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# 回转减速机 *Swing Drive MOBILEX WLB...B*



## 产品概述 *Description*

静液压回转减速机WLB...B是我公司在引进国外先进技术的基础上，自行研发设计并完全可以替代国内外同类产品，是工程机械中理想的回转驱动装置。主要适用于各式挖掘机、起重机、船舶卸货装置、林业设备，凡有旋转运动的设备都能够广泛的应用。

公司始终如一的高质量标准保证了我们的减速机具有优秀的承载能力和杰出的工作可靠性。外齿轮齿表面的渗碳硬化及内齿圈的调质、氮化，使之具有低噪声运转的特点。齿轮经过优化设计后具有最高的安全裕度。



此外，减速机各部分尺寸及参数可根据用户需要进行重新设计，以满足用户对减速机的不同需求。无论您何时需要，即使在项目阶段，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。

The hydrostatic swing gears of WLB...B is developed and designed based on overseas advanced technology. It is an ideal driving component to easily substitute for other similar products. Swing gears are applied for excavator, crane, ship unloading equipment, forestry equipment and all slewing operations.

The constant high quality standard ensures the excellent load carrying ability and outstanding operational reliability. The use of case-hardened gearwheels and tempered, nitrated ring gear have resulted in low-noise running characteristics. Gears are optimized through calculation and keep highest safety margins.

Additionally the dimensions, specifications of gearbox can be designed on request. We will provide advice and assistance whenever needed, even in the project stage, to find the most appropriate solution for you.

## 结构特点 *Special Features*

- 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
- 轴承系统坚固，能吸收来自回转支承的外力作用
- 安装简单
- 内装多片式停车制动器
- High-duty planetary gearbox of modular construction
- Compact, space saving, two or three stage planetary gear design
- Robust bearing system absorbing the forces exerted by the ring gear
- Simple mounting
- Integrated multiple-disk holding brake
- 低噪声运转
- 高效率
- 长寿命
- 换油方便
- Low-noise running
- High efficiency
- Long service life
- Easy oil change

## 使用条件 *Application*

减速机设计适用环境温度范围为-20℃ ~ +40℃，环境影响诸如咸水、咸气、沙尘、超压力、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，为了实现减速机的安全设计，此类工况条件必须报告至我公司。

The gearbox has been designed for use at ambient temperatures ranging between -20℃ and +40℃. Environmental influence such as salt water, salty air, sand, dust, overpressure, heavy vibrations, extreme shocks and ambient temperatures, aggressive media and the like will impede the function of the gearbox. To enable safe design of gearbox these conditions must be reported to the factory.





## 减速机设计 Gearbox design

减速机设计基于多年的生产和实践经验。

技术参数中所指最大输出转矩 $T_{2max}$  对应于FEM 第一部分，第三版和 I X 部分（FEM-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25 r/min。

The gearbox design is based on years of practical application and production experience.

The Maximum output torques  $T_{2max}$  indicated under technical data for crane applications related to FEM section 1, 3rd Edition and Section IX(FEM-Federation Europeenne de la Manutention), as well as DIN 15020, collective load class L2, service time category T5 corresponding to driver group M5.

The reference output speed is 25revolutions / minute Max.

## 液压马达 Hydraulic Motor

本减速机设计可直接安装力士乐A2FE系列，A2FM系列，A6VE系列，A6VM系列马达，也可安装国内外其它厂商的马达产品（需重新进行相应结构的设计）。

The gearbox design enable motors by Bosch Rexroth A2FE, A2FM, A6VE, A6VM, as well as motors by other brands (specific design request).

## 制动器 Brake

标准供货范围包括一个置于输入端的弹簧加载、液压释放多片式停车制动器。

$T_{Br.} (制动力矩) = 1.3 \cdot T_1$  (输入转矩)。

制动器接口为M12x1.5。

此停车制动器不能用于减速制动，制动力矩根据实际需要而设定。

在制动状态时，制动器释放油路中不得有背压。

推荐制动器最大开启油压不高于50bar，如果高于50bar请与我公司技术部门联系。

The standard supply scope includes a spring-loaded, hydraulically released multiple-disk parking brake arranged on the input side.

$T_{Br.} = 1.3 \cdot T_1$  (input torque).

Dimension of brake connection, M12 x1.5.

The multiple-disk holding brake is not to be used as service brake, The holding torque multiples with the transmission ratio selected.

Backpressure is forbidden in the brake release oil circle.

The recommended opening oil pressure should be less than 50bar, pls. consult with our technical engineer if the pressure is higher than 50bar.



## 润滑 Lubrication

齿轮和轴承采用浸油润滑。

除定期换油外，减速机无需保养，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（国内润滑油推荐使用长城润滑油：L-CKD220）。

对于相应使用工况所必需的换油周期，请见说明书。

输出端支承采用锂基脂L-XBCHA3润滑。

The gear teeth and bearing will be splash lubricated.

Save for regular oil changed the drive units don not require maintenance. Changing the oil is done very easily.

Exclusively the oil brands recommended in the operating manual must be used for this work. (Great Wall L-CKD220 recommended).

The change intervals necessary for the relevant application conditions are also prescribed in the operating manuals.

The pinion-like antifriction bearing of the output shaft has been provided with grease filling L-XBCHA3.

## 供货范围 Supply Scope

标准供货范围：减速机+制动器。

Standard supply includes gearbox and brake.

## 减速机选型 Gearbox Selection

$T_2$  – 输出转矩。

为了正确地选择减速机，应把计算输出转矩 $T_2$ 与实际的机构工作级别系数 $K$ 相乘得出修正的输出转矩 $T_{2k}$ 。

$T_{2k} = T_2 \cdot K$ （ $K$ 按下表选取所对应的系数）。

减速机选型时 $T_{2k}$ 必须 $\leq T_{2max}$ （见样本）。

$T_2$ —output torque.

In order to select the gearboxes, corrected output torque  $T_{2k}$  should be calculated with output torque  $T_2$  multiple factor  $K$ .

$T_{2k} = T_2 \cdot K$  ( $K$  acc. To collective group given in the table below).

$T_{2k}$  of the gearboxes to be selected must be  $\leq T_{2max}$ .

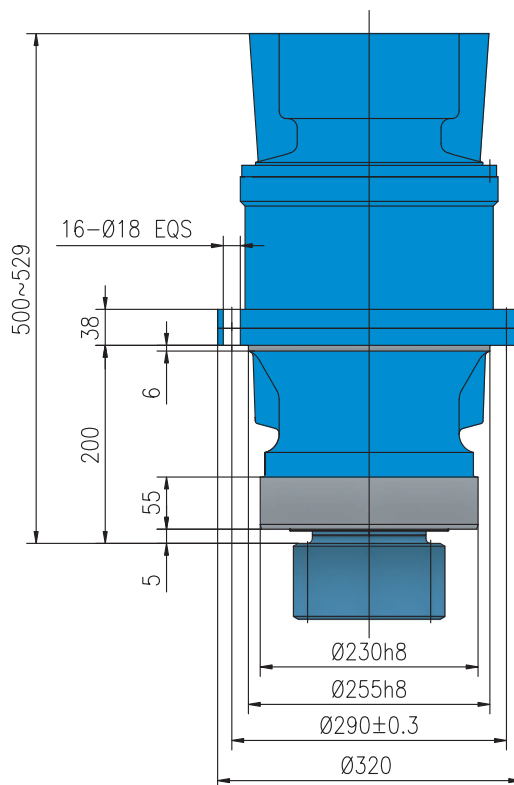


机构工作级别和机构利用等级 (按FEM, 第一部分, 第三版, 1987)

Driver Group and Service Time Categories to FEM (FEM, section I, 3rd Issue 1987)

| 机构利用等级<br>Service time category                                 |    |                  |  | T2                                      | T3         | T4         | T5         | T6         | T7          | T8          |
|---|----|------------------|--|---|------------|------------|------------|------------|-------------|-------------|
| 假定每天平均工作时间(小时)<br>Assumed average service time per day in hours |    |                  |  | 0.25-0.5                                | 0.5-1      | 1-2        | 2-4        | 4-8        | 8-16        | >16         |
| 理论工作寿命(小时)<br>Theoretic service life in hours                   |    |                  |  | 400-800                                 | 800-1600   | 1600-3200  | 3200-6300  | 6300-12500 | 12500-25000 | 25000-50000 |
| 载荷状态分级<br>Collective load class                                 |    |                  |  | 机构工作级别系数K<br>Driver Group with K Factor |            |            |            |            |             |             |
| 载荷状态组<br>Collective groups                                      | L1 | 轻<br>Light       | 偶尔承受最大载荷, 经常承受轻的载荷<br>Maximum loads occurring in exceptional cases only, slight loads constantly | M1<br>0.90                              | M2<br>0.90 | M3<br>0.90 | M4<br>0.90 | M5<br>0.95 | M6<br>1.05  | M7<br>1.2   |
|   | L2 | 中<br>Medium      | 工作时间内轻、中和最大载荷分布均匀<br>small, medium and maximum loads about equally distributed over service time | M2<br>0.90                              | M3<br>0.95 | M4<br>0.95 | M5<br>1    | M6<br>1.15 | M7<br>1.30  | M8<br>1.50  |
|   | L3 | 重<br>Heavy       | 经常承受接近最大的载荷<br>Loads always near maximum   | M3<br>1.05                              | M4<br>1.05 | M5<br>1.10 | M6<br>1.25 | M7<br>1.40 | M8<br>1.60  | M8<br>1.80  |
|   | L4 | 特重<br>Very heavy | 经常承受最大的载荷<br>Always maximum loads  | M4<br>1.25                              | M5<br>1.30 | M6<br>1.45 | M7<br>1.65 | M8<br>1.85 | M8<br>2.10  | M8<br>2.40  |

## WLB17B上法兰 WLB17B Upper Flange



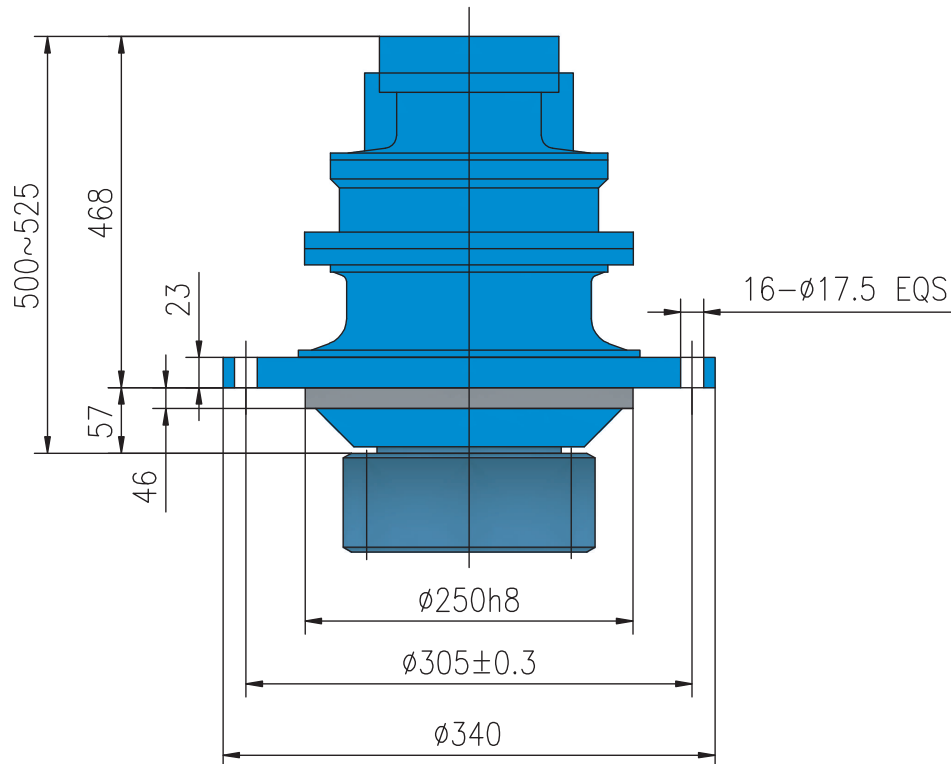
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 18.86; 20.9; 23.62;<br>27.43; 33.14; 38.57;<br>46.42; 54.95; 65.24;<br>78.95; 89.23;<br>103.62; 171.24 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 125  |
| 7700                                     | 12000        |  |  |  |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
  - 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
  - 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
  - 3、If any special request, pls. contact us. We will make modification design and meet your request.



### WLB17B下法兰 WLB17B Lower Flange



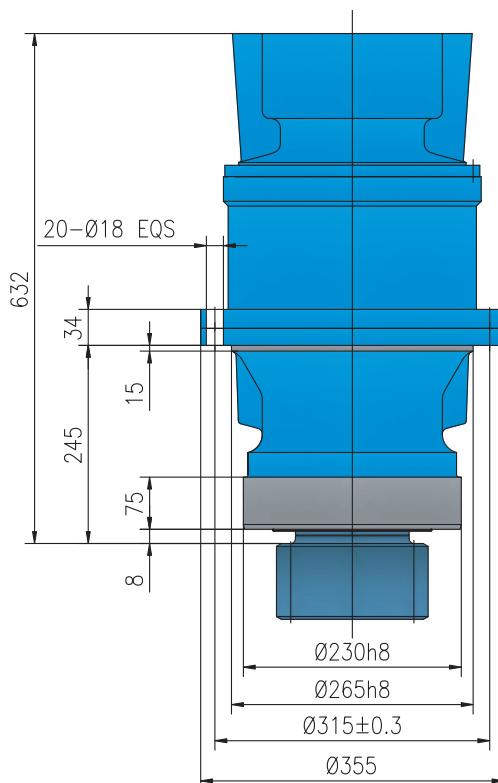
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 18.86; 20.9; 23.62;<br>27.43; 33.14; 38.57;<br>46.42; 54.95; 65.24;<br>78.95; 89.23;<br>103.62; 171.24 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 125  |
| 7700                                     | 12000        |  |  |  |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB24B上法兰 WLB24B Upper Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 38.82; 43.39; 46.73;<br>91.13; 103.63;<br>121.5; 138.18; | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 165  |
| 10600                                    | 17500        | 174.66; 198.63;<br>210.29; 239.15;<br>222.07             |  |  |

### 注Remarks:

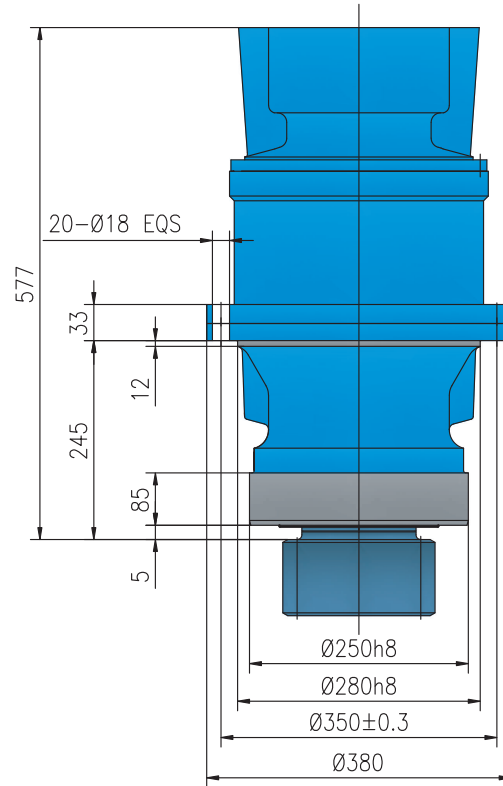
- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.





### WLB26B上法兰 WLB26B Upper Flange



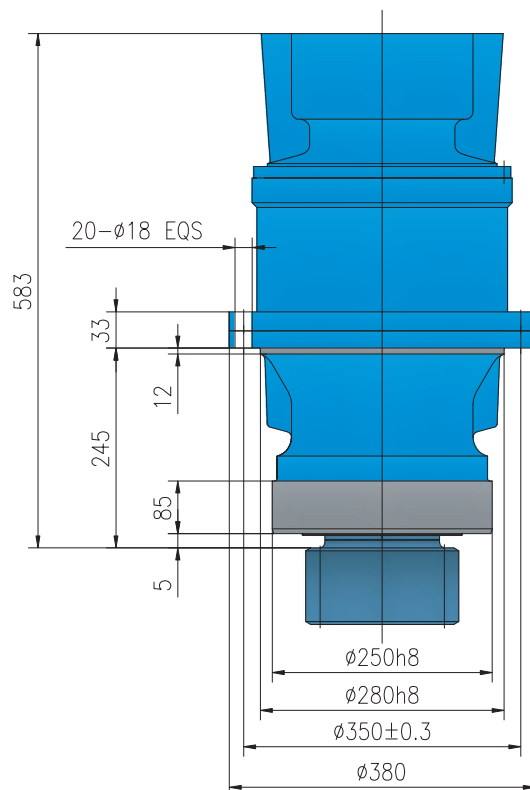
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i                      | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|---------------------------------------|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 31.36; 37.8; 43.9;<br>51.52; 55.2; 63 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 225  |
| 10000                                    | 16500        |                                       |  |  |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB34B上法兰 WLB34B Upper Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i                      | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|---------------------------------------|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 31.36; 37.8; 43.9;<br>51.52; 55.2; 63 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 240  |
| 16000                                    | 25000        |                                       |  |  |

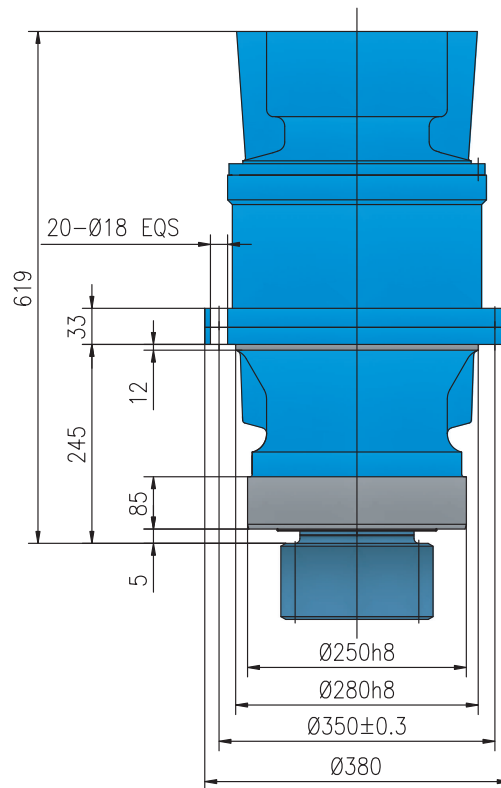
### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.



### WLB36B上法兰 WLB36B Upper Flange



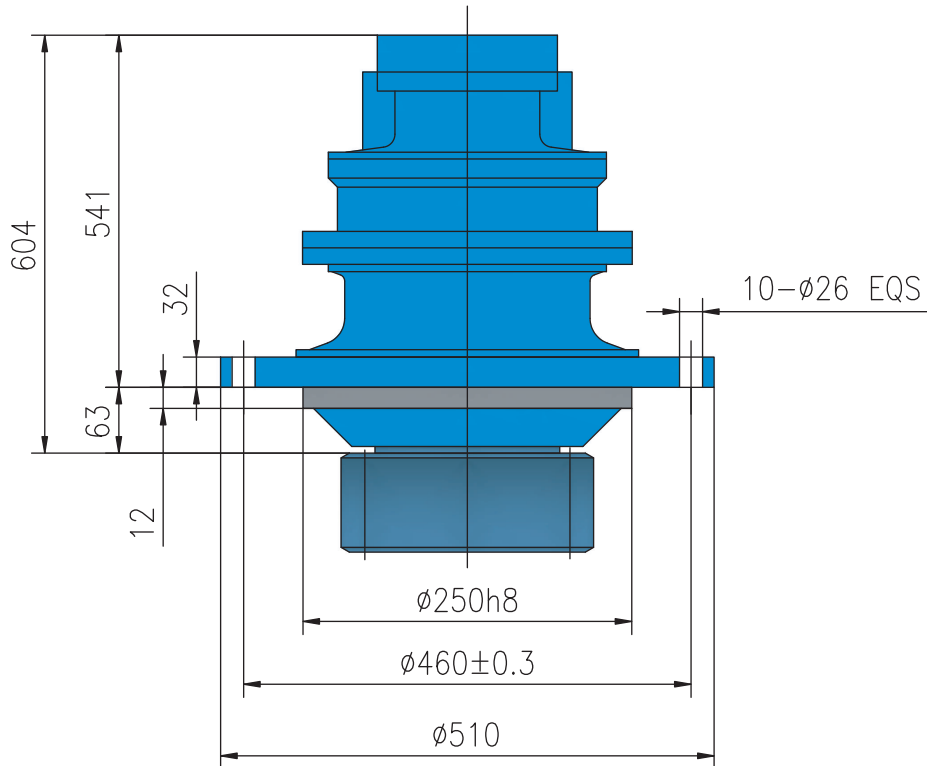
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 33.57; 39.43; 48.2;<br>67.96; 80.36;<br>101.02; 117.55;<br>132; 139.82;<br>162.26; 270 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 210 ~ 260  |
| 17500                                    | 28500        |  |  |  |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB36B 下法兰 WLB36B Lower Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor   | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|---|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 33.57; 39.43; 48.2;<br>67.96; 80.36;<br>101.02; 117.55;<br>132; 139.82;<br>162.26; 270 | 力士乐及国内外各种型号马<br>达, 可根据客户不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 210 ~ 260  |
| 17500                                    | 28500        |  |   |  |

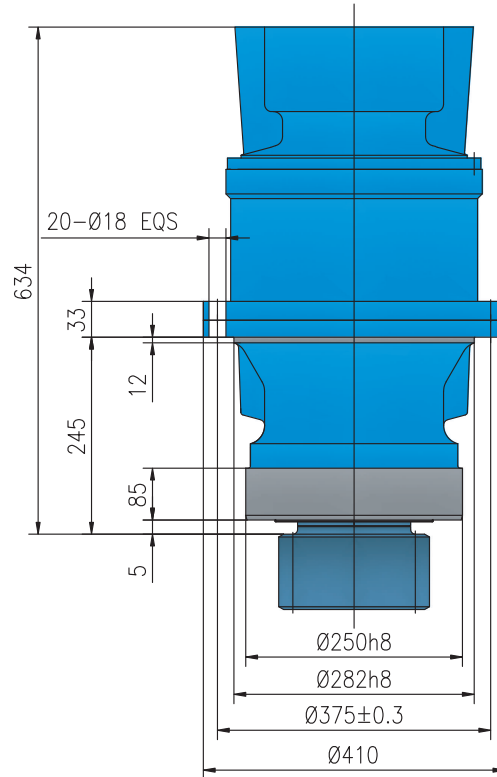
### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.



### WLB40B上法兰 WLB40B Upper Flange



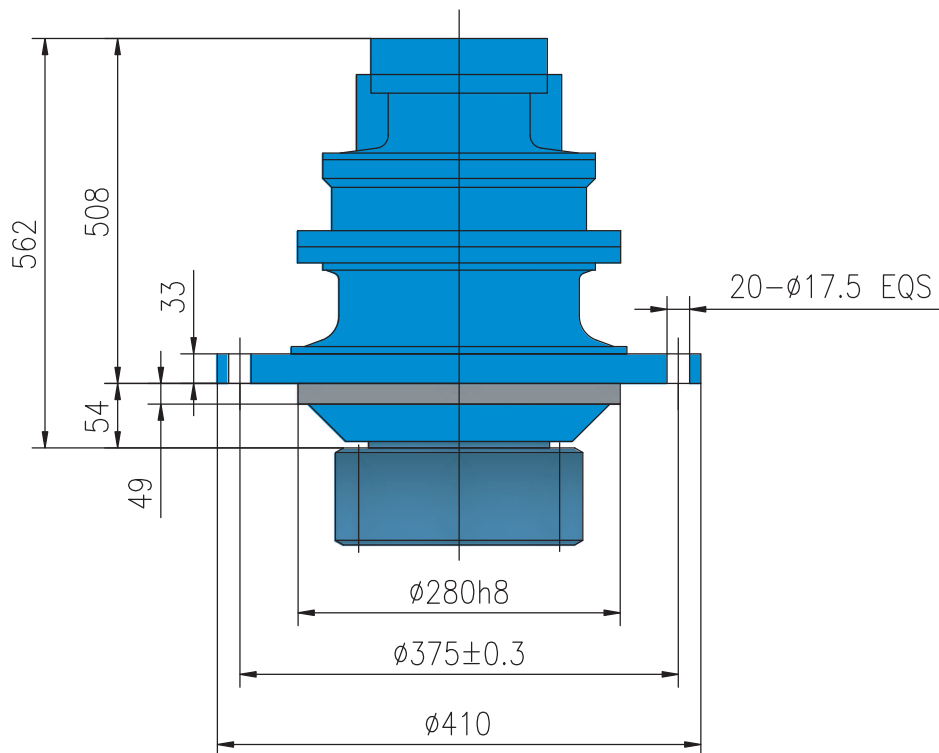
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i              | 液压马达<br>Hydraulic Motor   | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|-------------------------------|---|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 36.88; 42.04;<br>49.28; 60.13 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 250  |
| 18000                                    | 29000        |                               |   |  |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙，可根据用户需要，减速机可以做成偏心的，偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB40B下法兰 WLB40B Lower Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i              | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|-------------------------------|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 36.88; 42.04;<br>49.28; 60.13 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 250  |
| 18000                                    | 29000        |                               |  |  |

### 注Remarks:

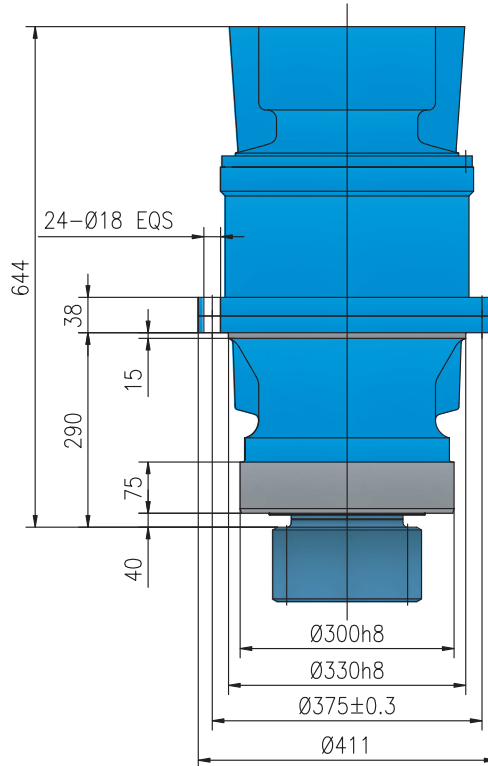
- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.





### WLB50B上法兰 WLB50B Upper Flange



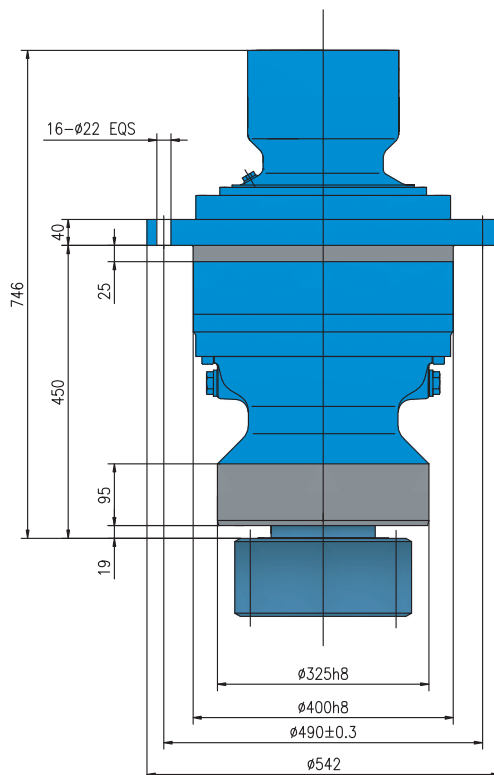
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 28.29; 37.8; 46.13;<br>81; 92.12; 100.75;<br>111.38; 126.66;<br>147.39; 156.94;<br>178.48; 193.45;<br>236.05 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 315  |
| 27800                                    | 48500        |  |  |  |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB60B上法兰 WLB60B Upper Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|---|--|--|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 34.03; 40.41; 64.77;<br>87.46; 95.8; 106.53;<br>120.83; 151.53;<br>170.89 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 380~425  |
| 27800                                    | 48500        |   |  |  |

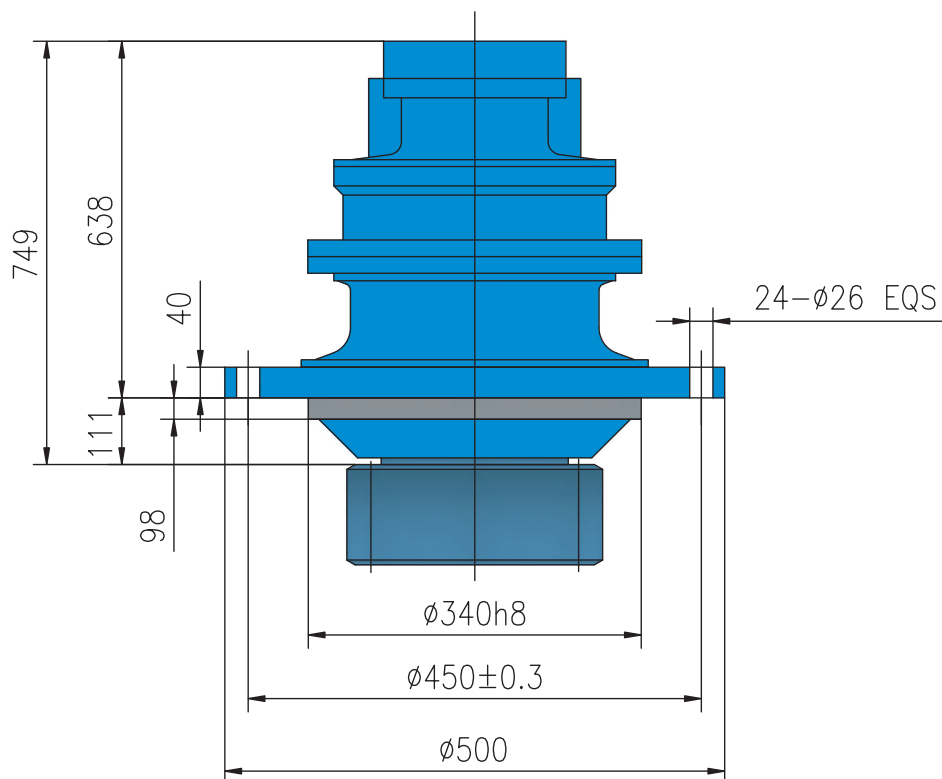
### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.



### WLB60B下法兰 WLB60B Lower Flange



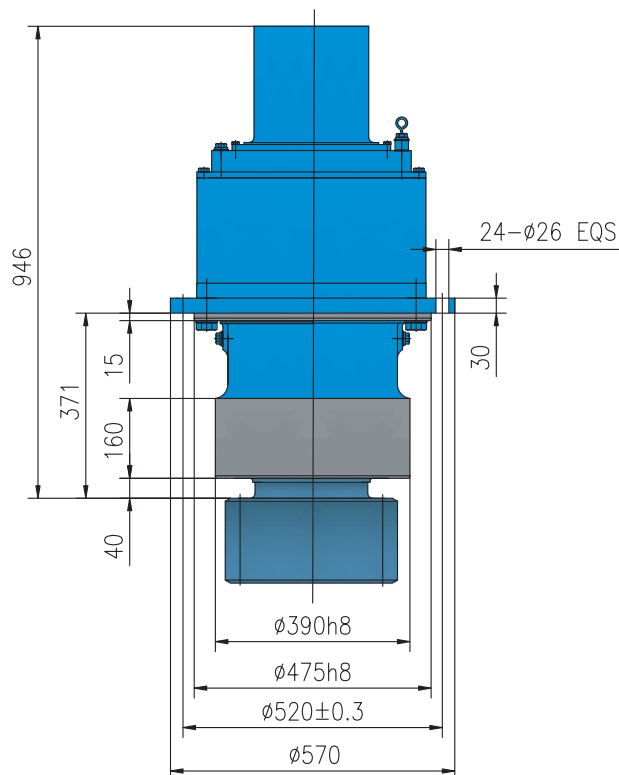
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 减速机重量约Kg<br>Gearbox Weight Kg.<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|---|---|---|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 34.03; 40.41; 64.77;<br>87.46; 95.8; 106.53;<br>120.83; 140.86;<br>151.53; 170.89 | 力士乐及国内外各种型号马<br>达, 可根据客户不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 380 ~ 425   |
| 27800                                    | 48500        |   |   |   |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB80B上法兰 WLB80B Upper Flange



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm |              | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 减速机重量约Kg<br>Gearbox Weight Kg.<br>( 无液压油、无马达 )<br>(without hydraulic oil and motor) |
|---|--------------|---|---|---|
| 挖掘机<br>Excavator                                | 起重机<br>Crane | 62.28; 77.68; 80.15;<br>90.82; 99.97;<br>111.86; 127.94;<br>150.94; 186.43;<br>190.57 | 力士乐及国内外各种型号马达，可根据客户的要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 540   |
| 38200   | 68300        |   |   |   |

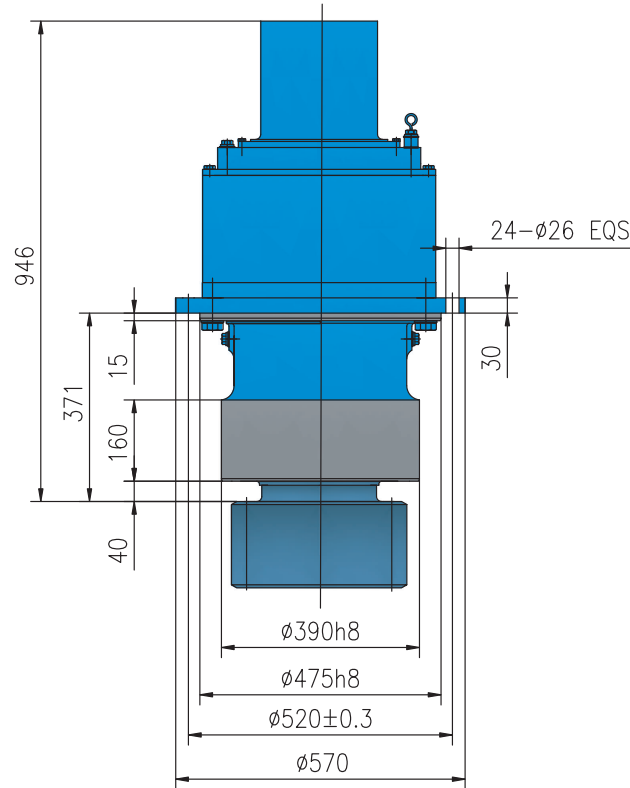
注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙，可根据用户需要，减速机可以做成偏心的，偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.



### WLB110B上法兰 WLB110B Upper Flange



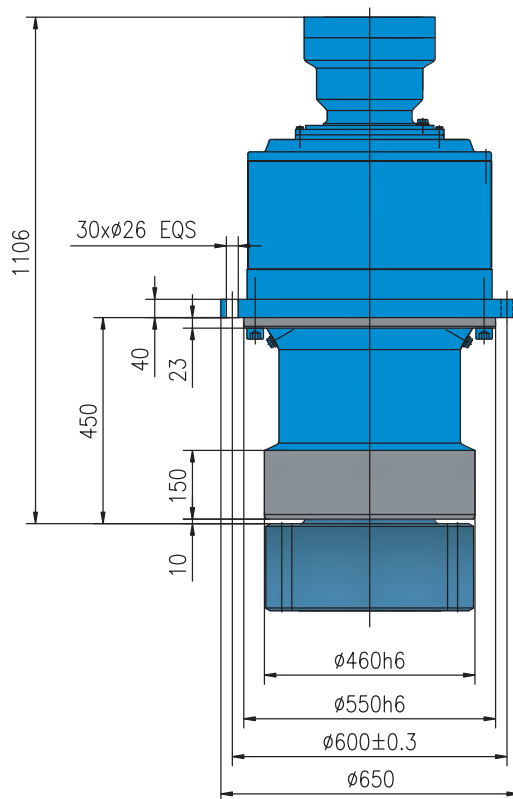
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm |              | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg.<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|--------------|--|--|---|
| 挖掘机<br>Excavator                         | 起重机<br>Crane | 62.28; 80.53; 88.64;<br>96.83; 105.23;<br>115.83; 129.6;<br>148.24; 165.31;<br>174.86; 196.79; 216 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 630   |
| 52000                                    | 93300        |  |  |   |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.

## WLB160B上法兰 WLB160B Upper Flange



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor   | 减速机重量约Kg<br>Gearbox Weight Kg.<br>( 无液压油、无马达 )<br>(without hydraulic oil and motor) |
|---|--|---|---|
| 130000  | 94.7; 102.6; 112.32;<br>134.07; 146.77;<br>162.78; 183.6;<br>192.86; 211.76; 252 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 540   |

注Remarks:

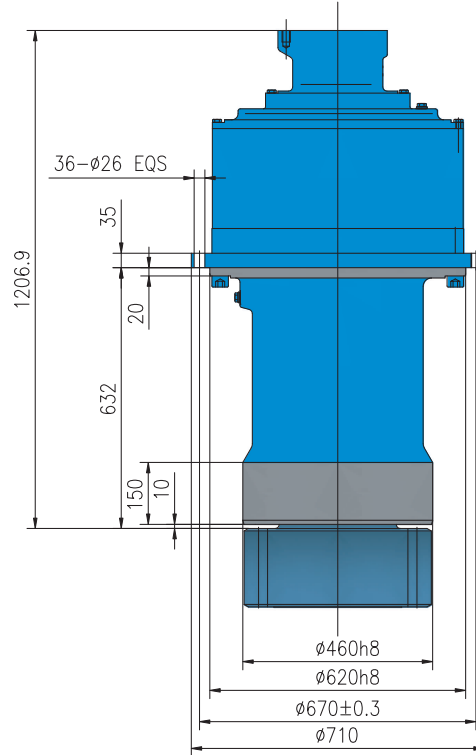
- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙，可根据用户需要，减速机可以做成偏心的，偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.





### WLB220B上法兰 WLB220B Upper Flange



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 减速机重量约Kg<br>Gearbox Weight Kg.<br>(无液压油、无马达)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 180000                                   | 361.6; 340.5; 300.9;<br>260.4; 231.4; 210;<br>177.6; 140.6; 120;<br>106.8 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 630   |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、为方便用户安装和调整回转支承齿轮侧隙, 可根据用户需要, 减速机可以做成偏心的, 偏心距为2.5毫米。
- 3、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、On customer request, gearbox can be produced with eccentric distance 2.5mm, in order to ease installation and adjustment.
- 3、If any special request, pls. contact us. We will make modification design and meet your request.



## 说明 Notes

- 减速机输入转向与输出转向相同。
- 输出转速允许值（样本中未规定）因实际工况的不同而有变化，请向本公司技术人员咨询。
- 为了保证减速机的正常运转，减速机与机架的安装孔必须对中，并且法兰安装面必须与其垂直。
- 由于输出齿轮所受力  $F (F=2T_2/d\cos 20^\circ)$  直接影响到输出齿轮末端轴承寿命，所以当减速机的输出扭矩接近样本中规定的最大输出扭矩时，要求核算分度圆直径，不得过小。
- Input and output of gearbox are the same direction.
- Output Speed may change acc to actual condition, please consult with our technical engineer.
- In order to ensure gearbox running, installation holes of gearbox and frame must be aligned. And flange surface have to be vertical.
- Force on output pinion  $F (F=2T_2/d\cos 20^\circ)$  will affect its bearing lifetime, so the output torque of gearbox is approaching the max. output torque, diameter of pitch to be calculated.



# 卷扬减速机 Winch Drive MOBILEX WLT...W



## 产品概述 Description

静液压卷扬减速机WLT...W是卷扬机构的理想驱动装置，是我公司在引进国外先进技术的基础上，自行研发设计并完全能够替代国内外同类产品，该产品主要用于工程起重机及其它工程机械的卷扬驱动，紧凑结构和易于安装的设计理念可使我们的产品直接安装于卷筒内部，节省空间。

公司始终如一的高质量标准保证了我们的减速机具有优秀的承载能力和杰出的工作可靠性。外齿轮齿表面的渗碳硬化及内齿圈的调质、氮化，使之具有低噪声运转的特点，减速机经优化设计后具有最高的安全裕度。

此外，减速机各部分尺寸及参数可根据用户需要进行重新设计，以满足用户对减速机的不同需求。无论您何时需要，即使在项目阶段，我们随时准备着给您建议并提供帮助，以期为您找到最佳的解决办法。



The hydrostatic winch drives of type MOBILEX WLT...W is developed and designed based on overseas advanced technology. It is an ideal driving component to easily substitute for other similar products. Winch gears are applied for mobile crane, winch drives for other machinery. As a result of extremely compact shape the gears can be directly mounted in the cable drums in a space saving manner. Furthermore it has been designed for easy installation.

The constant high quality standard ensures the excellent load carrying ability and outstanding operational reliability. The use of case-hardened gearwheels and tempered, nitrated ring gear have resulted in low-noise running characteristics. Gears are optimized through calculation and keep highest safety margins.

Additionally the dimensions, specifications of gearbox can be designed on request. We will provide advice and assistance whenever needed, even in the project stage, to find the most appropriate solution for you.

### 结构特点 Special Features

- 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
- 高承载能力的轴承系统
- 安装简单
- High-duty planetary gearbox of modular construction
- Compact, space saving, two or three stage planetary gear design
- Robust bearing system absorbing the forces exerted by the ring gear
- Simple mounting
- 低噪声运转
- 高效率
- 长寿命
- 换油方便
- Low-noise running
- High efficiency
- Long service life
- Easy oil change

### 使用条件 Application

减速机设计适用环境温度范围为 $-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ，环境影响诸如咸水、咸气、沙尘、超压力、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，为了实现减速机的安全设计，此类工况条件必须报告至我公司，我们可以为您特殊设计。

The gearbox has been designed for use at ambient temperatures ranging between  $-20^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ . Environmental influence such as salt water, salty air, sand, dust, overpressure, heavy vibrations, extreme shocks and ambient temperatures, aggressive media and the like will impede the function of the gearbox. To enable safe design of gearbox these conditions must be reported to the factory.

### 减速机设计 Gearbox design

减速机设计基于多年的技术储备和实践经验。

技术参数中所指最大输出转矩 $T_{2\max}$ 对应于FEM第一部分，第三版和IX部分（FEM-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25r/min。

如果卷扬机构分级为其他机构工作级别，则其所需输出转矩必须采用系数K进行修正。



The gearbox design is based on years of practical application and production experience.

The Maximum output torques  $T_{2max}$  indicated under technical data for crane applications related to FEM section 1, 3rd Edition and Section IX(FEM–Federation Europeenne de la Manutention), as well as DIN 15020, collective load class L2, service time category T5 corresponding to driver group M5.

The reference output speed is 25 revolutions / minute Max.

If the winch drive is classified in another driver group the required output torque must be converted by applying factor K.

## 卷筒 Cable Drum

卷筒材料推荐为球墨铸铁QT500-7。

卷筒绳槽设计全部采用双折线铸造绳槽结构，尽可能的减少缠绳故障，提高钢丝绳的使用寿命。

卷筒绳槽旋向分为右旋绳槽和左旋绳槽。

Material QT500-7 is recommended to be used for cable drum.

Drum groove design adopt the structure, to reduce the failure and improve cable lifetime.

Direction of drum groove can be designed for left and right hand.

## 钢丝绳 Cable

为了正确地卷绕钢丝绳,要求绳偏角  $\alpha$  维持在 $0.5^\circ$ – $1.5^\circ$  范围内。

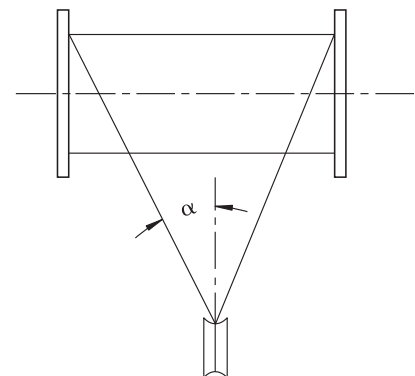
钢丝绳的捻转旋向应与卷筒旋向相反。

钢丝绳用楔形块固定，楔形块固定位置分为在卷筒侧壁外侧和在卷筒内。

Rolling up the cable properly requires the cable deflection angle ( to be maintained within permissible limits.The deflection angle should not be less than  $0.5^\circ$ – $1.5^\circ$  .

Cable rolling direction should counter turn from the drum rotation.

Cable will be fixed with a block, block located at outside of drum and inside of drum.





## 液压马达 Hydraulic Motor

本减速机设计可直接安装力士乐A2FE系列，A2FM系列，A6VE系列，A6VM系列马达，也可安装国内外其它厂商的马达产品（需重新进行相应结构的设计）。

The gearbox design enable motors by Bosch Rexroth A2FE, A2FM, A6VE, A6VM, as well as motors by other brands (specific design request).

## 制动器 Brake

标准供货范围包括一个置于输入端的弹簧加载、液压释放多片式停车制动器。

$T_{Br.}$ （制动力矩） $= 1.6 \cdot T_1$ （输入转矩），制动器接口为M12x1.5。

此停车制动器不能用于减速制动，制动力矩根据实际需要而设定。

在制动状态时，制动器释放油路中不得有背压。

推荐制动器最大开启油压不高于50bar，如果高于50bar请与我公司技术部门联系。

The standard supply scope includes a spring-loaded, hydraulically released multiple-disk parking brake arranged on the input side.

$T_{Br.} = 1.6 \cdot T_1$  (input torque), Dimension of brake connection, M12 x1.5.

The multiple-disk holding brake is not to be used as service brake. The holding torque multiples with the transmission ratio selected.

Backpressure is forbidden in the brake release oil circle.

The recommended opening oil pressure should be less than 50bar, pls. consult with our technical engineer if the pressure is higher than 50bar. The multiple-disk holding brake is not to be used as service brake.

## 润滑 Lubrication

齿轮和轴承采用浸油润滑。

除定期换油外，减速机无需保养，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（国内润滑油推荐使用长城润滑油：L-CKD220）。

对于相应使用工况所必需的换油周期，请见说明书。

后支承轴承采用锂基脂L-XBCHA3润滑。

The gear teeth and bearing will be splash lubricated.

Save for regular oil changed the drive units don not require maintenance. Changing the oil is done very easily.

Exclusively the oil brands recommended in the operating manual must be used for this work. (Great Wall L-CKD220 recommended).

The change intervals necessary for the relevant application conditions are also prescribed in the operating manuals.

The pinion-like antifriction bearing of the output shaft has been provided with grease filling L-XBCHA3.





## 供货范围 Supply Scope

标准供货范围：减速机+制动器+后支承组件，也可按用户要求特殊供货。

Standard supply includes gearbox, brake and back-supporting group. Supply on customer request is available.

## 减速机选型 Gearbox Selection

计算输出转矩： $T_2 = F \cdot D_w / 2$  N.m。

$T_2$ —输出转矩， $F$ —单绳拉力  $N$ ， $D_w$ —钢丝绳卷绕直径  $m$ 。

为了正确地选择减速机，应把计算输出转矩 $T_2$ 与实际机构工作级别系数 $K$ 相乘得出修正的输出转矩 $T_{2K}$ 。

$T_{2K} = T_2 \cdot K$ （ $K$ 按下表选取所对应的系数）。

减速机选型时 $T_{2K}$ 必须 $\leq T_{2max}$ （见样本）。

Output torque:  $T_2 = F \cdot D_w / 2$  N.m.

$T_2$  – output torque,  $F$  – cable pull in  $N$ ,  $D_w$  – relevant winding diameter in  $m$ .

In order to select the gearboxes, corrected output torque  $T_{2k}$  should be calculated with output torque  $T_2$  multiple factor  $K$ .

$T_{2K} = T_2 \cdot K$  ( $K$  acc. To collective group given in the table below).

$T_{2K}$  of the gearboxes to be selected must be  $T_{2max}$ .



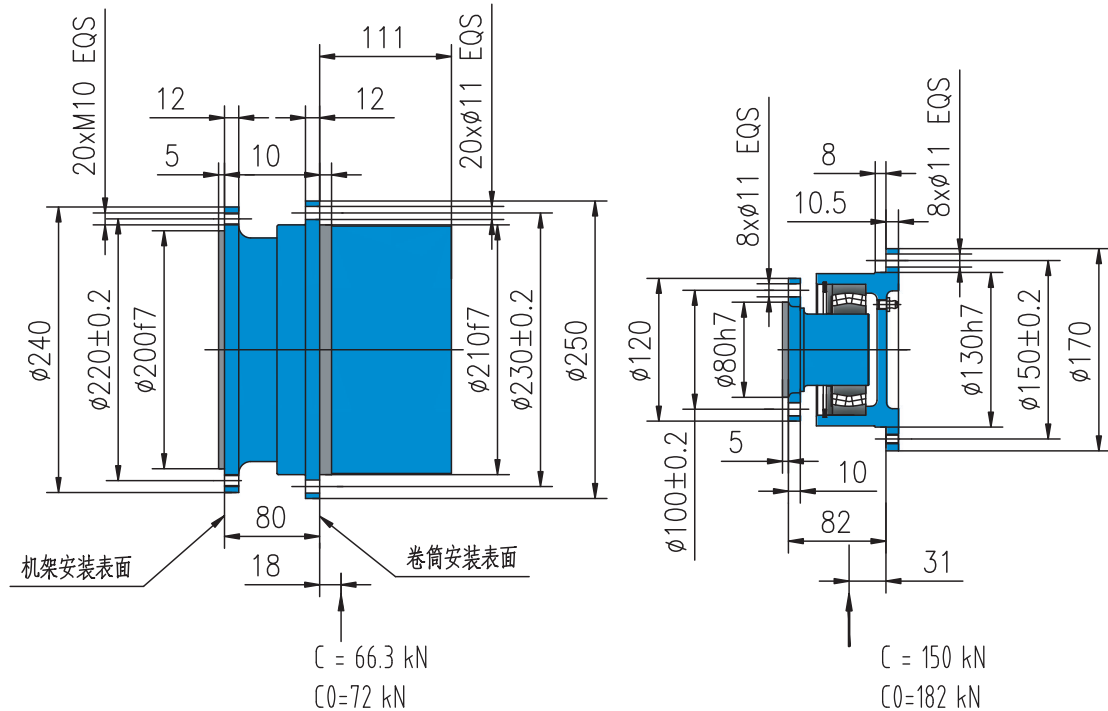
机构工作级别和机构利用等级 (按FEM, 第一部分, 第三版, 1987)

Driver Group and Service Time Categories to FEM (FEM, section I, 3rd Issue 1987)

| 机构利用等级<br>Service time category                                 |    |                  |  | T2                                      | T3         | T4         | T5         | T6         | T7          | T8          |
|---|----|------------------|--|---|------------|------------|------------|------------|-------------|-------------|
| 假定每天平均工作时间(小时)<br>Assumed average service time per day in hours |    |                  |  | 0.25-0.5                                | 0.5-1      | 1-2        | 2-4        | 4-8        | 8-16        | >16         |
| 理论工作寿命(小时)<br>Theoretic service life in hours                   |    |                  |  | 400-800                                 | 800-1600   | 1600-3200  | 3200-6300  | 6300-12500 | 12500-25000 | 25000-50000 |
| 载荷状态分级<br>Collective load class                                 |    |                  |  | 机构工作级别系数K<br>Driver Group with K Factor |            |            |            |            |             |             |
| 载荷状态组<br>Collective groups                                      | L1 | 轻<br>Light       | 偶尔承受最大载荷, 经常承受轻的载荷<br>Maximum loads occurring in exceptional cases only, slight loads constantly | M1<br>0.90                              | M2<br>0.90 | M3<br>0.90 | M4<br>0.90 | M5<br>0.95 | M6<br>1.05  | M7<br>1.2   |
|   | L2 | 中<br>Medium      | 工作时间内轻、中和最大载荷分布均匀<br>small, medium and maximum loads about equally distributed over service time | M2<br>0.90                              | M3<br>0.95 | M4<br>0.95 | M5<br>1    | M6<br>1.15 | M7<br>1.30  | M8<br>1.50  |
|   | L3 | 重<br>Heavy       | 经常承受接近最大的载荷<br>Loads always near maximum   | M3<br>1.05                              | M4<br>1.05 | M5<br>1.10 | M6<br>1.25 | M7<br>1.40 | M8<br>1.60  | M8<br>1.80  |
|   | L4 | 特重<br>Very heavy | 经常承受最大的载荷<br>Always maximum loads  | M4<br>1.25                              | M5<br>1.30 | M6<br>1.45 | M7<br>1.65 | M8<br>1.85 | M8<br>2.10  | M8<br>2.40  |



## WLT7W



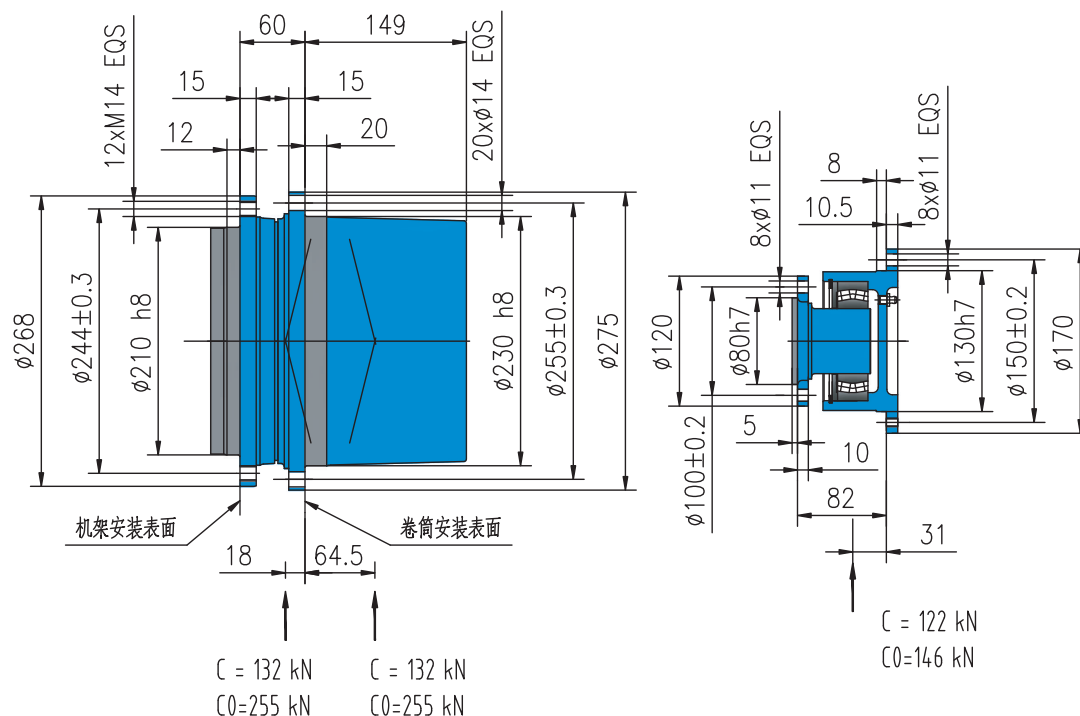
| 最大输出转矩<br>Output Torque<br>$T_{2\max} \text{ Nm}$ | 传动比 i<br>Ratio i        | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|-------------------------|--|---|
| 4500  | 30.93; 43; 51;<br>62.56 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 55  |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 280$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter $\approx \Phi 280$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

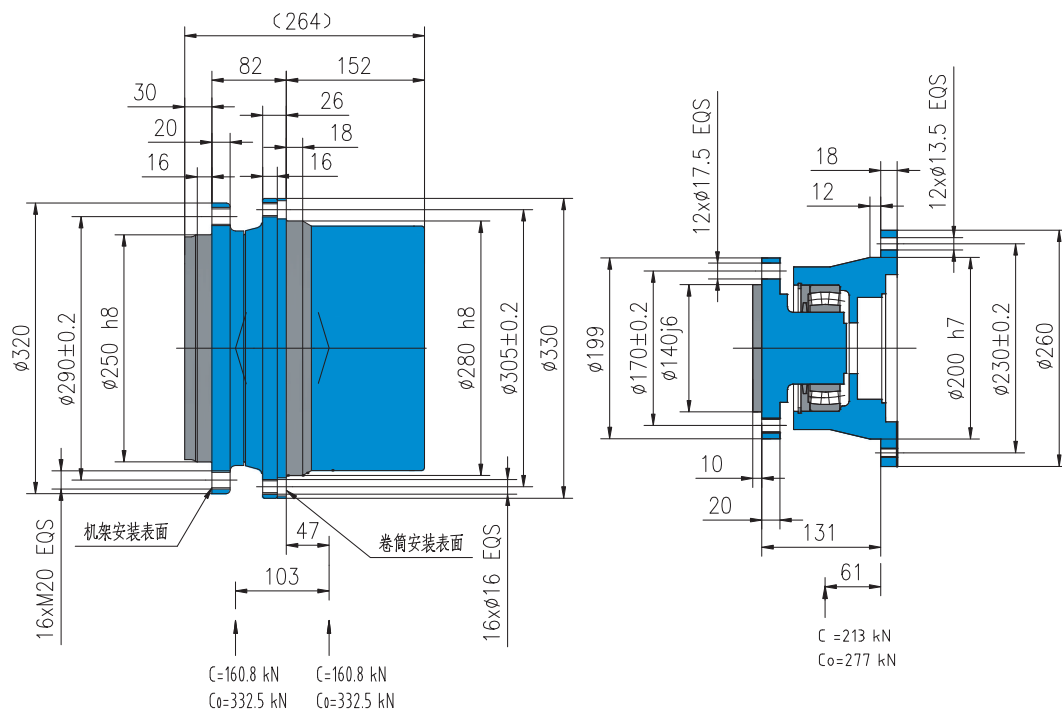
## WLT9W



| 最大输出转矩<br>Output Torque<br>$T_{2\max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 6200                                      | 16.5; 19.25; 24.2;<br>28.16; 33.41; 39.34;<br>47.6; 55.27 | 力士乐及国内外各种型号马<br>达, 可根据客户的要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 80  |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
  - 3、卷筒最小卷绕直径  $\approx \Phi 310$  (卷筒第一层直径, 供参考)。
  - 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
  - 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
  - 3、Drum min, diameter  $\approx \Phi 310$  (the first layer diameter of drum for reference).
  - 4、If any special request, pls. contact us. We will make modification design and meet your request.

**WLT13W**

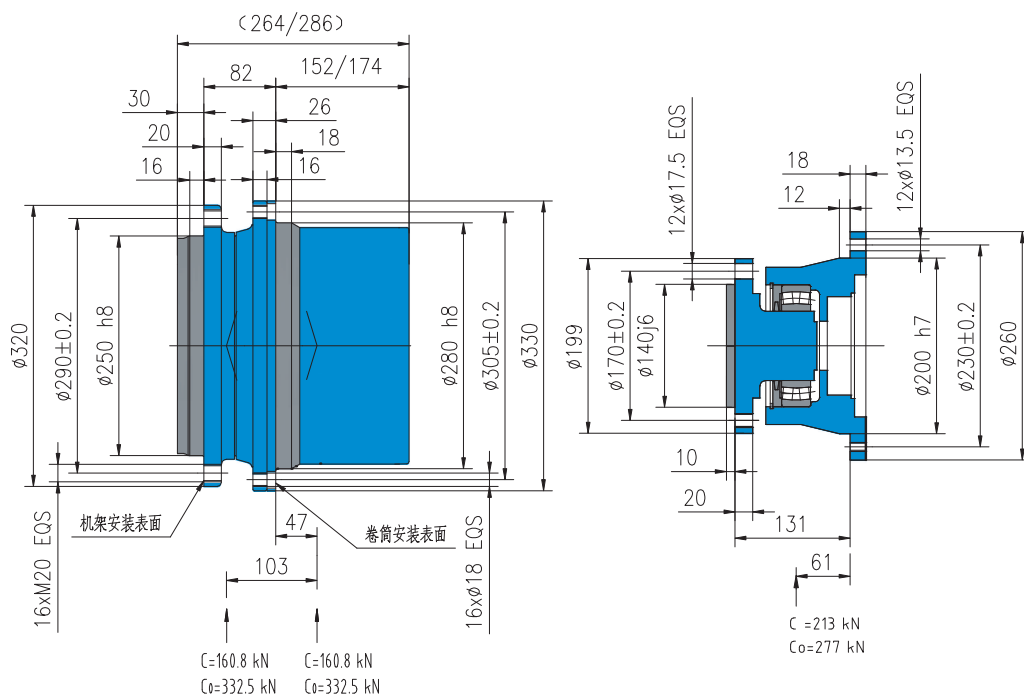
| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 9500  | 16.27; 19.9; 22.62;<br>26.43; 32.14; 37.57;<br>45.42; 53.95 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 102   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 390$ （卷筒第一层直径，供参考）。
- 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 390$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.

## WLT17W

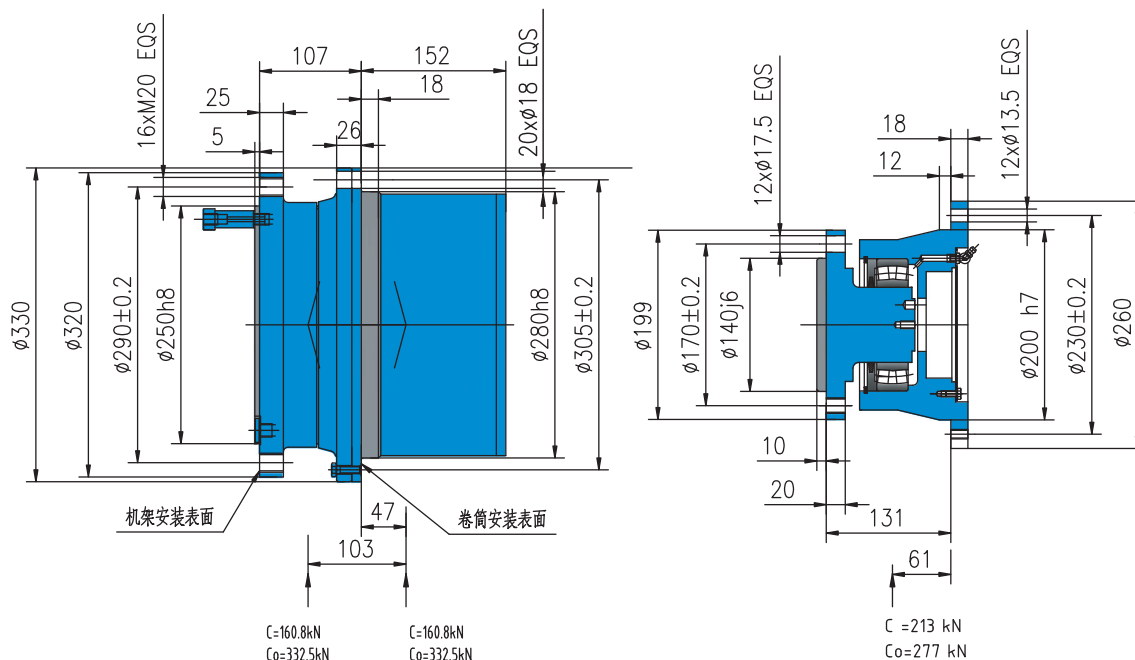


| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 14000                                    | 16.27; 19.9; 22.62;<br>26.43; 32.14; 37.57;<br>45.42; 53.95; 64.24;<br>70.24; 77.95; 89.22;<br>103.69; 121.03;<br>150.5; 170.24 | 力士乐及国内外各种型号马<br>达, 可根据客户的要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 105   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径  $\approx \Phi 390$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter  $\approx \Phi 390$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

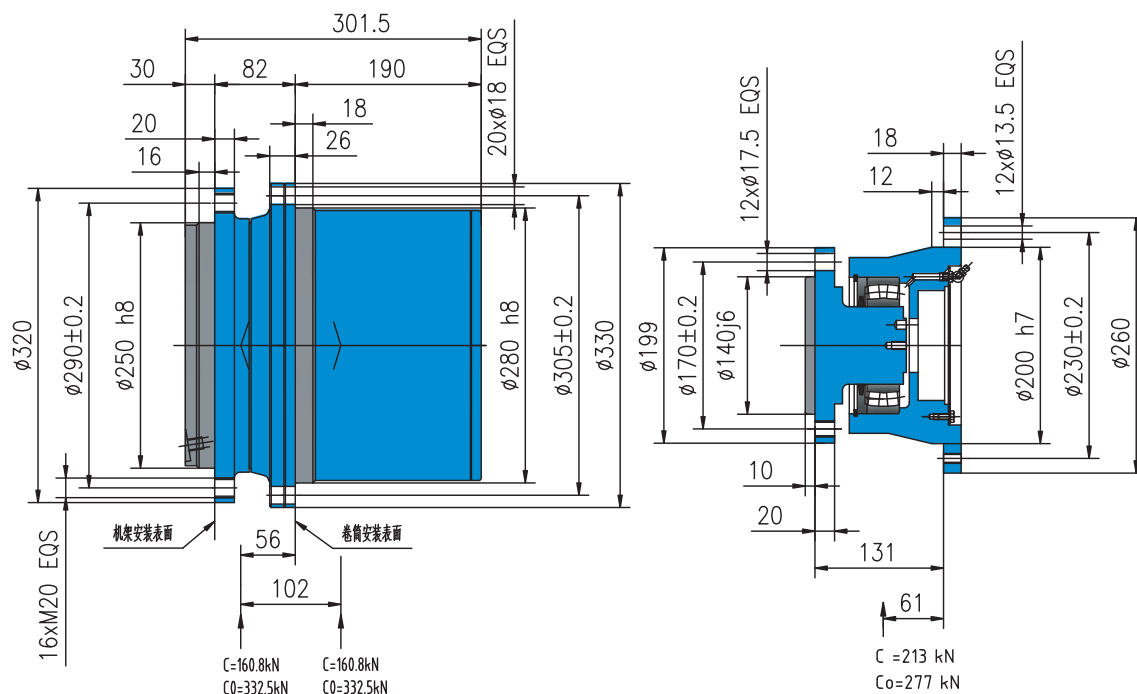
**WLT23W**

| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i                            | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 16000   | 18.56; 20.35; 22.66;<br>25.75; 30.06; 48.18 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 120   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 390$ （卷筒第一层直径，供参考）。
- 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 390$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.

**WLT24W**

| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 19000   | 36.97; 44.7; 90.13;<br>102.6; 116.9; 120.5;<br>137.2; 173.7; 193.3;<br>209.3; 221.1; 137.6;<br>169.86 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 130   |

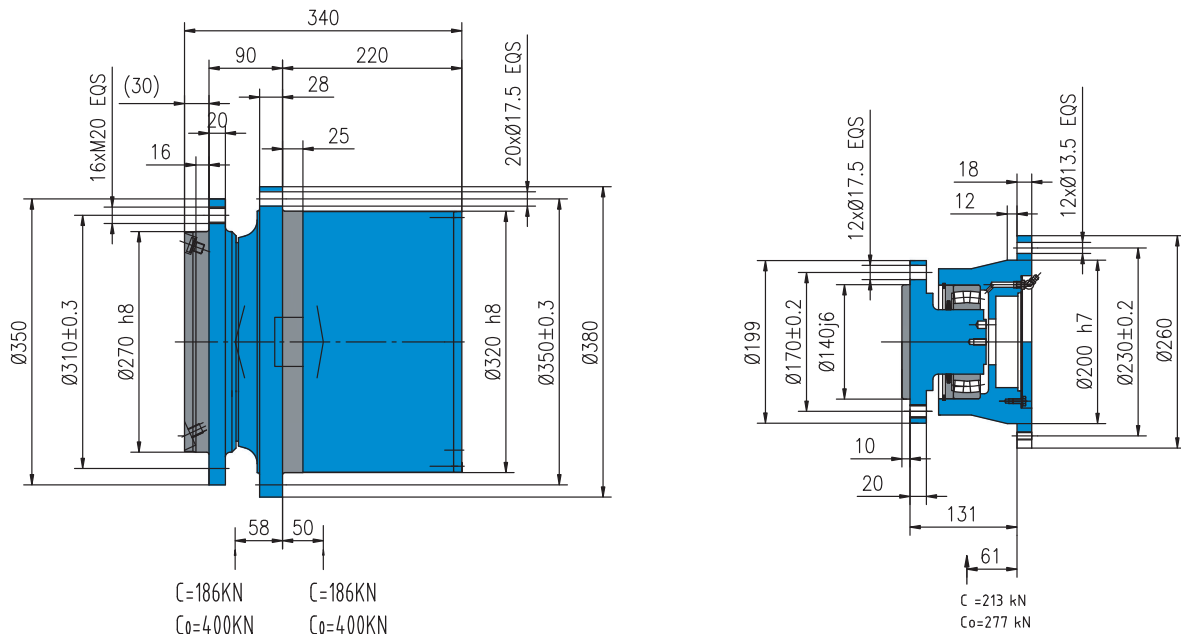
注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
  - 3、卷筒最小卷绕直径 $\approx \Phi 390$ （卷筒第一层直径，供参考）。
  - 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。
- 
- 1、For more ratio, pls. consult with our technical engineer.
  - 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
  - 3、Drum min. diameter $\approx \Phi 390$  (the first layer diameter of drum for reference).
  - 4、If any special request, pls. contact us. We will make modification design and meet your request.





## WLT26W



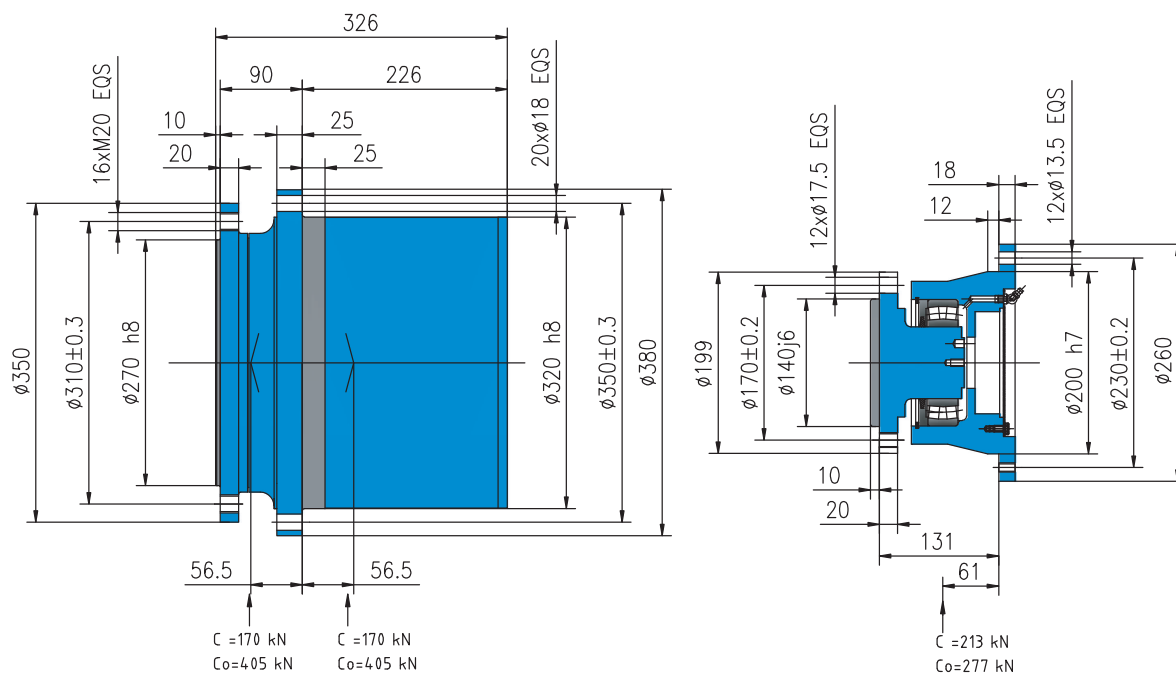
| 最大输出转矩<br>Output Torque<br>$T_{2\max}$ Nm | 传动比 i<br>Ratio i                        | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 18000                                     | 30.36; 36.8; 42.87;<br>50.52; 54.20; 62 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 165   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \varnothing 440$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter $\approx \varnothing 440$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

## WLT34W



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i                        | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 25000                                    | 30.36; 36.8; 42.87;<br>50.52; 54.20; 62 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 175   |

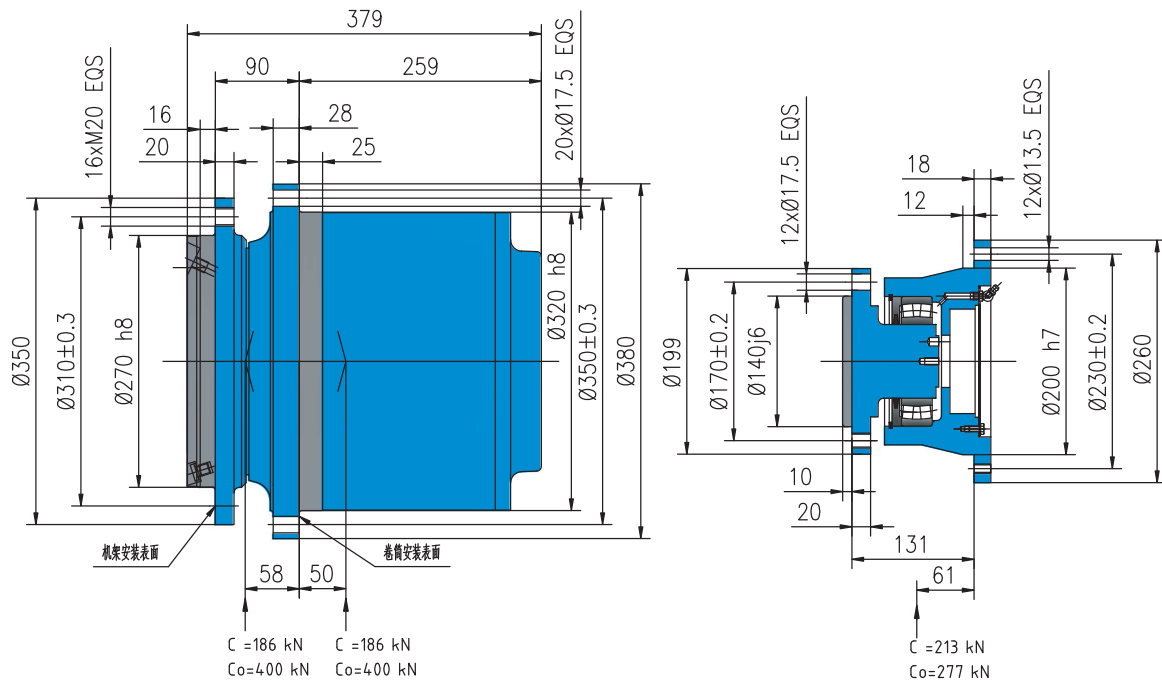
### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径  $\approx \Phi 440$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter  $\approx \Phi 440$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.



## WLT36W



| 最大输出转矩<br>Output Torque<br>$T_{2\max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 26000                                     | 32.57; 38.43; 47.21;<br>66.96; 79.36; 87.78;<br>100.02; 116.55; 131;<br>138.82; 161.26; 269 | 力士乐及国内外各种型号马<br>达, 可根据客户的不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 185   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 440$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter $\approx \Phi 440$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

Technical drawing of a vertical shaft-hoisting machine (VSM) showing dimensions and load data.

**Dimensions:**

- Overall height:  $\varnothing 199$
- Top section height:  $\varnothing 170 \pm 0.2$
- Intermediate section height:  $\varnothing 140 \pm 0.6$
- Bottom section height:  $\varnothing 200$  h7
- Base height:  $\varnothing 230 \pm 0.2$
- Overall base diameter:  $\varnothing 260$
- Top flange diameter:  $12 \times \varnothing 17.5$  EQS
- Intermediate flange diameter:  $12 \times \varnothing 13.5$  EQS
- Top flange thickness: 18
- Intermediate flange thickness: 12
- Base thickness: 20
- Shaft diameter: 61
- Shaft length: 131

**Load Data:**

- $C = 213 \text{ kN}$
- $C_0 = 277 \text{ kN}$

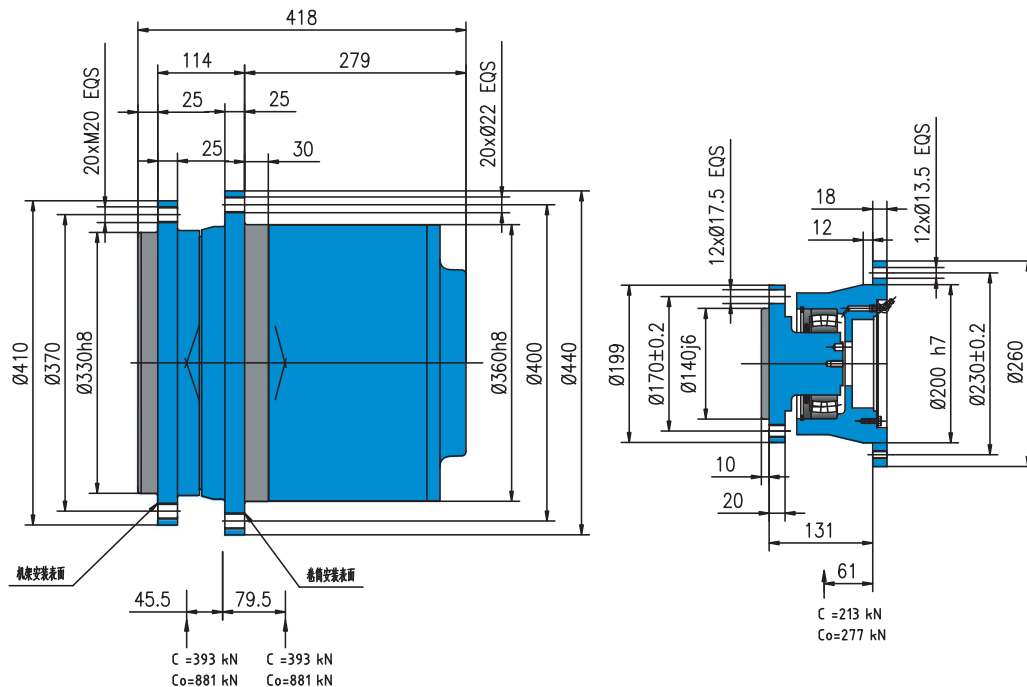
- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 500$ （卷筒第一层直径，供参考）。
- 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min. diameter $\approx \Phi 500$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.



## WLT50W



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 37500                                    | 36.8; 45.13; 80;<br>87.59; 91.12; 99.75;<br>125.66; 146.39;<br>155.94; 177.48 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 250   |

### 注Remarks:

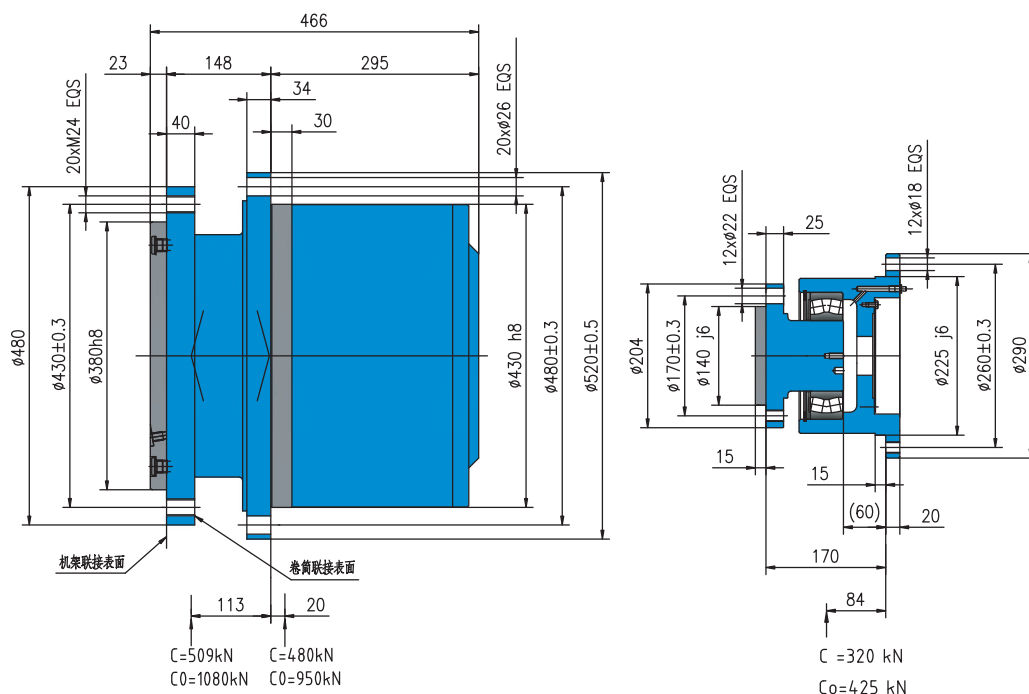
- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 500$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter $\approx \Phi 500$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

[illegible]

- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 520$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.

# WLT80W



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 67000   | 61.28; 76.68; 79.15;<br>87.64; 98.97;<br>110.86; 126.94;<br>149.92; 164.31;<br>185.43 | 力士乐及国内外各种型号马达，可根据客户的要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 380   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 600$ （卷筒第一层直径，供参考）。
- 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 600$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.

Technical drawing of a crane hook (吊钩) showing dimensions and labels. The drawing is a side view of the hook, with a blue body and a grey base. The dimensions are as follows:

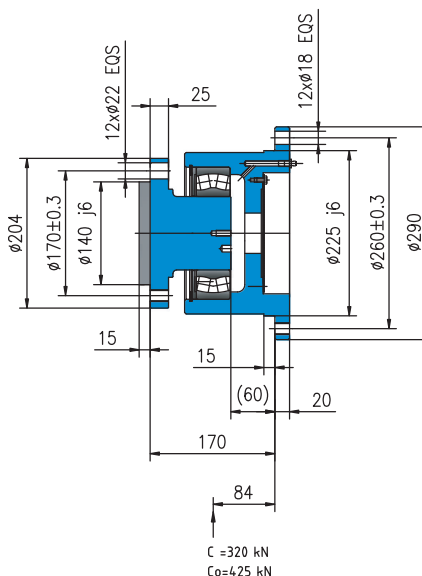
- Overall width: 165
- Overall height: 305
- Hook body width: 36xø22 EQS
- Hook body height: ø460 h9
- Hook body diameter: ø500 ± 0.3
- Hook body thickness: 24-M24
- Hook body width: 33
- Hook body height: 30
- Hook body diameter: ø460 h8
- Hook body thickness: 21.5
- Hook body width: 45
- Hook body height: 108
- Hook body diameter: ø540
- Hook body thickness: 25
- Hook body width: 108
- Hook body height: 25

Labels:

- 机架安装表面 (Machine frame installation surface)
- 卷筒安装表面 (Drum installation surface)

Dimensions:

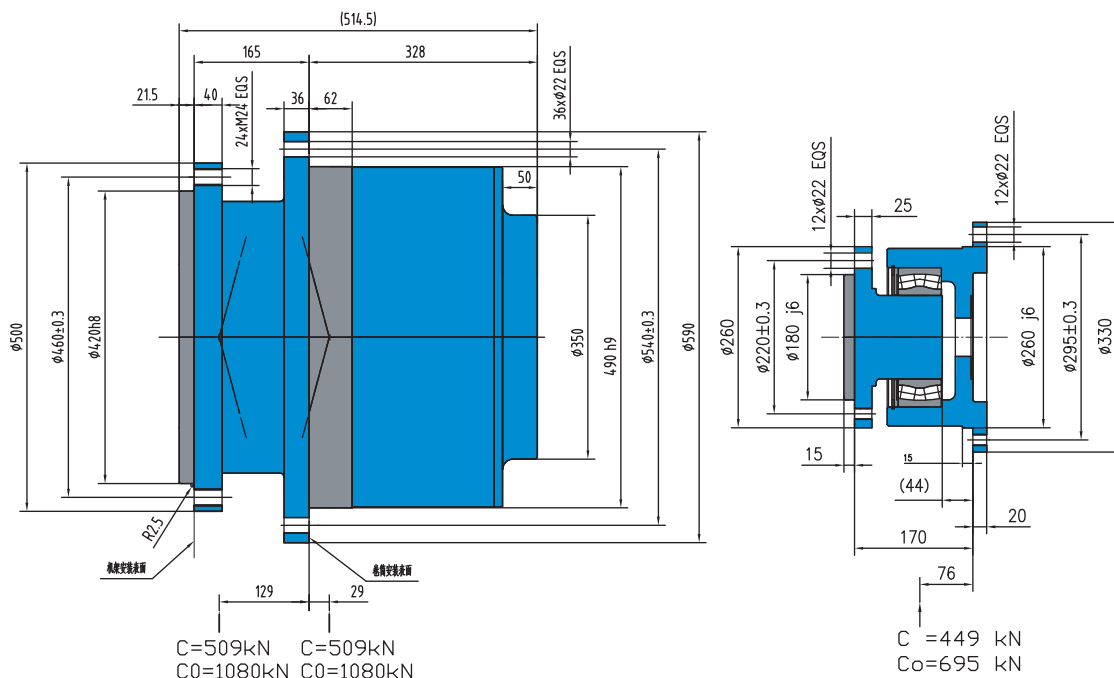
- C = 509 kN
- C<sub>0</sub> = 1080 kN
- C = 480 kN
- C<sub>0</sub> = 950 kN



- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 650$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.



**WLT130W**



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 100000  | 74.8; 98; 105.8;<br>115.3; 127.3; 143;<br>164.1; 194.4; | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 550   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒，也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 680$ （卷筒第一层直径，供参考）。
- 4、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

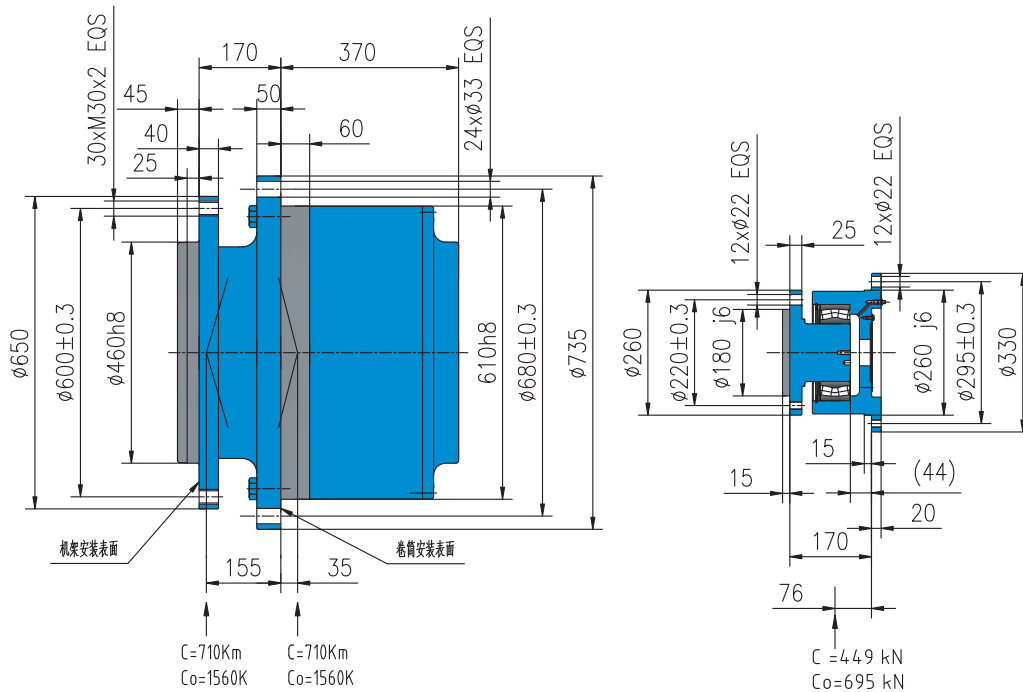
- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 680$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.

Technical drawing of a mechanical component, likely a bearing housing, showing dimensions and tolerances. The drawing includes a cross-section view with a central bore and a smaller internal bore. Key dimensions include: outer diameter 260 mm, inner diameter 180 mm, and a central bore diameter of 220 mm. The component has a total width of 330 mm and a central section width of 170 mm. The drawing also shows a 12x22 EQS thread and a 12x22 EQS hole. The component is labeled with 'C = 449 kN' and 'Co = 695 kN'.

- 1、 For more ratio, pls. consult with our technical engineer.
- 2、 Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、 Drum min. diameter  $\approx \Phi 750$  (the first layer diameter of drum for reference).
- 4、 If any special request, pls. contact us. We will make modification design and meet your request.



## WLT220W



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 200000                                   | 105.8; 119; 139.6;<br>176.6; 209; 230.4;<br>259.4; 299.9; 239.5;<br>360.6 | 力士乐及国内外各种型号马<br>达, 可根据客户的不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 820   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、用户可依据此图设计、制造并装配卷筒, 也可由我公司整体供货提供卷筒。
- 3、卷筒最小卷绕直径 $\approx \Phi 850$  (卷筒第一层直径, 供参考)。
- 4、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。

- 1、For more ratio, pls. consult with our technical engineer.
- 2、Customer can design acc. to a.m. drawing, produce and assemble with drum. Or completely supply by our company.
- 3、Drum min, diameter $\approx \Phi 850$  (the first layer diameter of drum for reference).
- 4、If any special request, pls. contact us. We will make modification design and meet your request.

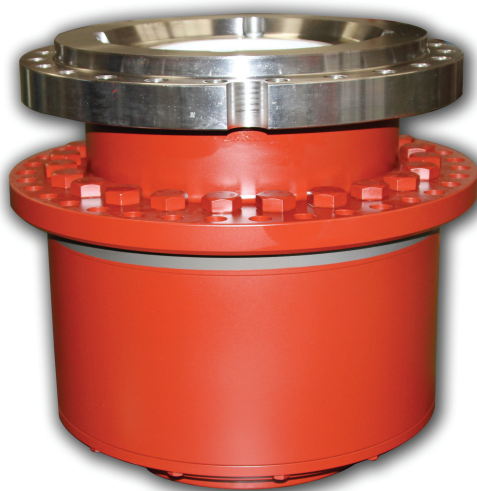


## 说明 Notes

- 减速机输入转向与输出转向相反。
- 轴承座与支承轴可分离以利于装配，如有必要可将支承轴从卷筒上卸下。
- 为了保证减速机的正常运转，减速机与机架的安装孔必须对中，并且法兰安装面必须与其垂直。
- 附图中标注的卷筒最小卷绕直径仅供参考，将根据钢丝绳的实际直径而有所变化。
- 样本中的速比是优选速比，样本中没有列出的速比将根据客户的实际需求而设计。
- 输出转速允许值（样本中未规定）因实际工况的不同而有所变化，请向本公司技术人员咨询。
- 安装马达时需要在端面或止口处装O形圈密封（减速机不带马达时O形圈由用户自备，也可由我公司提供）。
- Input and output of gearbox are the opposite direction.
- Bearing housing can be separated with supporting shaft to ease assembly. Supporting shaft can be taken down from the drum in case of need.
- In order to ensure gearbox running, installation holes of gearbox and frame must be aligned. And flange surface have to be vertical.
- Drum min. diameter only for your reference, it will follow the change of actual diameter of rope.
- Ratio in the catalog is preferable, in case you need other ratio, please consult with our technical engineer.
- Output Speed may change acc to actual condition, please consult with our technical engineer.
- Pls. seal with O ring during motor installation, O ring will not be supplied together with gearbox without motor.



# 行走减速机 *Travel Drive MOBILEX WLT...T*



## 产品概述 *Description*

静液压行走减速机WLT...T是行走机构的理想驱动装置，它是我公司在引进国外先进技术的基础上，自行开发设计并完全可以替代国内外同类产品。WLT...T行走减速机主要用于工程起重机及其它工程机械的行走驱动，紧凑结构和易于安装的设计理念可使我们的产品直接安装于行走机构内部，最大限度的为客户节省空间。

公司始终如一的高质量标准保证了我们的减速机具有优秀的承载能力和杰出的工作可靠性。外齿轮齿表面的渗碳硬化及内齿圈的调质、氮化，使之具有低噪声运转的特点。齿轮采用L+S减速机优化设计后具有最高的安全裕度。

此外，减速机各部分尺寸及参数可根据用户需要进行重新设计，以满足用户对减速机的不同需求。无论您何时需要，即使在项目阶段，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。



The hydrostatic travel drives of type MOBILEX WLT...T is developed and designed based on overseas advanced technology. It is an ideal driving component to easily substitute for other similar products. Travel gears are applied for mobile crane, winch drives for other machinery. As a result of extremely compact shape the gears can be directly mounted in a space saving manner. Furthermore it has been designed for easy installation.

The constant high quality standard ensures the excellent load carrying ability and outstanding operational reliability. The use of case-hardened gearwheels and tempered, nitrated ring gear have resulted in low-noise running characteristics. Gears are optimized through calculation and keep highest safety margins.

Additionally the dimensions, specifications of gearbox can be designed on request. We will provide advice and assistance whenever needed, even in the project stage, to find the most appropriate solution for you.

### 结构特点 *Special Features*

- 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
- 高承载能力的轴承系统
- 安装简单
- High-duty planetary gearbox of modular construction
- Compact, space saving, two or three stage planetary gear design
- Robust bearing system absorbing the forces exerted by the ring gear
- Simple mounting
- 低噪声运转
- 高效率
- 长寿命
- 换油方便
- Low-noise running
- High efficiency
- Long service life
- Easy oil change

### 使用条件 *Application*

减速机设计适用环境温度范围为-20℃ ~ +40℃，环境影响诸如咸水、咸气、沙尘、超压力、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，为了实现减速机的安全设计，此类工况条件必须报告至我公司。

The gearbox has been designed for use at ambient temperatures ranging between -20℃ and +40℃. Environmental influence such as salt water, salty air, sand, dust, overpressure, heavy vibrations, extreme shocks and ambient temperatures, aggressive media and the like will impede the function of the gearbox. To enable safe design of gearbox these conditions must be reported to the factory.



## 减速机设计 Gearbox design

减速机设计基于多年使用经验基础上的,样本中给出的最大输出扭矩是挖掘机行走传动短时间允许的峰值扭矩,对于其它不同于规定输出扭矩的应用,可根据具体减速机而定。我们可以在方案设计阶段为所有客户提供与使用有关的技术咨询服务,以期为客户找到最适合的传动解决方案。

The gearbox design is based on years of practical application and production experience. The Maximum output torques indicated under technical data for excavator travel drive applications.

For the other applications higher output torques than those specified may be permissible for the relevant gearbox.

Please consult with our technical engineer in such case.

Application related consult is available to all customers as early as in the project stage.

## 液压马达 Hydraulic Motor

本减速机设计可直接安装力士乐A2FE系列, A2FM系列, A6VE系列, A6VM系列马达, 也可安装国内外其它厂商的马达产品(需重新进行相应结构的设计)。

The gearbox design enable motors by Bosch Rexroth A2FE, A2FM, A6VE, A6VM, as well as motors by other brands (specific design request).

## 制动器 Brake

标准供货范围包括一个置于输入端的弹簧加载、液压释放多片式停车制动器。

$T_{Br.} (\text{制动力矩}) = 1.1 \cdot T_1 (\text{输入转矩})$ 。

制动器接口为M12x1.5。

此停车制动器不能用于减速制动,制动力矩根据实际需要而设定。

在制动状态时,制动器释放油路中不得有背压。

推荐制动器最大开启油压不高于50bar,如果高于50bar请与我公司技术部门联系。

The standard supply scope includes a spring-loaded, hydraulically released multiple-disk parking brake arranged on the input side.

$T_{Br.} = 1.1 \cdot T_1 (\text{input torque})$ .

Dimension of brake connection, M12 x1.5.

The multiple-disk holding brake is not to be used as service brake. The holding torque multiples with the transmission ratio selected.

Backpressure is forbidden in the brake release oil circle.

The recommended opening oil pressure should be less than 50bar, pls. consult with our technical engineer if the pressure is higher than 50bar.



## 脱开装置 Detaching Device

某些传动装置可根据要求安装机械脱开装置，以便在紧急情况下牵引设备，防止液压系统的损坏。

Mechanical detaching device can be installed on request, in order to avoid the hydraulic system damage for emergency.

## 润滑 Lubrication

齿轮和轴承采用浸油润滑。

除定期换油外，减速机无需保养，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（国内润滑油推荐使用长城润滑油：L-CKD220）。

对于相应使用工况所必需的换油周期，请见说明书。

后支承轴承采用锂基脂L-XBCHA3润滑。

The gear teeth and bearing will be splash lubricated.

Save for regular oil changed the drive units don not require maintenance. Changing the oil is done very easily.

Exclusively the oil brands recommended in the operating manual must be used for this work. (Great Wall L-CKD220 recommended).

The change intervals necessary for the relevant application conditions are also prescribed in the operating manuals.

The pinion-like antifriction bearing of the output shaft has been provided with grease filling L-XBCHA3.

## 供货范围 Supply Scope

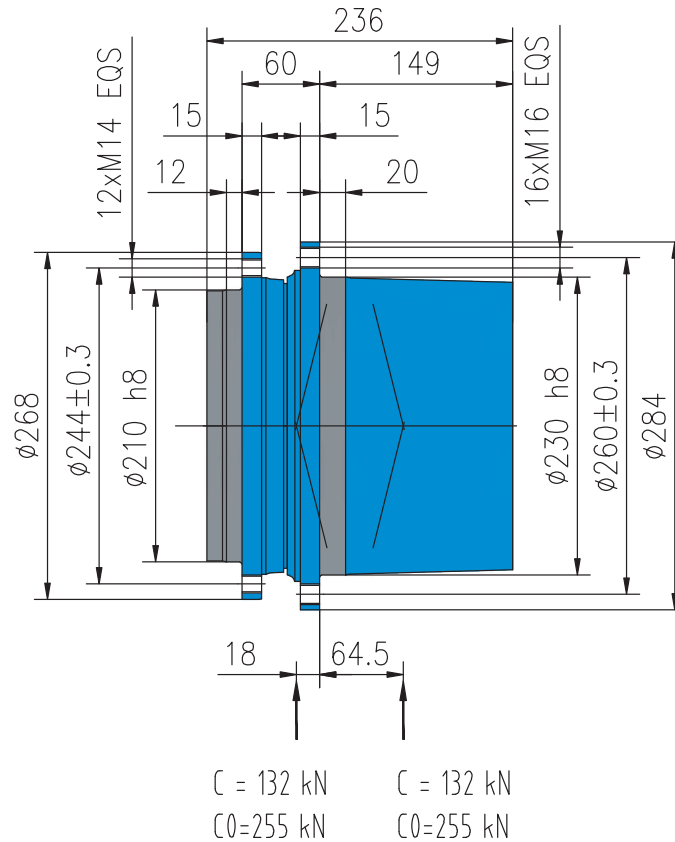
标准供货范围：减速机+制动器，也可按用户要求特殊供货。

Standard supply includes gearbox, brake .Supply on customer request is available.





## WLT9T

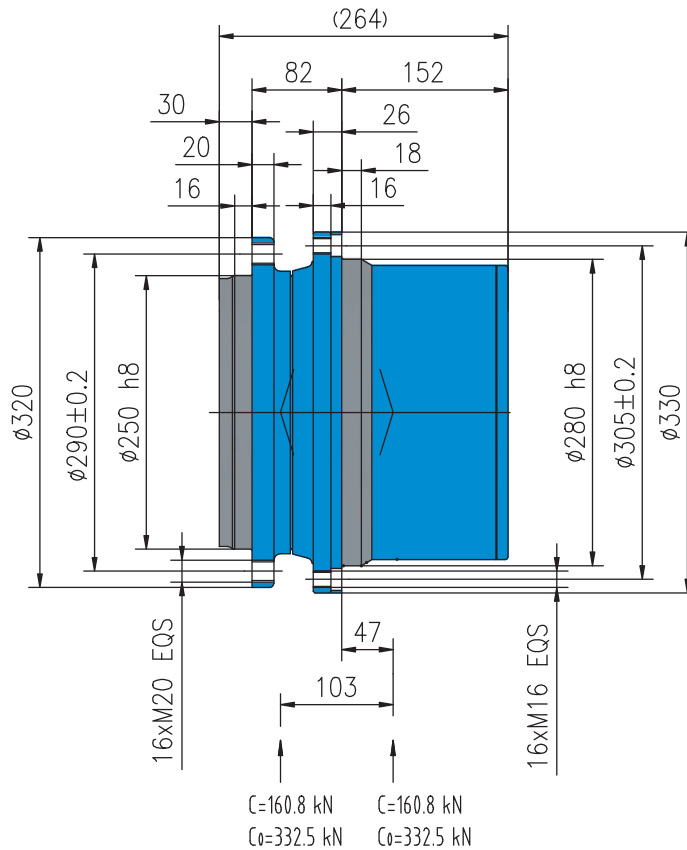


| 最大输出转矩<br>Output Torque<br>$T_{2\max} \text{ Nm}$ | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 9000  | 16.5; 19.25; 24.2;<br>28.16; 33; 41;<br>38.3; 47.6; 55.27 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 67  |

### 注Remarks:

- 更多速比需求请咨询我公司技术部门。
- 如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- For more ratio, pls. consult with our technical engineer.
- If any special request, pls. contact us. We will make modification design and meet your request.

## WLT13T



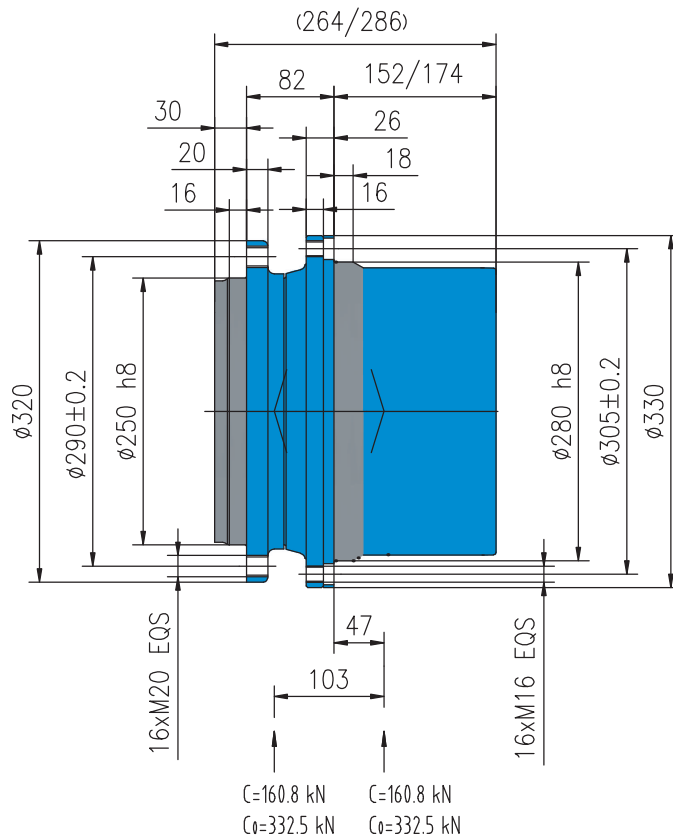
| 最大输出转矩<br>Output Torque<br>$T_{2\max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 13000                                     | 16.27; 19.9; 22.62;<br>26.43; 32.14; 45.42;<br>37.57; 53.95 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 85  |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
  - 2、If any special request, pls. contact us. We will make modification design and meet your request.



## WLT17T



| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|--|---|
| 17000                                    | 16.27; 19.9; 22.62;<br>26.43; 32.14; 45.42;<br>37.57; 53.95; 64.24;<br>77.95; 88.23; 102.62;<br>112.14; 124.2; 135.71;<br>150.51; 170.24; | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 90 / 97.5   |

### 注Remarks:

- 更多速比需求请咨询我公司技术部门。
- 如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- For more ratio, pls. consult with our technical engineer.
- If any special request, pls. contact us. We will make modification design and meet your request.

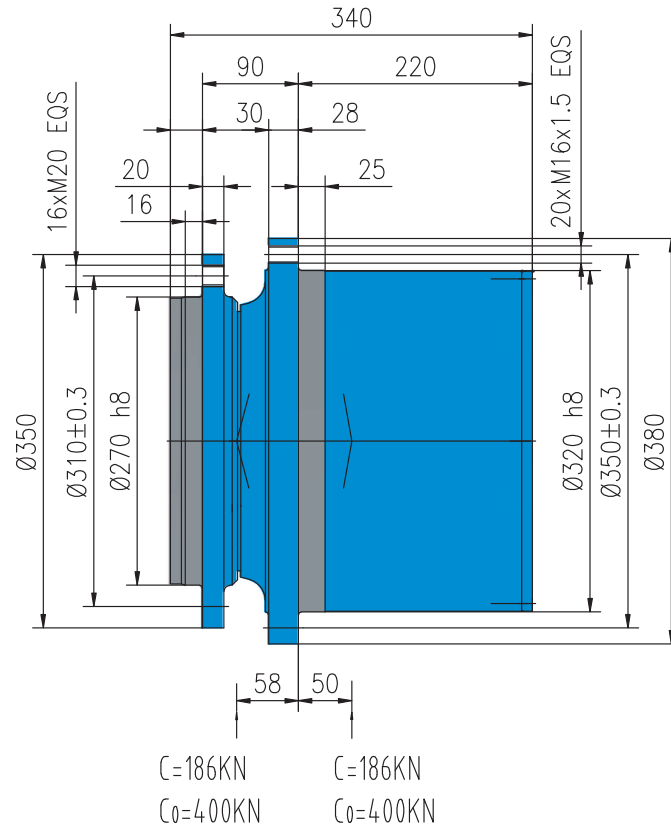
[illegible]

| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 24000   | 36.97; 44.7; 90.13;<br>102.6; 116.9; 120.5;<br>137.2; 169.86; 173.7;<br>193.3; 209.3; 221.1 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 105   |

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

1、For more ratio, pls. consult with our technical engineer.

2、If any special request, pls. contact us. We will make modification design and meet your request.

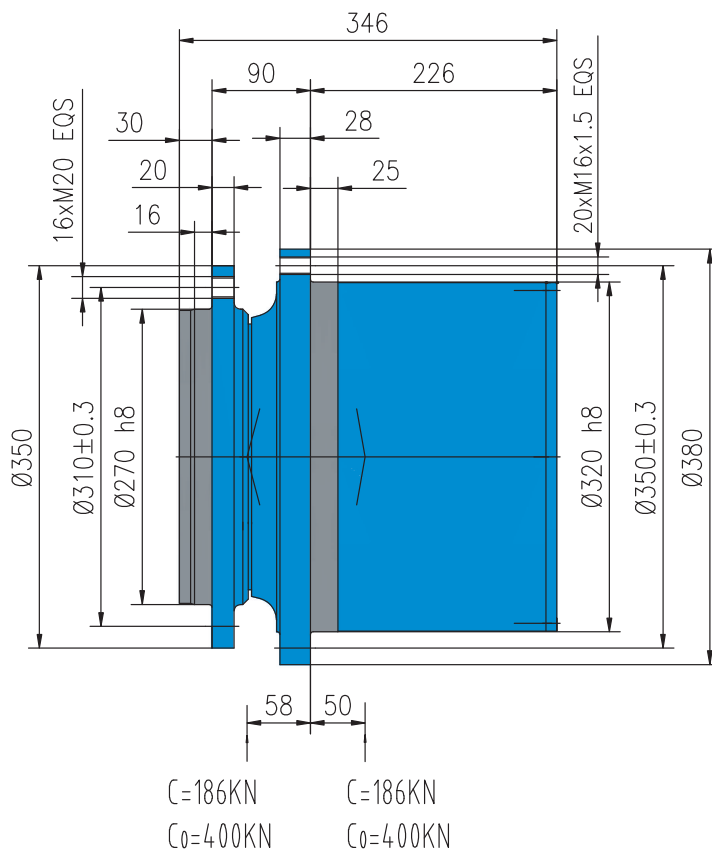
**WLT26T**

| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i                                  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 26000   | 30.36; 36.8; 42.87;<br>45.45; 50.52; 54.20;<br>62 | 力士乐及国内外各种型号马达，可根据客户的要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 165   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.

## WLT34T



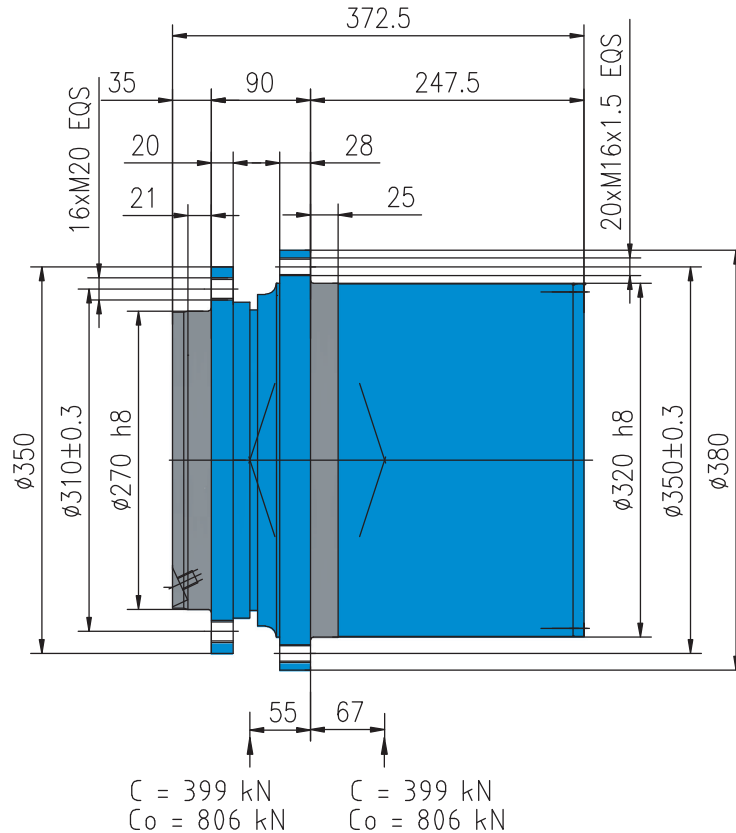
| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i                                  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 34000   | 30.36; 36.8; 42.87;<br>45.45; 50.52; 54.20;<br>62 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 175   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
  - 2、If any special request, pls. contact us. We will make modification design and meet your request.



### WLT34T...200 (加强型/reinforced)

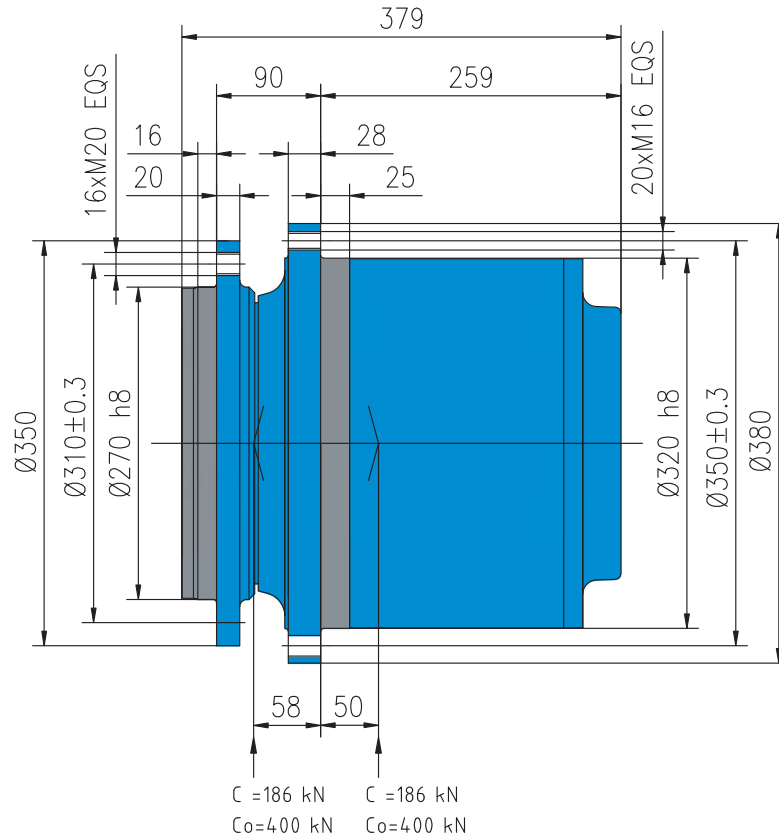


| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i                                  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|---|---|---|
| 34000                                    | 30.36; 36.8; 42.87;<br>45.45; 50.52; 54.20;<br>62 | 力士乐及国内外各种型号马<br>达, 可根据客户不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 185   |

#### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.

## WLT36T



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 36000   | 32.57; 38.43; 47.21;<br>66.96; 79.36; 87.78;<br>100.02; 116.55; 131;<br>138.82; 161.26; 269 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 185   |

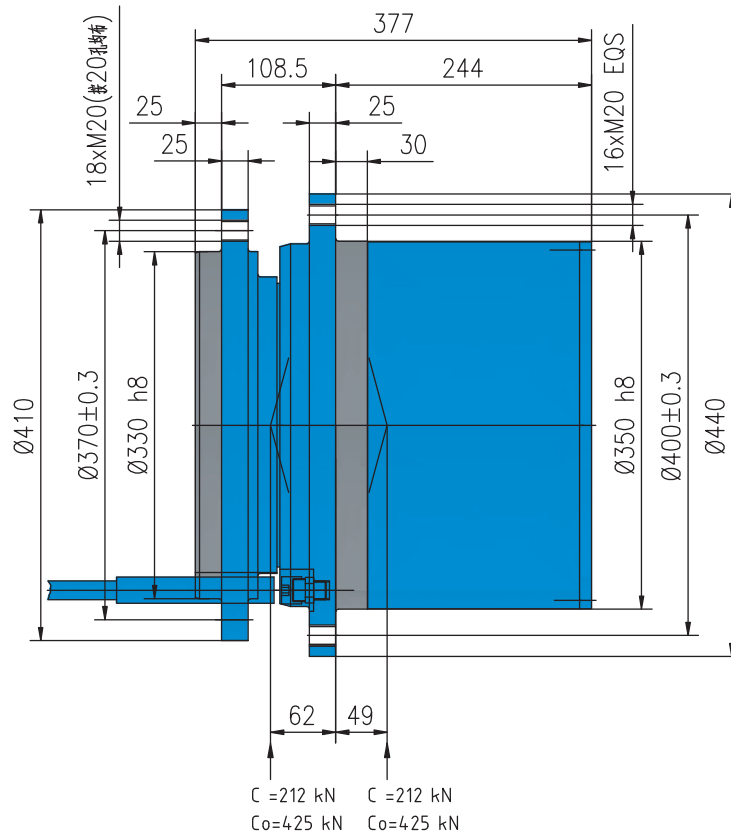
### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.





## WLT40T

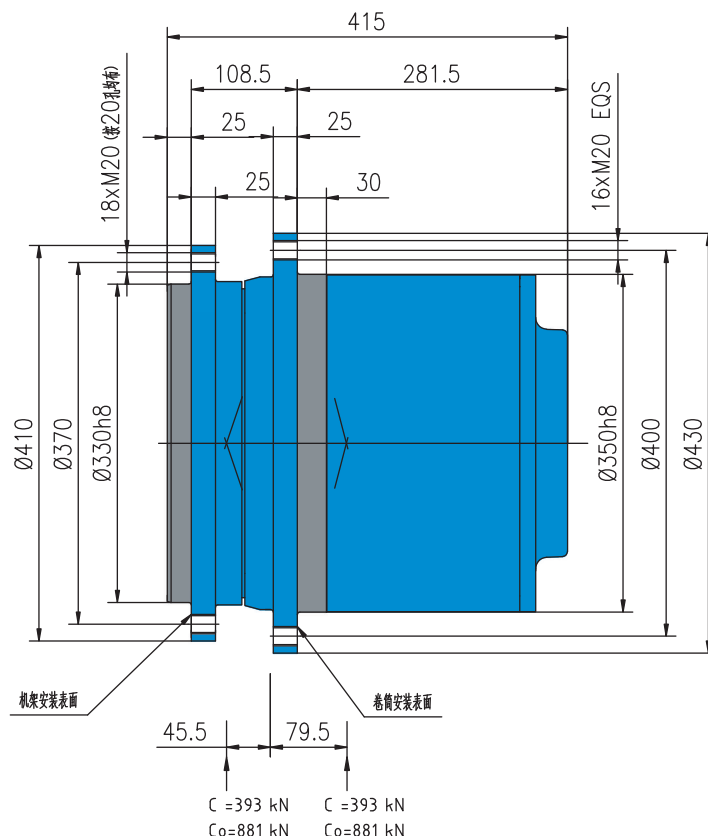


| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i              | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|-------------------------------|--|---|
| 40000                                    | 35.88; 41.04; 48.28;<br>59.13 | 力士乐及国内外各种型号马<br>达, 可根据客户的不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 200   |

### 注Remarks:

- 更多速比需求请咨询我公司技术部门。
- 如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- For more ratio, pls. consult with our technical engineer.
- If any special request, pls. contact us. We will make modification design and meet your request.

## WLT50T



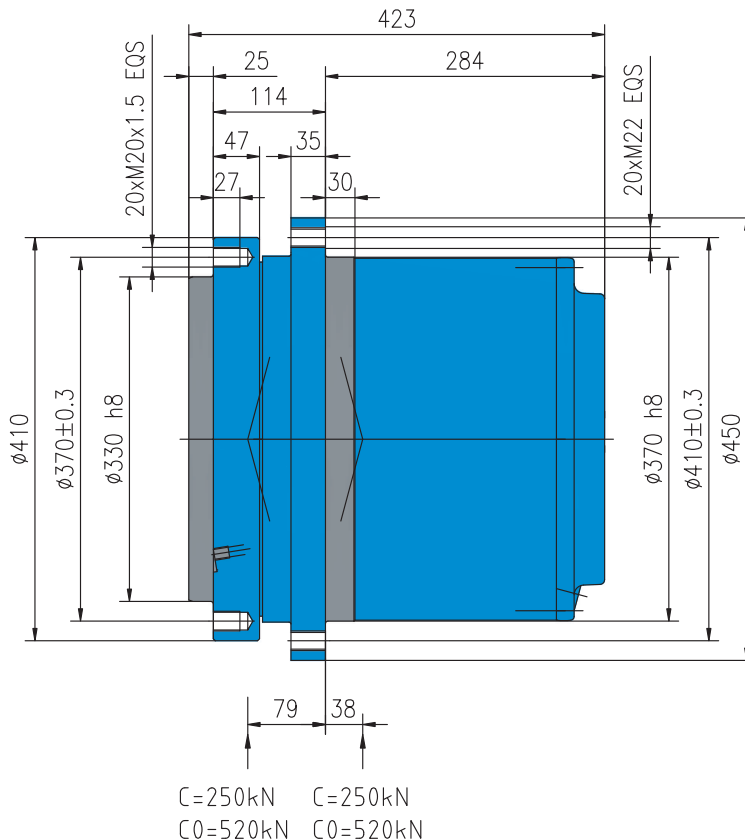
| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|--|--|---|
| 50000                                    | 36.8; 45.13; 87.59;<br>99.75; 125.66;<br>146.39; 155.94;<br>177.48 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 250   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.



## WLT60T

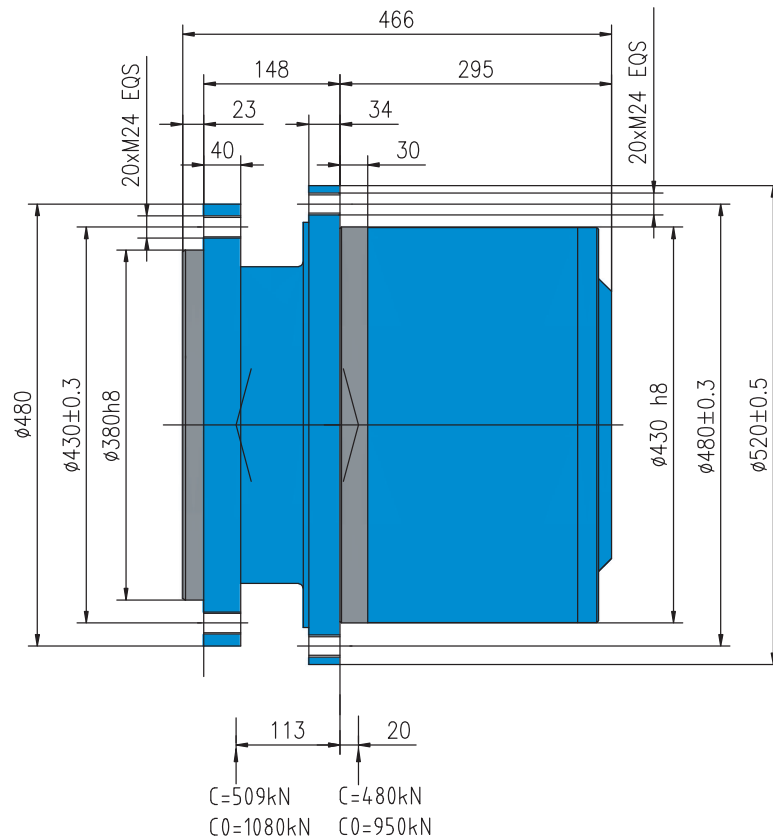


| 最大输出转矩<br>Output Torque<br>$T_{2max}$ Nm | 传动比 i<br>Ratio i   | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|--|--|--|---|
| 60000                                    | 33.03; 39.41; 63.77;<br>76.55; 86.46; 94.80;<br>105.53; 111.93;<br>119.83; 139.86;<br>150.53; 169.89 | 力士乐及国内外各种型号马<br>达, 可根据客户的不同要求而<br>设计马达接口结构。<br>Motors by Rexroth and other<br>brands, connection to be designed<br>on customer request | 260   |

### 注Remarks:

- 更多速比需求请咨询我公司技术部门。
- 如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- For more ratio, pls. consult with our technical engineer.
- If any special request, pls. contact us. We will make modification design and meet your request.

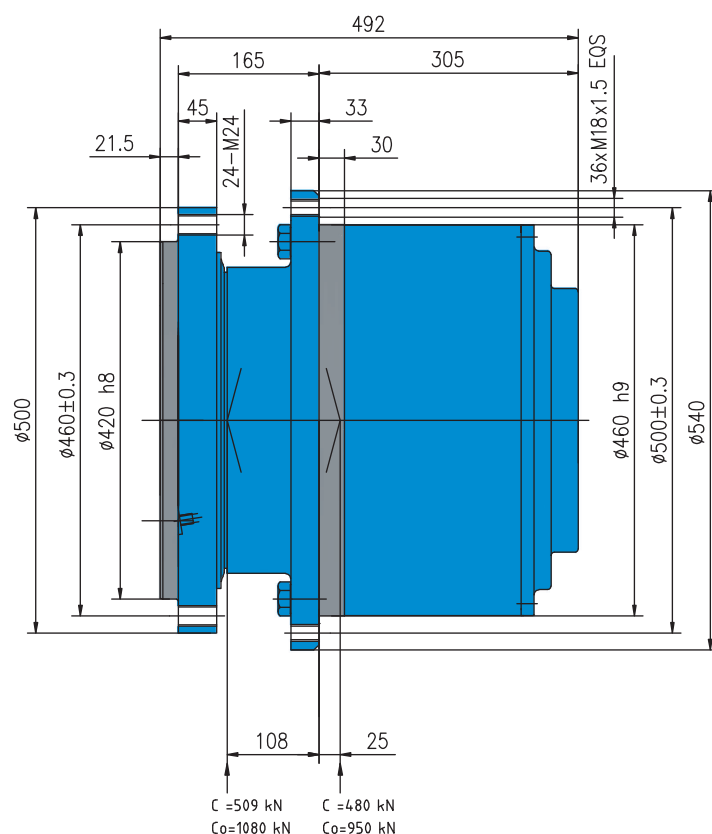
## WLT80T



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 80000   | 61.28; 76.68; 79.15;<br>87.64; 98.97;<br>110.86; 126.94;<br>149.92; 164.31;<br>185.43 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 380   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 110000  | 79.5; 87.6; 95.8;<br>104.2; 114.8; 128.6;<br>147.2; 164.3; 173.9;<br>196.8; 215 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 425   |

1、更多速比需求请咨询我公司技术部门。

1、 For more ratio, pls. consult with our technical engineer.

2、 If any special request, pls. contact us. We will make modification design and meet your request.

Technical drawing of a bolted flange connection. The drawing shows a side view of a blue cylindrical component with a grey flange. Dimensions include overall diameter 500, flange diameter 460±0.3, and total height 590. Bolt holes are 24xM24 EQS. Horizontal dimensions include 165, 328, 21.5, 40, 36, 62, 129, and 29. Vertical dimensions include 490 h9 and 350. A note at the bottom indicates C=509kN and C0=1080kN for both sides.

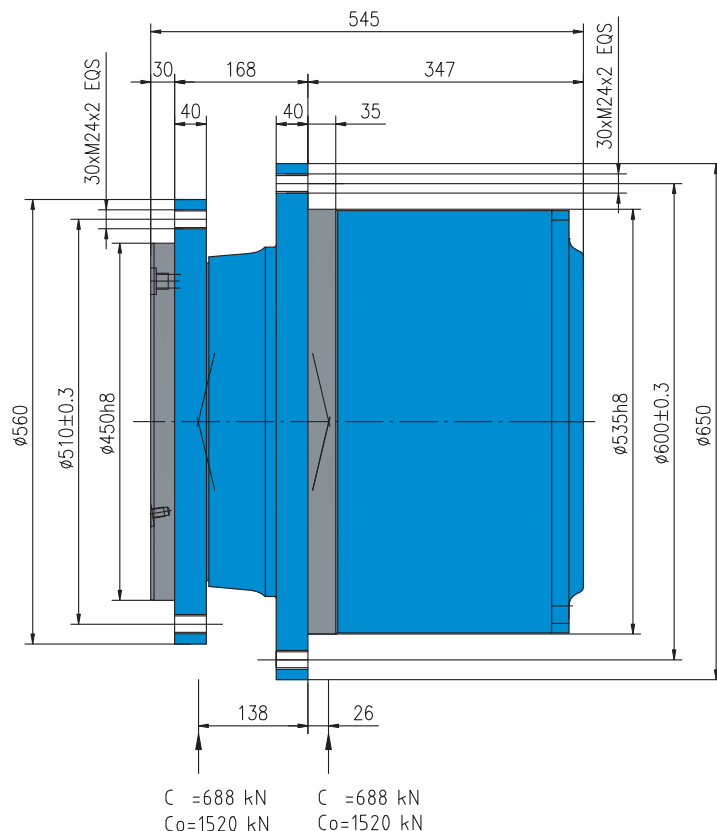
| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i                                       | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|--|--|---|
| 110000  | 74.8; 98; 105.8;<br>115.3; 127.3; 143;<br>164.1; 194.4 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 510   |

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。

1、For more ratio, pls. consult with our technical engineer.

2、If any special request, pls. contact us. We will make modification design and meet your request.

# WLT160T

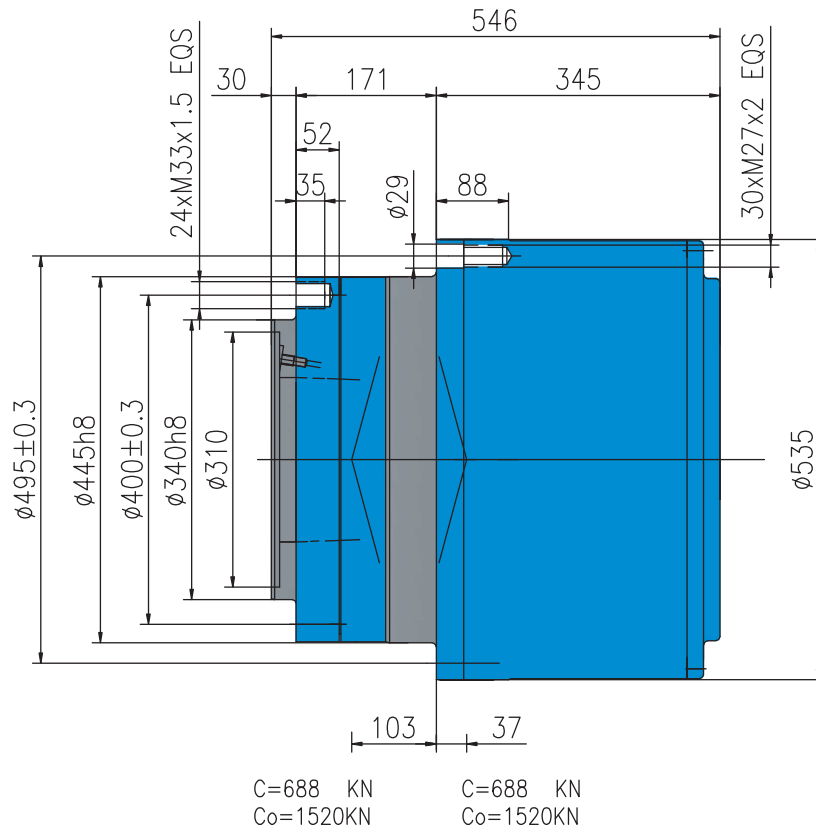


| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 160000  | 93.7; 101.6; 111.3;<br>133.1; 162.8; 191.9;<br>210.8; 251 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 680   |

注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
  - 2、如需要特殊的传动解决方案，而又不在于我们的产品范围内，请告知我们，我们可以根据要求进行变形设计，最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.

## WLT160T...100 (紧凑型/compact)

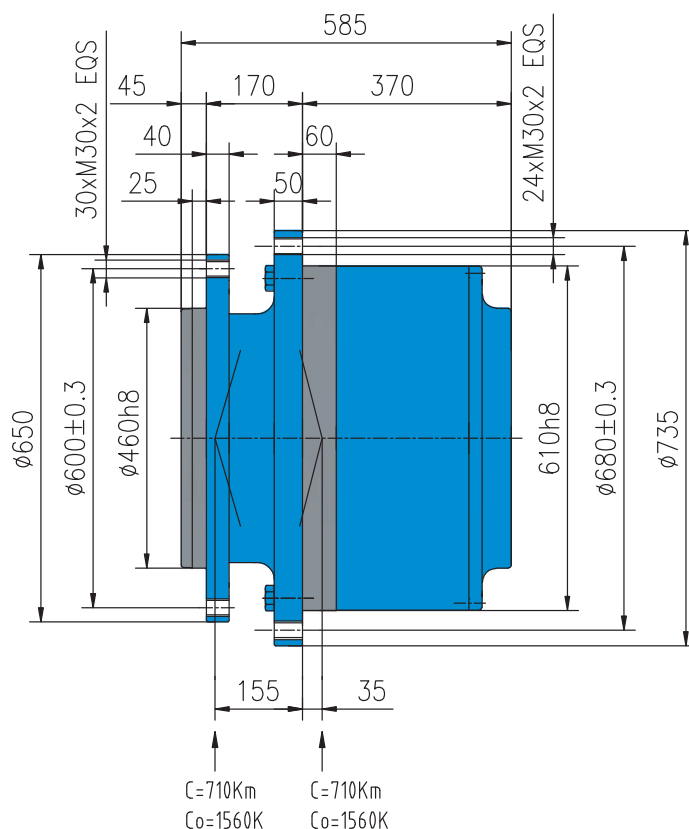


| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 160000  | 93.7; 101.6; 111.3;<br>133.1; 162.8; 191.9;<br>210.8; 251 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 680   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.





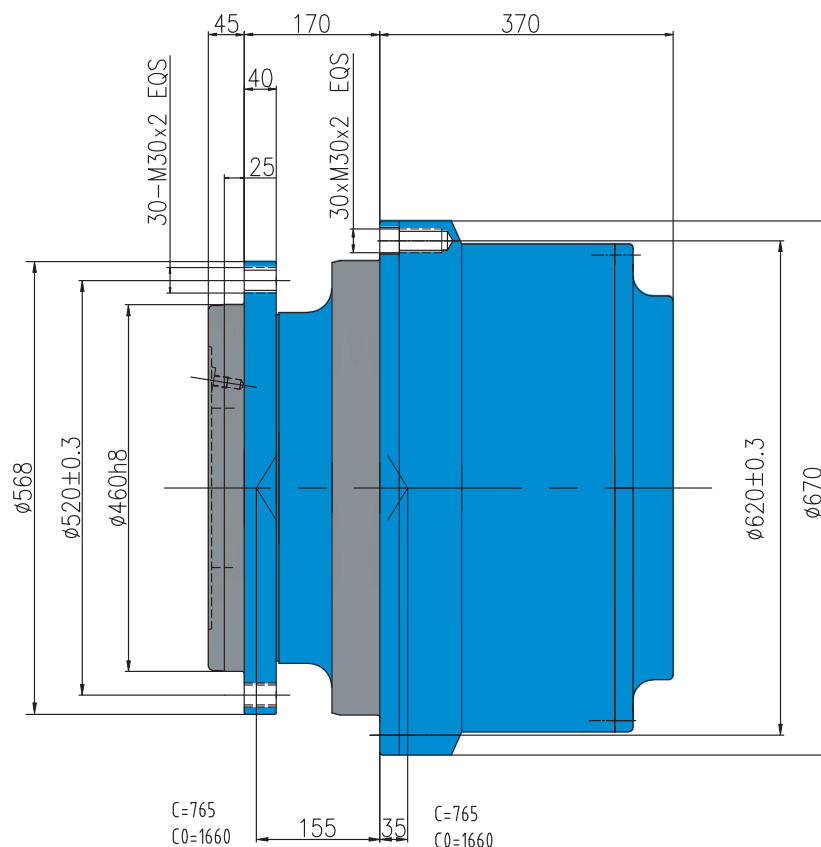
| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor   | 重量约Kg<br>Gearbox Weight Kg<br>( 无液压油、无马达、无卷筒 )<br>(without hydraulic oil and motor) |
|---|---|---|---|
| 220000  | 97.7; 116.1; 145.4;<br>167.9; 188.91;<br>246.1; 293; 365.55 | 力士乐及国内外各种型号马达，可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 820   |

1、更多速比需求请咨询我公司技术部门。

1、 For more ratio, pls. consult with our technical engineer.

2、 If any special request, pls. contact us. We will make modification design and meet your request.

## WLT220T...100 (紧凑型/compact)



| 最大输出转矩<br>Output Torque<br>T <sub>2max</sub> Nm | 传动比 i<br>Ratio i  | 液压马达<br>Hydraulic Motor  | 重量约Kg<br>Gearbox Weight Kg<br>(无液压油、无马达、无卷筒)<br>(without hydraulic oil and motor) |
|---|---|--|---|
| 220000  | 105.8; 119; 139.6;<br>176.6; 209; 230.4;<br>259.4; 299.9; 239.5;<br>360.6 | 力士乐及国内外各种型号马达, 可根据客户的不同要求而设计马达接口结构。<br>Motors by Rexroth and other brands, connection to be designed on customer request | 820   |

### 注Remarks:

- 1、更多速比需求请咨询我公司技术部门。
- 2、如需要特殊的传动解决方案, 而又不在于我们的产品范围内, 请告知我们, 我们可以根据要求进行变形设计, 最大限度的满足您的使用要求。
- 1、For more ratio, pls. consult with our technical engineer.
- 2、If any special request, pls. contact us. We will make modification design and meet your request.



## 说明 Notes

- 减速机输入转向与输出转向相反。
- 为了保证减速机的正常运转，减速机与机架的安装孔必须对中，并且法兰安装面必须与其垂直。
- 样本中的速比是优选速比，样本中没有列出的速比将根据客户的实际需求而设计。
- 输出转速允许值（样本中未规定）因实际工况的不同而有所变化，请向本公司技术人员咨询。
- 安装马达时需要在端面或止口处装O形圈密封（减速机不带马达时O形圈由用户自备，也可由我公司提供）。
- Input and output of gearbox are the opposite direction.
- In order to ensure gearbox running, installation holes of gearbox and frame must be aligned. And flange surface have to be vertical.
- Ratio in the catalog is preferable, in case you need other ratio, please consult with our technical engineer.
- Output Speed may change acc to actual condition, please consult with our technical engineer.
- Pls. seal with O ring during motor installation, O ring will not be supplied together with gearbox without motor.