

TONGLI
股票代码 301255

Z系列减速机选型样本



10
二〇二四年
(总第十版)

入选《机械设计手册》选型标准
(化工工业出版社/机械工业出版社)

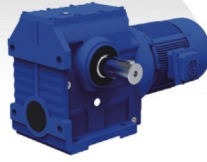
Listed in 《Handbook of mechanical design》
as guideness of gearbox selection

STANDARD
PRODUCTS

标准产品



I TR系列斜齿齿轮硬齿面减速机
TR series Rigid Tooth Flank
Helical Gear Reducer



I TS系列斜齿-蜗轮蜗杆减速机
TS series Helical-worm
Gear Reducer



I TF系列平行轴斜齿齿轮减速机
TF series Parallel Shaft
Helical Gear Reducer



I TK系列螺旋锥齿减速机
TK series Helical-bevel
Gear Reducer



I TH系列硬齿面齿轮减速机
TH series Rigid Tooth Flank
Gearbox



I TB系列硬齿面齿轮减速机
TB series Rigid Tooth Flank
Gearbox



I SJ系列涡轮丝杆升降机
SJ series Worm Screw
elevators



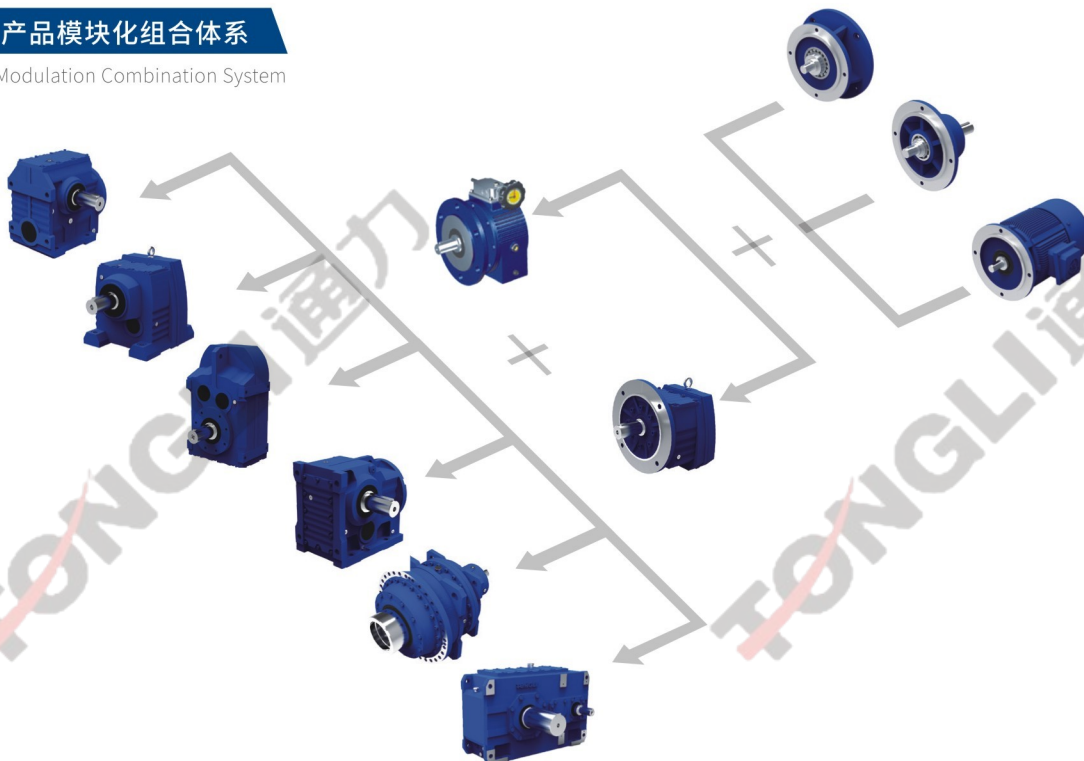
I Z系列螺旋锥齿减速机
Z series Spiral Bevel
Gear Reducer

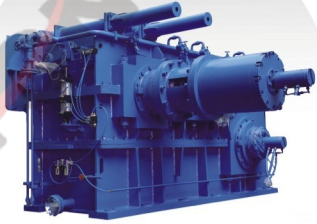


I TP系列行星齿轮减速机
TP series Planetary
Gear Units

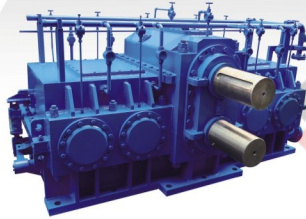
通力产品模块化组合体系

TONGLI Modulation Combination System

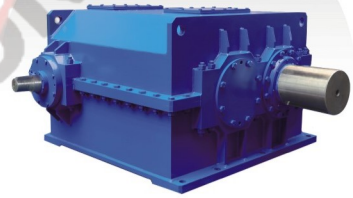




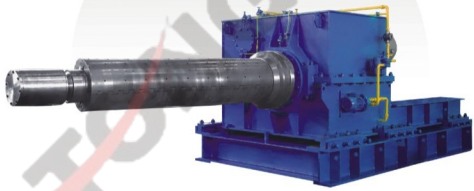
| 粗轧卷取机用减速机
Uncoiler Specialized
Gearbox



| 粗轧机用主减速机
Rolling Mill
Specialized Gearbox



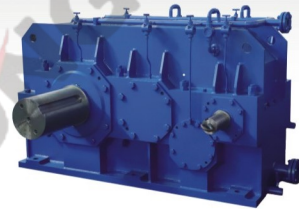
| 刮板输送机用减速机
Scraper Conveyor
Specialized Gearbox



| 开收卷机用减速机
Uncoiler
Specialized Gearbox



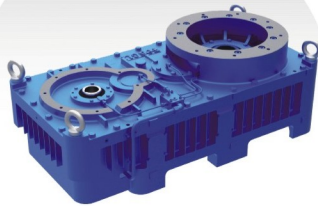
| 棕榈油专用减速机
Palm Oil Specialized
Gearbox



| 干燥窑用减速机
Dry Kiln Specialized
Gearbox



| 精轧卷取机用减速机
Precision Uncoiler
Specialized Gearbox



| 颗粒机专用减速机
Granulator Specialized
Gearbox



| 启闭机用减速机
Hoist Specialized
Gearbox

ENTERPRISE
PROFILE

公司简介

浙江通力传动科技股份有限公司创建于2008年，是一家专业从事减速机研发生产、销售及服务的国家高新技术企业、国家级绿色工厂、国家专精特新“小巨人”企业，下辖通用减速机、工业齿轮箱两大生产基地。公司于2022年12月27日在深交所创业板上市（股票简称:通力科技，股票代码:301255），经过十余年的稳健发展和技术积累，公司现已成为中国减速机行业的知名企业之一，在技术、装备、产品性能等方面均处于国内先进水平。近年来，通力作为起草单位参与制定了4项减速机国家标准与行业标准;拥有多项核心技术专利，自主研发多个系列减速机(齿轮箱)产品，其中部分产品被列为国家重点新产品和国家火炬计划项目。

通力主导产品通用减速机、工业齿轮箱广泛应用于冶金、化工、环保、能源、制药、起重、输送、建材、粮油等国民经济的支柱产业领域。先后为中国一重、中国二重、中国中冶、中粮集团、青山控股、齐鲁制药、宁德时代、中央电视台春晚舞台、北京冬奥会、杭州亚运会等国内大型工业企业及国家重点工程项目提供高性能的配套减速机，并出口东南亚、南美、中东等国家和地区，获得国内外众多客户的首肯和赞许。

Zhejiang TONGLI Transmission Technology Co., LTD. established in 2008 and is a National High-tech Enterprise and National Specialized New Little Giant Enterprise which engaged in gearbox R & D, manufacturing, sales and service. At present, TONGLI has two production bases for general reducer and industrial gearbox. On 27th Dec. 2022, TONGLI was floated on GEM of Shenzhen Stock Exchange (Stock for short: TONGLI Tech., Stock code: 301255). After more than 10 years of steady development and technical accumulation, TONGLI has become one of the well-known enterprises in China reducer industry, and in the domestic advanced level in technology, equipment, product performance and other aspects. In recent years, as a drafting unit, TONGLI has participated in the formulation of four national and industry standards for reducer, owns a number of core technology patents and independently developed a number of series of reducer and gearbox. Some products have been listed as national key new products and national torch plan projects. TONGLI's leading products are widely used in Metallurgy, Chemical, Environmental protection, Energy, Pharmaceutical, Hoist, Transportation, Building materials, Grain and oil and other pillar industries of the national economy. At the same time, TONGLI successively provide high performance matching gearbox for CFHI, CNEG, MCC Group, COFCO, Tsingshan Holding, QILU Pharmaceutical, CATL, the CCTV Spring Festival Gala stage, Beijing Winter Olympics and other large domestic industrial enterprises and national key projects. TONGLI gearbox exported to Southeast Asia, South America, the Middle East and other countries and regions, and obtained many approvals and praises from home and abroad customers.



通力产品选型信息：

客户：			浙江通力传动科技股份有限公司		
联系人		电话		销售员	
E-MAIL		传真		电 话	
地址			时 间	年 月 日	
工作机	设备名称：				
额定功率：	kw	工作扭矩：	N.m	转速：	r/min
日工作制：(1) ≤ 0.5h (2) 0.5-10h (3) > 10h					
环境温度：	°C	海拔高度：	m	起动扭矩：	N.m
起动频率：				次/h	
冲击载荷：(1) 强烈冲击 (2) 中等冲击 (3) 轻微冲击 (4) 没有冲击				冲击载荷频率：	
安装空间 (1) 狭小空间 风速 ≤ 0.5m/s (2) 大厅或大车间 风速 ≥ 1.4 m/s (3) 室外 风速 ≥ 4 m/s			使用场合：(1) 普通 (2) 腐蚀 (3) 盐雾 (4) 粉尘		
原动机	原动机名称		原动机型号		
原动机描述 (如功率、转速、制动等)					
电机型号：			类别：(1) 普通电机 (2) 辊道电机 (3) 其他电机		
功能特性 (可多选)：(1) 制动 (2) 防爆 (3) 变频调速 (4) 其他					
参数及性能		电机功率：	KW	电机极数	基准频率：
					Hz
额定电压：	V	额定电流：	A	防护等级：	绝缘等级：
其他： 注：用户自配电机时请提供电动机的联接尺寸图					
减速机要求	要求的产品系列：		安装型式 (根据样本选取)		
输出轴方式：(1) 单向实心轴 (2) 双向实心轴 (3) 平键空心轴 (4) 锁紧盘空心轴 (5) 内花键空心轴 (6) 外花键实心轴					
原动机与减速机的联接方式：(1) 直联 (无联接法兰) (2) 直联 (有联接法兰) (3) 联轴器 (4) 皮带轮 (5) 链轮					
工作机与减速机的联接方式：(1) 直联 (2) 齿轮 (3) 联轴器 (4) 皮带轮 (5) 链轮					
输出轴与输入轴之间的结构形式：(1) 平行轴 (2) 直交轴 (3) 同轴					
电机接线盒位置 (根据样本选取)：(1) I (0°) (2) II (270°) (3) III (180°) (4) IV (90°) (5) V (0°) (6) VI (270°) (7) VII (180°) (8) VIII (90°)					
附件及其他要求：					
输入轴、输出轴法兰及锁紧盘方向：					
输入轴旋转方向①：				输出轴旋转方向①：	
输入轴外部径向力及作用点：					
输出轴外部径向力及作用点：					
输入轴外部轴向力及方向：			输出轴外部轴向力及方向：		
减速机的其他特殊要求：					
预选型号：					

①TB、TP..L、TP..K型减速机必须填写，TK系列只需填输出轴旋向，其他可不填。

②本选型信息表适用于TH、TB、TP、TR、TK、TF、TS系列减速机。

注：请在数字下面打√

轴端螺纹孔，配合公差，平键和键槽

Centre Holes in Shaft Ends, Fit tolerance and Parallel Key and Keyway

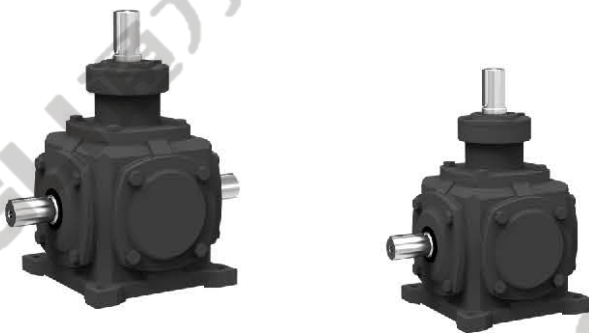
轴端螺纹孔		Centre holes in shaft end								
		mm								
轴径 Φd Diameter	$\geq 16\sim 21$	$>21\sim 24$	$>24\sim 30$	$>30\sim 38$	$>38\sim 50$	$>50\sim 85$	$>85\sim 130$	$>130\sim 225$	$>225\sim 320$	$>320\sim 500$
螺孔尺寸 Screw	M6 \times 12	M8 \times 16	M10 \times 20	M12 \times 20	M16 \times 30	M20 \times 35	M24 \times 40	M30 \times 50	M36 \times 60	M42 \times 70

配合公差 Selection of ISO Fits		
轴径 Shaft d/mm	轴径公差 Shaft tolerance	孔公差 Bore tolerance
≤ 25	k6	H7
>25	m6	H7
>100	n6	H7

平键和键槽		Parallel key and keyway				
		mm				
平键紧固采用无锥度联接。 平键和键槽根据GB/T1095-1979标准确定 Drive type fastening without taper action. Parallel key and keyway acc. to GB/T 1095-1979		直径 Diameter d	宽度 Width b	高度 Height h	轴键槽深度 Depth of keyway in shaft t ₁	轮毂键槽深度 Depth of keyway in hub d + t ₂
		$>8-10$	3	3	1.8	d+1.4
$>10-12$	4	4	2.5	d+1.8		
$>12-17$	5	5	3	d+2.3		
$>17-22$	6	6	3.5	d+2.8		
$>22-30$	8	7	4	d+3.3		
$>30-38$	10	8	5	d+3.3		
$>38-44$	12	8	5	d+3.3		
$>44-50$	14	9	5.5	d+3.8		
$>50-58$	16	10	6	d+4.3		
$>58-65$	18	11	7	d+4.4		
$>65-75$	20	12	7.5	d+4.9		
$>75-85$	22	14	9	d+5.4		
$>85-95$	25	14	9	d+5.4		
$>95-110$	28	16	10	d+6.4		
$>110-130$	32	18	11	d+7.4		
$>130-150$	36	20	12	d+8.4		
$>150-170$	40	22	13	d+9.4		
$>170-200$	45	25	15	d+10.4		
$>200-230$	50	28	17	d+11.4		
$>230-260$	56	32	20	d+12.4		
$>260-290$	63	32	20	d+12.4		
$>290-330$	70	36	22	d+14.4		
$>330-380$	80	40	25	d+15.4		
$>380-440$	90	45	28	d+17.4		
$>440-500$	100	50	31	d+19.4		

注：配合公差仅为推荐值

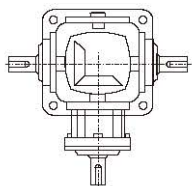
Z系列螺旋锥齿轮减速机
Z Spiral bevel gear units



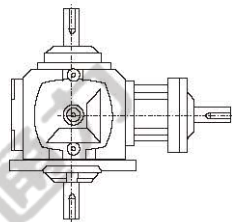
Z系列减速机有以下设计方案:

Z series gear units are available in the following designs:

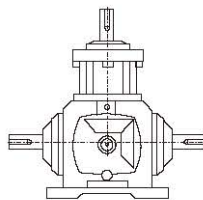
1-LR (O)



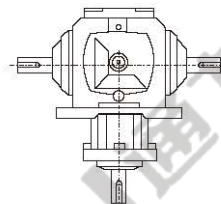
1-UD (O)



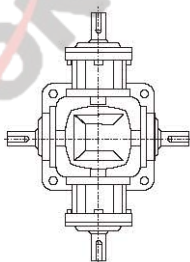
U-LR (O)



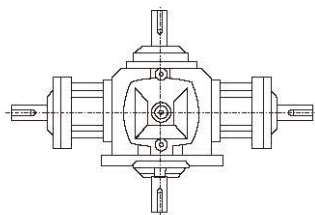
D-LR (O)



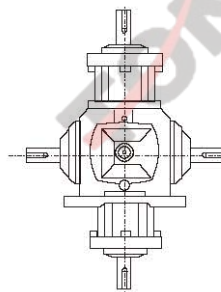
1-1-LR (O)



1-1-UD (O)



U-D-LR (O)

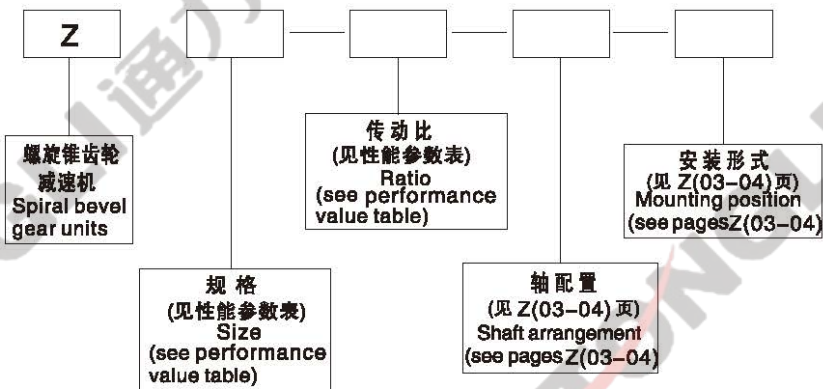


Z

01

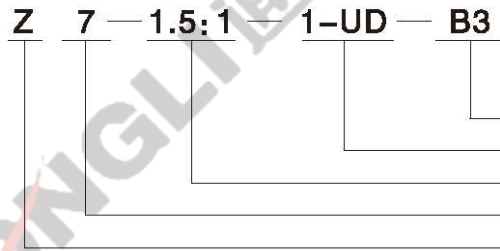
型号与标记:

Type Designations:





示例：
Example:



B3安装形式
轴配置
传动比: 1.5:1
7号规格
Z型螺旋锥齿轮减速机

Mounting position B3
Shaft arrangement
Ratio:1.5:1
Size 7
Z Spiral bevel gear units

选型:

- 选型时先根据需要的输出扭矩, 即要传递的扭矩 M_2 (Nm), 计算出输入功率 P_1 (kW):

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

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

- 确定合适服务系数 f_{Bn} (见第18页) 使:

$$P_N \geq f_{Bn} \times P_1$$

按输入功率 P_N 根据“性能参数表”选择合适的规格。

Type selection:

- According the required output torque, namely the torque M_2 (Nm), to check out the output power rating P_1 (kW):

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

n_1 —— Input speed (r/min)
 i —— Ratio
 η —— Transmission efficiency (0.98 as usual)

- Determine the proper driven machine factor f_{Bn} (see page 17) making:

$$P_N \geq f_{Bn} \times P_1$$

According the actual input power rating P_N to select the proper size from the "performance value table".

输入功率及许用转矩

Input power rating and permissible torque

规格 Size	Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25
结构形式 Structure	1-LR (O)	1-UD (O)	U-LR (O)	D-LR (O)	1-1-LR (O)	1-1-UD (O)	U-D-LR (O)			
输入功率(kW) Input power rating	0.015 ~1.79	0.026 ~4.94	0.037 ~14.9	0.042 ~22	0.064 ~45.6	0.11 ~65.3	0.188 ~96	0.40 ~163	0.69 ~234	1.4 ~335
传动比 Ratio	1~2	1~2	1~3	1~3	1~3	1~3	1~3	1~3	1~3	1~3
许用转矩(N.m) Permissible torque	11	31	94	139	199	500	607	1073	1943	3677

减速机重量

Gear unit weight

规格 Size	Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25
重量 (kg) Weight	2	10	21	32	49	78	124	188	297	488

所注重量为平均值, 仅供参考

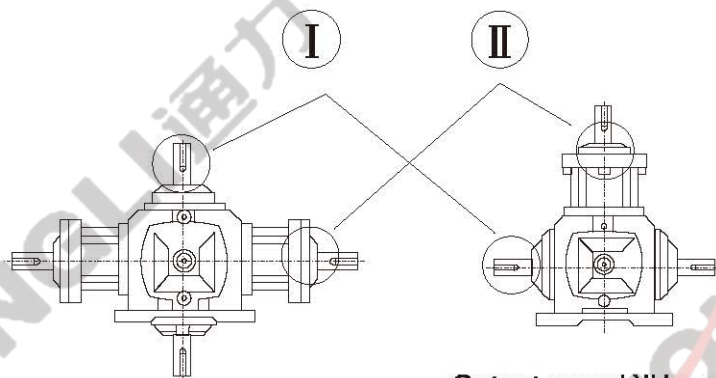
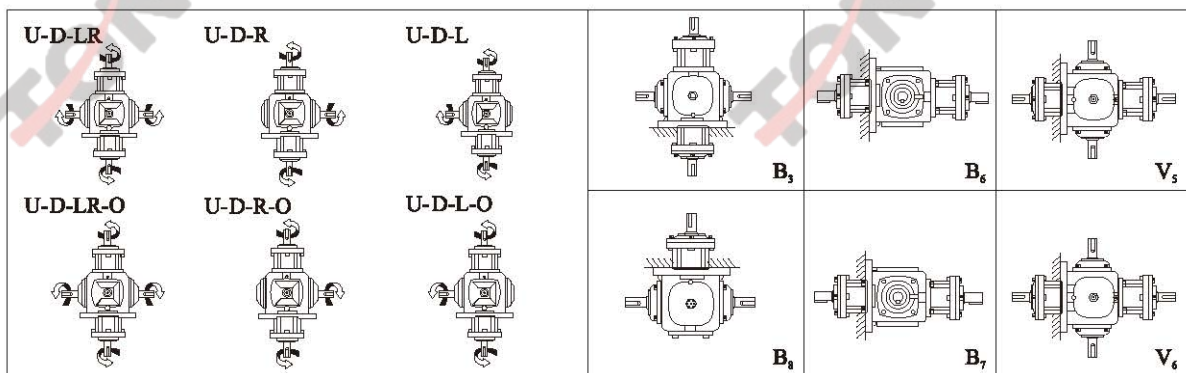
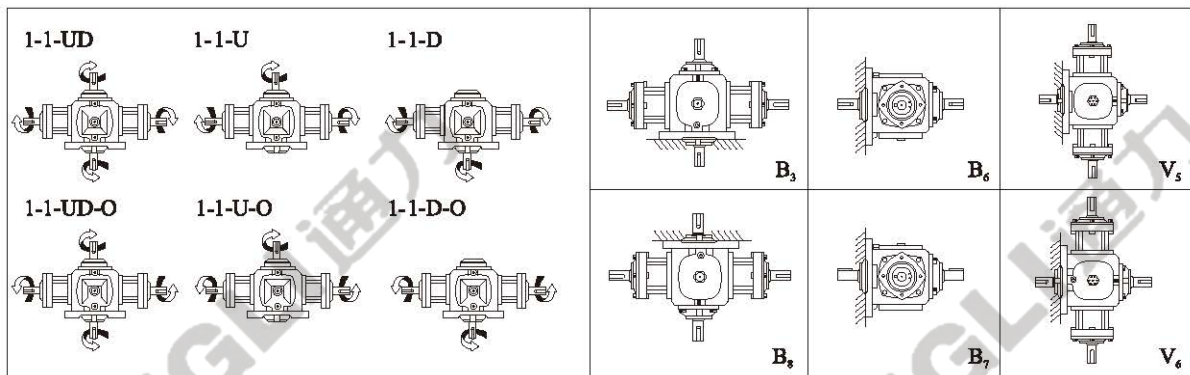
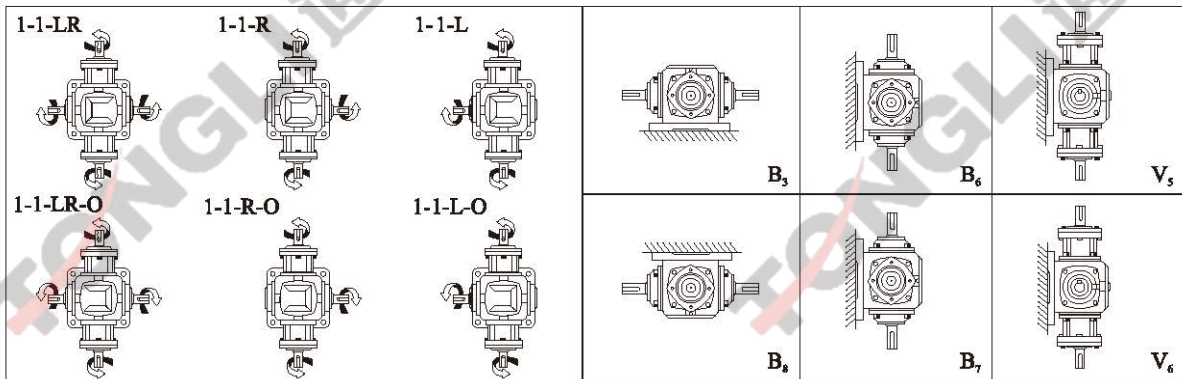
The weights are mean values, only for reference.

安装形式 Mounting Position



轴配置及轴旋转方向的关系：
The relationship between shaft arrangement
and direction of shaft rotation :

安装形式：
Mounting position:



当Ⅱ型轴输入Ⅰ型轴输出时为减速
当Ⅰ型轴输入Ⅱ型轴输出时为增速

Output speed `ll be reduced when the shaft

Ⅱ input and the shaft Ⅰ output

Output speed `ll be increased when the shaft

Ⅰ input and the shaft Ⅱ output

性能参数表
Perormance Value Table

速 比 Ratio	输入转速 Input speed r/min	输出转速 Output speed r/min	许 用 功 率 Permissible power (kW)										
			Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25	
1:1	1450	1450	1.79	4.94	14.9	22	45.6	65.3	96	163			
	1150	1150	1.43	4.19	12.7	18.4	37.5	55.7	81.1	139	234		
	870	870	1.12	3.46	10.5	15.2	29	44.6	67.5	114	193	335	
	580	580	0.747	2.45	7.35	11.4	19.8	30.6	49.7	85.9	145	252	
	400	400	0.524	1.72	5.2	8.34	14	21.5	35.1	66.1	112	195	
	300	300	0.396	1.3	3.93	6.35	10.6	16.4	26.8	54.1	90.8	159	
	200	200	0.266	0.88	2.66	4.3	7.23	11.1	18.2	39.3	69.0	119	
	100	100	0.136	0.448	1.36	2.2	3.7	5.72	9.36	20.3	35.3	60.0	
10	10	0.014	0.046	0.141	0.228	0.386	0.599	0.983	2.14	3.53	6.30		
1.5:1	1450	967			12.1	15	19.1	38.7	58.3				
	1150	767			9.96	12	15.4	31.2	49.2				
	870	580			7.66	9.3	11.8	24.1	40.7				
	580	387			5.23	6.32	8.14	16.4	28.9				
	400	267			3.66	4.41	5.7	11.6	20.3				
	300	200			2.77	3.35	4.34	8.78	15.5				
	200	133			1.87	2.28	2.91	5.95	10.5				
	100	67			0.957	1.16	1.49	3.04	5.37				
10	7			0.099	0.12	0.155	0.316	0.56					
2:1	1450	725	0.94	3.32	7.9	10.6	14	23.6	40	73.7	126		
	1150	575	0.74	2.67	6.39	8.55	11.3	19	31.7	59.5	102	119	
	870	435	0.56	2.04	4.88	6.56	8.7	14.6	24	46.0	79.0	155	
	580	290	0.37	1.38	3.34	4.47	5.92	10	16.3	31.3	54.2	107	
	400	200	0.26	0.96	2.33	3.12	4.15	7.02	11.5	22.0	38.0	75.4	
	300	150	0.19	0.73	1.76	2.37	3.14	5.33	8.71	16.7	29.0	57.5	
	200	100	0.13	0.49	1.18	1.59	2.12	3.61	5.89	11.3	19.7	39.2	
	100	50	0.06	0.3	0.608	0.812	1.08	1.84	3.01	5.84	10.1	20.1	
10	5	0.015	0.026	0.062	0.084	0.112	0.191	0.313	0.605	1.06	2.11		
2.5:1	1450	580			5.97	6.99	11.4	18.2	31.4				
	1150	460			4.78	5.64	9.11	14.7	25.3				
	870	348			3.68	4.3	7	11.2	19.5				
	580	232			2.48	2.92	4.76	7.68	13.3				
	400	160			1.73	2.05	3.34	5.38	9.32				
	300	120			1.32	1.55	2.53	4.06	7.08				
	200	80			0.888	1.05	1.71	2.75	4.79				
	100	40			0.448	0.528	0.867	1.4	2.43				
10	4			0.046	0.054	0.089	0.144	0.251					
3:1	1450	483			4.84	5.42	8.2	14	23.6	48.2	82.3	158	
	1150	383			3.88	4.34	6.55	11.3	19	38.9	66.6	130	
	870	290			2.97	3.34	5.04	8.66	14.6	30.1	51.6	101	
	580	193			2.02	2.25	3.42	5.89	9.92	20.4	35.4	69.9	
	400	133			1.41	1.58	2.39	4.11	6.98	14.4	24.8	49.3	
	300	100			1.07	1.18	1.8	3.11	5.29	10.9	18.9	37.6	
	200	67			0.712	0.803	1.22	2.1	3.57	7.38	12.9	25.6	
	100	33			0.363	0.409	0.618	1.07	1.82	3.82	6.60	13.1	
10	3			0.037	0.042	0.064	0.11	0.188	0.40	0.69	1.4		

Z

05

注：1. 表中没有转数数值的接插入法。

- ①型轴转速超过1450r/min时, 向我公司咨询。
- ②轴转速未达到10r/min, 请使用10r/min的数据。
- 本表使用系数一律为1.0。

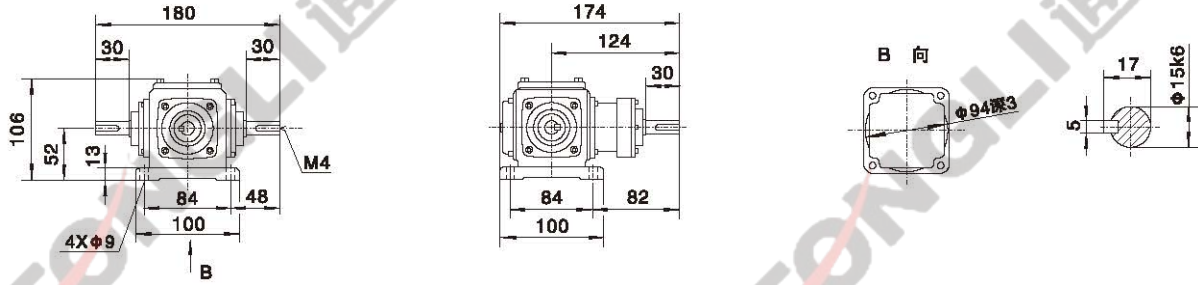
Notes: 1. Use insert if without speed.

- If the speed of shaft ① is more than 1450r/min, please refer to us.
- If the speed of shaft ② is less than 10r/min, please use 10r/min.
- All of the service factor is 1.0 in this table.

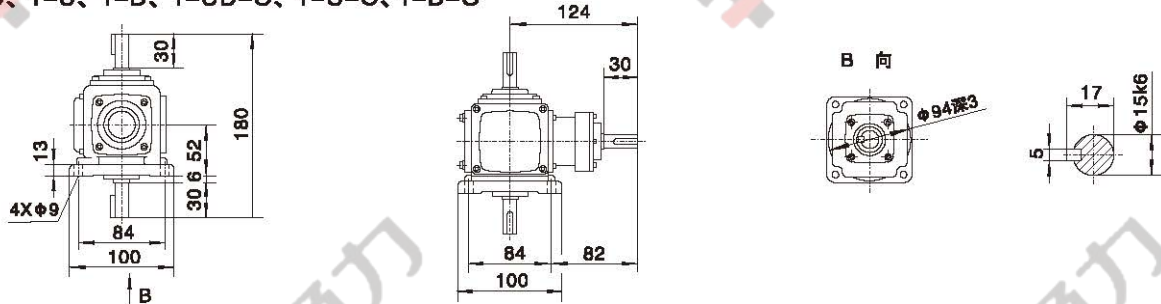
外形安装尺寸 Mounting Dimension Sheets-overview



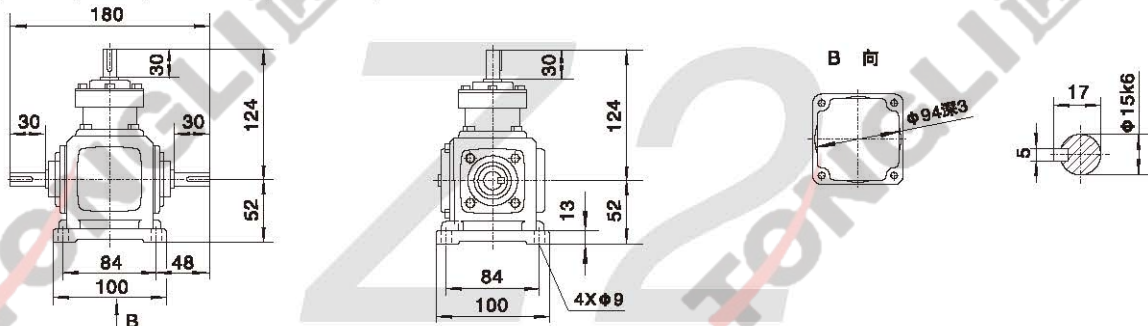
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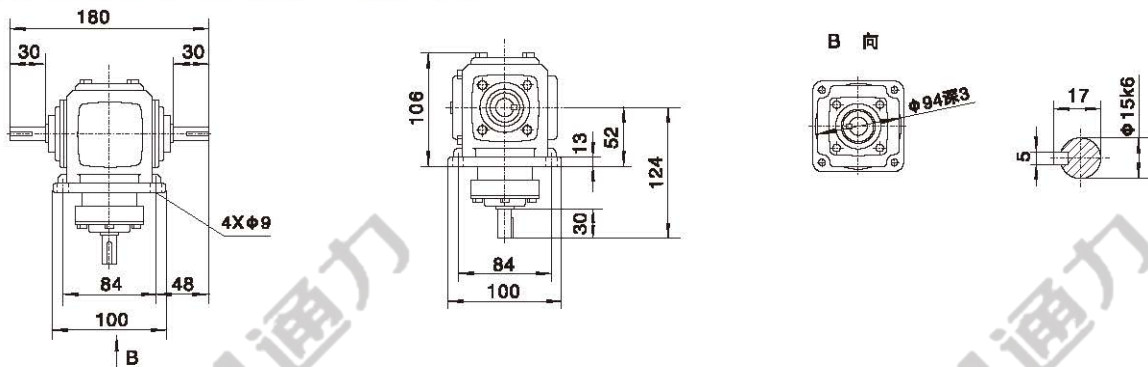
1-UD, 1-U, 1-D, 1-UD-O, 1-U-O, 1-D-O



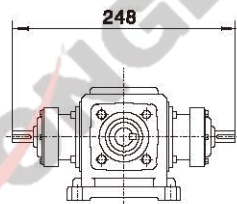
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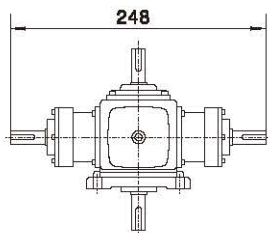
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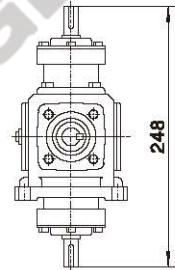
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1-1-LR-O, 1-1-R-O, 1-1-L-O



1-1-UD, 1-1-U, 1-1-D
1-1-UD-O, 1-1-U-O, 1-1-D-O

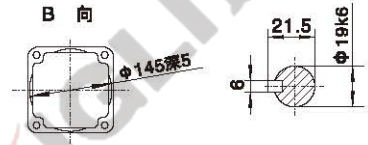
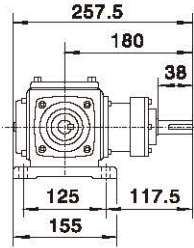
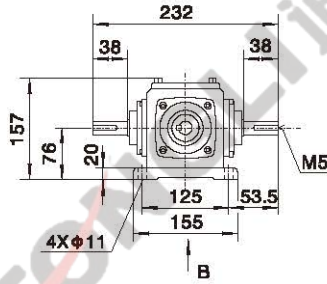


U-D-LR, U-D-R, U-D-L
U-D-LR-O, U-D-R-O, U-D-L-O

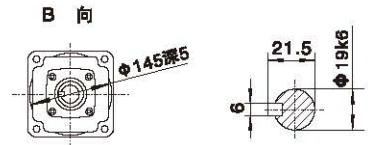
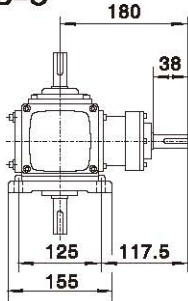
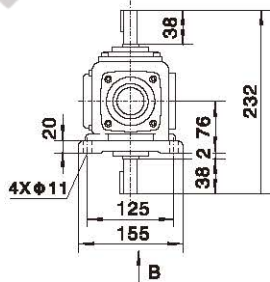


注：以上壳体为通用件,安装尺寸均可相互参照

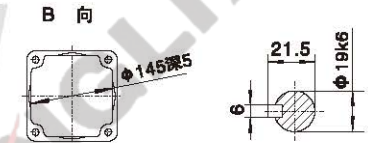
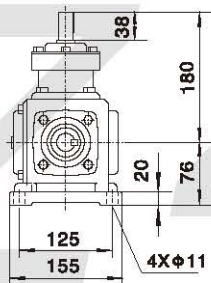
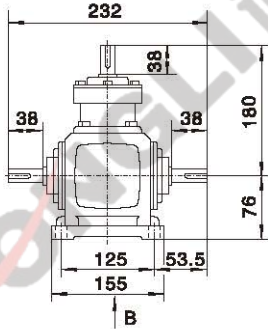
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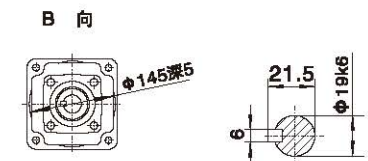
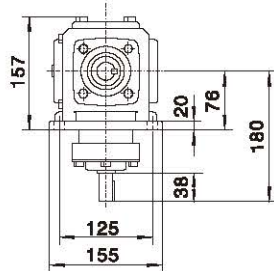
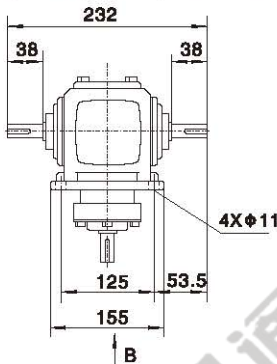
1-UD、1-U、1-D、1-UD-O、1-U-O、1-D-O



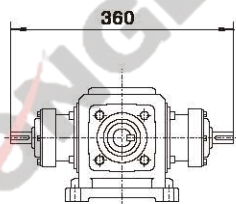
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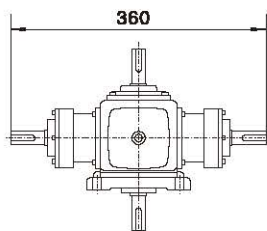
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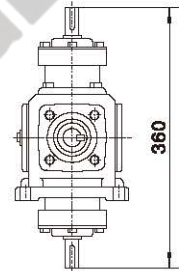
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O



U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O

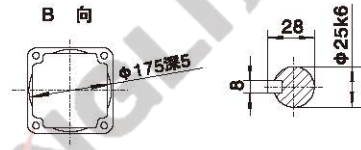
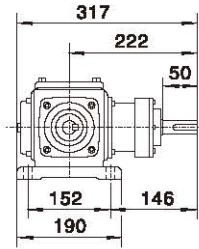
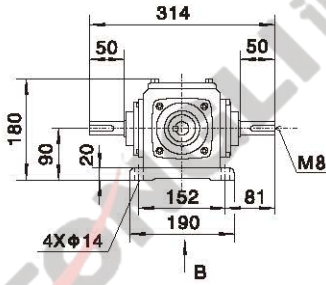


注：以上壳体为通用件,安装尺寸均可相互参照

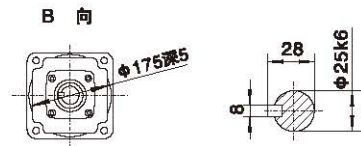
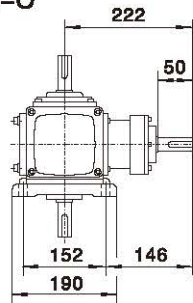
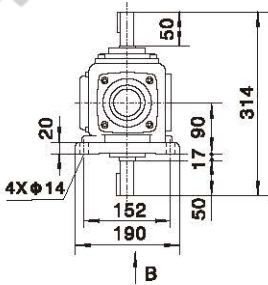
外形安装尺寸 Mounting Dimension Sheets-overview



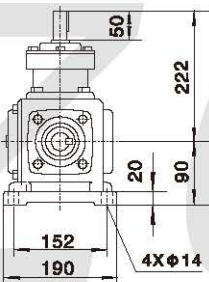
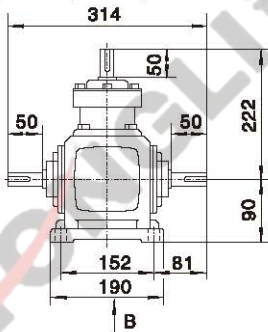
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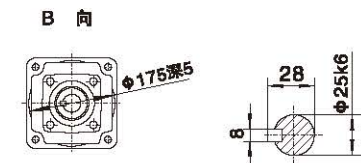
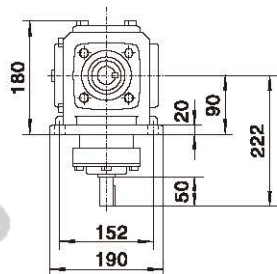
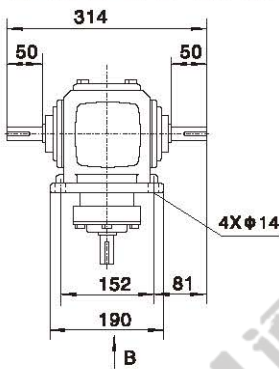
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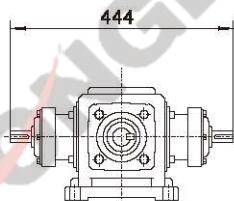
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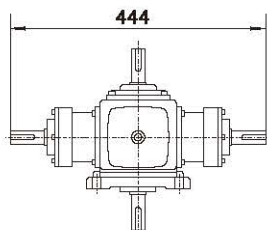
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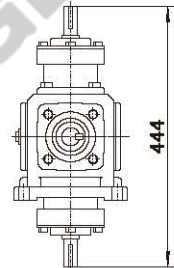
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1-1-LR-O, 1-1-R-O, 1-1-L-O



1-1-UD, 1-1-U, 1-1-D
1-1-UD-O, 1-1-U-O, 1-1-D-O

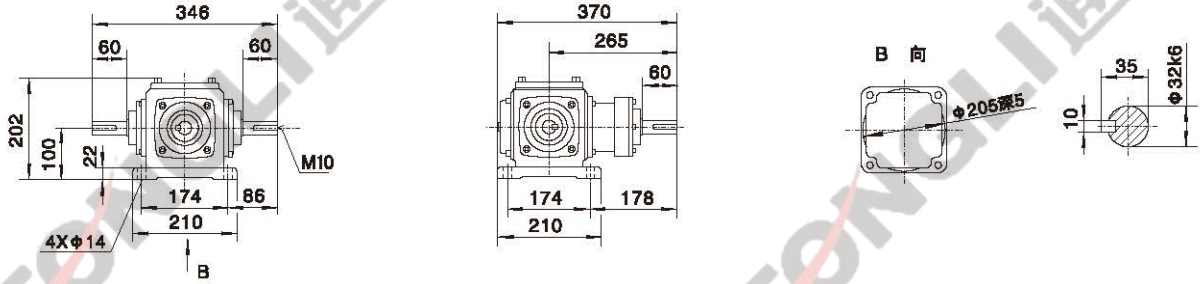


U-D-LR, U-D-R, U-D-L
U-D-LR-O, U-D-R-O, U-D-L-O

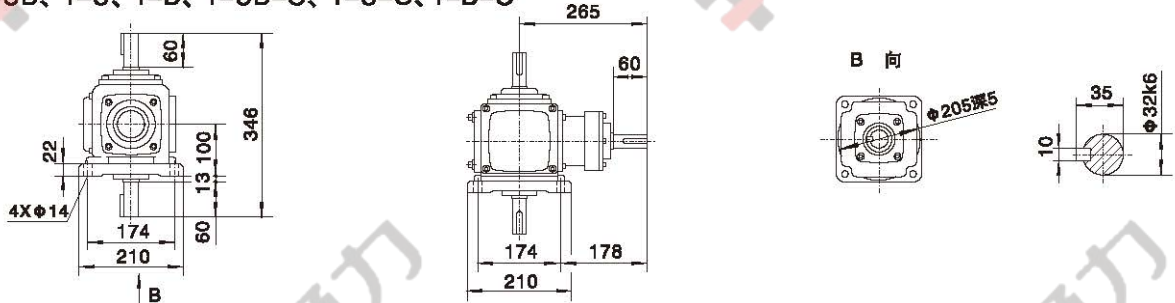


注：以上壳体为通用件,安装尺寸均可相互参照

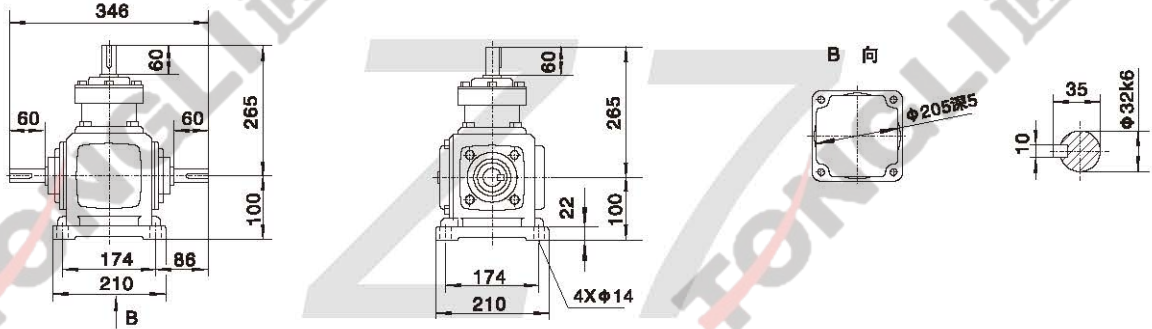
1-LR、1-R、1-L、1-LR-O、1-R-O、1-L-O



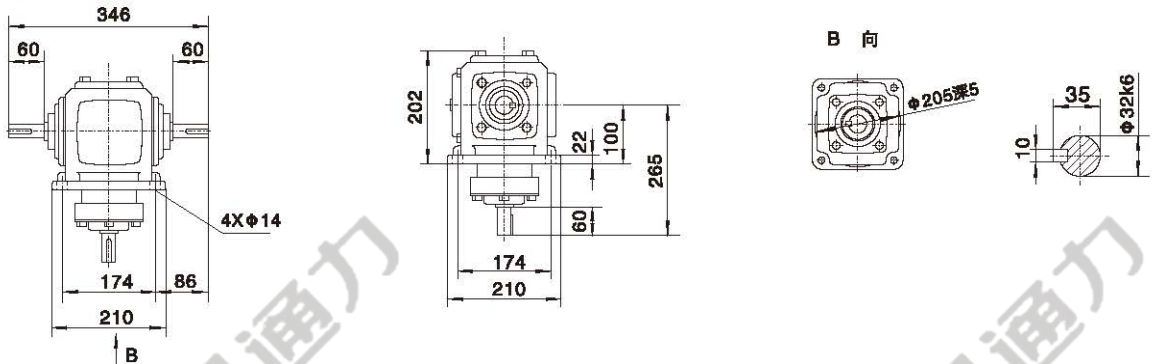
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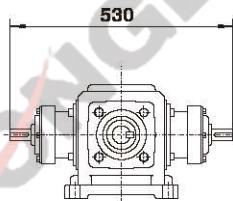
U-LR、U-R、U-L、U-LR-O、U-R-O、U-L-O



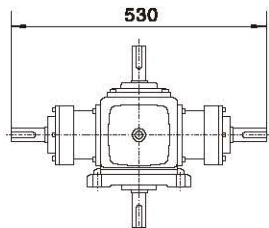
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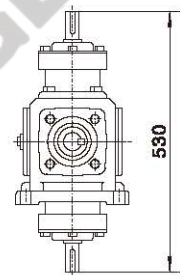
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O



U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O

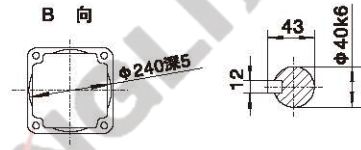
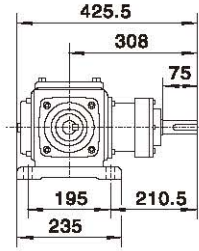
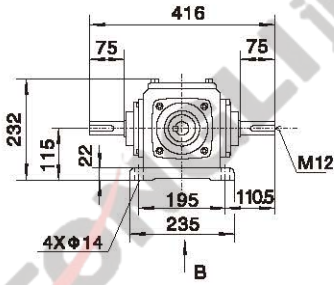


注：以上壳体为通用件,安装尺寸均可相互参照

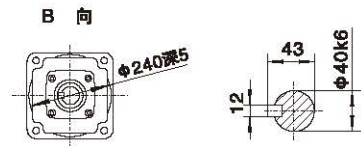
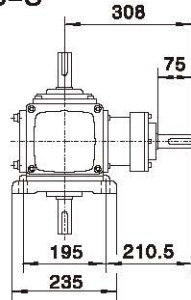
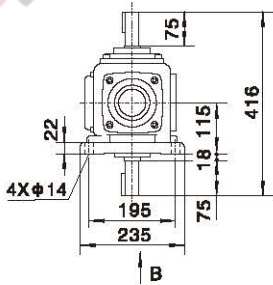
外形安装尺寸 Mounting Dimension Sheets-overview



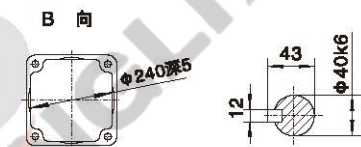
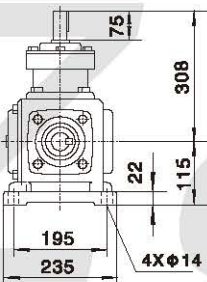
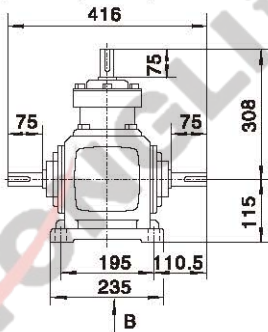
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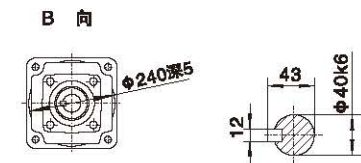
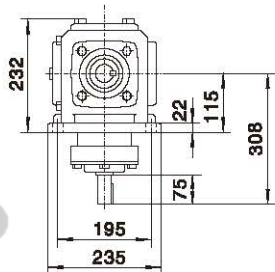
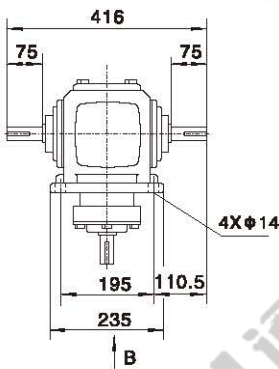
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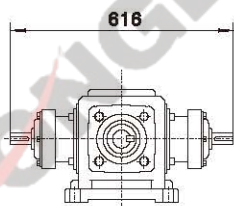
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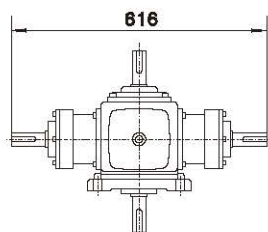
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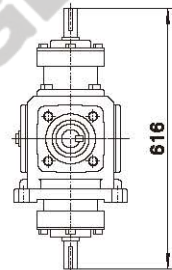
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1-1-LR-O, 1-1-R-O, 1-1-L-O



1-1-UD, 1-1-U, 1-1-D
1-1-UD-O, 1-1-U-O, 1-1-D-O

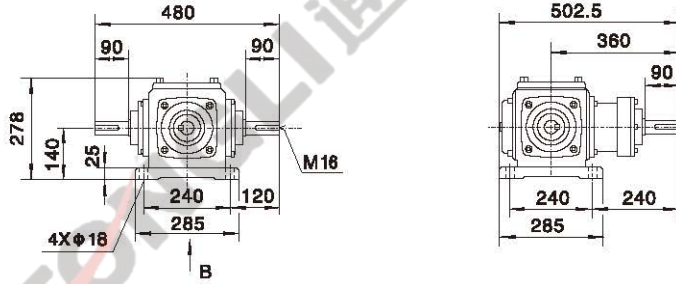


U-D-LR, U-D-R, U-D-L
U-D-LR-O, U-D-R-O, U-D-L-O

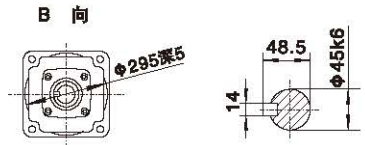
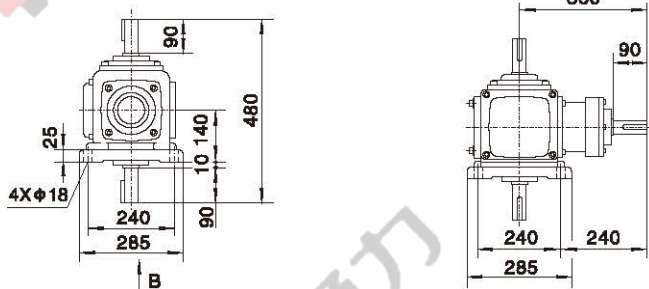


注：以上壳体为通用件,安装尺寸均可相互参照

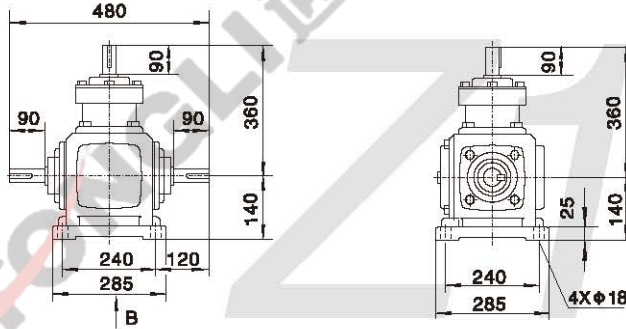
1-LR、1-R、1-L、1-LR-O、1-R-O、1-L-O



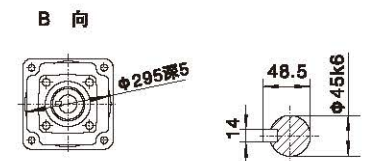
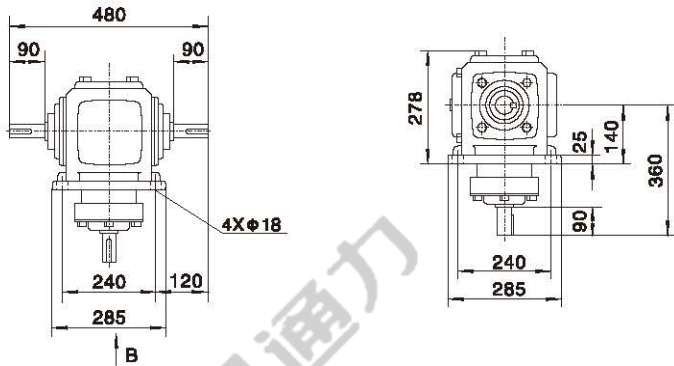
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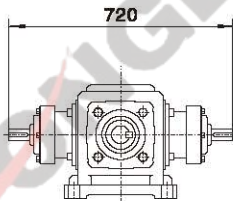
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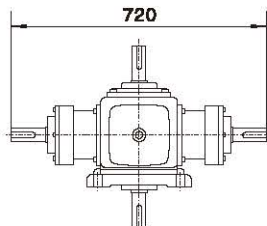
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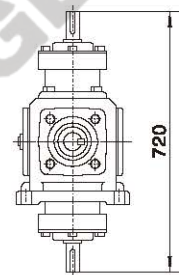
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O



U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O

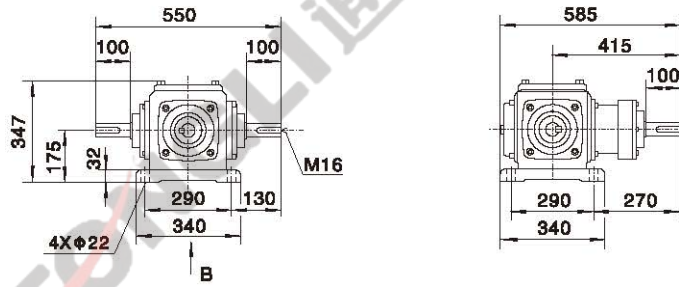


注：以上壳体为通用件,安装尺寸均可相互参照

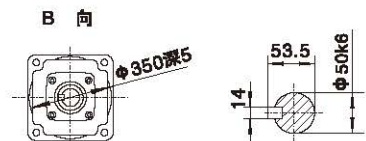
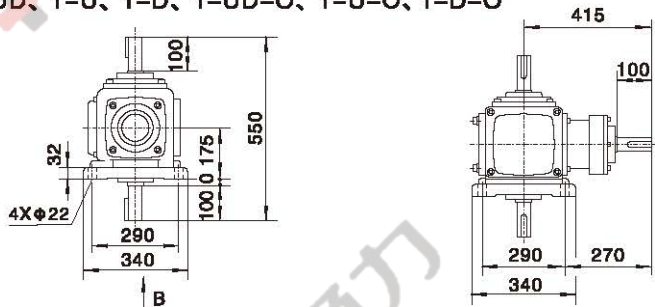
外形安装尺寸 Mounting Dimension Sheets—overview



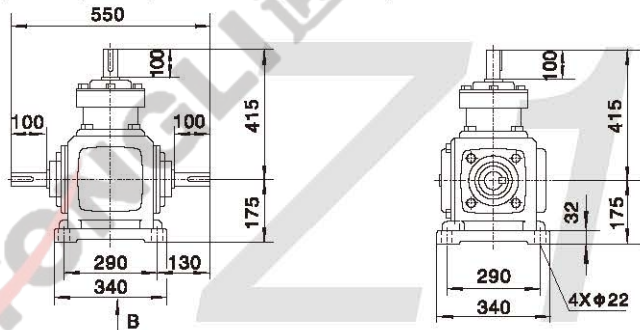
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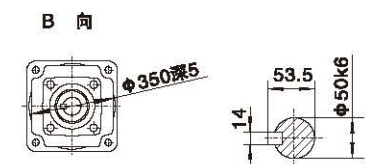
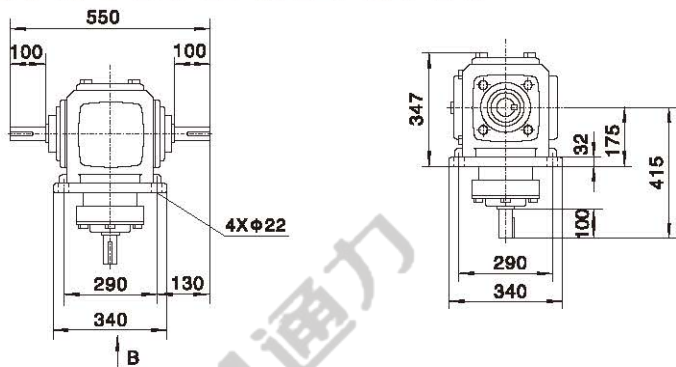
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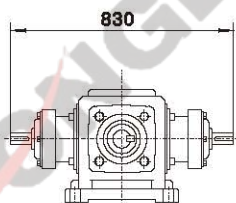
U-LR、U-R、U-L、U-LR-O、U-R-O、U-L-O



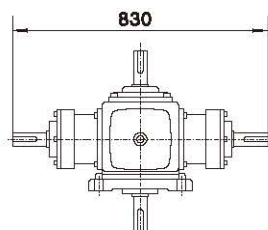
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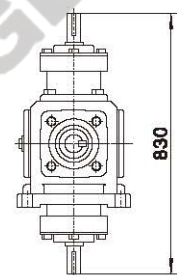
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O

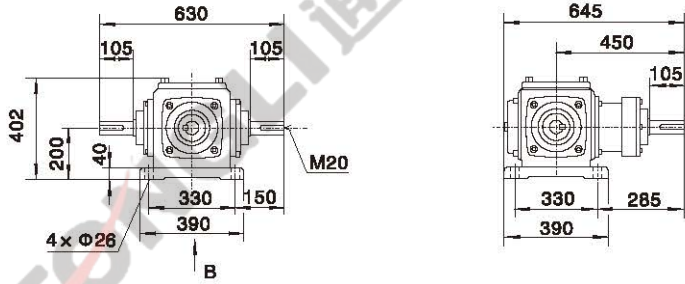


U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O

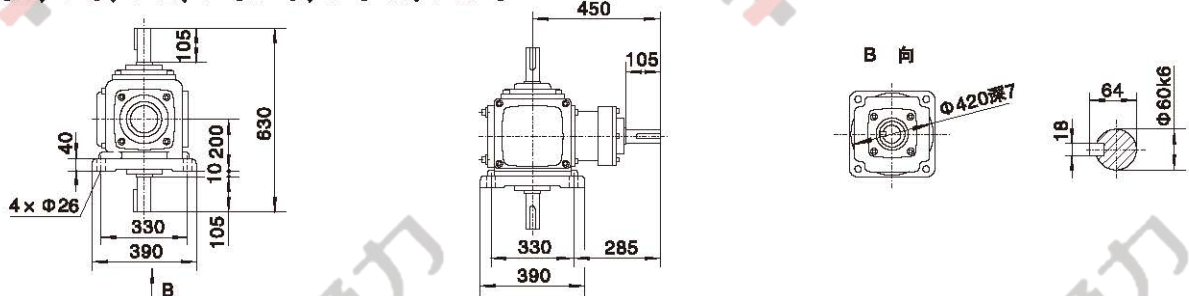


注：以上壳体为通用件,安装尺寸均可相互参照

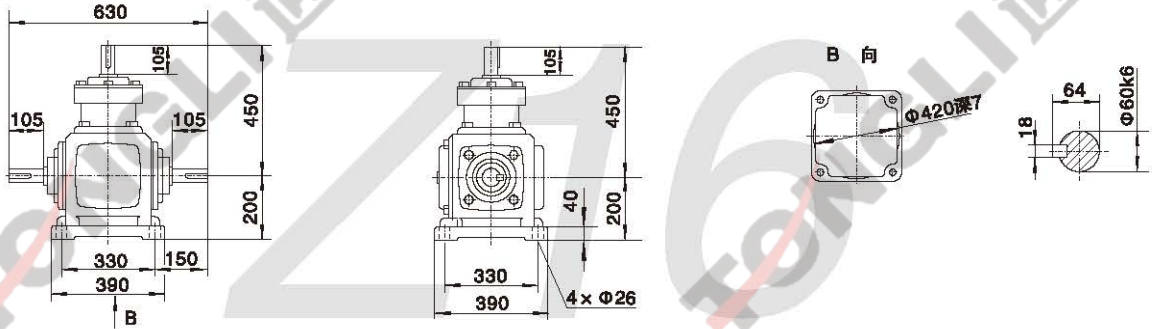
1-LR、1-R、1-L、1-LR-O、1-R-O、1-L-O



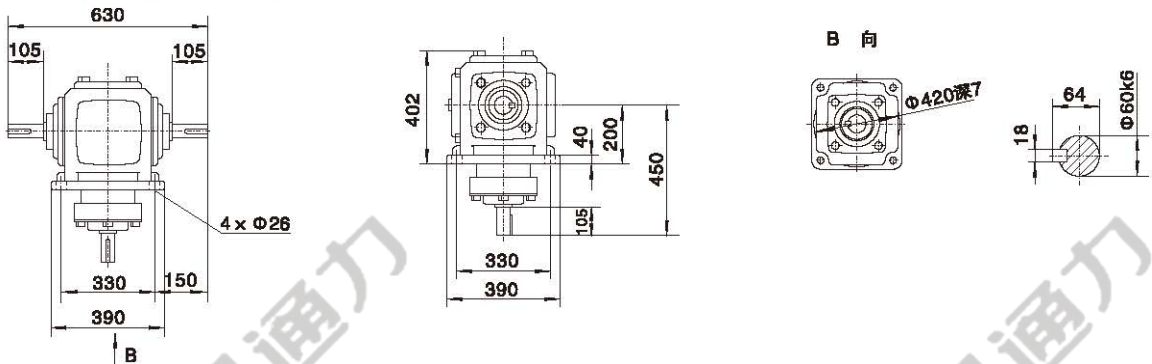
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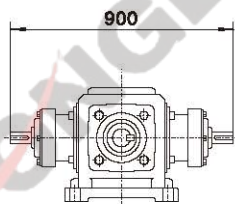
U-LR、U-R、U-L、U-LR-O、U-R-O、U-L-O



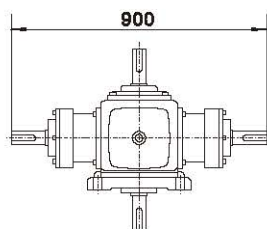
D-LR、D-R、D-L、D-LR-O、D-R-O、D-L-O



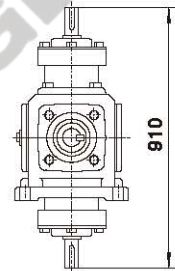
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O



U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O

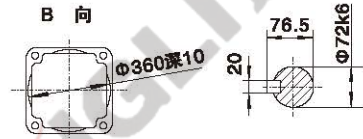
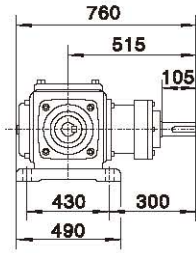
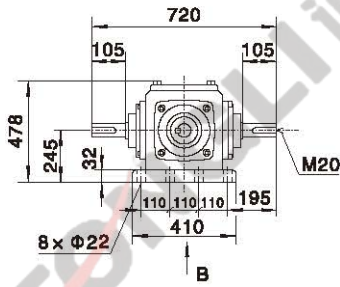


注：以上壳体为通用件,安装尺寸均可相互参照

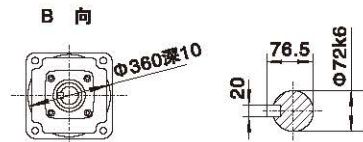
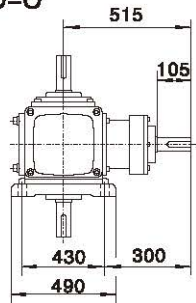
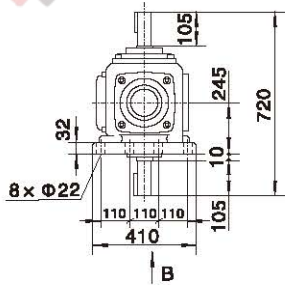
外形安装尺寸 Mounting Dimension Sheets-overview



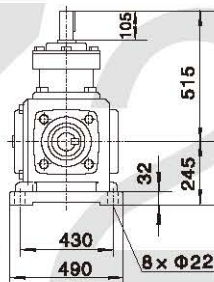
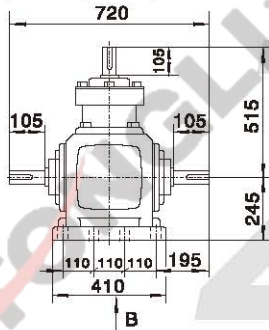
1-LR, 1-R, 1-L, 1-LR-O, 1-R-O, 1-L-O



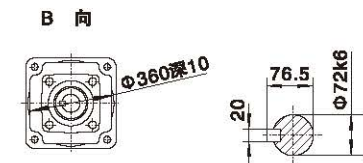
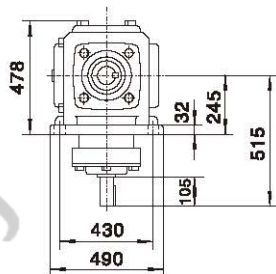
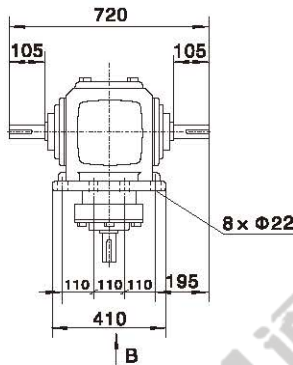
1-UD, 1-U, 1-D, 1-UD-O, 1-U-O, 1-D-O



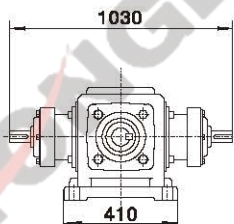
U-LR, U-R, U-L, U-LR-O, U-R-O, U-L-O



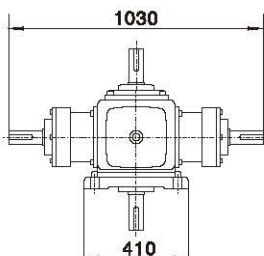
D-LR, D-R, D-L, D-LR-O, D-R-O, D-L-O



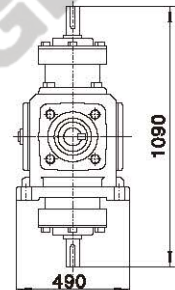
1-1-LR, 1-1-R, 1-1-L
1-1-LR-O, 1-1-R-O, 1-1-L-O



1-1-UD, 1-1-U, 1-1-D
1-1-UD-O, 1-1-U-O, 1-1-D-O

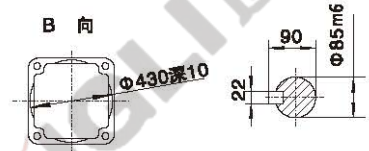
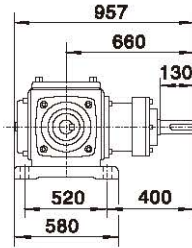
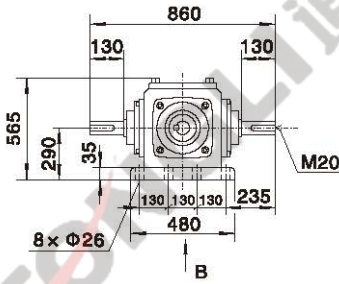


U-D-LR, U-D-R, U-D-L
U-D-LR-O, U-D-R-O, U-D-L-O

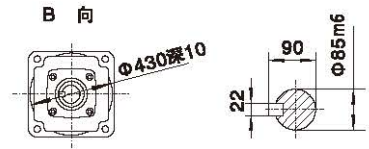
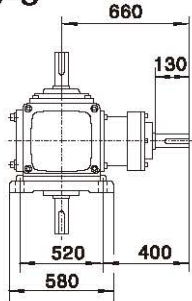
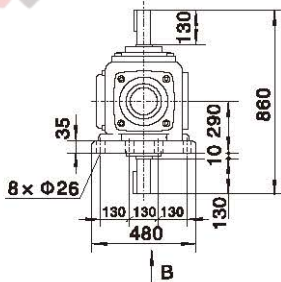


注：以上壳体为通用件,安装尺寸均可相互参照

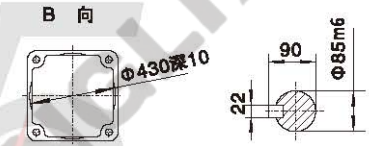
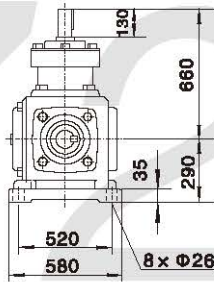
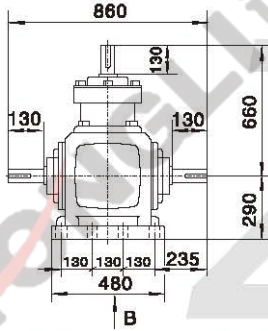
1-LR、1-R、1-L、1-LR-O、1-R-O、1-L-O



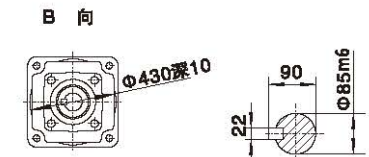
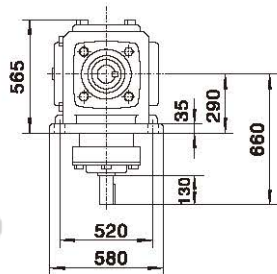
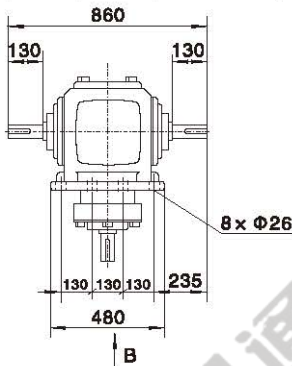
1-UD、1-U、1-D、1-UD-O、1-U-O、1-D-O



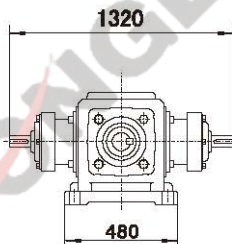
U-LR、U-R、U-L、U-LR-O、U-R-O、U-L-O



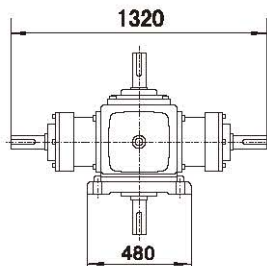
D-LR、D-R、D-L、D-LR-O、D-R-O、D-L-O



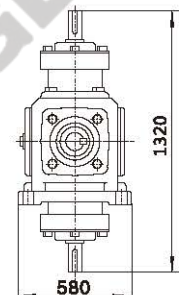
1-1-LR、1-1-R、1-1-L
1-1-LR-O、1-1-R-O、1-1-L-O



1-1-UD、1-1-U、1-1-D
1-1-UD-O、1-1-U-O、1-1-D-O



U-D-LR、U-D-R、U-D-L
U-D-LR-O、U-D-R-O、U-D-L-O



注：以上壳体为通用件,安装尺寸均可相互参照

减速器润滑

Gear Units Lubrication

润滑油种类选择

Lubricant selection

减速器使用工况	润滑油种类
冶金轧钢、井下采掘、高温有冲击、含水等	L-CKD重载荷工业齿轮油 (GB5903-1995)
其余工况	L-CKC中载荷工业齿轮油 (GB5903-1995)

Operating conditions of gear units	Lubricant specification
Steel rolling, excavating, high temperature with shock, moisture, etc.	L-CKD heavy load industrial gear oil (GB5903-1995)
Others	L-CKC moderate load industrial gear oil (GB5903-1995)

注:若选用合成齿轮油则更具有良好的抗老化性能,可有效地提高减速器的机械效率。

Note: It adopts the synthetic oil which has the better performance of anti-ageing so that improves the mechanical efficiency effectively.

润滑油粘度

Lubricant viscosity

条件	润滑油粘度等级 40°C温度下的ISO-VG 粘度 mm ² /s (cst)
高速级圆周速度 v < 2.5 m/s, 或环境温度在 35-50°C 之间	VG320 (或 VG460)
高速级齿轮圆周速度 v > 2.5 m/s, 或环境温度在 35°C 以下, 或采用循环油润滑	VG220

Conditions	Lubricant viscosity classification Viscosity ISO-VG at 40 °C in mm ² /s (cst)
Rotation velocity of high speed stage v < 2.5 m/s, or ambient temperature between 35-50°C	VG320 (or VG460)
Rotation velocity of high speed stage v > 2.5 m/s, or ambient temperature at 35°C, or lubrication with circulating oil	VG220

浸油润滑润滑油的工作温度

Working temperature for dip feed lubrication

润滑油种类	工作温度/°C
中载荷工业齿轮油 L-CKC	-8°C 至 +90°C (瞬时可达 100°C)
重载荷工业齿轮油 L-CKD	-5°C 至 +100°C (瞬时可达 110°C)
蜗轮蜗杆油 L-CKE/P	-5°C 至 +100°C (瞬时可达 110°C)

Lubricant specification	Working temperature/°C
L-CKC moderate load industrial gear oil	From -8°C to +90°C (up to 100°C at moment)
L-CKD heavy load industrial gear oil	From -5°C to +100°C (up to 110°C at moment)

注意:如果减速器的工作温度高于或低于表中规定极限值则应重新确定合适的润滑油。
当环境温度低于 0°C 时启动前油温需加热到 0°C 以上。

Notes: If the temperatures of gear units are above or below the values as listed in table, it determines the proper oil again. If the ambient temperatures are below 0°C, the oil has to be heated above 0°C.

强制润滑润滑油允许的极限温度

Permissible temperature limit for forced feed lubrication

40°C 温度下的 ISO-VG 粘度 mm ² /s (cst)	强制润滑允许的极限温度/°C	
	矿物油	合成油
VG220	10-80	0-90
VG320	15-90	5-100
VG460	20-95	10-105

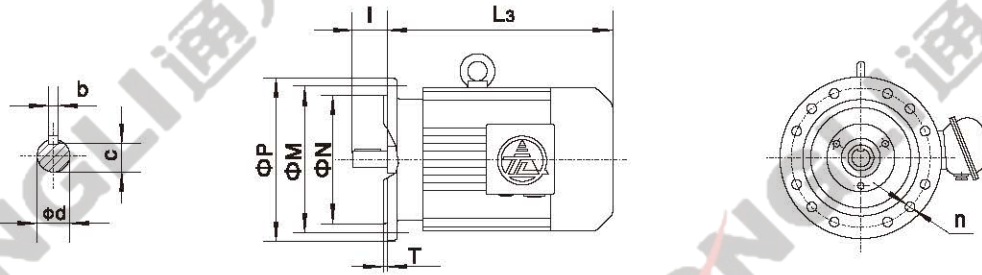
Viscosity ISO-VG at 40 °C in mm ² /s (cst)	Permissible temperature limit for forced feed lubrication/°C	
	Mineral oil	Synthetic oil
VG220	10-80	0-90
VG320	15-90	5-100
VG460	20-95	10-105

注意:当油温低于表中所列数值时,必须提供浸油润滑方式,或对润滑油加热。

Notes: If the temperatures are below the values as listed in table, dip lubrication has to be provided or the oil must be heated.

标准普通电机和特殊电机的参数及安装尺寸

Standard and ordinary motor or special motor parameter and mounting dimension

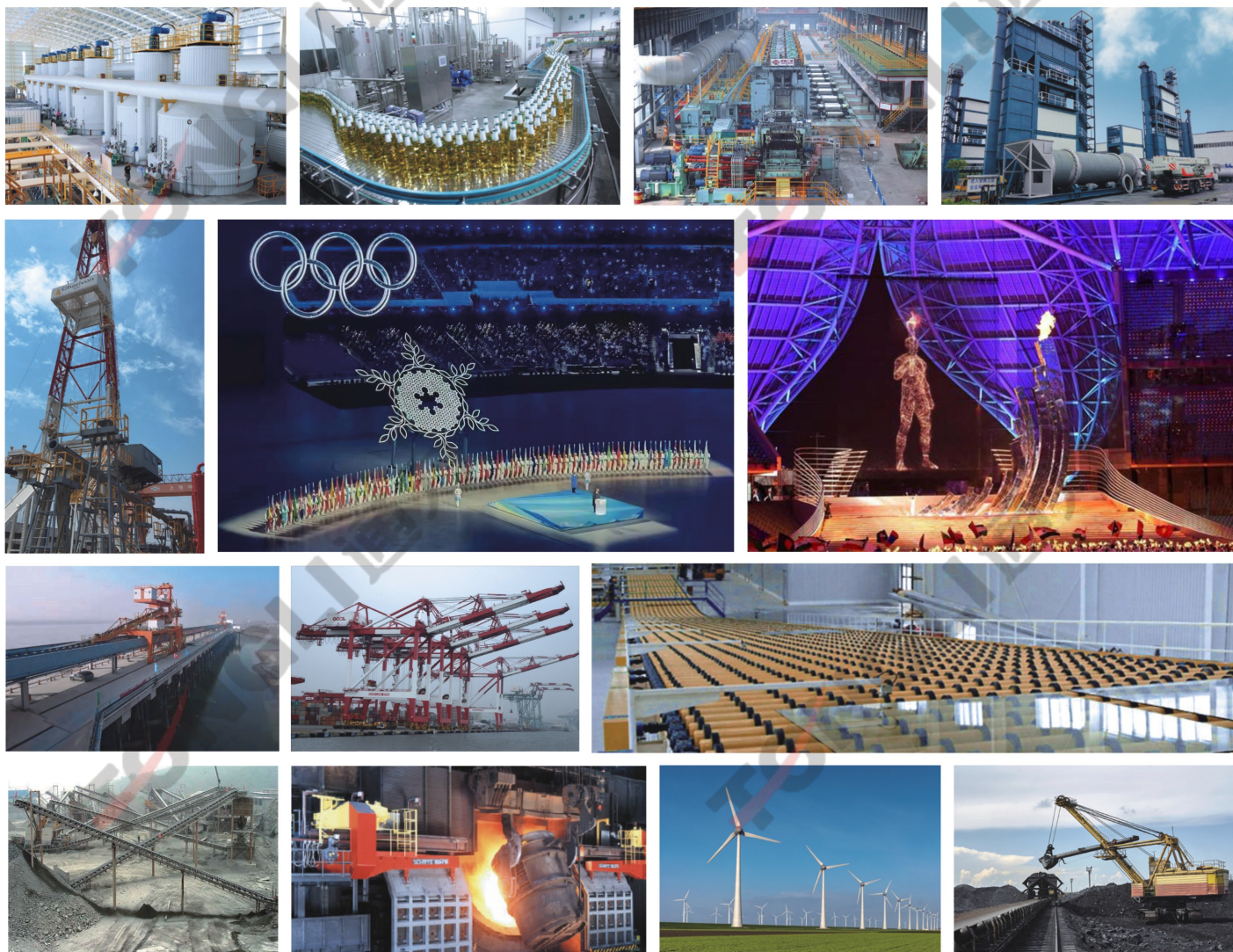


电机 机座号 Motor size	4极 4 Pole		6极 6 Pole		8极 8 Pole		L3				安装尺寸 Mounting dimensions										M(kg)				
	P ₁ (kW)	n ₁ (r/min)	P ₁ (kW)	n ₁ (r/min)	P ₁ (kW)	n ₁ (r/min)	Y ₂	B	E	V	M	N	P	n	T	d	l	b	c	Y (铝壳 Aluminum housing)	Y ₂	B	E	V	
63M1	0.12	1390																		5.5	13			11	
63M2	0.18	1390					202	270	328		115	95j6	140	4xΦ10	3	11j6	23	4	8.5	6	13.5	15		12	
71M1	0.25	1390	0.18	850																6.5	14	16	12	14	
71M2	0.37	1390	0.25	850			225	285	345		130	110j6	160	4xΦ10	3.5	14j6	30	5	11	7.5	14.5	16	13	15	
80M1	0.55	1390	0.37	885	0.18	645														10	15	31	20	16	
80M2	0.75	1390	0.55	885	0.25	645	255	290	350	310	165	130j6	200	4xΦ12	3.5	19j6	40	6	15.5	11	16	32	21	17	
90S	1.1	1400	0.75	910	0.37	670	270	310	370	320	165	130j6	200	4xΦ12	3.5	24j6	50	8	20	16	23	35	27	23	
90L	1.5	1400	1.1	910	0.55	670	295	335	395	345	165	130j6	200	4xΦ12	3.5	24j6	50	8	20	20	25	39	31	28	
100L1	2.2	1420	1.5	920	0.75	680															33	49	41	35	
100L2	3	1420			1.1	680	325	370	420	370	215	180j6	250	4xΦ15	4	28j6	60	8	24			35	53	44	36
112M	4	1440	2.2	940	1.5	690	340	400	450	390	215	180j6	250	4xΦ15	4	28j6	60	8	24		41	67	60	43	
132S	5.5	1440	3	960	2.2	710	390	430	505	450	265	230j6	300	4xΦ15	4	38k6	80	10	33		65	93	85	63	
132M	7.5	1460	4	960	3	710	430	470	545	490	265	230j6	300	4xΦ15	4	38k6	80	10	33		76	105	98	75	
			5.5	960																					
160M	11	1460	7.5	960	4	720	505	545	610	550	300	250h6	350	4xΦ19	5	42k6	110	12	37		118	150	143	116	
					5.5	720																			
160L	15	1460	11	960	7.5	720	560	585	655	595	300	250h6	350	4xΦ19	5	42k6	110	12	37		132	169	165	136	
180M	18.5	1470	/	/	/	/	590	620	715	740	300	250h6	350	4xΦ19	5	48k6	110	14	42.5		164	205	203	169	
180L	22	1470	15	970	11	730	630	640	765	790	300	250h6	350	4xΦ19	5	48k6	110	14	42.5		182	222	216	183	
200L	30	1470	18.5	970	15	730	660	695	790	850	350	300h6	400	4xΦ19	5	55k6	110	16	49		245	300	296	236	
			22	970																					
225S	37	1480	/	/	18.5	730	675	705	860	910	400	350h6	450	8xΦ19	5	60m6	140	18	53		258	360	370	291	
225M	45	1480	30	980	22	730	705	730	890	940	400	350h6	450	8xΦ19	5	60m6	140	18	53		290	390	405	327	
250M	55	1480	37	980	30	730	770	795		1060	500	450h6	550	8xΦ19	5	65m6	140	18	58		388	530	498	393	
280S	75	1480	45	980	37	730	845	870		1160	500	450h6	550	8xΦ19	5	75m6	140	20	67.5		510	660	633	520	
280M	90	1485	55	980	45	740	895	920		1260	500	450h6	550	8xΦ19	5	75m6	140	20	67.5		606	785	723	610	
315S	110	1485	75	980	55	740	1100	1100		1330	600	550h6	660	8xΦ24	6	80m6	170	22	71		910	1000	1150	950	
315M	132	1485	90	985	75	740	1180	1180		1380	600	550h6	660	8xΦ24	6	80m6	170	22	71		1000	1100	1230	1030	
315L	160	1485	110	985	90	740	1270	1270		1450	600	550h6	660	8xΦ24	6	80m6	170	22	71		1055	1100	1320	1100	
	200	1485	132	985	110	740			1128																1160

注：由于结构需要及生产厂家不同，有时参数会有所变化，此表仅供参考，准确尺寸请来电垂询。

Note: Sometimes the parameters may be changed with the different structures and manufacturers, this table is only for reference, please refer to us for the exact dimensions.

APPLICATION
FIELDS
应用领域



钢铁冶金
Steel metallurgy



橡胶塑料
Rubber plastic



石油化工
Petrochemical



环保生态
Environmental
Protection



电力设备
Power equipment



建材机械
Building materials
machinery



港口机械
Port machinery



煤矿机械
Coal mining
machinery



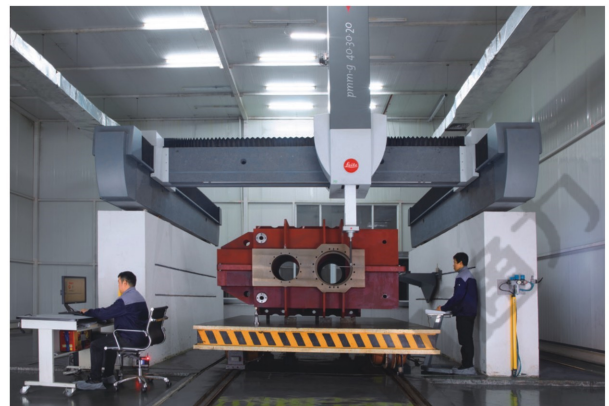
工程机械
Construction
machinery



起重运输
Lifting and
transportation

PROCESSING AND
TESTING EQUIPMENT

加工和检测设备

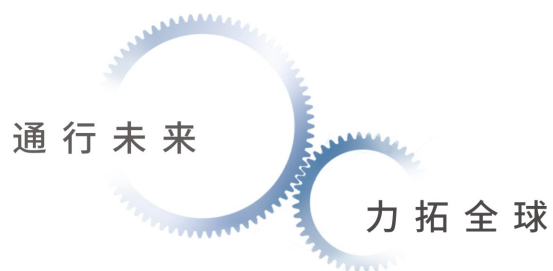


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