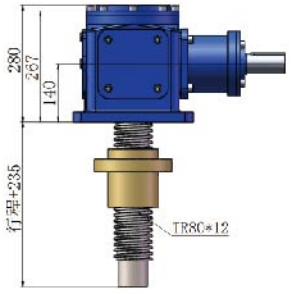
IV型/TypeIV

2型结构/Type2 structure

2A螺母在上
2A Upright rotating screw

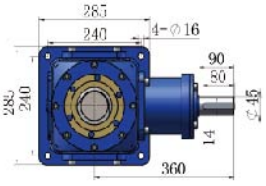


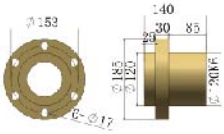
2B螺母在下
2B Inverted rotating screw



2型丝杆螺母/Type 2 screw nut

丝杆头部可选/Screw head optional







I型/TypeI



III型/TypeIII

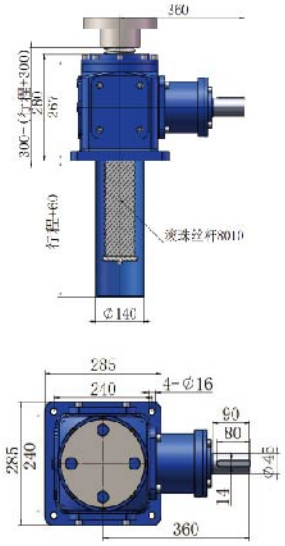
轴数结构/Axis structure



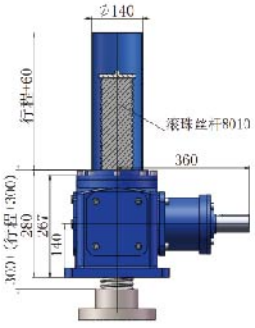
HMB10装配型式/HMB10 Assembly type

1型结构/Type1 structure

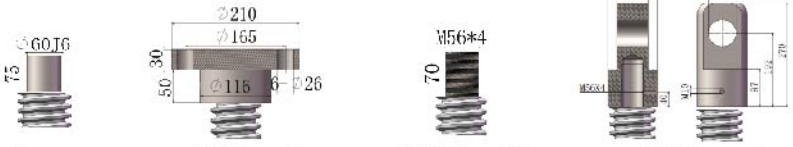
1A滚珠丝杆头部在上
1A Upright translating ball screw optional



1B滚珠丝杆头部在下
1B Inverted translating ball screw optional



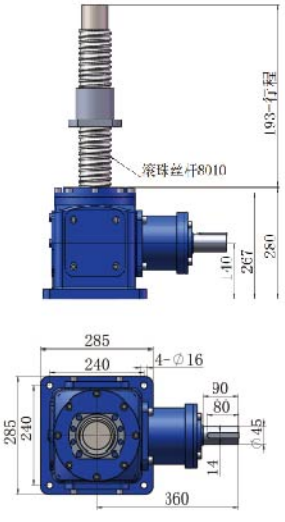
滚珠丝杆头部可选/Ball screw head optional



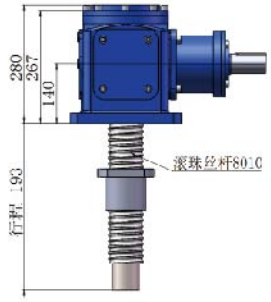
I型/TypeI　II型/TypeII　III型/TypeIII　IV型/TypeIV

2型结构/Type2 structure

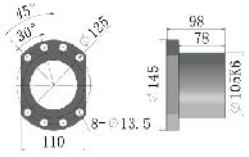
2A螺母在上
2A Upright rotating screw



2B螺母在下
2B Inverted rotating screw



2型滚珠丝杆螺母
Type 2 ball screw nut



滚珠丝杆头部可选/Ball screw head optional



I型/TypeI　III型/TypeIII

轴数结构/Axis structure



注：①为满足不同工况需求，滚珠丝杆另有型号可供选择
Ø80X20
①To meet the requirements of other working conditions, there are other models of ball screws available for selection
Ø80X20
②滚珠丝杆型号选择，更多不同方案，详询选型工程师
②Selection of ball screw models, please consult the selection engineer for details based on different schemes

结构、特性与应用

机壳：高刚性FC-25铸铁铸造；

齿轮：齿轮采用优质高纯净度合金钢20CrMnTiH渗碳淬火，及研磨而成；

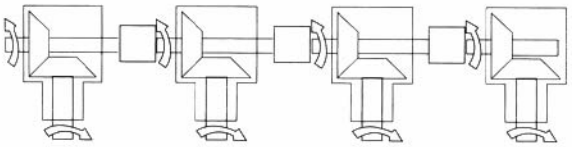
主轴：轴类采用合金钢调质、高悬重负荷能力；

轴承：配备重负荷能力的滚锥轴承；

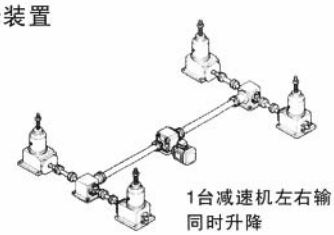
油封：双封唇片的油封、兼具防尘及防漏油的能力；

应用实例

并排转送

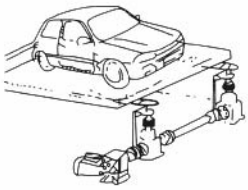


升降装置



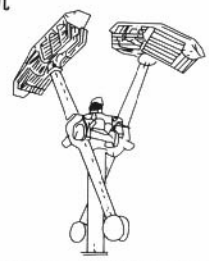
1台减速机左右输出，通过转向后，同时升降

立体车库



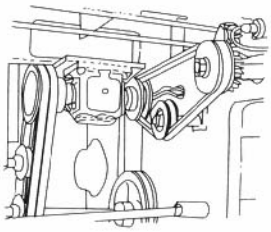
1台减速机驱动左右链轮同步运转。

游戏机

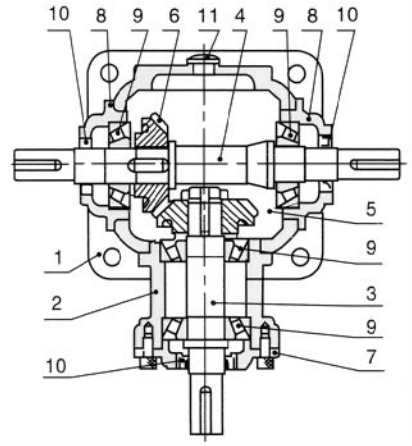


1纵轴输入，2横轴相反运转

包装机



转向箱基本传动方式



1、机座
2、横轴座
3、横轴
4、纵轴
5、横轴锥齿轮
6、纵轴锥齿轮
7、端盖
8、端盖
9、轴承
10、油封
11、油镜

一、型号表示方法

T6-1：1-I-LR0-B_3

- 安装方位
- 轴配置
- 速比
  （2:1为减速，1:2为增速）
- 机座号

选型：

选型时选根据需要的输出扭矩，即可传递扭矩M_2（Nm），计算出输入功率P_1（kW）：

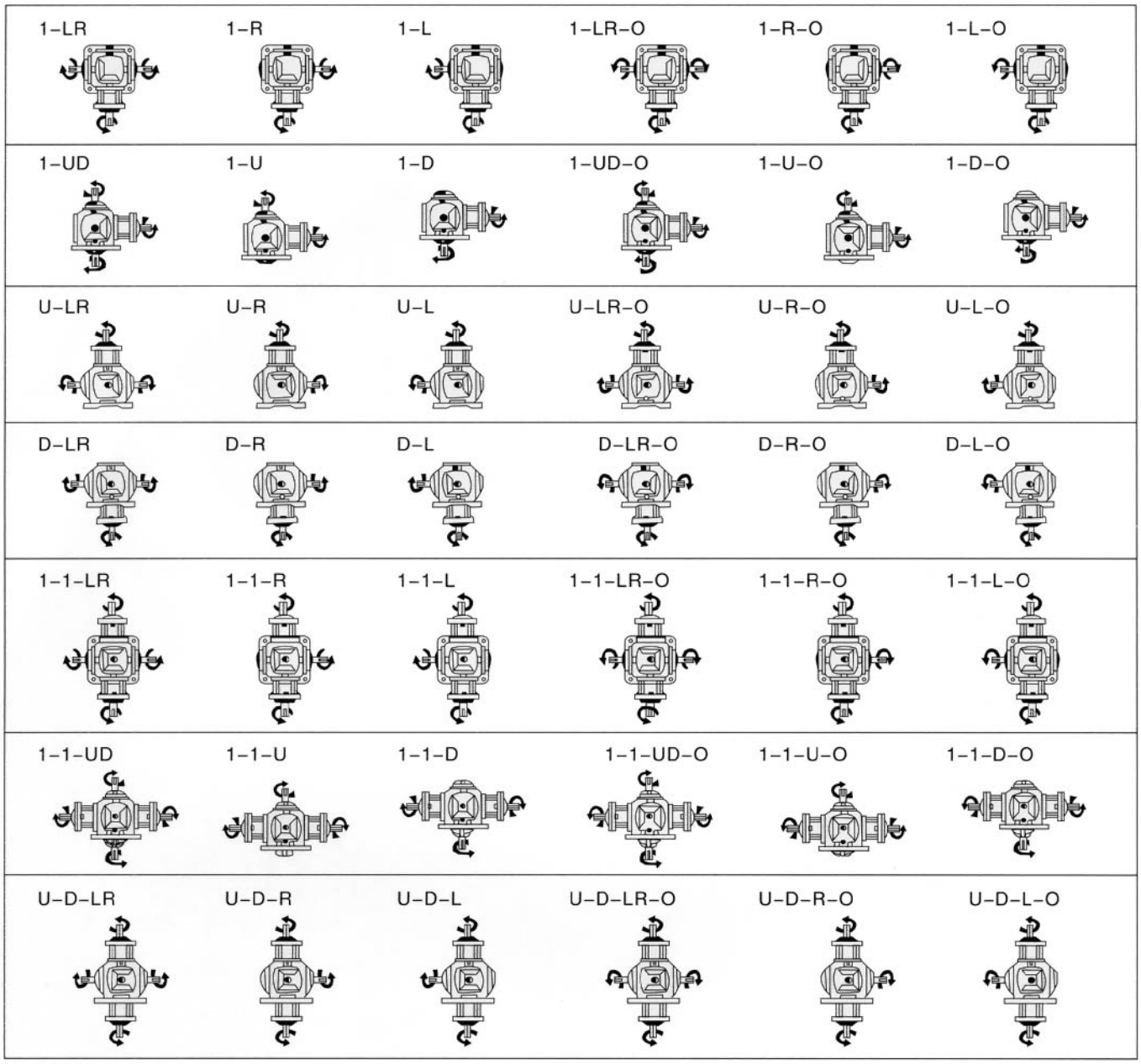
$$P_1=\frac{M_2\times n_1}{9550\times i\times \eta}$$

n_1——输入转速（r/min）
i——传动比
η——传动效率（一般为0.98）

确定合适服务系数fBn使用：$Pn\geq fBn\times P_1$

按实际输入功率PN根据“性能参数表”选择合适的规格。

二、轴配置及轴旋转方向的关系



三、T系列重量表：

型号	T_2	T_4	T_6	T_7	T_8	T_{10}	T_{12}	T_{16}	T_{20}	T_{25}
重量(kg)	2	11	22.5	34	51	80	125	195	302	500

四、润滑：

适当的润滑油使用，可以发挥转向机的效率，并提高其运转的寿命。

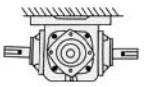
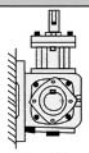
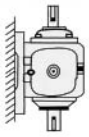
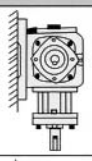
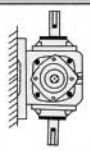
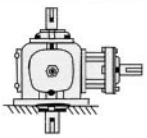
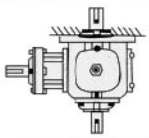
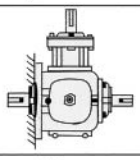
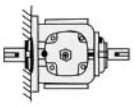
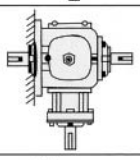
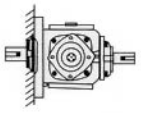
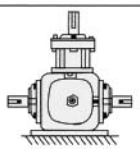
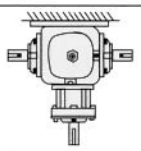
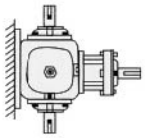
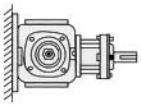
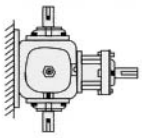
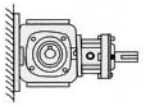
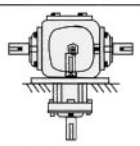
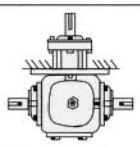
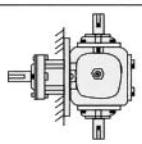
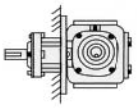
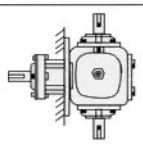
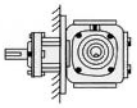
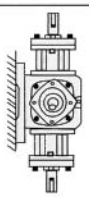
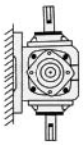
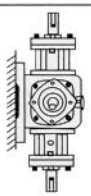
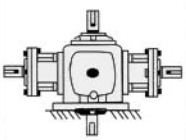
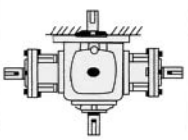
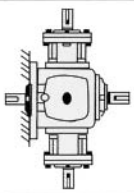
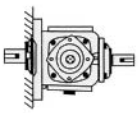
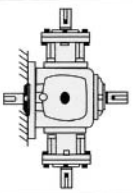
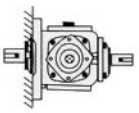
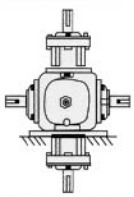
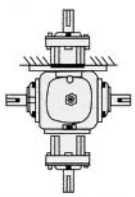
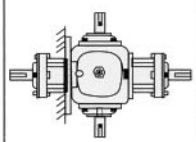
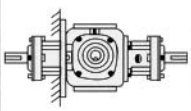
- 初期使用二周或100-200小时，为初摩耗期，这之间可能有少许金属摩耗粉粒，请务必清洁内部，并换新润滑油。
- 长期使用时，每半年至一年或者1000-2000小时，更换一次润滑油。

润滑油种类：

本产品润滑油采用中国石油全效齿轮油90° -120° ，低转速、轻负荷条件，建议采用全效齿轮油90° ，重负荷、高温的条件，建议采用全效齿轮油120° 。

※ 如有特殊使用条件，请事先与本公司洽商。

五、安装：

	B_3	B_8	V_5	B_6	V_6	B_7
1-LR(-0) 1-R(-0) 1-L(-0)						
1-UD(-0) 1-U(-0) 1-D(-0)						
U-LR(-0) U-R(-0) U-L(-0)						
D-LR(-0) D-R(-0) D-L(-0)						
1-1-LR(-0) 1-1-R(-0) 1-1-L(-0)						
1-1-UD(-0) 1-1-U(-0) 1-1-D(-0)						
U-D-LR(-0) U-D-R(-0) U-D-L(-0)						

T 系列举列

3台负载全部为200N·m，一般冲击，每天连续工作8小时。斜齿轮输入轴转速以300r/min，速比全部为1:1。

根据公式：每台齿轮箱本身所需的负载≥M2×fs=200×1.25=250N·m

1号齿轮箱　因1号齿轮箱本身的负载为250N·m，而2号、3号齿轮箱需通过1号齿轮箱体传递扭矩。所以1号齿轮箱应承担的负载为：250N·m+250N·m+250N·m=750N·m，依据传动能力表，应选T12。

2号齿轮箱　除本身的负载250N·m，还需传递3号齿轮箱的扭矩。所以总负载应为250N·m+250N·m=500N·m，依据传动能力表，应选T10。

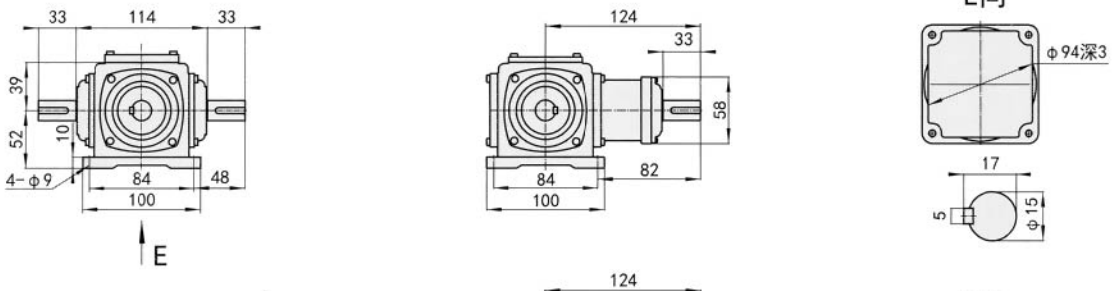
3号齿轮箱　由于仅一个负载C进行运转，即所需负载在250N·m以上即可，依据传动能力表可选T8。

T 系列传动能力表：

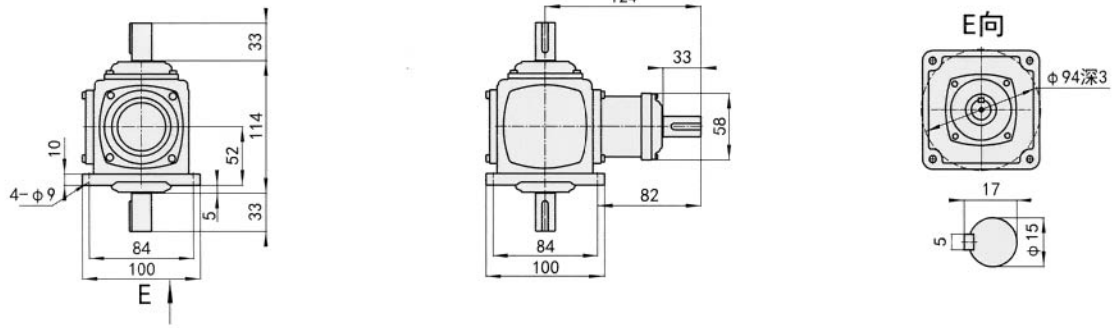
i	n1 r/min	T2		T4		T6		T7		T8	
		MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)
1 : 1	1450	11.6	1.79	31.9	4.94	96.0	14.9	142	22.0	294	45.6
	1150	11.7	1.43	34.1	4.19	103	12.7	150	18.4	305	37.5
	870	12.1	1.12	37.2	3.46	113	10.5	164	15.2	312	29.0
	580	12.1	0.747	39.5	2.45	119	7.35	184	11.4	319	19.8
	400	12.3	0.524	40.2	1.72	122	5.20	195	8.34	3216	14.0
	300	12.3	0.396	40.5	1.30	123	3.93	198	6.35	331	10.6
	200	12.4	0.226	41.2	0.880	124	2.66	201	4.30	338	7.23
	100	12.7	0.136	41.9	0.448	127	1.36	206	2.20	346	3.70
	10	13.0	0.014	43.0	0.046	132	0.141	214	0.228	361	0.386
1.5 : 1	1450					117	12.1	145	15.0	185	19.1
	1150					122	9.96	147	12.0	188	15.4
	870					123	7.66	150	9.30	191	11.8
	580					126	5.23	153	6.32	197	8.14
	400					128	3.66	155	4.41	200	5.70
	300					129	2.77	157	3.35	203	4.34
	200					131	1.87	160	2.28	204	2.91
	100					134	0.957	163	1.16	210	1.49
	10					139	0.099	169	0.12	218	0.155
2 : 1	1450	12.1	0.94	42.8	3.32	102	7.90	137	10.6	180	14.0
	1150	12	0.74	43.4	2.67	104	6.39	139	8.55	183	11.3
	870	12	0.56	43.8	2.04	105	4.88	141	6.56	187	8.70
	580	11.9	0.37	44.4	1.38	108	3.34	144	4.47	191	5.92
	400	12.2	0.26	45.1	0.96	109	2.33	146	3.12	194	4.15
	300	11.9	0.19	45.5	0.73	110	1.76	148	2.37	196	3.14
	200	12.2	0.13	46.1	0.49	111	1.18	149	1.59	198	2.12
	100	11.2	0.06	46.6	0.25	114	0.608	152	0.812	202	1.08
	10	28.1	0.015	48.5	0.026	116	0.062	157	0.084	209	0.112
2.5 : 1	1450					96.2	5.97	113	6.99	184	11.4
	1150					97.2	4.78	115	5.64	185	9.11
	870					99.0	3.68	116	4.30	188	7.00
	580					100.0	2.48	118	2.92	192	4.76
	400					100.9	1.73	120	2.05	195	3.34
	300					102.9	1.32	121	1.55	197	2.53
	200					103.9	0.888	123	1.05	200	1.71
	100					104.9	0.448	123	0.528	203	0.867
	10					107.8	0.046	126	0.054	208	0.089
3 : 1	1450					93.6	4.84	105	5.42	159	8.20
	1150					94.8	3.88	106	4.34	160	6.55
	870					95.9	2.97	108	3.34	163	5.04
	580					97.6	2.02	109	2.25	166	3.42
	400					99.0	1.41	111	1.58	168	2.39
	300					100	1.07	111	1.18	169	1.80
	200					100	0.712	113	0.803	171	1.22
	100					102	0.363	115	0.409	173	0.618
	10					104	0.037	118	0.042	179	0.064
4 : 1	1450					80.6	3.12	93.4	3.62	124	4.80
	1150					81.5	2.50	94.3	2.90	125	3.83
	870					82.4	1.92	95.9	2.23	127	2.95
	580					84.1	1.30	96.9	1.50	129	2.00
	400					85.1	0.91	98.7	1.05	131	1.40
	300					86.1	0.69	98.3	0.79	131	1.05
	200					86.0	0.46	101	0.54	134	0.71
	100					87.7	0.23	101	0.27	135	0.36
	10					89.3	0.02	101	0.03	140	0.04
5 : 1	1450					52.0	1.61	57.4	1.78	68.7	2.13
	1150					52.5	1.29	58.0	1.43	69.2	2.70
	870					53.2	0.99	59.0	1.10	70.4	1.31
	580					54.2	0.67	59.6	0.74	71.7	0.89
	400					54.9	0.47	61.7	0.52	72.6	0.62
	300					55.5	0.36	60.4	0.39	72.9	0.47
	200					55.4	0.24	61.7	0.26	74.1	0.32
	100					56.5	0.12	62.9	0.13	75.1	0.16
	10					57.6	0.01	64.5	0.01	77.8	0.02

i	n1 r/min	T10		T12		T16		T20		T25	
		MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)	MN2 (N·m)	PN1 (KW)
1 : 1	1450	421	65.3	619	96.0	1019	163				
	1150	453	55.7	665	81.1	1098	139	1842	234		
	870	479	44.6	726	67.5	1186	114	2009	193	3489	335
	580	493	30.6	802	49.7	1343	85.9	2274	145	3940	252
	400	504	21.5	821	35.1	1499	66.1	2538	112	4410	195
	300	513	16.4	835	26.8	1637	54.1	2744	90.8	4792	159
	200	521	11.1	852	18.2	1784	39.3	3126	69.0	5390	119
	100	535	5.72	875	9.36	1843	20.3	3205	35.3	5439	60.0
	10	561	0.599	919	0.983	1940	2.14	3205	3.53	5713	6.30
1.5 : 1	1450	374	38.7	564	58.3						
	1150	380	31.2	601	49.2						
	870	389	24.1	656	40.7						
	580	396	16.4	699	28.9						
	400	406	11.6	711	20.3						
	300	411	8.78	724	15.5						
	200	417	5.95	736	10.5						
	100	426	3.04	754	5.37						
	10	443	0.316	785	0.56						
2 : 1	1450	305	23.6	516	40.0	921	73.7	1578	126		
	1150	309	19.0	516	31.7	938	59.5	1607	102	3146	199
	870	315	14.6	516	24.0	958	46.0	1646	79.0	3224	155
	580	322	10.0	524	16.3	980	31.3	1695	54.2	3332	107
	400	328	7.02	538	11.5	1000	22.0	1725	38.0	3420	75.4
	300	322	5.33	543	8.71	1009	16.7	1754	29.0	3479	57.5
	200	338	3.61	551	5.89	1029	11.3	1784	19.7	3557	39.2
	100	344	1.84	563	3.04	1058	5.84	1833	10.1	3646	20.1
	10	357	0.191	586	0.313	1098	0.605	1921	1.06	3822	2.11
2.5 : 1	1450	293	18.2	507	31.4						
	1150	298	14.7	514	25.3						
	870	302	11.2	523	19.5						
	580	310	7.68	535	13.3						
	400	315	5.38	545	9.32						
	300	317	4.06	552	7.08						
	200	321	2.75	560	4.79						
	100	326	1.40	568	2.43						
	10	336	0.144	588	0.251						
3 : 1	1450	270	14.0	458	23.6	904	48.2	1529	82.3	2935	158
	1150	275	11.3	464	19.0	920	38.9	1561	66.6	3045	130
	870	279	8.66	469	14.6	940	30.1	1598	51.6	3135	101
	580	285	5.89	480	9.92	960	20.4	1644	35.4	3246	69.9
	400	288	4.11	490	6.98	978	14.4	1672	24.8	3317	49.3
	300	291	3.11	495	5.29	990	10.9	1701	18.9	3372	37.6
	200	294	2.10	501	3.57	1005	7.38	1733	12.9	3449	25.6
	100	300	1.07	510	1.82	1038	3.80	1777	6060	3537	13.1
	10	308	0.110	527	0.188	1076	0.40	1865	0.69	3713	1.4
4 : 1	1450	241	9.35	434	16.8	850	34.3	1452	58.7	2798	113
	1150	246	7.54	441	13.5	865	27.7	1483	47.5	2892	92.6
	870	249	5.78	448	10.4	884	21.4	1518	36.8	2978	72.2
	580	254	3.93	456	7.07	902	14.6	1562	25.2	3084	49.8
	400	257	2.74	465	4.97	919	10.2	158	17.7	3151	35.1
	300	259	2.08	470	3.77	930	7.8	1616	13.5	3204	26.8
	200	262	1.40	476	2.54	944	5.3	1646	9.17	3276	18.2
	100	267	0.71	485	1.30	976	2.7	1688	4.70	3360	9.36
	10	275	0.07	501	0.13	1011	0.3	1772	0.49	3527	0.98
5 : 1	1450	136	4.21	296	9.18	814	26.3	1391	44.9	2631	85.0
	1150	138	3.39	301	7.39	828	21.2	1420	36.4	2771	71.0
	870	140	2.60	305	5.68	847	16.4	1454	28.2	2853	55.3
	580	143	1.77	311	3.86	864	11.2	1496	19.3	2954	38.2
	400	144	1.23	318	2.72	881	7.85	1521	13.6	3018	26.9
	300	146	0.93	321	2.06	891	5.96	1548	10.3	31069	20.5
	200	148	0.63	325	1.39	905	4.03	1577	7.03	3138	14.0
	100	150	0.32	331	0.71	935	2.08	1617	3.60	3218	7.17
	10	155	0.03	342	0.07	969	0.22	1697	0.38	3378	0.75

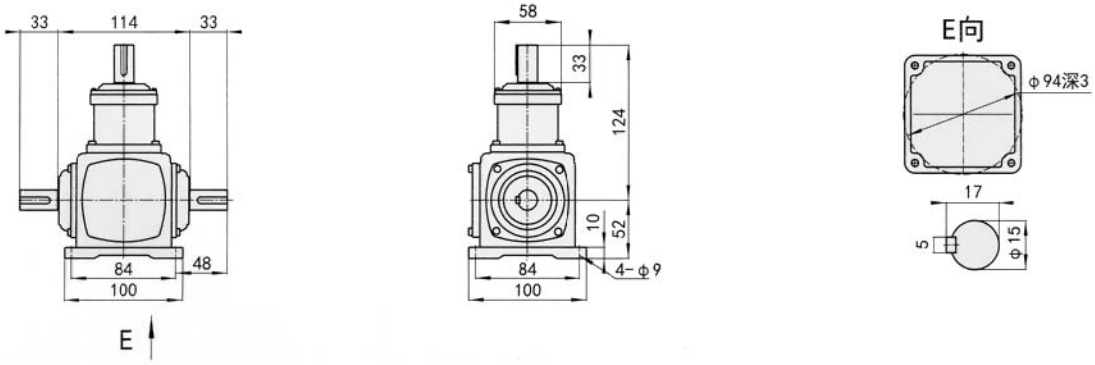
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1-L
1-R
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1-L-0



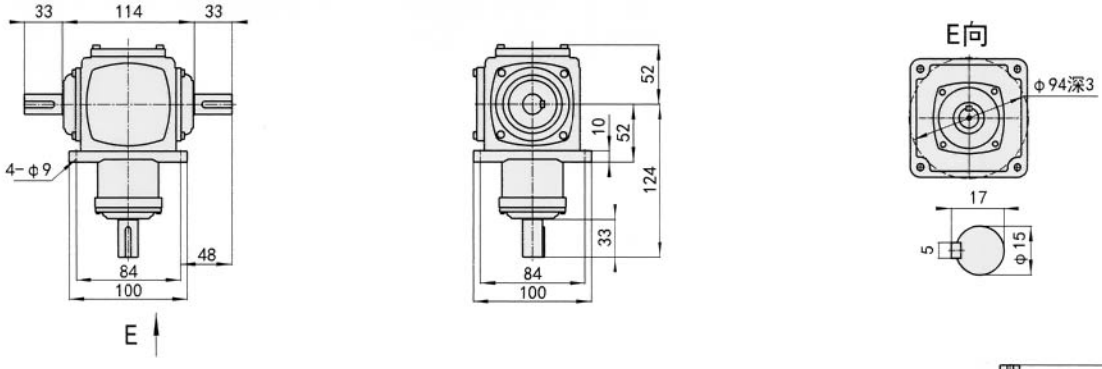
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1-U
1-D
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1-U-0
1-D-0



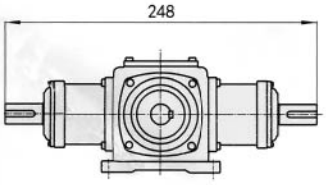
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U-R
U-L
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U-L-0



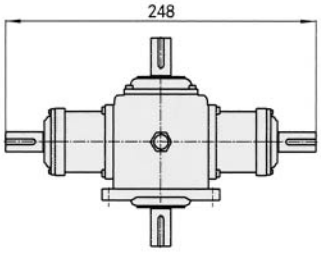
D-LR
D-R
D-L
D-LR-0
D-R-0
D-L-0



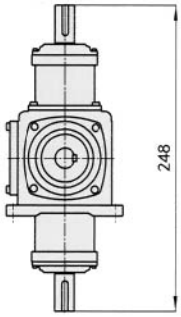
1-1-LR
1-1-L
1-1-R
1-1-LR-0
1-1-R-0
1-1-L-0



1-1-UD
1-1-U
1-1-D
1-1-UD-0
1-1-U-0
1-1-D-0



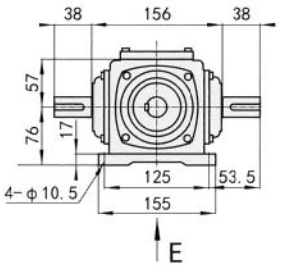
U-D-LR
U-D-R
U-D-L
U-D-LR-0
U-D-R-0
U-D-L-0

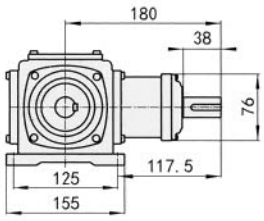


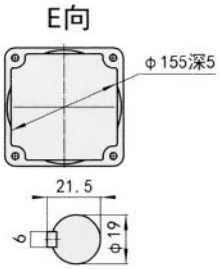
注：以上箱体均为通用件，安装尺寸均可互相参照。

T4 外型安装尺寸
Mounting Dinension Sheets-overview

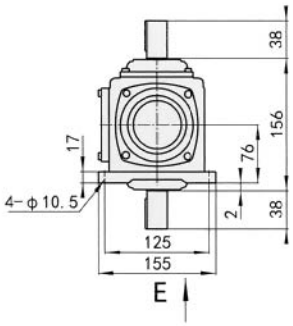
1-LR
1-L
1-R
1-LR-0
1-R-0
1-L-0

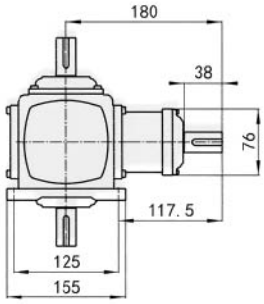


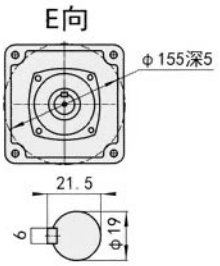




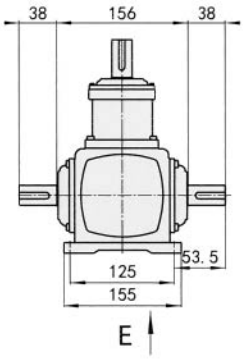
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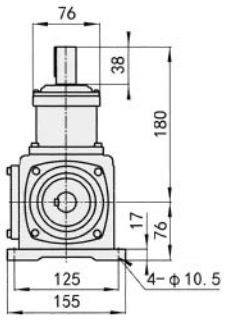


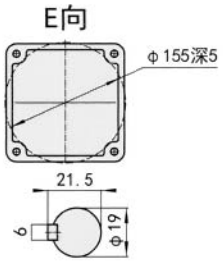




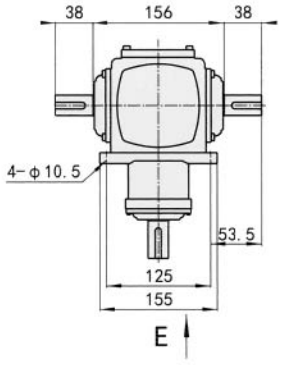
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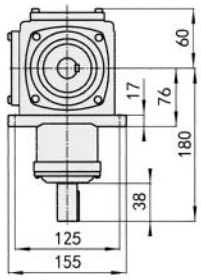


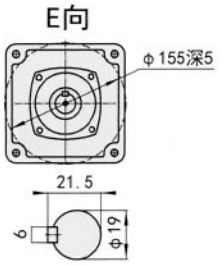




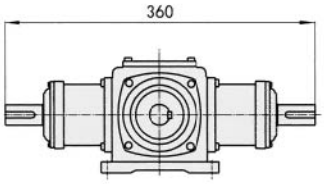
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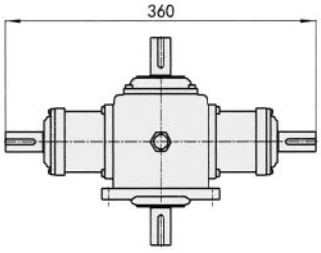




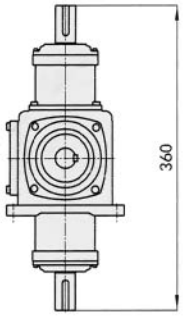
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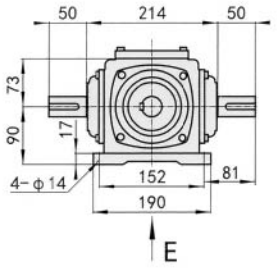


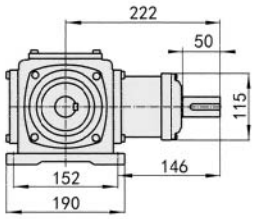
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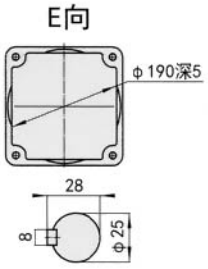


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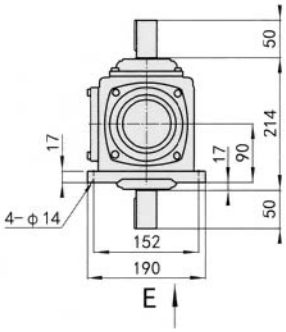
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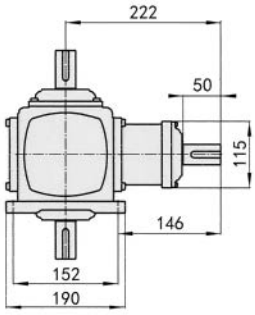


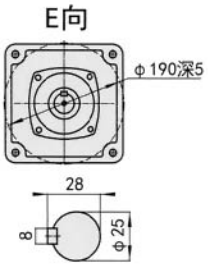




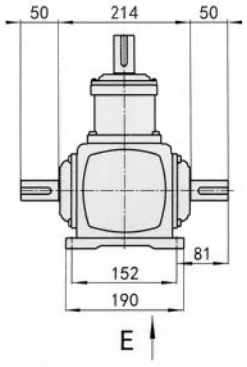
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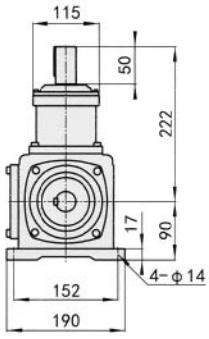


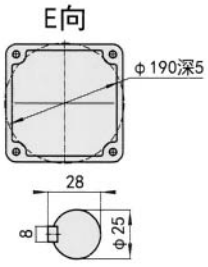




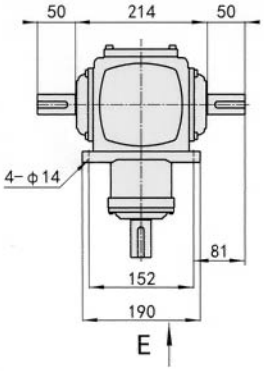
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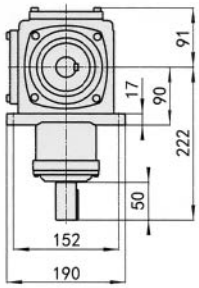


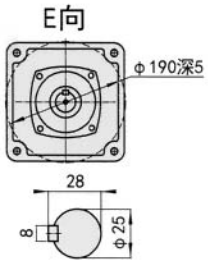




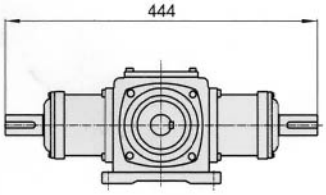
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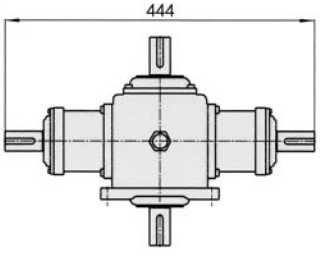




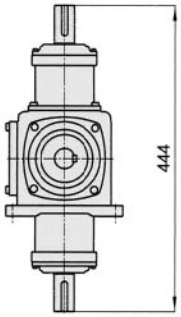
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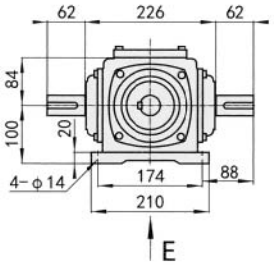


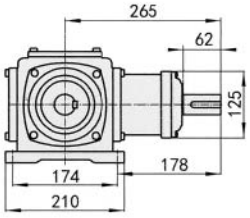
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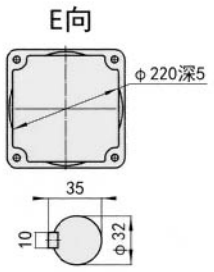


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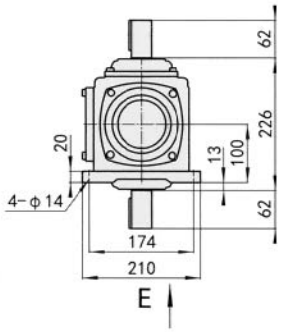
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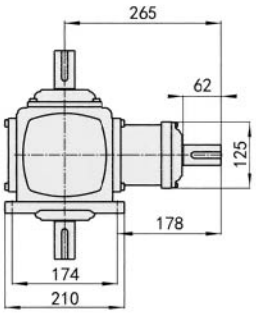


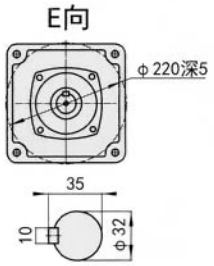




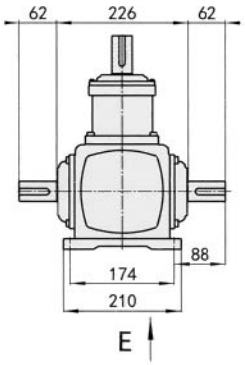
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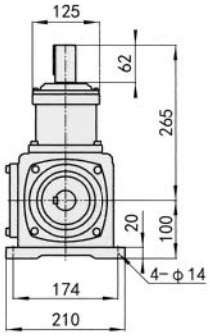


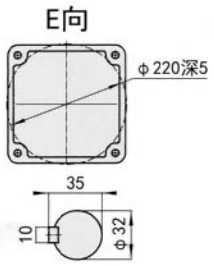




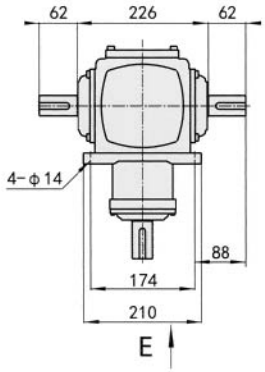
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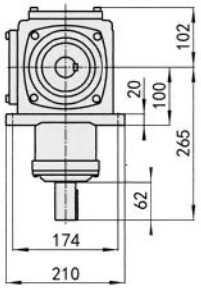


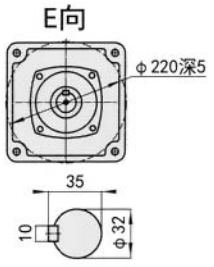




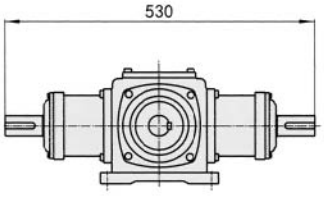
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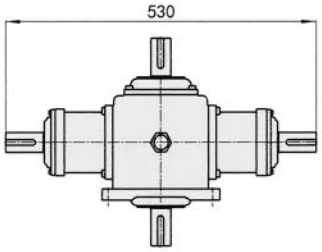




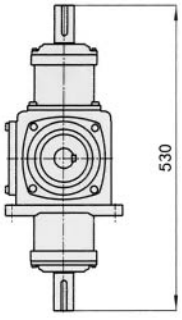
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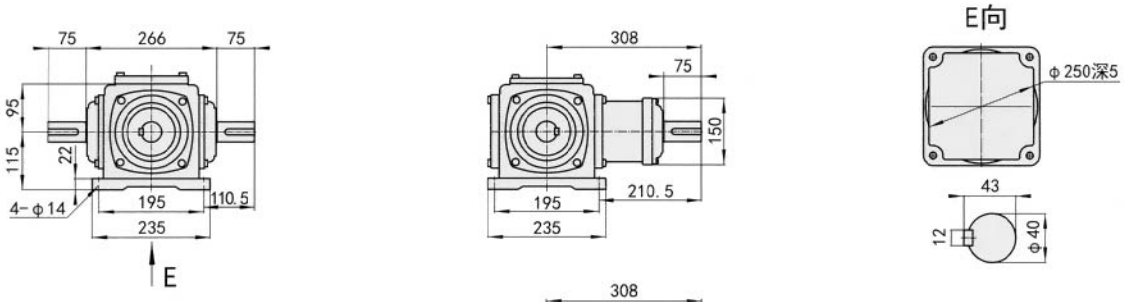


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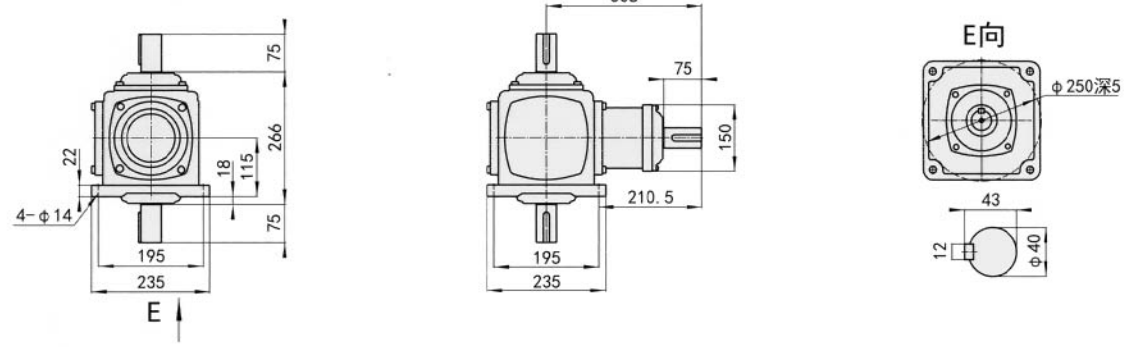


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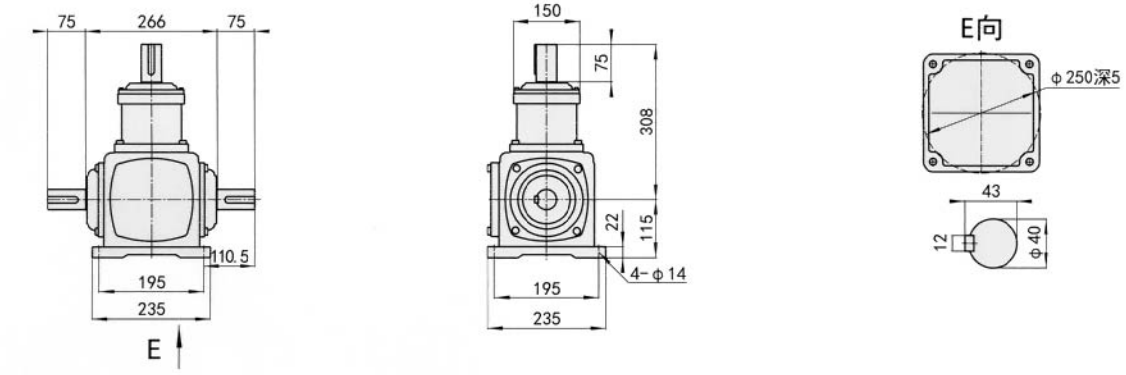
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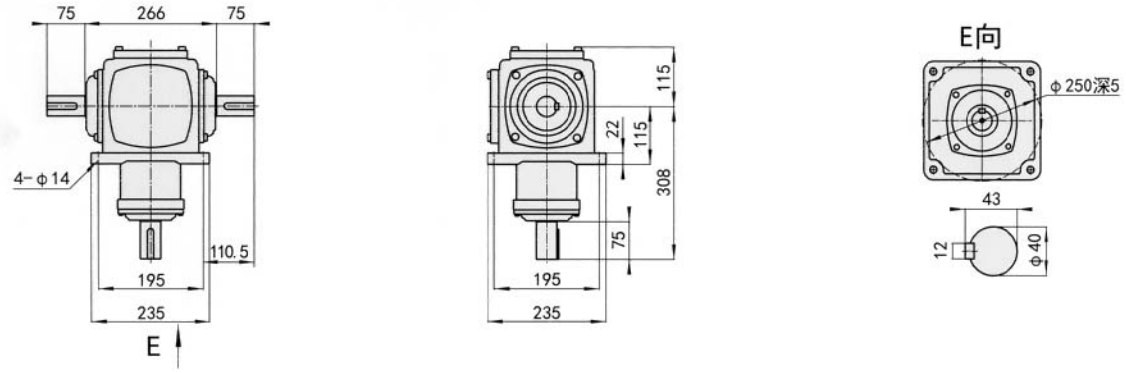
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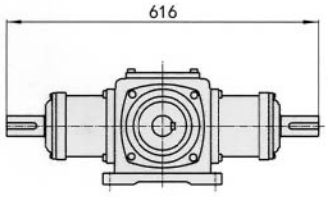
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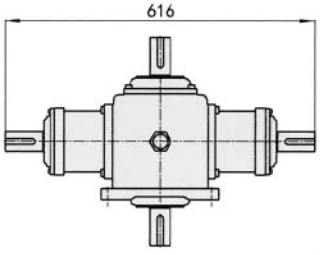
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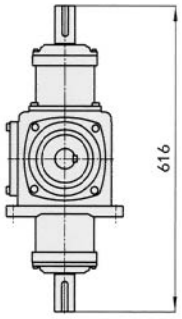
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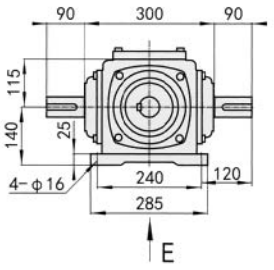


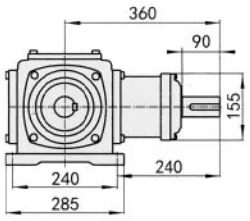
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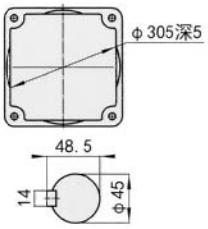
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1-R
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1-L-0

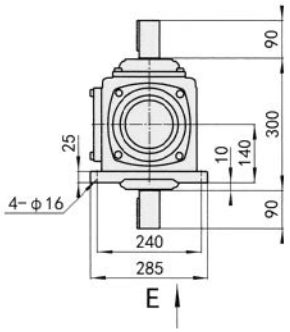


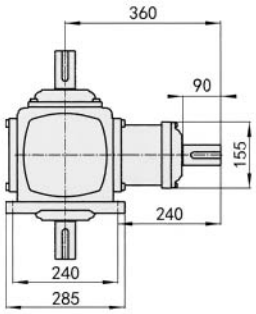


E向

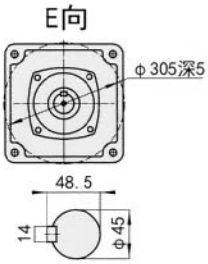


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1-D
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1-D-0

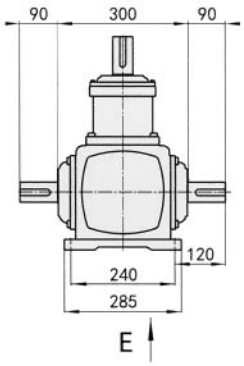


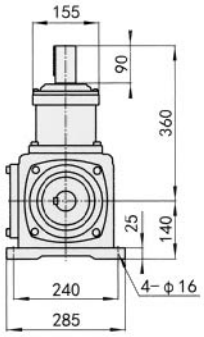


E向

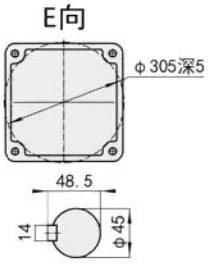


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U-L
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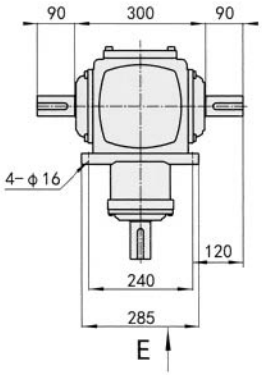


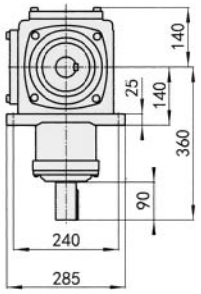


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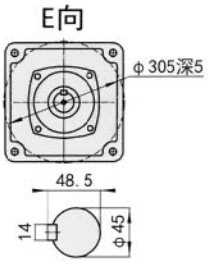


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D-R
D-L
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D-L-0

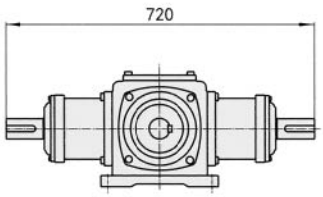




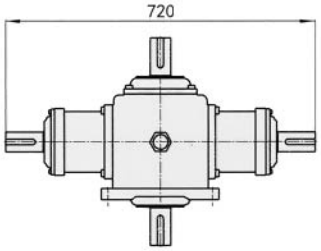
E向



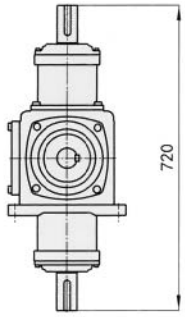
1-1-LR
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1-1-R
1-1-LR-0
1-1-R-0
1-1-L-0



1-1-UD
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1-1-D
1-1-UD-0
1-1-U-0
1-1-D-0

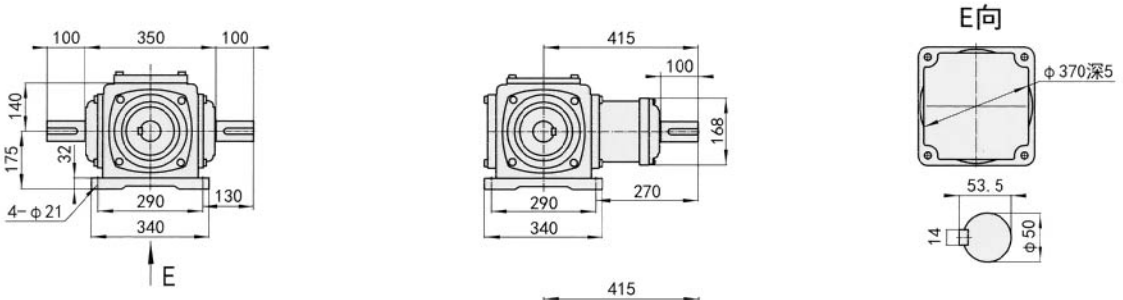


U-D-LR
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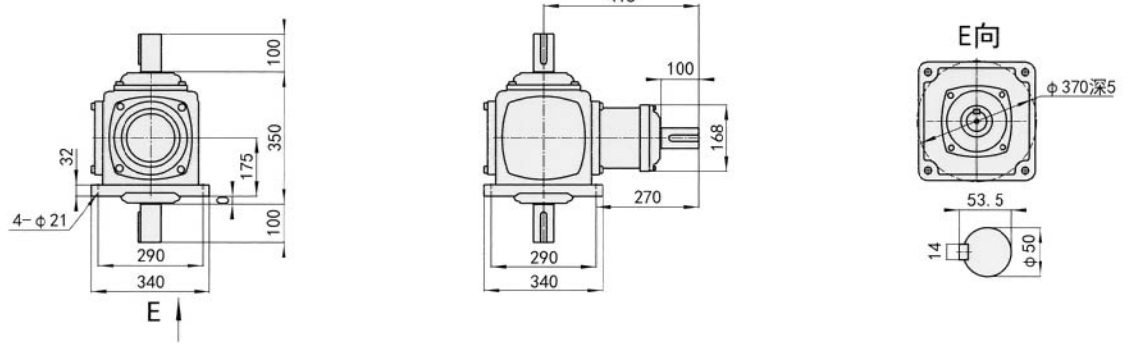


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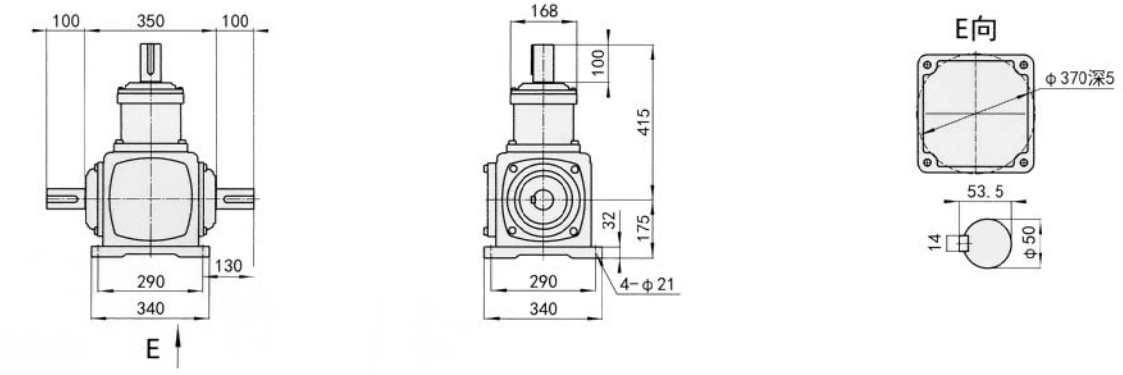
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1-L
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1-R-0
1-L-0



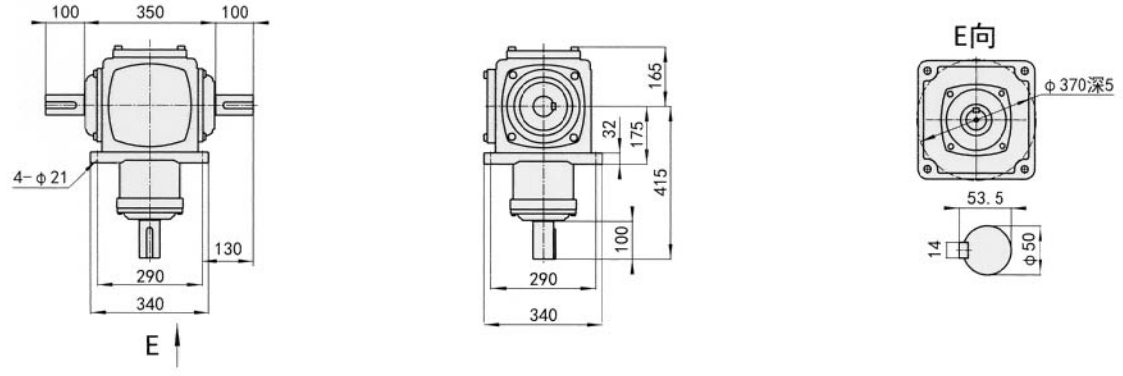
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1-U
1-D
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1-D-0



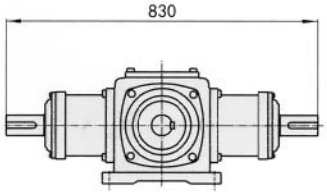
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U-R
U-L
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U-L-0



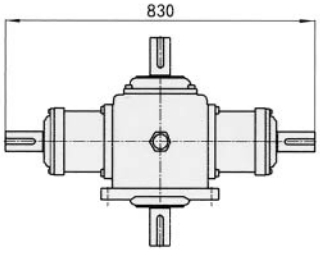
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D-L
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D-L-0



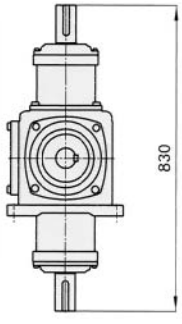
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1-1-R-0
1-1-L-0



1-1-UD
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1-1-D
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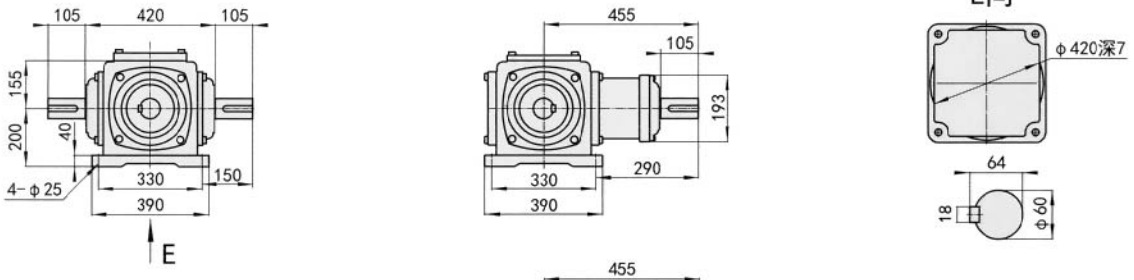


U-D-LR
U-D-R
U-D-L
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U-D-L-0

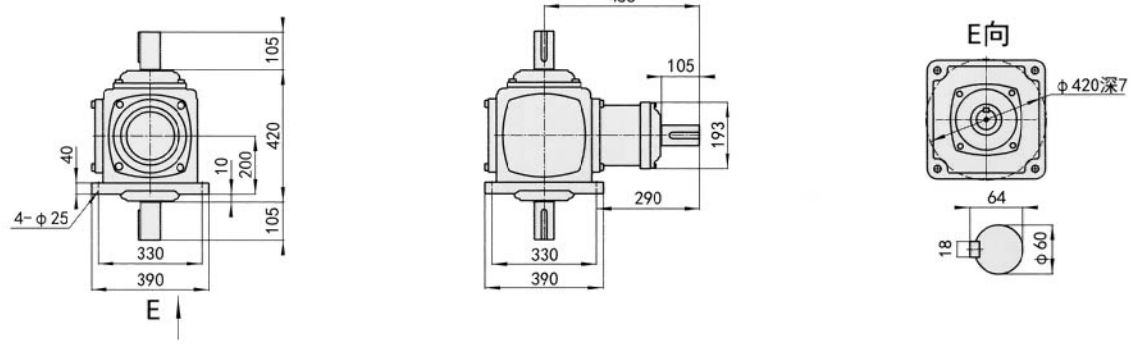


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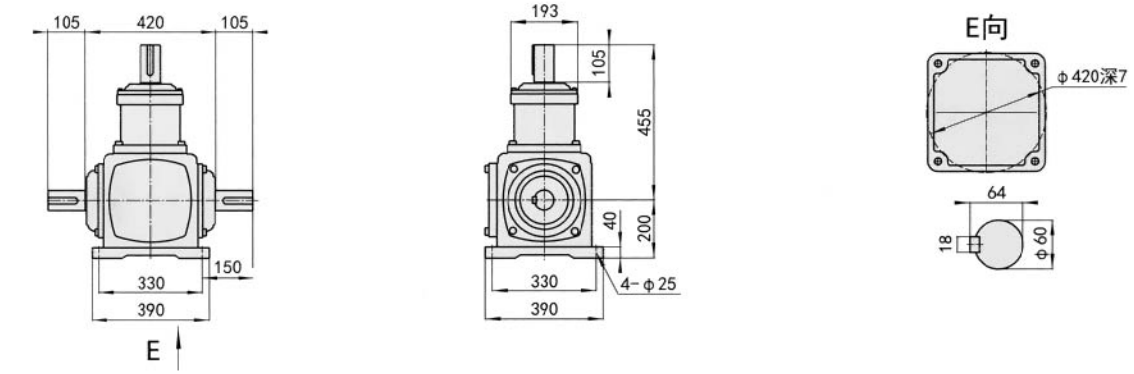
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1-L-0



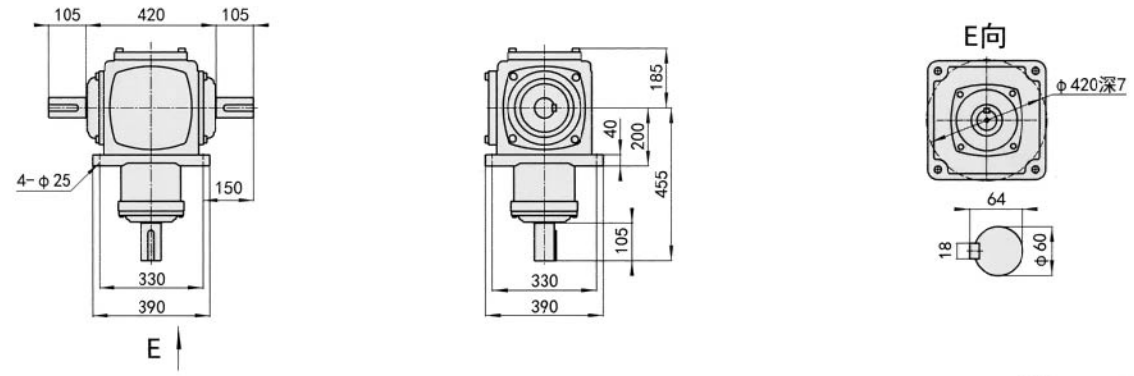
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1-U
1-D
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1-D-0



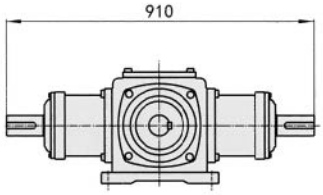
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U-R
U-L
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U-L-0



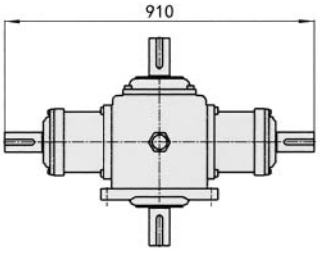
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D-R
D-L
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D-L-0



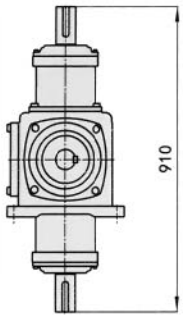
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1-1-R-0
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1-1-UD
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1-1-D
1-1-UD-0
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1-1-D-0



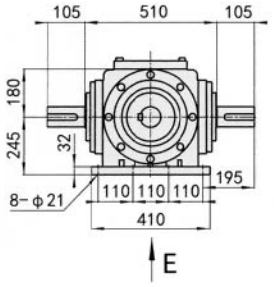
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U-D-R
U-D-L
U-D-LR-0
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U-D-L-0

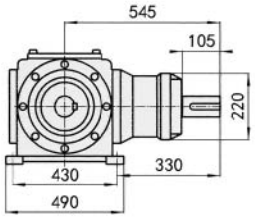


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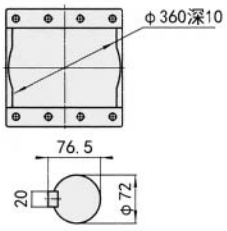
T20 外型安装尺寸
Mounting Dinension Sheets-overview

1-LR
1-L
1-R
1-LR-0
1-R-0
1-L-0

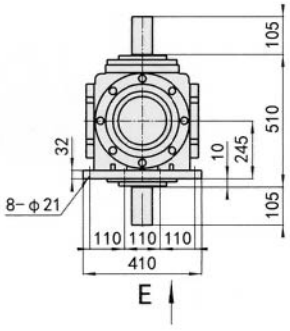


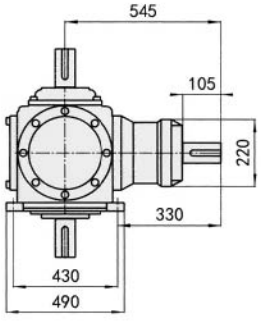


E向

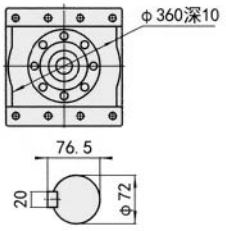


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1-U
1-D
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1-U-0
1-D-0

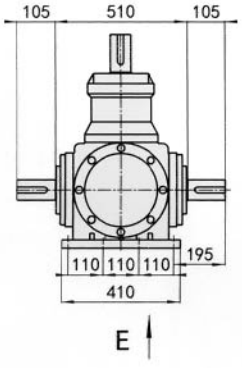


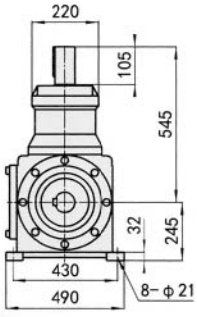


E向

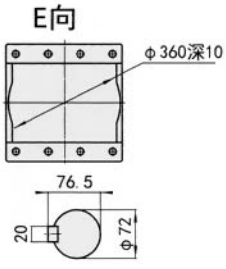


U-LR
U-R
U-L
U-LR-0
U-R-0
U-L-0

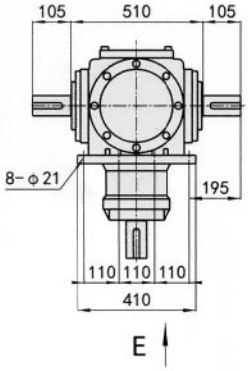


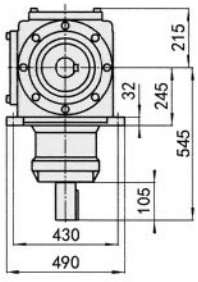


E向

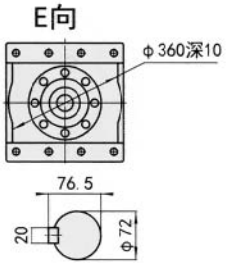


D-LR
D-R
D-L
D-LR-0
D-R-0
D-L-0

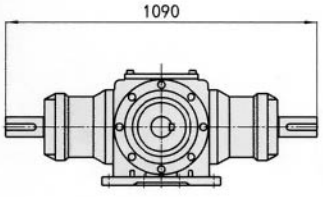




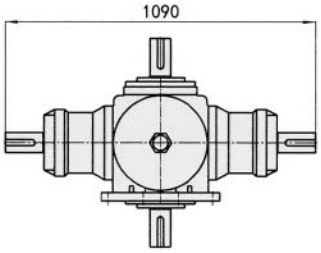
E向



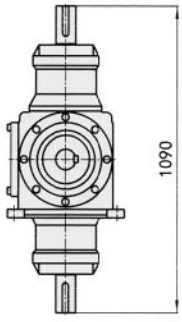
1-1-LR
1-1-L
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1-1-R-0
1-1-L-0



1-1-UD
1-1-U
1-1-D
1-1-UD-0
1-1-U-0
1-1-D-0

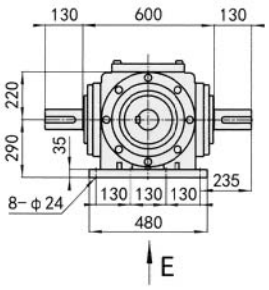


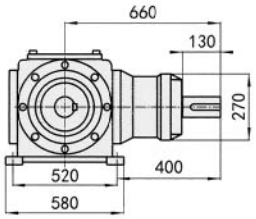
U-D-LR
U-D-R
U-D-L
U-D-LR-0
U-D-R-0
U-D-L-0

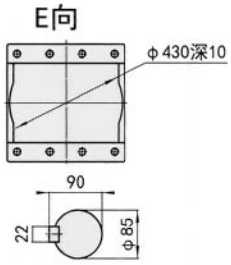


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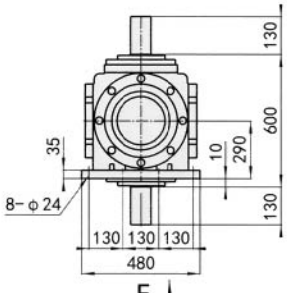
1-LR
1-L
1-R
1-LR-0
1-R-0
1-L-0

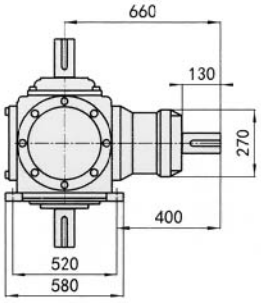


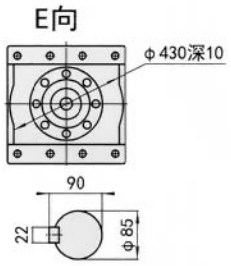




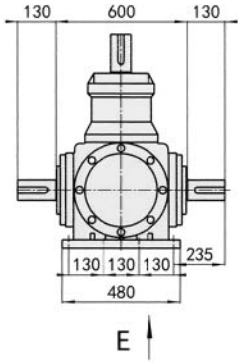
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1-U
1-D
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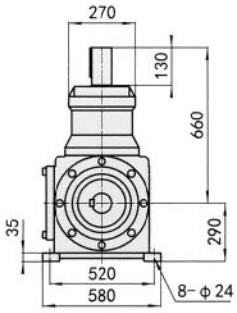


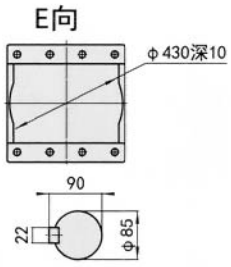




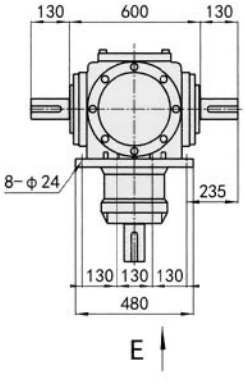
U-LR
U-R
U-L
U-LR-0
U-R-0
U-L-0

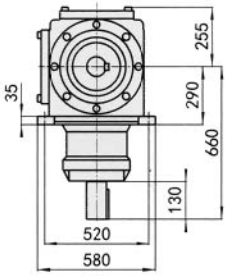


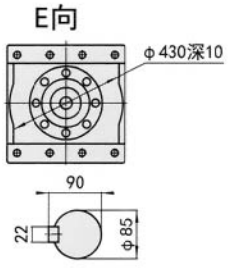




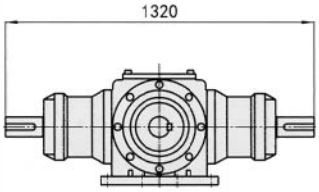
D-LR
D-R
D-L
D-LR-0
D-R-0
D-L-0



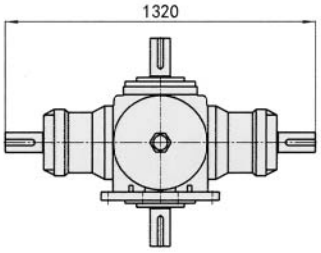




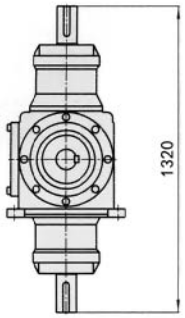
1-1-LR
1-1-L
1-1-R
1-1-LR-0
1-1-R-0
1-1-L-0



1-1-UD
1-1-U
1-1-D
1-1-UD-0
1-1-U-0
1-1-D-0



U-D-LR
U-D-R
U-D-L
U-D-LR-0
U-D-R-0
U-D-L-0



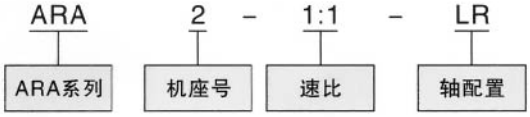
注：以上箱体均为通用件，安装尺寸均可互相参照。

特　点

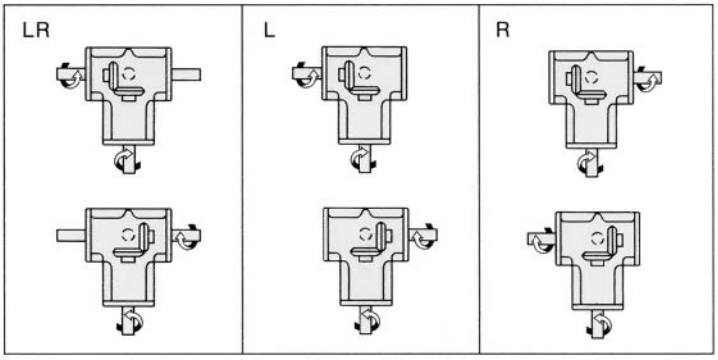
小型、全方位安装、重量轻、合金铝外壳、轴需采用耐腐蚀钢订货时注明。润滑剂出厂时已加入。



ARA系列型号表示方法：



轴配置及旋转方向关系：



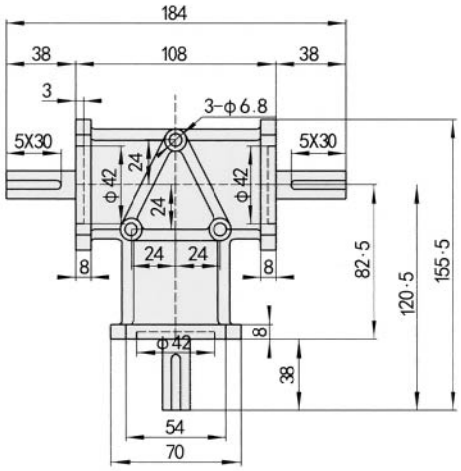
ARA系列重量表：

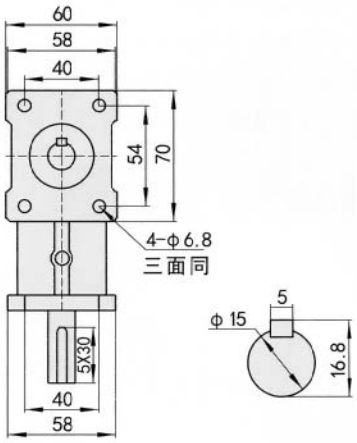
Type	ARA1	ARA2	ARA4
m(kg)	1.5	3.3	5.3

ARA系列传动能力表：

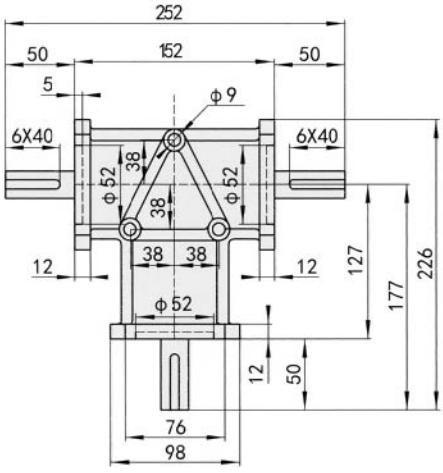
i	n_1 r/min	ARA1		ARA2		ARA4	
		M_{N2} (N·m)	P_{N1} (kw)	M_{N2} (N·m)	P_{N1} (kw)	M_{N2} (N·m)	P_{N1} (kw)
1:1	1450	7.15	1.11	12.25	1.92	31.9	4.94
	1150	7.15	0.88	14.01	1.73	34.1	4.19
	870	7.15	0.66	15.78	1.47	37.2	3.46
	580	7.15	0.44	17.74	1.10	39.5	2.45
	400	7.15	0.30	17.74	0.76	40.2	1.72
	300	7.15	0.23	17.74	0.57	40.5	1.30
	200	7.15	0.15	17.74	0.38	41.2	0.88
	150	7.15	0.11	17.74	0.28	41.8	0.67
	100	7.15	0.08	17.74	0.19	41.9	0.448
	50	7.15	0.04	17.74	0.095	43.2	0.231
2:1	1450	6.95	0.55	11.96	0.94	42.8	3.32
	1150	6.95	0.43	11.96	0.74	43.4	2.67
	870	6.95	0.33	11.96	0.56	43.8	2.4
	580	6.95	0.22	11.96	0.37	44.4	1.38
	400	6.95	0.15	11.96	0.26	45.1	0.964
	300	6.95	0.11	11.96	0.19	45.5	0.729
	200	6.95	0.075	11.96	0.13	46.1	0.492
	150	6.95	0.056	11.96	0.10	46.4	0.372
	100	6.95	0.038	11.96	0.064	46.6	0.249
	50	6.95	0.018	11.96	0.032	46.8	0.125

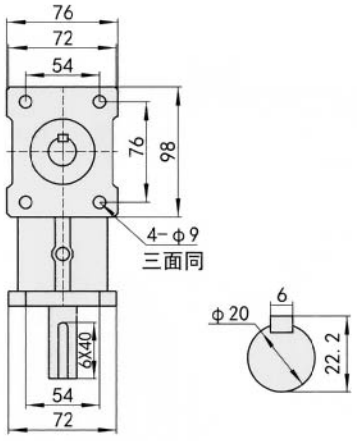
ARA1外型尺寸图



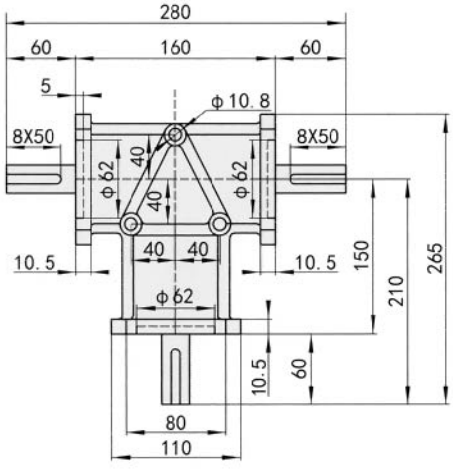


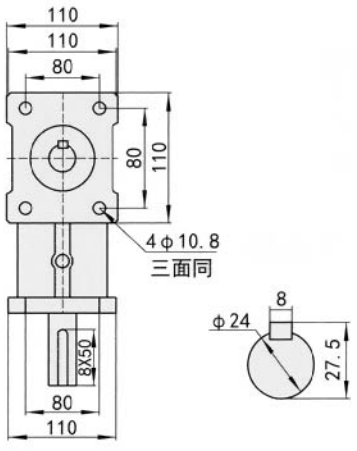
ARA2外型尺寸图





ARA4外型尺寸图





一、HD系列螺旋锥齿换向传动器产品介绍

螺旋锥齿换向传动器和换向减速器，其结构特点如下：

1、箱体形状为正六面体。能适应不同方位的安装。

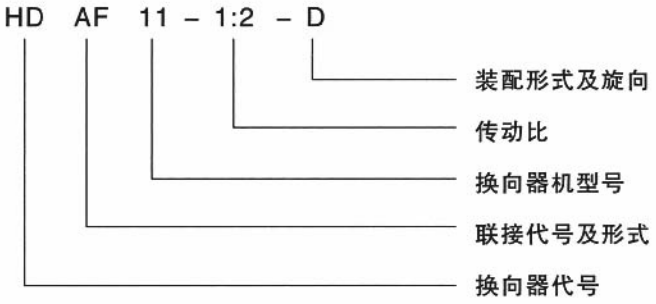
2、换向器设计使用寿命长。承载能力大。传动平稳。噪音低齿轮线速度可高达40米励，传动效率高达94%～98%。

3、弧齿圆锥齿轮采用优质低碳合金结构钢。经渗碳淬火热处理。 并经研磨跑合。实现精度较高的硬齿面闭式传动。

4、HD系列换向器共有七种规格，选型范围大，输出轴形式多样，可满足多种场合的需要。

5、可实现减速和增速两种传动方式。

二、型号表示方法



联接代号及形式

HD输入、输出轴伸式联接	HAD输入轴伸、输出轴装式联接
HDF带输入法兰、输出轴伸式联接	HDAF带输入法兰、输出轴装式联接





三、传动比计算

$$\text{传动比} i=\frac{\text{输入转速}n1}{\text{输出转速}n2}$$ 当i大于1时为减速，i小于1时为增速

四、型号的选择

1、选型计算公式：(1)$P_{1N}=P1Xf$（每小时起停次数不大于20次，小时）

(2)$P_{1N}=1.2XP1Xf$（每小时起停次数21～60次/小时）

(3)$P_{1N}\leqslant P_N$

选型功率必须小于或等于许用功率

式中：P_{1N}为选型功率，P_1为实际需要的功率，f为使用系数，P_N为许用功率。

2、使用系数f

原动机	每天工作时间（小时）	承载类型		
		均匀负载	中等中击负载	重冲击负载
电动机 汽轮机 液压马达	3	0.8	1	1.5
	3～10	1	1.25	1.25
	10～24	1.25	1.5	2
内燃机	3	1.25	1.5	2
	3～10	1.5	1.75	2.25
	10～24	1.25	2	2.5

五、热功率校核

1、热功率计算： $P_{GN}=P_G X f_1 x f_2$

$P_{GN}>P_1$（自然冷却）

$P_{GN}<P_1$（风扇或油冷却）

式中：f_1为环境温度系数。f_2为连续工作系数。P_G为换向器热容量，P_1为工作实际需要功率，P_{GN}为换向器计算热容量。

2、环境温度系数f_1

环境温度℃	10	20	30	40	50
系数f_1	1.2	1	0.87	0.75	0.64

3、连续工作系数f_2

每小时工作率%	100	80	60	40	20
f_2	1	1.2	1.4	1.6	1.8

六、热容量P_G（自然冷却）

KW

传动比i	箱体型号						
	09	11	14	17	21	24	28
1～5	4.5	6.5	11	15.5	24	31	44

七、通用技术规范

1、键和键槽尺寸符合GBI095-79、GBI096-79的规定，键槽宽度公差：轴N9，轮毂JS90

2、输出输入轴中心孔均带螺孔，规格如下：

D=11～13mm	螺孔M3	D>24-30mm	螺孔M10
>13～16mm	螺孔M5	>30～38m	螺孔M12
>16～21mm	螺孔M6	>38～50mm	螺孔M16
>21～24mm	螺孔M8	>50～85mm	螺孔M20

3、在外形安装尺寸图中，输入轴、输出轴，在转速和扭矩允许的情况下，可将输出轴作为输入轴实行增速传动。

八、选型举例

例：搅拌器驱动用螺旋锥齿轮换向器

搅拌器实际需要功率P1=28KW：电机功率P2=30KW，电机转速n1=2000 r/min

传动比i=2，换向器装配形式为D，每953-作8小时，每小时连续工作时间为60%每小时起停6次。环境温度为30c。

选型：搅拌器原动机为电动机，中等冲击负载，每天工作8/小时，按使用系

f-1.25

选型功率：P_{IN}=P1Xf=28x1.25=35kw（每小时起停6次）

按许用功率：选箱体型号为21，P_N=52.4KW>35kw

热功率校核：箱体21，按热容量表P_G=24KW

按环境温度系数表：f_1=0.87

按连续工作系数表：f_2=1.4

P_{GN}=24X0.87X1.4=29.2KW>28KW

自然冷却即可

选的型号为：HD21-2D

九、传动比、输入输出转速及许用输入功率

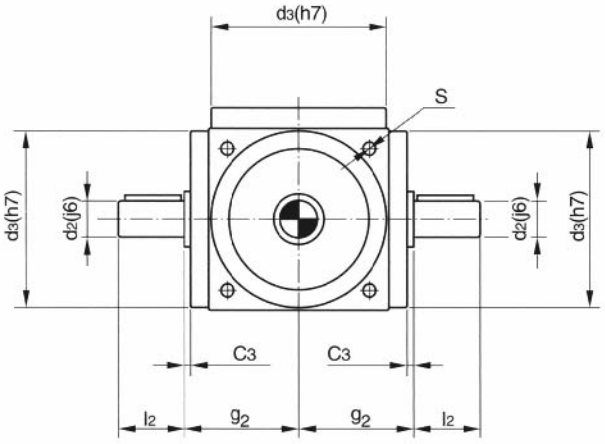
传动比i	输入转速n_1 r/min	输入转速n_2 r/min	箱体型号						
			09	11	14	17	21	24	28
			许用输入功率P_N（KW）						
1	2000	2000	7.55	13.8	29.9	49.2	84	111	188
	1500	1500	6	11	23.9	39.3	67.5	90.5	156
	1000	1000	4.3	7.85	17.2	28.8	50.5	68	115
	750	750	3.4	6.15	13.4	22.8	40.8	54.5	94.2
1.5	2000	1333	5.45	9.7	16.8	33.9	70	92.5	124
	1500	1000	4.3	7.75	13.5	27.2	56.5	75.5	103
	1000	667	3.05	5.45	9.7	19.6	41.2	55.5	75.5
	750	500	2.3	4.25	7.6	15.5	33	44.5	60.5
2	2000	1000	4.2	7.95	14.1	26.2	52.4	71.5	107
	1500	750	3.35	6.3	11.1	20.8	43.2	58.5	88
	1000	500	2.35	4.45	7.85	14.9	31.4	41.9	64.5
	750	375	1.8	3.45	6.2	11.6	25.2	33.8	51
3	2000	667	2.85	5.6	10.1	18.2	34.9	52.4	73
	1500	500	2.2	4.45	7.95	14.4	27.7	41.9	58.5
	1000	333	1.5	3.1	5.6	10.1	20	30.2	42.4
	750	250	1.2	2.4	4.4	7.8	15.7	23.6	33.5
4	2000	500	2.15	3.75	6.8	10.5	23.3	37.7	47.6
	1500	375	1.65	2.9	5.3	8.4	18.5	30.2	38.5
	1000	250	1.15	2	3.75	5.9	13.4	21.7	27.5
	750	188	0.87	1.55	2.95	4.55	10.4	17.1	21.7
5	2000	400	1.4	2.95	5.05	8.05	15.9	28.9	39.4
	1500	300	1.1	2.35	3.95	6.45	12.9	23.4	31.4
	1000	200	0.75	1.6	2.75	4.5	9	16.4	22.4
	750	150	0.58	1.25	2.1	3.45	6.95	13	17.7

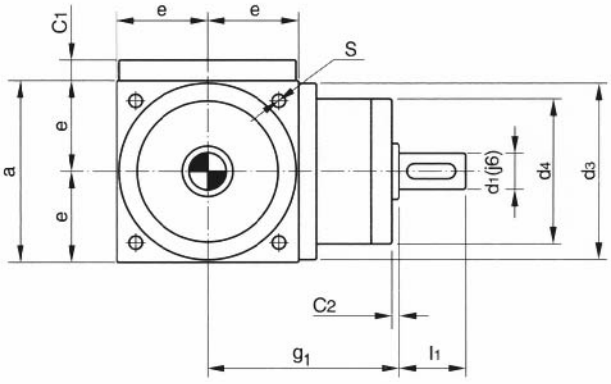
注：1、本表的许用功幸数值为减速是适用，当要求增速时，许用功率数值应乘传动比。

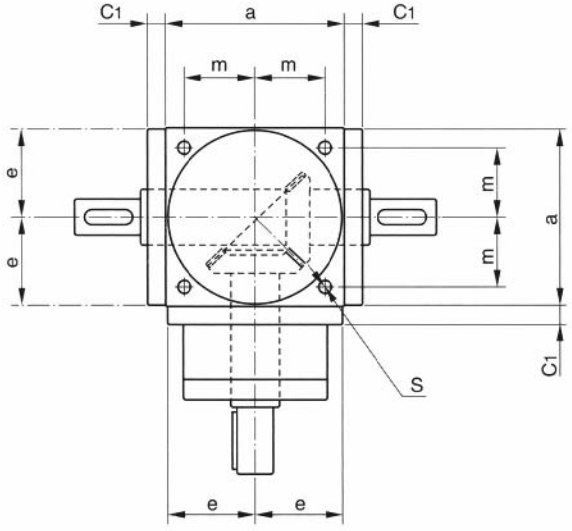
2、输入输出轴超出表中范围时，请与我们联系。

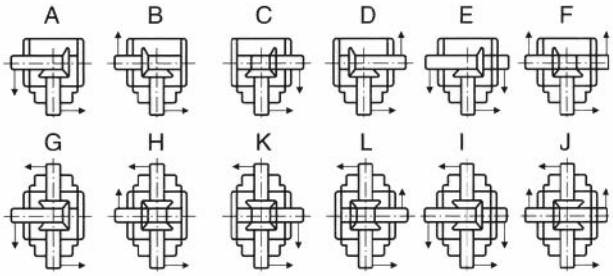
HD09-HD28（i=1～5）输入输出轴伸式联接

HD外形安装尺寸







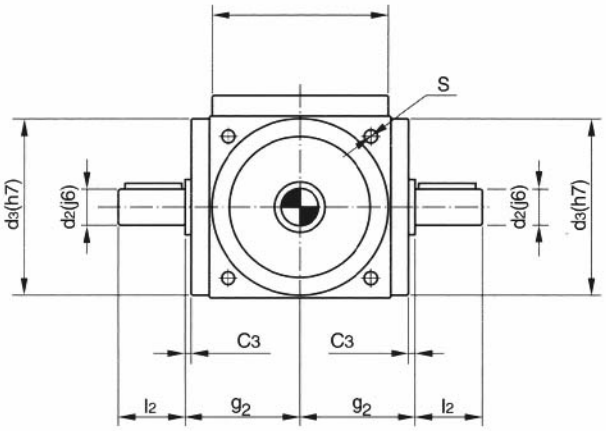


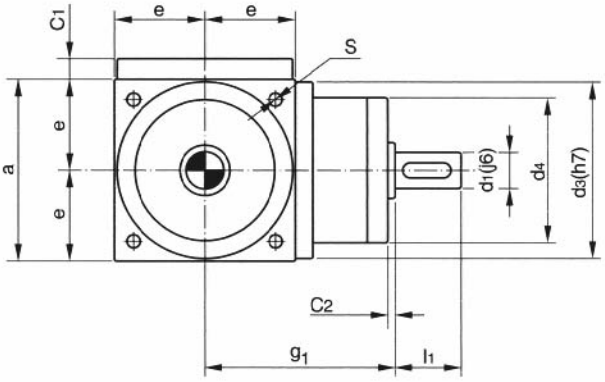
装配形式及旋转方向

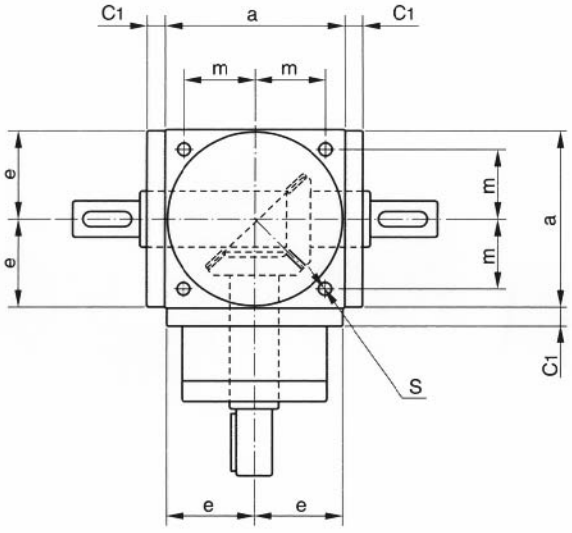
型号	a	C1	C2	C3	d2	l2	d3	e	g1	g2	m	S	i=1～2		i=3		i=4		i=5		i=1～3	i=4～5	重量	加油
													d1	l1	d1	l1	d1	l1	d1	l1	d4	d4	Kg	L
09	90	12	2	2	18	35	88	45	97	59	36	M6	18	35	16	30	11	23	11	23	72	62	6	0.2
11	110	12	2	2	22	40	108	55	112	69	44	M8	22	40	20	35	16	30	14	25	81	72	10	0.3
14	140	15	2	2	32	50	135	70	157	84	55	M10	32	50	26	45	20	35	16	30	98	81	20	0.4
17	170	15	2	3	40	60	165	85	181	103	67	M12	40	60	32	50	26	45	22	40	118	98	32	1
21	210	20	2	2	45	70	205	105	230	130	85	M16	45	70	45	70	32	50	30	50	128	110	60	2
24	240	22	2	2	48	85	235	120	280	145	95	M16	48	85	48	85	38	55	35	55	138	120	75	2.5
28	280	22	2	2	60	110	275	140	280	160	110	M16	60	110	50	80	45	70	42	70	150	135	115	3

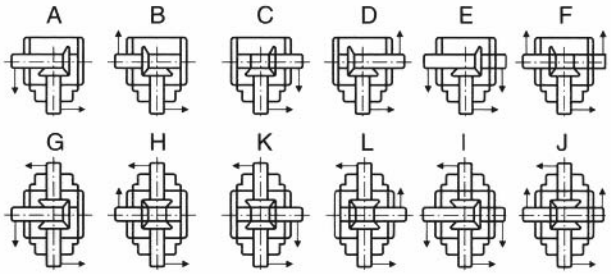
HD09-HD28（i=1:1.5，i=1:2）输入输出轴伸式联接

HD外形安装尺寸







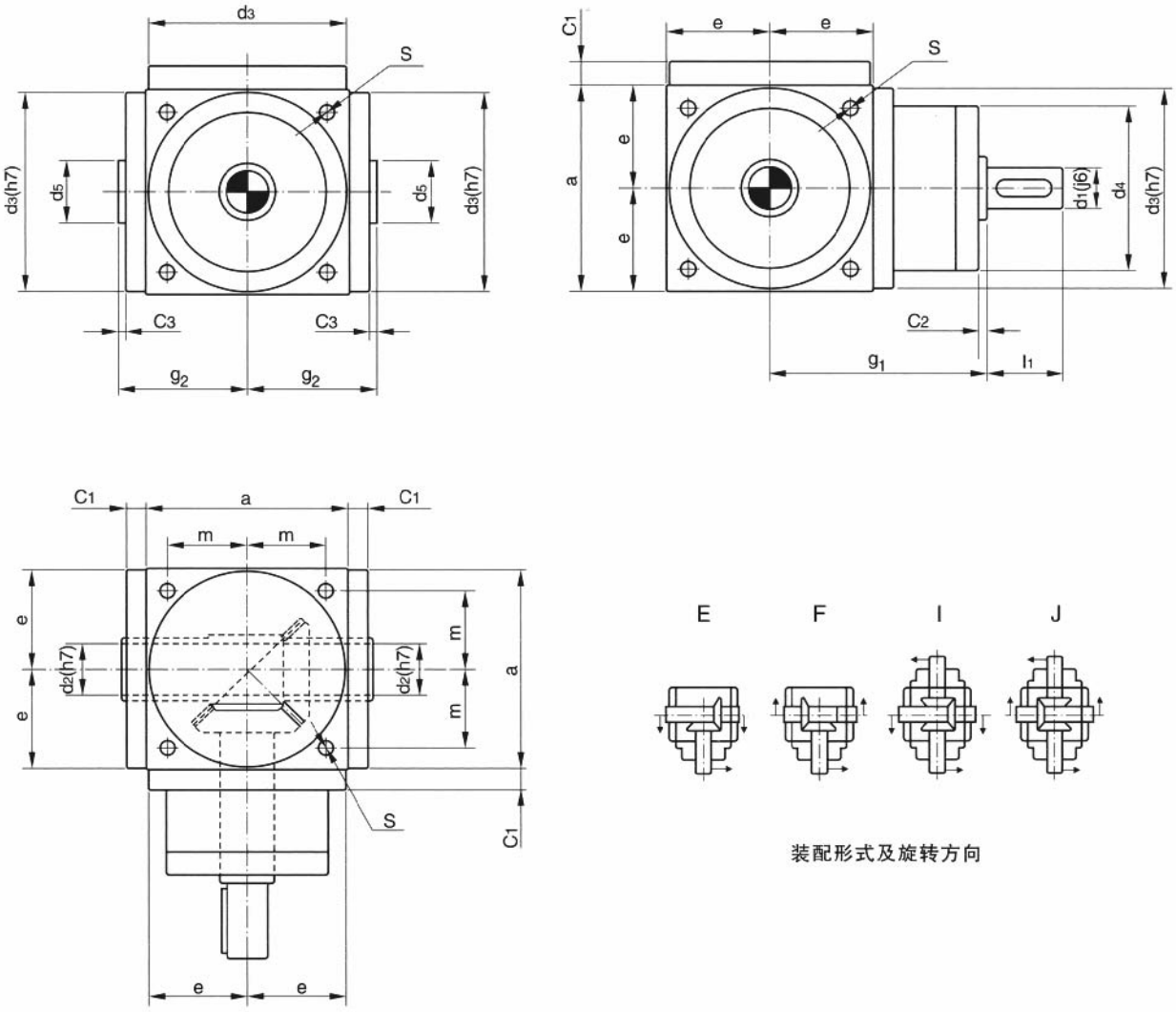


装配形式及旋转方向

型号	a	C1	C2	C3	d1	l1	d3	e	g1	g2	m	S	d4	i=1:1.5		重量	加油
														d2	l2	Kg	L
09	90	12	2	2	18	35	88	45	97	59	36	M6	72	11	23	6	0.2
11	110	12	2	2	22	40	108	55	112	69	44	M8	81	14	25	10	0.3
14	140	15	2	2	32	50	135	70	157	84	55	M10	98	16	30	20	0.4
17	170	15	2	3	40	60	165	85	181	103	67	M12	118	22	40	32	1
21	210	20	2	2	45	70	205	105	230	130	85	M16	128	45	70	60	2
24	240	22	2	2	48	85	235	120	280	145	95	M16	138	48	85	75	2.5
28	280	22	2	2	60	110	275	140	280	160	110	M16	150	42	70	115	3

HDA09-HDA28输入输出轴伸式联接

HD外形安装尺寸

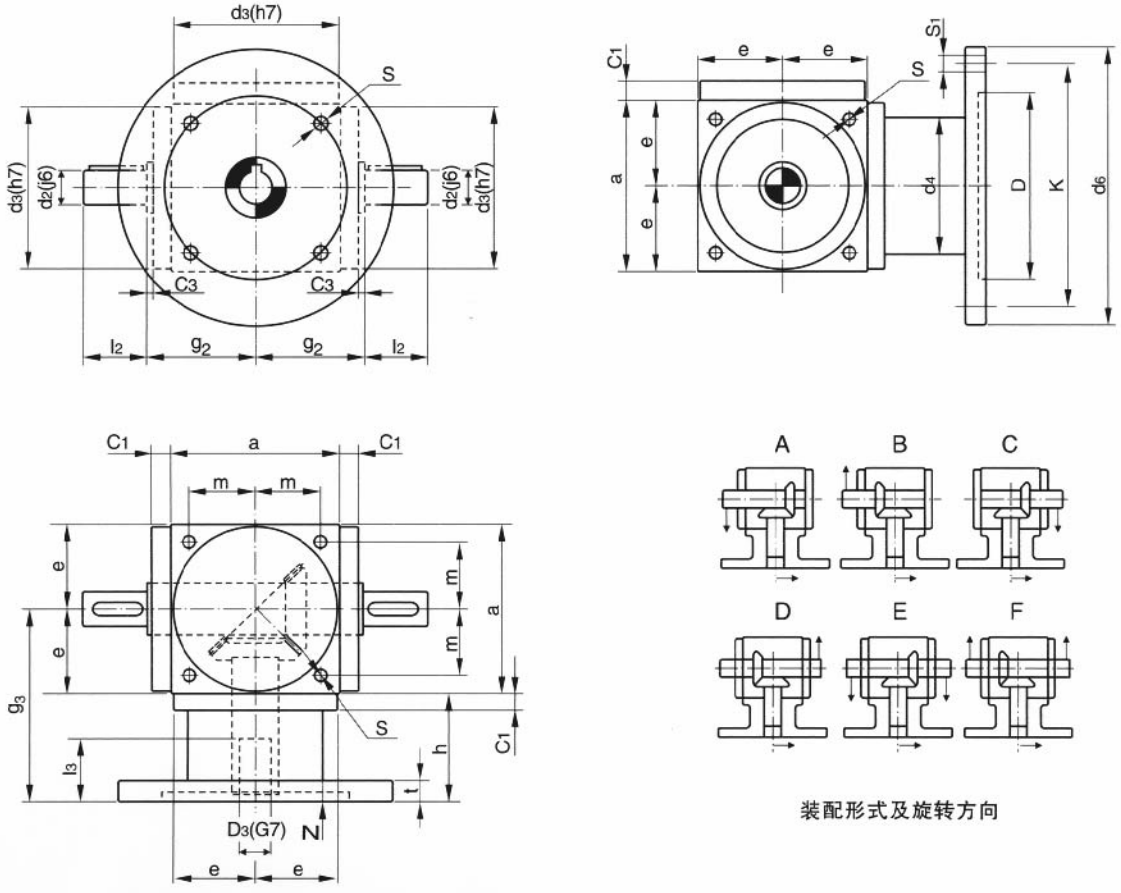


装配形式及旋转方向

型号	a	C1	C2	C3	d2	d5	d3	e	g1	g2	m	S	i=1～2		i=3		i=4		i=5		i=1～3	i=4～5	重量	加油
													d1	l1	d1	l1	d1	l1	d1	l1	d4	d4	Kg	L
09	90	12	2	2	16	25	88	45	97	59	36	M6	18	35	16	30	11	23	11	23	72	62	6	0.2
11	110	12	2	2	22	35	108	55	112	69	44	M8	22	40	20	35	16	30	14	25	81	72	10	0.3
14	140	15	2	2	28	45	135	70	157	84	55	M10	32	50	26	45	20	35	16	30	98	81	20	0.4
17	170	15	2	3	38	55	165	85	181	103	67	M12	40	60	32	50	26	45	22	40	118	98	32	1
21	210	20	2	2	45	65	205	105	230	130	85	M16	45	70	45	70	32	50	30	50	128	110	60	2
24	240	22	2	2	55	75	235	120	280	145	95	M16	48	85	48	85	38	55	35	55	138	120	75	2.5
28	280	22	2	2	60	85	275	140	280	160	110	M16	60	110	50	80	45	70	42	70	150	135	115	3

HDF09-HDF28带输入法兰，输出轴装式联接

HD外形安装尺寸



装配形式及旋转方向

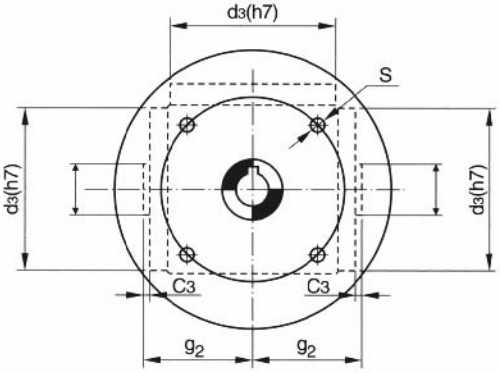
型号	a	C1	C3	d3	d4	d2	l2	i=1～2 D3XI3				i=3～5 D3XI3			
09	90	12	2	88	86	18	35	19X43	14X33	11X26	9X23	19X43	14X33	11X26	9X23
11	110	12	2	108	82	22	40	24X53	19X43	14X33	11X26	24X53	19X43	14X33	11X26
14	140	12	2	135	104	32	50	38X83	28X63	24X53	19X43	28X63	24X53	19X43	14X43
17	170	15	3	165	128	40	60	42X115	38X83	28X63	24X53	38X83	28X63	24X53	19X43
21	210	18	2	205	160	45	70	48X115	42X115	38X83	28X63	42X115	38X83	28X63	24X53
24	240	18	2	235	170	55	85	55X115	48X115	42X115	38X83	48X115	42X115	38X83	28X63
28	280	18	2	275	190	60	110	60X145	55X115	48X115	42X115	55X115	48X115	42X115	38X83

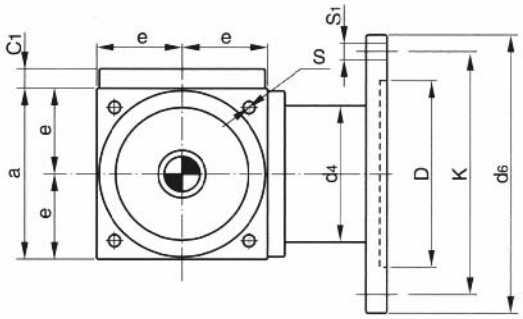
型号	e	g2	g3	h	m	S	i=1～2 d6				i=3～5 d6			
09	45	59	110	65	36	M6	200	160	140	120	200	160	140	120
11	55	69	130	75	44	M8	200	160	140	120	200	160	140	120
14	70	84	170	100	55	M10	300	250	200	160	300	250	200	160
17	85	103	165	130	67	M12	165	300	250	200	350	300	250	200
21	105	125	245	140	85	M16	350	300	250	–	350	300	250	200
24	120	140	265	145	95	M16	400	350	300	250	400	350	300	250
28	140	160	315	175	110	M16	450	400	350	300	400	350	300	

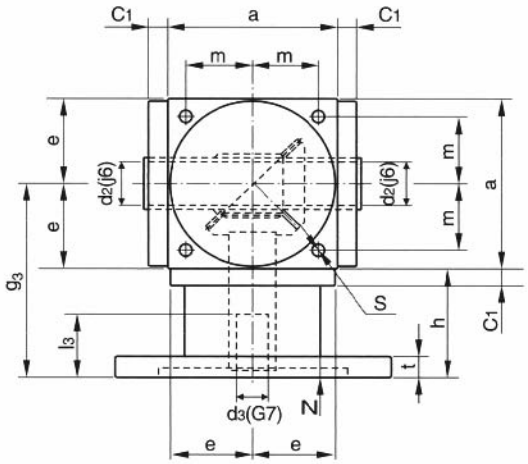
d6	D	K	S1	t	Z
120	80	100	4XM6	11	3.5
140	95	115	4XM8	11	3.5
160	110	130	4XM8	11	4
200	130	165	4XM10	14	4
250	180	215	4XM12	16	4.5
300	230	265	4XM12	16	4.5
350	250	300	4XM16	20	6
400	300	350	4XM16	20	6
450	350	400	4XM16	25	6

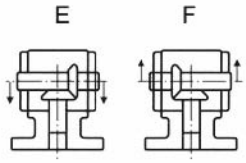
HDAF09-HDAF28带输入法兰，输出轴装式联接

HD外形安装尺寸







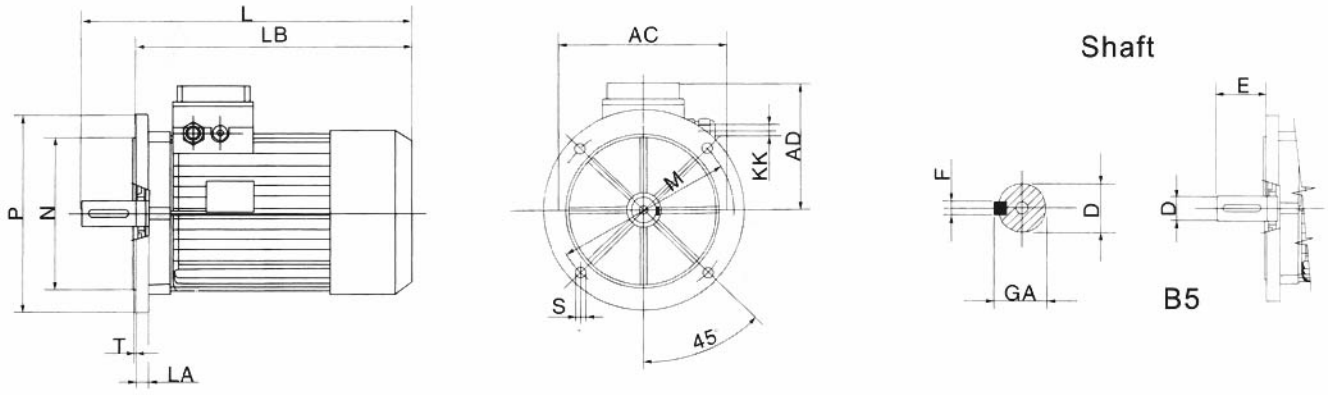


型号	a	C_1	C_3	d_3	d_4	D_2	d_5	i=1～2				i=3～5			
								D3Xl_3				D3Xl_3			
09	90	12	2	88	86	16	25	19X43	14X33	11X26	9X23	19X43	14X33	11X26	9X23
11	110	12	2	108	82	22	35	24X53	19X43	14X33	11X26	24X53	19X43	14X33	11X26
14	140	12	2	135	104	28	45	38X83	28X63	24X53	19X43	28X63	24X53	19X43	14X43
17	170	15	3	165	128	38	55	42X115	38X83	28X63	24X53	38X83	28X63	24X53	19X43
21	210	18	2	205	160	45	65	48X115	42X115	38X83	28X63	42X115	38X83	28X63	24X53
24	240	18	2	235	170	55	75	55X115	48X115	42X115	38X83	48X115	42X115	38X83	28X63
28	280	18	2	275	190	60	85	60X145	55X115	48X115	42X115	55X115	48X115	42X115	38X83

型号	e	g_2	g_3	h	m	S	i=1～2				i=3～5			
							d_6							
09	45	59	110	65	36	M6	200	160	140	120	200	160	140	120
11	55	69	130	75	44	M8	200	160	140	120	200	160	140	120
14	70	84	170	100	55	M10	300	250	200	160	300	250	200	160
17	85	103	165	130	67	M12	350	300	250	200	350	300	250	200
21	105	125	245	140	85	M16	350	300	250	–	350	300	250	200
24	120	140	265	145	95	M16	400	350	300	250	400	350	300	250
28	140	160	315	175	110	M16	450	400	350	300	400	350	300	

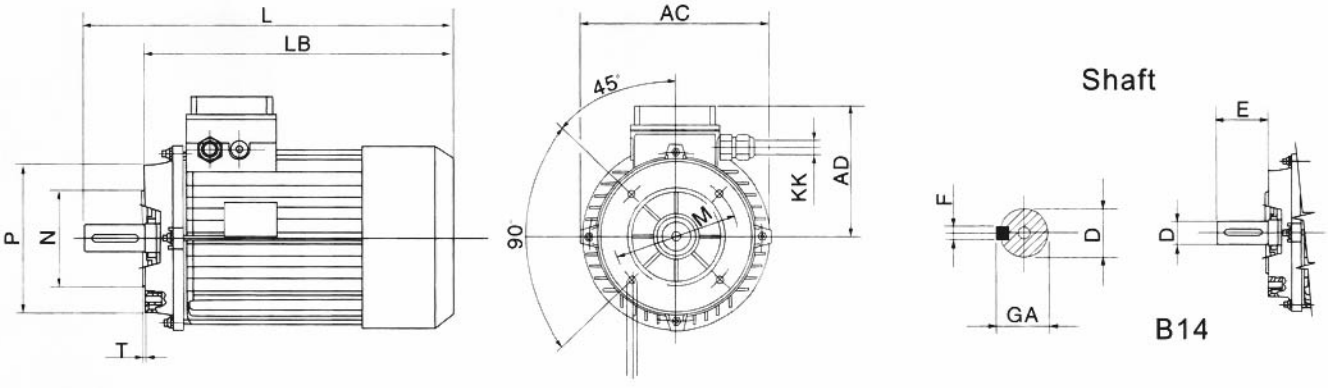
d_6	D	K	S1	t	Z
120	80	100	4XM6	11	3.5
140	95	115	4XM8	11	3.5
160	110	130	4XM8	11	4
200	130	165	4XM10	14	4
250	180	215	4XM12	16	4.5
300	230	265	4XM12	16	4.5
350	250	300	4XM16	20	6
400	300	350	4XM16	20	6
450	350	400	4XM16	25	6

B5 Electric Mmotors Dimension

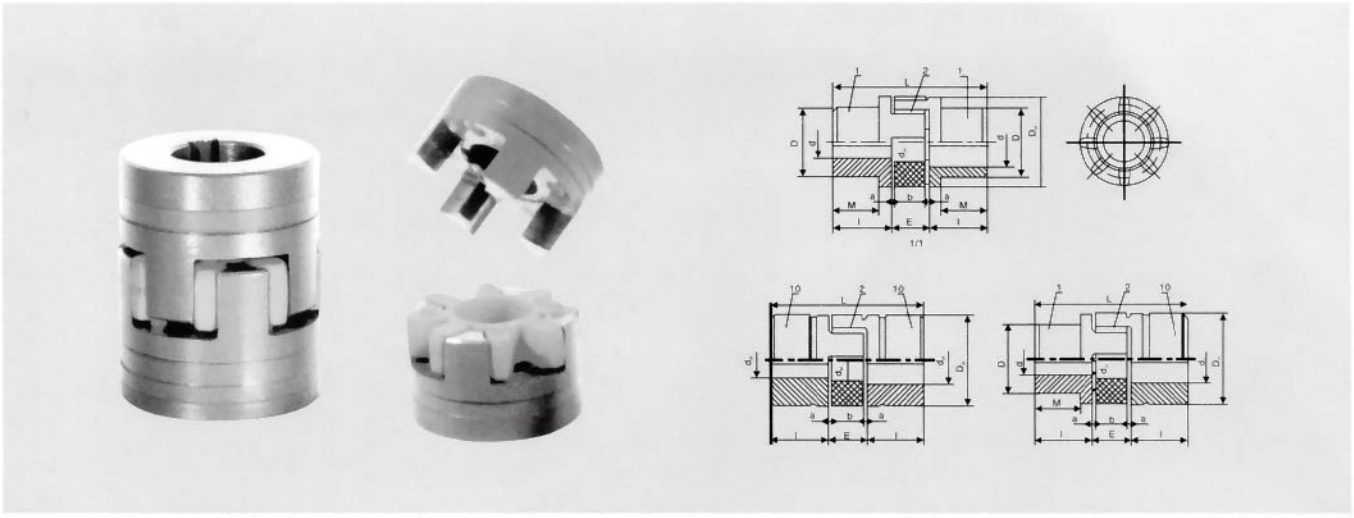


Motor	Overall dim.					Flange B5						Shaft			
	AC	AD	L	LB	KK	M	Nj6	P	LA	S(Φ)	T	D(Φ)	E	F	GA
56	110	96	189	169	M16×1,5	100	80	120	10	7	3	9 M4	20	3	10,2
63	122	96	218	195	M16×1,5	115	95	140	10	9	3	11 M4	23	4	12,5
71	145	125	255	225	M20×1,5	130	110	160	13	10	3,5	14 M5	30	5	16
80	165	135	295	255	M20×1,5	165	130	200	13	12	3,5	19 M6	40	6	21,5
90S	185	145	310	260	M25×1,5	165	130	200	13	12	3,5	24 M8	50	8	27
90L	185	145	335	285	M25×1,5	165	130	200	15	12	3,5	24 M8	50	8	27
100	215	170	380	320	M25×1,5	215	180	250	15	15	4	28 M10	60	8	31
112	240	180	400	340	M25×1,5	215	180	250	15	15	4	28 M10	60	8	31
132S	275	210	470	390	M25×1,5	265	230	300	15	15	4	38 M12	80	10	41
132M	275	210	510	430	M25×1,5	265	230	300	15	15	4	38 M12	80	10	41

B14 Electric Mmotors Dimension



Motor	Overall dim.					Flange B5						Shaft			
	AC	AD	L	LB	KK	M	Nj6	P	LA	S(Φ)	T	D(Φ)	E	F	GA
56	110	96	189	169	M16×1,5	65	50	80	M5		3	9 M4	20	3	10,2
63	122	96	218	195	M16×1,5	75	60	90	M5		3	11 M4	23	4	12,5
71	145	125	255	225	M20×1,5	85	70	105	M6		3	14 M5	30	5	16
80	165	135	295	255	M20×1,5	100	80	120	M6		3	19 M6	40	6	21,5
90S	185	145	310	260	M25×1,5	115	95	140	M8		3	24 M8	50	8	27
90L	185	145	335	285	M25×1,5	115	95	140	M8		3	24 M8	50	8	27
100	215	170	380	320	M25×1,5	130	110	160	M8		4	28 M10	60	8	31
112	240	180	400	340	M25×1,5	130	110	160	M8		4	28 M10	60	8	31
132S	275	210	470	390	M25×1,5	165	130	200	M10		5	38 M12	80	10	41
132M	275	210	510	430	M25×1,5	165	130	200	M10		5	38 M12	80	10	41



型号解释 Type & Expressions

FL 9/24 (1a/1a)

(1a/1a)	Style	类型
9/24	dmax/d1max	最大直径d/最大直径d1
FL	Jaw Flexible Couplings	嵌入式弹性联轴器

描术 Summary

1.适用于各种机械和水力领域。
Applicable to all types of machinery and hydraulics.

2.噪音低，传递扭力大。
Small volume and large transmitted torque.

3.轴向嵌入，易于装配，免维护。
To be plugged in axially, easy assembly, maintenance-free.

4.轴向平衡，径向成角不重合。
Balancing axiad, radial and angular misalignment.

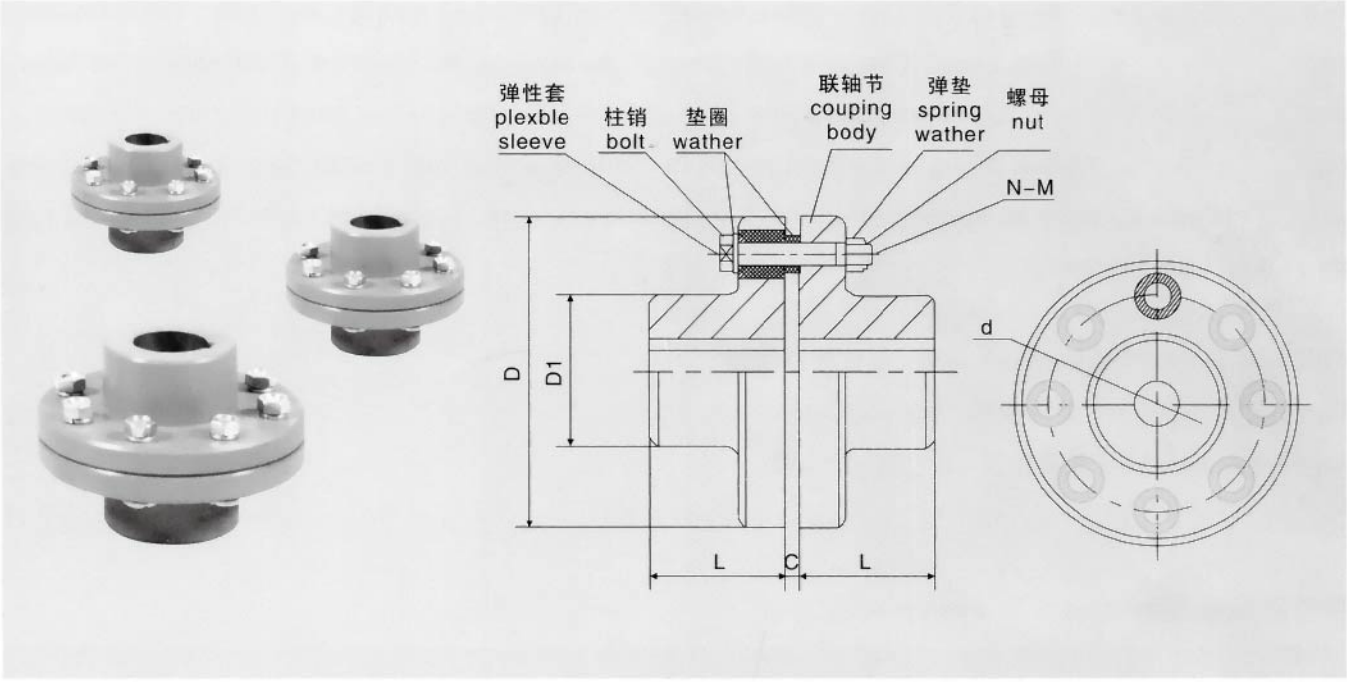
5.d,d1尺寸可根据客户要求定做。
Dimensions of bore d,d1 available on customer request.

6.适用温度：—40℃至 +100℃。最高温度120℃
Applicable from –40℃ to +100℃, temperature peaks up to 120℃.

技术参数 Performance parameter

Type 型号		Max speed 最大转速 r/min	Rated power 额定功率 (n=1500r/min) kW	Rated torque 额定扭矩 N.m	Rated torque N.m额定扭矩	Max.torsio angle 最大扭转角度
FL9	FL19/24	28000	0.28	1.8	3.5	6.4°
FL14	FL24/28	19000	0.62	4.0	8.0	
	FL28/38	14000	0.77	4.9	9.7	3.2°
	FL38/45	10600	2.67	17	34	
	FL2/55	8500	7.22	46	92	
FL38	FL48/60	7100	14.6	93	185	
FL42	FL55/70	6000	20.4	130	260	
FL48	FL65/75	5600	23.6	150	300	
FL55	FL75/90	4750	28.3	180	360	
FL65	FL90/100	4250	32.2	205	410	
FL75		3550	74.6	475	950	
Fl90		2800	184	1175	2350	

Type 型号	Style 类型	Prebored 预钻孔	Form 构成				Dimensions(mm)尺寸（毫米）									Min.Weight 最小重量 (kg)
			1		1a											
			d		d1		1	E	S	b	L	M	DH	D	dH	
			Min 最小	Min 最小	Min 最小	Max 最大										
铝合金压铸 Aluminium Diecasting(Al-D)																
FL9	1a/1a				4	9	10	10	1.0	8	30		20		6	0.017
Fl14	1a/1a				4	16	11	13	1.5	10	35		30		10	0.048
Steel-Noular Irom																Steel
FL19/24	1a/1a				6	24	25	16	2.0	12	66		40		18	0.328
FL24/28	1/1a				8	28	30	18	2.0	14	78		55		27	0.660
FL28/38	1a/1a				10	38	35	20	2.5	15	90		65		30	1.160
FL38/45	1/1a	11	12	38	38	45	45	24	3	18	114	37	80	66	38	2.27
FL42/55	1/1a	13	14	42	42	55	50	26	3	20	126	40	95	75	46	3.57
FL48/60	1/1a	14	15	48	48	60	56	28	3.5	21	140	45	105	85	51	4.80
FL55/70	1/1a	18	20	55	55	70	65	30	4	22	160	52	120	98	60	7.37
FL65/75	1/1a	20	22	65	65	75	75	35	4.5	26	185	61	135	115	68	10.89
FL75/90	1/1a	28	30	75	75	90	85	40	5	30	210	69	160	135	80	17.73
FL90/100	1/1a	38	40	90	90	100	100	45	5.5	34	245	81	200	160	100	29.6
FL38	1/1	11	12	38			45	24	3.0	18	114	37	80	66	38	2.080
FL42	1/1	13	14	42			50	26	3.0	20	126	40	95	75	46	3.210
FL48	1/1	14	15	48			56	28	3.5	21	140	45	105	85	51	4.410
Fl55	1/1	18	20	55			65	30	4.0	22	160	52	120	98	60	6.640
FL65	1/1	20	22	65			75	35	4.5	26	185	61	135	115	68	10.130
FL75	1/1	28	30	75			85	40	5.0	30	210	69	160	135	80	16.030
Fl90	1/1	38	40	90			100	45	5.5	34	245	81	200	160	100	27.50



型号解释 Type & Expressions

FCL 160

- 160 — maximum diameter 最大直径
- FCL — Fiexble couplings 弹性联轴器

描术 Summary

FCL弹性联轴器因为其设计紧凑，易于安装，便于保养，尺寸小，重量轻而被广泛应用。随着轴间的相对位移能保持在制定的偏差范围内。这种联轴器将发挥最大功能，将有更长的工作寿命。因此它在被电机驱动的中小型传动系统中有着大量需求，例如减速机，起重机，压缩机，传送机，纺织机和磨粉机。

Flexible Couplings Model FCL is widely used for its compact designing, easy installation, convenient maintenance, small size and light weight. As long as the relative displacement between shafts is kept within the specified tolerance, B couplings will operate the best function and have a longer working life. Thus it is greatly demanded in medium and minor power transmission systems driven by moters, such as speed reducers, hoists, compressos, conveyers, spinning and weaving machines and ball mills.

Permittable relative displacement：允许相对位移

Radial displacement 径向位移：0.2～0.6mm

Angle displacement 角度位移：0° 30'～1° 30'

尺寸参数表 Size chart & Parameter

Type 型号	Max torque 最大扭矩 N.m	Max speed 最大转速 r/min	D	D_1	d_1	L	C	n–M	kg
FCL90	4	4000	90	35.5	11	28	3	4–M8×50	1.7
FCL100	10	4000	100	40	11	35.5	3	4–M10×56	2.3
FCL112	16	4000	112	45	13	40	3	4–M10×56	2.8
FCL125	25	4000	125	50	13	45	3	4–M12×64	4.0
FCL140	50	4000	140	63	13	50	3	6–M12×64	5.4
FCL160	110	4000	160	80	15	56	3	8–M12×64	8.0
FCL180	157	3500	180	90	15	63	3	8–M12×64	10.5
FCL200	245	3200	200	100	21	71	4	8–M20×85	16.2
FCL224	392	2850	224	112	21	80	4	8–M20×85	21.3
FCL220	618	2550	250	125	25	90	4	8–M24×110	31.6
FCL280	980	2300	280	140	34	100	4	8–M24×116	44.0
FCL315	1568	2050	315	160	41	112	4	10–M24×116	57.7
FCL355	2450	1800	355	180	60	125	5	8–M30×50	B9.5
FCL400	3920	1600	400	200	60	125	5	10–M30×150	113
FCL450	6174	1400	450	224	65	140	5	12–M30×150	145
FCL560	9800	1150	560	250	85	160	5	14–M30×150	229
FCL630	15680	1000	630	280	95	180	5	18–M30×150	296

备 忘 录