



# 公司简介 Company Profile

常州泰利减速机有限公司自2003年成立以来，一直致力于为客户提供优质的硬齿面挤出减速机，近期公司研发出性能稳定高效的DJYG系列减速机，另公司主营产品：ZLYJ系列减速机、SZ系列减速机、摆线针轮减速机。产品质量通过市场验证得到国内外客户的一致认可。

同时，公司加大对技术设备的投入，在保证减速机的质量基础上不断开发设计新品满足不同客户的要求。

欢迎阁下莅临指导！

Changzhou Tili Reducer Co.,Ltd has been committed to provide high-quality harden surface extruder gearbox since established in 2003. recently we developed more stable and efficient performance gearbox named DJYG series, other main products: ZLYJ series reducer, SZ series reducer, cycloidal reducer. Product quality has been recognized by domestic and foreign customers through market validation.

At the same time, company increased investment in technical equipment, constantly develop new products designed to meet different customer requirements on the basic of ensuring quality.

Welcome your guidance here!

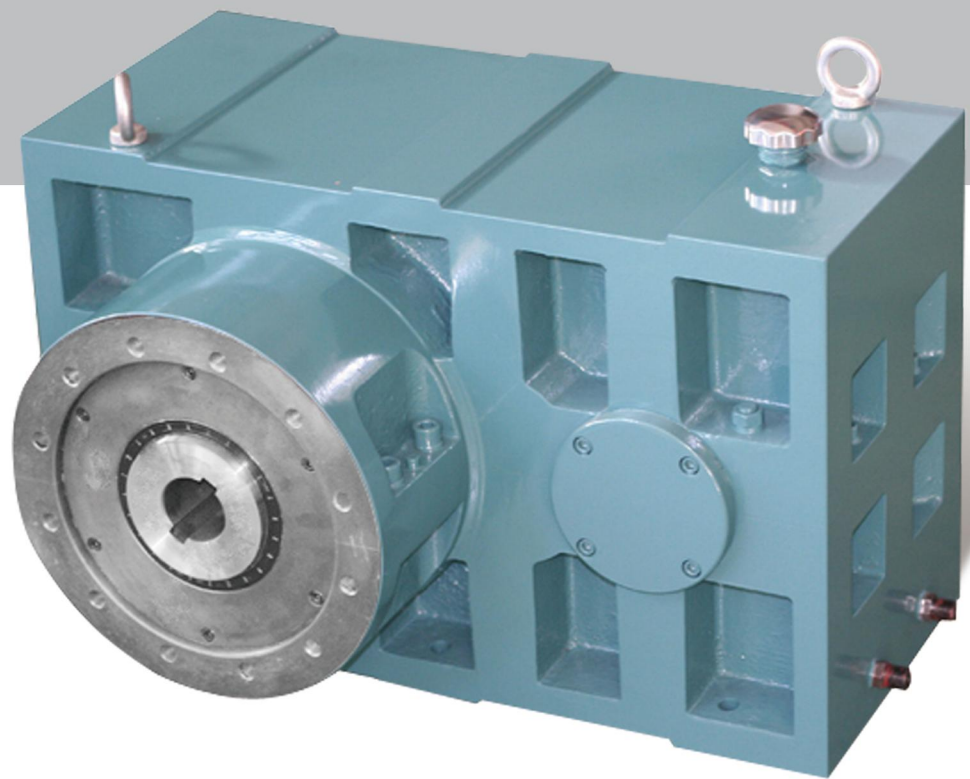


# 目 录 CONTENT

---

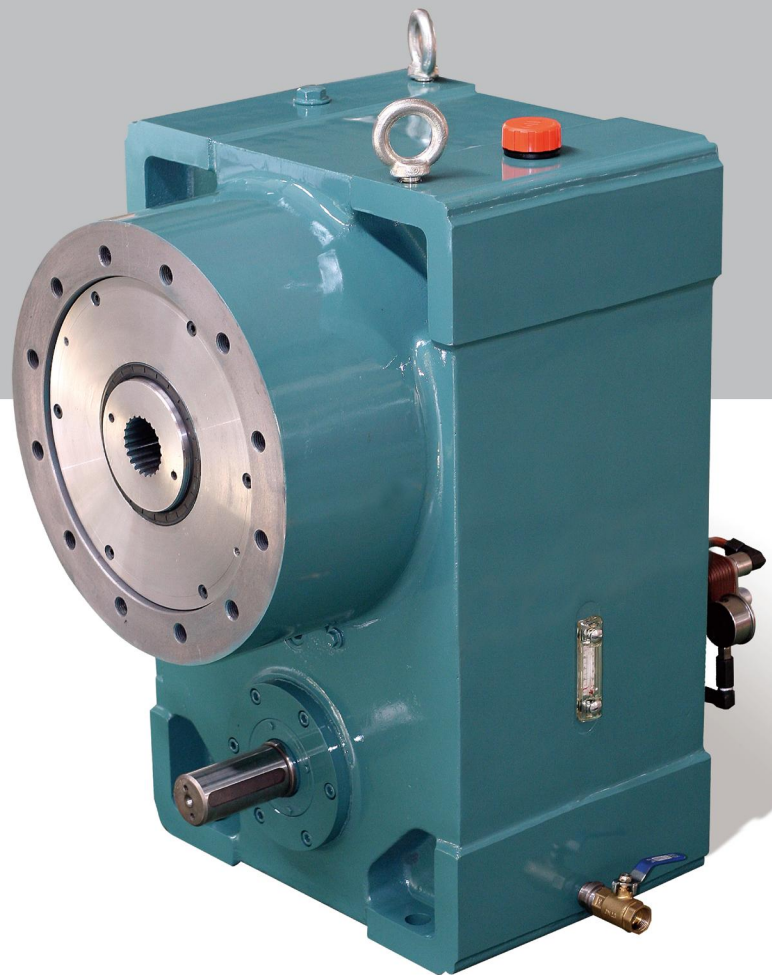
1. ZLYJ系列减速机	.....	(3-9)
ZLYJ series extruder gearbox		
2. DJYG高扭减速机	.....	(3-9)
DJYG series high torque extruder gearbox		
3.SZ系列减速机	.....	(3-9)
SZ series twin screw extruder gearbox		





**ZLYJ系列减速机**  
ZLYJ series extruder gearbox





**DJYG高扭减速机**  
DJYG high torque extruder gearbox



## SZ系列减速机

SZ series twin screw extruder gearbox

# ZLYJ 塑料橡胶挤出机专用减速

ZLYJ plastic rubber extruder dedicated reducer

## 一、概述 ( Summary )

ZLYJ 系列减速机是为塑料、橡胶螺杆挤出机配套设计的高精度硬齿面带推力包的齿轮传动装置。产品设计参照 JB/T8853-2001《圆柱齿轮减速机》规定的各项技术规范。其特点是齿轮和轴类零件采用了高强度合金钢材质。齿轮经渗碳、淬火、磨齿工艺加工。齿轮精度为 GB10095-88 的 6 级。齿轮硬度 HRC54-62。在空心输出轴前端配置有大规格推力轴承,承受螺杆工作时的轴向推力。整机具有体积小、承载能力高、传动平稳、噪声低、效率高等特点。

ZLYJ series gearbox is one kind of gear transmission with thrust package for plastic, rubber extruder . Product Design reference JB / T8853-2001 the technical specifications "cylindrical gear reducer" Regulations. It features gears and shaft parts with a high-strength alloy steel. Gear by carburizing, quenching, grinding teeth processing technology. Gear accuracy GB10095-88,level 6. Axial thrust gear hardness of HRC54-62. In the front end of the hollow output shaft is equipped with large-sized thrust bearings to withstand the screw at work. Machine is small, high carrying capacity, smooth transmission, low noise and high efficiency etc.

## 二、适用范围 ( Use Range )

1. 高速轴转速不大于 1500 转 / 分。
  2. 齿轮传动圆周速度不大于 20 米 / 秒。
  3. 工作环境温度为 -40~45℃, 如果低于 0℃, 启动前润滑油应预热至 0℃以上
- 本减速机可用于正反两个方向运转, 但部分机型高速轴带单向油泵, 默认方向为: 面向输出轴, 输出轴为顺时针旋转。如方向改变, 请在订货时说明

1. High-speed shaft speed is not greater than 1500 rpm

2. The peripheral speed of gear is not greater than 20 m / s
3. The working environment temperature is -40~45°C, if less than 0 °C,the lubricant should be preheated to above 0 °C before start

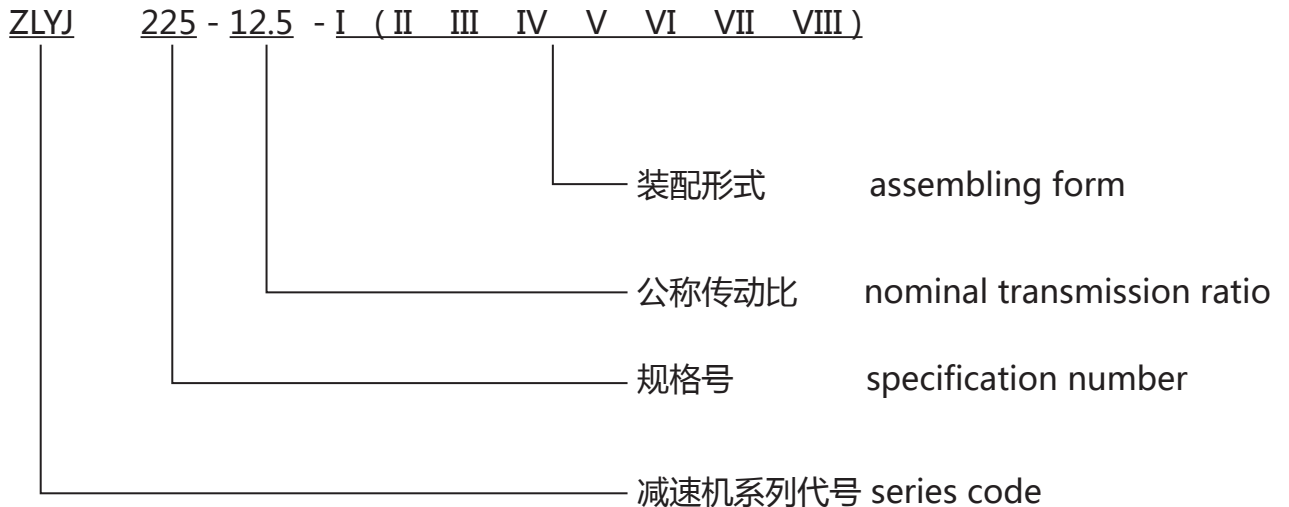
The gearbox can be used in both directions running, but some models with one-way high-speed shaft pump, the default direction is: for the output shaft, the output shaft rotates clockwise. Such as change of direction, please note when ordering

### 三、减速机的型号 (Reducer Model)

- 在减速机型号中，含系列代号、规格号、公称传动比、装配形式

In the reducer models, including series code, specification number, nominal transmission ratio, assembling form

- 标记示例 example





## 四、减速机选用 ( Gearbox Chose)

ZLYJ 减速机选型必须校核机械功率、轴向推力和热功率，详细步骤见下：

ZLYJ gear selection must check the mechanical power, thermal power and axial thrust, detailed steps below :

第一步：

选速比 ( 表 1 ) 输入转速  $n_1=1000\text{rpm}$ , 输出转速  $n_2=70\text{rpm}$   
 $i=n_1/n_2=1000/70=14.28$  选速比 14

Step 1 : selected gear ratio (Table 1)

input speed  $n_1 = 1000\text{rpm}$ ,

output speed  $n_2 = 70\text{rpm}$

$i = n_1 / n_2 = 1000/70 = 14.28$

So, select ratio 14

第二步：

选减速机的规格( 表 1 )根据用户提供的输入功率以及输出转速选择机型  
输入功率  $P=26\text{KW}$

查表， $29\text{KW} > 26\text{KW}$ , 且最经济，选 ZLYJ200

Step 2: Specifications Options ( Table 1 )

Select models according to user-supplied input and output power

Input power  $P = 26\text{KW}$

Look-up table,  $29\text{KW} > 26\text{KW}$ , and the most economical option

ZLYJ200

第三步：

选减速机的装配形式 ( 图 1 ) 根据用户的安装方式选择减速机的装配形式。

Step 3: Assembling forms selection ( Fig 1 )

Select assembling forms according to the user's installation

#### 第四步：

计算轴向推力

$F_a = \pi * d_s^2 * PS / (4 * 1000)$  螺杆直径： $d_s = 75$  螺杆压强： $PS = 26$  MPa

推力  $F_a = \pi * 75^2 * 26 / (4 * 1000) = 114.8$  KN

$187$  KN >  $114.8$  KN, ZLYJ200 能承受此轴向推力。

Step 4: Calculate the axial thrust

$$F_a = \pi * d_s * PS / (4 * 1000)$$

Screw diameter:  $d_s = 75$  mm

$d_s$  screw pressure:  $PS = 26$  MPa

$$\text{thrust } F_a = \pi * 75^2 * 26 / (4 * 1000) = 114.8 \text{ KN}$$

$187$  KN >  $114.8$  KN, ZLYJ200 can withstand this axial thrust

#### 第五步：

确定联接尺寸 (图 1, 表 2) 1、核对空心输出轴的孔径、键宽或花键参数、轴孔深度。

核对地脚安装孔尺寸以及推力包螺纹孔的大小

Step 5: Determine connection size (Figure 1, Table 2)

1. aperture verification hollow output shaft, spline or key width parameters axis hole depth

2. check the foot mounting hole size and the size of the package thrust threaded holes

#### 第六步

确定冷却方式 (表 3) 小规格减速机一般采用飞溅润滑, 自然冷却。大规格减速机采用强制润滑和冷却器冷却, 如用户要求超出附表配置, 订货时必须说明。

Sep 6: Determined cooling method (Table 3)

Small size reducer generally use splash lubrication, natural cooling.

Large size reducer forced lubrication and cooler, such as user requirements exceed the Schedule configuration, you must specify when ordering

## 减速机许用轴向推力

### Reducer allowable axial thrust

减速机 Model	ZLYJ112	ZLYJ133	ZLYJ146	ZLYJ173	ZLYJ200	ZLYJ225	ZLYJ250
推力 Thrust KN	41	54	60	153	187	250	268
减速机 Model	ZLYJ280	ZLYJ315	ZLYJ330	ZLYJ375	ZLYJ420	ZLYJ450	
推力 Thrust KN	356	403	448	495	545	590	

## 推荐配置

### Recommended Configuration

减速机 Item NO.	112	133	146	173	200	225	250
传动比 Speed Ratio	8	8	10	10	12.5	12.5	16
螺杆直径 Screw Diameter( mm)	35	45 , 50	55	65	75	90	100
电机功率 Motor Power	5.5-4P	7.5-4P	11-4P	18.5-4P	25-4P	45-4P	45-4P
输入转速 Input Speed (rpm)	800	800	900	900	1000	1000	1120
输出转速 Output Speed (rpm)	100	100	90	90	80	80	70
备注 Note	电机与减速机通过皮带轮传动 Motor and gearbox drive through the pulley						

减速机 Item NO.	280	315	330	375	420	450
传动比 Speed Ratio	16	16	16	16	16	16
螺杆直径 Screw Diameter( mm)	105 , 110	120	130 , 150	150 , 160	165	165
电机功率 Motor Power	55-6P	75-6P	132-6P	132-6P	160-6P	200-6P
输入转速 Input Speed (rpm)	960	960	960	960	960	960
输出转速 Output Speed (rpm)	60	60	60	60	60	60
备注 Note	电机与减速机用联轴器连接 Motor and gearbox drive through the coupling					

ZLYJ 系列减速机功率、扭矩表 ( 表 1) Rated power, output torque of gearbox ( Table 1)

公称传动比 Nominal Transmission Ratio		公称转速rpm Nominal speed		减速机规格 Gearbox Specification																								
		输入 Input Speed n1	输出 Output Speed n2	112	133	146	173	200	225	250	280	315	330	375	420	450												
				允许输入功率 Allowable Input Power		输出扭矩 Output Torque		PI (KW)		T2 (N.m)		PI		T2		PI		T2		PI		T2						
8	1500	188	12.8	652	20.8	1060	28.2	1436	47	2393	73	3698	100	5.93	139	7070	188	9555	271	13813	340	17298	435	22178	606	30872	748	38078
	1200	150	10.3	654	17	1079	22.9	1457	38.4	2445	59	3774	82	5190	113	7217	153	9744	221	14088	277	17642	355	22622	495	31497	611	38872
	1000	125	8.6	657	14.4	1098	19.3	1478	32.7	2498	50	3851	69	5287	96	7365	130	9932	188	14363	235	17986	302	23067	420	32122	519	39667
	750	94	6.8	693	11.2	1141	14.9	1521	24.6	2510	39	3952	53	5419	74	7579	100	10227	145	14750	181	18479	233	23710	324	33019	400	40747
	600	75	5.4	693	8.9	1141	11.9	1521	19.7	2510	31	3952	43	5419	60	7579	80	10227	116	14750	145	18479	186	23710	259	33019	320	40747
10	1500	150	10.4	662	17	1083	22.4	1428	37.8	2407	60	3795	82	5195	114	7233	153	9754	222	14134	278	17690	356	22663	495	31545	612	38964
	1200	120	8.5	675	13.9	1104	18.3	1456	30.7	2443	49	3865	67	5310	93	7379	125	9957	181	14401	227	18031	290	23114	404	32178	499	39747
	1000	100	7.2	688	11.8	1125	15.5	1484	26	2479	41	3935	57	5424	79	7525	106	10161	154	14669	192	18372	247	23565	344	32812	424	40530
	750	75	5.6	713	9	1148	11.8	1504	19.9	2535	32	4075	44	5552	61	7742	82	10390	118	15076	148	18883	190	24199	264	33667	327	41613
	600	60	4.5	713	7.2	1148	9.5	1504	15.9	2535	26	4075	35	5552	49	7742	65	10390	95	15076	119	18883	152	24199	212	33667	261	41613
12.5	1500	120	8.4	669	13.6	1083	18	1436	29.7	2360	47	3709	66	5253	92	7290	124	9900	180	14325	225	17931	289	22991	402	32024	497	39537
	1200	96	6.7	669	11.1	1108	14.7	1460	24	2388	38	3788	54	5348	75	7441	102	10107	147	14612	184	18285	236	23430	328	32622	405	40301
	1000	80	5.6	669	9.5	1134	12.4	1484	20.2	2415	32	3868	46	5444	64	7592	86	10314	125	14898	156	18638	200	23868	278	33221	344	41065
	750	60	4.4	700	7.2	1148	9.5	1508	15.7	2491	25	4011	35	5603	49	7767	66	10569	97	15280	120	19138	154	24527	214	34124	265	42211
	600	48	3.5	700	5.8	1148	7.6	1508	12.5	2491	20	4011	28	5603	39	7767	53	10569	76	15280	96	19138	123	24527	172	34124	212	42211
14	1500	107	12.2	1087	16.1	1439	26.4	2354	42	3744	59	5277	82	7345	112	9947	162	14404	202	14404	202	18033	259	23104	361	32152	446	39753
	1200	86	10	1112	13.1	1464	21.5	2391	34	3824	48	5366	67	7469	91	10134	132	14689	165	18382	211	23553	294	32792	364	40520		
	1000	71	8.5	1137	11.1	1490	18.2	2428	29	3904	41	5455	57	7594	77	10322	112	14974	140	18731	180	24001	250	33431	309	41287		
	750	54	6.4	1139	8.5	1516	13.9	2478	22	3993	32	5633	44	7844	60	10625	86	15402	108	19259	138	24660	193	34339	238	42356		
	600	43	5.1	1139	6.8	1516	11.1	2478	18	3993	25	5633	35	7844	48	10625	69	15402	86	19259	111	24660	154	34339	190	42356		
16	1500	94	10.6	1081	14.2	1452	24.5	2498	39	3993	53	5419	74	7538	100	10227	145	14750	181	18479	233	23710	324	33019	400	40747		
	1200	75	8.6	1098	11.5	1470	19.9	2532	32	4075	43	5521	60	7681	82	10431	118	15046	148	18845	190	24163	264	33632	326	41551		
	1000	63	7.3	1115	9.7	1488	16.8	2566	27	4156	37	5623	51	7823	70	10635	100	15341	126	19211	161	24615	224	34245	277	42356		
	750	47	5.7	1158	7.7	1560	13.1	2662	21	4319	28	5786	40	8068	54	10920	77	15728	97	19722	124	25299	173	35188	213	43436		
	600	38	4.6	1158	6.1	1560	10.5	2662	17	4319	23	5786	32	8068	43	10920	62	15728	77	19722	99	25299	138	35188	171	43436		
18	1500	83	9.5	1089	12.8	1468	21.5	2462	34	3942	46	5272	64	7380	90	10314	130	14944	163	18712	209	23982	291	33378	360	41210		
	1200	67	7.8	1113	10.4	1495	17.5	2502	28	4017	38	5386	52	7506	73	10520	106	15242	133	19076	171	24434	237	34002	293	41989		
	1000	56	6.6	1137	8.9	1522	14.8	2542	24	4091	32	5501	44	7632	62	10727	90	15540	113	19440	145	24885	201	34625	249	42769		
	750	42	5.1	1169	6.8	1546	11.2	2577	18	4217	24	5592	34	7884	48	11002	70	15952	87	19970	112	25567	155	35554	192	43915		
	600	33	4.1	1169	5.4	1546	9	2577	15	4217	20	5592	28	7884	38	11002	56	15952	70	19970	89	25567	124	35554	153	43915		
20	1500	75	8.7	1109	11.6	1472	20.1	2577	31	3922	41	5246	57	7233	82	10441	118	15076	150	19133	195	24865	272	34611	336	42733		
	1200	60	7.1	1125	9.5	1510	16.4	2614	25	4005	34	5373	46	7245	67	10645	97	15369	121	19326	156	24883	218	34640	269	42759		
	1000	50	6	1142	8.1	1549	14	2670	21	4087	29	5501	38	7258	57	10849	82	15662	102	19518	130	24901	182	34669	224	42784		
	750	38	4.7	1194	6.2	1583	10.7	2735	16	4177	22	5603	30	7742	44	11103	63	16095	78	19829	98	24988	137	34787	168	42784		
	600	30	3.8	1194	5	1583	8.6	2735	13	4177	18	5603	24	7742	35	11103	51	16095	62	19829	78	24988	109	34787	134	42784		

备注:

1. 上表功率和扭矩已考虑安全系数, 可以直接选用。The parameters in the table have been calculated according to the safety factor, can be directly used
2. 上表功率和扭矩主要针对塑料挤出机用减速机, 当用于橡胶挤出机时上表功率和扭矩乘以系数0.9 Power and torque in the table are main for extruder reducer. multiplied by the coefficient 0.9 when used in the rubber machinery
3. 输入转速和输出转速与上表误差大于4%时, 应参照最近一档转速进行功率折算。When the error(actual and table's input speed,output speed ) is above 4%, should be a reference to the recent stall speed for power conversion



表 2 外形尺寸 Table2 Outline dimension

规格 Item NO.	外形尺寸 Overall Dimension					地脚安装尺寸 Anchor Installation Size					输入轴尺寸 Input Shaft Size									
	a	A	B	H	H1	h	n2	d4	m1	m2	m3	m4	m5	m6	m7	L1	I1	d1(m6)	t1	b1
ZLY112	184	426	170	130		18	4	14	96		326	50		136	170	106	60	28	31	8
ZLY133	218	478	215	140		20	6	16	104	185	185	61		180	184	125	60	28	31	8
ZLY146	256	560	250	160		22	6	16	118	190	235	72		210	210	148	70	32	35	10
ZLY173	285	576	256	170		22	6	18	113.5	220	220	68		225	214	148	80	38	41	10
ZLY200	340	750	340	240		36	6	18	150	275	275	100		290	310	200	80	45	48.5	14
ZLY225	385	800	360	250		36	6	26	165	310	310	90		315	330	205	110	55	59	16
ZLY250	430	930	380	280		45	6	26	205	360	360	105		330	340	220	110	60	64	18
ZLY280	480	970	410	300		50	6	30	200	385	385	100		355	380	240	125	65	69	18
ZLY315	539	1160	450	350		55	6	30	260	450	450	130		390	460	250	140	75	79.5	20
ZLY330	575	1160	450	350		60	6	30	225	450	450	130		390	425	260	170	85	90	22
ZLY375	625	1280	466	400		60	8	32	250	475	500	165	265	400	500	265	170	85	90	22
ZLY420	695	1420	550	460		60	8	32	305	580	540	150	328	480	580	310	180	95	100	25
ZLY450	765	1550	600	500		60	8	32	300	600	600	190	300	520	550	350	210	100	106	28
ZLY630	1070	2000	770	630		80	8	48	400	850	800	200	450	670		430	165	120	127	32
ZSY450	765	1550	600	500	276	60	8	32	300	600	600	190	300	520		350	105	75	79.5	20
ZSY560	960	1850	610	580	324	80	8	48	390	730	780	170		510		355	130	95	100	25
ZSY630	1070	2000	770	630	350	80	8	48	400	850	800	200	450	670		430	165	110	116	28
规格 Item NO.	输出轴尺寸 Output Shaft Size					输出尾部尺寸 Output Shaft Tail Size					推力包联接尺寸 Thrust Package Connection Size					冷却管接头 Cooling Pipe Joint				
d2(H8)	t2	b2(F9)	L4	d5	d6	I5	M	L2	Φ1	Φ2(H7)	I3	Φ3	n1	d3	C	D	E	重量 Weight	油量 Lubricating	
ZLY112	35	38.3	10	52	18		125	203	185	160	8	210	6	M10				95	4	
ZLY133	38	44.6	10*2	80	20		137	205	205	180	8	230	8	M12				144	7	
ZLY146	45	52.6	14*2	120	20		167	245	230	200	8	260	8	M12				205	10	
ZLY173	50	57.6	14*2	140	25		167	250	260	230	8	300	8	M16	85	38		256	12	
ZLY200	60	68.8	18*2	170	40		250	330	300	270	8	350	12	M16	110	45		500	28	
ZLY225	70	79.8	20*2	170			265	355	370	330	8	420	12	M20	120	45	ZG3/8"	650	33	
ZLY250	80	90.8	22*2	180	55	50	285	380	370	330	8	420	12	M20	160	65		815	46	
ZLY280	90	100.8	25*2	180			300	405	400	360	8	450	12	M24	160	50		1020	55	
ZLY315	100	112.8	28*2	185			335	440	405	365	8	450	12	M24	160	55		1410	84	
ZLY330	110	122.8	28*2	220			350	445	450	400	10	500	12	M24	160	55		1520	87	
ZLY375	110	122.8	28*2	255			345	445	450	400	10	500	12	M24	160	55		1800	110	
ZLY420	120	134.8	32*2	270			370	535	580	500	10	660	12	M30	200	55		2750	166	
ZLY450	170	188.8	40*2	250	60	60	425	600	610	500	15	700	12	M30	200	60		3560	215	
ZLY630	180	200.8	45*2	340			520	760	720	650	25	805	12	M36	300	80	ZG3/4"	8200		
ZSY450	170	188.8	40*2	250			425	600	610	520	10	700	12	M36	200	60		3800	210	
ZSY560	160	178.8	40*2	300			435	670	720	620	25	805	12	M36	270	80		5350		
ZSY630	180	200.8	45*2	340			520	760	720	650	25	805	12	M36	300	80		8500		



## 冷却方式

### Cooling method

表 3 ( Table 3 )

型号 Item NO.	油泵 Pump	冷却盘管 Coil Cooling Inside	冷却器 Water Cooler	备注 Note
ZLYJ112	无 N	无 N	无 N	自然冷却 Natural cooling
ZLYJ133	无 N	无 N	无 N	
ZLYJ146	无 N	无 N	无 N	
ZLYJ173	无 N	有 Y	无 N	配置冷却器应在订货时声明 Configuration the cooler should be stated when ordering
ZLYJ200	有 Y	有 Y	无 N	
ZLYJ225	有 Y	有 Y	无 N	
ZLYJ250	有 Y	有 Y	无 N	
ZLYJ280	有 Y	有 Y	无 N	
ZLYJ315	有 Y	无 N	有 Y	
ZLYJ330	有 Y	无 N	有 Y	
ZLYJ375	有 Y	无 N	有 Y	
ZLYJ420	有 Y	无 N	有 Y	
ZLYJ450	有 Y	无 N	有 Y	

## 五、安装使用和维护 (Installation and Maintenance)

- 1、减速机在运输和存放过程中应注意防潮 ,半年内未安装应对外露的加工面重涂防锈油。
- 2、减速机应安装在平整的基础上，在地脚螺栓均匀紧固的情况下，应保证插入输出轴的螺杆能无卡滞均匀回转，以免给输出轴轴承增加附加力而影响轴承寿命。不得采用强力拆装螺杆。
- 3、在减速机安装完毕后，注润滑油至油标中心线。该油位应在润滑油在箱内分布均匀后确定，油位应经常检查，任何情况下，油位不应低于下油标位置。请使用中负荷工业齿轮油 L-CKC220 或 L-CKC320，首次使用 300~600 小时后，应换油一次。以后每 3000 小时换油一次。更换应在减速机停车，润滑油尚未冷却时排放。箱体应用同品质的油冲洗干净。若因粘度高而不宜冲洗可先加热或用低粘度的油。
- 4、装有油泵强制润滑的减速机，在开车初始阶段，可能会因粘度过高，油泵吸油阻力大而造成进油不足，发出过高的噪声。该现象一般在润滑油温度升高后，自行消失。带电机油泵的减速机，在加载前应先开启电机油泵，空车运转一段时间以利于各润滑点的

充分润滑。

5、在正常运转中，如出现油泵噪声增高，一般情况可能是油路阻力过大。此时情况请清洗滤清器及其他相关部件。无论哪种规格的减速机，在长期不用或气温过低时启动使用，都应空车运转一段时间，待各轴承充分润滑后方可加载运转。

6、在工作中当发现油温显著升高，温升超过 70℃或油温超过 100℃时，油的质量下降，以及生产不正常的噪声等现象，应停止使用，检查原因，如因齿面胶合等原因所致，必须修复排除故障，更换润滑油后再用

- 1、 The reducer shall avoid being damped in the transportation and storage. The exposed processing face shall be recoated with anti-rust oil if not installed within half a year
- 2、 The reducer should be installed on flat ground, In the situation of even and tight anchor bolt, the screw inserted in the output shaft shall not be stuck and can evenly rotate, so as to avoid applying additional force to the output shaft and affecting the bearing service life. It is forbidden to install and remove screw forcibly
- 3、 After the reducer is installed, the lubricant shall be filled to the center line of the oil leveler. The oil level shall be confirmed after the lubricant is evenly distributed in the box, and the oil level shall be frequently checked. In any situation, the oil level shall not be lower than the position of lower oil leveler. Please use industrial gear oil L-CKC220 or L-CKC320. The oil shall be replaced after being used for 300-600h for the first time, then the oil shall be replaced once every 3000h subsequently. The replaced oil shall be discharged when the reducer stops and the lubricant is not cooled still. The box shall be washed clean by the oil of the same quality. If the box cannot be washed due to high viscosity, the box shall be heated first or adopt low viscosity oil.
- 4、 The reducer installed with oil pump forced lubrication may have insufficient incoming oil and produce high noise due to high oil viscosity and high resistance to oil pumping at the beginning stage .This phenomenon will be automatically eliminated generally after the temperature of lubricant is increased. As for the reducer with electric motor oil pump, the electric motor oil pump shall be started before loading, operated without load for a while ,

so as to make every lubricating point fully lubricated

- 5、 If the noise of oil pump is increased in normal operation, the general cause may be that the resistance of oil circuit is too high. In such circumstance, please clean the filter and other relevant part. In despite of the specification, the reducer shall be operated without load for a while and loaded after all bearings are fully lubricated if being left idle for a long time or being started at low temperature
- 6、 When the oil temperature is found to rise suddenly in the work, and the temperature rise is more than 70°C or the oil temperature is more than 100°C, the oil quality is reduced, and abnormal noise is produced, etc. The machine shall be stopped to check the cause . If the problem is caused by tooth surface gluing, etc. The machine shall be re-started after the failure is repaired and eliminated and the lubricant is replaced.

## 可能会发生的故障：

故障	原因	排除方法
减速机噪声变化	齿轮啮合部位有损伤 齿轮间隙增大 轴承损坏	检查啮合部件，如需要，更换损伤部件。 调整轴承间隙 更换损坏的轴承
减速机固定部位中有强烈噪声	减速机固定件有松动	使用规定的扭矩拧紧螺栓/螺母。 更换损坏的螺栓/螺母
轴承部位温度升高	减速机油位太低 机油已老化 轴承损坏 油泵损坏	在室温下检查油位，可能需要补充机油 检查上次换油是什么时候，可能需要更换机油 检查轴承，可能需要更换 检查油泵，可能需要更换
减速机有油污 机油从外壳中漏出	箱体分界面 密封不好	将密封面密封好
机油中有水分	机油产生泡沫	通过试剂玻璃杯试样来检查机油的含水状态。 通过化学实验室检查机油，冲洗与更换
工作温度升高	减速机中的油位太高 机油已老化 机油严重污染 油泵损坏	检查油位，可能需要纠正油位 检查上次换油是什么时候，可能需要更换机油 检查油泵的功能，可能需要检修或者更换油泵

Malfunction	Reason	Method
Noise Variation	*Gear damaged *Gear clearance bigger *Bearings damaged	*Check the gear,change the damaged part *Adjust the clearance *Replace the damaged bearings
Loud noise from fixed position of reducer	*Looseness of the fixed parts	*Use the specified torque to tighten bolts or screws *Replace the damaged bolts or screws
High temperature in bearing	*Outer shell oil level low *Oil ageing *Bearing damaged *Oil pump damaged	*Check the oil level, add oil if below the level *Check the time of nearest oil replacement, maybe the oil need to be replaced *Check bearings,maybe need to be changed *Check the oil pump, maybe need to be changed
Dirty oil in reducer Oil leak from the shell	Seal is not good	Sealed the surface
Found water in engine oil	Engine oil produced foam	*Check the oil whether contain water via reagent glass sample *Check the engine oil via chemical laboratory, wash and change
Working temperature rise up	*Oil level is too high *Oil ageing *Bearing damaged *Oil pump damaged	*Check the oil level adjust it accordingly *Check the time of nearest oil replacement, maybe need to replace engine oil *Check the function of oil pump, maybe need to change *Check the bearing, maybe need to change

# DJYG 系列塑料橡胶挤出机专用减速机

DJYG plastic rubber extruder dedicated reducer

## 一、概述 ( Summary )

DJYG 系列高扭矩齿轮箱是专为塑料、橡胶单螺杆挤出机配套设计的高精度硬齿面齿轮传动装置。通过进一步的优化设计,使该系列产品具有体积小,承载能力强,挤出速度快,传动平稳,噪音低,效率高等优点。

箱体:箱体采用整体设计,使结构更加稳定。铸件采用 QT400、HT250 等高品质材料,并进行充分的时效处理。箱体的加工按照规范的工艺执行,保证加工的精度。

齿轮:齿轮材质采用 20CrMnMo、20CrNi2MoA、17CrNiMo6 等高强度合金钢,经过渗碳淬火和磨齿等工序,使齿面硬度达到 HRC56-62,精度达到 5-6 级 (GB/T10095-2001),并对齿面进行适当的修形,改善齿轮的啮合状况。

轴承:选用 SKF、FAG、NSK、ZWZ 等国内外著名品牌。

密封件:选用 SOG、SIMIRIT、NAK 等进口品牌。

DJYG series high torque gearbox is hardened precision gearing special designed for plastic rubber single screw extruder. Further optimizing design make this series product has a lot of advantages, such as small size, carrying capacity, high speed extrusion, smooth transmission, low noise, high efficiency.

Box: Overall design make the structure more stable. Castings used QT400, HT250 high quality materials and fully aging treatment. Case processing in accordance with the norms of the implementation process, to ensure the accuracy of processing.

Gear: Used 20CrMnTi, 20CrNi2MoA, 17CrNiMo6 high-strength alloy steel, processing after carburizing and grinding make the tooth surface hardness reach to HRC56-62, accuracy reach to level 5-6 (GB / T10095-2001), and proper tooth surface modification to improve the engagement condition of gears

Bearings: selection of SKF, FAG, NSK, ZWZ etc abroad and domestic famous brand

Seals: selection of SOG, SIMIRIT, NAK etc import brands.

## 二、适用范围 ( Use Range )

1. 高速轴转速一般不大于 1500rpm , 若大于 1500 r/min , 请与我公司联系。
2. 齿轮传动圆周速度不大于 25m/s
3. 工作环境温度为 -40°C~45°C , 如果低于 0°C , 启动前润滑油应预热至 0°C以上本减速机可用于正反两个方向运转 , 但部分机型高速轴带单向油泵 , 默认方向为: 面向输出轴 , 输出轴为顺时针旋转。如方向改变 , 请在订货时说明

1. High-speed shaft speed is regular not greater than 1500 rpm, If greater, please contact us
2. The peripheral speed of gear is not greater than 20 m / s
3. The working environment temperature is -40°C~45°C, if less than 0 °C,the lubricant should be preheated to above 0 °C before start

The gearbox can be used in both directions running, but some models with one-way high-speed shaft pump, the default direction is: for the output shaft, the output shaft rotates clockwise. Such as change of direction, please note when ordering

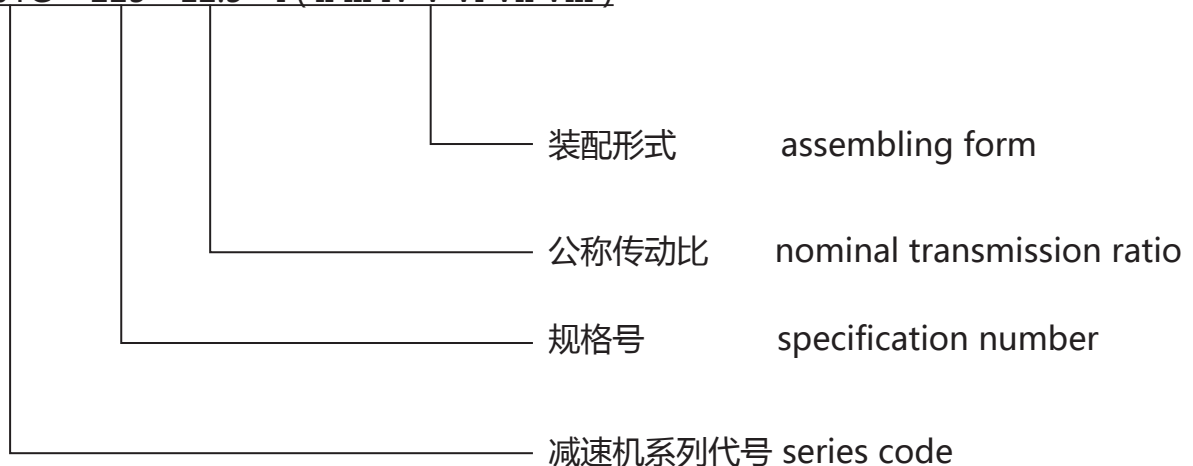
## 三、减速机的型号 (Reducer Model)

- 在减速机型号中, 含系列代号、规格号、公称传动比、装配形式

In the reducer models, including series code, specification number, nominal transmission ratio, assembling form

- 标记示例 example

DJYG 225 - 12.5 - I ( II III IV V VI VII VIII )





## 四、减速机选用 ( Gearbox Chose)

DJYG 系列减速机选型必须校核机械功率、轴向推力和热功率：

DJYG gear selection must check the mechanical power, thermal power and axial thrust, detailed steps please refer to Page

### 热功率参数 Thermal Power Parameters

规格 Specification	热功率 ( KW) Thermal Power		
	自然冷却 Natural cooling	盘管冷却 Coil Cooling	冷凝器冷却 Condenser Cooling
DJYG133	13	16	30
DJYG146	17	21	45
DJYG160	19	25	60
DJYG180	30	37	90
DJYG200	34	41	130
DJYG225	38	46	205
DJYG250	47	59	250
DJYG280	53	66	350
DJYG320	71	86	460
DJYG360	86	102	595

注：以上数据为平衡温度80°C ( 温升40°C ) 时的热功率。  
Note: The above data for the thermal power equilibrium temperature of 80 ° C (temperature 40 ° C)

### 热功率系数 Temperature coefficient

温度 Temperature	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
系数 Coefficient(ft)	0.9	0.94	1	1.06	1.14	1.22	1.33	1.45	1.59

DJYG 系列减速机功率、扭矩表 ( 表 1) Rated power,output torque of DJYG Series gearbox ( Table 1 )

公称传动比 Nominal ratio i	公称转速rpm Nominal Speed		减速机规格 Gearbox Specification																			
	输入n1 Input Speed	输出n2 Output Speed	133		146		160		180		200		225		250		280		320		360	
			许用输入功率 Allowable Input Power P1(KW) 、 输出扭矩 Output Torque T2(N.m)																			
			P1	T2	P1	T2	P1	T2	P1	T2	P1	T2	P1	T2	P1	T2	P1	T2	P1	T2	P1	T2
6.3	1500	238	30	1710	62	2526	90	3665	133	5348	-	-	-	-	-	-	-	-	-	-	-	-
	1200	190	26	1723	52	2612	74	3712	101	5406	-	-	-	-	-	-	-	-	-	-	-	-
	1000	159	22	1732	35	2630	62	3740	90	5430	-	-	-	-	-	-	-	-	-	-	-	-
	750	119	16	1985	33	2690	47	3830	69	5510	-	-	-	-	-	-	-	-	-	-	-	-
8	1500	188	34	1731	51	2672	71	3719	100	5008	124	6210	172	8759	-	-	-	-	-	-	-	-
	1200	150	28	1765	43	2714	59	3785	80	5090	99	6305	136	8620	-	-	-	-	-	-	-	-
	1000	125	23	1757	35	2751	49	3851	69	5185	86	6462	115	8555	-	-	-	-	-	-	-	-
	750	94	17.8	1814	27	2830	37	3879	52	5211	65	6514	88	9042	-	-	-	-	-	-	-	-
10	1500	150	30	1918	43	2813	61	3803	80	5079	96	6116	140	9046	194	12384	342	21601	455	28891	593	37629
	1200	120	24	1920	36	2831	49	3890	64	5106	78	6210	115	9120	157	12521	278	22090	366	29120	477	37950
	1000	100	20	1918	29	2846	42	3925	54	5162	65	6302	97	9291	134	12836	235	22398	312	29736	406	38657
	750	75	15.4	1969	23	3009	32	3990	42	5348	51	6591	74	9348	102	13023	180	22859	237	30098	311	39495
12.5	1500	120	20	1602	34	2677	49	3798	66	5145	77	6072	113	8717	149	11702	249	20169	378	29301	477	38152
	1200	96	17	1650	27	2676	39	3851	53	5209	62	6120	89	8806	121	11996	206	20453	302	29985	390	38789
	1000	80	14	1682	23	2675	34	3955	45	5325	52	6154	77	8903	102	12393	171	20777	258	30954	327	39232
	750	60	10.7	1715	16.9	2663	26	4057	34	5367	39	6156	59	9103	78	12647	131	21240	197	31513	250	39992
14	1500	107	17.1	1546	30	2658	41	3642	60	5204	68	6098	98	8609	135	11753	226	21057	335	29900	452	39675
	1200	86	14.2	1578	23.8	2651	33	3642	47.5	5290	55	6106	78	8702	109	12102	190	21210	270	30050	360	40125
	1000	71	11.8	1601	20	2653	28	3643	41	5334	46	6118	68	8884	92	12864	154	21533	230	30255	309	40647
	750	54	9	1628	15.8	2805	21	3728	30	5385	35	6283	51	9036	71	13243	117	21823	174	31060	236	41430
16	1500	94	16.3	1610	26	2605	34	3491	52	5255	60	6006	86	8609	119	11912	182	18257	305	30122	371	37217
	1200	75	12.8	1635	22	2685	27.5	3506	42	5320	48	6090	69	8750	95	12050	145	18452	239	30420	296	37652
	1000	63	11.3	1676	18	2773	23	3543	35	5426	41	6156	59	8859	81	12182	125	18799	208	30797	253	38050
	750	47	8.6	1725	13.5	2773	17.4	3574	26	5374	30	6201	44	9095	62	12439	96	18942	159	31900	194	38922
18	1500	83	-	-	23	2624	30	3423	41	4678	55	6187	78	8910	99	11309	182	21017	268	30433	323	37481
	1200	67	-	-	18.5	2655	24.4	3495	33	4720	43.4	6210	63	9006	80	11506	148	21250	215	30856	265	37985
	1000	56	-	-	15.7	2687	21	3594	28	4792	37	6243	53	9071	68	11764	125	21626	182	31038	221	38514
	750	42	-	-	11.3	2582	15.8	3610	21	4718	28	6397	41	9367	52	11995	96	21829	140	31833	168	39036
20	1500	75	-	-	19.1	2348	29	3564	37	4548	50	5603	70	8615	93	11640	158	19933	246	30550	303	37629
	1200	60	-	-	15.7	2495	22.3	3541	29	4582	37.4	5952	55	8710	74	11820	126	20050	194	30859	239	37950
	1000	50	-	-	13.5	2489	19.1	3521	25	4609	34	6268	47	8818	64	12008	109	20291	168	31275	207	38535
	750	38	-	-	10	2481	14.6	3594	19.1	4738	25	6153	36	9095	48	12127	84	20836	128	31751	158	39192

备注：

- 1、上表功率和扭矩已考虑安全系数，可以直接选用。The parameters in the table have been calculated according to the safety factor, can be directly used
- 2、上表功率和扭矩主要针对塑料挤出机用减速机，当用于橡胶机械时上表功率和扭矩除以系数1.15。Power and torque in the table are main for extruder reducer. Divide by 1.15 when used in the rubber machinery
- 3、输入转速和输出转速与上表误差大于4%时，应参照最近一档转速进行功率折算。When the error(actual and table's input speed,output speed) is above 4%, should be a reference to the recent stall speed for

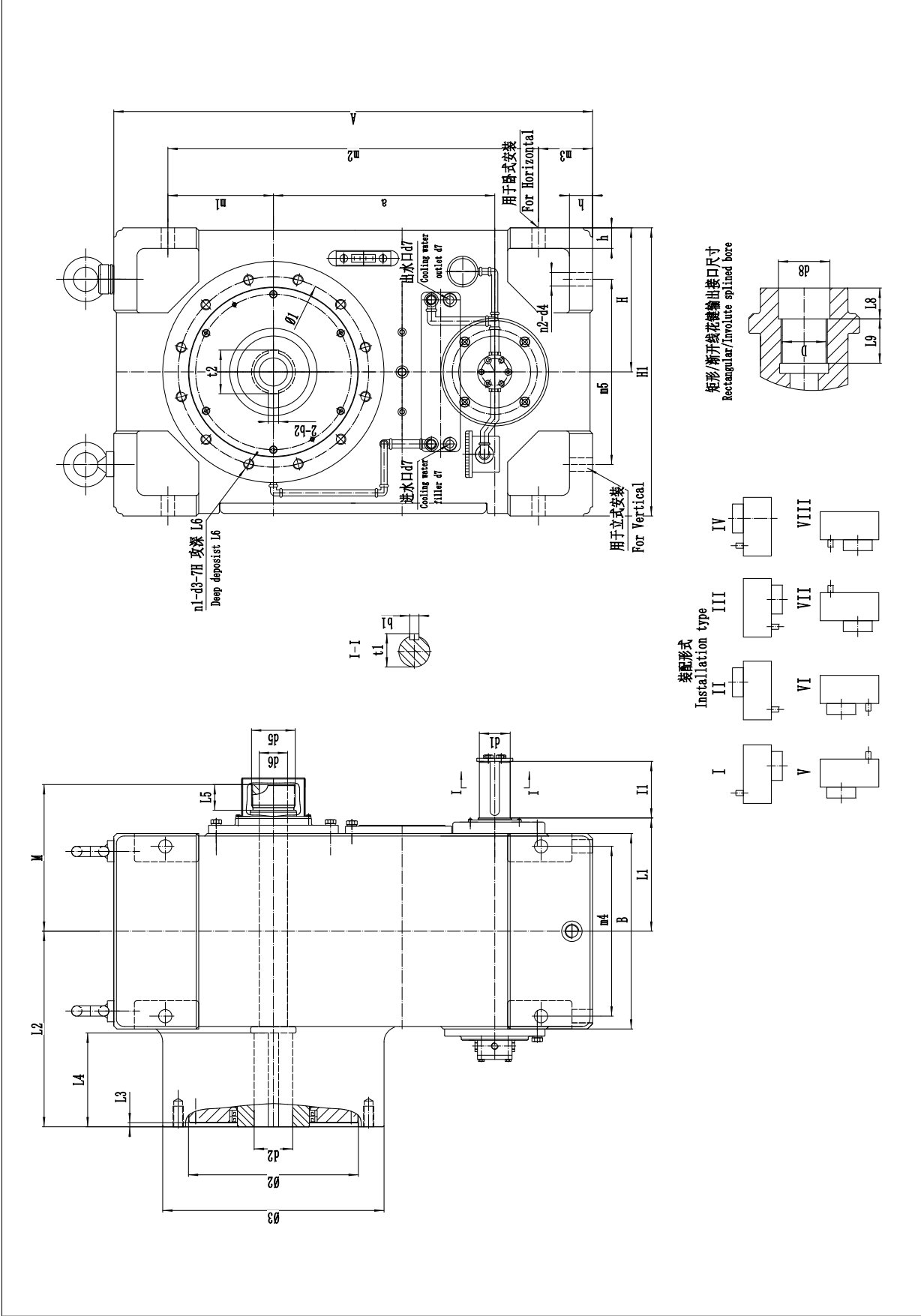


图 1 Figure 1

DJYG 系列减速机外形尺寸表 (表 2) DJYG gearbox exterior size (Table2)

规格 Item NO.	a	外形尺寸 Overall Dimension					地脚安装尺寸 Anchor Installation Size					输入轴尺寸 Input Shaft Size					重量 b1	
		A	B	H	H1	h	n2	d4	m1	m2	m3	m4	m5	L1	l1	d1(m6)		t1
DJYG133	218	478	215	140	280	22	4	16	113	374	52	180	186	125	60	28	31	8
DJYG146	260	560	256	160	320	25	4	18	128	388	62	210	220	148	80	38	41	10
DJYG160	277	620	256	170	340	25	4	18	141	485	67.5	225	225	148	80	38	41	10
DJYG180	320	700	340	220	440	30	4	18	140	540	80	290	290	200	80	45	48.5	14
DJYG200	340	750	340	240	480	30	4	18	170	590	80	290	330	200	80	45	48.5	14
DJYG225	385	800	360	250	500	35	4	26	165	620	90	315	330	205	110	55	59	16
DJYG250	430	930	380	280	560	45	4	26	205	720	105	330	360	220	110	60	64	18
DJYG280	500	1000	410	300	600	50	4	34	190	780	110	345	380	240	125	65	69	18
DJYG320	555	1120	450	350	700	60	4	40	210	860	130	380	450	265	130	80	85	22
DJYG360	615	1200	490	400	800	60	4	40	235	940	130	415	530	275	130	90	95	25

规格 Item NO.	平键输出接口尺寸 Cylindrical size					推力包联接尺寸 Thrust Package Connection Size					冷却管接头 Output Shaft Tail Size					重量 weight		
	d2(H8)	L4	t2	b2(F9)	L2	Φ1	Φ2(H8)	L3	Φ3	n1	d3	L6	d5	d6	L5		M	d7
DJYG133	38	90	44.6	10	205	205	180	8	240	8	M12	24	M16	20	30	137	DN20	180
DJYG146	45	120	52.6	14	245	230	200	8	260	8	M12	24	M20	25	30	153	DN20	200
DJYG160	50	120	57.6	14	235	245	210	8	280	8	M16	28	M20	25	30	153	DN20	250
DJYG180	55	140	63.6	16	323	290	250	8	330	12	M16	28	M80*4	35	50	250	DN20	470
DJYG200	60	170	68.8	18	330	300	270	8	350	12	M16	28	M85*4	40	50	250	DN20	500
DJYG225	70	170	79.8	20	355	370	330	8	430	12	M20	35	M85*4	55	50	265	DN20	670
DJYG250	80	180	90.8	22	380	370	330	8	430	12	M20	35	M85*4	55	50	285	DN20	850
DJYG280	90	180	100.8	25	435	410	360	8	460	12	M24	40	M85*4	55	50	300	DN20	1200
DJYG320	110	200	122.8	28	480	455	400	10	520	12	M24	40	M90*4	60	60	325	DN20	1500
DJYG360	120	245	134.8	32	510	475	400	15	550	12	M30	50	M90*4	60	60	342	DN20	2000

规格 Item NO.	矩形花键输出接口尺寸 Rectangular splined bore size					渐开线花键输出接口尺寸 Involute splined bore size				
	L8	L9	d8(H8)	D GB/T1144-2001		L8	L9	d8(H8)	D GB/T3478.1-1995	
DJYG133	50	60	56	8*46H9*54H10*9F9		50	60	56	INT 26z*2m*30P*7H	
DJYG146	60	80	65	8*52H9*60H10*10F9		60	80	65	INT 30z*2m*30P*7H	
DJYG160	60	80	65	8*52H9*60H10*10F9		60	80	65	INT 30z*2m*30P*7H	
DJYG180	65	100	70	8*56H9*65H10*10F9		65	100	70	INT 26z*2.5m*30P*7H	
DJYG200	70	110	75	8*62H9*72H10*12F9		70	110	75	INT 28z*2.5m*30P*7H	
DJYG225	75	120	85	10*72H9*82H10*12F9		75	120	85	INT 26z*3m*30P*7H	
DJYG250	80	140	95	10*82H9*92H10*12F9		80	140	95	INT 30z*3m*30P*7H	
DJYG280	90	160	115	10*102H9*112H10*16F9		90	160	115	INT 26z*4m*30P*7H	
DJYG320	100	180	130	10*112H9*125H10*18F9		100	180	130	INT 30z*4m*30P*7H	
DJYG360	100	180	130	10*112H9*125H10*18F9		100	180	130	INT 30z*4m*30P*7H	

## 五、安装使用和维护 (Installation and maintenance)

- 1、减速机在运输和存放过程中应注意防潮，半年内未安装应对外露的加工面重涂防锈油。
- 2、减速机应安装在平整的基础上，在地脚螺栓均匀紧固的情况下，应保证插入输出轴的螺杆能无卡滞均匀回转，以免给输出轴轴承增加附加力而影响轴承寿命。不得采用强力拆装螺杆。
- 3、在减速机安装完毕后，注润滑油至油标中心线。该油位应在润滑油在箱内分布均匀后确定，油位应经常检查，任何情况下，油位不应低于下油标位置。请使用中负荷工业齿轮油 L-CKC220 或 L-CKC320，首次使用 300~600 小时后，应换油一次。以后每 3000 小时换油一次。更换应在减速机停车，润滑油尚未冷却时排放。箱体应用同品质的油冲洗干净。若因粘度高而不宜冲洗可先加热或用低粘度的油。
- 4、装有油泵强制润滑的减速机，在开车初始阶段，可能会因粘度过高，油泵吸油阻力大而造成进油不足，发出过高的噪声。该现象一般在润滑油温度升高后，自行消失。带电机油泵的减速机，在加载前应先开启电机油泵，空车运转一段时间以利于各润滑点的充分润滑。
- 5、在正常运转中，如出现油泵噪声增高，一般情况可能是油路阻力过大。此时情况请清洗滤清器及其他相关部件。无论哪种规格的减速机，在长期不用或气温过低时启动使用，都应空车运转一段时间，待各轴承充分润滑后方可加载运转。
- 6、在工作中当发现油温显著升高，温升超过 70°C 或油温超过 100°C 时，油的质量下降，以及生产不正常的噪声等现象，应停止使用，检查原因，如因齿面胶合等原因所致，必须修复排除故障，更换润滑油后再用

- 1、 The reducer shall avoid being damped in the transportation and storage. The exposed processing face shall be recoated with anti-rust oil if not installed within half a year
- 2、 The reducer should be installed on flat ground, In the situation of even and tight anchor bolt, the screw inserted in the output shaft shall not be stuck and can evenly rotate, so as to avoid applying additional force to the output shaft and affecting the bearing service life. It is forbidden to install and remove screw forcibly

3、 After the reducer is installed, the lubricant shall be filled to the center line of the oil leveler. The oil level shall be confirmed after the lubricant is evenly distributed in the box, and the oil level shall be frequently checked. In any situation, the oil level shall not be lower than the position of lower oil leveler. Please use industrial gear oil L-CKC220 or L-CKC320. The oil shall be replaced after being used for 300-600h for the first time, then the oil shall be replaced once every 3000h subsequently. The replaced oil shall be discharged when the reducer stops and the lubricant is not cooled still. The box shall be washed clean by the oil of the same quality. If the box cannot be washed due to high viscosity, the box shall be heated first or adopt low viscosity oil.

4、 The reducer installed with oil pump forced lubrication may have insufficient incoming oil and produce high noise due to high oil viscosity and high resistance to oil pumping at the beginning stage .This phenomenon will be automatically eliminated generally after the temperature of lubricant is increased. As for the reducer with electric motor oil pump, the electric motor oil pump shall be started before loading, operated without load for a while , so as to make every lubricating point fully lubricated

5、 If the noise of oil pump is increased in normal operation, the general cause may be that the resistance of oil circuit is too high. In such circumstance, please clean the filter and other relevant part. In despite of the specification, the reducer shall be operated without load for a while and loaded after all bearings are fully lubricated if being left idle for a long time or being started at low temperature

6、 When the oil temperature is found to rise suddenly in the work, and the temperature rise is more than 70°C or the oil temperature is more than 100°C, the oil quality is reduced, and abnormal noise is produced, etc. The machine shall be stopped to check the cause . If the problem is caused by tooth surface gluing, etc. The machine shall be re-started after the failure is repaired and eliminated and the lubricant is replaced.



# SZ 锥形双螺杆挤出机齿轮箱

SZ conical twin screw extruder gearbox

## 一、概述 ( Summary )

SZ 系列锥形双螺杆挤出机齿轮箱是与锥形双螺杆塑料挤出机配套的专用传动装置。该齿轮箱由减速箱与分配箱两部分组成，可将电机动力经减速增扭后，输出至分配箱，再通过分配箱一对 1:1 传动比的小锥角螺旋齿轮驱动双出轴（两轴夹角与两螺杆夹角相同），带动螺杆以异向外旋的方式运转。

SZ series gearbox is a special driving unit used for conical twin-screw extruder, it consists two parts, namely, the reduction box and the transmission box. After reducing speed and increasing the torque of the motor. It outputs the motive power to the transmission box, then drive the double output shafts via a pair of small conical spiral gears with driving ratio of 1:1, thus to drive screw rods to rotate with different direction

## 二、产品特点 ( Features of Product )

2.1 齿轮箱齿轮采用渐开圆柱齿轮，其参数，结构经过计算机优化设计

2.2 齿轮箱齿轮材料采用优质高强度低碳合金钢，经渗碳、淬火处理，采用磨齿工艺，齿面硬度高，承载能力大，噪音小，运转平稳，传动效率高

2.3 分配箱箱体材料为球铁，齿轮为高强度齿轮，内部布有蛇形冷却水管

2.4 齿轮箱输入最高转速一般不大于 1500rpm

2.5 工作环境温度 -10~40°C，当环境温度低于 0°C 时，启动前润滑油应加热到 10°C

2.1 Gearbox adapt involute cylindrical gears, which data and structure are optimally designed by the computer

2.2 Gears are made of high quality high -strength low carbon alloy steel after carbon penetrating, quench and teeth grinding, it has high hardness on teeth surface, large bearing ability, small noise, smooth operation and high driving efficiency

2.3 Material of distribution box is nodular graphite casting iron and the gears are high-strength ground teeth. In which snake-shaped cooling water pipes are distributed

2.4 The maximum input speed of gearbox is normally not larger than 1500rpm

2.5 The working environment temperature is -10~40°C, if less than 0 °C, the lubricant should be preheated to above 10 °C before start

### 三、 齿轮箱外形及安装连接尺寸 (Drawings and Installation size)

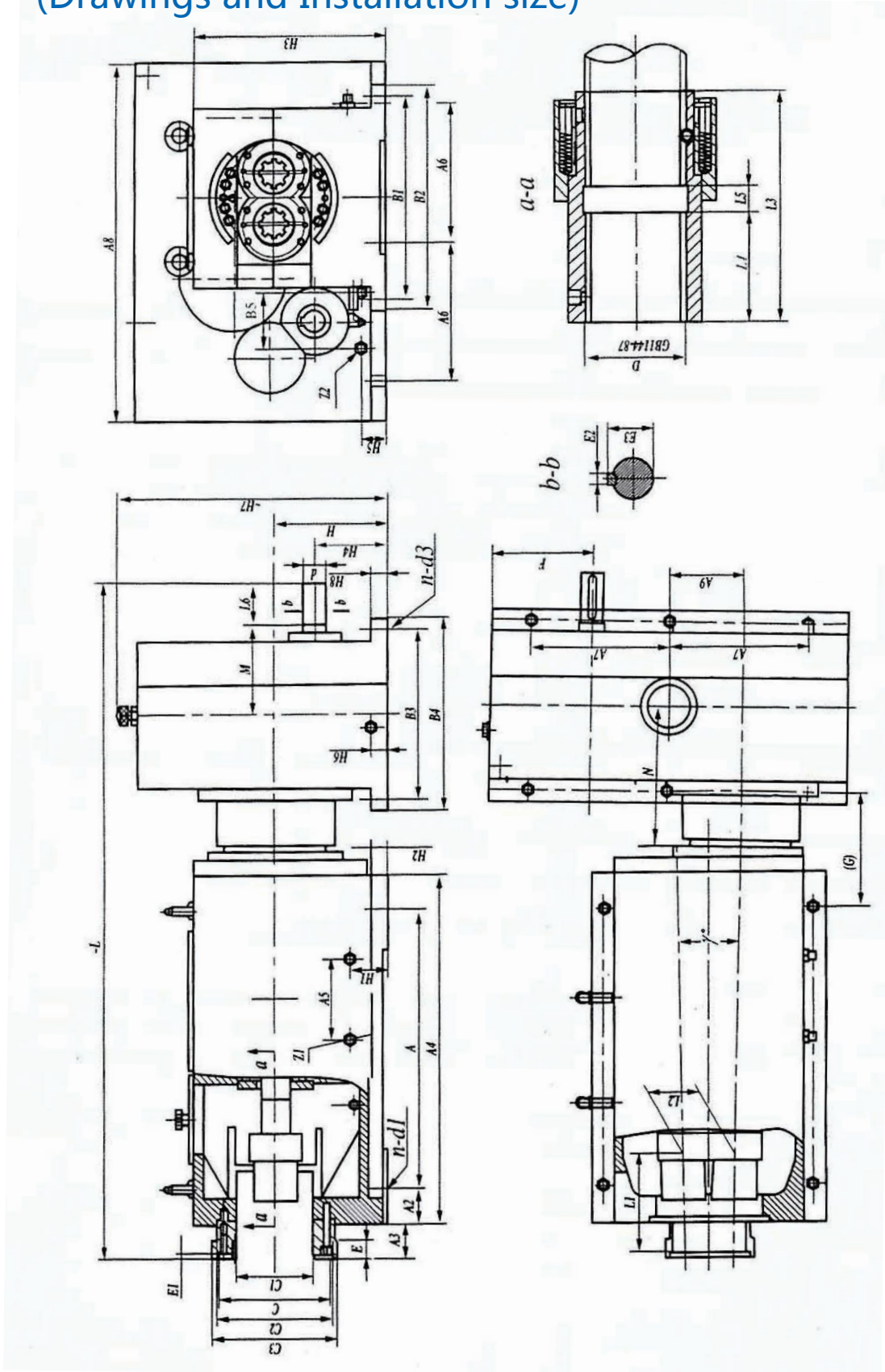


图 1 Figure 1

表 1 外形尺寸 Table1 Outline dimension

型号 Model	A	A2	A3	A4	H	E	E1	C(H)7	C1	C2	C3	A5	H1	Z1 / Z2	H2	H3
SZ45	500	100	75	765	240	40	10	Φ270	150	Φ270	Φ290	150	60	ZG1/2"	30	390
SZ50	580	70	75	722	240	40	10	Φ210	150	Φ270	Φ290	160	80	ZG1/2"	35	390
SZ55	660	100	75	860	250	40	10	Φ230	160	Φ290	Φ318	160	80	ZG1/2"	35	430
SZ65	770	80	75	910	250	40	10	Φ253	170	Φ260	Φ280	180	85	ZG1/2"	40	430
SZ80	800	120	85	1070	280	40	10	Φ302	170	Φ300	Φ340	180	120	ZG1/2"	45	465
SZ92	950	200	125	1350	360	50	15	Φ372	180	Φ370	Φ412	250	150	ZG1/2"	60	620

型号 Model	B1	B2	n-d1	L	L1	L2	D	L3	L4	L5	A6	A7	A8	A9	n-d3	d(k6)
SZ45	335	380	4-Φ22	1388	135	91	8-48×42×8	133	60	15	255	255	558	95	4-Φ22	Φ32
SZ50	440	490	4-Φ22	1390	102	99	8-54×46×9	112	40	15	280	280	705	105	4-Φ22	Φ38
SZ55	510	560	4-Φ22	1560	190	109	6-60×52×10	138	65	15	300	300	720	100	4-Φ22	Φ42
SZ65	550	590	4-Φ22	1650	205	115	8-65×56×10	150	70	15	350	350	850	170	4-Φ22	Φ55
SZ80	605	655	4-Φ22	1995	234	138	8-72×62×12	200	95	15	335	335	835	140	4-Φ26	Φ55
SZ92	650	720	4-Φ30	2402	275	164	10-98×92×14	230	105	20	395	395	980	155	4-Φ35	Φ60

型号 Model	M	H4	L6	E2	E3	B3	B4	B5	H5	H6	H7	H8	F	(G)	N	r°
SZ45	162	180	58	10	35	300	360	100	60	40	543	30	190	315	202	2°40'
SZ50	175	180	80	10	41	360	430	100	60	45	652	30	197.5	290	212	2°58'12"
SZ55	180	200	82	12	45	350	400	100	70	45	740	35	200	228	240	2°36'14"
SZ65	185	225	90	16	59	380	450	100	75	50	720	30	324	305	278	2°11'16"
SZ80	210	250	110	16	59	435	525	100	65	50	788	40	250	350	325	2°00'18"
SZ92	245	160	105	18	64	500	600	100	70	50	860	40	250	575	363	1°52'3.64"

## 四、主要技术性能 ( Main Technical Performance)

参数 Data / 规格 Sizes	SZ45	SZ50	SZ55	SZ65	SZ80	SZ92
输入转速 rpm Input Speed	1500					
输出转速 rpm Output Speed	44.9	37.5	38	38.9	39.2	40.2
输入功率 kW Input Power	18.5	22	30	37	55	110
单轴输出扭矩 N.m axial output torque	1972	2779	3820	4518	6786	13130
分配轴夹角 Angle of distribution shaft	2°40'	2°58'12"	2°36'14"	2°11'16"	2°0'18"	1°52'3.64"

## 五、订货须知 (Points for Order Placing)

5.1 齿轮箱所用润滑油牌号 L-CKC220 或 L-CKC320 中极压齿轮油

5.2 齿轮箱及分配箱采用循环水冷却，冷却水温度不高于 30℃

5.3 两箱体应安装于同高度的平面上，分配箱的长轴外花键插入齿轮箱输出轴花键孔时，在地脚螺母松开的前提下，检查两箱体底面与安装平面间隙，必要时作适当调整，保证齿轮箱输出轴与分配箱长轴同轴。安装完毕后，手动检查，要求各部件间转动灵活，无卡滞现象。

5.4 螺杆与分配箱输出花键轴同轴度直接影响分配箱齿轮及轴承寿命的长短，安装时应拆下花键套用百分表检查花键轴的径跳，用塞尺检查螺杆与分配箱花键轴端面间接触是否良好，消除误差

5.5 在运转过程中，如出现局部轴承部位过热，或有异常噪声，应停机检查，排除故障后方可运行。

5.1 Gearbox use lubricating oil Grade L-CKC220 or L-CKC320 extreme pressure gear oil

5.2 Gearbox and distribution box adapt circulating cooling water, cooling water temperature not higher than 30 °C

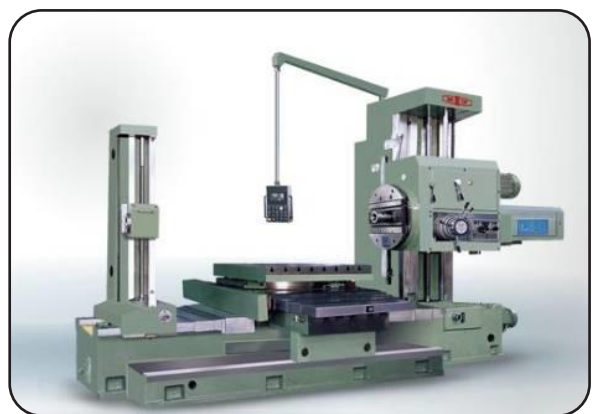
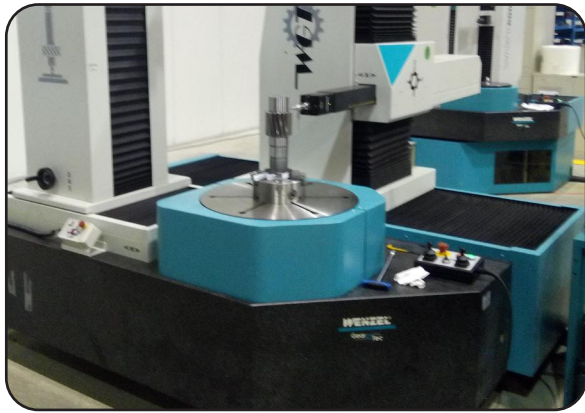
5.3 Two boxes should be installed on the same height plane, when external splines of distribution box long axis insert spline hole of gearbox output shaft , in the case of the foot nut loosen, check the gap of bottom surface of the housing with install flat , if necessary, make appropriate adjustments to ensure the gearbox output shaft coaxial with the long axis of the distribution box. After installation, manually check to require components rotating flexible and no catching phenomenon.

5.4 Coaxial output of screw and distribution box spline shaft directly affect the gear of distribution box and the length of the bearing life, need to remove spline bushing then Using a dial indicator to check path hop of spline shaft when install, use feeler to check if connection between the screw and the distribution box spline shaft surface is good, eliminate errors

5.5 During operation, such as a partial bearing parts overheating or abnormal noise should stop to check, running after troubleshooting.

# 设备展示 Equipment Exhibition

---







## 常州泰利减速机有限公司

CHANGZHOU TILI REDUCER CO.,LTD

地址：常州市钟楼区邹区镇卜弋工业园

电话：+86-519-83318228

传真：+86-519-83316228

邮编：213141

ADD: Buyi Industrial Park, Zouqu Town, Zhonglou , Changzhou Jiangsu

Mail: admin@cztili.com

Tel: +86-519-83318228

Post Code: 213141

---