



# WFR SERIES

## WFR系列



WFR series is a high-precision reducer with flanges, with a wide range of applications. The WFR series high-precision reducer includes a precise reduction mechanism and radial axial roller bearings. The unique design of the gearbox allows the load to directly act on the output flange or housing without the need for additional bearings. The characteristic of the WFR series high-precision reducer is that the input and output angles are 90 degrees, which can greatly save installation space. The modular design allows for the installation of motors and reducers through flanges.

WFR系列是带法兰的高精度减速机，应用范围广泛的形式。WFR系列高精度减速机包括精确的减速机构和径向-轴向滚柱轴承。减速机的独特设计可以允许负载直接作用在输出法兰或壳体上，无需额外的轴承。WFR系列高精度减速机的特点是输入和输出的角度为90度，可大大节省安装空间、模块化设计可以通过法兰安装电机和减速机。

### Advantages

- High rigidity
- High precision
- High torque
- Small size
- Efficient
- Long lifetime
- Easy assembly
- High stability
- Low noise
- Space saving

### 优点

- 高刚性
- 高精度
- 高扭矩
- 尺寸小
- 效率高
- 寿命长
- 易安装
- 高稳定
- 低噪音
- 节省空间

WFR series features / WFR系列特点		
case 壳体	a) threaded holes in case b) threaded and through holes in case	a) 输出面带螺纹孔 b) 输出面带螺纹孔和通孔
Input shaft design 输入轴设计	Input shaft offers following versions: a) tight input	输入轴有以下形式: a) 抱紧输入
Installation and operation characteristics 安装和运行特点	A wider range of modular configurations	模块化结构

WFR SERIES

WFR series ordering specifications / WFR系列订购规格

WFR	17	51	A	B					
Name 名称	Size 规格	Ratio 速比	Input 输入端	Output 输出端					
WFR	25	Reference rating table 参考参数表	a)抱紧输入	a)轴输出 b)法兰输出					
					32	a)Hold on to input	a)Axis output b)Flange output		
								31	30
	82		81						
				102	101				
	122		121						

Rating table WFR series/WFR系列参数表

Size 规格	Reduction ratio 速比		Rated Output Torque 额定输出力矩	Opening and stopping allowable moment 启、停容许力矩	Instantaneous admissible moment 瞬时容许力矩	Rated input speed 额定输入转速	Max input speed 最大输入转速	Inclination stiffness 倾斜刚度	Torsional stiffness 扭转刚度	No-load startup moment 空载启动力矩	Driving Accuracy 传动精度	Backlash accuracy 回差精度	Inertial moment 惯性力矩 (×10 <sup>-6</sup> )	weight 重量
	轴旋转 rotation	外壳旋转 Shell rotation	Nm	Nm	Nm	rpm	rpm	Nm/arcmin	Nm/arcmin	Nm	arcmin	arcmin	Kg·m <sup>2</sup>	Kg
WFR25	31	30	110	220	330	3000	5500	131	24	0.4	P0≤±1 P1≤±3 P2≤±5	P0≤±1 P1≤±3 P2≤±5	6.12	3.2
	51	50								0.4			5.67	
	82	81								0.3			4.9	
	102	101								0.3			4.56	
	122	121								0.3			4.25	
WFR32	31	30	190	380	570	3000	4500	240	35	0.8	P0≤±1 P1≤±3 P2≤±5	P0≤±1 P1≤±3 P2≤±5	11	5.8
	51	50								0.8			10.8	
	82	81								0.6			9.35	
	102	101								0.6			8.32	
	122	121								0.6			7.7	

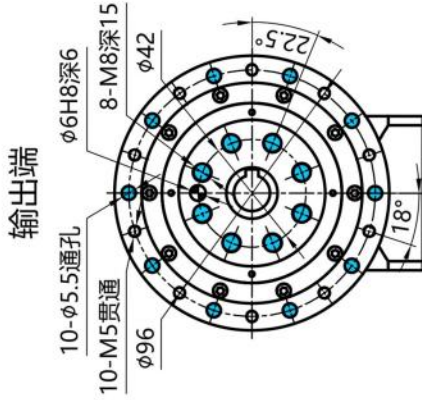
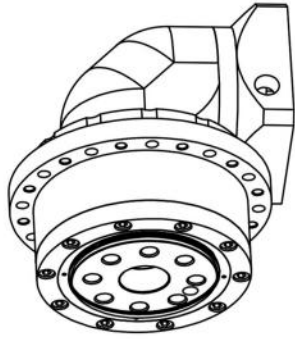
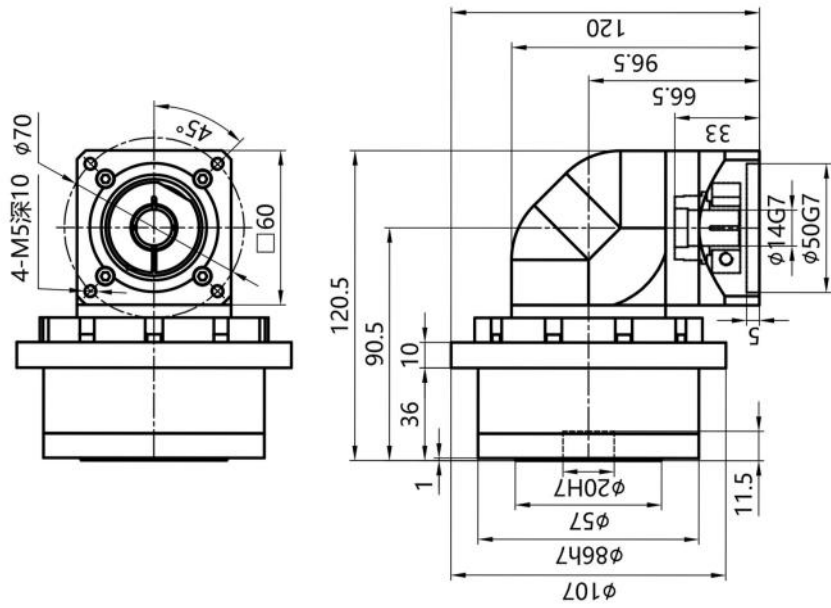
NOTES: Medium speed ratio "italics, thickening" is the commonly used speed ratio, other speed ratios can be booked.  
Right to change without prior notice reserved!

注：表中速比值“斜体、加粗”为常用速比，其它速比值可以预订。  
保留更改权！

WFR25转角行星圆齿式减速机

WFR32 ANGLE PLANETARY CIRCULAR GEAR REDUCER

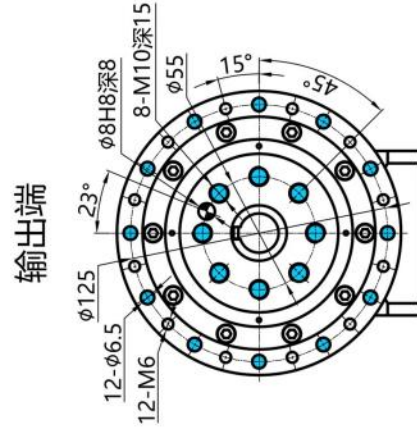
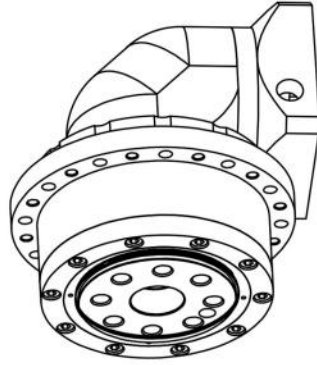
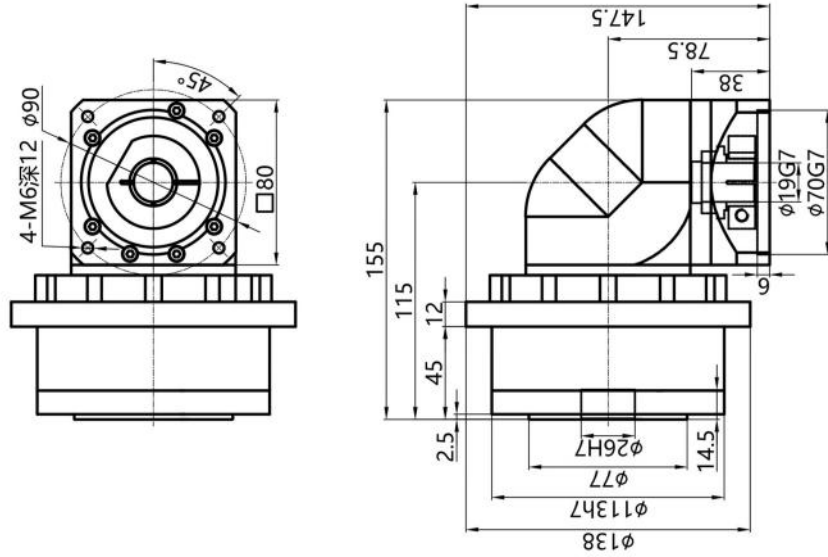
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WFR32转角行星圆齿式减速机

WFR32 ANGLE PLANETARY CIRCULAR GEAR REDUCER

输入端



Installation examples

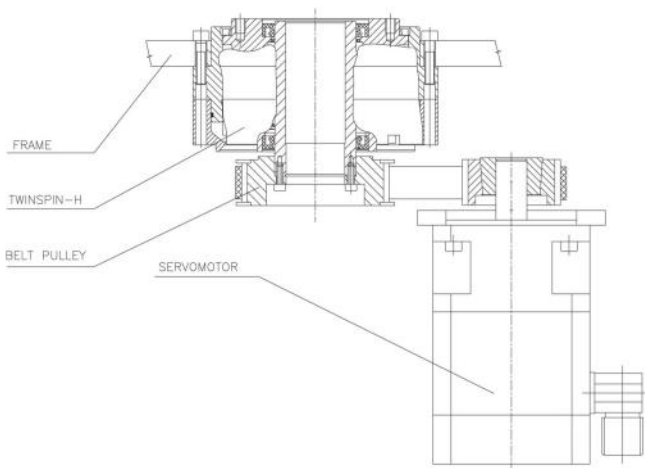
Before the installation, it is desirable to wipe off the protective oil film from the surface of the reduction gear by a clean and dry cloth. Contact surfaces of friction joints must be degreased prior to the installation. When cleaning, make sure that the degreaser does not get into the reduction gear. During the installation, proceed with following steps: first, fasten a coupling to the reduction gear, then the connecting flange, to which mount the motor and then bolt the whole assembly to the frame.

Reduction gear is most often used in combination with a pre-stage, which may comprise gears or toothed belt drives. The driven pulley is attached to the shaft of the reduction gear with screws, which have to be tightened with a tightening torque according.

安装实例

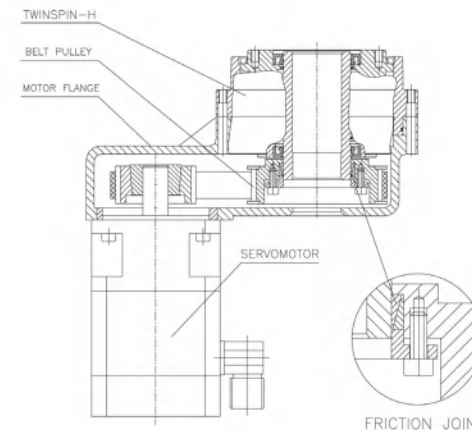
安装之前，用洁净干燥的抹布擦去减速机表面的保护油膜。摩擦型连接的接触表面要去除油污。清洁时请保证清洁剂不要进入减速机内。在安装过程中按如下步骤：首先，将联轴器和减速机锁紧，然后连接电机法兰，最后，将连接好的电机与减速机整体固定在板架上。

高精度减速机通常与预减速机构结构使用，配合齿轮或者同步带，从动轮通过螺栓连接在输入轴上，锁紧扭矩。



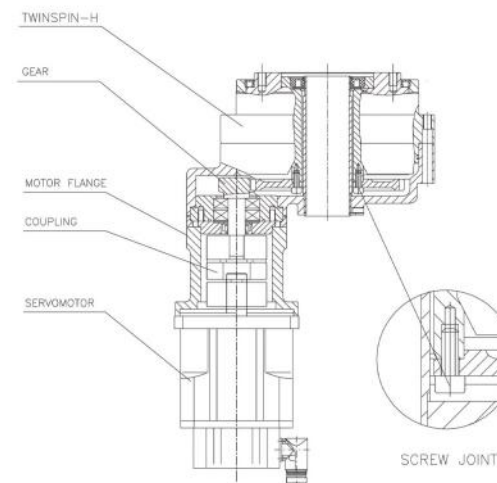
Connection of a toothed pulley with the reduction gear shaft by means of a screw connection

减速机轴通过螺栓与皮带轮连接



Connection of a toothed pulley with the reduction gear shaft by means of a friction connection

减速机轴通过摩擦紧固件与皮带轮连接



Connection of a gear wheel with the reduction gear shaft by means of a screw connection

减速机轴通过螺栓与皮带轮连接