

# T系列螺旋锥齿轮转向箱

## T SERIES BEVEL GEAR UNITS



微笑服务 Smile service



企业理念 Enterprise idea



完美品质 Perfect quality



传递合作 Transmission cooperation



ISO9001:2000

### 结构、特性与应用

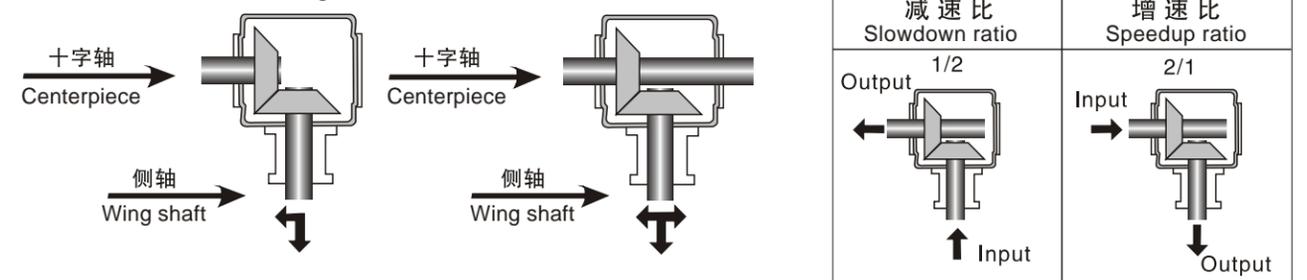
Structure、characteristic and application



机壳：高刚性FC-25铸铁铸造；  
 齿轮：齿轮采用优质高纯净度合金钢20CrMnTiH渗碳淬火，及研磨而成；  
 主轴：轴类采用合金钢调质、高悬重负荷能力；  
 轴承：配备重负荷能力的滚锥轴承；  
 油封：双封唇片的油封、兼具防尘及防漏油的能力；  
 Shell: cast with high-rigidity FC-25 cast iron;  
 Gear: adopting high-quality high-purity alloy steel 20CrMnTiH with carburization, quenching and grinding;  
 Spindle: adopting alloy steel with quenching and tempering and strong suspending and load capacity;  
 Bearing: adopting rolling cone bearing with heavy load capacity;  
 Oil seal: double-lip oil seal with both dustproof and leakproof capacity;

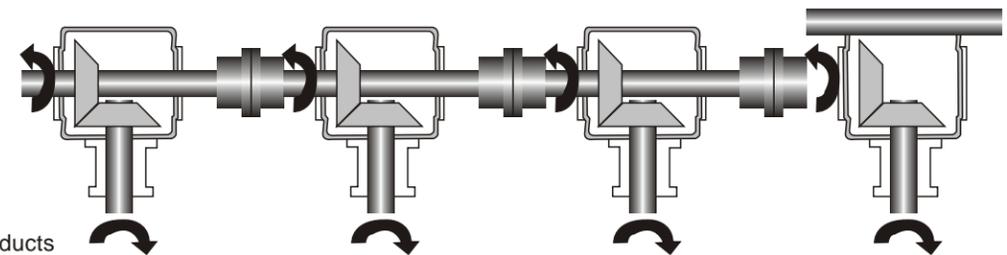
### 转向箱基本传动方式

Basic drive mode of steering box



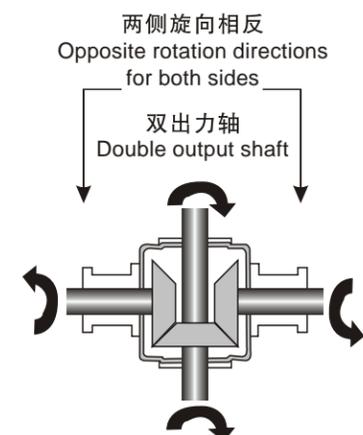
### 转向箱应用例

Application example of steering box



### 特殊品

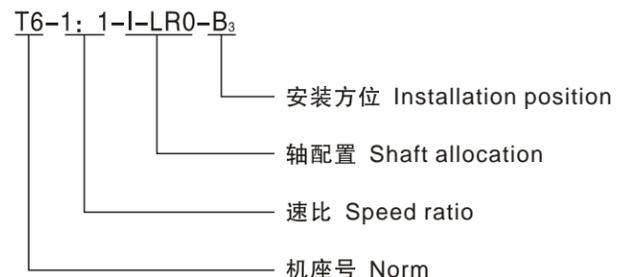
Special products



单出力轴 Single output shaft		双出力轴 Double output shaft	
2 Shaft Type	3 Shaft Type	3 Shaft Type	4 Shaft Type



一、型号表示方法 Type Designation



二、轴配置及轴旋转方向的关系 Relationship between Shaft Allocation and Shaft Rotation Direction

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

三、T系列重量表: Weight Table of T Series:

型号 Type	T <sub>2</sub>	T <sub>4</sub>	T <sub>6</sub>	T <sub>7</sub>	T <sub>8</sub>	T <sub>10</sub>	T <sub>12</sub>	T <sub>16</sub>	T <sub>20</sub>	T <sub>25</sub>
重量 Weight(kg)	3	12	25	37	53	82	125	195	302	500

四、润滑: Lubrication:

- 适当的润滑油使用, 可以发挥转向机的效率, 并提高其运转的寿命。
- 初期使用二周或100-200小时, 为初摩擦期, 这之间可能有少许金属摩擦粉粒, 请务必清洁内部, 并换新润滑油。
- 长期使用时, 每半年至一年或者1000-2000小时, 更换一次润滑油。

润滑油种类:

本产品润滑油采用中国石化全效齿轮油90<sup>#</sup>-120<sup>#</sup>, 低转速、轻负荷条件, 建议采用全效齿轮油90<sup>#</sup>, 重负荷、高温的条件, 建议采用全效齿轮油120<sup>#</sup>。  
※ 如有特殊使用条件, 请事先与本公司洽商。

- Proper use of lubricating oil can improve efficiency and service life of the steering engine.
- The first 2 weeks or 100-200 hours of use is the initial frictional wear period, during which there may be a few metal particles due to frictional wear, so it's necessary to clean the inside and change with new lubricating oil.
- As for long-time service, it's necessary to replace the lubricating oil every 0.5-1 year or 1,000-2,000 hours.

Varieties of lubricating oil:

The lubricating oil for the product adopts Sinopec 90<sup>#</sup>-120<sup>#</sup> full-effect gear oil. It's recommended to use 90<sup>#</sup> full-effect gear oil in the condition of slow speed of revolution and light load and 120<sup>#</sup> in the condition of heavy load and high temperature.

※ In case of special service conditions, please negotiate with our company beforehand.

五、安装型式: Installation Type:

	B <sub>3</sub>	B <sub>3</sub>	V <sub>5</sub>	B <sub>6</sub>	V <sub>6</sub>	B <sub>7</sub>
1-LR(-0)						
1-R(-0)						
1-L(-0)						
1-UD(-0)						
1-U(-0)						
1-D(-0)						
U-LR(-0)						
U-R(-0)						
U-L(-0)						
D-LR(-0)						
D-R(-0)						
D-L(-0)						
1-1-LR(-0)						
1-1-R(-0)						
1-1-L(-0)						
1-1-UD(-0)						
1-1-U(-0)						
1-1-D(-0)						
U-D-LR(-0)						
U-D-R(-0)						
U-D-L(-0)						



### 六、转向箱机型选用 Adoption of Steering Box Type

步骤1: 决定修正系数(表一)。

步骤2: 选择适当转向箱需满足扭力或KW值需求在(表二)(表三)指示速比声出力轴转速。

Step 1: to decide correction coefficient (Table 1).

Step 2: to select proper steering box which should meet the need for torque or KW. speed ratios and output shaft rotation speed indicated in (Table 2) (Table 3).

负荷性质 Load nature	电动机 Motor	使用时间 Service time			
		0.5	2	10	24
均一负荷 Uniform load		0.8	0.9	1.00	1.25
		(0.9)	(1.00)	(1.25)	(1.50)
中负荷 Middle load		0.9	1.00	1.25	1.50
		(1.00)	(1.25)	(1.50)	(1.75)
重负荷 Heavy load		1.00	1.25	1.50	1.75
		(1.25)	(1.50)	(1.75)	(2.00)

扭力需求 ≥ 使用扭力 × 修正系数  
 KW值需求 ≥ 使用KW值 × 修正系数  
 Torque Need ≥ Used Torque × Correction Coefficient  
 KW Need ≥ Used KW × Correction Coefficient

注一: 均一负荷及连续运转期修正系数为1.0  
 注二: 每小时启动停止10回合以上采用( )内数值  
 Note 1: correction coefficient of uniform load and continuous running period is 1.0  
 Note 2: the value within ( ) is adopted for over 10 rounds of starting and stopping per hour

### 七、选型表 Model selection table

速比 Speed ratio	输入转速 r/min	T2	T4	T6	T7	T8	T10	T12	T16	T20	T25
		输入功率 Input power (KW)									
1 : 1	1450	1.25	3.45	10.43	15.4	31.9	45.7	67.2	114		
	1150	1.0	2.93	8.89	12.88	26.2	38.9	56.77	97.3	163	
	870	0.78	2.42	7.35	10.64	20.3	31.22	47.25	79.8	135	234
	580	0.522	1.71	5.145	7.98	13.8	21.42	34.79	60.13	101	176
	400	0.366	1.20	3.64	5.83	9.8	15.05	24.57	46.27	78	136
	300	0.277	0.91	2.37	4.44	7.42	11.48	18.76	37.87	63	111
	200	0.186	0.616	1.86	3.01	5.06	7.77	12.74	27.51	48	83
	100	0.095	0.313	0.95	1.54	2.59	4.0	6.55	14.21	24	42
1 : 1.5	1450			8.47	10.5	13.3	27.09	40.81			
	1150			6.97	8.4	10.78	21.84	34.4			
	870			5.36	6.51	8.26	16.87	28.49			
	580			3.66	4.42	5.69	11.48	20.23			
	400			2.56	3.08	3.99	8.12	14.21			
	300			1.939	2.34	3.038	6.14	10.85			
	200			1.309	1.59	2.037	4.16	7.35			
	100			0.66	0.81	1.043	2.12	3.75			
1 : 2	1450		2.324	5.53	7.42	9.8	16.5	28	51.5	88	
	1150		1.869	4.47	5.98	7.91	13.3	11.9	41.6	71	139
	870		1.428	3.41	4.59	6.09	10.22	16.8	32.2	55	108
	580		0.966	2.33	3.12	4.14	7	11.41	21.91	37	74
	400		0.674	1.63	2.18	2.8	4.91	8.05	15.4	26	52
	300		0.510	1.23	1.65	2.19	3.73	6.09	11.69	20	40
	200		0.344	0.82	1.11	1.48	2.52	4.12	7.91	13	27
	100		0.174	0.42	0.56	0.75	1.28	2.10	4.08	7	14
10		0.018	0.043	0.05	0.07	0.133	0.219	0.423	0.74	1.47	

注: 如需做更大传动比请来电咨询。 Note: Please call us for inquiries about larger transmission ratio.

T2-T16尺寸规格表 T2-T16 Dimension and specification table

机型 Type	A1	a	a0	b	b0	C	d(h7)	E	e1(H8) × 深 e1(H8) × Depth	f	h	h1	L	L1	L2	L4	LAB	n	r	s	t
T2	48	100	84	100	84	10	15	33	94 × 3	5	52	40	124	82	52	114	/	4	5	9	17
T4	53.5	155	125	155	125	17	19	38	155 × 5	2	76	60	180	117.5	76	156	360	4	6	10.5	21.5
T6	81	190	152	190	152	17	25	50	190 × 5	17	90	76	222	146	89.5	214	444	4	8	14	28
T7	88	210	174	210	174	20	32	62	220 × 5	13	100	87	265	178	99	226	530	4	10	14	35
T8	110.5	235	195	235	195	22	40	75	250 × 5	18	115	98	308	210.5	114.5	266	616	4	12	14	43
T10	120	285	240	285	240	25	45	90	305 × 5	10	140	118	360	240	138	300	720	4	14	16	48.5
T12	130	340	290	340	290	32	50	100	370 × 5	0	175	165	415	270	165	350	830	4	14	21	53.5
T16	150	390	330	390	330	40	60	105	420 × 7	10	200	186	455	290	186	420	/	4	18	25	64

T系列  
T SERIES

T系列  
T SERIES



T20-T25尺寸规格表 T20-T25 Dimension and specification table

1LR 1LR-0		
1UD 1UD-0		
ULR ULR-0		
DLR DLR-0		

机型 Type	A1	a	a0	b	b0	C	D	d(h7)	E	e1(H8) × 深 e1(H8) × Depth	f	h	h1	L	L1	L2	L4	LAB	n	r	s	t
T20	195	490	430	410	110	32	275	72	105	360 × 10	10	245	217	545	330	217	510	/	8	20	21	76.5
T25	235	580	520	480	130	35	299	85	130	430 × 10	10	290	255	660	400	255	600	/	8	22	24	90

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