

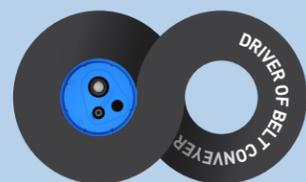


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SALES SERVICE SYSTEM

独具人性关怀与专业热忱的销售服务体系

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**浙江恒齿传动股份有限公司**

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**DRIVER OF BELT CONVEYER**

带式输送机驱动装置

**COMPANY  
PROFILE**  
企业介绍



Zhejiang EVERGEAR drive Co., Ltd. is a national high-tech enterprise integrating R&D, manufacturing, sales and service of gear reducer products. The leading products are: ER, EK, EF, ES, EH/EB, Q, Z and other 12 series of products, product supporting power 0.18 ~ 4000KW, nearly ten thousands kinds of transmission ratio, serialized "EVERGEAR" products for Customer selection. Passed the ISO9001 quality management system, ISO14001 environmental management system, GB/T28001 occupational health and safety management system and CE certification. The company insist in scientific and technological innovation, won "provincial high-tech enterprise research and development center", set up a development center in Shanghai city, and is committed to the research, development and digital design of international and domestic gear reducer products. Currently, we has obtained 5 invention patents and 42 utility models patents. As a member of China Speed Reducer Standardization Committee, EVERGEAR has been awarded as "National Spark Program Implementation Unit", "Quality Products brand of Zhejiang manufacturing", "Zhejiang Science and Technology Enterprise", "Zhejiang Patent Demonstration Enterprise", "One of "Top Ten Brands" of Chinese gearbox Industry" "Zhejiang Enterprise Growth Stars" and other honorary titles.

We uphold the concept of "Persist in Heart, Persistent Gears" and warmly welcome new and old friends of domestic and abroad to visit and guide.

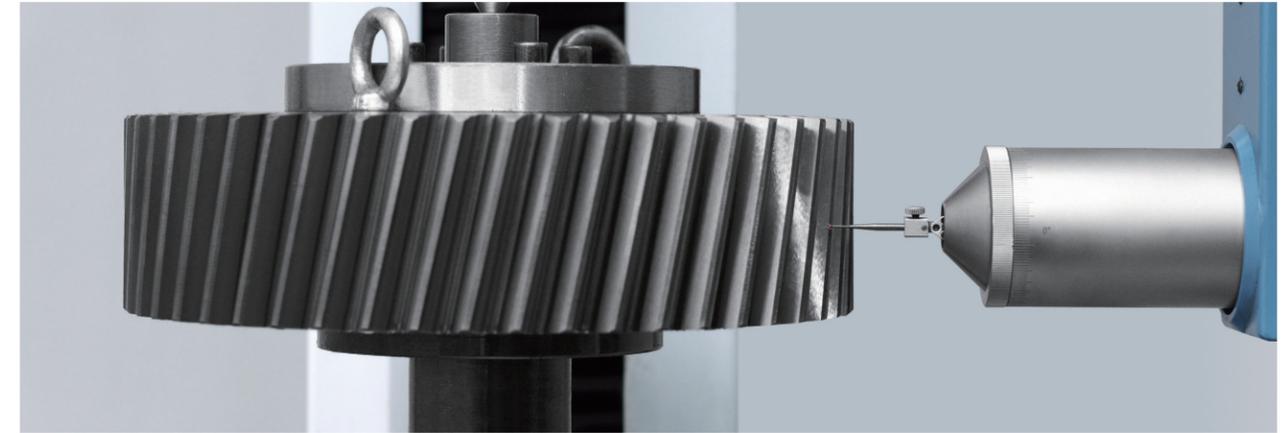
浙江恒齿传动股份有限公司是一家集减速机产品研发、生产制造、销售服务于一体的国家高新技术企业。

公司的主导产品有：ER、EK、EF、ES、EH/EB、Q、Z等12种系列产品，产品配套功率0.18~4000KW，近万种传动比，系列化的“恒齿”产品供客户选择。通过了ISO9001质量管理体系、ISO14001环境管理体系、GB/T28001职业健康安全管理体系和欧盟CE认证。公司坚持科技创新，具有“省级高新技术企业研究开发中心”，在上海设立开发中心，致力于国际、国内减速机设备的研制、开发和数字化设计，目前取得5项发明专利，42项实用新型专利。公司作为中国减速机标准化委员会委员单位，获评为“国家星火计划实施单位”、“品字标浙江制造”、“浙江省科技型企业”、“浙江省专利示范企业”、“中国行业减速机十大品牌”、“浙江省企业成长之星”等荣誉称号。

我们秉承“恒之以心，齿之以恒”的理念，热忱欢迎国内外新老朋友，莅临恒齿公司参观指导。

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Painting workshop  
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Production workshop  
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Assembly line  
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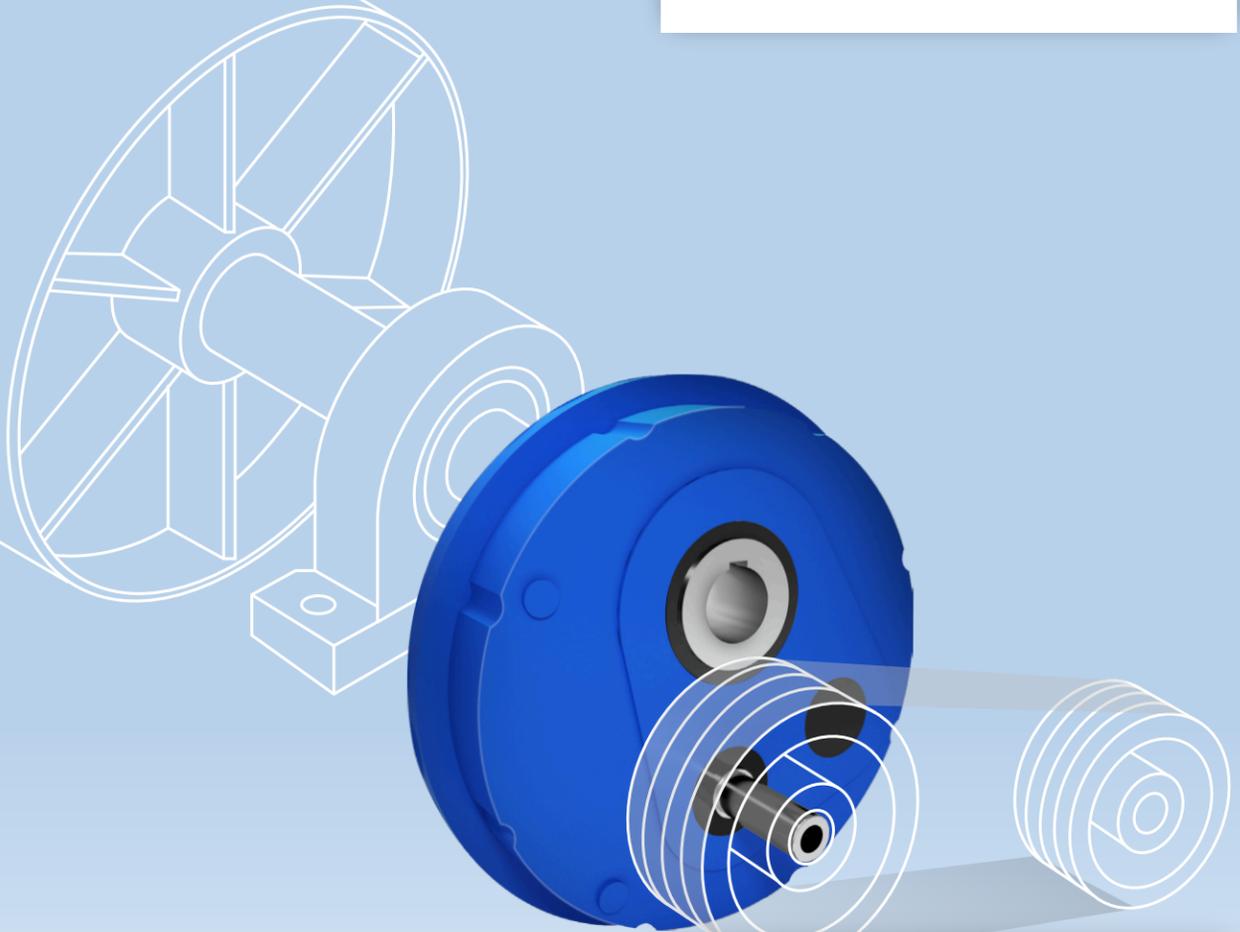


Full Marathon Spirit  
全员马拉松精神



## DRIVER OF BELT CONVEYER

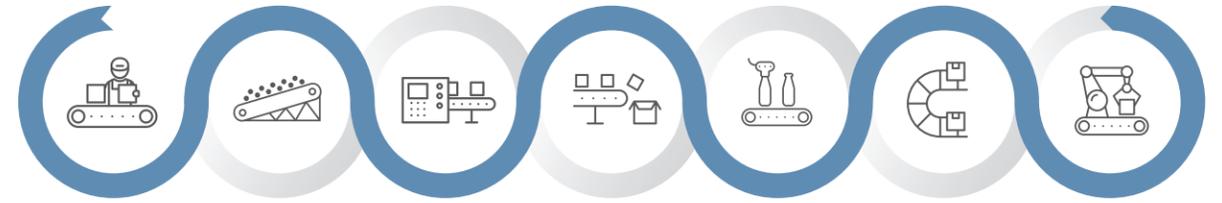
带式输送机驱动装置



带式输送机驱动装置是由传动滚筒、ZGY悬挂式齿轮减速机、扭力臂、皮带轮及电机组成。其动力由电动机通过皮带轮传递给减速机，减速机再通过空心轴传递给传动滚筒，并通过扭力臂固定减速机，可配置逆止装置。该系统具有安装、使用维护方便等特点。

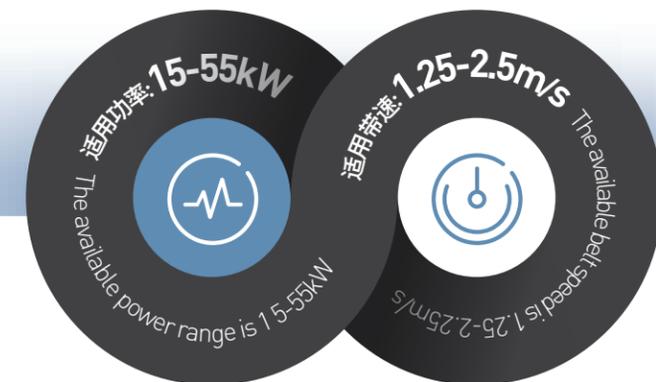
Driver of belt conveyer is made up of roller,ZGY hanging gearbox,torque arm,pulley and motor. The Power is sequently transmitted from pulley to reducer,then to rooler through hollow shaft,and the reducer is rooted by torque arm, also can fitted arrestor. This driver system is convenient for assebling,using and maintaining and etc.

## APPLICATION 适用范围



广泛应用在农业、邮电业、食品工业、烟草工业、汽车工业、水泥工业、采矿业、混凝土搅拌站的皮带输送系统。

It is widely applied in belt conveyer system of agriouture,post and telecom,food,tobacco, automobile , cement,mining and beton mixing station.



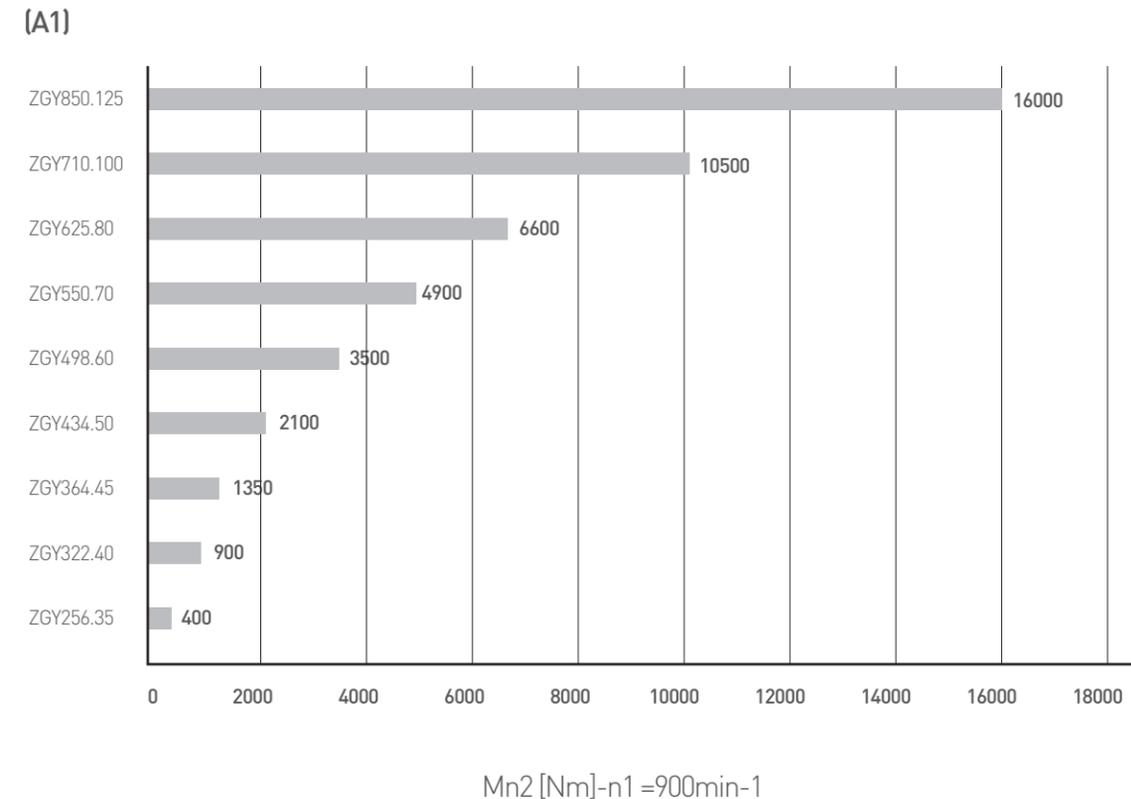
## 1 设计特点

### DESIGN CHARACTERISTICS

主要的设计特点如下:

the characteristics are as follows:

- |                  |   |
|------------------|---|
| 1) 全部采用低碳合金钢渗碳处理 | 1) Using low-carbon alloyed steel cementation processing completely |
| 2) 齿轮及齿轮轴精度高     | 2) The gear and gear shaft precision is high                        |
| 3) 体积小、扭矩大       | 3) The volume is small, the torque is big                           |



## 2 功率 POWER

额定功率 Rated power  $P_n1$ [KW]

在齿轮箱选择图表中,功率是指在使用系数  $fs=1$  的情况下,作用于输入轴上并与输入转速有关的量度值。

The power is the one based on input shaft, It also relate to the speed under the situation of service factor  $fs=1$ .

## 3 使用系数

### SERVICE FACTOR

该要素表示齿轮的使用系数,考虑到不可避免的误差及正常工作条件中的负荷不同,不论使用系数是怎样的值,我们都希望提醒您: 在一些应用中,过低的使用系数可能导致齿轮箱的损坏。假如你有疑问,请与我们技术中心联系。

Service factor is the one describing reducer service duty, considering unavoidable approximation and the difference of daily operating condition, involve fitting of parts, failure of the reducer all lead to the injure of the gearbox. If you have any question, please contact with our technical service.

(A2)

每小时启动次数 Starts per hour	使用系数 $fs$ 负荷类型 Load Type	每天工作小时数 Dailyworking hours			
		$h \leq 0.5$	$0.5 < h \leq 2$	$2 < h \leq 10$	$10 < h \leq 24$
$Z < 10$	均布载荷 Uniform loading	0.8	0.9	1.0	1.25
	中度瞬间载荷 Moderate shock loading	0.9	1.0	1.25	1.5
	重度瞬间载荷 Heavy shock loading	1.0	1.25	1.5	1.75
$Z > 10$	均布载荷 Uniform loading	0.9	1.0	1.25	1.5
	中度瞬间载荷 Moderate shock loading	1.0	1.25	1.5	1.75
	重度瞬间载荷 Heavy shock loading	1.25	1.5	1.75	2.0

上面列出的 $fs$ 值在下列情况下必须乘以1.2

- 换向操作
- 瞬时冲击负荷

Values listed above  $fs$  must be multiplied by 1.2 in case of:

- Reversing operation
- Shock lading applying instantaneously

## 4 扭矩 TORQUE

许用扭矩 Rated torque  $M_{n2}$ [Nm]

齿轮箱在使用系数  $fs=1$  的情况下,通过输出轴所传递的扭矩,许用扭矩与转速有关。

Rated torque is the one through the output shaft. and also relate to the speed. It is used under the situation of service factor  $fs=1$

工作扭矩 Required torque  $M_{r2}$ [Nm]

扭矩要求是基于应用要求的。它必须是相等或小于于齿轮箱的许用扭矩  $M_{n2}$ 。

Required torque is the one through the actual application requirement. It must be equal to or less than the rated torque  $M_{n2}$

输出扭矩 Calculated torque  $M_{c2}$ [Nm]

输出扭矩值在选择齿轮箱时将使用到。在考虑工作扭矩  $M_{r2}$  和使用系数  $fs$  后可按照下列公式计算出来:

Calculated torque is the one used in selecting the gearbox.

We can have the value as per the equation after considering both required torque  $M_{r2}$  and service factor  $fs$

$$(1) \quad M_{c2} = M_{r2} \cdot fs < M_{n2}$$

## 5 转速 SPEED

输入转速 Input speed  $n_1[\text{min}^{-1}]$

该速度是和选择的电机有关的按照目录上的值,是指工业中常见的单速或双速马达的转速。

The speed is the one used in industry driven by either single or double speed motor. It is based on the selected motor.

假如齿轮箱是通过外部电机驱动的,我们建议在 1400rpm 或其以下的转速驱动齿轮箱,这样可以优化工作条件和使用寿命。更高的输入转速是允许的,但许用扭矩  $M_{n2}$  将受到影响。

If the gearbox is driven by outer motor, we suggest the speed under 1400rpm or even lower which will optimize working conditions and lifetime, Though the higher input speed is permitted, the rated torque  $M_{n2}$  will be affected.

详情请咨询恒齿技术部(技术中心)。

Please contact EVERGEAR technical service for more information.

输出转速 Output Speed  $n_2[\text{min}^{-1}]$

输出转速值  $n_2$  是通过输入转速  $n_1$  和齿轮齿数比  $i$  之间的关系,按照下列公式计算的:

Output speed  $n_2$  is the one calculated by the following equation through the input speed  $n_1$  and the gear ratio  $i$ .

$$(2) \quad n_2 = \frac{n_1}{i}$$

## 6 选型 SELECTION

A. 确定使用系数  $f_s$

B. 根据已知的  $M_{r2}$  算出输出扭矩,扭矩计算公式如下:

A) Determine the service factor  $f_s$

B) Calculate the output torque  $M_{c2}$  according to the rated torque  $M_{r2}$ , the equation as:

$$(3) \quad M_{c2} = M_{r2} \cdot f_s$$

C. 齿轮速比是按照客户要求输出转速  $n_2$  和输入转速  $n_1$  计算出来的:

C) Calculate ratio according to the output speed  $N_2$  and input speed  $N_1$ :

$$(4) \quad i = \frac{n_1}{n_2}$$

如果  $M_{c2}$  和  $i$  是已知的话,在选型表中根据合适的输入转速,找出与速比  $i$  最接近的减速机型号,并同时满足许用扭矩值  $M_{n2}$  如下:

If you have known the  $M_{c2}$  and  $i$ , select the suitable input speed in the chart, and find out which is the closest reducer model with ratio  $i$ , at same time satisfy the rated torque  $M_{n2}$  as following:

$$(5) \quad M_{n2} > M_{c2}$$

## 7 安装 INSTALLATION

以下安装指示必须遵守

The Following Installation Instructions Must Be Followed

A 确保齿轮箱正确的安装,以防止松动。假如必须在超负荷或有震动的场合使用,请安装液压耦合器,扭矩限制器等。

Make sure the correct installation of gearboxes to avoid vibrations. Install hydraulic coupling, clutched torque limiters, etc. if used in shocked or over-laded situation.

B 在喷漆之前,零件加工面和油封外表面必须有保护措施,以防止油漆干在橡胶上面破坏密封功能。

The machine surface and outer face of the oilseals must be protected before painting in order to keep sealing function.

C 齿轮箱在投入使用之前,应确保和齿轮箱连接的设备应符合相关的技术规定。

Before the using of gearbox, please make sure the connected equipments accord with the technical specification.

D 在启动机器之前,应确保油面符合齿轮箱的规定的装置位置,油的黏度应适合齿轮箱的使用要求。详见图表 A4。

Before the starting of machine makes sure the oil level conforms to the machine level, the viscosity of oil is suitable for gearbox using demand. Detail in chart A4.

E 对于室外安装,必须采用适当的措施来保护电机不受雨水或阳光暴晒的影响。

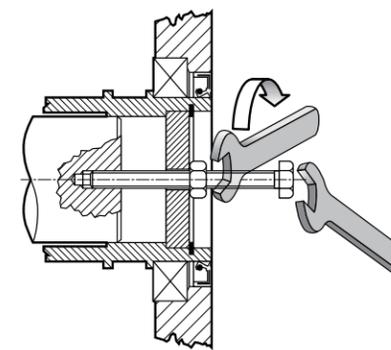
For outdoor installation, we should take proper way to protect motors from rainfalls or sunshine.

在装配之前,各安装面必须保持干净,并进行适当的处理以防止生锈。

All surfaces should keep clean before installation, and take proper method to prevent rusting.

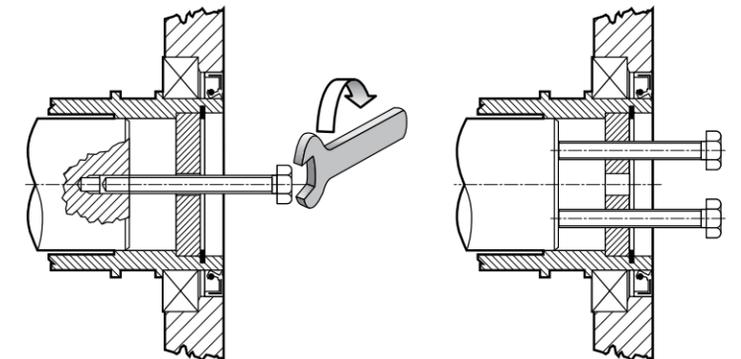
安装齿轮箱

MOUNTING OF GEAR UNIT



拆卸齿轮箱

REMOVAL OF GEAR UNIT



## 8 核查 VERIFICATION

### 径向负载 Radial Loads

确保应用于输入和输出轴的径向负载是在许用范围内的。假如它们超出许用范围，在选用更大型号的减速机之前可先考虑设计特殊的轴承结构。假如它们超出许用范围，在选用更大型号的减速机之前可先考虑设计特殊的轴承结构。如径向负载不在轴伸的中间，应对其进行必要的修正，具体修正方法与我们技术中心联系。

Make sure the radial loads both input shaft and output shaft are within the permitted range. If it over the permitted range, we can choose to select special designed bearing structure before switching to larger gear unit. It must be adjusted if the radial loads are not in the middle of the shaft, please contact with our technical service to get more information.

### 轴向负载 Thrust Loads

轴向负载必须在许用径向负载的 20% 以内。假如特别的高出，或者是轴向和径向负载的综合作用，请与我们技术中心联系。

Thrust loads must be found within 20% of the radial loads. If extremely high, or a combination of radial and thrust loads, contact with our technical service.

## 9 维护 MAINTENANCE

在操作满 300 小时后，应该进行第一次换油，用合适的清洁剂冲洗齿轮机构。不要把矿物油和合成油混合使用。定期检查油位，并且按照下列表格中的时间间隔换油。

After the 300 hour of operation, please change the oil, and flush the gear unit with suitable detergents. Don't mix the mineral oil and synthetic oil. Please check the oil level in regular time, and change the oil according the following table.

[A3]

油温 Oil temperature [°C]	换油间隔 (小时) Oil change interval [h]	
	矿物油 Mineral oil	合成油 Synthetic oil
<65	8000	25000
65-80	4000	15000
80-95	2000	12500

## 10 油漆规格 PAINT SPECIFICATIONS

在齿轮箱上使用的油漆规格必须从提供本机器的经销商或代理商处获得。

The paint specifications on gearbox must be obtained from the suppliers.

## 11 供货条件 CONDITIONS OF SUPPLY

齿轮机构是按照以下供应的

- 按照订购时说明的安装和装配位置进行配置；
- 按照制造商的说明进行了测试；
- 在运输过程中，轴是用塑料封壳保护起来的；
- 提供了吊耳（当适用的时候）。

Gearboxes are supplied as follows:

- Assembled the gearbox according to the installing and mounting position specified when ordering.
- Tested following the manufacture specifications.
- During the transportation, shaft is protected with plastic seals.
- Lifting lugs are supplied.

## 12 储存 STORAGE

按照下列指示来确保产品的正确的储存。

According to the following indications to make sure correct storage of products.

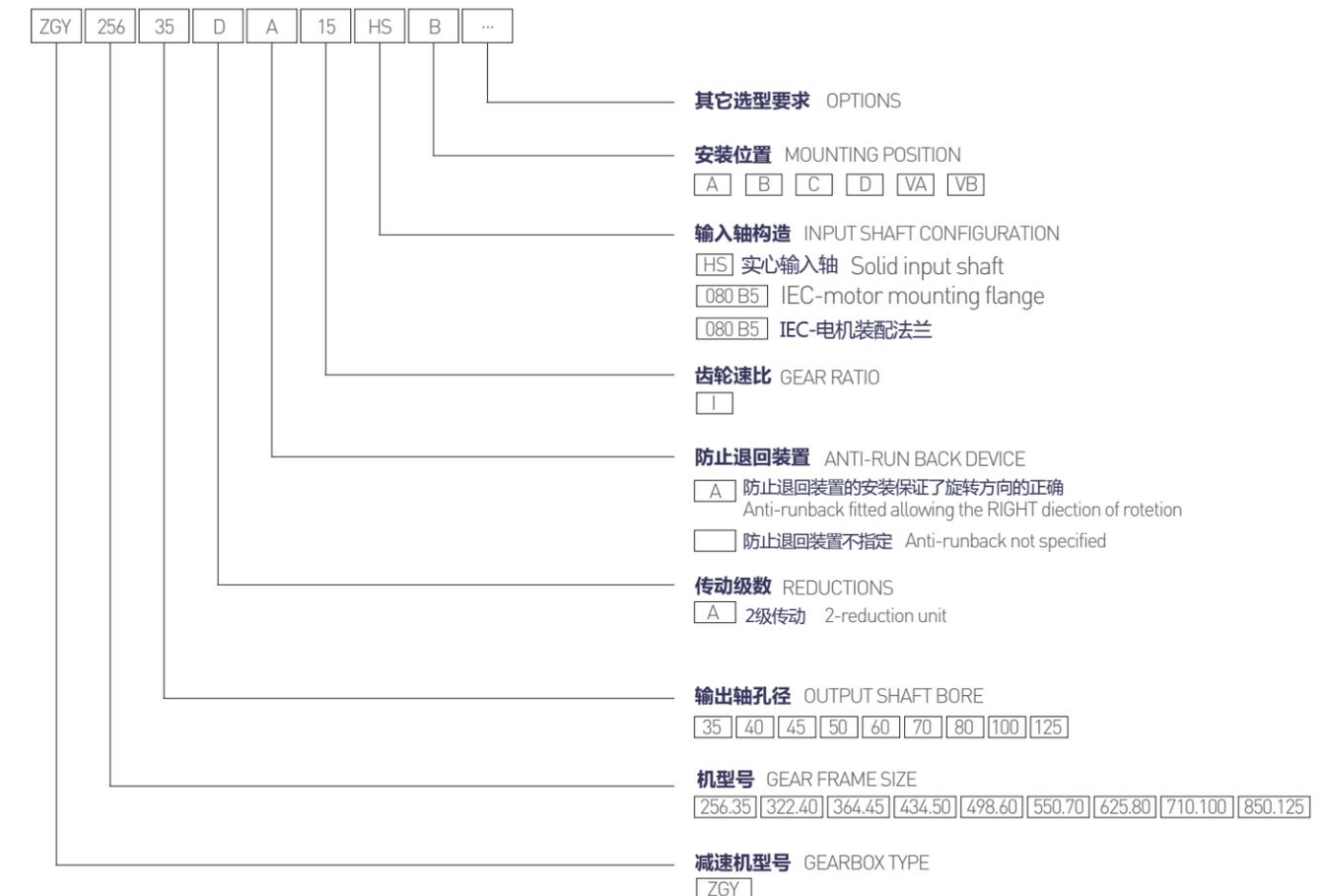
- 不要在室外储存，不要暴露在受到天气影响和温度很高的地方储存。  
Don't store in somewhere exposed to be affected with weather and humidity.
- 请在产品和地面之间放置纸板，木头或其它软质材料。齿轮箱不能直接和地面接触。  
Please put cardboard, wood or other material between the products and floor.  
The gearboxes aren't permitted to direct contact with floor
- 假如需要储存很长时间，一些机器加工面例如法兰，轴和联轴器必须涂上适当的防锈油（MOBILARMA248 或等同的产品）。  
For long-term storage, the surfaces of parts such as shafts, couplings and flanges must be coated with suitable oil to avoid rusting. (MOBILARMA 248 or Equivalent).

此外，齿轮箱的油位必须处于最高位并加满油。设备在重新投入使用之前，油量和类型都必须重新恢复。

Another point is that gearbox must be in the highest position and filled up with oil.

Before reusing the equipments, the oil quantity and type must be restored.

## 13 型号标识说明 DESIGNATION



## 齿轮箱其它选型要求 Gearbox Options

### LO

齿轮箱,除非客户有特殊的要求,否则出厂时都不加油。油量根据订货时指定的安装方式来决定。

Gearboxes are not filled up with oil unless customers have special requirements.

Oil quantity is based on the mounting position specified when ordering.

### PV

VITON 橡胶油封。

Oil seal in VITON.

### AL

规定了输出轴 (视觉在输入轴侧) 逆时针方向旋转。

Specified output shaft (see from input shaft) opposite direction of rotation.

## 14 油漆规格 PAINT SPECIFICATIONS

### 润滑 Lubrication

恒齿齿轮箱的内部件是浸油的和飞溅润滑的。下面的图表可以参考安装位置和相应的油镜,位置适用的话,选择对应的润滑剂量。油量是否已经正确的加入,可通过油镜的中心或提供的量油计来判断。在某些情况下有差异,偶尔与油量表中有偏差,假如和下图表中列出的油量相差很大的则需要注意。

The interprets of EVERGEAR gearboxes are oil-soak and splash lubricated. The following charts indicate the mounting position model and relevant oil plug. If applicable, choose the corresponding lubricant quantity. If the oil quantity is correct filling: it can be measured by the center of sight glass or supplied dipstick. Maybe there are some differences and non-conformance specification. If they are different from listed oil quantity must be noticed.

(A4)

负荷类型 Load Type	ZGY 0°C-20°C		ZGY 20°C-40°C	
	矿物油 Mineral oil ISO VG	合成油 Synthetic oil ISO VG	矿物油 Mineral oil ISO VG	合成油 Synthetic oil ISO VG
轻型 Light Load	150	150	220	220
中型 Medium Load	150	150	320	220
重型 Heavy Load	200	200	460	320

### 油量 (单位:L) Oil quantity [L]

ZGY256.35	ZGY322.40	ZGY364.45	ZGY434.50	ZGY498.60	ZGY550.70	ZGY625.80	ZGY710.100	ZGY850.125
1.2	2.1	3.1	8.0	7.5	11	17	20	27

油量只和装配位置 A 相对应

Quantities are only relevant to mounting position A

## 15 安装方位 MOUNTING POSITIONS

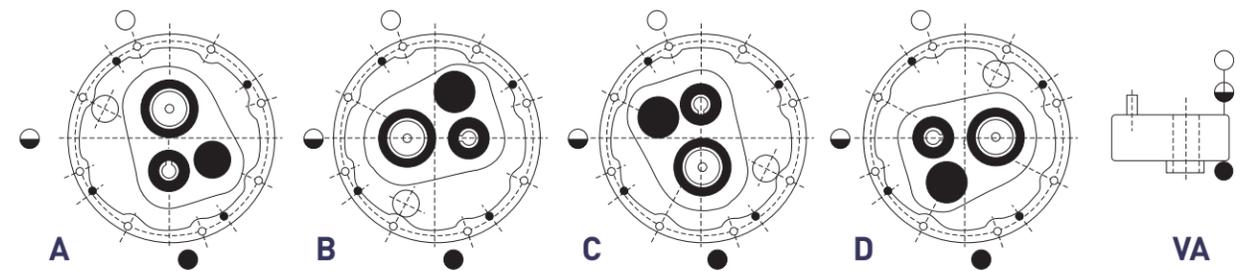
关键 Key:

○ 透气塞 Filling/breather plug

◐ 油镜/油标 Oil Level plug

● 油塞 Drain plug

### ZGY256-ZGY850.125



## 15 悬挂负载 OVERHUNG LOADS

通过键把外部传动传递到输入轴和输出轴,在同一根轴上垂直方向产生负载。由此产生的负载须有轴承和轴的性能相匹配。理论上,轴负载 (Rc1) 必须等于或低于轴的许用悬挂负载的计算值 (Rn1) 悬挂负载能力可在选型表中查出。外部传动所产生的负载可近似地用以下公式算出。

Pass the external transmissions to input & output shafts by the key, loads act apeak on the same shaft. Loading must be suitable with both the shaft and bearing capacity. Ideally, shaft loading (Rc1) must be equal or lower than overhung load (Rn1) for calculating. Overhung loads capacity can locate in the option chart. The loads generated from external transmission can be approximate calculated by the following equation.

$$(6) \quad R_{c1}[N] = \frac{2000 \cdot M_1[Nm] \cdot K_r}{d[mm]}$$

在公式中 Where:

M1[Nm]= 输出扭矩

Kr=1.25 齿轮传动

d[mm]= 轴的直径

Kr=1.5-2.0 带传动

Kr=1 链传动

M1 [Nm]=output torque

Kr=1.25 gear transmission

d[mm]=pitch diameter of part Keyed on to shaft

Kr=1.5-2.0 belt transmission

Kr=1 chain trasmission

实际轴负载和悬挂负载应满足以下公式

The actual shaft loading and overhung loads should be satisfied the following equation.

$$(7) \quad R_{c1} \leq R_{n1}$$

## 17 减速机选型表 REDUCER CHARTS

许用输出扭矩 (Nm) Rated output torque(Nm)

机型号 Model	ZGY256.35	ZGY322.40	ZGY364.45	ZGY434.50	ZGY498.60	ZGY550.70	ZGY625.80	ZGY710.100	ZGY850.125
许用转矩 Rated torque	420Nm	950Nm	1400Nm	2300Nm	3600Nm	5100Nm	7000Nm	11000Nm	17000Nm

输入转速 n1=1400rpm Input speed n1=1400rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
5	5	280	200	6.0	700	ZGY256 35
	5	280	480	14.4	1000	ZGY322 40 45
	5	280	850	26.0	1500	ZGY364 45 50 55
	5	280	1400	42.0	2250	ZGY434 50 55 60
	5	280	1900	57.0	3200	ZGY498 60 70
	5	280	2600	78.0	3700	ZGY550 70 85
	5	280	3700	111.0	4500	ZGY625 80 100
	5	280	5500	165.0	5500	ZGY710 100 125
	5	280	7500	226.0	6500	ZGY850 125 135
7	10	140	300	4.6	500	ZGY256 35
	10	140	600	9.2	850	ZGY322 40 45
	10	140	1000	15.4	1150	ZGY364 45 50 55
10	10	140	1750	27.0	1700	ZGY434 50 55 60
	10	140	3100	48.0	2600	ZGY498 60 70
	10	140	3800	59.0	3400	ZGY550 70 85
	10	140	5500	85.0	4200	ZGY625 80 100
	10	140	9000	139.0	5000	ZGY710 100 125
	10	140	12500	193.0	5500	ZGY850 125 135

输入转速 n1=1400rpm Input speed n1=1400rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
12.5	12.7	110	137	1.6	350	ZGY256 30
	13.3	105	700	8.1	850	ZGY322 40 45
	12.2	115	1100	13.9	1150	ZGY364 45 50 55
	12	117	1800	23.0	1700	ZGY434 50 55 60
	12.2	115	3100	39.0	2600	ZGY498 60 70
	12.2	115	4000	51.0	3400	ZGY550 70 85
	12.5	112	5500	68.0	4200	ZGY625 80 100
	12.3	114	9000	113.0	5000	ZGY710 100 125
	12.3	114	12500	157.0	5500	ZGY850 125 135
	15	15	93	350	3.6	500
15		93	750	7.7	850	ZGY322 40 45
15		93	1200	12.3	1150	ZGY364 45 50 55
15		93	1900	19.5	1700	ZGY434 50 55 60
15		93	3200	33.0	2600	ZGY498 60 70
15		93	4400	45.0	3400	ZGY550 70 85
15		93	6100	63.0	4200	ZGY625 80 100
15		93	9500	98.0	5000	ZGY710 100 125
15		93	12500	128.0	5500	ZGY850 125 135
20	19.5	72	380	3.0	500	ZGY256 35
	19.7	71	780	6.1	850	ZGY322 40 45
	19.7	71	1250	9.8	1150	ZGY364 45 50 55
	20.3	69	1950	14.8	1700	ZGY434 50 55 60
	20.3	69	3250	25.0	2600	ZGY498 60 70

## 输入转速 n1=1400rpm Input speed n1=1400rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model	
20	20.3	69	3250	34.0	3400	ZGY550 70/85	
	20.3	69	3250	46.0	4200	ZGY597 80/100	
	20.3	69	3250	72.0	5000	ZGY710 100/125	
	20.3	69	3250	106.0	5500	ZGY850 125/135	
25	25	56	400	2.5	500	ZGY256 35	
	25	56	800	4.9	850	ZGY322 40/45	
	25	56	1300	8.0	1150	ZGY364 45/50/55	
	25	56	2000	12.3	1700	ZGY434 50/55/60	
	25	56	3300	20.0	2600	ZGY498 60/70	
	25	56	4600	28.0	3400	ZGY550 70/85	
	25	56	6300	31.0	4200	ZGY625 80/100	
	25	56	9800	60.0	5000	ZGY710 100/125	
	25	56	15000	92.0	5500	ZGY850 125/135	
	31	33.2	42	800	3.7	850	ZGY322 40/45
		30.4	46	1300	6.6	1150	ZGY364 45/50/55
		30	47	2000	10.3	1700	ZGY434 50/55/60
30.4		46	3300	16.7	2600	ZGY498 60/70	
30.4		46	4600	23.0	3400	ZGY550 70/85	
31.1		45	6300	31.0	4200	ZGY625 80/100	
30.8		45	9500	49.0	5000	ZGY710 100/125	
30.8		45	15000	75.0	5500	ZGY850 125/135	

## 输入转速 n1=900rpm Input speed n1=900rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model	
5	5	180	250	4.8	800	ZGY256 35	
	5	180	550	10.6	1200	ZGY322 40/45	
	5	180	950	18.4	1700	ZGY364 45/50/55	
	5	180	1700	33.0	2500	ZGY434 50/55/60	
	5	180	2100	41.0	3600	ZGY498 60/70	
	5	180	3000	58.0	4200	ZGY550 70/85	
	5	180	4200	81.0	5100	ZGY625 80/100	
	5	180	6200	120.0	6200	ZGY710 100/125	
	5	180	8000	155.0	7300	ZGY850 125/135	
	10	10	90	350	3.5	600	ZGY256 35
		10	90	750	7.4	950	ZGY322 40/45
		10	90	1200	11.9	1300	ZGY364 45/50/55
10		90	1900	18.8	1900	ZGY434 50/55/60	
10		90	3200	32.0	2900	ZGY498 60/70	
10		90	4400	44.0	3800	ZGY550 70/85	
10		90	6100	60.0	4700	ZGY625 80/100	
10		90	9500	94.0	5600	ZGY710 100/125	
12.5	12.7	71	150	1.1	400	ZGY256 35	
	13.3	68	780	5.8	950	ZGY322 40/45	
	12.2	74	1200	9.7	1300	ZGY364 45/50/55	
	12	75	1900	15.7	1900	ZGY434 50/55/60	
	12.2	74	3200	26.0	2900	ZGY498 60/70	

**输入转速 n1=900rpm** Input speed n1=900rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
12.5	12.2	74	4400	36.0	3800	ZGY550 70/85
	12.5	72	6100	48.0	4700	ZGY597 80/100
	12.3	73	9500	77.0	5600	ZGY710 100/125
	12.3	73	14000	113.0	6200	ZGY850 125/135
15	15	60	400	2.6	600	ZGY256 35
	15	60	800	5.3	950	ZGY322 40/45
	15	60	1250	8.3	1300	ZGY364 45/50/55
	15	60	1950	12.9	1900	ZGY434 50/55/60
15	15	60	3300	22.0	2900	ZGY498 60/70
	15	60	4500	30.0	3800	ZGY550 70/85
	15	60	6300	42.0	4700	ZGY625 80/100
	15	60	10000	66.0	5600	ZGY710 100/125
	15	60	15000	99.0	6200	ZGY850 125/135
20	19.5	46	400	2.0	600	ZGY256 35
	19.7	46	800	4.0	950	ZGY322 40/45
	19.7	46	1300	6.5	1300	ZGY364 45/50/55
	20.3	46	2000	9.8	1900	ZGY434 50/55/60
	20.3	46	3400	16.6	2900	ZGY498 60/70
	20.3	46	4600	22.0	3800	ZGY550 70/85
	20.3	46	6300	31.0	4700	ZGY625 80/100
20	20.3	46	10000	49.0	5600	ZGY710 100/125
	20.3	46	15000	73.0	6200	ZGY850 125/135
25	25	36	400	1.6	600	ZGY256 35

**输入转速 n1=900rpm** Input speed n1=900rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
25	25	36	850	3.4	950	ZGY322 40/45
	25	36	1350	5.4	1300	ZGY364 45/50/55
	25	36	2100	8.3	1900	ZGY434 50/55/60
	25	36	2500	13.9	2900	ZGY498 60/70
	25	36	4900	19.4	3800	ZGY550 70/85
	25	36	6600	26.0	4700	ZGY625 80/100
	25	36	10500	42.0	5600	ZGY710 100/125
31	25	36	16000	63.0	6200	ZGY850 125/135
	33.2	27.1	900	2.7	950	ZGY322 40/45
	30.4	29.6	1350	4.4	1300	ZGY364 45/50/55
	30	30	2100	6.9	1900	ZGY434 50/55/60
	30.4	29.6	3500	11.4	2900	ZGY498 60/70
	30.4	29.6	4900	16.0	3800	ZGY550 70/85
	31.3	28.8	6600	21.0	4700	ZGY625 80/100
31	30.8	29.2	10500	34.0	5600	ZGY710 100/125
	30.8	29.2	16000	51.0	6200	ZGY850 125/135

**输入转速 n1=500rpm** Input speed n1=500rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
5	5	100	350	3.8	1000	ZGY256 35
	5	100	700	7.5	1500	ZGY322 40/45
	5	100	1100	11.8	2150	ZGY364 45/50/55

**输入转速 n1=500rpm** Input speed n1=500rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
5	5	100	1900	20.0	3100	ZGY434 50 55 60
	5	100	2900	32.0	4500	ZGY498 60 70
	5	100	4000	43.0	5200	ZGY550 70 85
	5	100	5000	54.0	6400	ZGY625 80 100
	5	100	7000	75.0	7900	ZGY710 100 125
	5	100	10000	107.0	9200	ZGY850 125 135
10	10	50	400	2.2	750	ZGY256 35
	10	50	800	4.4	1200	ZGY322 40 45
	10	50	1300	7.2	1650	ZGY364 45 50 55
	10	50	2000	11.0	2400	ZGY434 50 55 60
	10	50	3300	18.2	3600	ZGY498 60 70
	10	50	4500	25.0	4750	ZGY550 70 85
	10	50	6300	35.0	5900	ZGY625 80 100
	10	50	10000	55.0	6800	ZGY710 100 125
	10	50	15000	83.0	7700	ZGY850 125 135
	12.5	12.7	39	180	0.8	500
13.3		38	820	3.4	1200	ZGY322 40 45
12.2		41	1300	5.9	1650	ZGY364 45 50 55
12		42	2000	9.2	2400	ZGY434 50 55 60
12.2		41	3300	14.9	3600	ZGY498 60 70
12.2		40	4500	20.0	4750	ZGY550 70 85
12.5		40	6300	35.0	5900	ZGY625 80 100
12.3		41	10000	45.0	6800	ZGY710 100 125

**输入转速 n1=500rpm** Input speed n1=500rpm

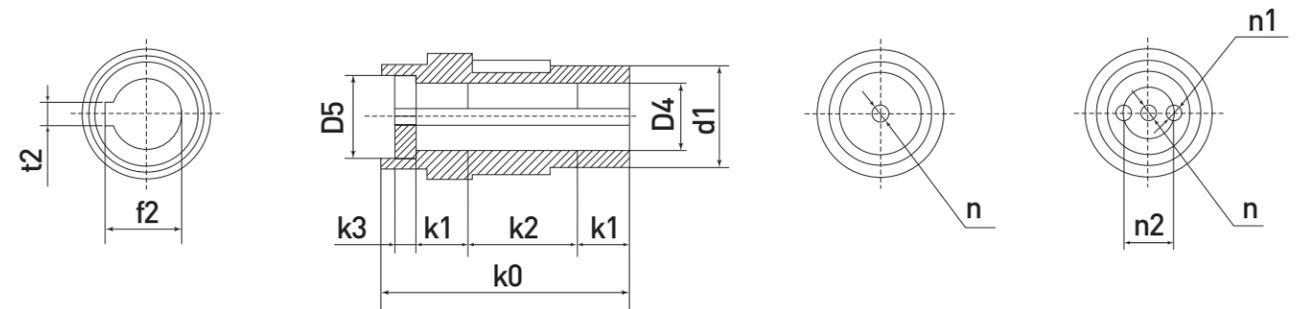
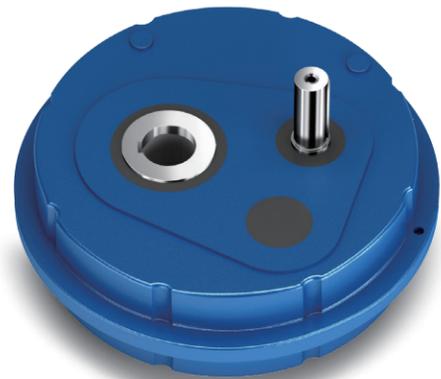
公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
12.5	12.3	41	15000	67.0	7700	ZGY850 125 135
	15	33	400	1.5	750	ZGY256 35
	15	33	850	3.1	1200	ZGY322 40 45
	15	33	1300	4.8	1650	ZGY364 45 50 55
	15	33	2100	7.7	2400	ZGY434 50 55 60
	15	33	3550	13.0	3600	ZGY498 60 70
	15	33	4900	18.0	4750	ZGY550 70 85
	15	33	6600	24.0	5900	ZGY625 80 100
	15	33	10500	39.0	6800	ZGY710 100 125
	15	33	16000	59.0	7700	ZGY850 125 135
20	19.5	25.6	400	1.1	750	ZGY256 35
	19.7	25.4	850	2.4	1200	ZGY322 40 45
	19.7	25.4	1350	3.8	1650	ZGY364 45 50 55
	20.3	24.6	2100	5.7	2400	ZGY434 50 55 60
	20.3	24.6	3550	9.6	3600	ZGY498 60 70
	20.3	24.6	5000	13.6	4750	ZGY550 70 85
	20.3	24.6	6600	17.9	5900	ZGY625 80 100
	20.3	24.6	10500	28.0	6800	ZGY710 100 125
	20.3	24.6	16000	43.0	7700	ZGY850 125 135
	25	25	20	420	0.92	750
25		20	900	20	1200	ZGY322 40 45
25		20	1400	3.1	1650	ZGY364 45 50 55
25		20	2300	5.1	2400	ZGY434 50 55 60

输入转速 n1=500rpm Input speed n1=500rpm

公称传动比 Nomlmal ratio iN	精确传动比 Exact ratio iex	输出转速 Output speed n2(rpm)	额定输出扭矩 Rated output torque Mn2(Nm)	额定输入功率 Rated input power Pn1(KW)	悬挂载荷 Overhung loads Rn1(N)	机型号 Model
25	25	20	3600	7.9	3600	ZGY498 <sup>60</sup> / <sub>70</sub>
	25	20	5100	11.2	4750	ZGY550 <sup>70</sup> / <sub>85</sub>
	25	20	7000	15.4	5900	ZGY625 <sup>80</sup> / <sub>100</sub>
	25	20	11000	24.0	6800	ZGY710 <sup>100</sup> / <sub>125</sub>
	25	20	17000	37.0	7700	ZGY850 <sup>125</sup> / <sub>135</sub>
	31	33.2	15.1	950	1.6	1200
30.4		16.4	1400	2.5	1650	ZGY364 <sup>45</sup> / <sub>50</sub> / <sub>55</sub>
30		16.7	2300	4.2	2400	ZGY434 <sup>50</sup> / <sub>55</sub> / <sub>60</sub>
30.4		16.4	3600	6.5	3600	ZGY498 <sup>60</sup> / <sub>70</sub>
30.4		16.4	5100	9.2	4750	ZGY550 <sup>70</sup> / <sub>85</sub>
31.3		16	7000	12.3	5900	ZGY625 <sup>80</sup> / <sub>100</sub>
31	30.8	16.2	11000	19.7	6800	ZGY710 <sup>100</sup> / <sub>125</sub>
	30.8	16.2	17000	30.0	7700	ZGY850 <sup>125</sup> / <sub>135</sub>

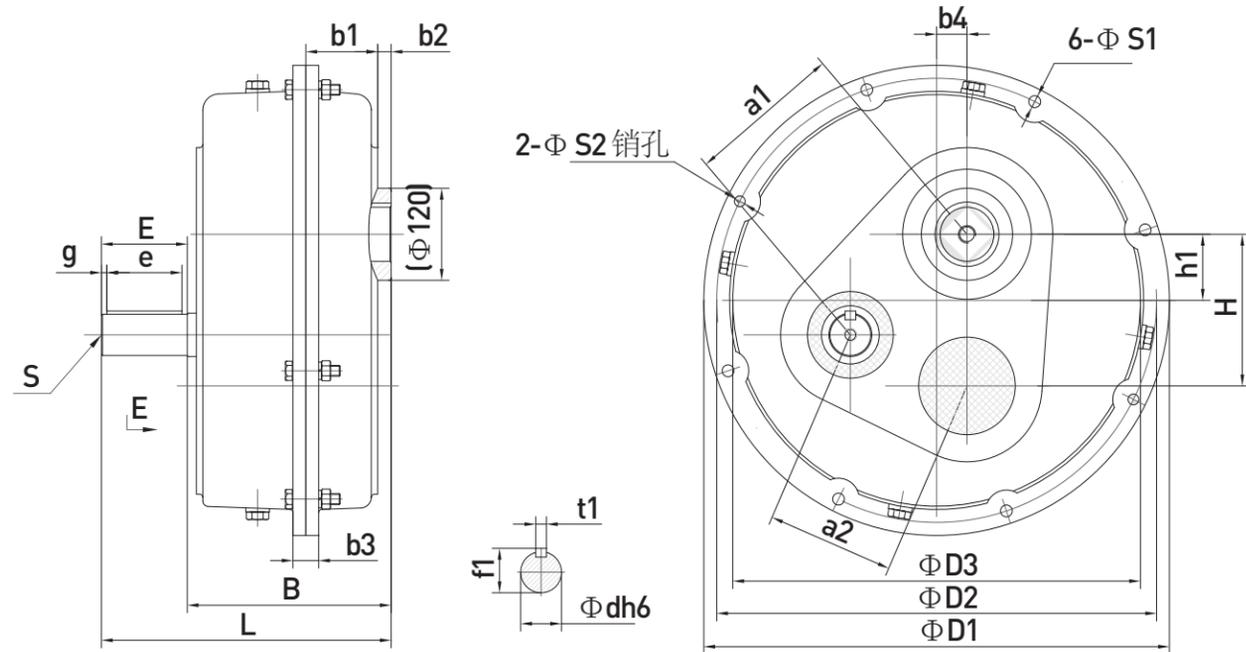
### 18 空心轴的尺寸 HOLLOW SHAFT DIMENSIONS

型号 Model	尺寸 Dimenstons												
	d1	D4	D5	k0	k1	k2	k3	f2	t2	n	n1	n2	
ZGY256	35	50	35	42	124	30	46	10	38.3	10	M10		
ZGY322	40	60	40	50	144	30	64	12	43.3	12	M12		
	45		45	50					47.3	14			
ZGY364	45	75	45	60	162	35	70	14	48.8	14	M16		
	50		50	60					53.8	14			
	55		55	65					59.3	16			
ZGY434	50	85	60	60	182	40	80	14	53.8	14	M16		
	55		55	65					59.3	16			
	60		60	70					64.4	18			
ZGY498	60	100	60	70	199	45	85	14	64.4	18	Φ17	M12	42
	70		70	85				74.9	20	Φ22	M16	50	
ZGY550	70	120	70	85	223	50	93	16	74.9	20	Φ22	M16	50
	85		85	100				90.4	22			65	
ZGY625	80	140	80	95	249	55	109	18	85.4	22	Φ22	M16	60
	100		100	120			106.4	28	Φ26	M20	80		
ZGY710	100	160	100	120	288.5	60	136.5	20	106.4	28	Φ26	M20	80
	125		125	145				132.4	32			100	
ZGY850	125	170	125	145	304	60	137	20	132.4	32	Φ26	M20	100
	135		135	150				143.4	36	Φ32	M24	100	



# ZGY256-ZGY850.125 的外形尺寸

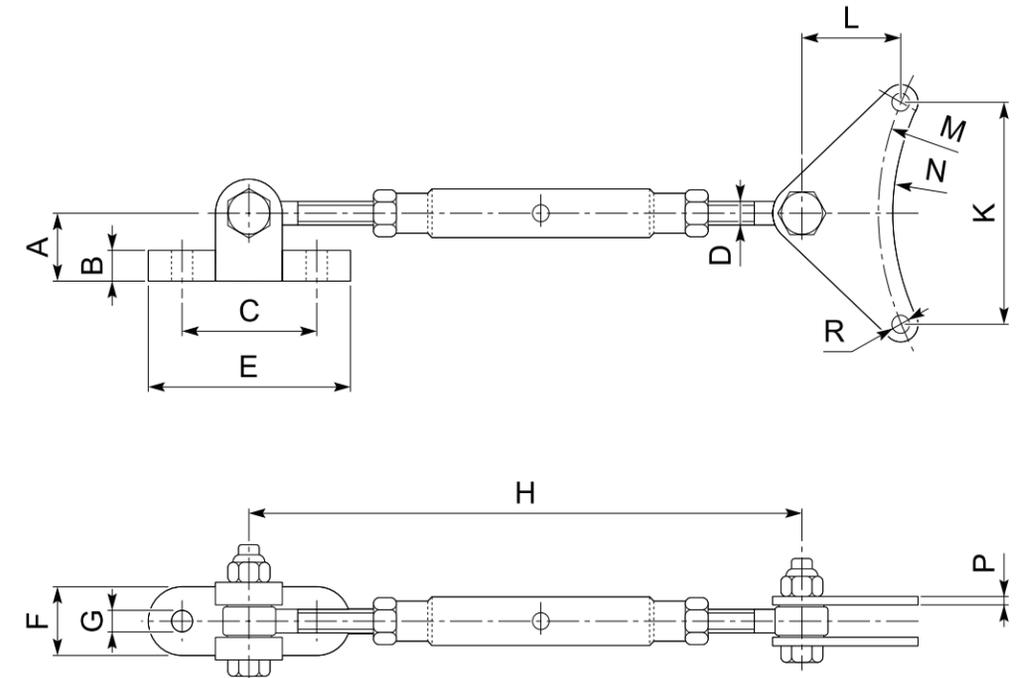
## ZGY256-ZGY850.125 Dimensions



型号 Model	尺寸 Dimenstons																				重量 (kg)		
	a1	a2	H	h1	B	b1	b2	b3	b4	D1	D2	D3	d	E	e	g	f1	t1	S	s1		s2	L
ZGY256 35	79	59	83	23	112	44	12	20	21	256	240	218	19	40	35	2.5	21.5	6	M6	8.5	8	166	27
ZGY322 40 45	109	75	112	30	133	57	11	20	22	322	302	282	24	50	45	2.5	27	8	M8	8.5	8	200	36
ZGY364 45 50 55	120	91	123	34	147	62	15	20	33	364	344	326	28	60	50	5	31	8	M10	9	8	224	45
ZGY434 50 55 60	140	117	143	40	167	66	15	24	46	434	410	386	38	80	70	5	42	10	M12	11	10	270	72
ZGY498 60 70	162	130	174	47	184	73	15	28	48	498	468	430	42	110	100	S	45	12	M12	13	12	318.5	110
ZGY550 70 85	182	139	188	52	205	84	18	28	53	550	520	495	48	110	100	5	51.5	14	M16	13	12	338	140
ZGY625 80 100	202	152	207	58	228	94	21	32	58	597	570	540	48	110	100	5	51.5	14	M16	13	12	365	195
ZGY710 100 125	239	180	255	70	258.5	108	30	40	60	710	675	640	55	110	100	5	59	16	M16	17	16	403.5	340
ZGY850 125 135	290	208	294	80	270	110	34	44	70	850	805	760	60	140	130	5	64	18	M16	17	16	450	420

# 螺杆连接尺寸

## Accessory Dimensions



型号 Model	尺寸 Dimenstons														
	A	B	C	D	E	F	G	H min	H max	K	L	M	N	R	P
ZGY256 35	25	10	50	M10	75	25	85	200	300	92	45	120	111	9	4
ZGY322 40 45	35	16	70	M12	105	35	10.5	210	310	115.5	51	151	143	8.5	4
ZGY364 45 50 55	35	16	70	M12	105	35	10.5	210	310	132	57	172	164	9	5
ZGY434 50 55 60	40	18	75	M14	115	40	12.5	240	360	157	70	205	195	11	5
ZGY498 60 70	40	18	75	M14	115	40	12.5	240	360	179	84	234	167	12.5	5
ZGY550 70 85	45	20	85	M16	135	50	14.5	260	410	199	100	260	210	12.5	6
ZGY625 80 100	45	20	85	M16	135	50	14.5	260	410	218	102	285	230	13	6
ZGY710 100 125	65	30	150	M20	220	70	25	340	560	258.5	115	337	280	17.5	10
ZGY850 125 135	65	30	150	M20	220	70	25	340	560	306	135	402.5	285	17.5	10

## ZJY 型轴装式圆柱齿轮减速器

Type ZJY Shaft Assembly Cylindrical Gear decelerators

### 一、概述 Brief

ZJY系列轴装式减速器采用直接悬挂在配套主动力输入轴上的安装方式，省略了两者间的联接附件和减速器安装平台，适用于斗式提升机、皮带输送机、刮板输送机等设备的机械传动，也可与其他有此安装要求的主机配套。

Series ZJY shaft assembly decelerator is mounted directly in a way of hanging on the dynamic input shaft of matching master machine, which dispenses with the connecting accessory and decelerator erection platform. It is applicable for the mechanical drive of bucket elevator, belt conveyor, and flight conveyor, as well as matching with other similar master machine.

产品按JB/T9050.1-1999标准制造。主要传动零件采用优质合金钢材质。齿轮经渗碳淬火磨齿工艺加工，精度为(GB10095.1-2001)6级。产品体积小，承载能力高，寿命长，噪音低，效率高。与ZJ系列轴装和减速器比较，相同的输出扭矩，ZJY重量只有ZJ的30%左右，因而对配套主机的机架刚性要求大大下降，传动平衡。

The product is manufactured according to ZBJ9009-88 standard, and main drive components are made of quality alloy steels. Gear wheel is processed with carburizing and quenching and grinding teeth with precision of Class (GB10095-88)6. The product is compact size with high carrying capacity, long service life, low noise, and high efficiency. ZJY has the same output torque as that of ZJ shaft assemblage decelerator. ZJY weights only 30% weight of ZJ, therefore, the rigidity required for the master machine frame is significantly decreased, and ZJY drives stable.

产品除可双向运转外，可以根据用户需要配置逆止装置，实现单向制动。

Not only can this product be operated double direction, but also it can be equipped with antirunback device to achieve oneway braking.

### 二、减速器的型号与标记 Type and symbol of decelerator

全系列减速器以低速级中心距(mm)为单位。

共有106、125、150、180、212、250、300七种规格。

每一规格的传动比有10、11.2、12.5、14、16、18、20、22.4、25九种。

The unit for the complete series decelerator is low-speed class center distance (mm), in total 7 specs of 106, 125, 150, and 300 each specs has 7 drive ratios of 10, 11.2, 12.5, 14, 16, 18, 20, 22.4 and 25.

减速器的标记代号中包括型号、低速级中心距、公称传动比和旋向。

Decelerator earmark is composed of type, low-speed class center distance, nominal drive ratio and direction of rotation.

标记示例 Example of earmark

轴装式减速器 Shaft assembly edcelerator

ZJY 106 - 20 - L(N.S)

双向旋转（带逆止器时，N逆时针旋转、S顺时针旋转；  
旋转方向是指面对输出轴端）

Anticlockwise rotation (Output shaft rotation direction code, N means twoway, S means clockwise)

公称传动比*i*=20

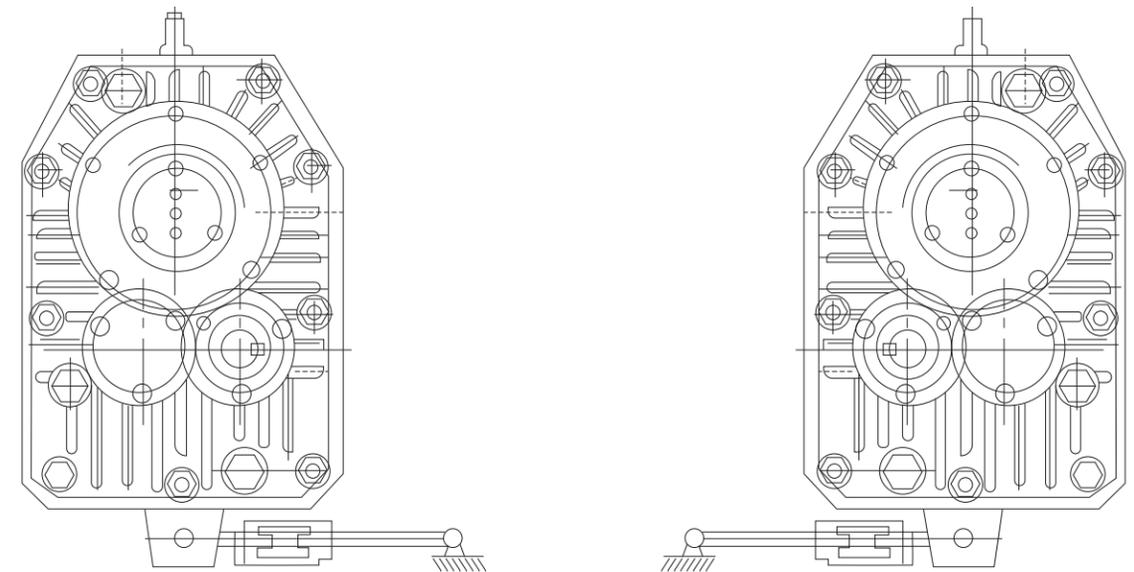
Nominal drive ratio  $i=20$

低速级中心距106mm

Low-speed class center distance 106mm

硬齿面轴装式减速器

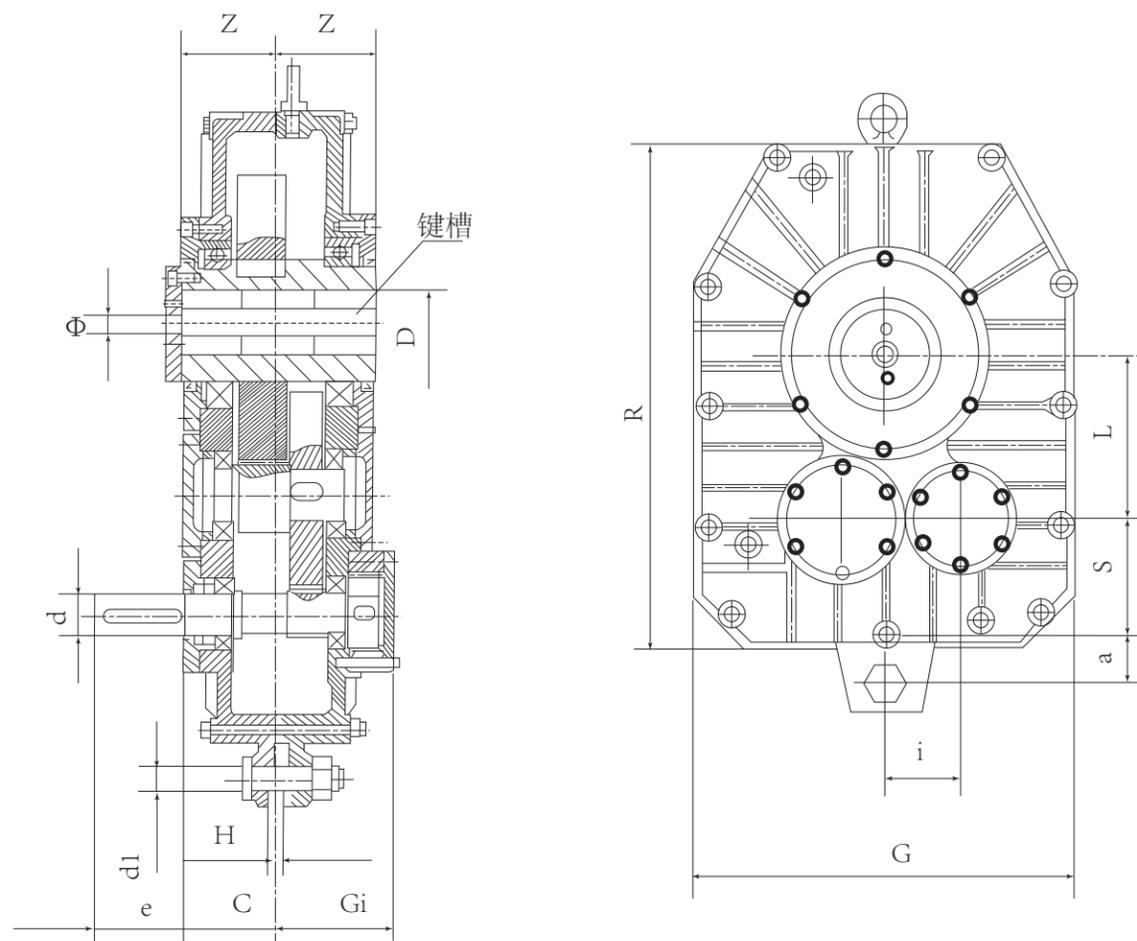
Hard teeth surface shaft assembly decelerator



图一：减速器旋向和防扭拉杆安装位置示意图

Figure 1 decelerator rotation direction and skefch map of anti-twise pullrod installaction position.

### 三、减速器的外形尺寸 Contour size of decelerator



机型 Type	Z	$\Phi$	D	d	d1	H	e	c	Gi	R	L	G	S	a	i
ZJY106	67	13	45	24	14	16	50	83	88	315	103.0	240	80	40	50
ZJY125	76	13	55	28	20	16	60	78	100	378	120.0	270	102	48	55
ZJY150	85	13	60	38	20	20	80	98	110	445	144.3	330	105	53	65
ZJY180	100	17	70	42	25	24	110	117	133	539	174.3	396	145	65	80
ZJY212	120	22	85	48	25	30	110	121	156	625	204.7	477	160	70	95
ZJY250	150	26	100	55	28	30	110	165	164.5	740	241.4	570	195	70	125
ZJY300	164	32	120	65	28	36	140	182	185	840	288.6	660	210	75	130

注：入轴和空心轴配键按GB/T 1096-2003选用  
 Note: The key of input shaft and hollow shaft is awarding to GB/T1096-2003

### 四、减速器的承载能力 Decelerator carrying capacity

#### 额定输出扭矩 Rated output torque

规格 Specs	106	125	150	180	212	250	300
扭矩 (N.m) Torque(N.m)	750	1250	2120	3550	6000	10000	14720
重量(kg) Weight(kg)	27	40	67	110	173	250	380

#### 公称输入功率 P<sub>1</sub> Nominal input power P<sub>1</sub>

公称传动比 i Nominal drive ratio i	公称转速 Nominal speed r/min		规格 Specs						
	输入 n1 Input n1	输出 n2 Output n2	106	125	150	180	212	250	300
			公称输入功率 kW Nominal input power PA kW						
10	1500	150	12	19	33	56	92	157	225
	1000	100	8.2	13	22	38	62	105	150
	750	75	6.2	9.8	17	29	47	79	113
11.2	1500	134	11	17	30	51	83	137	206
	1000	89	7.4	11	20	34	56	92	138
	750	67	5.6	8.5	15	26	42	69	104
12.5	1500	120	9.7	15	27	46	76	125	179
	1000	80	6.5	10	18	31	51	83	119
	750	60	4.9	7.6	14	23	39	63	90
14	1500	107	8.2	14	24	39	65	107	162
	1000	71	5.5	9.4	16	26	43	71	108
	750	54	4.1	7.1	12	20	33	54	82
16	1500	94	7.3	12	21	35	58	98	148
	1000	62	4.9	8.5	14	24	39	64	98
	750	47	3.7	6.1	11	16	30	48	74
18	1500	83	6.4	11	18	31	51	86	131
	1000	56	4.3	7.3	12	21	34	58	88
	750	42	3.3	5.5	9.0	16	26	44	66
20	1500	75	6.0	10	17	27	45	77	117
	1000	50	4.0	6.7	11	18	30	52	78
	750	38	3.1	5.1	8.6	14	23	39	59
22.4	1500	67	5.2	8.7	15	25	42	72	103
	1000	44	3.5	5.9	10	17	28	48	69
	750	33	2.6	4.4	7.5	13	21	36	52
25	1500	60	4.6	7.6	14	22	37	63	90
	1000	40	3.1	5.1	9.4	15	25	42	60
	750	30	2.3	3.8	7.1	11	19	32	46

## 五、减速器的选用 Decelerator selection

### 1. 减速器的选用 Decelerator selection

- (1) 查“减速器载荷分类”表，确定载荷类型。  
Identify load type from table of “Decelerator load classification”.

### 减速器的载荷分类表 DECELERATOR LOAD CLASSIFICATION

化工类 Chemical industry					
搅拌机(液体) Blender(fluid)	U	载人升降机 Elevator for people		M	
搅拌机(半体) Blender(semi-flu1d)	M	螺旋式输送机 Spiral conveyor		M	
离心机(重型) Centrifuger(heavy-duty)	M	钢带式输送机 Steel belt conveyor		M	
离心机(轻型) Centrifuger(light-duty)	U	链式栖型输送机 Chain groove conveyor		M	
冷却滚筒 Cooling roller	M	较车运输 Hoisting winch transport		M	
干燥滚筒 Drying roller	M	洗衣机类 Washing machine type			
		滚筒 Roller		M	
传送运输机类 Transfer conveyor type	M	洗衣机 Washing machine		M	
平板输送机 Flat conveyor	M	制纸机类 Paper machine type			
平衡块升降机 Balance lump elevator	M	压光机 Plating press		H	
槽式输送机 Groove conveyor	M	多层纸板机 Multi-layer blard machine		H	
带式输送机(大件) Belt conveyor(article with big size)	H	干燥滚筒 Drying roller		H	
带式输送机(块状物) Belt conveyor(lumpy article)	U	上光滚筒 Glazing roller		H	
筒式面粉输送机 Cylinder flour conveyor	M	搅浆机 Pulp blender		H	
斗式提升机 Buket elevator	M	纸浆擦碎机 Paper pulper		H	
货物升降机 Cargo elevator	M	吸水滚 Water absorbing roller		H	
卷扬机 Hoister	H	吸水滚压机 Water absirbing roller press		H	
倾斜卷扬机 Slant hoister	H	潮纸滚压机 Wet paper roller press		H	
连杆式输送机 Connecting bar conveyor	M	威罗机 Box willow		H	

注: U为均匀载荷; M为中等冲击载荷; H为强冲击载荷。  
Note: U for unifom load, M for middle impact load, H for heavy impact load.

- (2) 确定工况系数KA。  
Identify work status factor KA.

### 减速机的工况系数 KA. Decelerator Work status factor KA.

原动机 Prime mover	每日工作时间 Work time perday	KA		
	小时 Hour	轻微冲击均匀载荷 Slight impact uniform load	中等冲击载荷 Middle impact load	强冲击载荷 Heavy impact load
电动机 Electromotor	≤10	1	1.25	1.75
		1.25	1.5	2
汽轮机 Steam turbine				
水力机 Water motor	>10	1.25	1.5	2

- (3) 确定安全系数Ks。  
Identify safety factor Ks.

### 减速机的安全系数 Ks. Decelerator Safety factor Ks.

因减速器失效所造成的后果 Aftereffect caused by decelerator failure	一般损失 General loss	严重损失 Serious loss	重大损失 Significant loss
	单台主机停产、主要设备不能运行等 single master machine stops production, main equipment fails to operate	整条生产线停产设备损坏等 whole production stops production and equipment failure	人身伤亡、电厂停电、钢包停浇 超吊装置失灵等 personnel injuries, power plant ouearmarks, molten steel container stops moulding
Ks	1.3-1.5	1.6-1.8	1.8-2

- (4) 1.按  $P_{2M}=P_2 \cdot K_A \cdot K_S \leq P_1$ , 确定减速机规格  
According to  $P_{2M}=P_2 \cdot K_A \cdot K_S \leq P_1$ , determine the specs of decelerator.

$P_{2M}$  - 计算功率  $P_{2M}$  - calculating power

$P_2$  - 传递功率  $P_2$  - transmitting power

$P_1$  - 公称输入功率, 当减速机输入功率不是1500.1000.750r/min时, 可按最近表列转速的一档, 折算 $P_2$

$P_1$  - nominal input power, If decelerator input power is not 1500, 1000, or 750r/min, nominal input power is converted according to the latest rotate speed listed in the table.

2. 例 For example:

有一斗式提升机，用电动机通过三角带驱动减速器传动，减速器输入转速为1100r/min，输出转速为55r/min，传递功率P<sub>2</sub>=2kw，每日工作超过10小时，减速器损坏会引起主要设备不能运行，应选用何减速器？

For a bucket elevator, motor is used to drive decelerator transmission through triangle belt. Decelerator input rotate speed is 1100r/min, output rotate speed is 55r/min, transmission power is P<sub>2</sub>=2kw, work time per day is more than 10 hours, and decelerator failure would result in main equipment non-operable. How to select decelerator?

解 Solution:

(1) 查表，斗提机属中等冲击，查表 K<sub>s</sub>=1.5, 查表 K<sub>s</sub>=1.4

Check with table, bucket elevator is of middle impact; check with table, K<sub>s</sub>=1.5 is found, check, K<sub>s</sub>=1.4 is found.

(2)  $P_2 = 2 \times \frac{1000}{1100} = 1.82\text{kW}$

(3)  $P_{2M} = 1.82 \times 1.5 \times 1.4 = 3.82\text{kW}$

(4)  $i = 1100/55 = 20$

查表，知ZJY106; i=20 1000r/min时, P=4kW P<sub>2M</sub>=3.82 < 4kW, 所以可选用ZJY106-20。

Check with table, identify ZJY106-20 can be selected, Therefore, ZJY106-20 can be selected.

3. 按输入转速选用逆止器 Select holdback according to input rotate speed

本系列产品配置有常接触和非常接触两种逆止器。常接触逆止器的许用最高输入转速见表。

This series product is equipped with frequent contact and non-frequent contact holdbacks. Maximum allowable input rotate speed for frequent contact holdback is shown in table.

常接触逆止器许用转速及许用逆止扭矩

Allowed rotate speed and allowable holdback torque for frequent contact holdback.

减速器规格 Specs of decelerator	ZJY106	ZJY125	ZJY150	ZJY180	ZJY212	ZJY250	ZJY300
许用转速r/min Allowable rotate speed	1430	1250	1050	910	690	625	500
需用逆止扭矩N.m Allowable holdback torque	80	135	180	385	550	745	1460

附：防扭杆规格（一般由用户自行购置）

防扭杆可外购“开式索具螺旋扣”00型（沪产Q/JB43-66）

Specs of anti-twist bar (usually bought by user)

Type 00 "Open rigging turnbuckle" (made in Shanghai/JB43-66) may be purchased for anti-twist bar.

减速器规格 Specs of decelerator	螺旋扣号码 Turnbuckle number	调节长度L (mm) Adjustable length L(mm)
ZJY106	0.4	310-416
ZJY125.150	0.8	380-582
ZJY180.212.250.300	1.7	540-860

行业业绩

INDUSTRY PERFORMANCE



客户案例

CUSTOMER CASE



# EVEGREAR PRODUCTS RANGE

恒齿减速电机产品范围

**ZGY** SERIES SHAFT-MOUNTED REDUCER

悬挂式减速机



**ZJY** SHAFT ASSEMBLY CYLINDRICAL GEAR DECELERATORS

轴装式圆柱齿轮减速器



**EH/EB** HIGH POWER REDUCER

大功率齿轮减速机



**Q** PLANETARY GEAR REDUCER

行星齿轮减速机



# EVEGREAR PRODUCTS RANGE

恒齿减速电机产品范围

**ER** SERIES HELICAL GEAR MOTOR

斜齿轮硬齿面减速机



**EF** SERIES PARALLEL SHAFT HELICAL GEAR MOTOR

平行轴斜齿轮减速机



**Z** 弧齿锥齿轮减速机  
Z SERIES SPIRAL BEVEL GEAR REDUCER



**EK** SERIES HELICAL BEVEL GEAR MOTOR

弧齿锥齿轮硬齿面减速机



**ES** SERIES HELICAL-WORM GEAR MOTOR

蜗轮蜗杆减速机

