

GFT 高速壳转减速机

GFT High Speed Reducer



产品概述 Product Overview:

GFT 系列紧凑型高速壳转减速机是传动机构中的理想减速部件。由于其结构形式特别紧凑，因此这种减速机能应用在安装环境极端困难的地方。该产品采用先进的设计技术和先进的加工手段，有效地保证了高的承载能力和运行的可靠性。

GFT 减速机不仅符合力士乐型系列标准，还可根据具体需要，设计提供与意大利布雷维尼、日本帝人、不二越、KYB、Fairfield 或萨澳相似的替代产品。由于本公司具有很强的创新设计能力，因此我们可为客户提供咨询服务和合理选型，以期为客户找到最适合的产品解决方案。

根据设计要求，减速机不仅能与力士乐型定量或变量液压马达相连接。如有必要也可以与其它液压马达相匹配。减速机输入端可根据需要安装弹簧制动、液压释放的多片式停车制动器。制动器的静制动扭矩与所配液压马达输入扭矩相适应（一般大于 1.5 倍）。对于某些减速机还可根据要求安装机械脱离离合器，以便在紧急情况下由其他设备牵引。防止液压元件被损坏。

该类减速机产品已广泛用于旋挖钻机的主辅卷扬和履带行走驱动。履带起重机的主辅、变幅卷扬和履带驱动、各种钻机履带驱动、压路机、高空作业车轮子驱动、铣刨机和煤矿掘进机的动力头和行走驱动。船舶克令吊、码头和集装箱起重机的驱动机构。产品不但已在国内三一重工、徐工集团、中联重科等重点用户中使用，并出口到东南亚、印度、韩国、荷兰和俄罗斯等地区及国家。

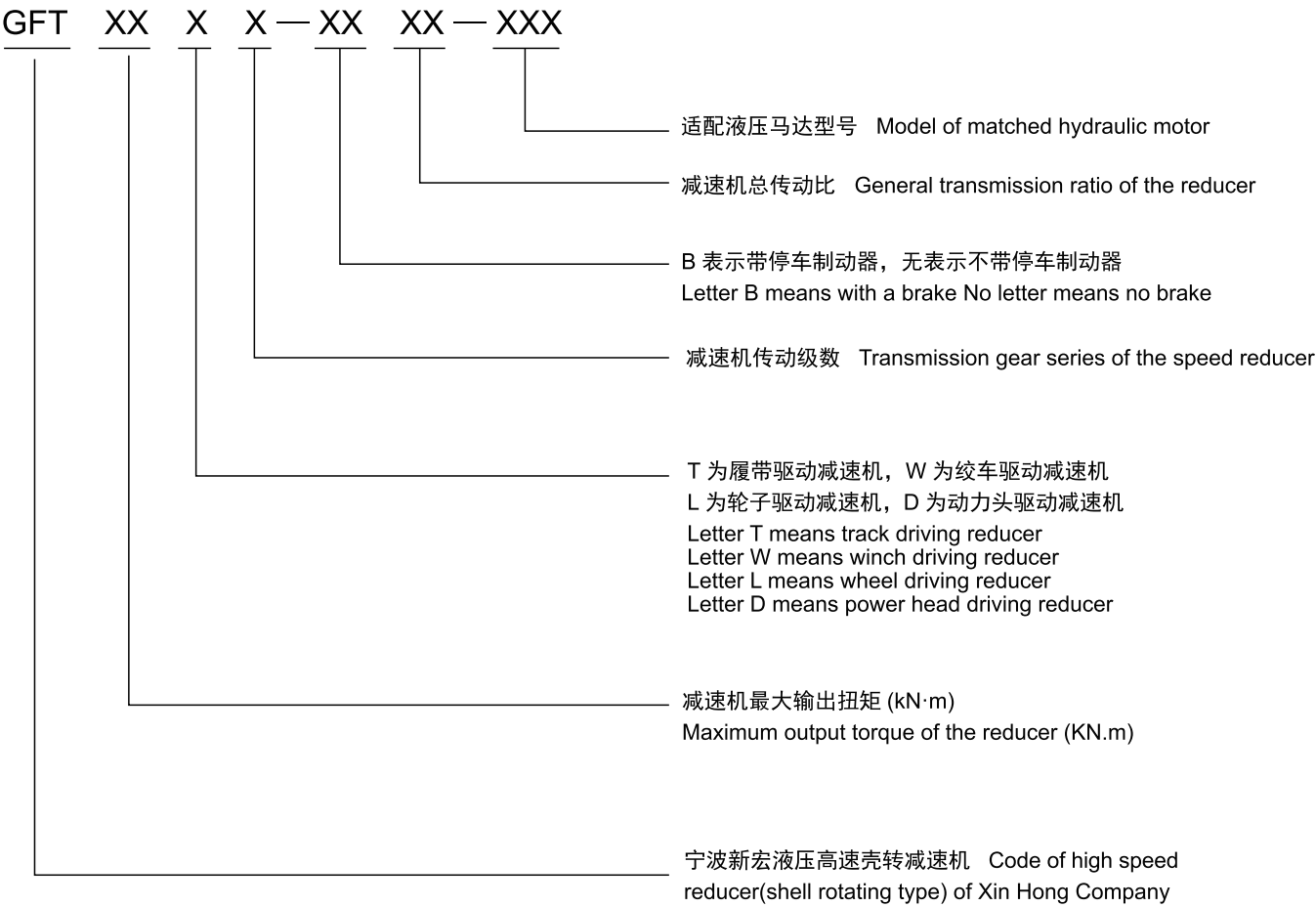
GFT compact high speed reducer is an ideal part in transmission device. Because of compact structure, GFT reducer can be installed at most places. This model adopt advanced technology and processing method, so it can provide high load capacity and make sure stable operation.

GFT reducer is accord with standard of Bosch-Rexroth product and we can also design other similar products for replacing reducer of Brevini, Tejin, Nachi, KYB, Fairfield and Sauer. Because we have strong creating and designing ability, so that we can provide consulting service to customers and help them to choose the optimal products.

As per the design requirement, GFT reducer can connect with constants/variable hydraulic motor of Bosch-Rexroth. When necessary, it can also connect with other hydraulic motors. Multi-disc brake can be installed at input terminal when necessary. Static braking torque of the brake is matched with input torque of the hydraulic motor (usually static braking torque is 1.5 times bigger). According to different requirements, some reducers can be equipped with mechanical release clutch. So that other equipment can also tow the reducer in emergency and prevent hydraulic parts being damaged.

GFT reducer is widely used on following applications: a. Main/auxiliary winch of rotary drilling rig. b. Driver of apron wheel of rotary drilling rig. c. Main/auxiliary/luffing winch of crawling craned. d. Driver of apron wheel of multifarious drilling rige. e. Driver for wheels of road roller and aloft work equipment. f. Power head and driver of milling machine and coal mine tunneling machine. g. Crane driving system of ship crane, wharf hoist and container hoist. GFT reducer has been used by Sany, XCMG and Zoomlion. And it also be exported to Southeast Asian, India, Korea, Holland and Russia...

产品型号说明 Product Type Description:



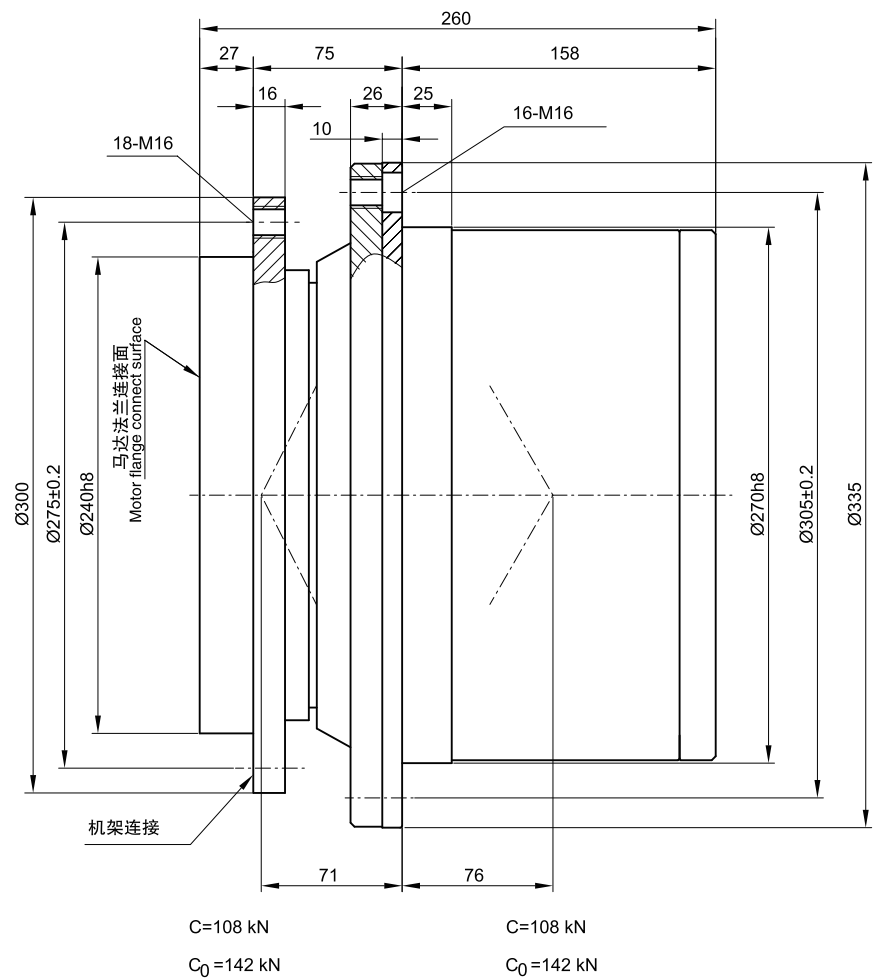
产品型号举例 Product Model Example:

GFT60T3-B86-A2FE80/61WVZL10表示该减速机最大输出扭矩为60kN·m,用于行走驱动，采用三级行星减速，带停车制动器，总传动比为86，所配液压马达型号为A2FE80/61WVZL10。

GFT60T3-B86-A2FE80/61WVZL10 reducer means: Max. output torque is 60kN*m It is track drive Adopt three-stage planetary gear for reducing With brake General transmission ratio is 86 Matched hydraulic motor model is A2FE80/61WVZL10

GFT 13T2系列 GFT 13T2 Series

外形尺寸_Dimension

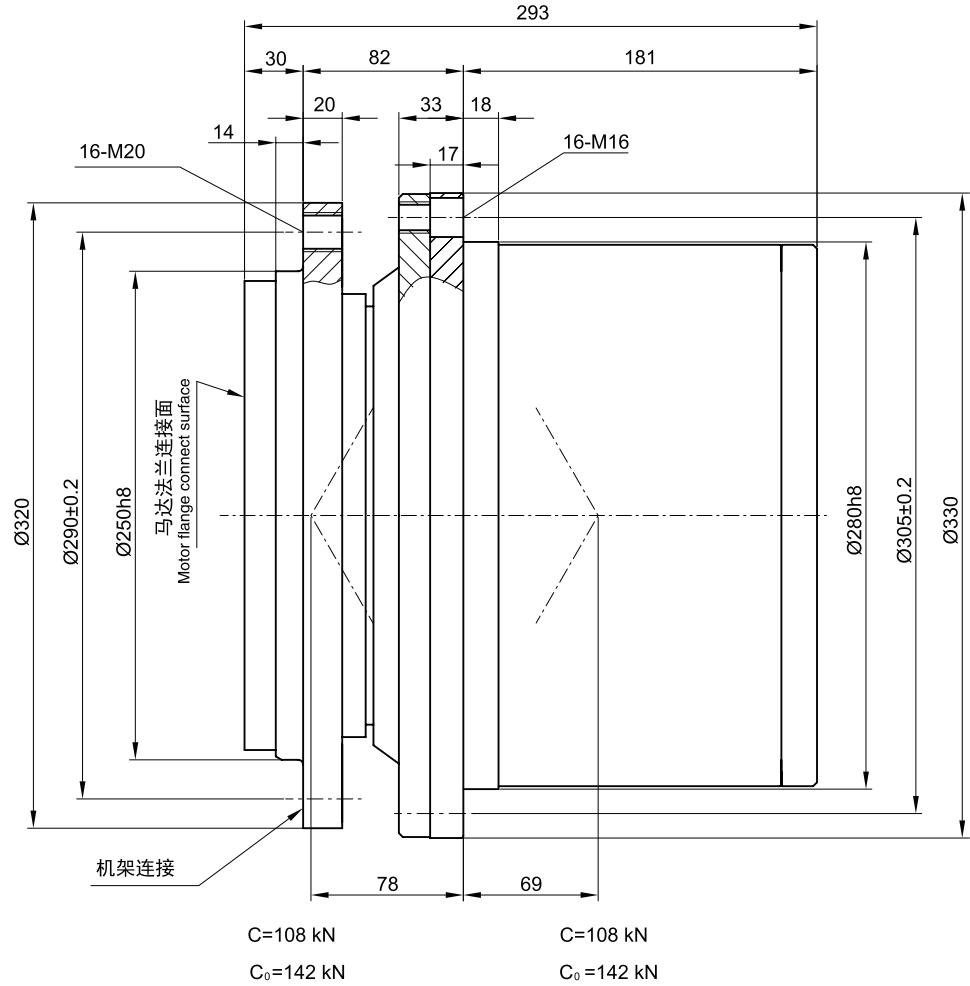


技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N•m	传动比 Transmission ratio	液压马达 Model of hydraulic motor	最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
13000	16.3 22.6 32.1 37.6	A2FE45 A2FE56 A2FE63	A6VE28 A6VE55	2000	450-900
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 95kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 95kg.					

GFT 17T2系列 GFT 17T2 Series

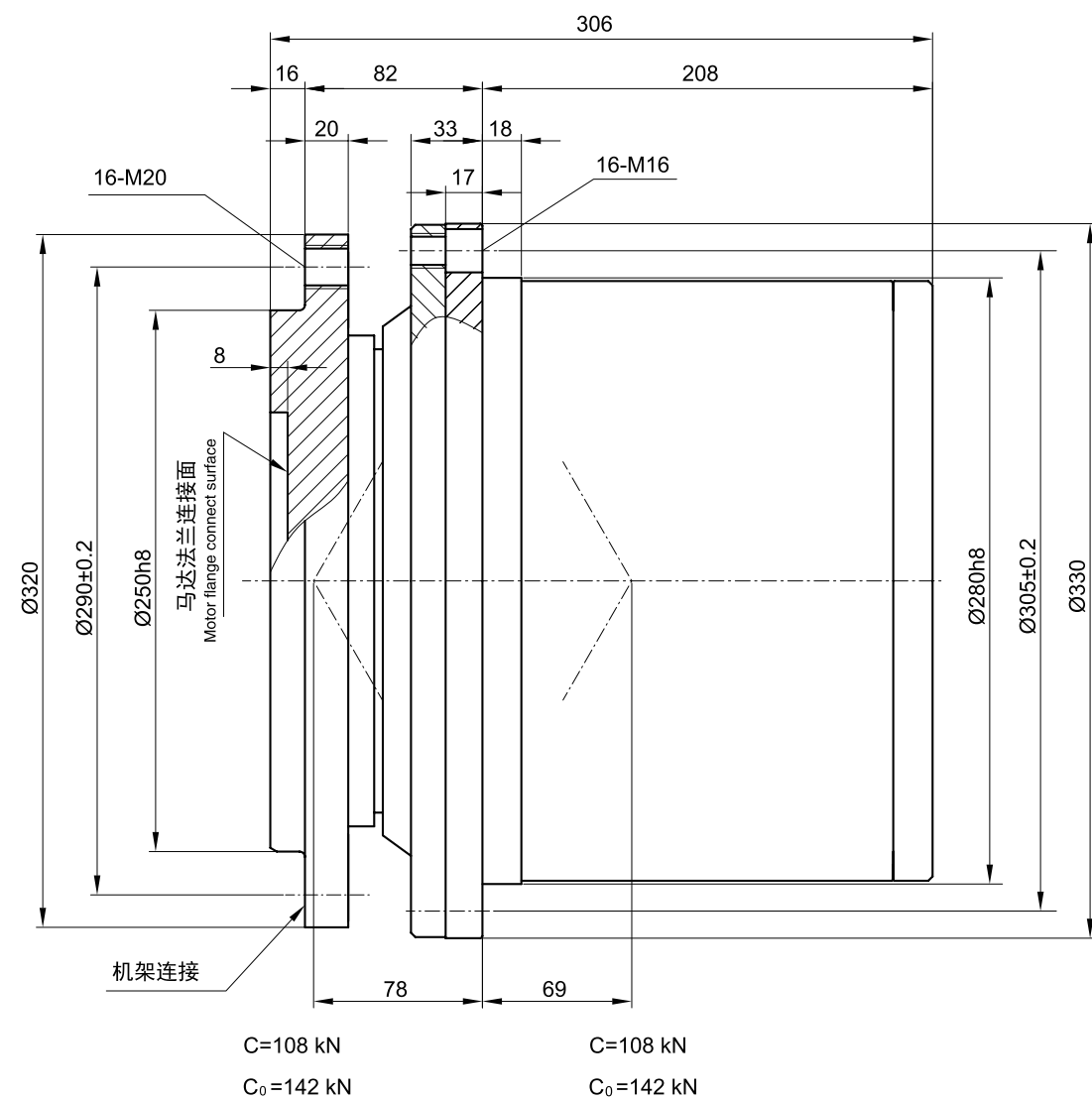
外形尺寸_Dimension



技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N•m	传动比 Transmission ratio	液压马达 Model of hydraulic motor	最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
17000	26.4 32.1 45.4 54	A2FE45 A2FE56 A2FE63	A6VE55	2000	500-1000
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 105kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 105kg.					

外形尺寸_Dimension

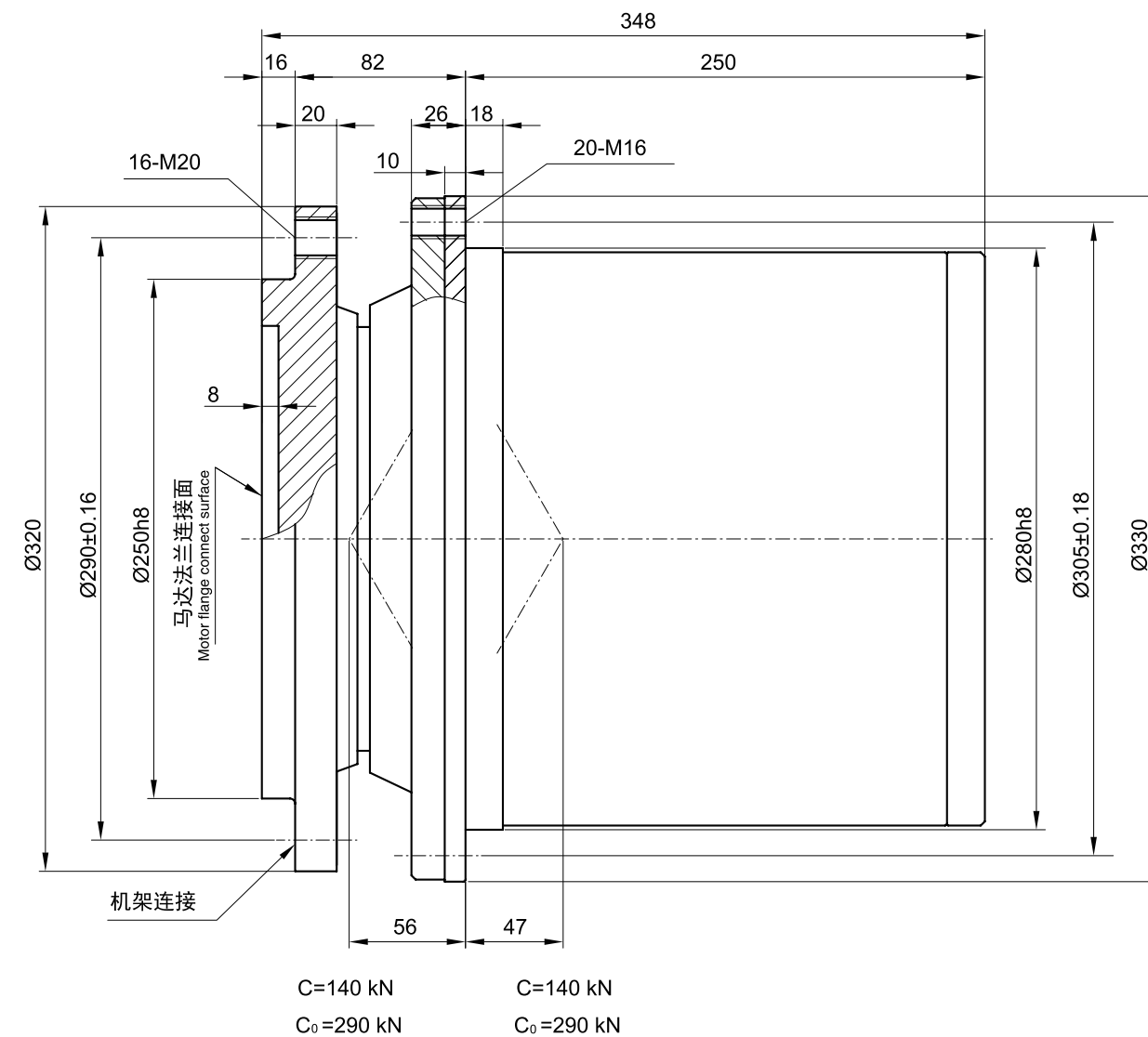


技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor	最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
17000	77.9 88.2 102.6	A2FE28 A2FE32 A2FE45 A2FE56	A6VE28 A6VE55	2000	220-450

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
减速机净重约 116kg。
Input rotating direction of reducer is reverse to the output rotating direction.
For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
Weight of this reducer is about 116kg.

外形尺寸_Dimension



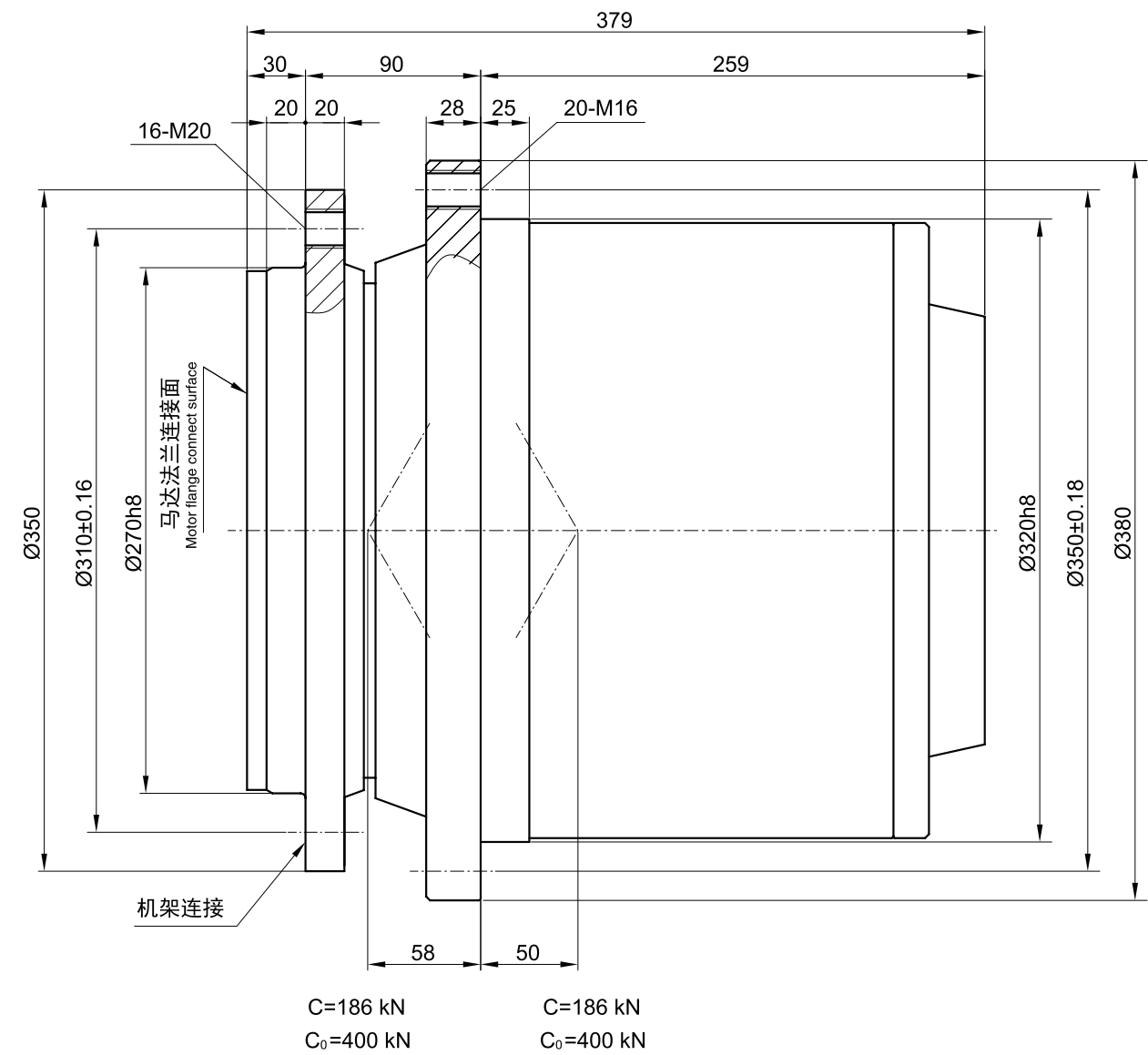
技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor	最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
24000	90.1 102.6 120.5	A2FE45 A2FE56 A2FE63	A6VE55	2000	400-750

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
 减速机净重约 155kg。
 Input rotating direction of reducer is reverse to the output rotating direction.
 For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
 Weight of this reducer is about 155kg.

GFT 36T3系列 GFT 36T3 Series

外形尺寸_Dimension

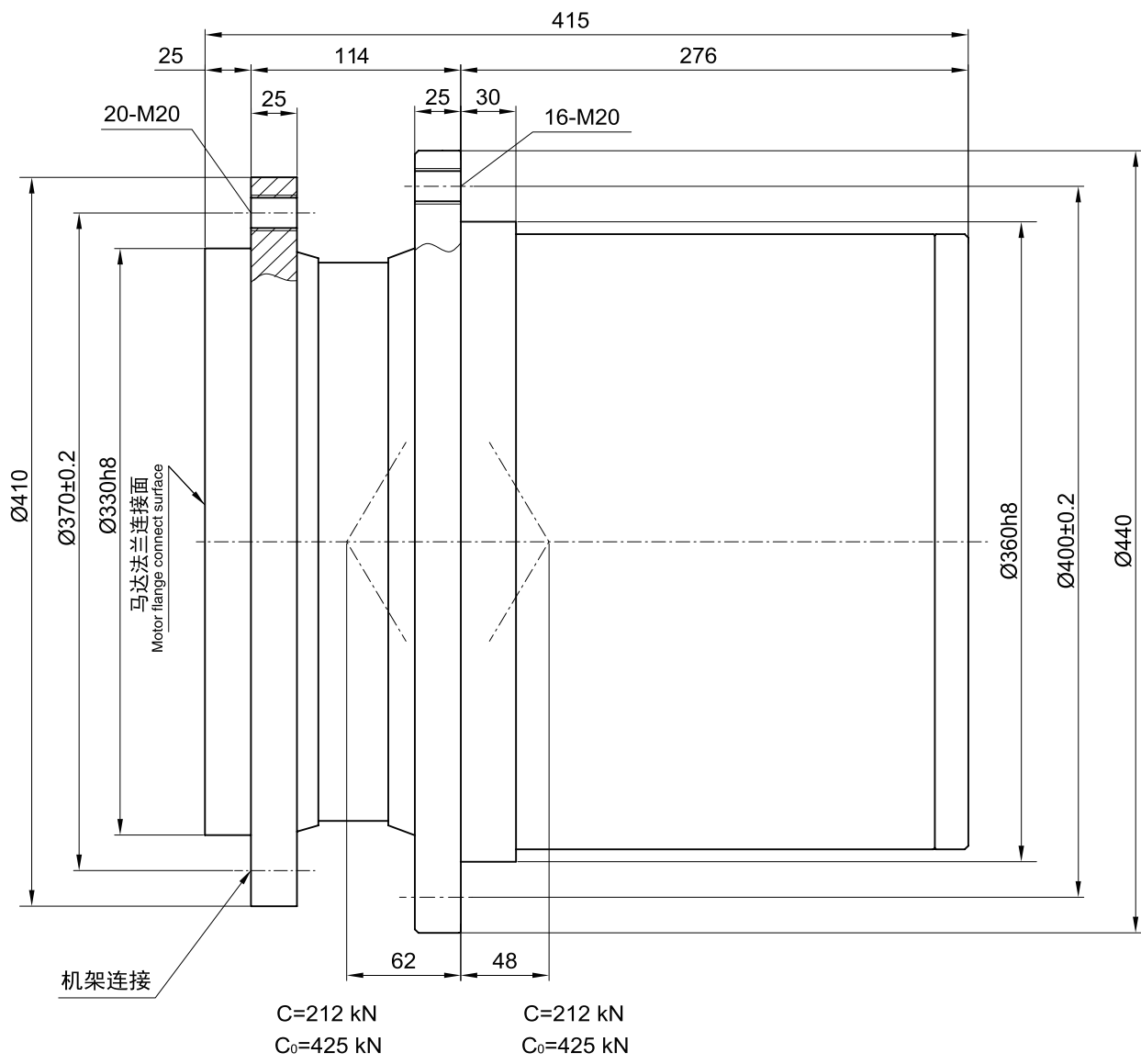


技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
36000	67 79.4 100 116.6	A2FE45 A2FE56 A2FE63 A2FE80 A2FE90	A6VE55 A6VE80	2000	450-800	1.8-5
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 210kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 210kg.						

GFT 50T3系列 GFT 50T3 Series

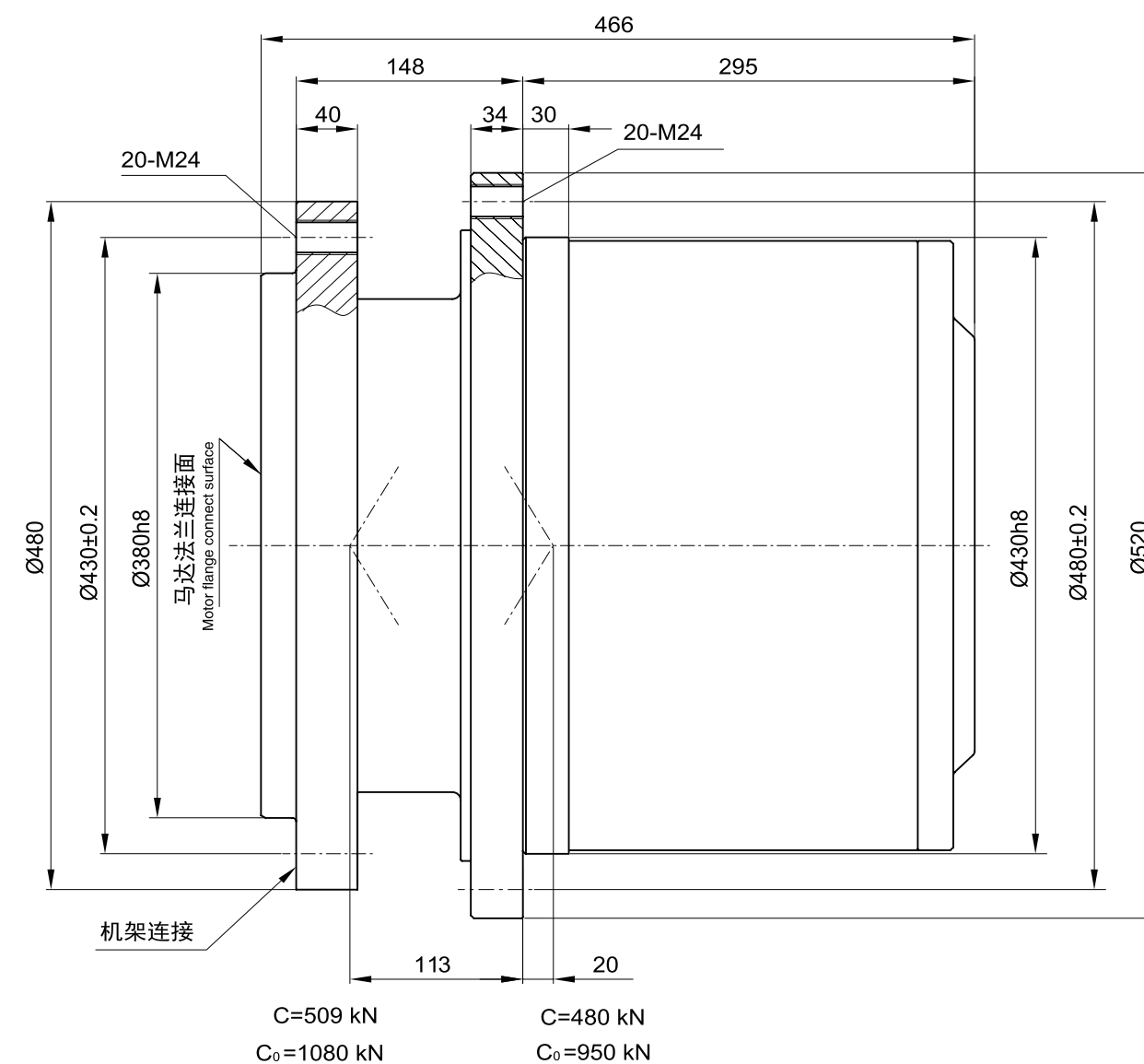
外形尺寸_Dimension



技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
50000	84.2 91.1 99.8 125.7 146.4	A2FE80 A2FE90	A6VE80 A6VE107	2000	600-1100	1.8-5
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 265kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 265kg.						

外形尺寸_Dimension



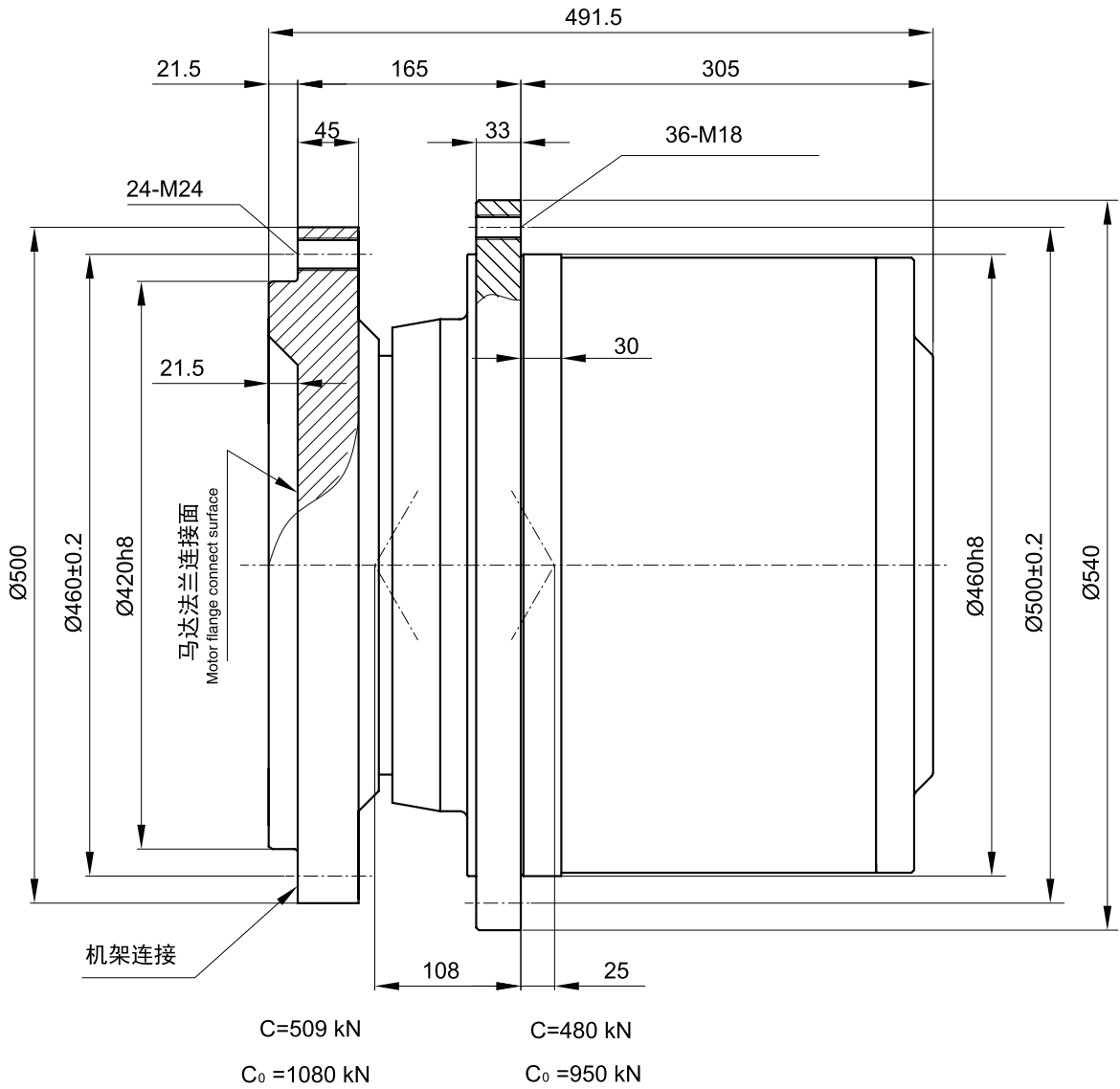
技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
80000	76.7 99 110.9 126.9 149.9 185.4	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	800-1600	1.8-5

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
减速机净重约 420kg。
Input rotating direction of reducer is reverse to the output rotating direction.
For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
Weight of this reducer is about 420kg.

GFT 110T3系列 GFT 110T3 Series

外形尺寸_Dimension

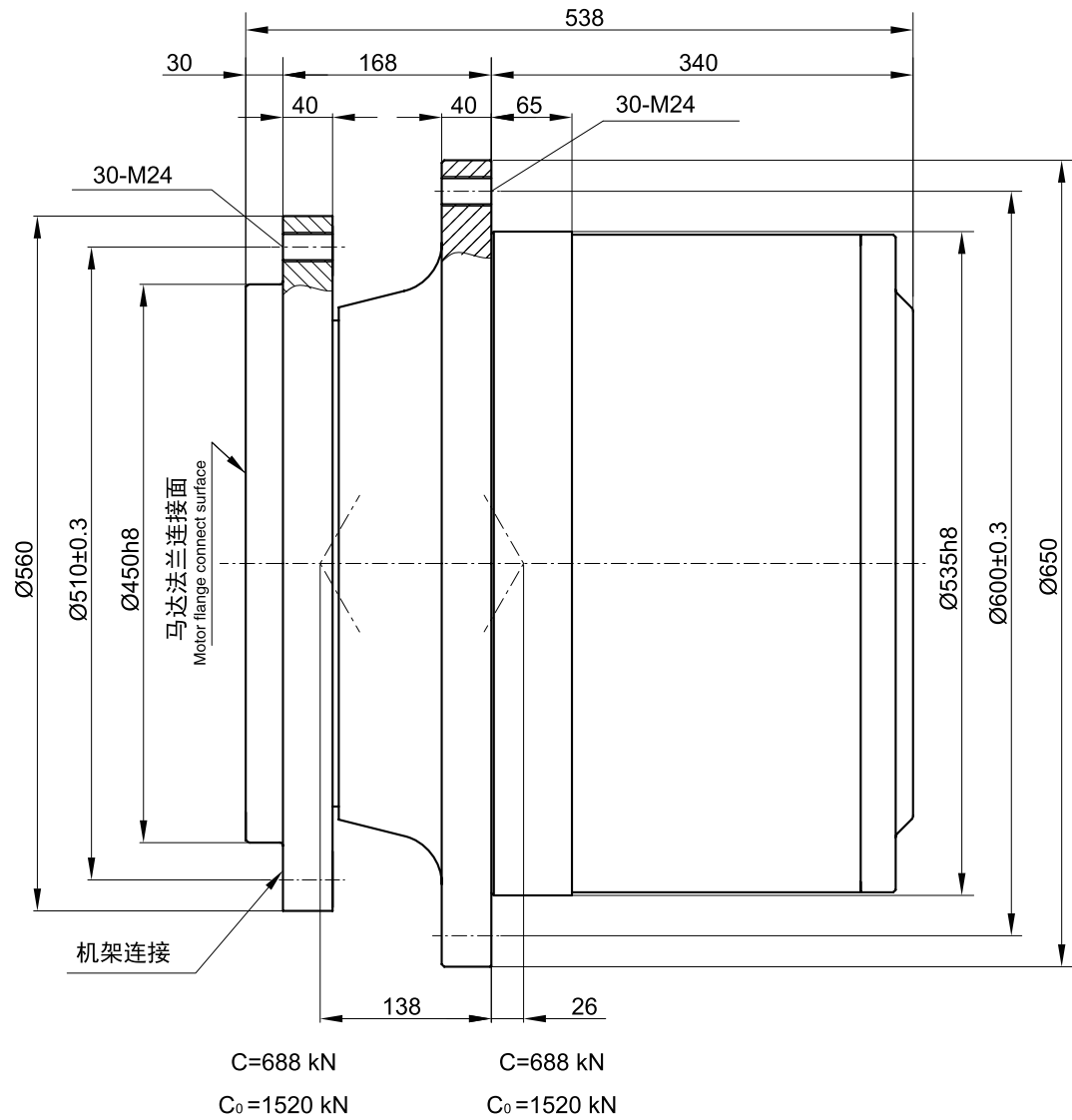


技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
110000	95.8 114.8 128.6 147.2 173.9 215	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	900-2000	1.8-5
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 460kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 460kg.						

GFT 160T3系列 GFT 160T3 Series

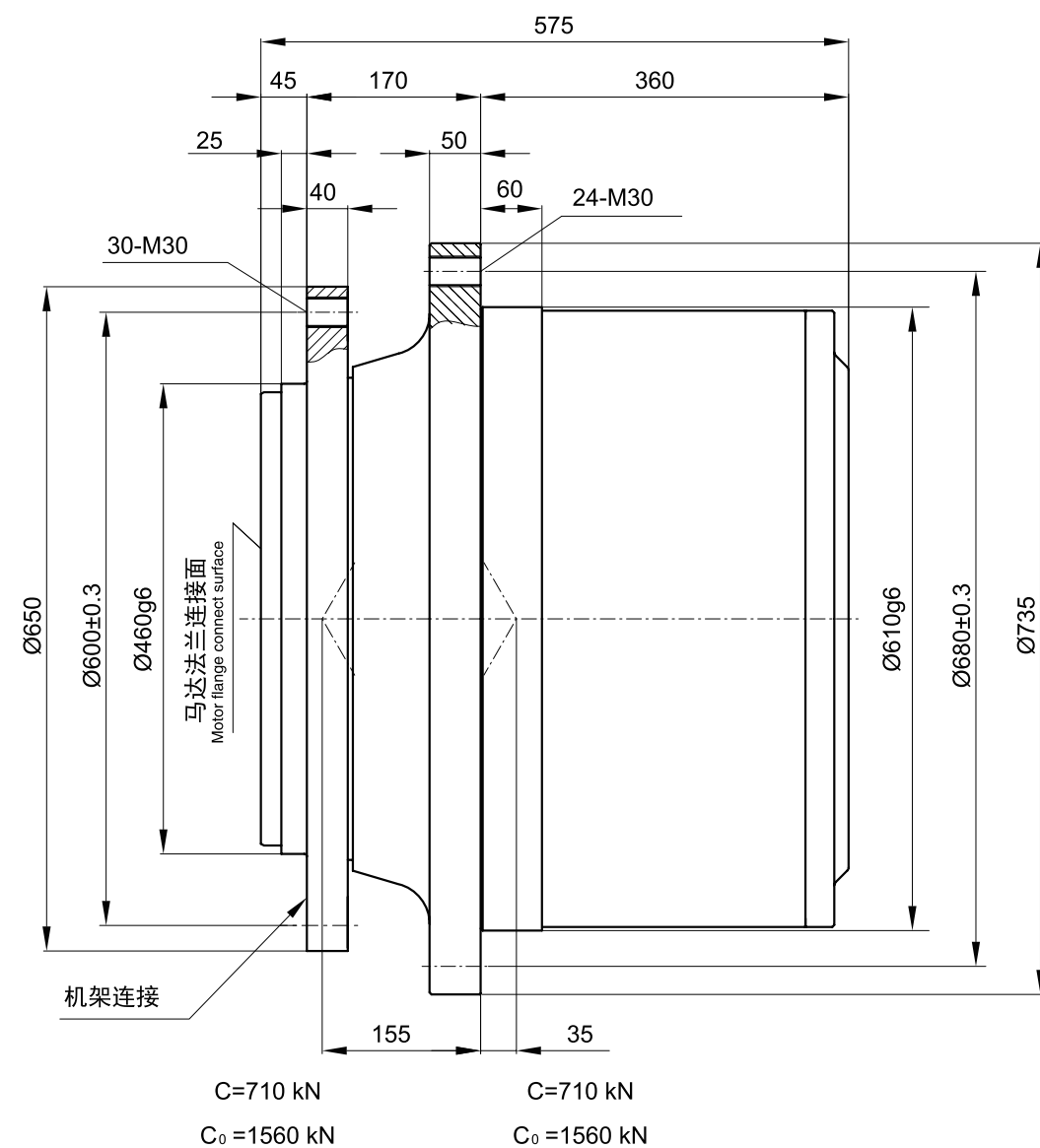
外形尺寸_Dimension



技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
160000	161.8 210.8 251	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	900-2000	1.8-5
减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 减速机净重约 580kg。 Input rotating direction of reducer is reverse to the output rotating direction. For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. Weight of this reducer is about 580kg.						

外形尺寸_Dimension



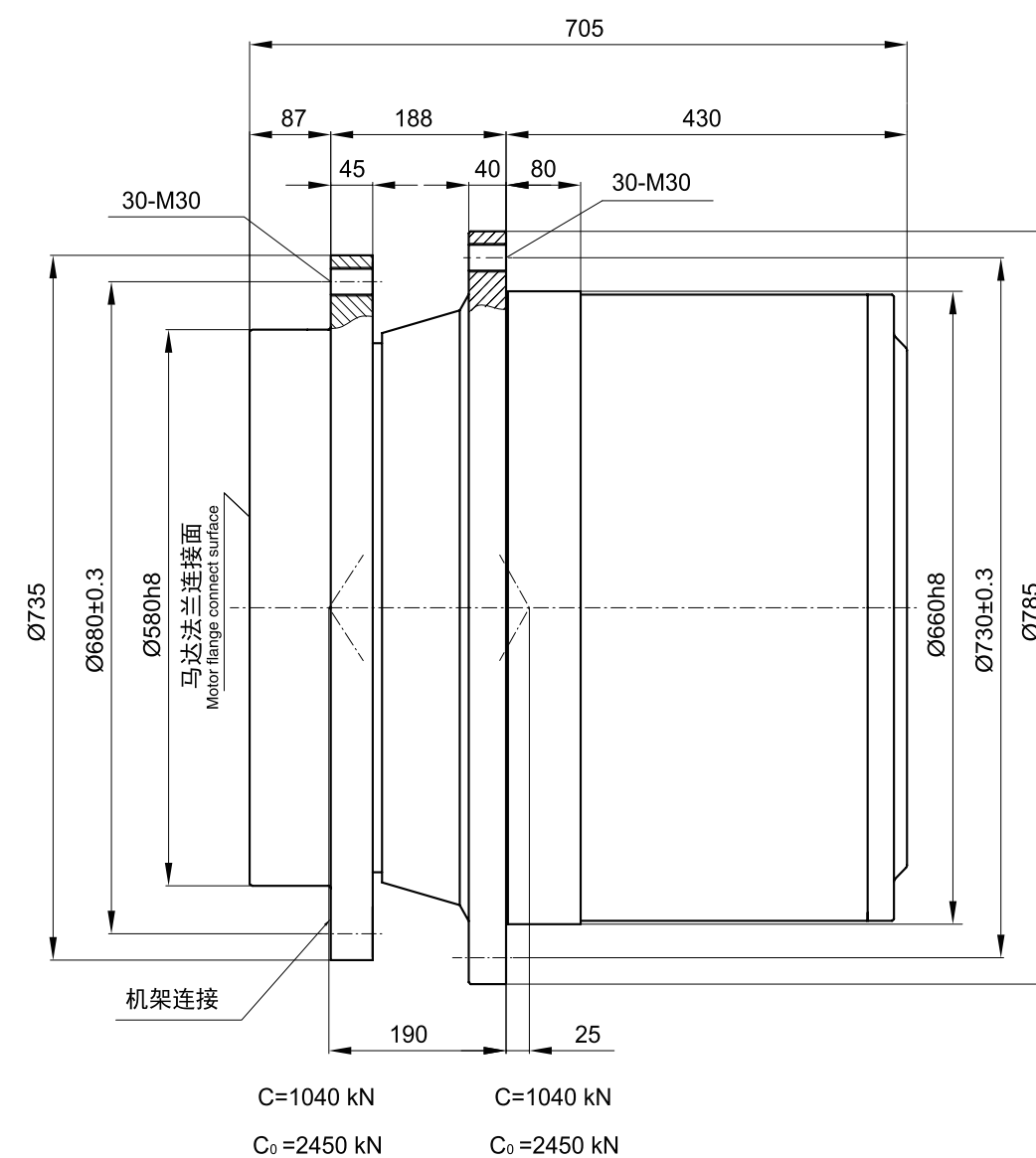
技术参数 Parameters

最大输出扭矩 Max output torque $T_{\max}$ N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T_{BR} max. N·m)	制动器工作压力 Brake working pressure MPa
220000	188.9 246.1 293	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	1200-2400	1.8-5

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
减速机净重约 710kg。

Input rotating direction of reducer is reverse to the output rotating direction.
For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
Weight of this reducer is about 710kg.

外形尺寸_Dimension



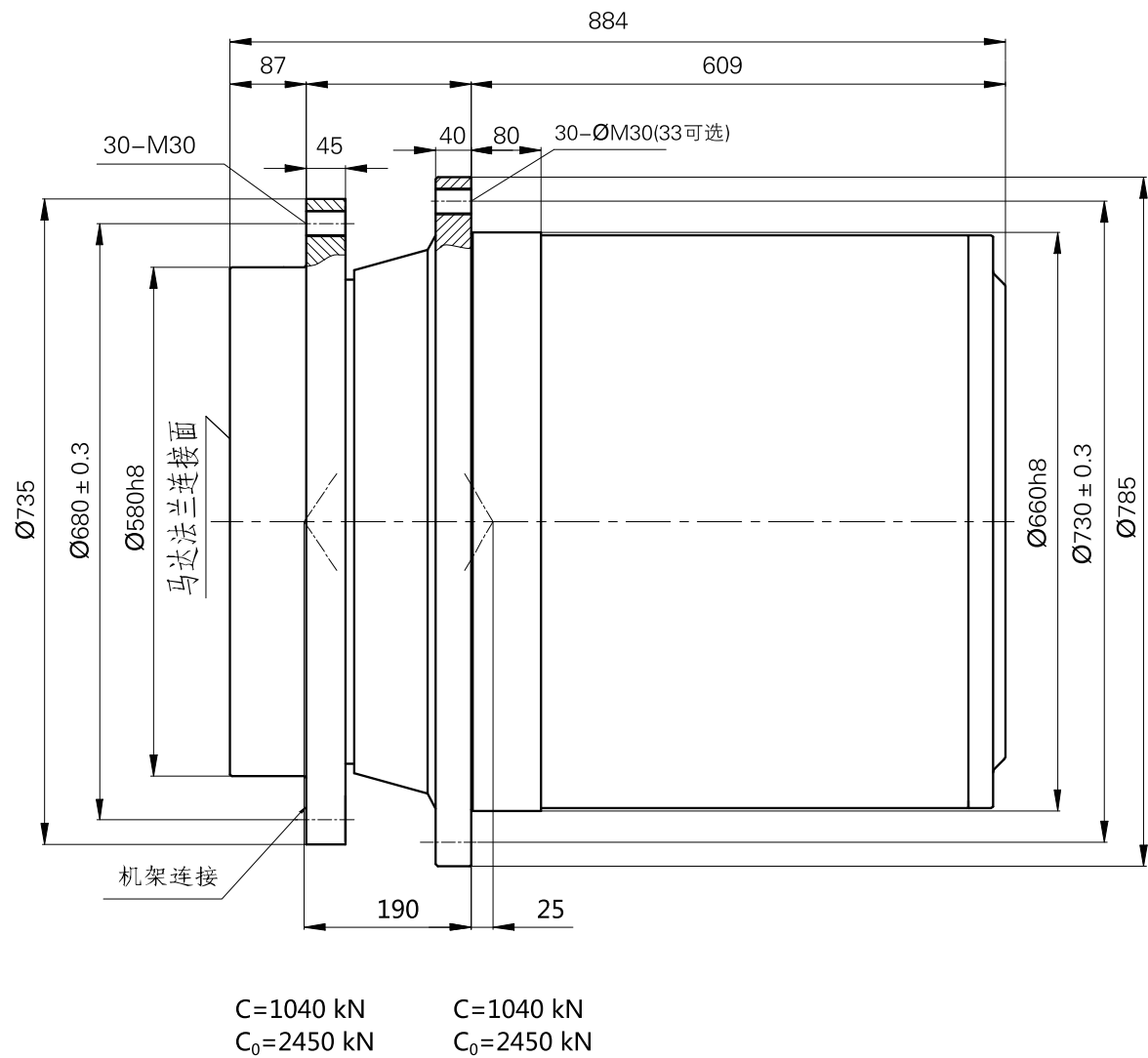
技术参数 Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
330000	168.9 209.9 252 302.4	A2FE250 A2FE355	A6VE250 A6VE355	2000	1500-3500	1.8-5

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
 输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
 减速机净重约 810kg。
 Input rotating direction of reducer is reverse to the output rotating direction.
 For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
 Weight of this reducer is about 810kg.

GFT 330T4 系列 GFT 330T4 Series

外形尺寸_Dimension



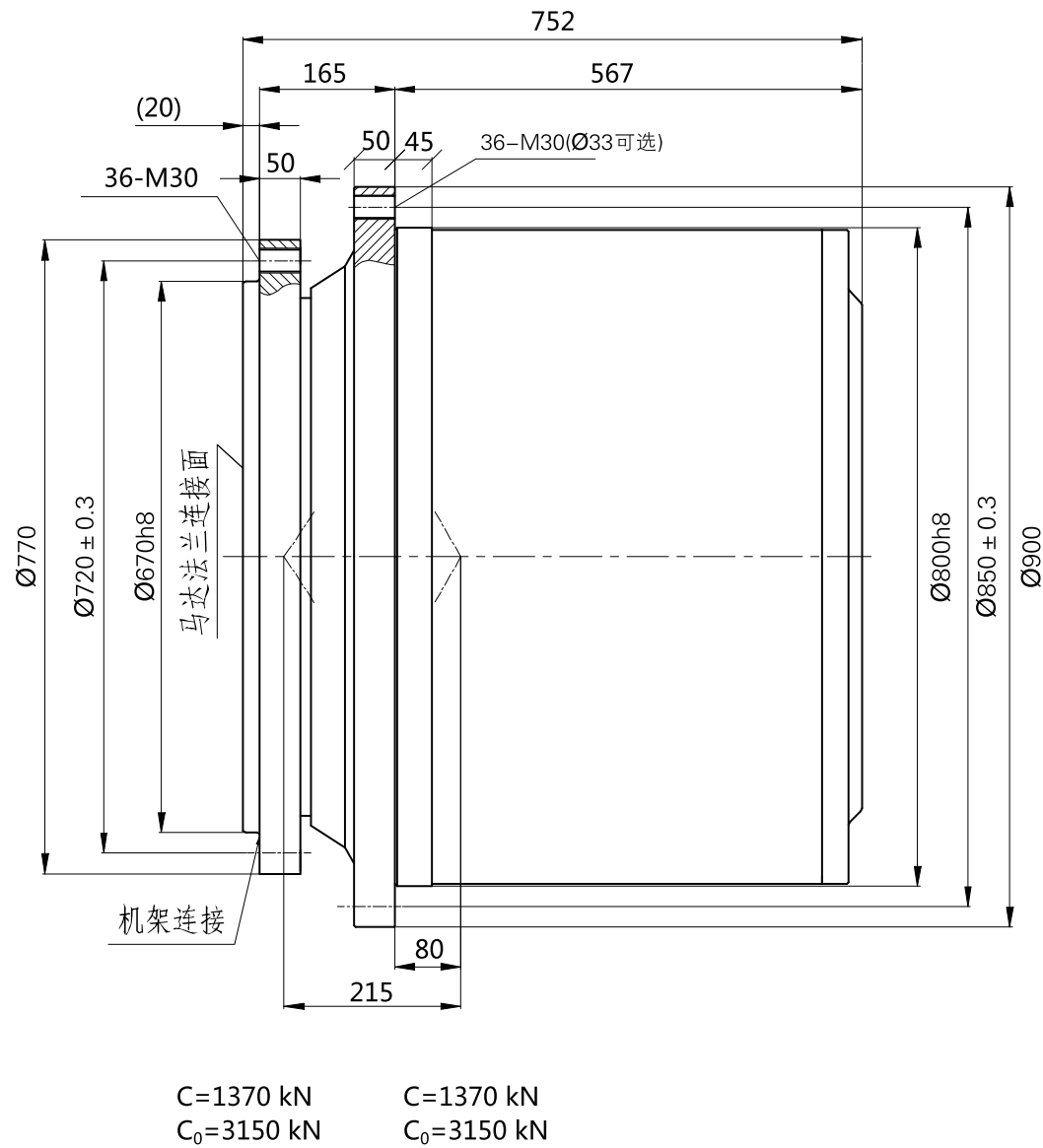
技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
330000	451.7 839.4 1008	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	1200-2400	1.8-5

1、减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
2、输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
3、减速机净重约 950kg。
1、 Input rotating direction of reducer is reverse to the output rotating direction.
2、 For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
3、 Weight of this reducer is about 950kg.

GFT 550T3系列 GFT 550T3 Series

外形尺寸_Dimension



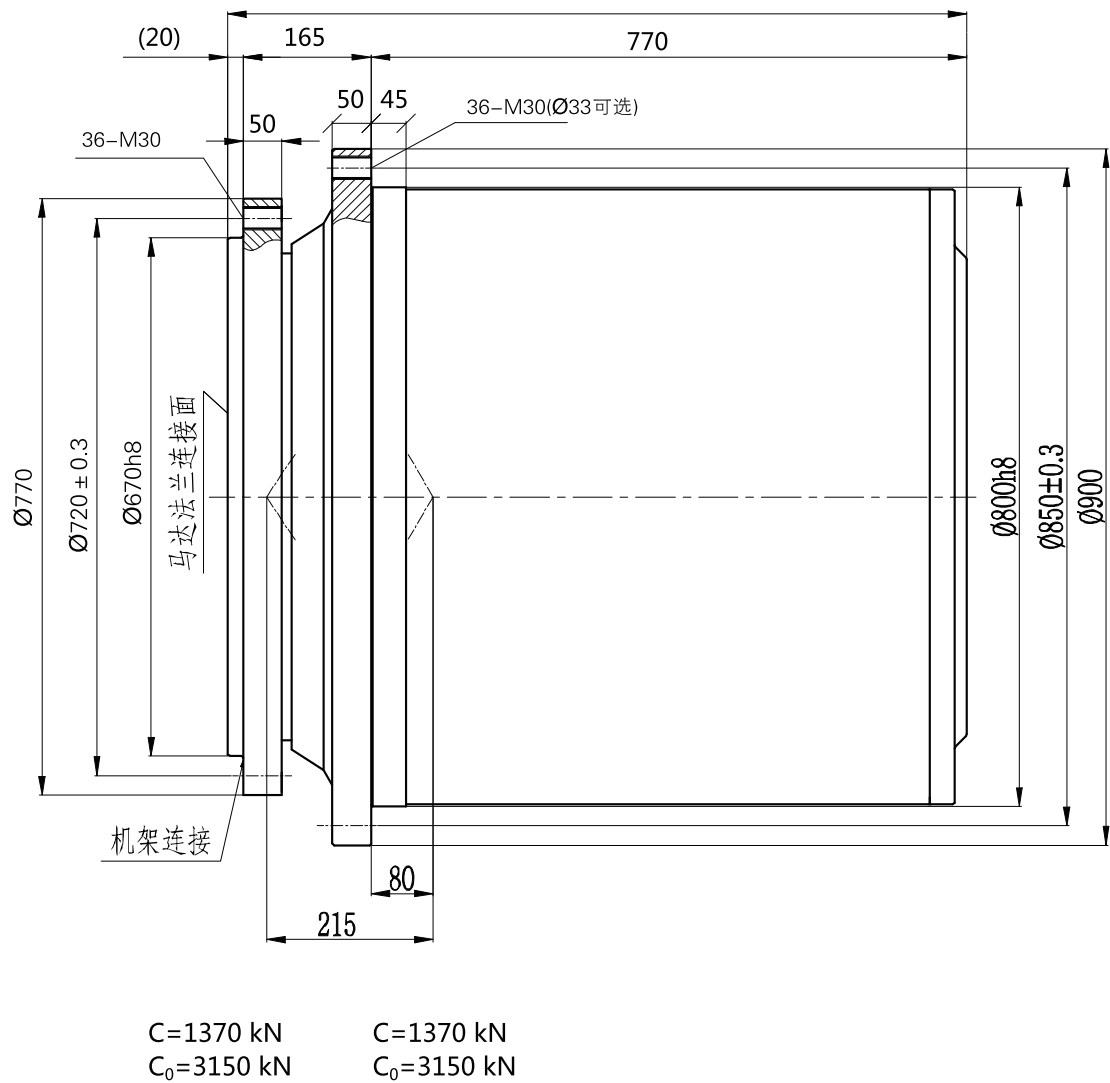
技术参数_Parameters

最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
550000	129.2 146.8 175.3	A2FE250 A2FE355 A2FE500	A6VM250 A6VM355 A6VM500	2000	6500-8000	1.8-5

减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。
输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。
减速机净重约 1000kg。
Input rotating direction of reducer is reverse to the output rotating direction.
For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized.
Weight of this reducer is about 1000kg.

GFT 550T4 系列 GFT 550T4 Series

外形尺寸_Dimension



技术参数_Parameters

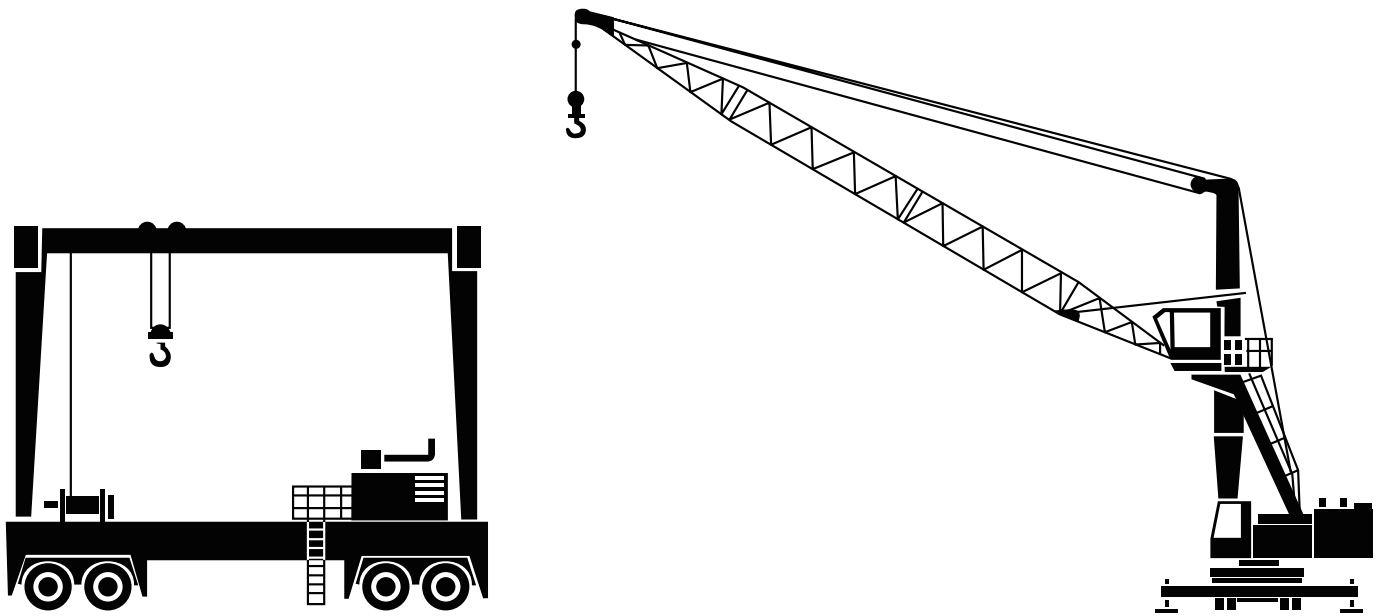
最大输出扭矩 Max output torque T _{max} N·m	传动比 Transmission ratio	液压马达 Model of hydraulic motor		最高输入转速 Max. input rotating ratio(r/min)	静制动扭矩 Static brake torque (T _{BR} max. N.m)	制动器工作压力 Brake working pressure MPa
550000	905.5 1267.8	A2FE107 A2FE125 A2FE160 A2FE180	A6VE107 A6VE160	2000	1200-2400	1.8-5
1、减速机输入转向与输出转向相反，除表中所列传动比外，对有批量的产品传动比可以另选。 2、输出转速允用值（样本中示规定）因实际工况的而有所变化，详情请咨询本公司相关技术人员。 3、减速机净重约 1200kg。 1、 Input rotating direction of reducer is reverse to the output rotating direction. 2、 For other transmission ratio which is not included in our table, if customer's order quantity is big, special products can be customized. 3、 Weight of this reducer is about 1200kg.						

GFT(W)卷扬减速机 GFT (W) Winch speed reducer

概述 Overview:

静液压卷扬减速机 GFT(W) 系列是卷扬机构的理想驱动装置，在非常艰苦恶劣的使用工况下能提供完美的性能并被证明物有所值。GFT(W) 系列卷扬减速机适用于所有已知的诸如汽车和履带式起重机，铁路起重机，舰船甲板，码头和集装箱起重机的卷扬机构，因其非常紧凑故可直接安装于卷筒内部，节省空间。另外，其设计亦易于安装，表面硬化齿轮和氮化内齿圈的采用使之具有低噪音运转的特点，始终如一的高制造标准保证了极好的承载能力和工作可靠性，轮齿采用 L+S 计算机优化设计并具有最高的安全裕度，此减速机特点是最具最优的总效率，本样本中所述减速机会经常更新和技术改进，为满足用户对尺寸和输出的特殊需要，我们可按要求做更进一步的变形结构，无论何时需要，即便在项目阶段，我们随时准备着给您建议并提供帮助，以期为您找到最合适的解决办法。

GFT(W) hydrostatic winch reducer is a ideal driving device for winches. It can give very good performance in severe environment and is certified be great value for money. GFT(W) reducer is suitable for winches of all autocrane, crawling crane, railway crane, shipboard/ wharf/ container crane.It can be mounted in the cable drums directly because of its compact structure. And it was designed convenient for installation. Case hardened gear and internal gear ring with nitrogen treatment are used on GFT(W) reducer, so that it is low noise. The high manufacturing standard ensures high load capacity and stable operation. Gears is designed by L+S computer program and have highest safety margin. The characteristic of this reducer is with highest general efficiency. Our reducer will be updated often, if customer has special requirement, we can provide customized product. No matter what time customer need, we can provide suggestions and help, even the project is in progress.



结构特点

- ◆模块化结构的高强度行星减速机
- ◆结构紧凑，节省空间，两级或三级行星齿轮传动设计
- ◆可承受钢丝绳牵引力的高承载的力的轴承系统
- ◆安装简单
- ◆一体化的多片式夹持制动器
- ◆低噪声运转
- ◆高效率
- ◆长寿命
- ◆换油方便

Structure characteristics

- 1.High strength planet gear of modular structure
- 2.Compact structure, space saving, design of two/three-staged planet gear drive
- 3.Strong bearing system can bear high tractive force from steel cable
- 4.Easy installation
- 5.Integrated multiple-disc brake
- 6.Low noise when working
- 7.High efficiency
- 8.Longer service life
- 9.Easy to change oil

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使用条件 Application Conditions

减速机设计适用环境温度范围为 -20℃至 +40℃。
环境影响诸如咸水、咸气、沙、尘、加超重压、重振动、剧烈冲击以及环境温度，侵入介质及类似问题将会妨碍产品功能，为了实现卷扬减速机的安全设计，此类工况条件必须报告至工厂。
Temperature for working is designed from -20℃ to 40℃
Environment will influence product performance. For example, salt water, salty air, sand, dust, overpressure, heavy vibration, severe impact, environment temperature and invasive impurities will influence functions of the reducer.

减速机设计 Gearbox Design

此减速机设计基于多年的实践经验。
技术参数中所指最大输出转矩 T_{2max} 对应于 FEM 第 1 部分，第 3 版和第 1X 部分 (FEM 一欧盟标准)，以及 DIN15020, 机构载荷状态分级 L2, 机构利用等级 T5。对应于机构工作级别 M5。
参考输出转速为最大每分钟 25 转。
如果卷扬机构分级为其它机构工作级别。则其所需输出转矩必须采用系数 K 进行修正 (见第 17 页)

This reducer is designed base on our practical experience of many years. In the technical parameter, the maximum output torque is refered to chapter 1, the 3rd edition of FEM (FEM-EU standard).When maximum output speed is 25r/min, if load grade L2 and device serving time T5 are referred to device working strength M5, then the factor K is 1.When with different driving device, different load grade and different serving time, we can find out the corrected factor K from below table1 and table 2 and calculate maximum output torque with it.Regarding selection of load grade and serving time, customer can choose to consult our technicians.

更高转矩 Higher Torques

当减速机传递转矩高于样本中的指定的值时，请与我们联系。
If customer need higher torque than that in our catalogue, please contact us for customized product.

卷筒 Cable Drum

根据特殊要求，除标准供货范围（减速机 and 轴端支承轴承）外，卷扬减速机亦可提供卷筒。
We can supply reducer, shaft support bearing and cable drum for winch according to special requirement.

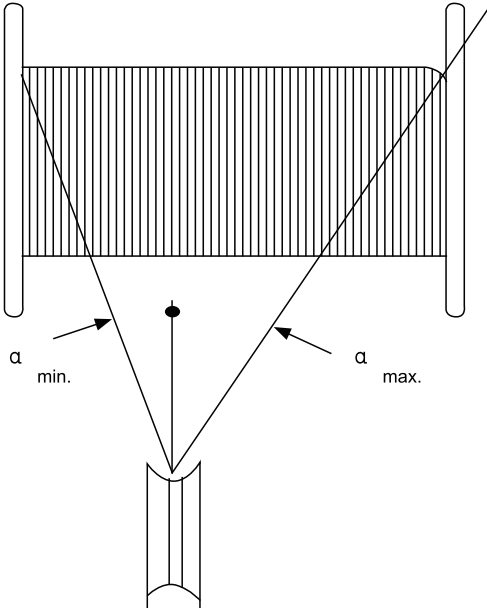
绳偏折角 Cable Deflection Angle

为正确地卷绕钢丝绳，要求绳偏折角 α 维持在允许的极限之内。
绳偏折角 α 不应小于 0.5°，以防钢丝绳在端部挡盘处堆积并确保它安全地进入下一层。
绳偏折角 α 不应大于 1.5°，以防钢丝绳从绳槽中脱出，且当卷绕多层时，确保卷筒被正确地装满直到端部挡盘。

To wrap the cable with right way, the cable deflection angle α must be maintained within permissible limit.The cable deflection angle α should be not less than 0.5°. This can prevent steel cable being jammed at the end plate and make sure it move to next layer safely.The cable deflection angle α should be no more than 1.5°. This can prevent the cable being separated from cable groove. And when wrapping several layers, it can make sure the cable drum be filled up until to the end plate correctly.

液压马达 Hydraulic Motors

本减速机设计可直接法兰安装变量或定量液压马达。如果需要，液压马达亦可包含在减速机供货范围中。
This reducer can be installed with constants/variable hydraulic motor through flange. So if necessary, we can also supply the hydraulic motor to customer.



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制动器 Brake

标准供货范围包括一个置于输入端的弹簧加载，液压释放的多片式停车制动器。
 T_{Br} (最小制动力矩) = $1.5 \cdot T_1$ (输入力矩)
此多片式夹持制动器不能用于动态制动。夹持制动力矩因所选择的传动比不同而不同。在制动状态时，制动器释放油路中不得有背压。
Normally, we supply reducer with a multi-disc brake at the input terminal. The brake is spring loaded and hydraulic release.
 $T_{Br}(\text{minimum brake torque})=1.5 \cdot T_1(\text{input torque})$
The multi-disc brake cannot be used for dynamic braking. The holding brake torque will be different for different transmission rate.In braking condition, the oil release circuit cannot has any backpressure.

润滑 Lubrication

轮齿和轴承采用浸油润滑；
除定期换油外，减速机无须保养。换油非常方便；
换油时必须使用说明书中规定的专用油牌号；
对于相应使用工况所必须的换油周期，同时规定于说明书中；
轴端支承轴承采用脂润滑。
Gears and bearings adopt flooding system lubrication.
Reducer doesn't need maintenance, just need to change oil at regular intervals. It is convenient to change oil.
The oil for changing must be same model and brand as that displayed in our operation manual.
Different regular intervals for changing oil are listed in the operation manual.
Shaft support bearing need use Lithium Grease.

Device serving time/ 机构利用等级				T2	T3	T4	T5	T6	T7	T8
Assumed daily average working time (hours) 假定每天平均工作时间 小时				0.25-0.5	0.5-1	1-2	2-4	4-8	8-16	>16
Theoretic service time (hours) 理论工作寿命 小时				400-500	800-1600	1600-3200	3200-6300	6300-12500	12500-25000	25000-50000
Load grade/ 载荷状态分级				Device working strength and factor K/ 机构工作级别及系数 k						
Groups of loading condition 载荷状态组	L1	light 轻	Bear maximum load occasionally 偶尔承受最大载荷 经常承受轻的载荷	M1 0.90	M2 0.90	M3 0.90	M4 0.90	M5 0.95	M6 1.05	M7 1.2
	L2	medium 中	Light, medium and heavy load are beard in working time averagely 工作时间内轻、中和最大载荷分布平均	M2 0.90	M3 0.95	M4 0.95	M5 1	M6 1.15	M7 1.30	M8 1.50
	L3	heavy 重	Bear heavy load often 经常承受接近最大的载荷	M3 1.05	M4 1.05	M5 1.10	M6 1.25	M7 1.40	M8 1.60	M8 1.80
	L4	very heavy 特重	Bear maximum load often 经常承受最大载荷	M4 1.25	M5 1.30	M6 1.45	M7 1.65	M8 1.85	M8 2.10	M8 2.40

减速机选型 Gearbox Selection

T₂ = 输出转矩
F= 单绳拉力 N
D_w= 相应卷绕直径 m
Reducer selecting:
T2= output torque;
F=cable pulling force (N)
Dw=Winding diameter (m)

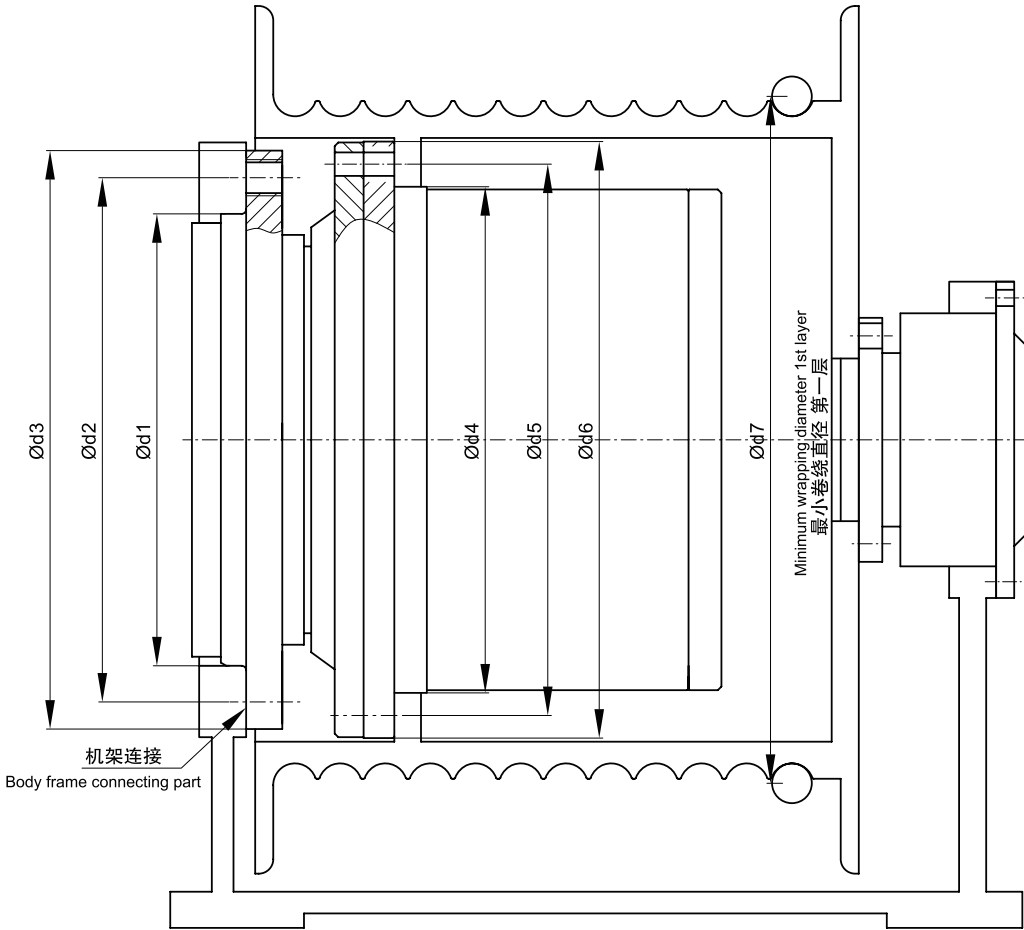
$$T_{2k} = \frac{F \cdot D_w}{2} \quad T2k=FxDw/2$$

T_{2k}= 修正的输出转矩的
K 按上表所给机构利用等级和载荷状态所对应的系数。
T_{2k}=Corrected output torque
Factor K is confirmed according to device serving time and load grade in above table.

$$T_{2k}=T_2K$$

减速机选型时 T_{2k} 必须 ≤T_{2max}(见样本)
When do selection of reducer,it must be T2k≤T2max

外形尺寸_Dimension



技术参数_Parameters

型号 Type	最大拉力 Max. pulling force (KN)	输出扭矩 Output torque (N•M)	d1	d2	d3	d4	d5	d6	d7
GFT13T2 (W)	65	13000	240	275	300	270	305	335	380
GFT17T2 (W)	85	17000	250	290	320	280	305	330	380
GFT17T3 (W)	85	17000	250	290	320	280	305	330	380
GFT24T3 (W)	120	24000	250	290	320	280	305	330	380
GFT36T3 (W)	150	36000	270	310	350	320	350	380	440
GFT50T3 (W)	190	50000	330	370	410	360	400	440	500
GFT60T3 (W)	220	60000	330	370	410	370	410	450	520
GFT80T3 (W)	250	80000	380	430	480	430	480	520	600
GFT110T3 (W)	320	110000	420	460	500	460	500	540	640
GFT160T3 (W)	380	160000	450	510	560	535	600	650	760
GFT220T3 (W)	480	220000	460	600	650	610	680	735	850
GFT330T3 (W)	650	330000	580	680	735	660	730	785	925

注：如用户需要卷扬减速机和机架一起供货，我公司可以出详细技术图纸供用户选用。
Notes: in case the clients need the winch speed reducer be provided together with the rack, we could offer the detailed technical drawing for the clients.