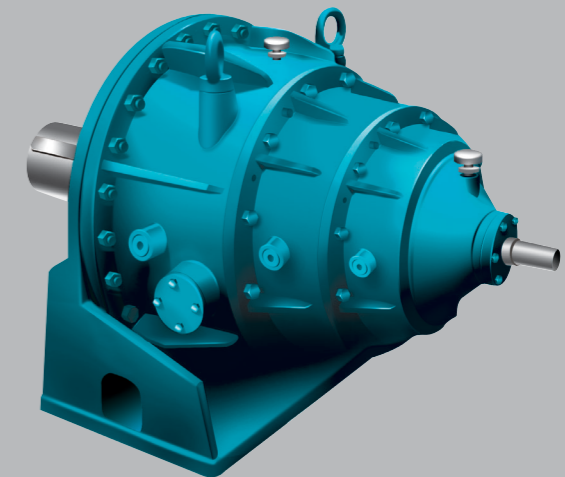


T A I L O N G



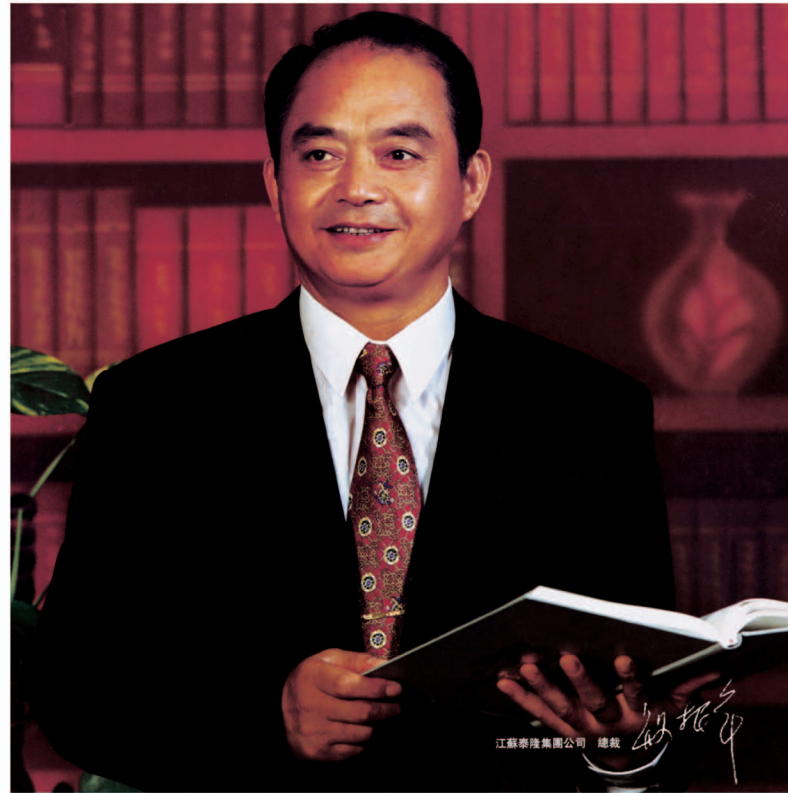
中国驰名商标
CHINA WELL-KNOWN
TRADEMARK

地址(ADD): 江苏省泰兴市大庆东路88号
 NO.88,Daqing Rd.(E) Taixing City,jiangsu province
 电话(TEL):0086-523-87635698 87668018 87668028
 传真(FAX):0086-523-87665426 87665000
 邮编(P.C):225400
 网址 [Http://www.tailong.com](http://www.tailong.com) 电子信箱E-mail:tlgrp.tx@public.tz.js.cn



行星齿轮减速器

江苏泰隆机械集团
 JIANGSU TAILONG MACHINERY GROUP COMPANY
江苏泰隆减速机股份有限公司
 JIANGSU TAILONG DECELERATOR MACHINERY CO.,LTD.



公司简介

泰隆集团地处扬子江畔的泰兴市区，是泰兴人引以为豪的国家大型企业。集团在全国优秀企业家、江苏省劳动模范董事长殷根章的领导下，经过20多年的悉心经营，昂首迈进了中国机械工业500强，成为全国减速机行业龙头老大。

集团现拥有总资产5.8亿元，固定资产3.6亿元，占地面积60万平方米，员工近2612人，专业工程技术人员896人，年销售额15亿元。从美国、德国、日本、俄罗斯等国家引进的大型数控磨齿机、蜗杆磨床、加工中心、碳氮共渗炉等一批高精尖的生产设备和检测设备占48%。建立了全国同行业中检测功能最全、检测功率最大、仪器最先进的测试中心，创建了省级工程技术中心。公司产品在原有的平面二次包络蜗杆减速器、9000系列摆线针轮减速机、圆柱齿轮减速器、行星齿轮减速器等十几个系列，几十万种规格的基础上，采用先进的模块化、点线等技术开发出了TL模块化齿轮减速电机；TPB行星模块化减速器、重载模块化减速器、点线啮合减速器。多年来，起重机用硬齿面、中硬齿面减速器一直在为用户提供最佳的传动方案，在风力发电、水力发电领域捷足先登，做出了不菲的业绩。重载齿轮箱在建材行业、冶金行业成功得到了应用，开发出了建材行业的立式磨机及边缘传动磨机齿轮箱，冶金行业的开卷、卷取齿轮箱、三环减速器、星轮减速器。另外公司还为用户提供榨糖机齿轮箱、螺杆升降机、电动滚筒及各类非标齿轮箱。公司荣获“中国名牌”，“全国首批守合同重信用企业”，“全国重点高新技术企业”，“全国机械工业质量效益型先进企业”，“全国机械工业质量管理奖”，“全国用户满意服务”等殊荣，泰隆商标被评为“中国驰名商标”，在同行业中率先通过质量、环境、安全三位一体认证及ISO10012计量体系确认。

泰隆人将遵循自己一贯的质量承诺、服务承诺和信誉承诺，把顾客满意当作我们的最高追求！

Company Brief

Tailong Group is located in Taixing urban area at the border of Yangtse River and it is a state-owned large-sized enterprise boasted by Taixing people. Under the leadership of Mr. Yin genzhang, a nationwide excellent entrepreneur and a model worker of Jiangsu Province, after more than twenty years of operation with concentrated efforts, has proudly marched into the Top 500 enterprises in Chinese Mechanical Industry and has become the industry leader.

At present, the group owns a total assets of RMB 580m, and fixed of RMB 360m, and it covers an area of 600,000 square meters and owns almost 2,612 employees, including 896 technicians, the annual turnover surpasses 1b RMB. The introduced large-sized numerical controlled gear grinding machine, worm grinder, machining center and carbonitriding kiln and etc. advanced, precise and leading manufacturing facilities and inspection apparatus from USA, Germany, Japan and Russia has taken part 48% share in all. At the same time, the group has established a test center with the most complete test functions, the biggest test power, the most advanced instrument and the provincial science & technology park. At the basis of the primary secondary envelope, 9000 series cycloid pinwheel reducer, cylindrical gear, planetary reducer and so on, more than ten series, and several ten thousands specifications, adopting the advanced modularization, point-line technique, ultimately develop TL modular reducer, TPB planetary modular reducer, heavy load modular and point-line meshing decelerator. Along many years, harden-faced reducer for crane, moderate rigid reducer provide the best transmission project for customer all the times; On the other hand, at the wind and water power area, we have taken the swift-footed arrive first, and taken out outstanding success. The heavy load gearboxes has successfully applied in architecture, metallurgy industry, and developed vertical grinder, marginal transmission grinder gearbox which fit for architecture industry, open, convolute gearbox, three-ring, star reducer which special for metallurgy. In addition, the company also supply sugar mill gearbox, worm lifter, electrical roller and various non-standard gearboxes.

The company has been awarded successively with such honorable titles as "China top brand", "National first batch of enterprise honoring contracts and keeping promises", "National key new & hi-tech enterprise", "National mechanical industry quality & benefit type enterprise", "National mechanical industry QC award" and "National customer satisfaction service". Tailong brand is recognized as "the Chinese famous brand" by national industrial and commercial bureau. It has taken the lead in passing the quality, environment and security three in one system certification and ISO10012 metering system certification.

Tailong people will keep to its persistent quality guarantee, service guarantee and credit, satisfying customer as our topmost pursuit.

NGW行星齿轮减速器 NGW Planetary Gear Decelerators

一、概述 Brief

NGW型行星减速器有单级(NGW11-NGW121)、两级(NGW42-NGW122)和三级(NGW73-NGW123)三个系列组成。

NGW is consist of single-stage (NGW11-NGW121), two-stage (NGW42-NGW122) and stree-stage (NGW73-NGW123).

1、结构特点 Structure characteristic

(1) 体积小、重量轻、结构紧凑、传递功率大、承载能力高

Small volume, light weight, well-knitted structure, big transmission power high load capacity.

(2) 传动效率高 High transmission efficiency

(3) 传动比大 Big transmission ratio

2、用途和使用条件 Application and referred situation

NGW型行星齿轮减速器主要用于冶金、矿山、起重运输等机械设备的减速，其高速轴转速不超过1500r/min；齿轮园周速度不超过10m/s；工作环境温度为-40℃~45℃，可正、反两向运转。

NGW planetary decelerators have been mainly used in matallurgy, mining, cranesand trasportation etc. mechanical equipments. The velocity of high-speed shaft is less than 1500r/min, the gear circumferential velocity is no more than 10m/s; the ambient temperature is between -40℃ to 45℃, and can revolve in pro and condirections.

二、型号意义 Type

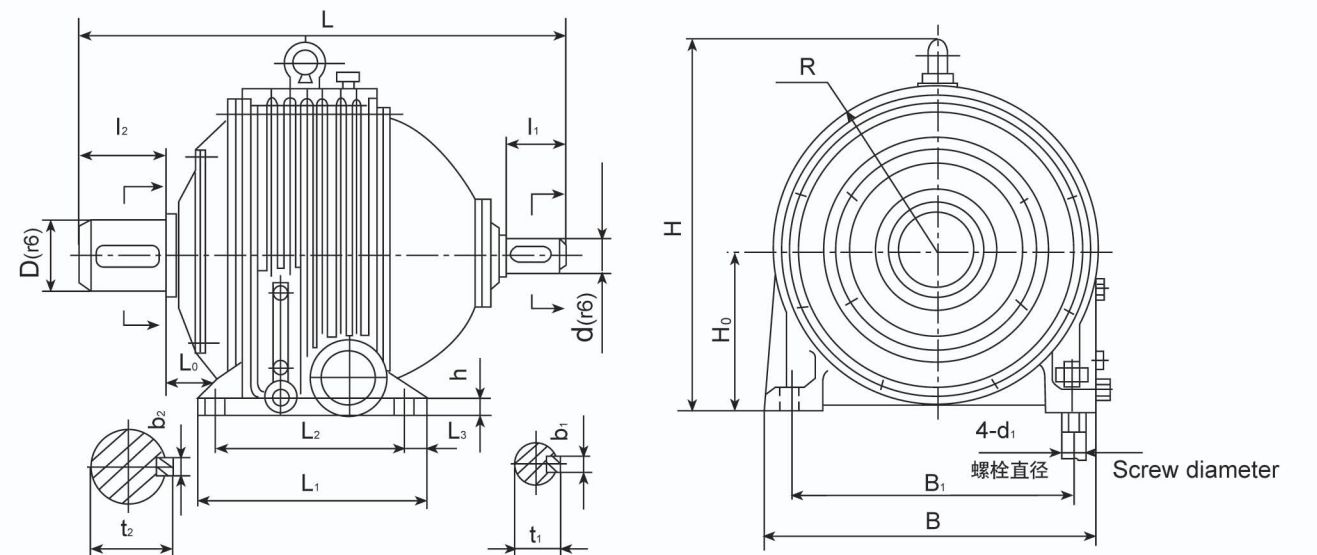
NGW 7 2 - 10

传动比代号 Transmission ratio symbol

两级减速器 Two-stage

机座号 Pedstal No.

行星齿轮减速器 Planetary reducer

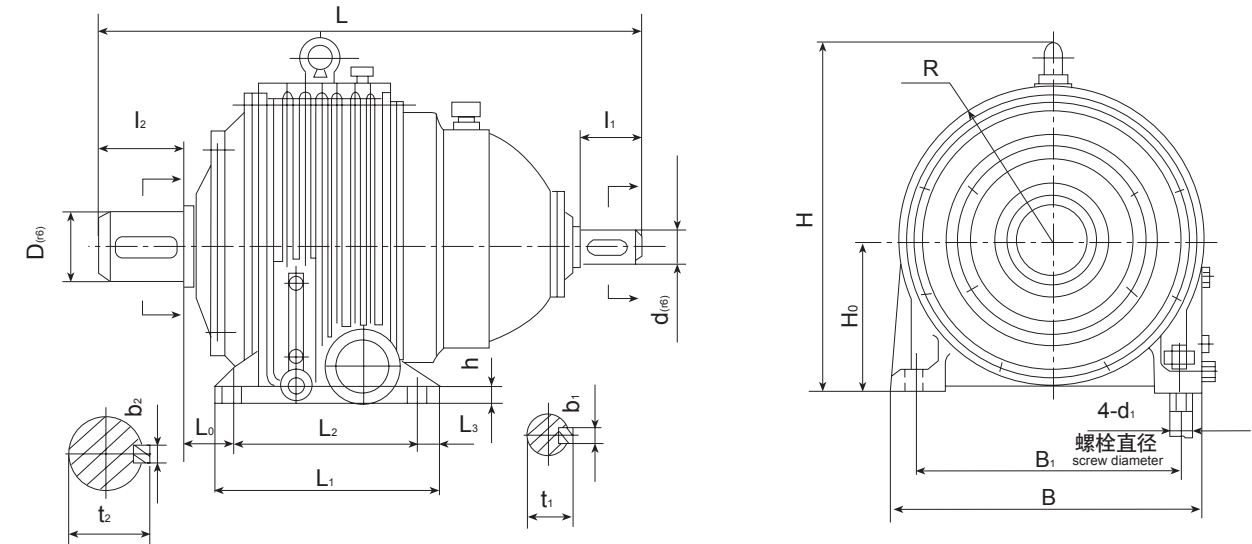


单级NGW型减速器外形及安装尺寸 outlook and assembling size of single stage NGW decelerator

机座号 Pedestal NO.	型号 规格 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸 Axie extension							地脚尺寸 Lower mangie size							重量 Weigh (kg)
			L	B	H	H0	R	d	D	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₁	L ₂	L ₃	L ₀	B ₁	d ₁	
1	NGW 11	2.8~4.5 5~12.5	530 477	280 295	0 125-0.5	125	35 30	50	55 50	38 33	10 8	55	16	215	165	25	105 57	220	M16	20	53 50	
2	NGW 21	2.8~4.5 5~12.5	604 535	305 325	0 140-0.5	140	40 35	60	70 55	43 38	12 10	64	18	245	185	30	115.5 60.5	235	M20	25	80 73	
3	NGW 31	2.8~4.5 5~12.5	632 569	350 365	0 160-0.5	160	45 40	70	70 70	49 43	14 12	74.5	20	260	200	30	125 62	270	M20	25	100 98	
4	NGW 41	2.8~4.5 5~12.5	734 634	380 425.5	0 180-0.5	180	50 45	80	85 70	55 50	16 14	85	24	290	230	30	156 72	320	M24	30	147 128	
5	NGW 51	2.8~4.5 5~12.5	845 729	420 463.5	0 200-0.5	200	55 50	90	85 85	60 55	16 16	95	24	310	250	30	196.5 80.5	360	M24	35	213 193	
6	NGW 61	2.8~4.5 5~12.5	886 731	475 524	0 225-0.5	225	60 55	100	105 85	65.5 60	18 16	108	28	360	290	35	202.5 67.5	405	M30	40	289 264	
7	NGW 71	2.8~4.5 5~12.5	933 800	535 574	0 250-0.5	250	65 60	110	105 105	69 64	18 18	117	32	375	305	35	213 80	465	M30	40	359 301	
8	NGW 81	2.8~4.5 5~12.5	1042 899	590 634	0 280-0.5	280	75 65	120	115 105	79.5 69	20 18	127	32	440	350	45	219 86	510	M36	45	449 399	
9	NGW 91	2.8~4.5 5~12.5	1141 976	660 721	0 315-0.5	315	85 75	130	125 115	92 79.5	24 20	140	36	475	385	45	225.5 70.5	570	M36	45	604 542	
10	NGW 101	2.8~4.5 5~12.5	1261 1073	745 800	0 355-0.5	355	95 85	150	140 125	101 92	28 24	161	40	525	425	50	251 78	645	M42	50	810 732	
11	NGW 111	2.8~4.5 5~12.5	1355 1145	840 891	0 400-0.5	400	105 95	170	160 140	111 101	28 28	179	40	580	480	50	263 73	740	M42	55	1060 990	
12	NGW 121	2.8~4.5 5~12.5	1500 1286	950 1013	0 450-0.5	455	115 105	190	160 160	122 111	32 28	200	45	680	560	60	288 73	820	M48	60	1638 1457	

单级传动比 single stage transmission ratio

传动比代号 No.of transmission ratio	1	2	3	4	5	6	7	8	9	10	11	12	13	14
公称传动比 Nominal transmission ratio	2.8	3.15	3.55	4	4.5	5	5.6	6.3	7.1	8	9	10	11.2	12.5

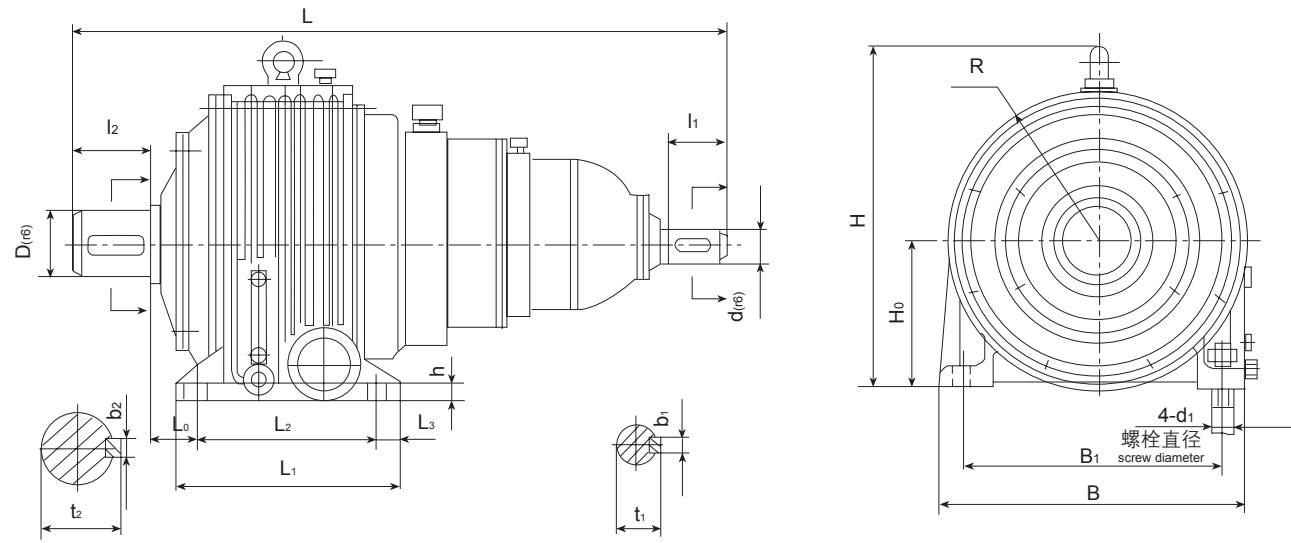


两级NGW型减速器外形及安装尺寸 Outlook and assembling size of double stage NGW decelerator

机座号 Pedestal NO.	型号 规格 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸 Axie extension							地脚尺寸 Lower mangie size							重量 Weigh (kg)
			L	B	H	H0	R	d	D	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₁	L ₂	L ₃	L ₀	B ₁	d ₁	
4	NGW 42	14~22.4 25~160	687 687	380 425.5	0 180-0.5	180	35 30	80	55 55	38.5 33	10 8	87	24	290	230	30	72 320	M24	30	128 130		
5	NGW 52	14~22.4 25~160	767 752	420 463	0 200-0.5	200	40 35	90	70 55	43.5 38.5	12 10	95	24	310	250	30	80.5 360	M24	35	244 241		
6	NGW 62	14~22.4 25~160	807.5 805.5	475 524	0 225-0.5	225	45 40	100	70 70	48.5 43.5	14 12	106	28	360	290	5	67.5 405	M30	40	291 279		
7	NGW 72	14~22.4 25~160	890 875	535 574	0 250-0.5	250	50 45	110	85 70	54 48.5	16 14	117	32	375	305	35	80 465	M30	40	350 350		
8	NGW 82	14~22.4 25~160	989.5 976.5	590 634	0 280-0.5	280	55 50	120	85 85	59 54	18 16	127	32	440	350	45	86 510	M36	45	488 460		
9	NGW 92	14~22.4 25~160	1040 1020	660 721	0 315-0.5	315	60 55	130	105 85	64 59	18 16	138	36	475	385	45	70.5 570	M36	45	607 577		
10	NGW 102	14~22.4 25~160	1144 1144	745 800	0 355-0.5	355	65 60	150	105 105	69 64	18 18	159	40	525	425	50	78 645	M42	50	895 895		
11	NGW 112	14~22.4 25~160	1222 1212	840 891	0 400-0.5	400	75 65	170	115 105	79.5 69	20 18	179	40	580	480	50	73 740	M42	55	1120 1075		
12	NGW 122	14~22.4 25~160	1385 1375	950 1013	0 450-0.5	455	85 75	190	125 115	92 79.5	24 20	200	45	680	560	60	73 820	M48	60	1733 1539		

两级传动比 two stage transmission ratio

传动比代号 No.of transmission ratio	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
公称传动比 Nominal transmission ratio	14	16	18	20	22.4	25	28	31.5	35.5	40	45	50	56	63	71	80	90	100	112	125	140	160



三级NGW型减速器外形及安装尺寸
outlook and assembling size of two stage NGW decelerator

机座号 Pedestal NO.	型号 规格 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height				轴伸 Axie extension						地脚尺寸 Lower mangie size						重量 Weigh (kg)				
			L	B	H	H ₂	R	d	D	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₁	L ₂	L ₃		L ₀	B ₁	d ₁	h
7	NGW-73		973.5	535	574	0 250-0.5	250	30	110	55	140	33	8	117	32	375	505	35	80	465	M30	40	382
8	NGW-83		1071	590	634	0 280-0.5	280	35	120	55	160	38	10	127	32	440	350	45	86	510	M36	45	505
9	NGW-93	180-	1137.5	660	721	0 315-0.5	315	40	130	70	165	43	12	138	36	475	385	45	70.5	570	M36	45	627
10	NGW-103	2000	1263	745	800	0 355-0.5	355	45	150	70	200	48.5	14	159	40	525	425	50	78	645	M42	50	962
11	NGW-113		1359.5	840	891	0 400-0.5	400	50	170	85	200	55	16	179	40	580	480	50	73	740	M42	55	1163
12	NGW-123		1504	950	1013	0 450-0.5	455	55	190	85	240	59	16	200	45	680	560	60	73	820	M48	60	1756

三级传动比
three stage transmission ratio

传动比代号 No. of transmission ratio	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
公称传动比 Nominal transmission ratio	180	200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000

单级减速器承载能力表

Bearing capacity of single stage decelerator

传动比代号 No. of transmission ratio	公称传动比 Nominal transmission ratio	转速n1 r/min Wheeling speed	机座号 Pedestal No.	1	2	3	4	5	6	7	8	9	10	11	12
			型号Type	11	21	31	41	51	61	71	81	91	101	111	121
高速轴许用功率P1(Kw), 低速轴许用输入转矩T2(N.m) High speed axle allowed input power P1(kW)/low speed axle allowed output truing moment T2(N.m)															
1	2.8	1500	P ₁	39.4	56.5	81.5	113	157	214	307	419	603			
			T ₂	710	1020	1470	2030	2830	3860	5520	7540	10850			
2	3.15	1500	P ₁	38.6	60	89.4	126	179	249	345	472	668			
			T ₂	785	1220	1820	2550	3800	5090	7000	9580	13600			
3	3.55	1500	P ₁	37	57.3	86.1	123	175	240	336	456	644			
			T ₂	834	1290	1960	2750	3930	5400	7570	10260	14640			
4	4	1500	P ₁	35.2	52.6	79.6	112	168	226	313	428	594	828		
			T ₂	890	1330	2050	2880	4180	5700	7880	10770	15260	21280		
5	4.5	1500	P ₁	34.7	47.8	68.8	94.1	141	189	261	359	515	710	1050	
			T ₂	990	1370	1940	2730	3980	5400	7480	10280	14510	20600	29710	
6	5	1500	P ₁	21.4	35	40	61	90	163	229	315	452	642	755	1040
			T ₂	670	1100	1240	1940	2920	5150	7220	9930	14080	19840	24030	33100
7	5.6	1500	P ₁	18.7	32.4	34.4	54.4	80	118	175	245	338	482	670	840
			T ₂	660	1140	1210	1900	2830	4160	6150	8610	11890	16870	23670	30000
8	6.3	1500	P ₁	17.6	27.2	32.2	50.5	74.8	99	146	204	282	395	568	736
			T ₂	690	1070	1270	1990	2940	3870	5720	8040	11090	15570	22280	29100
9	7.1	1500	P ₁	15.2	21.4	29.7	41.6	59.2	77.5	114	160	222	310	449	578
			T ₂	680	950	1320	1870	2610	3450	5090	7120	9870	13940	19820	26100
10	8	1500	P ₁	11.7	16.4	22.2	30.6	46.3	59.5	86.4	119	165	227	339	453
			T ₂	600	840	1140	1600	2330	3060	4440	6130	8490	11930	17090	23000
11	9	1500	P ₁	8.6	11.2	15.5	23.2	30.3	46.7	63.1	82.5	114	169	214	343
			T ₂	480	660	910	1300	1770	2680	3550	4820	6660	9520	12500	19670
12	10	1500	P ₁	6.6	9.5	13.3	18.2	25.5	34.7	50	69.4	97	133	183	268
			T ₂	420	590	820	1150	1580	2270	3160	4330	6000	8400	11370	17020
13	11.2	1500	P ₁	4.9	6.9	9.9	13.4	19.4	28.1	36.7	51.5	72	97	142	200
			T ₂	350	490	700	970	1370	1980	2650	3710	5040	7010	10040	14250
14	12.5	1500	P ₁	4.1	5.7	7.3	11.1	16.2	23.1	30.5	42.6	55.2	79.8	112	155
			T ₂	320	450	590	870	1240	1760	2370	3320	4460	6210	7960	11320

两级减速器承载能力表

Bearing capacity of two stage decelerator

传动比代号 No.of transmission ratio	公称转动比 Nominal transmission ratio	转速n1 r/min Wheeling speed	机座号	4	5	6	7	8	9	10	11	12
			Pedestal No.	4	5	6	7	8	9	10	11	12
			型号Type	42	52	62	72	82	92	102	112	122
高速轴许用功率P1(Kw),低速轴许用\输入转矩T2(N.m) High speed axle allowed input power P1(kW)low speed axle allowed output truing moment T2(N.m)												
1	14	1500	P1	30.2	44.2	66.3	94.3	128	185	257	364	517
			T2	2660	3980	5760	8280	11180	15970	22700	32800	45110
2	16	1500	P1	28.1	42.1	58.7	84.5	115	165	230	328	459
			T2	2790	4270	5790	8290	11350	16080	22780	33320	45340
3	18	1500	P1	26.5	38.1	53	77	105	147.6	208	294	414
			T2	2930	4290	5820	8340	14410	15970	22960	33210	45460
4	20	1500	P1	24	34.1	46.9	66.8	94.7	134.9	187	268	372
			T2	2940	4300	5870	8340	11450	16320	23050	33690	46400
5	22.4	1500	P1	21.1	30.2	43	60.7	84.1	119	166	239	341
			T2	2950	4310	5870	8390	11500	16430	23410	34150	46600
6	25	1500	P1	19.3	27.4	39	54.6	73.3	109	152	218	310
			T2	2960	4330	5920	8440	11540	16510	23500	34280	47100
7	28	1500	P1	17.2	24.6	34.7	49.6	67.5	98.4	136	196	279
			T2	2970	4330	5970	8440	11570	16620	23590	34400	47400
8	31.5	1500	P1	15.4	22.2	31.2	44.1	61	88.1	123	176	250
			T2	2970	4350	5920	8440	11600	16610	23670	34510	47500
9	35.5	1500	P1	13.7	19.6	28.5	38.5	54.3	77.5	109	156	221
			T2	2980	4360	5970	8440	11630	16570	23670	34610	47780
10	40	1500	P1	11.7	16.4	22.2	30.6	46.3	59.5	86.4	119	165
			T2	2990	4200	5530	7760	11300	14690	21760	30600	37400
11	45	1500	P1	8.6	11.2	15.5	23.2	30.3	46.7	63.1	82.5	114
			T2	2350	3300	4410	6310	8590	12870	17400	24100	29330
12	50	1500	P1	8.4	11.3	14.9	23.5	30.3	45.1	63.1	82.5	114
			T2	2520	3580	4610	7050	9600	13990	18100	26200	36200
13	56	1500	P1	6.6	9.5	13.3	18.2	25.5	34.7	50	69.4	97
			T2	2260	3210	4440	6230	8560	12300	17100	23500	32600
14	63	1500	P1	6.1	8.8	11.6	17.2	24.8	32.8	48.3	69.5	95.8
			T2	2320	3320	4350	6600	9310	12980	18470	26200	35700
15	71	1500	P1	4.9	6.9	9.9	13.4	19.4	28.1	36.7	51.5	72
			T2	2120	2960	4230	5870	8310	11990	16080	26500	30450
16	80	1500	P1	4.1	6.1	8.2	12	16.9	23.7	32.8	49.5	65.8
			T2	2050	2960	3910	5900	8230	11400	16400	24250	31800
17	90	1500	P1	3.8	5.6	7.1	11	15.8	21.9	30.4	38.6	55.5
			T2	2050	2960	3910	5900	8300	11400	16410	24280	30600
18	100	1500	P1	2.8	4.2	5.5	8.3	11.9	16.5	22.3	34	43.3
			T2	1760	2620	3480	5070	7170	9990	14070	20600	27500
19	112	1500	P1	2.1	2.8	4.1	6	8.1	11.3	16.7	22	33
			T2	1410	1930	2930	4080	5530	7680	11280	15390	23370
20	125	1500	P1	1.6	2.3	3	4.7	6.8	9.6	12.8	18.7	24.6
			T2	1230	1730	2440	3530	4980	6950	9780	13940	20070
21	140	1500	P1	1.2	1.7	2.6	3.4	4.9	7.1	9.5	13.8	20.4
			T2	1030	1460	2310	2970	4160	5880	8210	11710	17590
22	160	1500	P1	1	1.4	2.1	2.8	4.1	5.2	7.8	11.4	16.5
			T2	920	1320	1960	2660	3710	4940	7370	10500	15780

三级减速器承载能力表

Bearing capacity of three degree decelerator

传动比代号 No.of transmission ratio	公称转动比 Nominal transmission ratio	转速n1 r/min Wheeling speed	机座号	7	8	9	10	11	12
			Pedestal No.	7	8	9	10	11	12
			型号Type	73	83	93	103	113	123
高速轴许用功率P1(Kw),低速轴许用\输入转矩T2(N.m) High speed axle allowed input power P1(kW)low speed axle allowed output truing moment T2(N.m)									
1	180	1500	P1	8.1	10.9	16.3	22.4	33	47.1
			T2	8530	11820	15900	24030	35390	48880
2	200	1500	P1	7	9.5	14.2	19.2	28.8	40.8
			T2	8500	11820	16960	24030	35250	48890
3	224	1500	P1	6.4	8.3	12.5	18.1	24.9	36.7
			T2	8530	11830	16970	24080	35270	48920
4	250	1500	P1	5.8	7.6	11.2	16.1	22.3	32.5
			T2	8530	11830	16980	24080	35280	48940
5	280	1500	P1	5.2	7.2	10.6	14.3	21	28.5
			T2	8540	11830	16980	24080	35290	48960
6	315	1500	P1	4.6	6.5	9.6	13	19	25.5
			T2	8540	11840	16980	24120	35300	48980
7	355	1500	P1	4	5.6	8.3	11.2	16.5	23.6
			T2	8540	11840	1690	24120	35310	49000
8	400	1500	P1	3.5	5	7.3	10	14.5	20.9
			T2	8540	11840	16990	24120	35330	49010
9	450	1500	P1	3.2	4.6	6.4	9.2	13.5	20.4
			T2	8540	11850	17000	24160	35330	49020
10	500	1500	P1	2.8	4	5.5	8.1	11.7	16.5
			T2	8540	11850	16710	24160	35340	48460
11	560	1500	P1	2.1	2.8	4.1	6	8.1	11.3
			T2	6850	9360	14070	19990	27640	37260
12	630	1500	P1	2	2.7	3.6	5.6	7.7	10.6
			T2	7220	10180	14170	20260	28910	39150
13	710	1500	P1	1.6	2.3	3	4.7	6.8	9.6
			T2	6640	9380	13220	19030	27150	37660
14	800	1500	P1	1.5	2.1	2.7	4.1	6	8.3
			T2	6670	9420	13120	18710	26780	36380
15	900	1500	P1	1.2	1.7	2.5	3.4	4.9	7.1
			T2	6230	8830	13120	18020	25100	35550
16	1000	1500	P1	1	1.4	1.9	2.75	4.3	5.7
			T2	5920	8360	11630	16540	24490	32110
17	1120	1500	P1	0.93	1.3	1.8	2.65	4.1	4.9
			T2	5920	8360	11630	16540	24490	32110
18	1250	1500	P1	0.69	1	1.3	1.9	2.9	3.6
			T2	5120	7210	10050	14140	20780	27120
19	1400	1500	P1	0.51	0.67	0.9	1.4	1.88	2.9
			T2	4080	5560	7740	11340	15520	23600
20	1600	1500	P1	0.39	0.57	0.77	1.08	1.6	2.1
			T2	3540	5020	6990	9840	14400	20200
21	1800	1500	P1	0.29	0.41	0.58	0.8	1.19	1.7
			T2	2980	4180	5920	8250	11790	17450
22	2000	1500	P1	0.24	0.33	0.43	0.66	0.98	1.4
			T2	2670	3730	5010	7410	10580	15860

减速机的选用方法 Method to select decelerator

a. 选用NGW行星减速器时，应根据使用条件按下式计算： $N_x = N_s K_1 K_2$ 或 $M_x = M_s K_1 K_2$

To select Type NGW planet decelerator, calculation should be made according to service condition with following formula: $N_x = N_s K_1 K_2$ or $M_x = M_s K_1 K_2$

式中 In which N_x ——选用输入功率 selected input power, kW;

N_s ——实际输入功率 actual input power, kW;

M_x ——选用输出扭矩 selected output torque, N;

M_s ——实际输出扭矩 actual output torque, N;

K_1 ——使用系数，见表17 service factor; see Table 17;

K_2 ——与润滑有关的系数。当减速器采用循环润滑时 $K_2=1$ ，当减速器采用油池润滑时 K_2 推荐值见表18 factor related to lubrication condition. If circular lubrication is used for decelerator, $K_2=1$; if oil sump lubrication is used for decelerator, refer to Table 18 for recommended value for K_2 .

根据计算出的 N_x 或 M_x 和其它已知条件按表11~16选用。所选用减速器应满足 $N_x \leq N_1$ 或 $M_x \leq M_H$ 。
Based on the calculated N_x or M_x and other known conditions, selection is made according to Table 11~16. The selected decelerator should be $N_x \leq N_1$ or $M_x \leq M_H$.

表17 使用系数 K_1 Table 17 service factor K_1

每日工作时间(小时) Service time per day		<3	3~6	6~10	10~24
工作类型 Service Type		中型Middle	重型Heavy	特重型Special	连续型Continuous
负荷性质 Nature of load	平稳无冲击 Stable without impact	0.8	0.9	1	1.12
	中等冲击 Medium impact	1	1.12	1.25	1.4
	强烈冲击 Heavy impact	1.4	1.6	1.8	2

注：(1)表中 K_1 值仅适用于电动机或汽轮机驱动；

(2)当用多缸发动机驱动时，表中 K_1 值应提高25%。

Note: The value of K_1 listed in the table is applicable only for drive of motor or steam turbine;

If multicylinder engine is used for drive, the value of K_1 listed in the table should be increased by 25%.

表18 采用油池润滑时的系数 K_2 Table 18 Factor K_2 if oil sump lubrication is used

圆周速度 v Circumferential speed m/s	单级减速器 Single-stage decelerator		两级减速器 2-stage decelerator		三级减速器 3-stage decelerator
	间断工作 Intermittent Service	连续工作 Continuous Service	间断工作 Intermittent Service	连续工作 Continuous Service	间断及连续工作 Intermittent and Continuous Service
<2.5	1	1	1	1	1
>2.5~3.5	1	1.15	1	1.1	1
>3.5~5	1.05	1.2	1	1.15	1
>5~7	1.1	1.3	1.05	1.2	-
>7~10	1.15	1.4	1.1	1.3	-

注：两级 三级减速器的圆周速度系指高速级而言。

Note: Circumferential speeds for 2-stage and 3-stage decelerator refer to high-speed stage.

新一代NGW行星齿轮减速器 NGW Planetary Gear Decelerators

一、概述 Brief

新式NGW行星减速器包括NAD、NAZD、NBD、NBZD、NCD、NCZD、NAF、NBF、NCF、NAZF、NBZF、NCZF十二个系列。

主要适用于冶金矿山、运输、建材、轻工、能源、交通等行业。

减速器的高速轴转速按其规格为1500~600r/min。

减速器齿轮传动的圆周速度，直齿轮不大于15m/s，斜齿轮不大于20m/s。

减速器工作环境温度为-40℃~+45℃，低于0℃时，启动前润滑油应预热至10℃以上。

减速器可正反两向运转。

It is mainly used in metallurgy, mining, transportation, building, light industry, power and traffic.

The revolving velocity of the high speed shaft is according is various from 1500-600rpm.

The circumferential velocity of the gear transmission: cylindrical gear is less than 15m/s, the bevel gear is no more than 20m/s.

The ambient temperature is between -40℃ to 45℃. If below 0℃, the lubrication oil should be preheated to above 10 before start.

The reducer can operate in pro and con directions.

二、减速器的代号与标记方法 Symbol and remarks

减速器代号包括：型号、级别、联结、型式、规格、公称传动比、装配型式、标准号。

其标记符号：Symbol include: type, stage no, linking, form, nominal transmission ratio, assembling form, standard no.

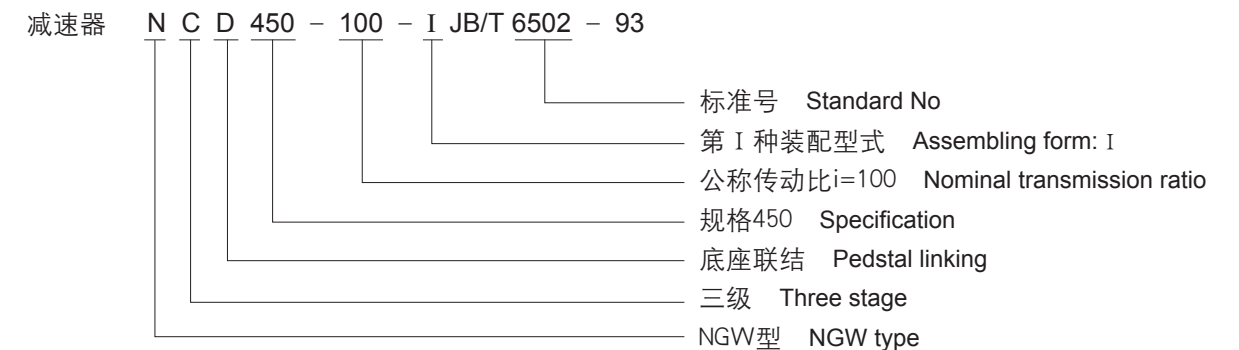
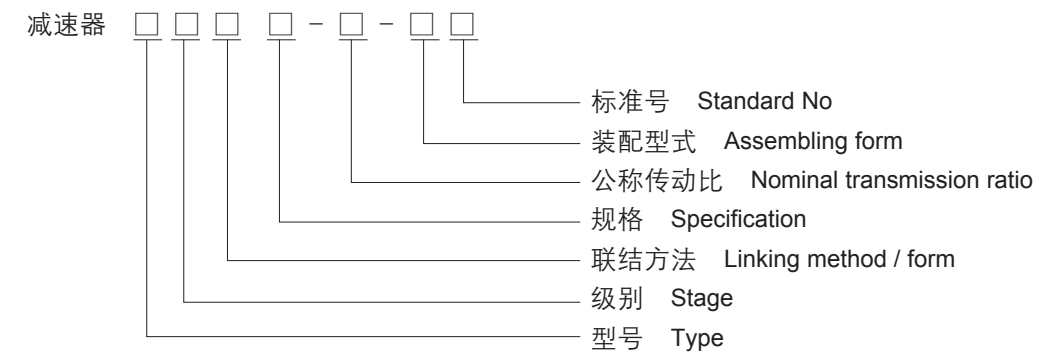
N——NGW型 Type ;

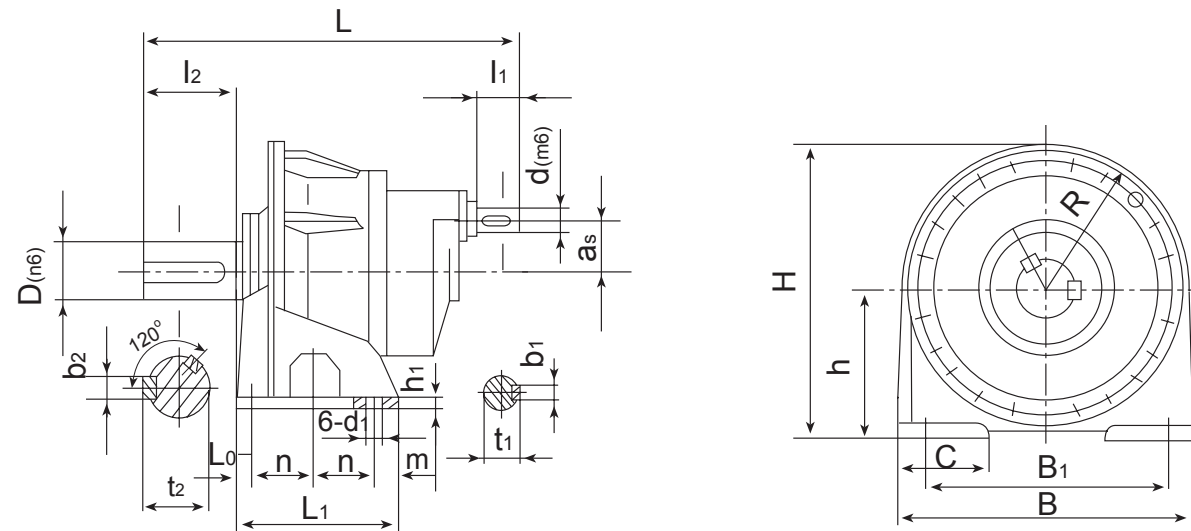
A——一级行星齿轮减速器 Single stage planetary decelerator ;

B——二级行星齿轮减速器 Two-stage planetary decelerator ;

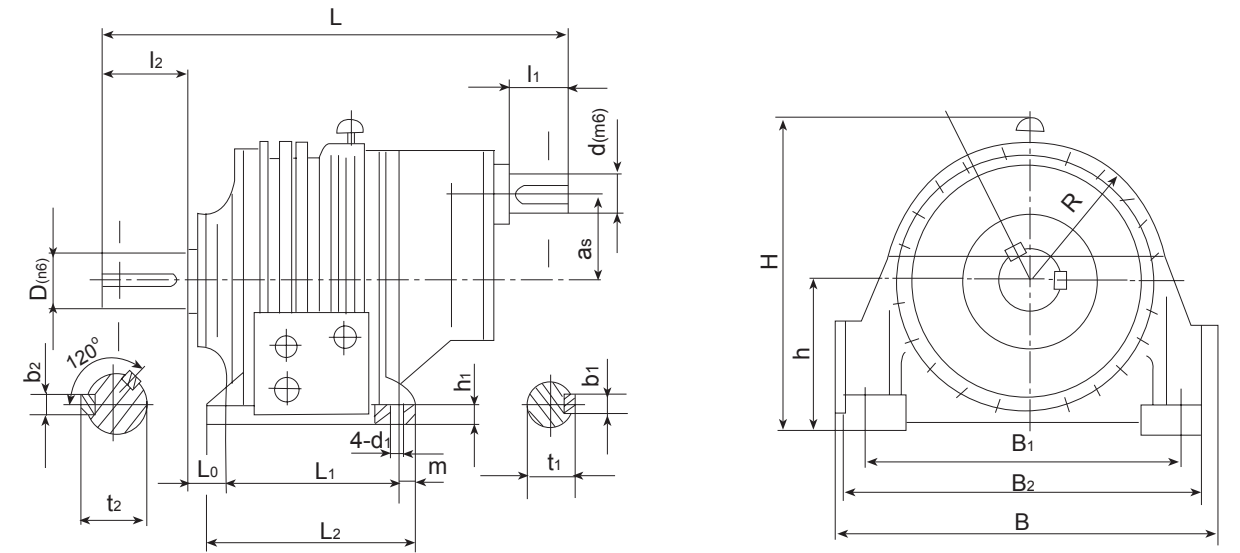
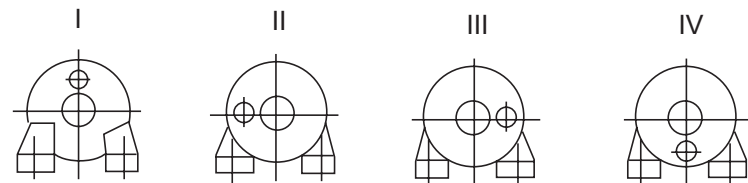
C——三级行星齿轮减速器 Three-stage planetary decelerator ;

D——底座联结 Pedstal linking ;

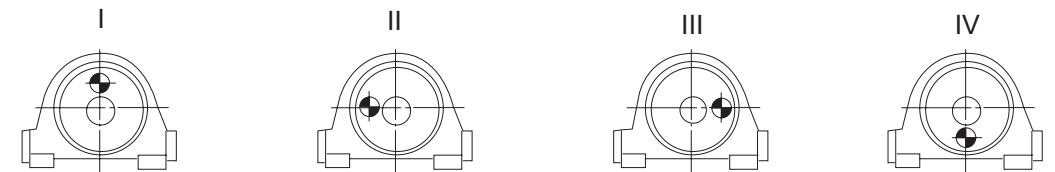




装配型式
installing form



装配型式
installing form

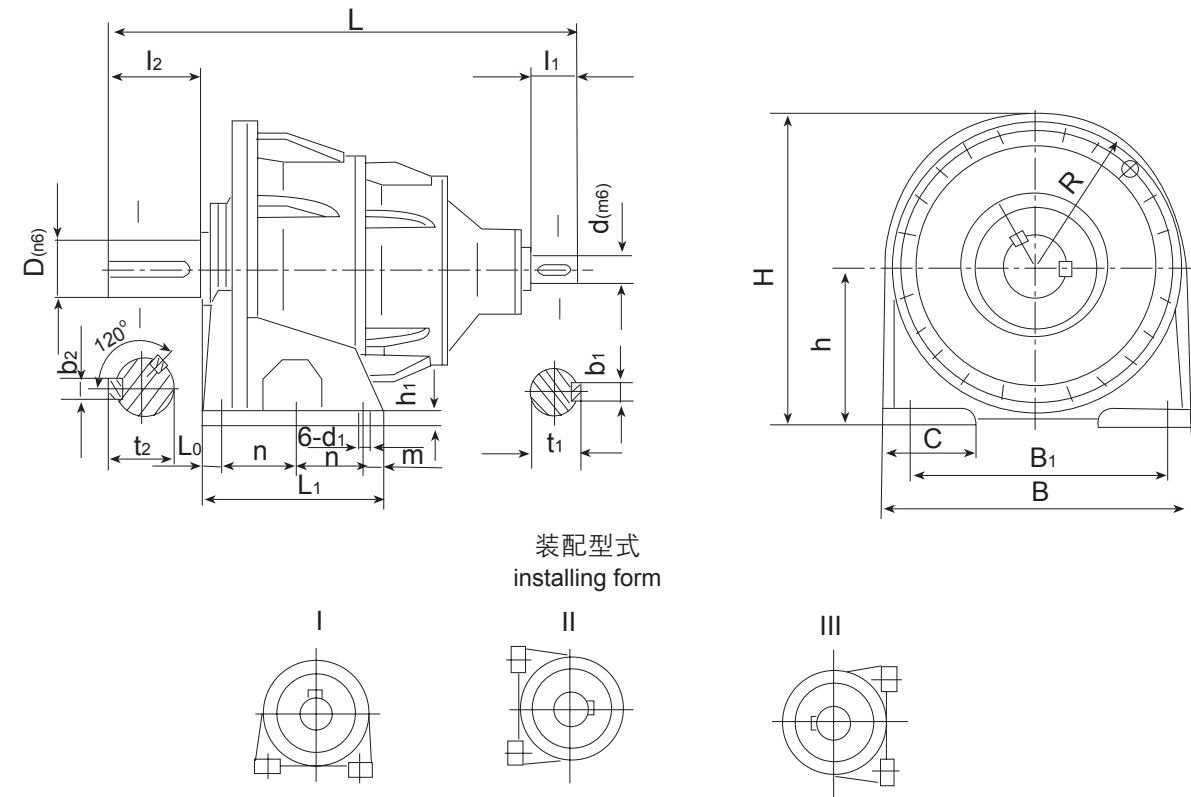


NAZD型齿轮箱外形及安装尺寸(200-560)mm
Outlook and assembling size of NAZD type gear case (200-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size							重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)			
		L	B	H	h	R	as	d(m6)	D(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₂	L ₀	L ₁	m	h ₁			B ₂	B ₁	d ₁
NAZD200	10~18	520	355	345	180	165	82	30	60	58	105	33.3	8	64	18	220	20	90	20	18	280	90	17.5	110	3
NAZD224	10~18	580	400	385	200	185	91	32	70	58	105	35	10	74.5	20	240	30	95	25	20	310	105	20	145	4
NAZD250	10~18	650	460	435	225	215	100	38	80	58	130	41	10	85	22	290	30	120	25	20	360	120	20	190	6
NAZD280	10~18	720	500	465	235	230	109	42	100	82	165	45	12	106	28	300	35	120	30	23	410	130	22	260	8
NAZD315	10~18	760	560	525	265	260	127	50	120	82	165	53.5	14	127	32	320	35	130	30	25	470	140	22	340	10
NAZD355	10~18	840	630	590	300	290	145	55	140	82	200	59	16	148	36	380	38	155	35	28	520	170	26	450	14
NAZD400	10~18	923	710	660	335	330	164	60	150	105	200	64	18	158	36	400	51	165	35	35	600	210	26	604	20
NAZD450	10~18	1015	800	745	375	370	182	70	170	105	240	74.5	20	179	40	460	60	180	50	35	670	220	33	860	24
NAZD500	10~18	1147	900	835	425	410	200	80	200	130	280	85	22	210	45	500	80	200	50	40	770	240	33	1200	32
NAZD560	10~18	1220	1020	950	475	470	218	85	220	130	280	90	22	231	50	580	78.5	230	60	40	880	300	39	1556	42

NAZD型齿轮箱外形及安装尺寸(560-1600)mm
outlook and assembling size of NAZD type gear case(560-1600)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size							重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)			
		L	B	H	h	R	as	d(m6)	D(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₂	L ₀	L ₁	m	h ₁			B ₂	B ₁	d ₁
NAZD560A	10~18	1300	1100	990	450	430	218	85	220	130	280	90	22	231	50	660	103	500	80	70	1060	900	65	1600	140
NAZD630	10~18	1491	1260	1095	500	485	260	100	240	165	330	106	28	252	56	740	118	560	90	80	1200	1040	74	2200	180
NAZD710	10~18	1540	1360	1215	560	545	296	110	260	165	330	116	28	272	56	810	130	630	90	80	1320	1140	74	3250	240
NAZD800	10~18	1707	1560	1335	630	625	334	120	280	165	380	127	32	292	63	870	163	670	100	100	1500	1300	82	4780	300
NAZD900	10~18	1990	1750	1510	710	690	372	130	340	206	450	137	32	355	80	940	194	740	100	100	1680	1480	82	5400	450
NAZD1000	10~18	2105	1900	1680	800	770	408	150	3604	200	450	158	36	375	80	1140	166	900	120	120	1840	1600	101	7150	620
NAZD1120	10~18	2450	2120	1880	900	870	446	170	00	240	540	179	40	417	90	1260	207	1000	130	120	2060	1800	101	11900	800
NAZD1250	10~18	2680	2340	2060	1000	950	520	200	450	280	540	210	45	469	100	1400	225	1120	140	140	2280	2000	112	16000	1000
NAZD1400	10~18	2890	2580	2280	1120	1050	592	220	500	280	540	231	50	519	100	1500	264	1200	150	150	2500	2200	112	19000	1500
NAZD1600	10~18	3370	2970	2560	1250	1200	668	240	560	330	680	252	56	582	120	1600	350	1250	175	180	2890	2540	122	27000	2400

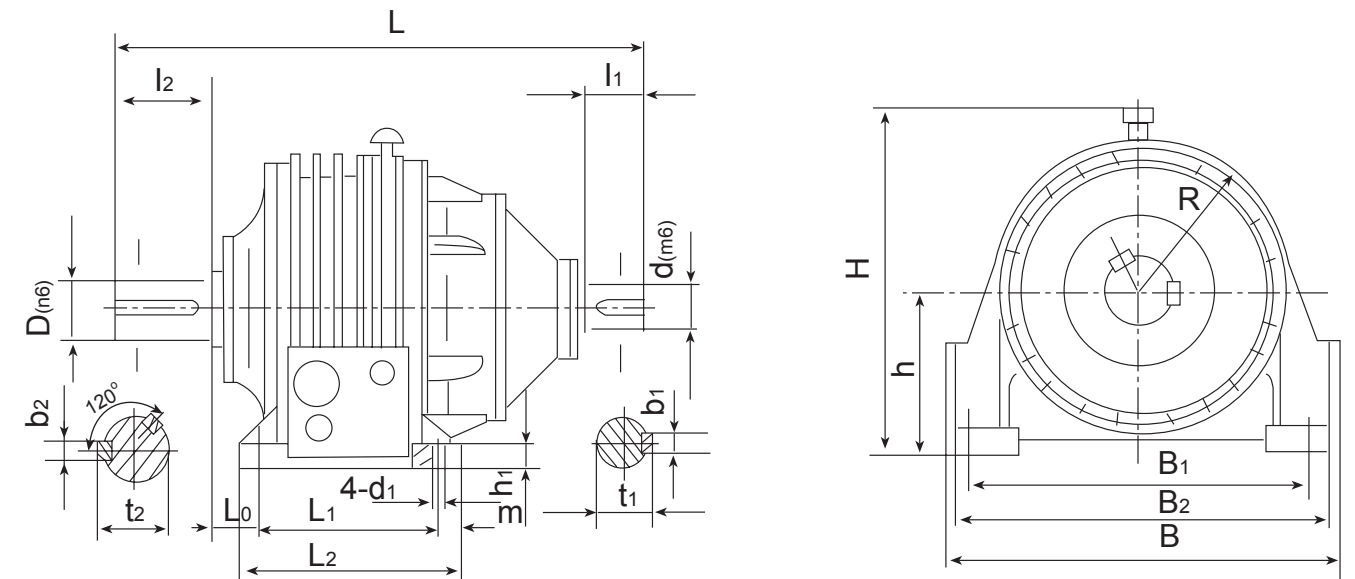


装配型式
installing form

NBD型齿轮箱外形及安装尺寸(250-560)

outlook and assembling size of NBD type gear case (250-560)mm

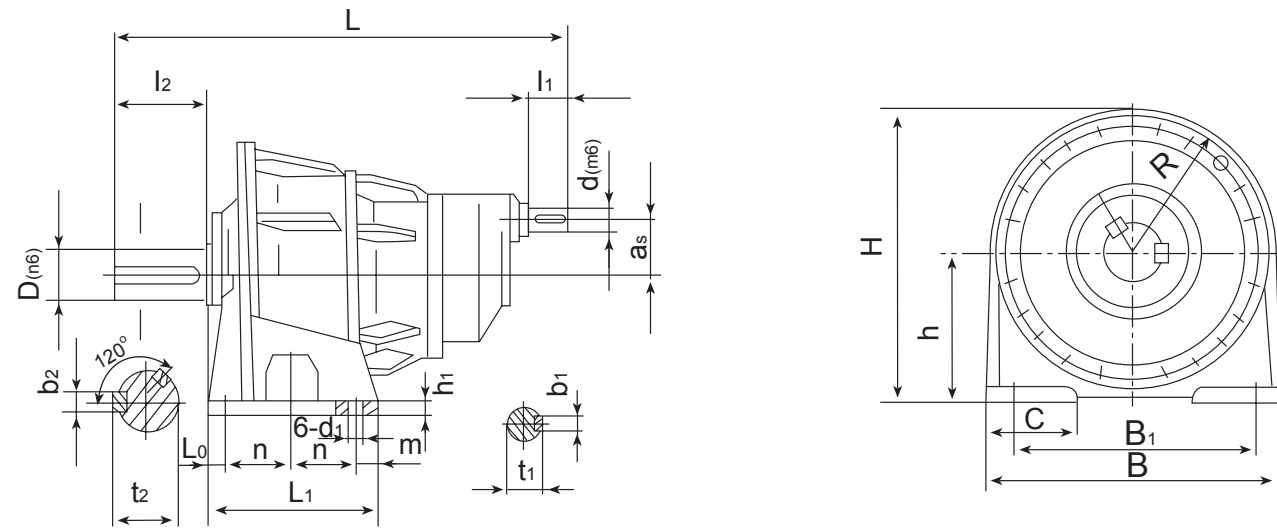
型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size										重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)			
		L	B	H	h	R	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	L1	L0	n	m	h1	B1	C	d1	L2			L3	L4	m
NBD250	20-50 28-50	715	460	435	225	215	30	80	58	130	33	8	85	22	290	30	120	25	20	360	120	20	210	8				
NBD280	20-50 28-50	760	500	465	235	230	35	100	58	165	38	10	106	28	300	35	120	30	23	410	130	22	270	10				
NBD315	20-50 28-50	820	560	525	265	260	40	120	82	200	43	12	127	32	320	35	130	30	25	470	140	22	352	14				
NBD355	20-50 28-50	900	630	590	300	290	50	140	82	200	53.5	14	148	36	380	38	155	35	28	520	170	26	468	20				
NBD400	20-50 28-50	993	710	660	335	325	60	150	105	200	64	18	158	36	400	51	165	35	35	600	210	26	624	28				
NBD450	20-50 28-50	1125	800	745	375	370	65	170	105	240	69	18	179	40	460	60	180	50	35	670	220	33	830	38				
NBD500	20-50 28-50	1252	900	835	425	410	75	200	105	280	79.5	20	210	45	500	80	200	50	40	770	240	33	1250	45				
NBD560	20-50 28-50	1340	1020	950	475	470	80	220	130	280	85	22	231	50	580	78.5	230	60	40	880	300	39	1700	60				



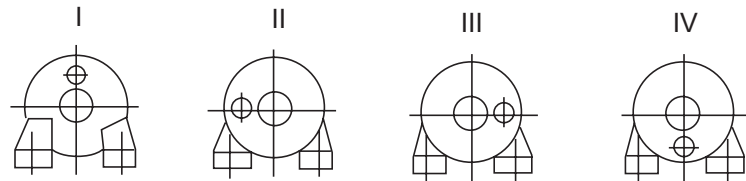
NBD型齿轮箱外形及安装尺寸(560-2000)

outlook and assembling size of NBD type gear case (560-2000)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size										重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)			
		L	B	H	h	R	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	L1	L0	L4	m	h1	B1	B2	d1	L2			L3	L4	m
560A	20-50	1360	1100	990	450	430	80	220	130	280	85	22	231	50	660	103	500	80	70	1060	900	65	1850	140				
630	20-50	1580	1260	1095	500	485	90	240	130	330	95	25	252	56	740	118	560	90	80	1200	1040	74	2300	180				
710	20-50	1685	1360	1215	560	545	110	260	165	330	116	28	272	56	810	130	630	90	80	1320	1140	74	3700	240				
800	20-50	1955	1560	1335	630	625	120	280	165	380	127	32	292	63	870	163	670	100	100	1500	1300	82	5000	300				
900	20-50	2260	1750	1510	710	690	130	340	200	450	137	32	355	80	940	194	740	100	100	1680	1480	82	5600	450				
1000	20-50	2330	1900	1680	800	770	140	360	200	450	148	36	375	80	1140	166	900	120	120	1840	1600	101	8100	620				
1120	20-50	2580	2120	1880	900	870	160	400	240	540	169	40	417	90	1260	207	1000	130	120	2060	1800	101	13200	800				
1250	20-50	2850	2340	2060	1000	950	180	450	240	540	190	45	469	100	1400	225	1120	140	140	2280	2000	112	17000	1000				
1400	20-50	3120	2580	2280	1120	1050	200	500	280	540	210	45	519	100	1500	264	1200	150	150	2500	2200	112	19500	1500				
1600	20-50	3580	2970	2560	1250	1200	220	560	280	680	231	50	582	120	1600	350	1250	175	180	2890	2540	122	26400	2400				
1800	20-50	4150	3300	2860	1400	1350	260	600	330	680	272	56	625	140	1760	398	1420	180	200	3200	2880	137	37500	3000				
2000	20-50	4900	4900	3190	1600	1480	280	630	380	680	292	63	655	140	1960	440	1580	190	220	3620	3260	155	51000	3800				

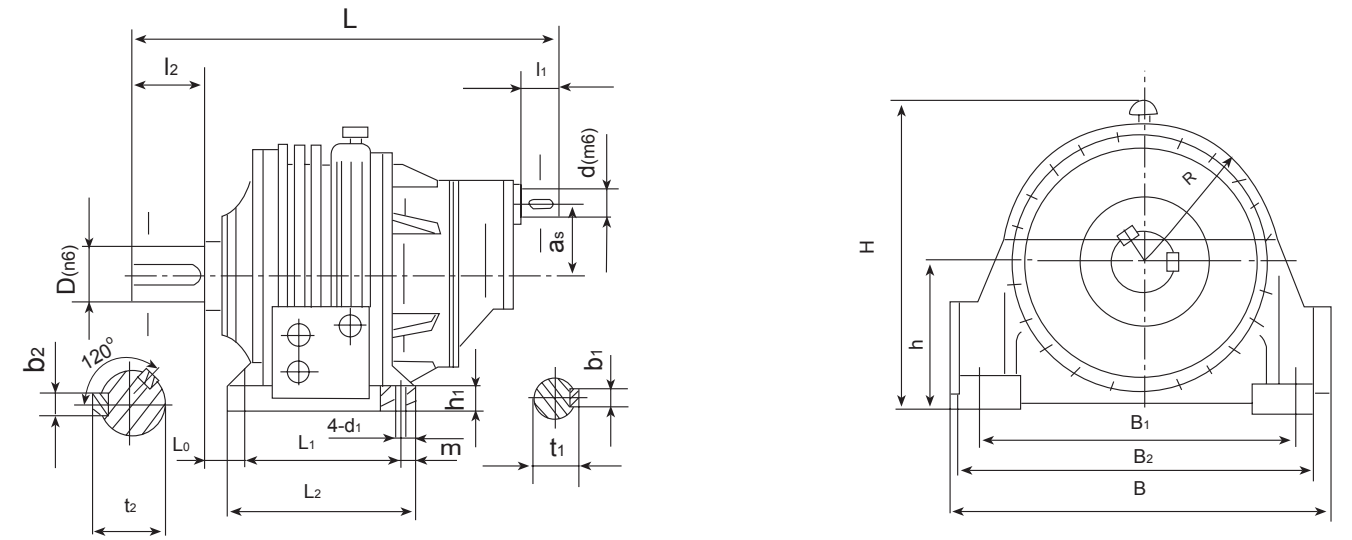


装配型式
installing form

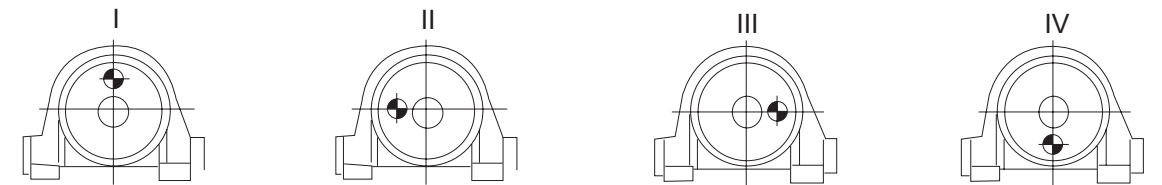


NBZD型齿轮箱外形及安装尺寸(250-560)mm
Outlook and assembling size of NBZD type gear case (250-560)mm

规格代号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size										重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)
		L	B	H	h	$\frac{R}{a}$	d(m6)	D(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₁	L ₀	n	m	h ₁	B ₂	B ₁	C	d ₁		
250	56~125	580	460	435	225	215/82	28	80	42	130	31	8	85	22	296	30	120	25	20	360	120	20	240	10	
280	56~125	670	500	465	235	230/91	30	100	42	165	33	8	106	28	300	35	120	30	23	410	130	22	295	14	
315	56~125	770	560	525	265	260/100	32	120	58	165	35	10	127	32	320	35	130	30	25	470	140	22	356	18	
355	56~125	835	630	590	300	294/109	35	140	58	200	38	10	148	36	380	38	155	35	28	520	170	26	525	24	
400	56~125	1003	710	660	335	325/127	40	150	82	200	43	12	158	36	400	51	165	35	35	600	210	26	650	36	
450	56~125	1122	800	745	375	370/145	45	170	82	240	48.5	14	179	40	460	60	180	50	35	670	220	33	920	45	
500	56~125	1232	900	835	425	410/164	50	200	82	280	53.5	14	210	45	500	80	200	50	40	770	240	33	1350	55	
560	56~125	1327	1020	950	475	470/182	55	220	82	280	59	16	231	50	580	78.5	230	60	40	880	300	39	1720	72	

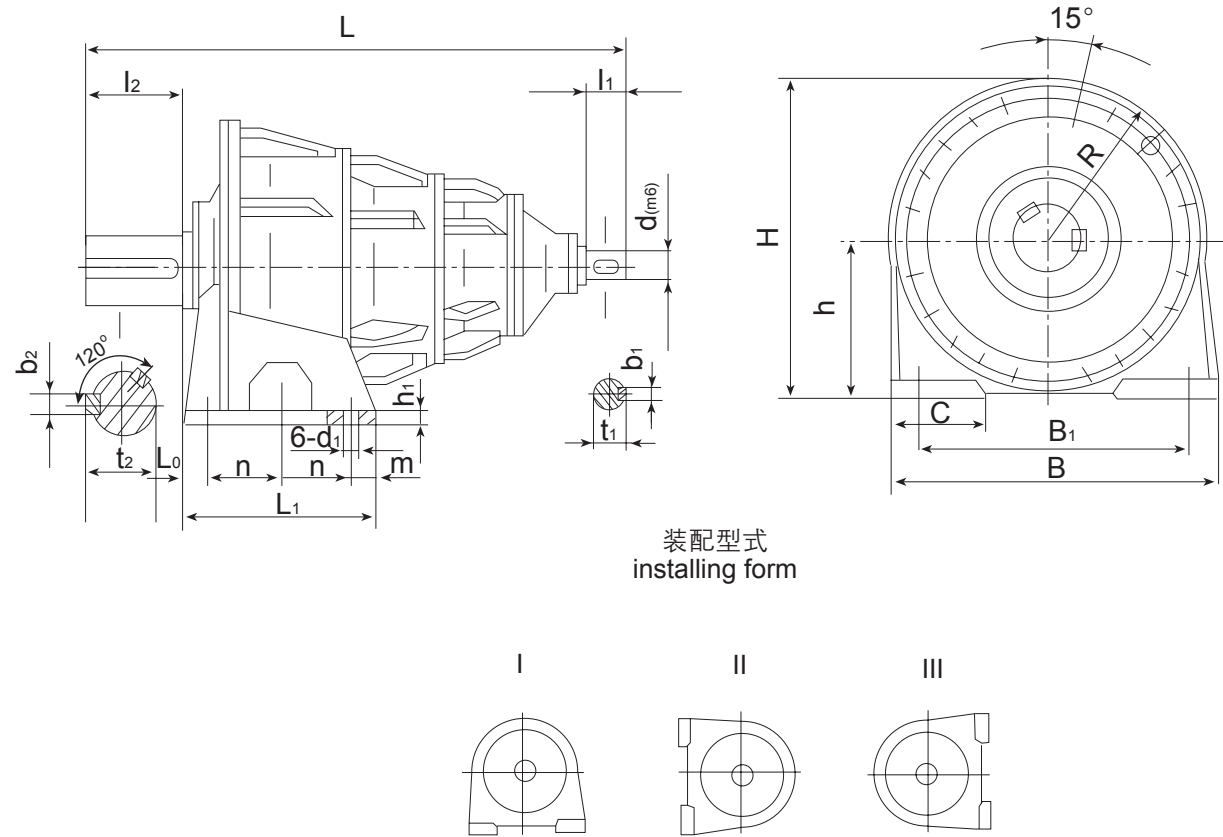


装配型式
installing form



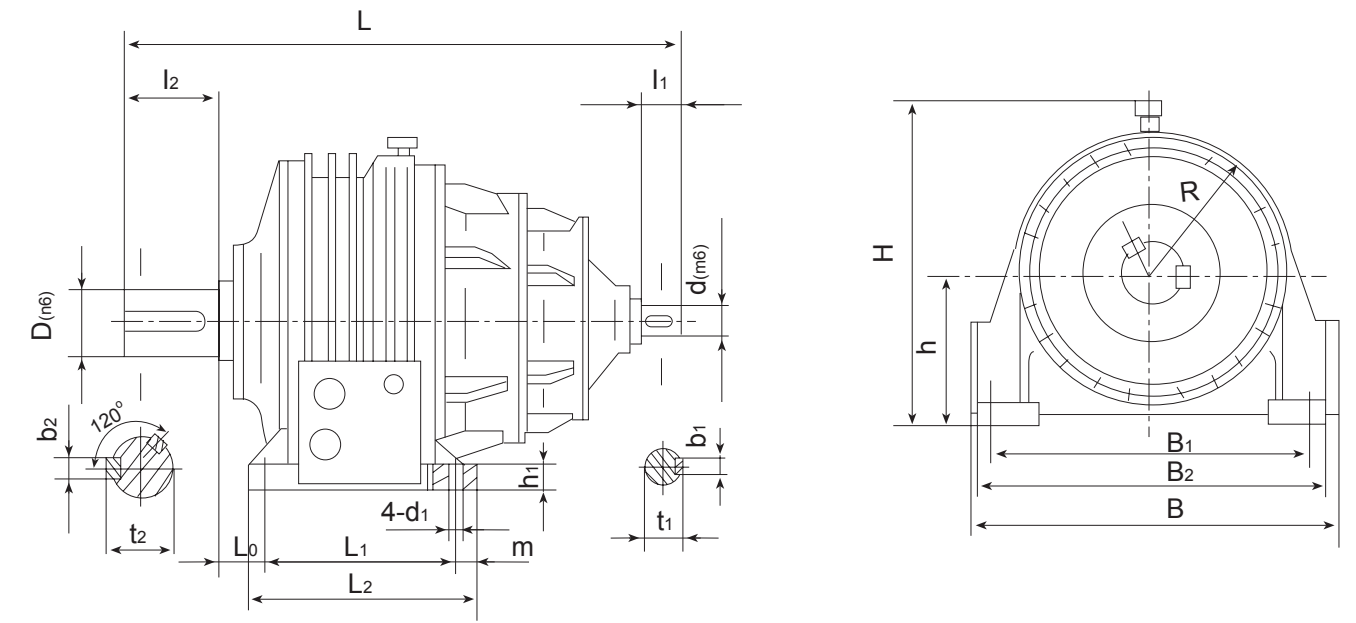
NBZD型齿轮箱外形及安装尺寸(560-1600)mm
Outlook and assembling size of NBZD type gear case (560-1600)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size										重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)
		L	B	H	h	$\frac{R}{a}$	d(m6)	D(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₁	L ₀	L ₁	m	h ₁	B ₂	B ₁	d ₁			
NBZD560A	56~125	1360	1100	990	450	430/182	55	220	82	280	59	16	231	50	660	103	500	80	70	1060	900	65	1970	180	
NBZD630	56~125	1562	1260	1095	500	485/200	60	240	105	330	64	18	252	56	740	118	560	90	80	1200	1040	74	2400	240	
NBZD710	56~125	1650	1360	1215	560	545/218	70	260	105	330	74.5	20	272	56	810	130	630	90	80	1320	1140	74	4000	300	
NBZD800	56~125	1955	1560	1335	630	625/260	80	280	130	380	85	22	292	63	870	163	670	100	100	1500	1300	82	5850	450	
NBZD900	56~125	2146	1750	1510	710	690/296	90	340	130	450	95	25	355	80	940	194	740	100	100	1680	1480	82	6000	620	
NBZD1000	56~125	2345	1900	1680	800	770/334	100	360	165	450	106	28	375	80	1140	166	900	120	120	1840	1600	101	9050	800	
NBZD1120	56~125	2665	2120	1880	900	870/372	120	400	165	540	127	32	417	90	1260	207	1000	130	120	2060	1800	101	14300	1000	
NBZD1250	56~125	2910	2340	2060	1000	950/408	130	450	200	540	137	32	469	100	1400	225	1120	140	140	2280	2000	112	18700	1500	
NBZD1400	56~125	3175	2580	2280	1120	1050/446	150	500	200	540	158	36	519	100	1500	264	1200	150	150	2500	2200	112	21000	2400	
NBZD1600	56~125	3670	2970	2560	1250	1200/520	170	560	240	680	179	40	582	120	1600	350	1250	175	180	2890	2540	122	29500	3000	



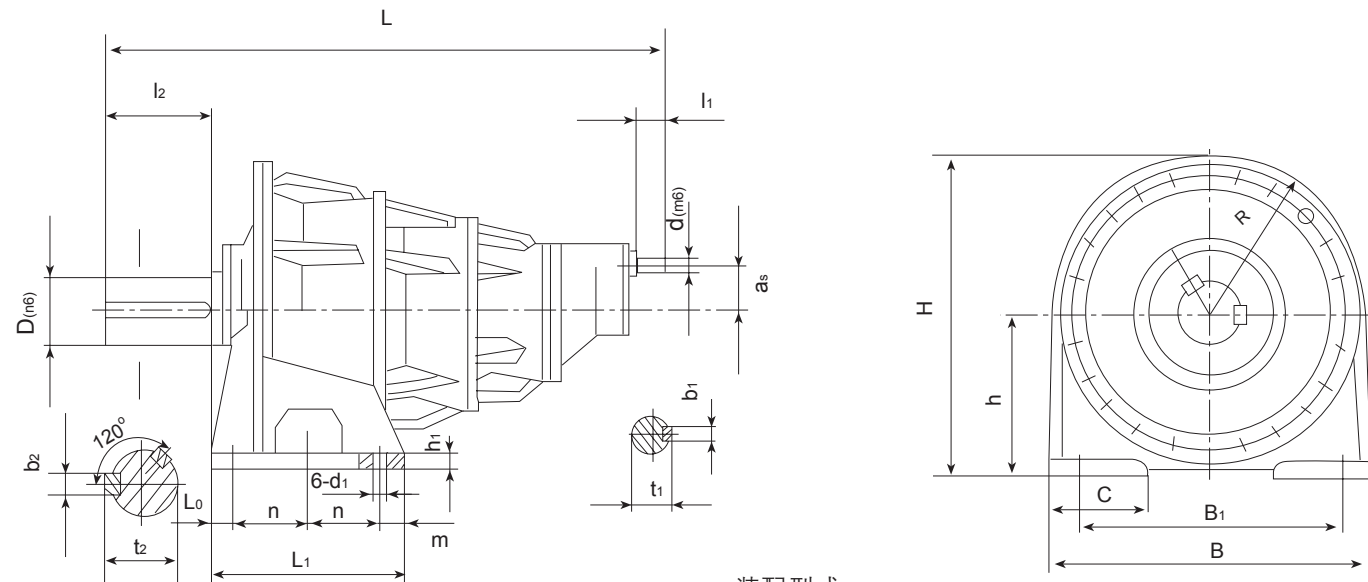
NCD型齿轮箱外形及安装尺寸(315-560)mm
Outlook and assembling size of NCD type gear case (315-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size							重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)		
		L	B	H	h	R	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	L1	L0	n	m	h1	B1			c	d1
NCD315	112~400	850	560	525	265	260	25	120	42	165	28	8	127	32	320	35	130	30	25	470	140	24	370	18
NCD355	112~400	960	630	590	300	290	28	140	42	200	31	8	148	36	380	38	155	35	28	520	170	26	440	24
NCD400	112~400	1023	710	660	335	325	30	150	58	200	33	8	158	36	400	51	165	35	35	600	210	26	640	36
NCD450	112~400	1147	800	745	375	370	40	170	82	240	43	12	179	40	460	60	180	50	35	670	220	33	900	45
NCD500	112~400	1300	900	835	425	410	45	200	82	280	48.5	14	210	45	500	80	200	50	40	770	240	33	1300	55
NCD560	112~400	1420	1020	950	480	470	50	220	82	280	53.5	14	231	50	580	78.5	230	60	40	880	300	38	1750	72

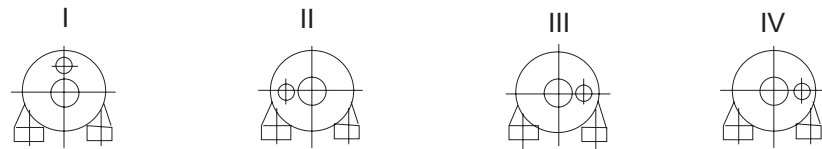


NCD型齿轮箱外形及安装尺寸(560-2000)mm
Outlook and assembling size of NCD type gear case(560-1000)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size							重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)		
		L	B	H	h	R	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	L1	L0	L1	m	h1	B2			B1	d1
NCD560A	112-400	1500	1100	990	450	430	50	220	82	280	53.5	14	231	50	660	103	500	80	70	1060	900	65	2050	180
NCD630	112-400	1650	1260	1095	500	485	60	240	105	330	64	18	252	56	740	118	560	90	80	1200	1040	74	2540	240
NCD710	112-400	1775	1360	1215	560	545	65	260	105	330	69	18	272	56	810	130	630	90	80	1320	1140	74	4100	300
NCD800	112-400	2090	1560	1335	630	625	65	280	105	380	69	18	292	63	870	163	670	100	100	1500	1300	82	5106	450
NCD900	112-400	2340	1750	1510	710	690	70	340	105	450	74.5	20	355	80	940	194	740	100	100	1680	1480	82	7800	620
NCD1000	112-400	2480	1900	1680	800	770	75	360	105	450	79.5	20	375	80	1140	166	900	120	120	1840	1600	101	10500	800
NCD1120	112-400	2790	2120	1880	900	870	90	400	30	40	95	25	417	90	1260	207	1000	130	120	2060	1800	101	15200	1000
NCD1250	112-400	3140	2340	2060	1000	950	100	450	165	540	106	28	469	100	1400	225	1120	140	140	2280	2000	112	18500	1500
NCD1400	112-400	3560	2580	2280	1120	1050	110	500	165	540	116	28	519	100	1500	264	1200	150	150	2500	2200	112	24000	2400
NCD1600	112-400	4020	2970	2560	1250	1200	120	560	165	680	127	32	582	120	1600	350	1250	175	180	2890	2540	122	31000	3000
NCD1800	112-400	4350	3300	2860	1400	1350	140	600	200	680	148	36	625	140	1760	398	1420	180	200	3220	2880	137	40000	3400
NCD2000	112-400	5225	3700	3190	1600	1480	150	630	200	680	158	36	655	140	1960	440	1580	190	220	3620	3260	155	51000	3900

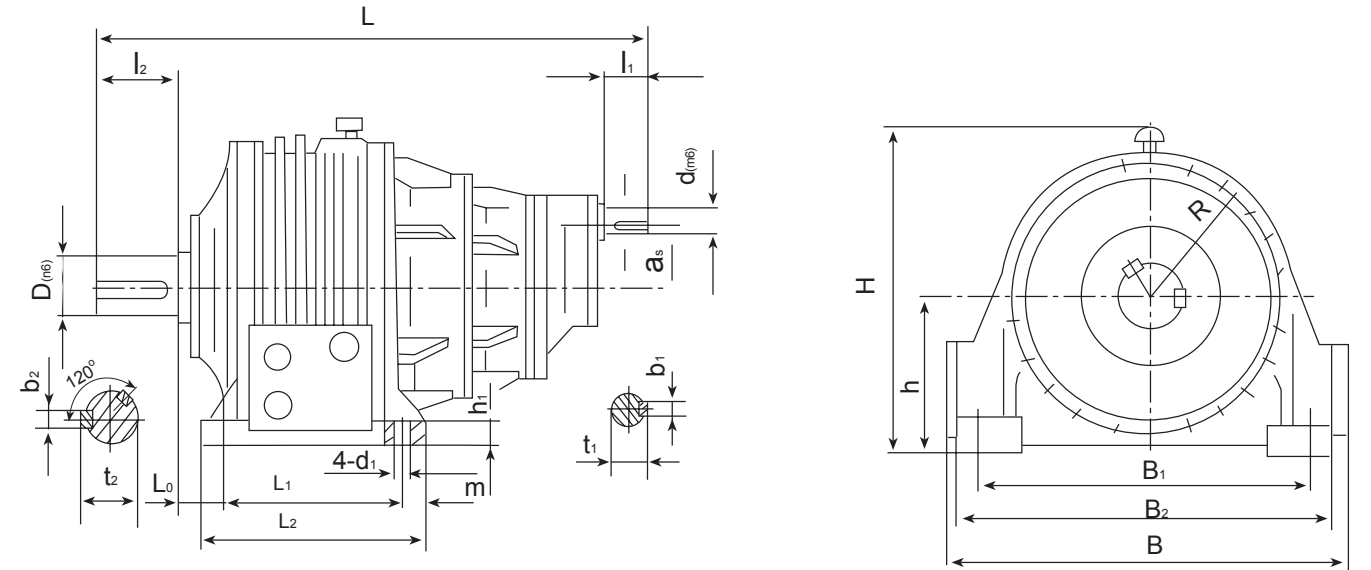


装配型式
installing form

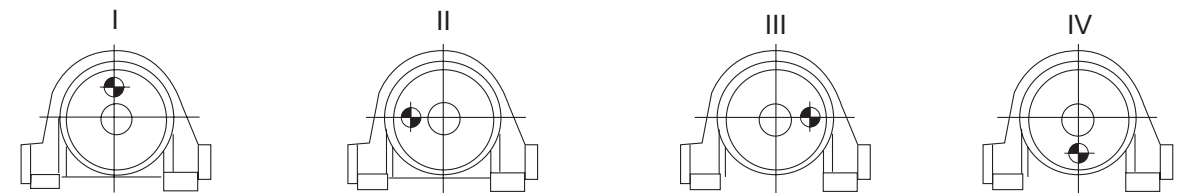


NCZD型齿轮箱外形及安装尺寸(315-560)mm
Outlook and assembling size of NCZD type gear case (315-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height				轴伸尺寸 Axie extension size										地脚尺寸 Lower mangie size						重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)	
		L	B	H	h	R _a	d(m ₆)	D(n ₆)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₂	L ₀	L ₁	m	h ₁	B ₂	C			d ₁
NCZD315	450~1250	845	560	525	265	260	20	120	36	165	22.5	6	127	32	320	35	130	30	25	470	140	22	430	20
NCZD355	450~1250	974	630	590	300	290	22	140	36	200	24.5	6	148	36	380	38	155	35	28	520	170	26	540	26
NCZD400	450~1250	1054	710	660	335	330	28	150	42	200	31	8	158	36	400	51	165	35	35	600	210	26	700	40
NCZD450	450~1250	1175	800	745	375	370	35	170	58	240	38	10	179	40	460	60	180	50	35	670	220	33	950	50
NCZD500	450~1250	1350	900	835	425	410	40	200	82	280	43	12	210	45	500	80	200	50	40	770	240	33	1380	65
NCZD560	450~1250	1440	1020	950	475	470	45	220	82	280	48.5	14	231	50	580	78.5	230	60	40	880	300	39	1750	80



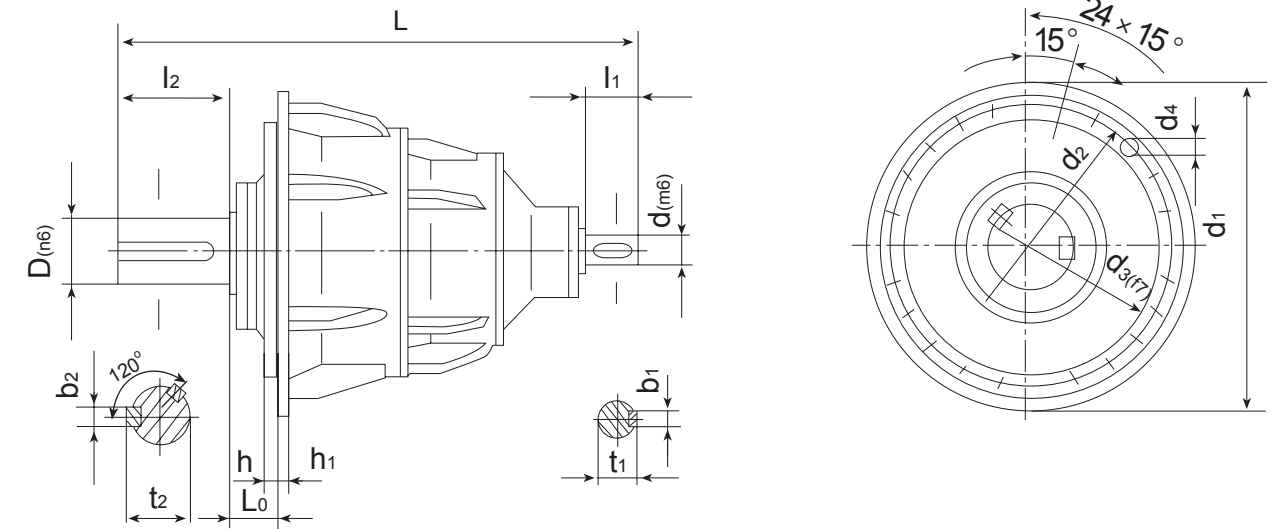
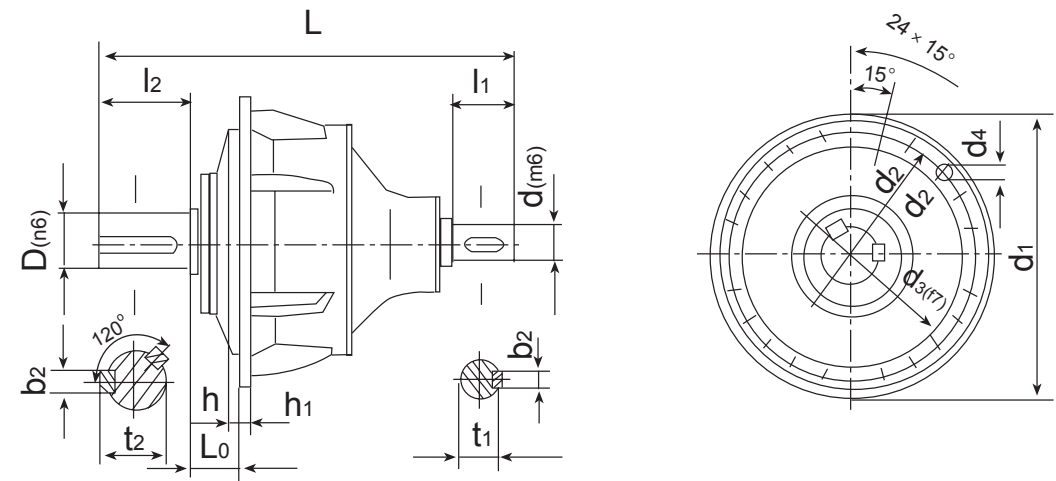
装配型式
installing from



NCZD型齿轮箱外形及安装尺寸(630-2000)mm

Outlook and assembling size of NCZD type gear case (630-2000)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height				轴伸尺寸 Axie extension size										地脚尺寸 Lower mangie size						重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)	
		L	B	H	H ₀	R _a	d(m ₆)	D(n ₆)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	L ₂	L ₀	L ₁	m	h ₁	B ₂	C			d ₁
NCZD560A	450~1250	1510	1100	990	450	430	45	220	82	280	48.5	14	231	50	660	103	500	80	70	1060	990	65	2100	200
NCZD630	450~1250	1670	1260	1095	500	485	50	240	82	330	53.5	14	252	56	740	118	560	90	80	1200	1040	74	2650	280
NCZD710	450~1250	1800	1360	1215	560	545	55	260	82	330	59	16	272	56	810	130	630	90	80	1320	1140	74	4300	340
NCZD800	450~1250	2070	1560	1335	630	625	60	280	105	380	64	18	292	63	870	163	670	100	100	1500	1300	82	5400	495
NCZD900	450~1250	2345	1750	1530	710	690	70	340	105	450	74.5	20	355	80	940	194	740	100	100	1680	1480	82	8500	700
NCZD1000	450~1250	2570	1900	1680	800	770	80	360	130	450	85	22	375	80	1140	185	900	120	120	1840	1600	101	12000	900
NCZD1120	450~1250	2890	2120	1880	900	870	90	400	130	40	95	25	417	90	1260	207	1000	130	120	2060	1800	101	17000	1100
NCZD1250	450~1250	3136	2340	2060	1000	950	100	450	165	540	106	28	469	100	1400	225	1120	140	140	2280	2000	112	20000	1700
NCZD1400	450~1250	3430	2580	2280	1120	1050	120	500	165	540	127	32	519	100	1500	264	1200	150	150	2500	2200	112	25900	2700
NCZD1600	450~1250	4010	2970	2560	1250	1200	130	560	200	680	137	32	582	120	1600	350	1250	175	180	2890	2540	122	33500	3400
NCZD1800	450~1250	4370	3300	2860	1400	1350	150	600	200	680	158	36	625	140	1760	398	1420	180	200	3220	2880	137	45000	3700
NEZD2000	450~1250	4770	3700	3190	1600	1480	170	630	200	680	179	40	655	140	1960	440	1580	190	220	3620	3260	155	57000	4000

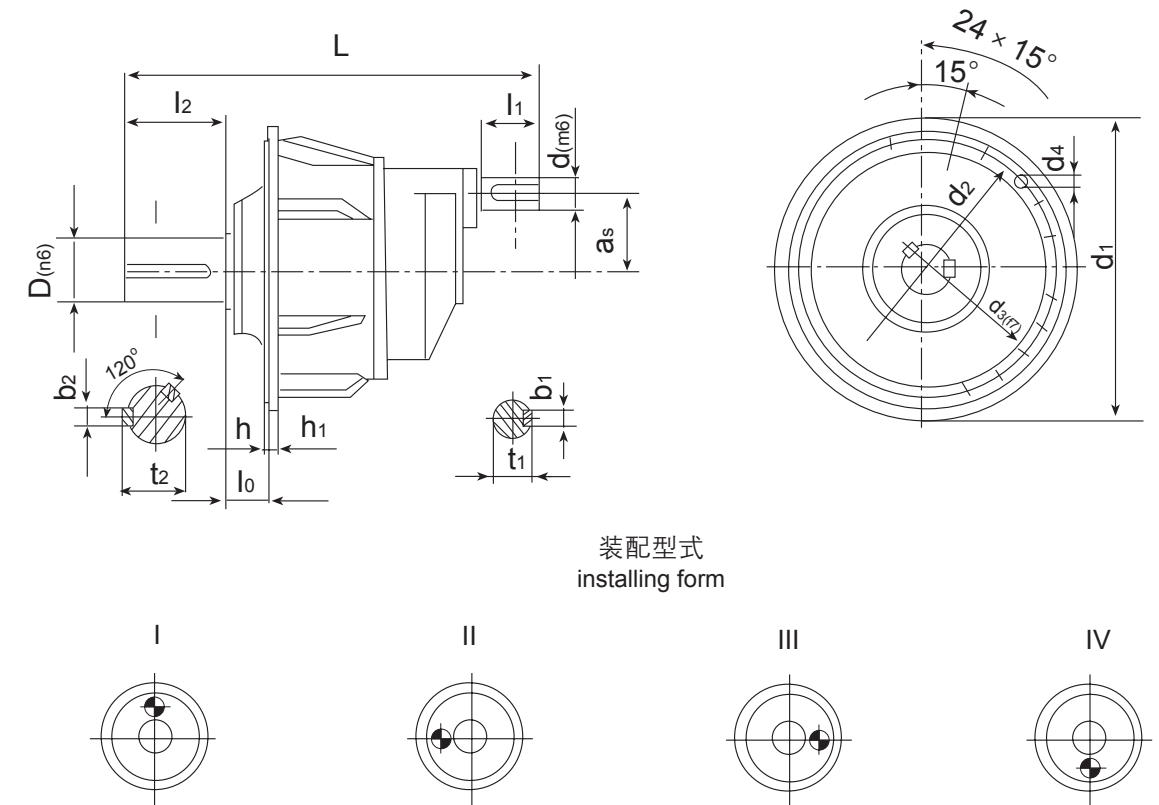
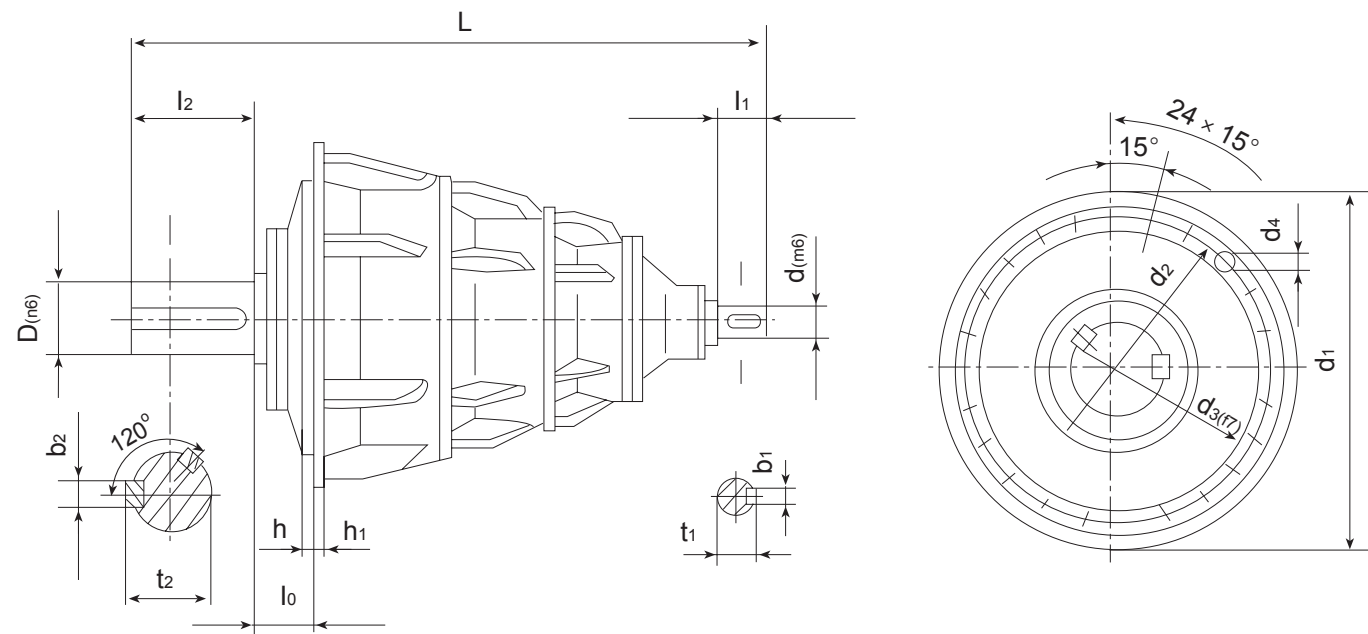


NAF型齿轮箱外形及安装尺寸(200-630)mm
outlook and assembling size of NAF type gear case (200-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	尺寸 Size		外形及中心高 Outlook and center height								法兰尺寸 Flange size					重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)
		L	d ₁	d _(m6)	D _(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	d ₂	d ₃	d ₄	L ₀	$\frac{h}{h_1}$		
NAF200	4~5.6	540	330	50	60	82	105	53.5	14	64	18	300	275	13.5	70	6	70	2
	6.3~9	540	330	40	60	82	105	43	12	64	18	300	275	13.5	70	15	70	2
NAF224	4~5.6	610	5	55	70	82	105	59	16	74.5	20	335	300	13.5	76	6	100	3
	6.3~9	610	5	45	70	82	105	48.5	14	74.5	20	335	300	13.5	76	15	100	3
NAF250	4~5.6	680	430	60	80	105	130	64	18	85	22	395	360	17.5	85	8	130	4
	6.3~9	657	430	50	80	82	105	53.5	14	85	22	395	360	17.5	85	20	130	4
NAF280	4~5.6	750	460	65	100	105	165	69	18	106	28	420	385	17.5	95	8	195	6
	6.3~9	727	460	55	100	82	165	59	16	106	28	420	385	17.5	95	20	195	6
NAF315	4~5.6	800	520	75	120	105	165	79.5	20	127	32	470	430	17.5	113	8	260	8
	6.3~9	800	520	60	120	105	165	64	18	127	32	470	430	17.5	113	25	260	8
NAF355	4~5.6	895	585	85	140	130	200	90	22	148	36	525	485	22	100	8	335	10
	6.3~9	870	585	65	140	105	200	69	18	148	36	525	485	22	100	20	335	10
NAF400	4~5.6	979	650	95	150	130	200	100	25	158	36	595	545	22	125	8	462	14
	6.3~9	954	650	75	150	105	200	79.5	20	158	36	595	545	22	125	30	462	14
NAF450	4~5.6	1135	740	110	170	165	240	116	28	179	40	670	615	26	138	8	620	20
	6.3~9	1100	740	80	170	130	240	85	22	179	40	670	615	26	138	30	620	20
NAF500	4~5.6	1250	820	120	200	165	280	127	32	210	45	755	680	26	160	8	948	26
	6.3~9	1215	820	90	200	130	280	95	25	210	45	755	680	26	160	38	948	26
NAF560	4~5.6	1355	940	130	220	200	280	137	32	231	50	860	785	33	173.5	10	1280	34
	6.3~9	1320	940	100	220	165	280	106	28	231	50	860	785	33	173.5	38	1280	34

NBF型齿轮箱外形及安装尺寸(250-560)mm
Outlook and assembling size of NBF type gear case (250-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	尺寸 Size		外形及中心高 Outlook and center height								法兰尺寸 Flange size					重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)
		L	d ₁	d _(m6)	D _(n6)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	d ₂	d ₃	d ₄	L ₀	$\frac{h}{h_1}$		
NBF250	20-25	715	430	30	80	58	130	33	8	85	22	395	360	17.5	85	8	180	8
	28-50	715	430	30	80	58	130	33	8	85	22	395	360	17.5	85	20	180	8
NBF280	20-25	760	460	35	100	58	165	38	10	160	28	420	385	17.5	95	8	235	10
	28-50	760	460	35	100	58	165	38	10	160	28	420	385	17.5	95	20	235	10
NBF315	20-25	820	520	40	120	82	165	43	12	127	32	470	430	17.5	113	8	310	14
	28-50	820	520	40	120	82	165	43	12	127	32	470	430	17.5	113	20	310	14
NBF355	20-25	900	585	50	140	82	200	53.5	14	148	36	525	485	22	120	8	403	20
	28-50	900	585	50	140	82	200	53.5	14	148	36	525	485	22	120	25	403	20
NBF400	20-25	993	650	60	150	105	200	64	18	158	36	595	545	22	125	8/25	514	28
	28-50	993	650	60	150	105	200	64	18	158	36	595	545	22	125	25	514	28
NBF450	20-25	1100	740	65	170	105	240	69	18	179	40	670	615	26	138	8	705	38
	28-50	1100	740	65	170	105	240	69	18	179	40	670	615	26	138	30	705	38
NBF500	20-25	1252	820	75	200	105	280	79.5	20	210	45	755	680	26	160	8	1095	45
	28-50	1252	820	75	200	105	280	79.5	20	210	45	755	680	26	160	30	1095	45
NBF560	20-25	1340	940	80	220	130	280	85	22	231	50	860	785	33	173.5	10	1465	60
	28-50	1340	940	80	220	130	280	85	22	231	50	860	785	33	173.5	38	1465	60



装配型式
installing form

NCF型齿轮箱外形及安装尺寸(315-560)mm

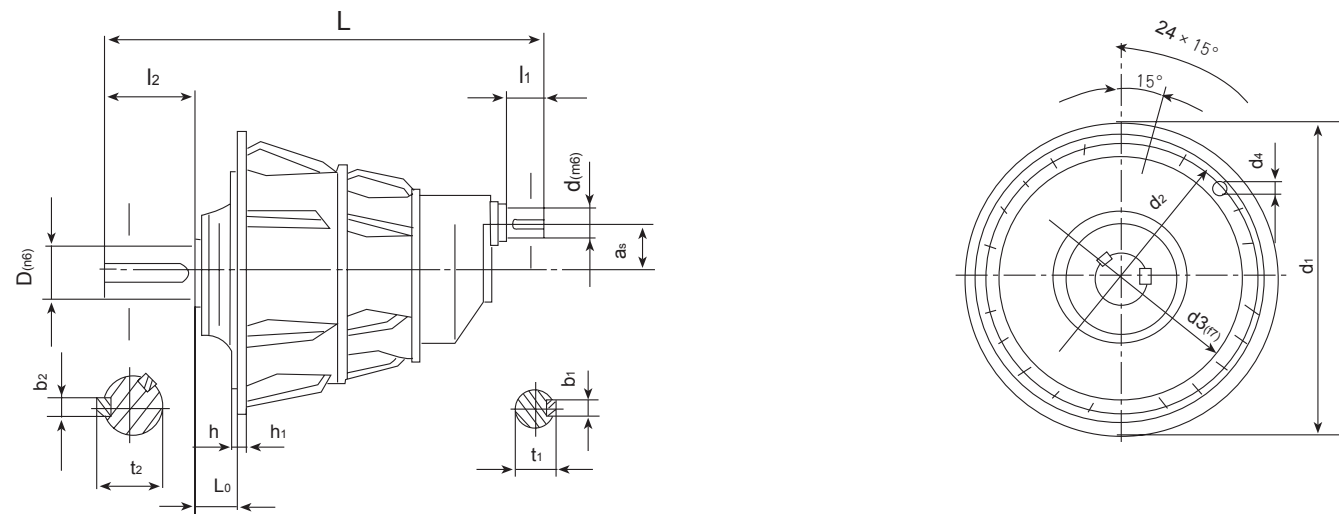
Outlook and assembling size of NCF type gear case (315-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	尺寸 Size		外形及中心高 Outlook and center height								法兰尺寸 Flange size				重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)	
		L	d ₁	d(m ₆)	D(n ₆)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	d ₂	d ₃	d ₄	l ₀			h/h ₁
NCF315	112~400	850	520	25	120	42	165	28	8	127	32	470	430	17.5	113	8/20	335	18
NCF355	112~400	960	585	28	140	42	200	31	8	148	36	525	485	22	120	8/25	450	24
NCF400	112~400	1023	650	30	150	58	200	33	8	158	36	595	545	22	125	8/25	530	36
NCF450	112~400	1147	740	40	170	82	240	43	12	179	40	670	615	26	138	8/30	780	45
NCF500	112~400	1300	820	45	200	82	280	48.5	14	210	45	755	680	26	160	8/30	1155	55
NCF560	112~400	1420	940	50	220	82	280	53.5	14	231	50	860	785	33	173.5	10/38	1520	72

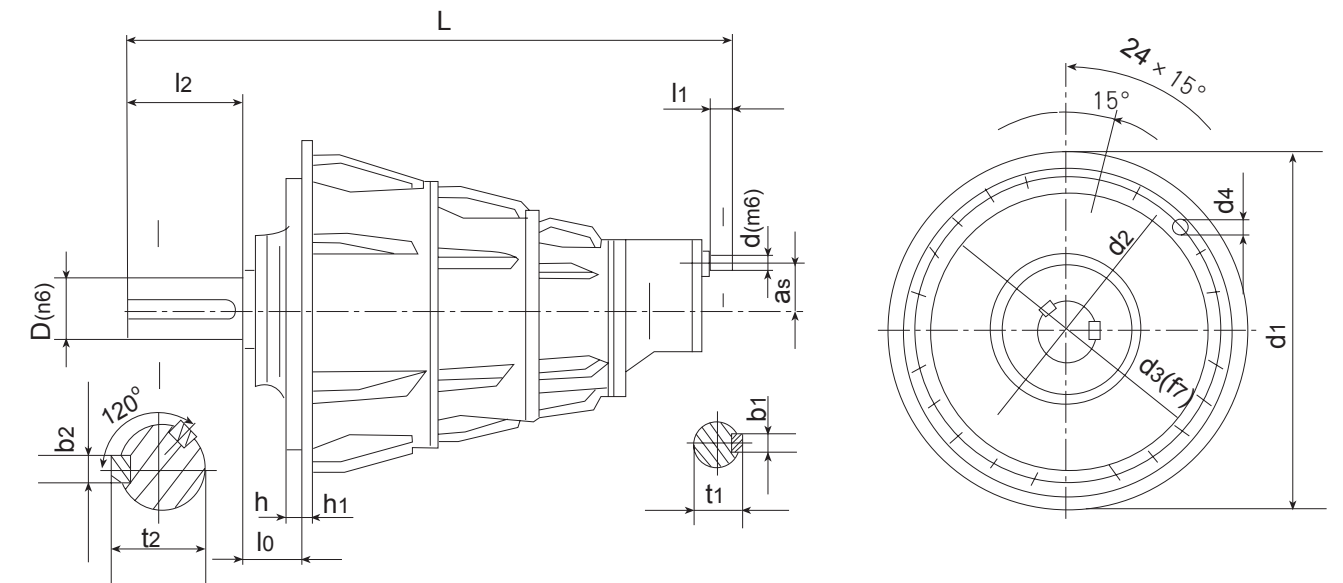
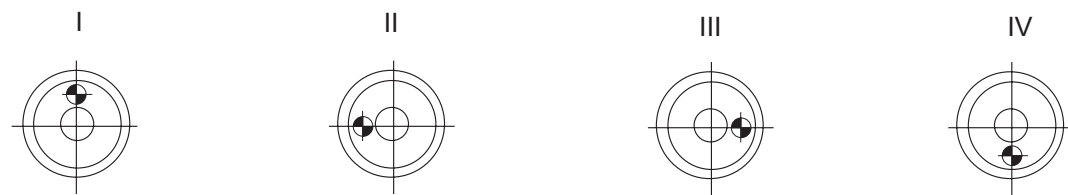
NAZF型齿轮箱外形及安装尺寸(200-500)mm

Outlook and assembling size of NAZF type gear case (200-500)mm

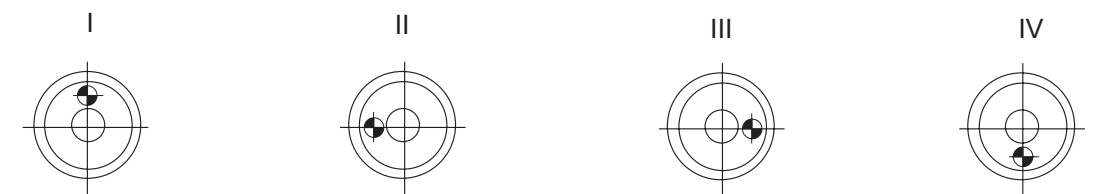
型号 Type	公称传动比 Nominal Transmission ratio	尺寸 Size		外形及中心高 Outlook and center height								法兰尺寸 Flange size				重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)		
		L	d ₁	as	d(m ₆)	D(n ₆)	l ₁	l ₂	t ₁	b ₁	t ₂	b ₂	d ₂	d ₃	d ₄			l ₀	h/h ₁
NAZF200	10~18	520	330	82	30	60	58	105	34	8	64	18	300	275	13.5	70	6/15	95	3
NAZF224	10~18	580	365	91	32	70	58	105	35	10	74.5	20	335	300	13.5	76	6/15	125	4
NAZF250	10~18	650	430	100	38	80	58	130	41	10	85	22	395	360	17.5	85	8/20	160	6
NAZF280	10~18	720	460	109	42	100	82	165	45	12	106	28	420	385	17.5	95	8/20	225	8
NAZF315	10~18	760	520	127	50	120	82	165	53.5	14	127	32	470	430	17.5	113	8/20	290	10
NAZF355	10~18	840	585	145	55	140	82	200	59	16	148	36	525	485	22	120	8/25	385	14
NAZF400	10~18	923	650	164	60	150	105	200	64	18	158	36	595	545	22	125	8/25	494	20
NAZF450	10~18	1015	740	182	70	170	105	240	74.5	20	179	40	670	615	26	138	8/30	730	24
NAZF500	10~18	1147	820	200	80	200	130	280	85	22	210	45	755	680	26	160	8/30	1053	32
NAZF560	10~18	1220	940	218	85	220	130	280	90	22	231	50	860	785	33	173.5	10/38	1326	42



装配型式
installing form



装配型式
installing form



NBZF型齿轮箱外形及安装尺寸(250-560)mm

Outlook and assembling size of NBZF type gear case (250-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height			轴伸尺寸 Axie extension size							地脚尺寸 Lower mangie size					重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)	
		L	B	as	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	d2	d3	d4	l0			h h1
NBZF250	56~125	580	430	82	28	80	42	130	31	8	85	22	395	360	17.5	85	20	210	10
NBZF280	56~125	670	460	91	30	100	42	165	33	8	106	28	420	385	17.5	95	20	260	14
NBZF315	56~125	770	520	100	32	120	58	165	35	10	127	32	470	430	17.5	113	20	350	18
NBZF355	56~125	835	585	109	35	140	58	200	38	10	148	36	525	485	22	120	25	460	24
NBZF400	56~125	1003	650	127	40	150	82	200	43	12	158	36	595	545	22	125	25	540	36
NBZF450	56~125	1122	740	145	45	170	82	240	48.5	14	179	40	670	615	26	138	30	785	45
NBZF500	56~125	1232	820	164	50	200	82	280	53.5	14	210	45	755	680	26	160	30	1200	55
NBZF560	56~125	1327	940	182	55	220	82	280	59	16	231	50	860	785	33	173.5	10 38	1500	72

NCZF型齿轮箱外形及安装尺寸(315-560)mm

Outlook and assembling size of NCZF type gear case (315-560)mm

型号 Type	公称传动比 Nominal Transmission ratio	尺寸 Size		外形及中心高 Outlook and center height									法兰尺寸 Flange size					重量 Weight (kg)	润滑油量 Volume Lubricating Oil (l)
		L	d1	as	d(m6)	D(n6)	l1	l2	t1	b1	t2	b2	d2	d3	d4	l0	h h1		
NCZF315	450~1250	845	520	82	20	120	36	165	22.5	6	127	32	470	430	17.5	113	20	380	20
NCZF355	450~1250	974	585	91	22	140	36	200	24.5	6	148	36	525	485	22	120	25	475	26
NCZF400	450~1250	1054	650	100	28	150	42	240	31	8	158	36	595	545	22	125	25	590	40
NCZF450	450~1250	1175	740	109	35	170	58	280	38	10	173	40	670	615	26	138	30	820	50
NCZF500	450~1250	1350	820	127	40	200	82	280	43	12	210	45	755	680	26	160	30	1230	65
NCZF560	450~1250	1440	940	145	45	220	82	280	48.5	14	231	50	860	785	33	173.5	10 38	1520	80

表A1 NAD、NAF型减速器高速轴公称输入功率
Table A1 High speed nominal input power of NAD, NAF decelerator

规格 specification	功率 power	传动比 transmission ratio	4	4.5	5	5.6	6.3	7.1	8	9	
											公称输入功率 p_1 (kW) Nominal Input Power
		转速 n_1 r/min									
200	600	600	54.5	45.0	34.2	28.4	23.3	16.1	13.9	10.0	
	750	68.0	56.4	43.1	35.7	29.2	20.1	17.5	12.5		
	1000	86.0	73.0	55.9	47.9	39.2	27.0	23.4	16.9		
	1500	132.7	111.1	85.8	70.3	57.6	39.7	34.4	25.6		
224	600	89.0	78.5	61.9	47.4	35.5	24.3	21.0	15.0		
	750	109.8	95.6	77.8	59.5	44.6	30.5	26.4	18.8		
	1000	144.5	125.7	101.1	77.4	59.9	40.9	35.4	25.3		
	1500	218.0	193.7	153.3	117.3	87.9	60.1	52.0	37.1		
250	600	105.8	95.1	76.3	58.7	46.3	31.8	27.7	19.9		
	750	131.7	114.6	92.9	73.7	58.1	40.0	34.7	24.9		
	1000	174.5	153.1	124.7	95.8	75.5	53.8	46.6	33.5		
	1500	258.6	233.6	189.0	145.3	114.4	78.8	68.5	49.2		
280	600	168.7	139.8	106.2	87.6	68.1	46.4	40.1	28.4		
	750	212.0	170.1	129.2	110.1	85.6	58.3	50.4	35.7		
	1000	284.9	228.6	173.7	143.2	111.3	75.8	67.6	48.0		
	1500	414.4	346.7	263.4	217.2	168.6	114.9	99.3	70.5		
315	600	226.6	187.3	147.1	121.9	96.3	63.5	59.1	38.2		
	750	281.4	235.5	179.0	148.4	117.1	84.9	74.3	45.9		
	1000	389.9	316.4	240.6	199.4	157.3	110.4	96.7	61.6		
	1500	552.6	460.1	364.8	302.5	238.3	167.4	146.7	90.4		
355	600	351.2	284.4	217.0	179.1	140.5	95.9	82.9	59.1		
	750	437.1	357.5	272.7	225.3	171.1	120.6	104.2	74.2		
	1000	578.6	480.4	366.5	310.4	229.8	156.8	135.6	96.5		
	1500	855.8	698.4	532.9	440.4	348.2	237.7	205.7	146.4		
400	600	432.5	367.3	280.1	232.3	190.4	135.4	117.6	84.8		
	750	538.0	461.8	352.3	292.1	239.2	164.8	143.1	106.2		
	1000	711.6	620.5	473.3	392.6	321.3	221.4	192.2	138.2		
	1500	1067.5	901.4	688.1	571.1	467.1	335.7	291.6	209.6		
450	600	702.5	621.2	506.6	387.6	290.5	198.6	177.6	126.7		
	750	872.7	772.9	636.9	487.3	365.1	249.7	216.1	154.1		
	1000	1152.1	1022.8	855.4	654.7	490.4	335.4	290.4	207.2		
	1500	1694.4	1511.1	1242.1	951.7	712.5	487.8	440.3	314.3		
500	600	831.2	749.3	624.5	480.2	378.3	260.6	226.2	167.8		
	750	1032.0	931.7	785.1	603.8	475.4	327.5	284.4	204.4		
	1000	1360.8	1231.5	1011.4	811.1	638.6	440.1	382.2	274.6		
	1500	1997.4	1815.7	1530.0	1178.4	927.3	639.7	556.5	416.6		
560	600	1296.6	1113.6	847.8	700.2	545.2	372.3	322.0	229.4		
	750	1609.2	1400.0	1065.9	880.5	685.4	468.0	404.8	288.4		
	1000	2120.4	1802.9	1373.3	1134.9	920.2	628.6	543.9	385.0		
	1500	3107.6	2724.0	2077.4	1718.4	1335.6	913.6	790.7	564.0		
630	600	1675.8	1476.7	1172.1	972.9	732.1	540.9	474.2	293.5		
	750	2077.6	1834.0	1473.5	1223.4	907.1	680.0	596.1	369.2		
	1000	2732.9	2419.5	1897.7	1576.4	1192.2	913.1	800.7	496.1		
	1500	3991.9	3554.1	2867.5	2385.0	1738.6	1325.5	1163.2	721.8		
710	600	2686.1	2362.3	1832.8	1514.2	1148.8	784.2	678.3	483.0		
	750	3326.6	2895.8	2210.0	1826.5	1443.8	985.8	852.8	607.4		
	1000	4368.0	3865.8	2965.6	2452.4	1858.6	1270.0	1145.6	816.3		
	1500	6358.1	5670.1	4475.5	3706.4	2806.1	1921.5	1663.9	1187.1		
800	600	3280.8	2893.9	2366.9	1963.5	1543.6	1107.2	961.6	691.0		
	750	4058.6	3588.7	2853.4	2368.1	1908.7	1391.9	1209.0	869.1		
	1000	5319.9	4722.1	3827.0	3178.2	2500.1	1792.7	1557.6	1120.3		
	1500	-	6902.4	5673.6	4797.8	3622.4	2709.6	2356.2	1693.3		
900	600	5284.6	4703.5	4101.3	3139.8	2412.4	1677.3	1452.3	1036.4		
	750	6522.4	5822.2	5131.6	3945.1	2953.9	2022.4	1825.8	1303.4		
	1000	8517.6	7639.1	6713.5	5289.4	3892.7	2713.9	2351.3	1680.0		
	1500	-	-	9705.3	7834.7	5615.6	4097.3	3553.1	2543.7		
1000	600	6217.3	5640.7	4888.3	3890.1	2941.6	2200.4	1911.2	1373.9		
	750	7664.2	6973.6	6033.3	4886.3	3627.0	2652.8	2304.6	1727.7		
	1000	9989.0	9131.3	7878.9	6530.2	4728.7	3542.9	3092.7	2226.4		
	1500	-	-	-	9434.4	6791.7	5365.2	4668.2	3368.3		

续表A1 NAD、NAF型减速器高速轴公称输入功率
Table A1 High speed nominal input power of NAD, NAF decelerator

规格 specification	功率 power	传动比 transmission ratio	4	4.5	5	5.6	6.3	7.1	8	9	
											公称输入功率 p_1 (kW) Nominal Input Power
		转速 n_1 r/min									
1120	600	600	9623.9	8516.5	6863.8	5673.9	4394.2	3143.1	2720.1	1983.9	
	750	11855.4	10528.6	8615.2	7126.1	5410.1	3788.3	3279.4	2338.9		
	1000	15434.1	13785.3	11525.8	9544.4	7037.0	5078.6	4398.7	3140.7		
	1500	-	-	-	-	10063.3	7522.8	6631.4	4747.4		
1250	600	12302.5	10923.6	9473.5	7879.1	5424.1	4377.6	3839.6	2481.8		
	750	15124.5	13476.1	11666.1	9889.9	6659.0	5396.0	4822.1	2993.2		
	1000	-	17585.4	15179.6	13014.5	8621.9	7291.1	6459.6	4017.7		
	1500	-	-	-	-	-	10417.9	9550.9	6066.6		
1400	600	19519.4	17337.9	14811.1	12254.1	8793.1	6347.9	5494.4	3917.3		
	750	23953.8	21374.4	18494.4	15371.9	10784.9	7969.0	6900.3	4923.8		
	1000	-	-	24001.6	20204.0	13943.2	10665.3	9241.6	6605.2		
	1500	-	-	-	-	-	-	13654.9	9794.3		
1600	600	26419.6	21004.9	18188.8	15669.1	11215.1	8957.7	7784.8	5603.7		
	750	-	25842.8	22322.8	19251.1	13721.4	11238.0	9771.2	7040.8		
	1000	-	-	-	-	17670.5	14860.0	13071.8	9437.3		
	1500	-	-	-	-	-	-	-	-		
1800	600	38337.2	34355.5	30266.8	25025.3	17923.0	13633.6	11821.8	8447.3		
	750	-	-	37205.0	30821.7	22043.2	17115.2	14851.0	10623.2		
	1000	-	-	-	-	-	22523.3	19567.1	14256.8		
	1500	-	-	-	-	-	-	-	-		
2000	600	-	40673.0	35169.9	29216.7	21555.5	17864.9	15541.8	11190.7		
	750	-	-	-	35898.9	26431.9	22177.1	19509.9	14065.8		
	1000	-	-	-	-	-	28842.2	25670.4	18549.5		
	1500	-	-	-	-	-	-	-	-		

表A2 NAD、NAF减速器热功率 P_{G1} 、 P_{G2}
Table A2--Thermal power P_{G1} and P_{G2} for Type NAD and NAF Decelerator

散热冷却条件 Radiating and cooling condition		规格 Specs																				
环境条件 Environmental condition		200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000
油池 润滑 Oil Sump lubrication	小空间、小厂房 Narrow space And small plant	6	9	12	17	24	30	37	49	61	73	90	111	145	182	237	283	375	453	610	816	1095
	较大空间或厂房 Broader space or plant	9	13	18	26	36	45	55	74	92	110	135	166	217	273	356	425	563	679	915	1224	1643
	户外露天 Exposure to Outdoor	12.5	15	25	37	51	64	78	104	130	155	190	234	306	385	502	599	794	957	1290	1752	2316
稀油站循环油润滑 Thin oil station circular lubrication	稀油站循环油润滑时减速器的临界热功率 P_{G2} 按工况条件具体计算决定 During thin oil station circular lubrication, decelerator threshold thermal power P_{G2} is determined by the calculation according to work status condition.																					

表A3 NAZD、NAZF型减速器高速轴公称输入功率
Table A3 High speed nominal input power of NAZD, NAZF decelerator

规格 specification	功率 power 转速 n ₁ r/min	传动比 transmission ratio	10	11.2	12.5	14	16	18
			公称输入功率 p ₁ (kW) Nominal Input Power					
200	600		14.1	13.4	12.5	10.9	9.9	7.9
	750		15.0	15.0	14.3	11.9	10.7	8.5
	1000		19.4	19.4	18.1	15.0	13.6	10.7
	1500		28.5	28.5	26.3	21.9	19.7	15.6
224	600		19.5	19.5	18.1	15.2	13.7	10.9
	750		21.1	21.1	19.5	16.3	15.2	12.0
	1000		27.5	27.5	25.3	21.0	19.1	15.2
	1500		40.4	40.4	37.2	30.9	27.9	22.1
250	600		25.3	25.3	24.2	20.4	18.5	14.7
	750		32.0	32.0	26.5	22.1	19.9	16.4
	1000		37.4	37.4	34.5	28.7	25.9	20.7
	1500		52.9	52.9	50.8	42.3	38.1	30.2
280	600		33.5	33.5	31.0	27.0	24.4	19.6
	750		38.5	38.5	35.4	29.6	26.7	21.3
	1000		50.2	50.2	46.5	38.7	34.9	27.7
	1500		71.4	71.4	65.8	57.1	51.5	40.8
315	600		50.9	50.9	47.1	39.8	36.2	30.1
	750		60.0	60.0	55.3	46.2	41.8	33.4
	1000		79.1	79.1	73.0	60.9	54.9	43.7
	1500		112.3	112.3	103.5	86.3	78.0	64.7
355	600		76.6	76.6	71.6	59.8	54.5	43.5
	750		89.8	89.8	82.8	69.3	62.7	50.0
	1000		118.6	118.6	109.4	91.3	82.6	65.8
	1500		168.4	168.4	155.5	129.9	117.4	93.6
400	600		113.4	113.4	105.2	88.6	80.4	64.4
	750		134.4	134.4	124.1	103.8	94.0	75.0
	1000		170.7	170.7	157.5	137.3	124.2	99.1
	1500		251.6	251.6	232.3	195.5	176.9	141.2
450	600		159.4	159.4	147.6	123.5	111.9	89.5
	750		188.4	188.4	173.9	145.4	131.5	105.5
	1000		239.3	239.3	220.9	184.7	167.1	138.9
	1500		352.9	352.9	325.9	272.8	264.9	198.2
500	600		214.7	214.7	198.6	166.2	150.5	120.3
	750		244.8	244.8	235.6	196.9	178.1	142.1
	1000		323.0	323.0	299.5	250.4	226.5	180.7
	1500		478.1	478.1	442.0	370.0	334.9	267.4
560	600		321.1	321.1	265.0	221.5	200.5	160.0
	750		328.4	328.4	303.1	263.8	238.5	190.0
	1000		484.5	484.5	400.0	335.6	303.4	241.9
	1500		641.4	641.4	592.5	496.0	448.8	359.0
630	600		470.7	470.7	435.0	380.2	344.5	276.0
	750		574.9	579.8	535.5	449.4	406.9	339.4
	1000		772.3	772.1	715.1	595.9	542.3	435.2
	1500		1137.8	1137.8	1051.8	896.9	812.4	649.8
710	600		681.2	681.2	629.8	528.5	499.5	400.8
	750		846.7	846.7	782.1	654.9	594.5	476.1
	1000		1131.1	1131.1	1045.0	875.5	793.1	635.2
	1500		1662.0	1662.0	1536.7	1289.2	1168.6	925.4
800	600		922.8	922.8	863.3	742.1	673.5	514.7
	750		1160.1	1160.1	1085.3	927.4	840.6	674.3
	1000		1558.8	1558.8	1458.2	1240.4	1124.2	902.4
	1500		-	-	-	1824.2	1655.4	1330.2
900	600		1320.3	1320.3	1226.4	1038.9	946.5	762.7
	750		1701.1	1701.1	1572.1	1318.0	1194.3	957.0
	1000		2238.3	2238.3	2069.6	1765.3	1600.2	1283.1
	1500		-	-	-	-	-	1810.5
1000	600		1728.3	1728.3	1618.0	1392.4	1274.4	1034.5
	750		2323.9	2323.9	2148.1	1801.0	1631.8	1307.0
	1000		3060.2	3060.2	2829.3	2373.2	2186.4	1752.3
	1500		-	-	-	-	-	-

续表A3 NAZD、NAZF型减速器高速轴公称输入功率
Table A3 High speed nominal input power of NAZD, NAZF decelerator

规格 specification	功率 power 转速 n ₁ r/min	传动比 transmission ratio	10	11.2	12.5	14	16	18
			公称输入功率 p ₁ (kW) Nominal Input Power					
1120	600		2168.0	2035.6	1762.9	1623.9	1344.6	7.9
	750		3060.0	2829.6	2375.2	2153.3	1725.6	8.5
	1000		-	3727.4	3130.2	2838.4	2313.0	10.7
	1500		-	-	-	-	-	15.6
1250	600		3456.0	3246.0	2812.8	2591.8	2147.1	10.9
	750		4808.7	4447.2	3795.6	3441.4	2758.5	12.0
	1000		-	-	-	4532.4	3634.6	15.2
	1500		-	-	-	-	-	22.1
1400	600		3940.6	3800.8	3364.1	3134.2	2657.1	14.7
	750		-	6430.6	5407.5	4906.6	4005.0	16.4
	1000		-	-	-	-	5297.2	20.7
	1500		-	-	-	-	-	30.2
1600	600		4879.0	4655.3	4238.6	3973.0	3413.5	19.6
	750		-	-	7581.9	6888.6	5546.0	21.3
	1000		-	-	-	-	-	27.7
	1500		-	-	-	-	-	40.8

表A4 NAZD、NAZF减速器热功率P_{G1}、P_{G2}
Table A4--Thermal power P_{G1}andP_{G2} for Type NAZD and NAZF Decelerator

散热冷却条件 Radiating and cooling condition	规格 Specs																		
	200	224	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600
环境条件 Environmental condition	P _{G1} kW																		
油池 Oil Sump lubrication	6	8	11	16	23	28	35	47	58	69	85	104	136	171	223	267	353	425	573
小空间、小厂房 And small plant 较大大空间或厂房 Broader space or plant	8.5	12	17	24	34	42	52	70	87	103	127	156	204	257	335	400	529	638	860
户外露天 Exposure to Outdoor	12	17	24	34	48	59	73	98.7	123	145	179	220	288	362	472	564	764	899	1212
稀油站循环油润滑 Thin oil station circular lubrication	稀油站循环油润滑时减速器的临界热功率P _{G2} 按工况条件具体计算决定 During thin oil station circular lubrication,decelerator threshold thermal power P _{G2} is determined by the calculation according to work status condition.																		

表A5 NBD、NBF型减速器高速轴公称输入功率

Table A5 High speed nominal input power of NBD, NBF decelerator

规格 specification	功率 power	传动比 transmission ratio	转速 n_1 r/min	20	22.4	25	28	31.5	35.5	40	45	50
				公称输入功率 p_1 (kW) Nominal Input Power								
250	600			20.5	18.9	16.6	12.2	11.4	10.2	9.3	7.6	7.6
	750			25.6	23.7	20.7	15.2	14.2	12.8	11.9	9.6	9.4
	1000			34.1	31.5	27.6	20.3	18.9	17.2	15.8	12.9	12.2
	1500			51.1	47.2	40.9	30.3	28.2	25.3	23.9	19.5	17.6
280	600			35.0	30.9	24.8	20.2	18.6	16.3	13.3	12.1	11.5
	750			43.7	38.6	30.8	25.2	23.2	20.5	16.8	15.3	14.1
	1000			58.3	51.5	40.9	33.8	31.1	27.5	20.4	18.2	17.2
	1500			85.6	75.4	60.8	49.9	45.9	40.4	33.4	30.3	26.2
315	600			45.7	38.9	34.4	25.4	23.2	20.9	18.4	15.6	15.6
	750			57.1	48.5	42.7	31.6	28.9	26.2	23.2	19.6	19.5
	1000			76.0	64.3	56.8	42	38.4	35.2	31.2	26.3	25.3
	1500			113.8	95.5	84.2	62.3	56.9	51.7	45.6	38.5	35.1
355	600			68.3	60.5	52.3	41.7	34.5	30.5	25.2	22.6	22.6
	750			85.3	76.0	65.3	52.1	43.1	38.2	31.5	28.3	28.3
	1000			113.6	98.8	86.5	68.3	56.5	51.4	42.4	38.1	38.1
	1500			170.0	150.0	128.3	102.8	85.0	75.4	62.4	56.0	53.2
400	600			84.3	77.8	68	52.4	43.8	41.3	33.4	28.2	28.2
	750			105.3	97.2	84.5	65.3	54.6	51.5	41.8	35.4	35.4
	1000			140.2	129.4	111.9	86.5	72.4	68.4	56.3	47.6	47.6
	1500			209.6	193.6	165.6	128.3	107.3	101.4	82.6	69.8	65.8
450	600			137.1	124.1	114.6	84.2	69.8	63.1	55.6	46.9	46.9
	750			171.1	156.0	139.7	104.8	86.9	79.3	62.6	52.8	52.8
	1000			228.4	208.6	184.9	139	115.2	103.1	90.8	76.6	76.6
	1500			341.7	304.9	237	205.8	170.6	156.4	137.8	116.3	115.0
500	600			163.1	150.5	135.7	109.6	91.0	85.5	74.8	64.5	62.5
	750			203.5	187.9	168.8	136.4	113.2	105.0	94	81.0	78.2
	1000			270.8	250.0	223.1	180.5	149.8	141.0	142.5	105.4	98.6
	1500			404.2	373.5	328.8	266.7	221.5	208.5	185.5	159.8	142.3
560	600			265.4	234.3	206.2	177.4	149.3	137.9	113	102.5	94.4
	750			331.3	292.5	256.4	220.5	185.7	167.8	137.4	124.6	115.4
	1000			440.6	389.3	338.6	291.6	245.5	225.5	184.7	167.5	143.7
	1500			657.7	581.4	497.4	430.3	362.2	341.1	280.2	251.9	207.4
630	600			330.4	305.0	272.9	235.8	235.8	193.7	172.3	150.5	129.1
	750			412.4	380.7	340.6	294.5	294.5	241.9	215.3	185.8	153.8
	1000			548.3	506.4	463.2	391.9	391.9	322.0	286.7	241.0	199.4
	1500			818.1	755.8	676.8	585.6	585.6	481.7	428.9	348.0	288.0
710	600			531.5	490.7	410.3	342.8	342.8	314.9	230.6	230.2	194.3
	750			663.2	612.4	508.2	425.1	425.1	393.2	289.9	277.2	228.3
	1000			881.6	814.2	667.4	559.5	559.5	523.5	389.5	359.6	296.1
	1500			1314.3	1214.4	971.8	818.3	818.3	773.8	566.6	519.2	427.6
800	600			651.6	601.6	538.3	465.4	407.0	381.7	339.6	297.1	253.3
	750			812.3	750.6	671.8	580.9	508.2	476.6	424.2	371.0	309.9
	1000			1080.0	997.6	983.2	772.6	676.3	634.4	564.7	486.2	402.0
	1500			1609.1	1487.0	1332.2	1153.3	1010.7	948.2	844.4	702.3	580.7
900	600			1057.9	976.9	844.9	700.0	665.8	624.4	527.4	493.9	405.1
	750			1318.9	1218.2	1044.3	866.3	831.1	779.5	663.2	616.5	505.8
	1000			1751.1	1617.9	1366.8	1137.7	1105.5	1037.0	854.9	820.2	669.9
	1500			2604.7	2408.0	1977.4	1655.0	1650.7	1548.9	1295.0	1224.7	968.0
1000	600			1301.8	1150.2	1033.1	893.4	802.0	752.2	669.5	583.8	481.1
	750			1622.4	1434.0	1288.4	1114.6	1001.0	938.9	835.8	728.7	600.5
	1000			2152.8	1903.9	1711.3	1481.1	1331.1	1248.8	1111.9	969.1	798.8
	1500			3198.2	2831.6	2547.2	2206.9	1986.4	1864.1	1560.7	1446.4	1192.7

续表A5 NBD、NBF型减速器高速轴公称输入功率

Table A5 High speed nominal input power of NBD, NBF decelerator

规格 specification	功率 power	传动比 transmission ratio	转速 n_1 r/min	20	22.4	25	28	31.5	35.5	40	45	50
				公称输入功率 p_1 (kW) Nominal Input Power								
1120	600			2019.9	1784.9	1603.2	1386.5	1211.1	1135.9	1011.0	885.7	759.8
	750			2517.1	2225.0	1999.1	1717.1	1511.5	1417.8	1262.1	1105.5	931.6
	1000			3339.0	2953.3	2654.7	2244.9	2010.1	1885.7	1679.1	1469.0	1209.4
	1500			-	4390.3	3857.9	3241.3	2999.4	2814.7	2507.7	2123.8	1748.5
1250	600			2496.3	2305.7	2063.4	1785.7	1565.4	1468.2	1307.0	1141.2	978.9
	750			3109.8	2873.0	2573.2	2226.8	1953.0	1832.0	1631.1	1423.9	1221.6
	1000			4123.2	3811.1	3415.1	2957.1	2595.9	2435.5	2169.2	1892.8	1624.1
	1500			-	-	5075.4	4400.1	3869.4	3631.8	3236.8	2822.2	2351.8
1400	600			3985.8	3682.0	3040.6	2554.1	2517.2	2370.3	1949.0	1732.9	1486.5
	750			4963.4	4586.4	3731.1	3142.3	3140.2	2957.2	2350.5	2162.0	1854.8
	1000			6575.3	6079.7	4827.6	4082.7	4082.7	3860.8	3154.7	2873.5	2465.7
	1500			-	-	-	5826.0	5826.0	5516.9	4685.7	4241.8	3492.7
1600	600			5380.0	4969.7	4449.8	3849.6	3040.3	2852.0	2539.2	2219.7	1904.3
	750			6700.8	6191.4	5545.6	4799.6	3791.7	3557.3	3167.9	2768.4	2375.4
	1000			8880.9	8209.6	7357.6	6371.9	5036.2	4726.0	4120.3	3677.4	3156.1
	1500			-	-	-	-	-	7038.3	6275.2	5475.1	4701.1
1800	600			7840.8	7243.4	6135.8	5118.6	4947.5	4640.8	4131.5	3671.2	1013.1
	750			9763.0	9021.8	7502.8	6279.1	6171.5	5789.6	5155.3	4579.7	3759.6
	1000			-	-	9653.6	8119.7	8119.7	766.2	6853.7	6085.4	4997.9
	1500			-	-	-	-	-	-	-	-	-
2000	600			9564.1	8457.5	7601.2	6578.4	5912.5	5546.4	4938.5	4305.2	3549.6
	750			11899.5	10528.4	9466.3	8196.7	7372.2	6916.8	6160.2	5368.8	4427.7
	1000			-	-	-	10870.9	9789.0	9186.7	8185.4	7130.5	5883.1
	1500			-	-	-	-	-	-	-	-	-

表A6 NBD、NBF减速器热功率 P_{G1} 、 P_{G2}

Table A6--Thermal power P_{G1} and P_{G2} for Type NBD and NBF Decelerator

散热冷却条件 Radiating and cooling condition	规格 Specs																			
	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	
环境条件 Environmental condition	P_{G1} (kW)																			
油池润滑 Oil Sump lubrication	8	11	16	20	24.5	33	41	49	60	71	93	117	153	182	242	292	393	526	707	
小空间、小厂房 And small plant 较大空间或厂房 Broader space or plant	12	17	24	30	36.5	49	61	73.5	90	107	140	176	230	274	363	438	590	790	1060	
户外露天 Exposure to Outdoor	17	24	34	42	52	69	87	104	128	152	199	249	326	389	515	622	838	1121	1500	
稀油站循环油润滑 Thin oil station circular lubrication	稀油站循环油润滑时减速器的临界热功率 P_{G2} 按工况条件具体计算决定 During thin oil station circular lubrication, decelerator threshold thermal power P_{G2} is determined by the calculation according to work status condition.																			

表A7 NBZD、NBZF型减速器高速轴公称输入功率
Table A7 High speed nominal input power of NBZD, NBZF decelerator

规格 specification	功率 power	传动比 transmission ratio	56	63	71	80	90	100	112	125
			公称输入功率 p ₁ (kW) Nominal Input Power							
	转速 n ₁ r/min									
250	600		6.3	6.0	5.5	4.8	4.5	3.9	3.4	2.6
	750		7.9	7.3	6.7	6.0	5.5	5.0	4.3	3.2
	1000		10.5	9.8	9.0	7.9	7.3	6.4	5.7	4.3
	1500		16	14.9	13.6	11.9	11.0	9.7	8.4	6.2
280	600		10.6	9.9	8.9	7.8	7.3	6.3	5.6	4.1
	750		13.8	11.9	10.7	9.7	9.0	7.9	6.8	5.1
	1000		17.2	16.1	14.4	12.5	11.7	10.2	8.8	6.8
	1500		26.0	24.3	21.8	19.0	17.6	15.5	13.4	9.9
315	600		13.0	12.1	10.9	9.7	9.0	8.1	7.1	5.3
	750		16.3	15.2	13.7	11.9	11.1	10.2	8.8	6.5
	1000		21.8	20.4	18.4	16.0	14.9	13.1	11.3	8.8
	1500		32.7	30.7	27.7	24.2	22.6	19.9	17.7	12.8
355	600		18.8	17.6	15.9	14.5	13.5	11.9	10.3	7.7
	750		23.7	22.1	20.0	17.5	16.3	14.3	12.8	9.5
	1000		31.7	29.1	26.9	23.4	21.8	19.2	16.4	12.2
	1500		48.1	45.0	40.7	35.4	32.9	29.0	24.9	18.5
400	600		24.9	23.3	21.1	18.4	17.2	16.2	14.0	9.6
	750		31.1	29.1	26.4	23.0	21.5	20.3	17.4	11.9
	1000		41.4	38.7	35.1	30.6	28.6	27.0	23.2	15.3
	1500		61.8	57.7	52.3	45.8	42.7	40.3	34.6	23.1
450	600		38.7	36.2	33.1	28.8	26.9	23.6	21.5	15.9
	750		48.7	45.4	41.5	36.2	33.6	29.6	25.5	18.9
	1000		65.3	61.0	55.7	48.5	45.1	39.7	34.1	25.4
	1500		97.3	91.8	83.8	72.9	68.0	60.1	51.6	38.4
500	600		51.4	49.0	43.9	38.4	35.8	32.3	28.2	21.9
	750		64.0	60.0	54.8	47.9	44.7	40.5	34.8	26.0
	1000		85.0	79.7	72.8	63.8	59.4	54.3	46.6	34.9
	1500		126.7	118.7	108.5	95.0	88.6	82.3	70.6	52.7
560	600		83.4	79.6	71.4	62.3	58.0	51.5	45.1	33.4
	750		106.0	99.4	89.1	77.8	72.5	64.7	55.5	41.3
	1000		140.8	131.9	118.8	103.7	96.7	86.7	74.6	55.4
	1500		209.6	196.4	178.0	155.5	144.9	131.4	112.8	83.8
630	600		113.3	106.1	92.9	81.1	75.6	70.8	61.1	54.5
	750		141.5	132.6	116.1	101.4	94.5	88.6	76.4	67.9
	1000		188.5	176.8	154.7	135.1	125.9	118.0	101.8	90.6
	1500		282.2	264.6	231.7	202.5	188.7	176.9	152.5	135.7
710	600		177.9	166.8	150.5	131.4	122.4	115.3	99.3	77.6
	750		221.5	207.8	188.1	164.3	153.0	144.0	124.1	95.8
	1000		293.4	275.4	205.5	218.9	204.0	192.0	165.4	128.6
	1500		434.6	408.3	375.2	328.0	305.5	287.7	248.0	194.8
800	600		223.7	209.6	183.2	160.0	149.1	139.8	120.5	107.2
	750		279.3	261.8	228.9	200.0	186.3	174.7	150.6	133.9
	1000		372.1	348.8	304.9	266.4	248.2	232.8	200.6	178.5
	1500		556.9	522.1	456.7	399.1	371.9	348.8	300.7	267.5
900	600		363.6	340.8	299.8	261.9	244.1	228.9	197.2	175.5
	750		453.6	425.6	374.5	327.3	304.9	286.0	246.5	219.0
	1000		600.1	563.5	499.0	435.9	406.3	381.0	328.5	292.2
	1500		-	833.3	746.8	652.8	608.4	570.6	492.0	431.2
1000	600		429.9	402.9	361.4	315.7	294.2	275.9	237.8	211.5
	750		536.8	503.2	451.4	394.4	367.5	344.6	297.1	264.3
	1000		714.6	670.0	601.2	525.3	489.6	459.1	395.8	352.2
	1500		-	-	-	786.4	733.0	687.4	592.8	527.5

续表A7 NBZD、NBZF型减速器高速轴公称输入功率
Table A7 High speed nominal input power of NBZD, NBZF decelerator

规格 specification	功率 power	传动比 transmission ratio	56	63	71	80	90	100	112	125
			公称输入功率 p ₁ (kW) Nominal Input Power							
	转速 n ₁ r/min									
1120	600		667.3	625.5	545.7	476.7	444.2	416.5	359.1	319.5
	750		833.3	781.1	681.7	595.5	555.0	520.4	448.7	399.1
	1000		1109.1	1039.8	907.8	793.3	739.3	690.7	597.8	531.9
	1500		-	-	-	-	-	-	895.3	796.7
1250	600		860.0	806.2	705.8	616.7	574.6	538.9	464.6	413.3
	750		1073.8	1006.6	881.6	770.3	717.9	673.2	580.3	516.3
	1000		1428.9	1339.7	1380.9	1025.8	956.0	896.5	773.1	687.9
	1500		-	-	-	-	-	-	-	-
1400	600		1348.6	1266.3	1135.5	992.0	924.4	870.2	750.2	625.0
	750		1672.4	1571.2	1417.9	1239.0	1154.7	1087.0	937.2	780.9
	1000		-	2069.4	1887.7	1649.9	1537.7	1447.7	1248.3	1040.4
	1500		-	-	-	-	-	-	-	-
1600	600		1854.6	1738.5	1372.2	1199.0	1117.4	1047.7	903.3	803.7
	750		2315.3	2170.6	1713.5	1497.4	1395.6	1308.7	1128.4	1004.1
	1000		-	-	-	-	1858.1	1742.6	1502.8	1337.4
	1500		-	-	-	-	-	-	-	-

表A8 NBZD、NBZF减速器热功率P_{G1}、P_{G2}
Table A8--Thermal power P_{G1} and P_{G2} for Type NBZD and NBZF Decelerator

散热冷却条件 Radiating and cooling condition	规格 Specs																
	250	280	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600
环境条件 Environmental condition	P _{G1} kW																
油池润滑 Oil Sump lubrication	7.3	11	15	19	23	30	38	45	56	66	87	109	143	170	225	271	366
小空间、小厂房 And small plant 较大空间或厂房 Broader space or plant	11	16	22	28	34	45	57	68	84	99	130	164	214	255	337	407	549
户外露天 Exposure to Outdoor	15.5	23	31	39.5	48	63.5	80	96	118	140	183	231	302	359	475	574	774
稀油站循环润滑油 Thin oil station circular lubrication	稀油站循环润滑油时减速器的临界热功率P _{G2} 按工况条件具体计算决定 During thin oil station circular lubrication, decelerator threshold thermal power P _{G2} is determined by the calculation according to work status condition.																

表A9 NCD、NCF型减速器高速轴公称输入功率

Table A9 High speed nominal input power of NCD, NCF decelerator

规格 specification	功率 power	传动比 transmission ratio	转速 n r/min	112	125	140	160	180	200	224	250	280	315	355	400
				公称输入功率 p ₁ (kW) Nominal Input Power											
315	600			8.1	7.2	6.3	5.5	4.6	4.4	3.8	3.2	2.9	2.7	2.5	2.2
	750			10.1	9.0	7.9	6.8	5.8	5.5	4.6	3.9	3.7	3.3	3.2	2.7
	1000			13.5	12.0	10.7	9.2	7.7	7.3	6.3	5.3	5.0	4.5	4.2	3.6
	1500			20.3	18.1	15.9	13.6	11.7	11	9.4	7.9	7.3	6.5	6.3	5.5
355	600			12.0	10.8	10.0	8.2	7.1	6.6	5.5	4.7	4.5	3.9	3.4	3.1
	750			15.1	13.6	12.4	10.3	8.9	8.3	6.9	5.9	5.6	5.0	4.4	3.8
	1000			20.1	18.1	16.6	13.8	11.7	11	9.3	7.9	7.3	6.6	5.8	5.1
	1500			30.1	27.1	24.5	20.7	17.8	16.7	14.0	11.9	10.5	9.5	8.4	7.7
400	600			14.9	13.4	12.3	10.8	9.3	8.7	7.1	6.0	5.6	5.1	4.5	4.1
	750			18.7	16.7	15.4	13.4	11.4	10.7	8.8	7.5	7.1	6.3	5.6	5.1
	1000			24.9	22.3	20.5	17.8	15.4	14.4	11.9	10.1	9.5	8.5	7.5	6.9
	1500			37.3	33.4	30.8	26.5	23.1	21.6	17.8	15.1	14.2	12.6	11.2	10.4
450	600			24.4	21.8	20.1	17.9	15.2	14.4	11.3	9.6	9.0	8.0	7.1	6.1
	750			30.5	27.2	25.2	22.3	19.2	18.1	14.1	12.0	11.3	10.1	9.0	7.7
	1000			40.7	36.3	33.5	29.7	25.5	24	18.9	16.0	15.1	13.4	11.9	10.3
	1500			61.0	54.5	50.4	44.5	38.2	36	28.1	23.8	21.8	19.7	17.3	15.4
500	600			28.9	26.0	23.9	20.8	18.1	16.9	14.3	12.8	12.0	10.0	8.7	7.6
	750			36.2	32.4	30.0	26.1	22.5	21.2	17.8	15.9	15.0	12.4	10.8	9.5
	1000			48.2	43.3	39.9	34.6	30.1	28.3	23.8	21.3	20.0	16.6	14.5	12.7
	1500			74.4	64.9	59.9	51.8	45.0	42.3	35.6	31.8	29.0	24.9	21.8	19.1
560	600			47.2	42.2	37.2	32.5	28.2	26.4	22.8	20.4	19.1	17.0	14.8	12.7
	750			58.9	52.7	46.5	40.7	35.2	32.9	28.5	25.5	23.8	21.2	18.6	15.9
	1000			78.6	70.3	62.0	54.1	46.9	43.8	38	34.0	31.8	28.3	24.8	21.3
	1500			117.8	105.4	93.0	81	70.1	65.7	56.8	50.9	45.8	40.7	36.2	31.9
630	600			58.6	52.6	48.5	43.4	37.4	35.1	30.3	26.6	24.9	22.1	19.3	16.5
	750			73.2	66.2	60.6	54.2	46.8	43.9	37.9	33.2	31.1	27.7	24.2	20.7
	1000			97.6	87.6	80.8	72.3	62.4	58.5	50.5	44.2	41.4	36.8	32.3	27.6
	1500			146.2	131.3	121.2	108.3	93.6	87.8	75.8	66.3	62.2	55.3	48.3	41.4
710	600			94.3	84.6	78.1	70.0	60.5	56.7	48.1	43.0	40.4	36.0	31.6	27.1
	750			117.9	105.8	97.6	87.5	75.6	70.8	60.0	53.8	50.6	45.0	39.5	33.9
	1000			157.1	141.0	130.1	116.7	100.8	94.5	79.9	71.6	67.4	60.0	52.7	45.2
	1500			235.5	211.3	195.0	174.9	151.1	141.6	119.5	107.5	101.1	90.0	78.9	67.7
800	600			116.1	103.8	95.8	85.7	74.0	69.4	60.0	52.3	49.1	43.6	38.2	32.8
	750			145.1	129.7	119.8	107.1	92.5	86.7	74.9	65.4	61.3	54.5	47.7	40.9
	1000			193.4	173.0	159.6	142.9	123.3	115.6	99.9	87.2	81.8	72.7	63.7	54.6
	1500			289.8	259.2	239.2	214.0	184.8	173.4	149.7	130.9	122.7	109.1	95.5	81.9
900	600			188.9	169.4	156.3	139.7	121.7	114.5	98.9	87.0	81.6	68.0	60.4	49.5
	750			236.0	211.6	195.3	174.6	152.1	143.1	123.6	108.8	102.0	84.9	75.5	61.9
	1000			314.5	281.9	260.2	232.7	202.7	190.8	164.8	145.0	135.9	113.2	100.7	82.6
	1500			470.0	422.3	389.8	348.7	303.7	285.9	247.0	217.3	203.7	169.7	150.9	123.8
1000	600			232.8	208.1	183.6	164.9	142.4	133.5	115.3	103.3	96.9	86.2	75.2	61.9
	750			290.7	260.1	229.5	206.6	177.9	166.8	144.1	129.2	121.1	107.7	94.0	77.4
	1000			387.4	346.5	305.9	274.5	237.1	222.3	192.1	172.2	161.5	143.6	125.3	103.2
	1500			580.1	519.0	458.1	411.2	355.3	333.2	287.9	258.1	242.0	215.3	187.9	154.7
1120	600			361.3	323.1	285.2	255.9	221.0	207.3	179.0	156.1	146.3	130.2	114.1	97.9
	750			451.4	403.7	356.4	319.8	276.3	259.0	233.8	195.1	182.9	162.7	142.7	122.4
	1000			601.3	537.9	474.8	426.1	368.2	345.2	298.2	260.1	243.8	216.9	190.2	163.1
	1500			900.4	805.5	711.1	638.4	551.6	517.3	447.0	389.8	365.5	325.2	285.0	244.5
1250	600			445.5	399.8	368.9	329.9	285.0	267.3	230.9	202.0	189.3	168.4	147.2	126.2
	750			556.5	499.5	461.0	412.3	356.2	333.9	288.5	252.4	236.7	210.5	184.0	157.7
	1000			741.3	665.4	614.1	549.3	474.6	445.0	384.5	336.5	315.5	280.6	245.2	210.2
	1500			1109.7	996.3	919.7	822.8	711.0	666.7	576.2	504.3	472.8	420.7	367.5	315.1

续表A9 NCD、NCF型减速器高速轴公称输入功率

Table A9 High speed nominal input power of NCD, NCF decelerator

规格 specification	功率 power	传动比 transmission ratio	转速 n r/min	112	125	140	160	180	200	224	250	280	315	355	400
				公称输入功率 p ₁ (kW) Nominal Input Power											
1400	600			712.3	639.2	589.9	528.9	456.9	428.4	369.4	325.0	305.9	272.1	238.8	204.8
	750			889.7	798.5	737.0	660.7	570.9	535.3	460.7	406.1	382.3	340.0	298.5	256.0
	1000			1184.9	1063.6	981.7	880.3	760.7	713.3	612.1	541.3	509.5	453.3	397.8	341.1
	1500			1773.5	1592.3	1469.9	1318.3	1139.4	1068.5	911.6	811.2	763.6	679.4	596.2	511.3
1600	600			964.2	862.4	795.8	711.7	614.8	576.5	498.0	392.9	368.4	327.7	286.8	245.9
	750			1204.5	1077.3	994.2	889.2	768.3	720.3	622.3	491.0	460.4	409.6	358.4	307.3
	1000			1604.0	1435.0	1324.5	1184.7	1023.6	959.9	829.3	654.4	613.6	545.8	477.7	409.6
	1500			-	2148.4	1983.2	1774.2	1533.4	1437.9	1242.6	980.6	919.5	818.1	715.8	613.8
1800	600			1406.5	1261.1	1163.9	1040.9	906.6	853.3	737.2	648.2	607.8	506.3	450.4	369.3
	750			1756.9	1575.3	1454.0	1300.4	1132.7	1066.2	921.1	810.6	759.6	632.7	562.8	461.5
	1000			2339.8	2098.3	1936.8	1732.3	1509.1	1420.6	1227.4	1079.7	1012.4	843.3	750.1	615.1
	1500			-	-	-	-	2260.3	2127.8	1838.9	1618.1	1517.2	1264.2	1124.2	922.0
2000	600			1720.2	1538.5	1357.9	1218.7	1052.9	987.2	852.9	764.6	716.9	637.7	556.5	458.4
	750			2148.2	1921.6	1696.3	1522.5	1315.5	1233.5	1065.7	955.4	895.9	797.0	695.4	572.9
	1000			2860.4	2559.0	2259.3	2028.0	1752.5	1643.3	1420.0	1273.3	1193.9	1062.1	926.8	763.5
	1500			-	-	-	-	-	2461.1	2127.0	1907.9	1789.0	1591.8	1388.8	1144.2

表A10 NCD、NCF减速器热功率P_{G1}、P_{G2}

Table A10--Thermal power P_{G1}andP_{G2} for Type NCD and NCF Decelerator

散热冷却条件 Radiating and cooling condition	规格 Specs																	
	315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	
环境条件 Environmental condition	PG1KW																	
油池润滑 Oil Sump lubrication	11	13.5	16.5	22	27	32.5	43	47	62	78	110	131	189	211	290	403	541	
小空间、小厂房 Narrow space And small plant	16	20	24.3	33	41	49	64	71	93	117	164	196	279	312	421	585	785	
较大空间或厂房 Broader space or plant	22.5	28	34	46.5	58	69	90	100	131	175	231	276	393	439	594	825	1107	
户外露天 Exposure to Outdoor	稀油站循环润滑油时减速器的临界热功率P _{G2} 按工况条件具体计算决定																	
稀油站循环润滑油 Thin oil station circular lubrication	During thin oil station circular lubrication,decelerator threshold thermal power P _{G2} is determined by the calculation according to work status condition.																	

表A11 NCZD、NCZF型减速器高速轴公称输入功率

Table A11 High speed nominal input power of NCZD, NCZF decelerator

规格 specification	功率 power	传动比 transmission ratio	公称输入功率 p_1 (kW) Nominal Input Power											
			355	400	450	500	560	630	710	800	900	1000	1120	1250
315	600		2.6	2.0	1.8	1.7	1.3	1.2	1.1	1.1	1.0	0.8	0.8	0.6
	750		3.3	3.3	2.3	2.2	1.8	1.6	1.4	1.3	1.1	1.0	1.0	0.8
	1000		4.5	3.5	3.1	2.8	2.3	2.1	1.9	1.8	1.6	1.4	1.3	1.1
	1500		6.8	5.2	4.5	4.3	3.4	3.1	2.9	2.7	2.4	2.1	2.0	1.7
355	600		4.2	3.2	2.8	2.5	2.0	1.8	1.7	1.6	1.4	1.2	1.2	1.1
	750		5.2	3.9	3.5	3.2	2.5	2.3	2.2	2.0	1.7	1.5	1.5	1.3
	1000		6.9	5.3	4.6	4.4	3.4	3.1	2.9	2.7	2.4	2.1	2.1	1.7
	1500		10.4	8.0	6.9	6.5	5.1	4.6	4.4	4.0	3.6	3.1	3.1	2.7
400	600		5.3	4.0	3.6	3.3	2.5	2.3	2.2	2.1	1.8	1.6	1.6	1.3
	750		6.7	5.1	4.5	4.2	3.2	2.9	2.8	2.6	2.2	2.0	1.9	1.7
	1000		8.9	6.9	6.1	5.6	4.3	3.9	3.7	3.4	3.0	2.6	2.6	2.2
	1500		13.4	10.4	9.1	8.5	6.5	5.9	5.6	5.1	4.6	3.9	3.9	3.4
450	600		9.0	6.9	6.1	5.6	4.2	3.8	3.5	3.3	2.9	2.5	2.5	2.2
	750		11.3	8.7	7.6	7.1	5.1	4.7	4.4	4.1	3.6	3.1	3.1	2.6
	1000		15.1	11.5	10.0	9.4	6.8	6.2	5.9	5.5	4.9	4.2	4.2	3.5
	1500		22.6	17.3	15.2	14.2	10.4	9.5	8.9	8.3	7.3	6.3	6.3	5.2
500	600		10.7	8.3	7.2	6.8	5.5	5.0	4.7	4.4	3.6	3.1	2.9	2.4
	750		13.4	10.3	9.1	8.5	6.8	6.2	5.8	5.5	4.5	3.9	3.6	2.9
	1000		17.9	13.9	12.0	11.4	9.2	8.4	7.9	7.3	6.1	5.2	4.8	3.9
	1500		26.9	20.7	18.2	17.1	13.7	12.5	11.8	10.9	9.1	7.9	7.3	6.6
560	600		16.2	12.5	10.9	10.3	8.8	7.9	7.4	6.9	6.2	5.3	4.7	4.1
	750		20.3	15.7	13.6	12.9	11.1	10.0	9.3	8.7	7.7	6.7	5.8	5.0
	1000		27.0	21.0	18.2	17.1	14.7	13.3	12.4	11.6	10.3	8.9	7.8	6.7
	1500		40.6	31.4	27.4	25.7	22.1	19.9	18.7	17.4	15.5	13.4	11.7	10.0
630	600		21.8	16.8	14.7	13.7	11.9	10.4	9.7	9.0	8.0	6.9	6.1	5.3
	750		27.2	21.0	18.3	17.2	14.8	13.0	12.2	11.3	10.1	8.7	7.6	6.5
	1000		36.3	28.0	24.4	22.9	19.8	17.3	16.3	15.1	13.5	11.6	10.2	8.7
	1500		54.4	42.0	36.8	34.4	29.7	26.0	24.3	22.7	20.2	17.4	15.2	13.0
710	600		35.1	27.2	23.7	22.2	18.9	16.9	15.8	14.7	13.1	11.3	10.0	8.7
	750		43.8	34.0	29.6	27.7	23.6	21.0	19.8	18.5	16.4	14.1	12.4	10.7
	1000		58.4	45.3	39.5	37.0	31.5	28.1	26.4	24.6	21.9	18.8	16.5	14.1
	1500		87.7	67.9	59.3	55.5	47.1	42.1	39.6	36.9	32.8	28.3	24.9	21.3
800	600		43.0	33.2	29.0	27.2	23.5	20.5	19.2	17.9	15.9	13.7	12.1	10.6
	750		53.8	41.5	36.2	34.0	29.4	25.6	24.0	22.4	19.6	17.1	15.0	12.9
	1000		71.7	55.4	48.4	45.3	39.1	34.2	32.1	29.9	26.6	22.9	20.0	17.1
	1500		107.6	83.1	72.5	68.0	58.8	51.3	48.1	44.8	39.9	34.4	30.0	25.8
900	600		70.2	54.6	47.7	44.9	38.8	34.1	32.0	29.8	24.8	21.4	19.3	16.1
	750		87.7	68.3	59.6	56.1	48.5	42.6	40.0	37.3	31.0	26.7	23.8	19.5
	1000		117.0	91.1	79.5	74.8	64.6	56.8	53.3	49.7	41.3	35.7	31.7	26.6
	1500		175.4	136.5	119.3	112.3	97.0	85.3	79.9	74.5	62.0	53.4	47.6	39.0
1000	600		82.5	64.0	55.9	52.4	45.3	40.5	37.9	35.4	31.5	27.2	23.8	20.0
	750		103.1	79.9	69.8	65.5	56.6	50.7	47.5	44.2	39.4	33.9	29.6	24.3
	1000		137.5	106.5	93.1	87.2	75.3	67.5	63.4	59.0	52.5	45.3	39.5	32.5
	1500		206.2	159.8	139.6	130.9	113.1	101.4	95.0	88.5	78.7	67.9	59.2	48.7
1120	600		128.1	99.3	86.7	81.3	70.2	61.2	57.4	53.5	47.6	41.0	36.2	31.6
	750		160.2	124.1	108.4	101.6	87.8	76.5	71.8	66.8	59.5	51.5	44.9	38.5
	1000		213.5	165.5	144.5	135.5	117.1	102.0	95.7	89.1	79.5	68.3	59.9	51.4
	1500		320.1	248.2	216.7	203.2	175.6	153.0	143.4	133.7	118.9	102.5	89.9	77.0
1250	600		165.8	128.0	111.9	104.8	90.6	79.3	74.2	69.2	61.6	53.1	46.7	40.8
	750		207.3	160.1	139.8	131.1	113.2	99.1	92.9	86.5	77.0	66.3	57.9	49.7
	1000		276.2	213.3	186.4	174.7	150.9	132.0	123.8	115.3	102.5	88.4	77.2	66.3
	1500		-	-	279.4	262.0	226.3	198.0	185.7	173.0	153.9	132.6	115.9	99.3

续表A11 NCZD、NCZF型减速器高速轴公称输入功率

Table A11 High speed nominal input power of NCZD, NCZF decelerator

规格 specification	功率 power	传动比 transmission ratio	公称输入功率 p_1 (kW) Nominal Input Power											
			355	400	450	500	560	630	710	800	900	1000	1120	1250
1400	600		265.2	205.3	179.3	168.2	145.6	127.5	120.0	111.8	99.4	85.7	75.6	66.0
	750		331.5	256.7	224.2	210.2	181.9	159.3	150.0	139.8	124.3	107.1	94.0	80.6
	1000		441.7	342.1	298.8	280.1	242.1	212.5	200.0	186.3	165.7	142.8	125.4	107.5
	1500		-	-	-	-	-	-	-	-	-	214.2	188.1	161.2
1600	600		357.7	276.3	241.4	226.2	195.5	154.1	144.5	134.7	119.8	103.2	91.0	79.4
	750		447.1	345.3	301.6	282.7	244.2	192.7	180.7	168.3	149.7	129.1	112.9	96.9
	1000		595.9	460.3	402.1	376.9	325.6	256.9	240.8	224.4	199.6	172.0	150.6	129.1
	1500		-	-	-	-	-	-	-	-	-	-	-	-
1800	600		523.2	407.4	355.8	334.9	289.3	254.4	238.5	222.2	185.1	159.5	144.1	120.3
	750		653.9	509.2	444.8	418.6	361.6	317.9	298.0	277.7	231.3	199.4	177.3	145.4
	1000		871.5	678.8	592.8	558.0	482.0	423.8	397.4	370.2	308.3	265.7	236.4	192.1
	1500		-	-	-	-	-	-	-	-	-	-	-	-
2000	600		608.9	473.3	413.4	387.6	334.8	300.1	281.3	262.1	233.1	200.9	176.7	148.2
	750		763.1	591.6	516.7	484.4	418.4	375.1	351.6	327.6	291.4	251.1	219.2	180.5
	1000		-	-	-	-	-	-	-	436.8	388.5	334.8	292.2	240.7
	1500		-	-	-	-	-	-	-	-	-	-	-	-

表A12 NCZD、NCZF减速器热功率 P_{G1} 、 P_{G2}

Table A12--Thermal power P_{G1} and P_{G2} for Type NCZD and NCZF Decelerator

散热冷却条件 Radiating and cooling condition		规格 Specs																
		315	355	400	450	500	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000
油池 润滑 Oil Sump lubrication	环境条件 Environmental condition	P_{G1} kW																
	小空间、小厂房 Narrow space And small plant	10	12.5	15.8	21	27	32	42	46	61	77	107	128	175	195	263	367	492
	较大空间或厂房 Broader space or plant	15	18.8	23.8	32	40	48	63	69.5	91	115	161	192	262	295	395	550	738
	户外露天 Exposure to Outdoor	21	26	33	45	56	67	88	97	127	161	225	269	367	410	553	770	1033
稀油站循环油润滑 Thin oil station circular lubrication		稀油站循环油润滑时减速器的临界热功率 P_{G2} 按工况条件具体计算决定 During thin oil station circular lubrication, decelerator threshold thermal power P_{G2} is determined by the calculation according to work status condition.																

表A13 NAD、NAF、NAZD、NAZF减速器公称输出转矩
Table A13 Nominal output truing moment of NAD, NAF, NAZD, NAZF decelerator

kN·m

规格 specification	传动比 transmission ratio	4	4.5	5	5.6	6.3	7.1	8	9	10	11.2	12.5	14	16	18
200		3.409	3.148	2.701	2.426	2.224	1.774	1.643	1.372	1.878	2.036	2.004	1.910	1.842	1.697
224		5.478	5.315	4.685	4.063	3.393	2.686	2.479	1.989	2.554	2.884	2.842	2.704	2.623	2.415
250		6.498	6.426	5.776	5.033	4.418	3.528	3.264	2.637	3.340	3.788	3.880	3.699	3.580	3.295
280		10.64	9.824	8.389	7.499	6.517	5.136	4.734	3.779	4.699	5.092	5.011	4.975	4.815	4.427
315		14.19	13.04	11.62	10.44	9.178	7.402	6.893	5.102	7.385	8.004	7.881	7.529	7.294	7.019
355		21.97	19.79	16.97	15.20	13.44	10.62	9.806	7.851	11.08	12.01	11.83	11.32	10.99	10.15
400		26.96	25.54	21.91	19.71	18.03	15.00	13.9	11.23	16.56	17.94	17.67	17.03	16.54	15.32
450		42.59	41.56	37.96	32.96	27.5	21.8	20.99	16.85	22.28	25.25	24.88	23.84	23.15	21.58
500		50.18	49.94	46.76	40.81	35.8	28.59	26.50	22.33	30.17	34.2	33.74	32.34	31.42	29.10
560		79.77	77.19	66.16	59.31	51.56	40.84	37.7	30.23	42.2	45.74	45.07	43.2	41.96	38.83
630		102.5	100.7	91.31	82.3	60.94	58.61	54.65	40.72	74.11	80.32	79.23	77.35	75.23	69.82
710		163.2	160.7	142.5	127.9	108.3	85.87	79.32	63.63	110.8	120.0	118.3	1113.5	110.4	102.6
800		204.8	195.6	180.7	165.6	139.8	121.1	112.3	90.98	156.4	166.7	166.4	157.6	153.5	143.2
900		321.0	315.2	296.6	271.3	216.8	183.1	169.4	136.3	210.0	238.2	235.0	229.6	223.2	204.3
1000		376.5	376.7	361.1	326.7	262.1	239.8	222.5	180.5	287.2	325.5	321.1	308.5	305.1	283.8
1120		594.2	585.9	550.5	494.1	388.4	336.2	316.1	254.4	402.5	436.2	425.2	408.9	398.0	376.4
1250		776.4	747.4	725.1	673.7	497.9	460.7	448.8	342.2	632.5	685.5	676.5	661.1	635.5	591.5
1400		1230	1211	1146	1046	807.4	715.0	651.0	524.9	647.9	702.2	978.3	941.8	917.3	862.1
1600		1557	1464	1422	1329	1023	996.1	934.8	958.7	802.2	869.4	885.1	1321	1288	1203
1800		2408	2362	2274	2135	1702	1510	1399	1146	-	-	-	-	-	-
2000		-	2796	2687	2486	2040	1933	1836	1491	-	-	-	-	-	-

表A14 NBD、NBF、NBZD、NBZF减速器公称输出转矩
Table A14 Nominal output truing moment of NAD, NAF, NAZD, NAZF decelerator

kN·m

规格 specification	传动比 transmission ratio	20	22.4	25	28	31.5	35.5	40	45	50
250		6.628	6.632	6.492	5.615	5.617	5.369	5.176	5.176	5.303
280		10.89	10.86	9.859	9.411	9.414	8.842	8.300	8.299	7.874
315		14.46	13.75	13.65	11.69	11.68	11.32	11.32	10.67	10.52
355		22.50	21.52	20.80	19.30	17.45	16.50	15.48	15.48	15.95
400		27.75	27.77	26.78	23.77	21.78	21.87	21.60	20.33	20.77
450		44.22	43.28	43.33	37.81	33.96	33.22	33.24	30.84	30.80
500		52.40	52.45	52.19	49.06	44.08	44.27	44.27	42.40	42.80
560		83.54	83.68	80.70	80.77	74.27	74.60	69.60	69.62	62.12
630		108.3	108.4	108.6	108.8	105.3	105.4	105.5	96.19	86.26
710		173.9	174.2	155.5	150.4	166.0	166.8	146.7	151.0	134.8
800		213.0	213.3	213.7	214.2	207.2	207.4	207.6	194.1	173.9
900		337.4	338.1	310.5	300.9	328.5	328.8	309.0	324.8	290.9
1000		397.6	398.9	400.0	401.2	395.3	395.7	396.3	383.5	358.4
1120		636.1	631.9	618.9	602.0	615.0	615.6	616.6	586.9	523.6
1250		818.6	820.0	814.2	817.3	793.4	794.3	795.9	779.9	704.3
1400		1306	1308	1159	1071	1182	1189	1212	1234	1101
1600		1619	1622	1626	1630	1549	1539	1543	1513	1408
1800		2530	2533	2274	2214	2424	2438	2453	2420	2253
2000		2958	2967	2973	2965	2922	2925	2930	2836	2653

续表A14 NBD、NBF、NBZD、NBZF减速器公称输出转矩
Table A14 Nominal output truing moment of NAD, NAF, NAZD, NAZF decelerator

kN·m

规格 specification	传动比 transmission ratio	56	63	71	80	90	100	112	125
250		5.990	5.988	5.985	5.968	5.961	5.612	5.597	4.704
280		9.990	9.985	9.875	9.847	9.833	9.236	9.210	7.694
315		12.58	12.59	12.53	12.55	12.56	11.82	11.78	9.889
355		18.47	18.44	18.41	18.35	18.32	17.21	17.15	14.32
400		23.45	23.41	23.41	23.46	23.48	23.54	23.58	18.80
450		36.56	36.58	36.56	36.64	36.68	34.60	34.49	28.82
500		47.58	47.60	47.61	47.74	47.79	47.28	47.12	39.59
560		80.40	80.42	80.43	80.47	80.49	77.86	77.59	64.79
630		108.3	108.3	104.7	104.8	104.8	104.8	104.9	104.9
710		165.0	165.4	167.8	167.9	167.9	168.0	168.0	158.5
800		213.6	213.7	206.3	206.5	206.5	206.6	206.7	206.8
900		338.0	333.8	327.5	327.8	327.9	328.0	328.2	323.5
1000		402.5	402.6	395.5	394.9	395.0	395.2	395.5	395.7
1120		638.2	638.4	615.3	615.7	615.8	616.0	615.3	615.6
1250		822.1	822.5	795.5	796.1	796.3	796.6	797.0	797.4
1400		1269	1257	1266	1267	1267	1268	1268	1269
1600		1631	1632	1548	1549	154.8	1548	1549	1550
1800		-	-	-	-	-	-	-	-
2000		-	-	-	-	-	-	-	-

表A15 NCD、NCF减速器公称输出转矩
Table A15 Nominal output truing moment of NAD, NAF, NAZD, NAZF decelerator

kN·m

规格 specification	传动比 transmission ratio	112	125	140	160	180	200	224	250	280	315	355	400
315		14.40	14.40	14.40	13.68	13.65	13.64	13.33	12.66	12.28	12.30	12.32	12.25
355		22.42	22.43	22.02	20.83	20.70	20.70	19.85	18.86	17.86	17.86	17.88	17.85
400		27.68	27.68	27.68	26.51	26.47	26.40	24.98	23.70	23.73	23.74	23.69	23.68
450		44.19	44.20	44.20	43.18	43.19	43.20	39.01	36.75	35.86	35.86	35.86	35.80
500		52.41	52.43	52.44	50.18	50.06	50.02	48.70	48.31	46.97	46.97	46.95	46.61
560		83.66	83.69	83.71	81.49	81.52	81.53	80.60	80.63	77.39	77.39	77.40	73.86
630		108.6	108.6	108.6	108.7	108.7	108.7	108.7	105.0	105.0	105.0	103.0	95.87
710		174.7	174.8	174.9	174.9	175.0	175.0	169.6	168.3	168.3	168.3	166.1	154.3
800		214.3	214.4	214.5	214.6	214.7	214.7	214.7	207.1	207.1	207.1	203.7	189.3
900		341.0	341.1	341.2	341.5	341.6	341.6	341.7	329.0	329.0	329.1	325.2	302.3
1000		403.9	403.2	403.4	403.8	403.9	403.9	404	396.6	396.6	396.7	384.6	359.0
1120		639.0	639.4	639.7	640.4	640.5	640.5	640.8	617.0	617.0	617.2	608.1	565.1
1250		823.6	824.1	824.4	825.4	825.6	825.6	826	798.1	798.	798.4	783.9	728.6
1400		1316	1317	1318	1318	1319	1320	1293	1270	21270	1271	1253	1165
1600		1634	1632	1634	1634	1635	1635	1636	1552	1552	1553	1527	1418
1800		2540	2542	2543	2544	2541	2542	2543	2450	2450	2451	2422	2251
2000		2980	2982	2984	2985	2987	2983	2985	2930	2931	2932	2842	2654

表A16 NCZD、NCZF减速器公称输出转矩
Table A16 Nominal output truing moment of NAD, NAF, NAZD, NAZF decelerator

kN·m

规格 specification	传动比 transmission ratio	355	400	450	500	560	630	710	800	900	1000	1100	1250
315		13.54	13.54	13.55	13.55	12.56	12.58	12.58	12.58	12.58	12.58	12.58	12.57
355		20.56	20.58	20.58	20.58	18.70	18.74	18.74	18.74	18.74	18.74	18.74	18.74
400		26.56	26.56	26.59	26.59	23.50	23.54	23.54	23.54	23.54	23.55	23.55	23.54
450		43.58	43.60	43.60	43.62	36.75	36.80	36.81	36.81	36.82	36.82	36.82	36.82
500		51.53	51.54	51.55	51.55	47.06	48.05	48.06	48.06	48.08	48.09	48.10	46.14
560		80.53	80.54	80.54	80.55	79.82	79.82	79.82	79.82	79.83	79.83	78.68	73.12
630		107.6	107.6	107.7	107.7	107.7	104.0	104.0	104.0	104.0	104.0	102.1	94.91
710		173.3	173.3	173.3	173.3	168.9	166.7	166.7	166.7	166.7	166.7	164.4	152.8
800		212.5	212.6	212.6	212.7	212.7	212.9	213.0	213.0	213.0	213.0	201.8	187.5
900		338.3	338.4	338.5	338.5	338.5	325.9	325.9	325.9	325.9	325.9	322.2	299.4
1000		400.0	400.2	400.3	400.3	400.4	392.8	392.8	392.8	392.9	392.9	381.0	355.7
1120		634.4	634.7	634.8	634.9	635.0	611.2	611.2	611.2	611.3	611.3	602.5	559.9
1250		818.5	818.8	818.5	818.6	818.7	790.8	790.9	790.9	790.9	791.0	776.9	721.9
1400		1309	1309	1309	1310	1310	1259	1259	1259	1259	1259	1242	1154
1600		1621	1622	1622	1622	1623	1539	1539	1539	1539	1539	1514	1407
1800		2521	2522	2522	2523	2523	2429	2429	2429	2429	2429	2401	2231
2000		-	-	-	-	-	-	-	-	-	-	-	-

A2 减速器的选用系数 Decelerator selection factor

A2.1 减速器的工况系数K_A见表A17 Refer to Table A17 for decelerator work status factor K_A

原动机 Prime mover	每日工作小时 Service hour per day	轻微冲击 (均匀) 载荷 Slight impact(uniform)load	中等冲击载荷 Medium impact load	强冲击载荷 Heavy impact load
电动机 Electromotor	<3	0.8	1	1.5
汽轮机 Steam turbine	>3~10	1	1.25	1.75
水力机 Water motor	>10	1.25	1.5	2
4~6缸的活塞发动机 Piston engine for cylinder 4~6	<3	1	1.25	1.75
	>3~10	1.25	1.5	2
	>10	1.5	1.75	2

续表17 Table 17 continued

原动机 Prime mover	每日工作小时 Service hour per day	轻微冲击 (均匀) 载荷 Slight impact(uniform)load	中等冲击载荷 Medium impact load	强冲击载荷 Heavy impact load
1~3缸的活塞发动机 Piston engine for cylinder 1~3	<3	1.25	1.5	2
	>3~10	1.5	1.75	2.25
	>10	1.75	2	2.5

注: 表中载荷分类见附录B, 是工作机的载荷性质。

Note:refer to attachment B for load classification lister in the table,it is the nature of load for working machine.

A2.2 减速器的安全系数S_A见表A18 Refer to Table A18 for decelerator safety factor S_A

重要性与安全要求 Significance and safety requirement	一般设备, 减速器失效仅引起单机停产, 且易更换备件 General equipment and decelerator failure Result in single machine stopping production And frequent replacement of parts	重要设备, 减速器失效引起机组、生产线全厂停产 Critical equipment and decelerator failure result in group and production line stopping production	高安全度要求, 减速器失效引起 设备、人身事故 High safety requirement and decelerator failure result in equipment damage or personal injury
S _A	1.1~1.3	1.3~1.5	1.5~1.7

A2.3 环境温度系数f₁见表A19 Refer to Table A19 for ambient temperature factor f₁

	10	20	30	40	50
无冷却 Without cooling	0.89	1	1.14	1.33	1.6

A2.4 负荷率系数f₂见表A20 Refer to table A20 for load rate factor f₂

小时负荷率% Hour load rate	100	80	60	40	20
负荷系数f ₂ Without cooling	1	0.94	0.86	0.74	1.6

A2.5 减速器公称功率利用系数f₃见表A21

Refer to table A1 for decelerator nominal power utilization factor f₃

型号 Type	30%	40%	50%	60%	70%	80%	90%	100%
NDA、NAF	1.45	1.3	1.25	1.2	1.15	1.1	1	1
NAZD、NAZF	1.65	1.4	1.3	1.2	1.15	1.1	1	1
NBD、NBF	1.5	1.3	1.2	1.1	1.1	1.05	1	1
NBZED、NBZFD	1.7	1.4	1.2	1.1	1.1	1.05	1	1
NCD、NCF	1.55	1.3	1.15	1.1	1.05	1	1	1
NCZD、NCZFD	1.54	1.33	1.2	1.13	1.07	1	1	1

注: P₁——公称功率, 见表A1、A3、A5、A7、A9、A11。

P₂——实际负载功率

Note:P1--nominal power,see TableA1、A3、A5、A7、A9、A11
P2--actual load power.

A3 减速器的选用 Deceleration selection

本标准减速器的承载能力受机械强度和热平衡许用功率两方面的限制，因此减速器的选用必须通过两个功率表。首先按减速器机械强度公称输入功率P1先用，如果减速器的实用输入转速与承载能力表中的四档(1500, 1000, 750, 600)转速之某一档转速相对误差不超过4%，可按该档转速下的公称功率选用相当规格的减速器。如果转速相对误差超过4%，则应按实际转速折算减速器的公称功率选用。然后校核减速器热平衡许用功率。

This standard decelerator carrying capacity is limited by both mechanical strength and thermal balancing allowed power, therefore, decelerator selection must be in compliance with 2 power meters.

First, selection is made according to decelerator mechanical strength nominal input power P1. If relative deviation between applied decelerator input rotate speed and one of 4 rotate speeds(1500, 1000,750,600)listed in the table of carrying capacity does not exceed 4%, equivalent decelerator may be selected according to the nominal power under this rotate speed. If relative deviation of rotate speed exceeds 4%, selection should be made by using actual rotate speed to convert nominal power of decelerator, and decelerator thermal balancing allowable power is then verified.

例：由电动机、减速器驱动一台重型钢带式输送机；电动机功率P=55KW，转速n1=1500r/min，传动辊筒转速n2=1.5r/min，公称传动比i=n1/n2=1500/1.5=1000，每天24h连续运转，小时负荷利用率100%，环境温度约50℃，输入输出端无径向负荷，安装在大厂房内，油池润滑，底座联接，试选行星减速器的型号规格。

For example: Use motor and decelerator to drive a heavy-duty steel belt conveyor, motor power is P=55kW, rotate speed is n1=1500r/min, driving roller rotate speed is n2=1.5r/min, nominal drive ratio is i=n1/n2=1500/1.5=1000, service time is 24 hour per day, hour load utilization rate is 100%, ambient temperature is about 50℃, there is no radial load for input and output shaft end, mounted in a big plant, oil sump lubrication is used, and pedestal jointing is used. Try to select specs of planetary decelerator.

解：(1) 按机械强度计算选用，按附录B查知带式输送机为中等冲击载荷，查表A17得KA=1.5,按表A18得SA=1.4

则：P2m=P2KASA=55 × 1.5 × 1.4=115.5kW

当i=1000, n1=1500r/min, 查表A11知NCZD1250P1=132.6>115.5kW.

Solution: (1) Selection is made according to mechanical strength, check attachment B and find that belt conveyor is of medium impact load, check Table A17 and find KA=1.5, and check Table A18 and find SA=1.4

Therefore, P2m=P2KASA=55 × 1.5 × 1.4=115.5kW

(2) 由于环境温度较高，应验算热平衡时临界功率PG1>P2t, 按已知条件查表A18~表A20, 得f1=1.6, f2=1, P2/P1=0.415, f3=1.31

P2t=P2f1f2f3=55 × 1.6 × 1 × 1.31=115.28kW

Due to high ambient temperature, thermal balancing threshold power should be verified for PG1>P2t, check Table A18~Table A20 according to known conditions, and find f1-1.6, f2=1, P2/P1=0.415, f3=1.31

P2t=P2f1f2f3=55 × 1.6 × 1 × 1.31=115.28kW

查表A12得PG1=262>115.28kW

Check Table find Table A12 and find PG1=262>115.28kW

工作状态的热功率小于减速器的热平衡功率，因此无需增加冷却措施。

Thermal power of service status is less than thermal balancing power of decelerator, therefore, no cooling device is needed.

结论：选NCZD1250i=1000是合适的，轴端无径向负荷轴伸安全系数不必校核。

Conclusion: It is appropriate to select NCZD 1250i=1000, and shaft end non-radial load shaft elongation safety factor is not required of verification.

NGW-L型行星齿轮减速器

NGW-L Planetary Gear Decelerators

产品由NGW-L型单级L11-L71，两级L42-L122两种系列组成，适用于冶金起重运输轻量化及通用机械设备，适用条件如下：

高速轴最高转速不超过1500r/min。

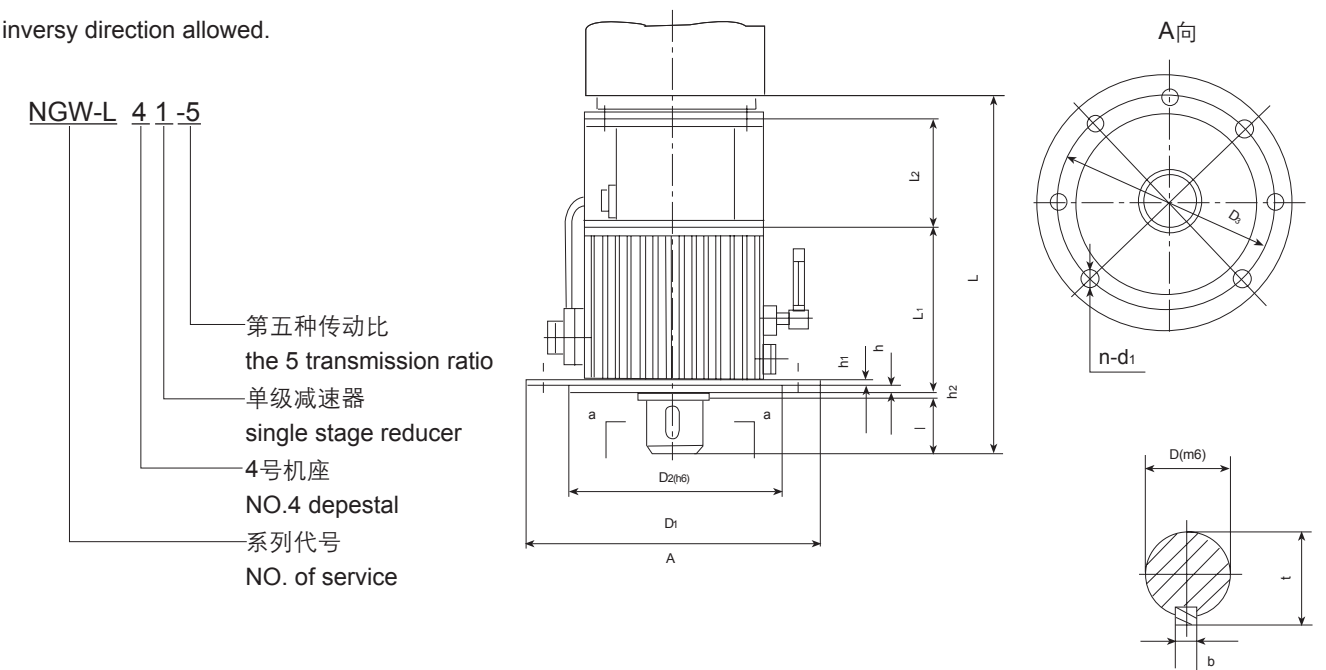
齿轮圆周速度不超过15m/s。

工作环境温度为-40℃ ~ 45℃，低于0℃，启动前润滑油应预热至10℃以上，可正反两方向运转。

The products are specified as single stage NGW-L and double stage (L42-L122). They can be applied to metallurgy craning, transportation, chemical industry and light industry as general mechanism. The applicable condition are as follows.

The maximum wheeling speed of high speed axle no more than 1500r/min. Gear circle velocity no more than 15m/s.

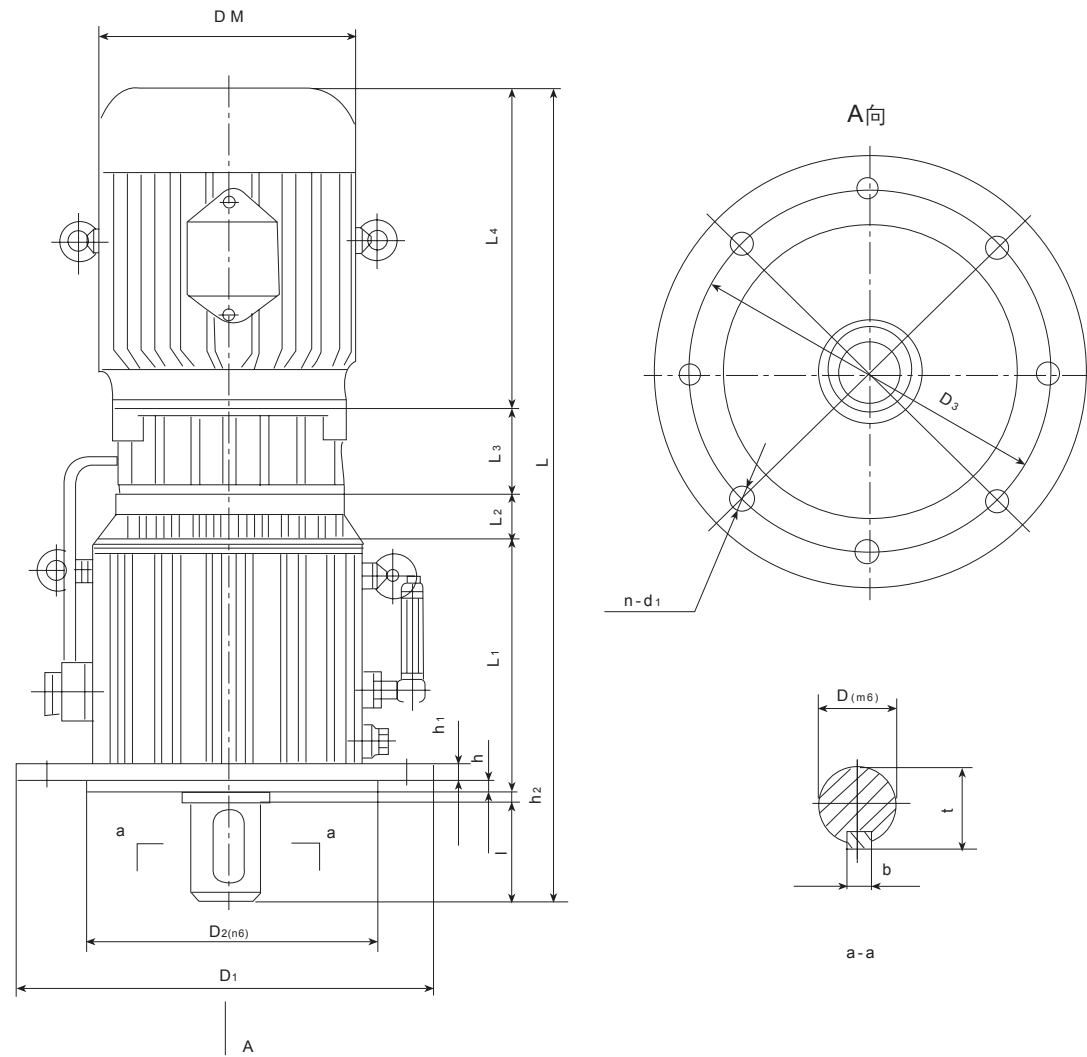
The actuating temperature ranging form-40℃ to45℃, preheat the hibrivating oil before operation when below 0℃. The right and inversy direction allowed.



机座号 pedesol No.	型号规格 specification	公称传动比 Nominal Transmission ratio	外型 outlook		法兰及螺栓孔 Flange and screw hole						轴伸 axle extension				重量 Weight (kg)	油量 Volume Of oil
			L	L ₂	D ₁	L ₁	D ₂	D ₃	n × d ₁	h	h ₁	h ₂	D	l		
1	NGW-L11	4-5 5.6-10	360	230.5	280	325	6 × 18	6	20	18	50	82	53.5	14	65	3.89
2	NGW-L21	4-5 5.6-10	385	255	305	345	6 × 18	6	20	18	60	105	64.0	18	100	5.53
3	NGW-L31	4-5 5.6-10	430	287	330	380	6 × 18	6	25	20	70	105	74.5	20	120	7.86
4	NGW-L41	4-5 5.6-10	485	315	385	435	8 × 22	8	25	20	80	130	85.0	22	160	11.63
5	NGW-L51	4-5 5.6-10	520	355	420	470	8 × 22	8	30	25	90	130	95.0	25	240	16.52
6	NGW-L61	4-5 5.6-10	605	387	505	545	8 × 32	8	30	25	100	165	106	28	320	20.84
7	NGW-L71	4-5 5.6-10	670	416.5	570	610	8 × 32	10	30	28	110	165	116	28	400	29.85

注：①所配电机规格确定后再定L、L₂尺寸。②表中不包括电机重量。

Annotation: ①The L、L₂ are determined by the designed moter specification. ②The weight about doesn't enclose the moter weight.



机座号 pedesol No.	型号规格 specification	公称传动比 Nominal Transmission ratio	外型 outlook					法兰及螺栓孔 Flange and screw hole						轴伸 axle extension				重量 Weight (kg)	油量 Volume Of oil (L)		
			DM	L	L4	L3	L2	L1	D1	D2	D3	n × d1	h	h1	h2	D	l			t	b
4	NGW-L42	25-100					62	315	485	385	435	8 × 22	8	25	20	80	130	85	22	180	~11.6
5	NGW-L52	25-100					72.5	355	520	420	470	8 × 22	8	30	25	90	130	95	25	270	~16.5
6	NGW-L62	25-100					100	387	605	505	545	8 × 32	8	30	25	100	165	106	28	350	~20.8
7	NGW-L72	25-100	按所配电机确定 Determined by the designed moter specification				100	416.5	670	570	610	8 × 32	10	30	28	110	165	116	28	430	~29.8
8	NGW-L82	25-100		110	440.5	750	630	675	8 × 38	10	35	28	120	165	127	32	550	~38.5			
9	NGW-L92	25-100		120	477.5	830	710	755	8 × 38	10	35	32	130	200	137	32	680	~55.6			
10	NGW-L102	25-100		135	544	940	810	860	8 × 44	12	40	32	150	200	158	36	990	~80.5			
11	NGW-L112	25-100		145	598	1020	890	940	8 × 44	12	40	40	170	240	179	40	1020	~114.25			
12	NGW-L122	25-100					165	666	1150	1010	1060	8 × 50	12	45	45	190	280	200	45	1850	~165.04

注: ①所配电机规格确定后再定DM、L、L4及L3尺寸。表中重量不包括电机重量。
Annotation: DM、L、L4、L3 are determined by the designed moter specification.
The weight about doesn't enclose the moter weight.

传动比 代号 No. of transmis- sion ratio	公称传 动比 nominal transmis- sion ratio	机座号 pedesol	1		2		3		4		5		6		7	
		型号 type	NGW-L 11		NGW-L 21		NGW-L 31		NGW-L 41		NGW-L 51		NGW-L 61		NGW-L 71	
		n1(r/min)	P1(kW)	T(Nm)	P1(kW)	T(Nm)	P1(kw)	T(Nm)	P1(kW)	T(Nm)	P1(kW)	T(Nm)	P1(kW)	T(Nm)	P1(kW)	T(Nm)
1	4	600	23.3	1420	31.4	1980	45.9	2850	61.9	4100	92.9	5630	125.6	7700	186	11420
		750	29.1	1400	39.3	1960	57.4	2830	84.9	4090	116.1	5620	156.3	7690	232	11400
		1000	38.8	1390	52.4	1950	76.5	2810	113.2	4070	115.8	5610	209.3	7670	310	11390
		1500	58.1	1380	68.5	1930	114.7	2800	169.8	4060	232.2	5600	313.9	7660	465	11370
2	4.5	600	19.7	1410	27.8	1950	39	2780	57.6	4060	80.2	5570	106.6	7600	158	11250
		750	24.7	1400	34.8	1930	48.7	2770	72	4050	100.2	5550	133.3	7590	190	11230
		1000	32.9	1380	46.4	1920	65	2750	96	4030	133.6	5530	177.7	7570	263	11220
		1500	49.4	1360	69.6	1900	97.4	2730	144	4020	200.4	5510	266.6	7560	395	11200
3	5	600	17.8	1390	23.7	1890	35.1	2700	51.6	3690	69.1	5450	95.9	7450	142	11000
		750	22.2	1370	29.6	1880	43.8	2680	64.5	3180	86.4	5440	119.9	7430	177.6	10980
		1000	29.6	1350	39.5	1860	58.4	2670	86	3660	115.2	5430	159.8	7420	236	10960
		1500	44.4	1330	59.3	1850	87.6	2660	129	3650	172.8	5400	239.7	7410	355	10950
4	5.6	600	10	920	14.1	1280	21	1890	29.9	2700	41.4	3690	60.7	5450	79.7	7160
		750	12.5	900	17.6	1260	26.3	1870	37.4	2680	51.3	3680	75.9	5440	99.9	7140
		1000	16.6	880	23.5	1250	35	1860	49.9	2670	68.4	3660	101.2	5430	133.1	7120
		1500	25	860	35.2	1230	52.6	1850	74.8	2660	102.7	3650	151.8	5400	199.7	7100
5	6.3	600	8.7	870	12.2	1220	18.2	1800	26	2570	35.6	3520	52.3	5180	69.8	6850
		750	10.9	850	15.3	1210	22.8	1790	32.5	2550	44.5	3500	65.4	5170	87.2	6830
		1000	14.5	830	20.4	1200	30.4	1770	43.3	2540	59.4	3490	87.2	5150	116.3	6820
		1500	21.8	820	30.6	1180	45.6	1750	64.9	2530	89.1	3470	130.8	5140	174.4	6800
6	7.1	600	7.5	810	10.4	1150	15.5	1700	22	2430	30.2	3320	44	4890	59.7	6580
		750	9.3	800	13	1130	19.4	1690	27.6	2410	37.8	3330	55	4870	74.6	6460
		1000	12.4	780	17.3	1120	25.8	1670	36.7	2400	50.4	3290	73.3	4850	99.5	6450
		1500	18.7	770	25.9	1110	38.7	1660	55.1	2380	75.6	3280	109.9	4840	149.3	6400
7	8	600	6.2	750	8.6	1080	12.8	1580	18.2	2260	25	3100	35.9	4500	49.9	6060
		750	7.8	740	10.7	1060	16.4	1560	22.8	2240	31.2	3080	44.8	4480	62.3	6040
		1000	10.4	730	14.3	1040	21.3	1550	30.4	2230	41.6	3060	59.8	4460	83.1	6030
		1500	15.6	720	28.6	1030	32	1530	45.5	2220	62.4	3050	89.7	4450	124.7	6010
8	9	600	5.1	700	6.8	970	10.2	1450	14.5	2060	20	2820	28.2	4080	40.4	5570
		750	6.3	690	8.6	960	12.8	1440	18.2	2040	24.9	2810	35.2	4060	50.6	5550
		1000	8.4	680	11.4	940	17	1430	24.2	2030	33.3	2800	46.9	4050	67.4	5540
		1500	12.6	670	22.8	930	25.5	1410	36.4	2020	49.9	2790	70.4	4030	101.1	5520
9	10	600	3.9	640	6	910	9	1350	12.8	1950	17.6	2670	24.5	3840	31.6	5000
		750	4.9	630	7.5	900	11.2	1340	16	1930	22	2650	30.7	3830	39.5	4980
		1000	6.6	620	10	890	15	1330	21.3	1920	29.3	2640	40.9	3810	52.7	4970
		1500	9.9	610	20.1	870	22.5	1310	32	1900	43.9	2630	61.3	3800	79	4960

NGW-S型行星齿轮减速器 NGW-S Planetary Gear Decelerator

本产品由弧齿锥齿轮传动和行星齿轮传动组合而成，包括两级、三级两个系列的NGW型行星齿轮减速器。主要用于冶金、矿山起重运输及通用机械设备。其适用条件如下：

高速轴最高转速不超过1500r/min；

齿轮圆周速度不超过13m/s；

工作环境温度为-40℃ ~ 45℃；

可正、反向运转（正向顺时针为优选方向）。

The products are made up of arc-taper gear and planetary gear transmission, including two stage, three stage planetary gear reducer.

They are being applied in metallurgy, mining, craning transportation and general machinery.

The applicable conditions are as follows.

maximum wheeling velocity of high speed axle no higher than 1500r/m.

gear circle velocity no higher than 13m/s.

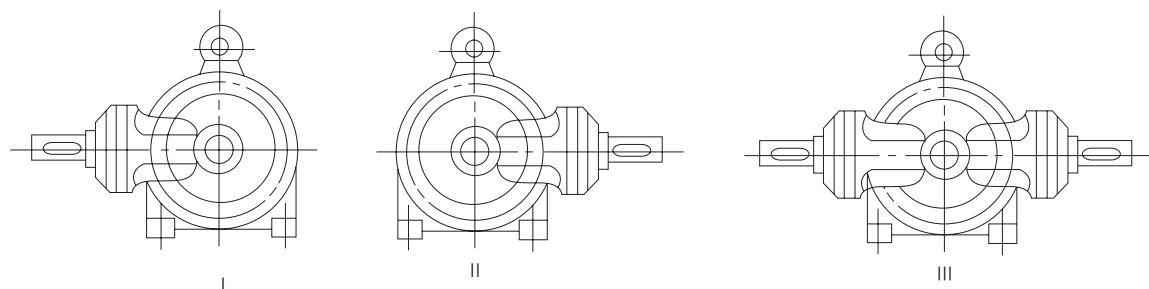
actuating temperature ranging form-40℃ ~45℃

right and inversy divedtion allowed.

1.型式与尺寸

1.Type and size

1.1 装配型式 Installing form



NGW-S装配型式
NGW-S installing form

1.2型号与标记

Type and symbol

1.2.1 减速器的型号：包括减速器的系列代号、机座号、传动级数、传动比代号、装配型式。

Type of reducer, includes series symbol, bedestal no., transmission progression, no. of transmission ratio, installing form.

系列代号：由行星减速器NGW和组合级弧齿锥齿（伞齿）轮的（伞）字汉语拼音字头S组成，“NGW-S”代表系列代号。

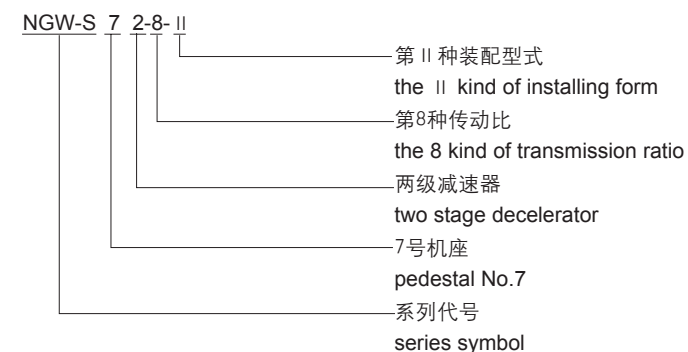
Series symbol is made up by the head Chinese spelling of planetary recucer NGW and combined stage are taper gear, NGW-S represeneates the series symbol.

规格：机座号传动级数传动比代号及装配型式用顺序数字表示之一。

Specification: Numbers are applied to representant the pedestal no., transmission progression, no of transmission ratio and installing form.

标记示例：

symbol example:



1.2.2减速器标牌内容：应包括减速器名称型号规格传动比装配型式高速轴许用功率及转速润滑油粘度减速器重量出厂编号和出厂日期等。

The mark of decelerator contains name of decelerator, type and specification, transmission ratio, installing form, high speed axle allowing power and wheeling speed, viscosity of lubricating oil, weight, production no. and production date.

1.3NGW-S两级减速器型式与尺寸见图1及表1。

The form and size of NGW-S two stage decelerator as per Fig1 and Graph1.

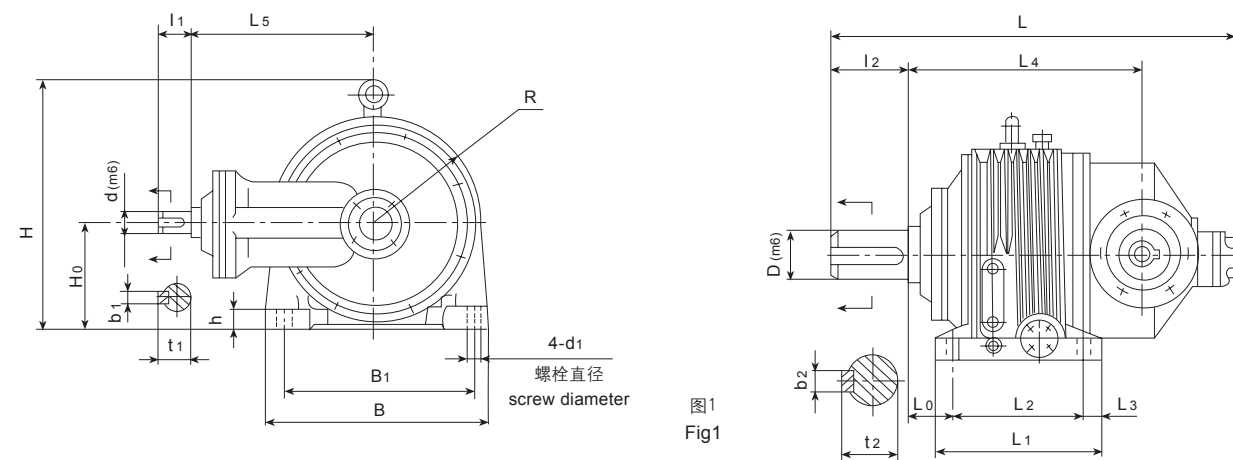


图1
Fig1

1.4 NGW-S三级减速器型式与尺寸见图2及表2。

The form and size of NGW-S three stage decelerator as per Fig2 and Graph2.

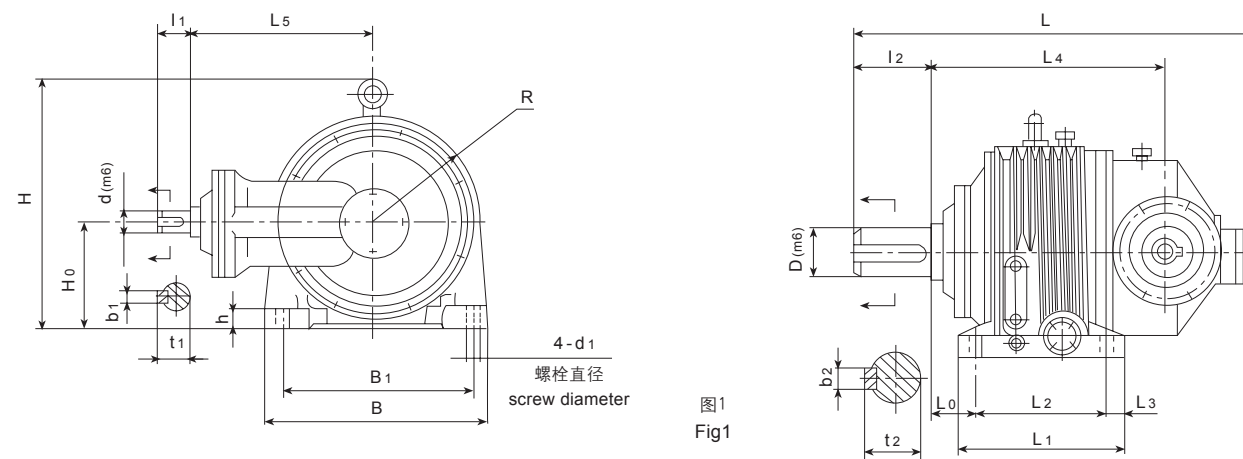


图1
Fig1

表1
Gvaph1

机座号 pedestal	型号 type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸 Axle extension					地脚尺寸 Lower mangie size					重量 Weight (kg)	油量 L volume of oil						
			L	B	H	H ₀	R	L ₄	L ₅	d	D	h ₁	h ₂	t ₁	b ₁	t ₂	b ₂			L ₁	L ₂	L ₃	L ₀	B ₁	d ₁
4	NGW-S 42	11.2~31.5	696	380	425	180	180	412	310	80	58	130	38.0	10	85	22	290	230	30	72	320	M24	35	180	10
5	NGW-S 52	11.2~31.5	740	420	463	200	200	450.5	350	90	58	130	33.0	12	95	25	310	250	30	80.5	360	M24	40	290	14
6	NGW-S 62	11.2~31.5	802	475	524	225	225	472.5	380	100	82	165	48.5	14	106	28	360	290	35	67.5	405	M30	45	342	18
7	NGW-S 72	11.2~31.5	863	535	574	250	250	525	450	110	82	165	53.5	14	116	28	375	305	35	80	465	M30	45	420	25
8	NGW-S 82	11.2~31.5	925	590	634	280	280	584	500	120	82	165	59.0	16	127	32	440	350	45	86	510	M36	50	520	35
9	NGW-S 92	11.2~31.5	1003	660	721	315	315	622.5	530	130	105	200	64.0	18	137	32	475	385	45	70.5	570	M36	50	630	50
10	NGW-S 102	11.2~31.5	1077	745	800	355	355	675.5	575	150	105	200	69.0	18	158	36	525	425	50	78	645	M42	55	950	65
11	NGW-S 112	11.2~31.5	1212	840	891	400	400	748	670	170	105	240	79.5	20	179	40	580	480	50	73	740	M42	60	1365	95
12	NGW-S 122	11.2~31.5	1344	950	1031	450	450	828	760	190	105	280	90.0	24	200	45	680	560	60	73	820	M48	65	1900	140

表2
Gvaph2

机座号 pedestal	型号 type	公称传动比 Nominal Transmission ratio	外形及中心高 Outlook and center height					轴伸 Axle extension					地脚尺寸 Lower mangie size					重量 Weight (kg)	油量 L volume of oil						
			L	B	H	H ₀	R	L ₄	L ₅	d	D	h ₁	h ₂	t ₁	b ₁	t ₂	b ₂			L ₁	L ₂	L ₃	L ₀	B ₁	d ₁
7	NGW-S 73	56~160	891	535	574	250	250	572	310	110	58	165	38.0	10	116	28	375	305	35	80	465	M30	45	470	25
8	NGW-S 83	56~160	968	590	634	280	280	643.5	350	120	58	165	43.0	12	127	32	440	350	45	86	510	M36	50	570	35
9	NGW-S 93	56~160	1058	660	721	315	315	663.5	380	130	82	200	48.5	14	137	32	475	385	45	70.5	570	M36	50	690	50
10	NGW-S 103	56~160	1112	745	800	355	355	739	450	150	82	200	53.5	14	158	36	525	425	50	78	645	M42	55	1010	65
11	NGW-S 113	56~160	1238	840	891	400	400	822	500	170	82	240	59.0	16	179	40	580	480	50	73	740	M42	60	1430	95
12	NGW-S 123	56~160	1459	950	1013	450	450	1014.5	530	190	82	280	64.0	18	200	45	680	560	60	73	820	M48	65	2000	140

2 减速器的承载能力。
Bearing capacity of decelerator.
2.1 两级减速器输入功率见表3。
2.1 the input power of two stage decelerator as per Graph 3.
2.2 三级减速器输入功率见表4。
2.2 the input power of three stage decelerator as per Graph 4.

表3 两级减速器输入功率
Graph3 input power of two stage decelerator

传动比 代号 No. of transmi- -ssion ratio	公称传 动比 nominal transmission ratio	机座号 pedesol	4	5	6	7	8	9	10	11	12	
			型号 type	NGW-S 42	NGW-S 52	NGW-S 62	NGW-S 72	NGW-S 82	NGW-S 92	NGW-S102	NGW-S112	NGW-S122
二级减速器高速轴许用输入功率(P1)kW high speed allowed input power of three degree decelerator												
1	11.2	600	17.79	24.31	35.9	47.7	66.55	99.16				
		750	22.06	30.3	44.8	58.8	82.94	123.78				
		1000	29.32	40.19	59.5	78.16	110.36	164.8				
2	(12.5)	600	15.93	21.78	31.95	41.98	59.2	88.25				
		750	19.76	27.15	39.87	52.3	73.8	110.17				
		1000	26.27	36	52.96	69.58	98.22	146.69				
3	14	600	14.23	19.38	28.4	37.36	52.7	78.54	111.69	153.43	225.7	
		750	17.65	24.16	35.48	46.57	65.69	98	139.48	191.53	282	
		1000	23.46	32	47.14	61.92	87.4	130.56	185.7	255.5	375.85	
4	(16)	600	12.45	16.96	25.3	33.25	46.92	69.9	99.4	136.55	223.88	
		750	15.44	21.1	31.59	41.45	58.46	87.26	124.13	170.46	250.99	
		1000	20.32	28	41.95	55.1	77.8	116.19	165.27	227.1	334.5	
5	18	600	11	15.06	22.52	29.6	41.75	62.2	88.46	121.53	178.79	
		750	13.68	18.76	28.1	36.89	52	77.62	110.48	151.7	223.38	
		1000	18.18	24.89	37.34	49.05	69.24	103.4	147.09	225.14	279.7	
6	(20)	600	9.92	13.55	20	26.34	37.15	55.37	78.74	108.16	159.11	
		750	12.31	16.88	25	32.83	46.31	69.12	98.32	135	198.8	
		1000	16.36	22.41	33.23	43.66	61.62	92.03	130.91	179.9	264.96	
7	22.4	600	8.83	12.06	17.825	23.44	33.07	49.27	70	96.25	141.6	
		750	10.96	15	22.27	29.22	41.27	61.5	80.6	120.17	176.95	
		1000	14.56	19.95	29.57	38.85	54.85	81.91	116.5	160.1	235.8	
8	(25)	600	7.96	10.89	16	21.12	29.8	44.42	63.16	86.77	127.66	
		750	9.89	13.58	20	26.34	37.15	55.45	78.89	108.33	159.5	
		1000	13.13	18	26.66	35	49.43	73.84	105	144.33	212.57	
9	28	600	7.09	9.69	14.31	18.8	26.53	39.53	56.22	77.23	113.62	
		750	8.79	12.08	17.9	23.44	33.07	49.35	65.72	96.41	141.95	
		1000	11.68	16.03	23.37	31.17	43.99	65.72	93.47	128.46	221.28	
10	(31.5)	600	6.02	8.24	12.13	16.04	22.56	33.61	47.65	65.64	96.63	
		750	7.47	10.24	15.13	19.99	28.14	41.96	59.8	81.99	120.73	
		1000	9.9	13.62	20.11	26.22	37.49	55.86	79.65	109.2	160.89	
			1500	14.81	20.32	30.1	39.82	56.1	83.75	119.35	163.69	241.29

表2
Graph2

传动比 代号 No. of transmi- -ssion ratio	公称传 动比 nominal transmission ratio	机座号 pedesol	4	5	6	7	8	9	10	11	12
		型号 type	NGW-S 42	NGW-S 52	NGW-S 62	NGW-S 72	NGW-S 82	NGW-S 92	NGW-S102	NGW-S112	NGW-S122
		二级减速器高速轴许用输入功率(P1)kW high speed allowed input power of three degree decelerator									
11	35.5	600	5.04	6.9	10.16	13.46	18.87	28.16	40	54.98	80.96
		750	6.26	8.579	12.65	16.79	23.54	35.15	49.96	68.67	101.15
		1000	8.31	11.39	16.8	22.34	31.31	46.8	66.55	91.49	134.8
		1500	12.36	17.04	25.15	33.25	46.28	70.16	99.77	137.19	202.15
12	(40)	600	4.17	5.71	8.3	11.17	15.59	23.24	33.12	45.31	66.04
		750	5.16	7.1	10.32	13.92	19.41	29	41.34	56.59	82.51
		1000	6.85	9.4	13.7	18.53	25.83	38.65	55.09	75.42	109.95
13	45	600	3.38	4.62	6.69	9.13	12.62	18.86	26.8	36.76	53.21
		750	4.18	5.75	8.32	11.37	15.53	23.5	33.47	45.92	66.48
		1000	5.54	7.64	11.07	15.14	20.9	31.29	44.6	61.16	88.58
14	50	600	3.04	4.16	6.02	8.22	11.36	16.79	24.12	33.08	47.88
		750	3.77	5.17	7.49	10.23	13.98	21.16	30.13	41.31	59.82
		1000	4.99	6.9	9.97	13.62	18.81	28.16	40.14	55.06	79.72
15	56	600	2.9	3.91	5.67	8.14	10.78	15.96	22.16	30.6	42.64
		750	3.63	4.89	7.09	9.88	13.44	19.88	27.15	38.23	53.08
		1000	4.84	6.52	9.45	13.1	17.8	26.4	36.58	50.65	70.25
16	63	600	2.17	2.93	4.23	6.82	9.25	13.05	19.66	27.15	37.83
		750	2.72	3.66	5.29	8.53	11.56	16.32	24.49	33.92	47.07
		1000	3.62	4.88	7.06	11.37	15.42	21.76	32.45	44.94	62.33
17	71	600	1.86	2.51	3.63	5.84	8.32	11.19	17.44	24.09	33.57
		750	2.33	3.14	4.54	7.3	10.41	13.99	21.73	30.12	41.79
		1000	3.10	4.18	6.05	9.74	13.88	18.65	28.79	39.88	55.31
18	80	600	1.86	2.51	3.63	5.84	8.32	11.19	15.31	21.22	29.66
		750	2.33	3.14	4.54	7.3	10.41	13.99	19.07	26.43	36.94
		1000	3.10	4.18	6.05	9.74	13.88	18.65	25.29	35.03	48.94
		1500	4.66	6.28	9.08	14.61	20.82	37.98	51.89	72.48	

注: ①粗线框内为优选范围。
 ①Values in the thick line are optimum seeking range.
 ②粗线框内不带括弧之传动比为优选系数。
 ②The transmission ratios without paranthese in the thick line are optimum seeking values.
 ③粗线框外为可选范围。
 ③The values out side the thick lines are available range.

表4 三级减速器输入功率
Graph4input power of three stage decelerator

传动比 代号 No. of transmi- -ssion ratio	公称传 动比 nominal transmission ratio	机座号 pedesol	7	8	9	10	11	12
		型号 type	NGW-S 73	NGW-S 83	NGW-S 93	NGW-S 103	NGW-S 113	NGW-S 123
		三级减速器高速轴许用输入功率(P1)kW high speed allowed input power of three degree decelerator						
1	56	600	14.80	20.16	29.19	42.49	58.9	79.94
		750	18.46	25.15	31.68	53.04	72.55	99.85
		1000	24.56	33.47	48.50	70.68	97.15	133.08
		1500	36.78	50.13	71.67	105.98	145	199.51
2	(63)	600	13.17	17.94	25.52	37.77	51.69	71.14
		750	16.42	22.38	32.43	47.2	63.42	88.87
		1000	21.97	29.1	43.18	62.9	86.05	118.44
3	71	600	11.72	15.97	23.12	33.66	46	63.32
		750	14.62	19.92	28.85	42	57.47	79.1
		1000	19.46	26.51	38.42	55.98	75.44	105.41
4	(80)	600	10.43	14.21	20.57	30.48	40.95	56.35
		750	13.01	17.73	25.68	37.39	51.15	70.39
		1000	17.32	23.59	34.2	49.83	68.16	93.82
5	90	600	9.28	12.65	18.31	26.66	36.44	50.15
		750	11.58	15.78	22.86	33.28	45.52	62.65
		1000	15.42	21.0	30.44	44.34	72.16	83.5
6	(100)	600	8.27	11.26	16.3	23.72	32.44	44.63
		750	10.3	14.04	20.34	29.61	40.51	55.76
		1000	13.72	18.69	27.09	39.47	53.99	74.31
7	112	600	7.06	10.2	14.5	21.11	28.87	39.73
		750	9.18	12.5	18.1	26.36	36.05	50.53
		1000	12.21	16.63	24.12	34.89	48.06	59.24
8	(125)	600	6.54	8.91	12.91	18.79	25.69	35.36
		750	8.17	11.12	16.11	23.46	32.1	44.17
		1000	10.87	14.8	21.46	33.56	43.65	58.86
9	140	600	5.83	7.94	11.49	16.73	22.68	31.46
		750	7.27	9.9	14.34	20.88	28.57	39.31
		1000	9.67	13.18	19.1	27.82	38.07	52.38
10	(160)	600	5.19	7.06	10.22	14.89	20.36	28
		750	6.46	8.81	12.77	18.58	25.42	34.98
		1000	8.6	11.72	17	24.76	33.88	46.62
11	180	600	4.61	6.28	9.1	13.26	18.11	24.92
		750	5.75	7.84	11.36	16.54	22.62	31.13
		1000	7.65	10.43	15.12	20.03	30.15	41.19
12	(200)	600	4.15	5.66	8.19	11.93	16.31	22.43
		750	5.18	7.06	10.22	14.88	20.36	27.72
		1000	6.88	9.38	13.62	19.84	27.21	37.34
		1500	10.32	14.06	20.39	29.74	40.7	55.99

表2
Graph2

传动比 代号 No. of transmi- -ssion ratio	公称传 动比 nominal transmission ratio	机座号 pedesol	7	8	9	10	11	12
		型号 type	NGW-S 73	NGW-S 83	NGW-S 93	NGW-S 103	NGW-S 113	NGW-S 123
三级减速器高速轴许用输入功率(P1)kW high speed allowed input power of three degree decelerator								
13	224	600	3.43	4.72	6.81	9.34	12.94	19.9
		750	4.29	5.88	8.51	11.66	16.16	24.16
		1000	5.69	7.82	11.33	15.54	21.54	32.13
		1500	8.53	11.71	16.99	23.3	32.3	48.2
14	(250)	600	3.06	4.2	6.06	8.31	11.51	17.17
		750	3.81	5.23	7.57	10.4	14.39	21.46
		1000	5.07	6.96	10.09	14.15	19.17	28.6
		1500	6.59	10.42	15.12	20.73	28.75	42.9
15	280	600	2.71	3.73	5.39	7.39	10.25	15.28
		750	3.39	4.66	6.74	9.23	12.8	19.1
		1000	4.51	6.2	8.98	12.3	17.07	25.45
		1500	6.75	9.27	13.46	18.98	25.59	38.18
16	(315)	600	2.42	3.32	4.81	6.58	9.12	13.6
		750	3.01	4.14	6.0	8.2	11.4	16.95
		1000	4.01	5.52	7.99	10.96	15.18	22.66
		1500	6.01	8.26	11.98	16.42	22.71	33.97
17	355	600	2.15	3.0	4.28	5.85	10.42	12.11
		750	2.69	3.69	5.34	7.31	10.14	15.12
		1000	3.58	4.91	7.1	9.75	13.51	20.16
		1500	5.35	7.35	10.66	14.62	20.26	30.23
18	(400)	600	1.82	2.5	3.6	4.7	6.85	10.24
		750	2.27	3.12	4.5	5.88	8.57	12.8
		1000	3.01	4.15	5.98	7.83	11.41	17.05
		1500	4.52	6.22	8.96	11.74	17.11	25.58
19	450	600	1.2	1.69	2.53	3.59	4.92	7.25
		750	1.5	2.1	3.15	4.47	6.14	9.05
		1000	1.99	2.81	4.2	5.96	8.19	12.06
		1500	2.99	4.2	6.28	8.94	12.27	18.09
20	(500)	600	1.04	1.45	2.16	3.08	4.23	6.22
		750	1.43	1.82	2.7	3.85	5.58	7.76
		1000	1.71	2.42	3.6	5.13	7.04	10.15
		1500	2.56	3.62	5.39	7.68	10.55	15.53

注：①粗线框内为优选范围。

Annotation: ①Values in the thick line are optimum seeking range.

②粗线框内不带括弧之传动比为优选系数。

②The transmission ratios without paranthese in the thick line are optimum seeking values.

③粗线框外为可选范围。

③The values out side the thick lines are available range.

(二)选用方法 Selection method

选用NGW—S行星减速器时，应根据使用条件按下式计算：

To select Type NGW-S planetary decelerator, calculation should be made according to service condition with following formula:

$$N_x = N_s \cdot K_1 \cdot K_w$$

$$\text{或or } M_x = M_s \cdot K_1 \cdot K_2$$

式中 In which N_x ——选用输入功率 selected input power, kW;

N_s ——实际输入功率 actual input power, kW;

M_x ——选用输出扭矩 selected output torque, N.M;

M_s ——实际输出扭矩 actual output torque, N.M;

K_1 ——使用系数，见8service factor; see Table 8;

K_2 ——与润滑条件有关的系数。当减速器采用循环润滑时 $K_2=1$ ，当减速器采用油池润滑时 K_2 推荐值见表9 factor related to

lubrication condition. If circular lubrication is used for decelerator, $K_2=1$; if oil sump lubrication is used for decelerator, refer to Table 9 for recommended value for K_2 .

根据计算出的 N_x 或 M_x 和其它已知条件按表4~9选用。所选用减速器应满足 P_x

$< P_1$ 或 $T_x < T$ 。

Based on the calculated N_x or M_x other known conditions, selection is made according to Table4~9. The selected decelerator should be $P_x < P_1$ or $T_x < T$ 。

表8 使用系数K1 Table 8- Service factor K1

每日工作时间(小时) Service time per day		<3	3~6	6~10	10~24
工作类型 Service Type		中型Middle	重型Heavy	特重型Special	连续型Continuous
负荷性质 Nature of load	平稳无冲击 Stable without impact	1	1	1	1.25
	中等冲击 Medium impact	1	1.25	1.35	1.5
	强烈冲击 Heavy impact	1.5	1.7	1.8	2

注：①表中K1值仅适用于电动机或汽轮机驱动；

②当用多缸发动机驱动时，表中K1值应提高25%。

③工作类型的确定参照JB1130-70《圆柱齿轮减速器》

Note: ①The value of K1 listed in the table is applicable only for drive of motor or steam turbine;

②If multicylinder engine is used for drive, the value of K1 listed in the table should be increased by 25%.

③Service type is determined according to JB1130-70《Cypindrical Gear Decelerator》

表9 采用油池润滑时的系数K2 Table 9-Factor K2 related to oil sump lubrication

圆周速度 m/s Circumferential speed	< 2.5	>2.5~3.5	>3.5~5	>5~7	>7~10	>10~15
间断工作 Intermittent service	1	1	1	1.05	1.1	1.15
连续工作 Continuous service	1	1.1	1.15	1.2	1.3	1.4

注：减速器的圆周速度系指高速级而言，见表10。

Note: Decelerator circumferential speed of high-speed stage; see Table 10.

NGW-QJ型行星齿轮减速器 NGW-QJ TYPE PLANET GEAR SPEED REDUCER

1. 概述

NGW-QJ型行星齿轮减速器是在参照NGW型行星齿轮减速器的基础上设计成的一种专用减速器。它不仅保留了原NGW标准(JB1799-76)的主要优点,而且适用于安装在与水平线倾斜的状态下直接传递径向负荷的场合。该减速器主要用在水泥机械球磨机的主传动减速装置上,也可用作其它相类似的传动装置。

1. Brief Introduction

The NGW-QJ planet gear speed reducer is specially designed on the basis of NGW type reducers, the key characteristics of former NGW standard(JB1799-76).It can also be applied under obliquitous position to transfer radial load. This type machine is mainly as key reducing settings in cement mechanical ball crusher and other similar machines.

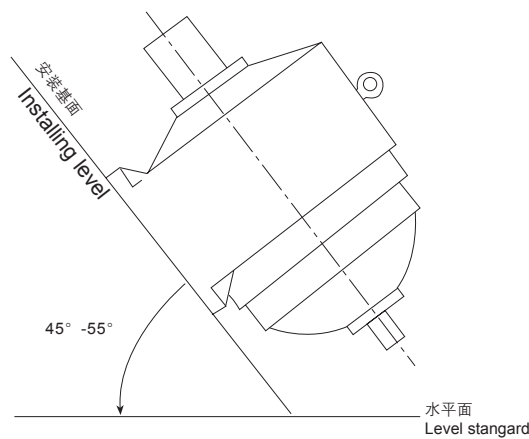


图3-27 减速器倾斜工作示意图
Graph 3-27 slope working map of decelerator

该减速器有如下优点:

- (1)该减速器具有体积小、重量轻、承载能力高、使用寿命长、运转平稳、低噪音等优点,而且输入输出轴端均能承受较大的径向负荷;
- (2)工作环境温度: -40~45℃; (3)输入转速: < 1500r/min; (4)传动效率: $\eta = 0.94 \sim 0.96$;
- (5)工作倾斜角度: 45° ~55° (如图3-27所示); (6)可正反转;
- (7)寿命: 不低于35000~40000h; (8)工况: 连续型; (9)润滑: 备有自身循环润滑系统。

The NGW-QJ planet gear speed reducer has such characteristics as follows:

- (1)Small volume, light weight, strong loading capacity, long service life, stable operation and low voice. Besides the both edges of axles can sustain larger radial load;(2)Working environment temperature: -40℃ --45℃; (3)Input rotation speed: < 1500r/min; (4)Efficiency: $\eta = 0.94 \sim 0.96$;
- (5)Working slope angle: 45° ~55° (as showed in picture 3-27); (6)Face and inverse Operation;(7)Service life: no less than 3500-4000h;
- (8)Working status: continuously; (9)Lubrication: self-cycle lubricating system is applied

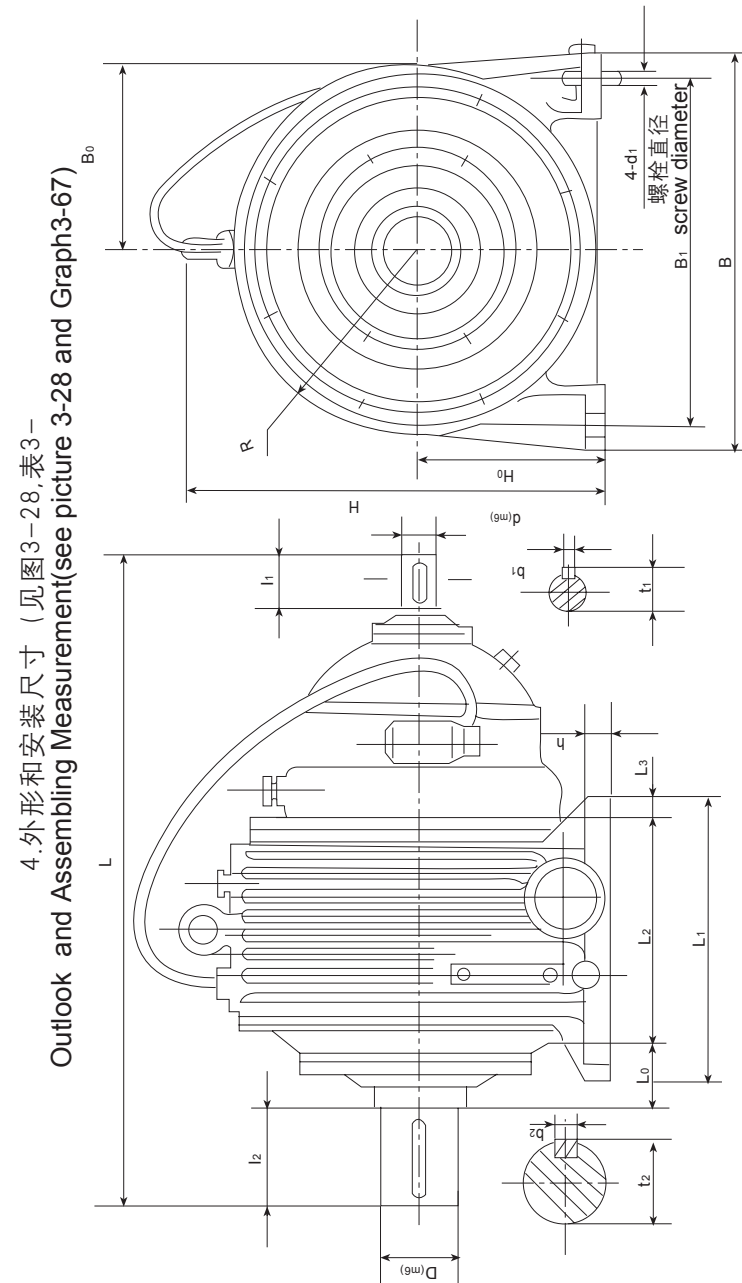
2. 型号意义 Expression of type no. and structure models



3. 技术参数及承载能力(见表3-66) Tech Datas and Loading Capacity (See Graph3-66)

表3-66 NGW-QJ型行星齿轮减速器技术参数及承载能力
Graph3-66. Tech Datas and Loading Capacity of NGW-QJ Type Planet Gear Speed Reducer

型号 type	传动比 transmission ratio		成球盘规格 Spec of ball forming plate	电机功率Power (KW)
	公称传动比 nominal transmission ratio	实际传动比 actual transmission ratio		
NGW-QJ42	25	24.75	ø2.5M	7.5
NGW-QJ52		25.25	ø2.8M	11
NGW-QJ62		24.23	ø3.2M	15
NGW-QJ72		24.75	ø3.6M	18.5
NGW-QJ82		25.25	ø4.2M	30
NGW-QJ92		24.23	ø4.5M	37



4. 外形和安装尺寸 (见图3-28,表3-67)
Outlook and Assembling Measurement(see picture 3-28 and Graph3-67)

图3-28 NGW-QJ型行星齿轮减速器外形和安装尺寸图
Picture3-28 Outlook and Assembling Size of NGW-QJ planet Gear speed Reducer

表3-67 NGW-QJ型行星齿轮减速器外形和安装尺寸
Graph3-67 Outlook and Assembling size of NGW-QJ type planet Gear Speed Reducer

型号 type	外形及中心高 outlook and Central Height										轴伸尺寸 Size of axes										地脚尺寸 Lower mangle size				重量 Weight (kg)	参考价格 Reference price (元)
	L	B	H	H ₀	H ₆	B ₀	R	d	D	h ₁	h ₂	h ₃	t ₁	t ₂	b ₁	b ₂	L ₁	L ₂	L ₃	L ₀	B ₁	d ₁	h			
GW-QJ42	695	380	425.5	180	180	283	180	35	80	55	105	38.5	10	87	24	290	230	30	72	320	M24	30	140			
NGW-QJ52	769	420	463.5	200	200	298	200	40	90	70	115	43.5	12	87	24	310	250	30	80.5	360	M24	35	250			
NGW-QJ62	807.5	475	524	225	225	288	225	45	100	70	125	49	14	103	28	360	290	35	67.5	405	M30	40	280			
NGW-QJ72	894.5	535	574	250	250	313	250	50	110	85	140	55	16	119	32	375	305	35	80	465	M30	40	350			
NGW-QJ82	981	590	634	280	280	328	280	55	120	85	160	60	16	129	32	440	350	35	86	510	M36	45	480			
NGW-QJ92	1070	660	721	315	315	358	315	60	130	105	165	65.5	18	140	38	475	385	45	70.5	570	M36	45	600			

XX型回转行星齿轮减速机

XX Series Rotary Planet Gear Decelerators

一、概述 Brief

行星齿轮系列减速机是一种具有广泛通用性的新型减速机，内部齿轮采用20CrMnMo渗碳淬火和磨齿。整机具有结构尺寸小、输出扭矩大、速比大、效率高、性能安全可靠等特点。本机主要用于塔式起重机的回转机构，又可作为配套部件用于起重、挖掘、运输、建筑等行业。

The Planet Gear Reducer series are new types reducers of widely used. The interior gears are adopted 20CrMnMo carbon quenching and grinding. The whole machine has characteristics of small volume, large output torque, big speed, high efficiency and safe reliability etc. It is mainly used in the rotary construction of turret type crane. It could also be used in the lifting, digging, transporting, architecture and another industries etc.

适用范围如下:

输入轴转速 < 1500r/min

转动方向: 正反

机构工作级别: M5

结构利用等级: T4

工作环境温度: -40℃ ~ +45℃, 低于0℃时, 启动前润滑油需预热。

The usage scope is as follows:

The input shaft speed is no more than 1500r/min.

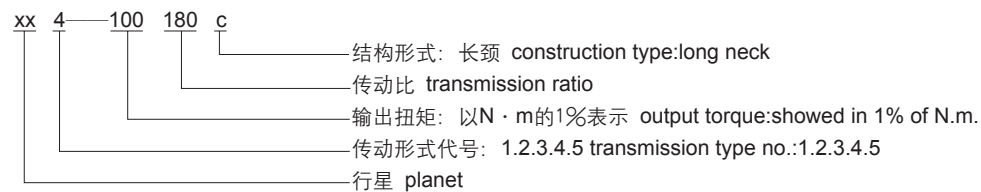
It could be run in two ways: positive and negative.

The constructive work-stage is M5.

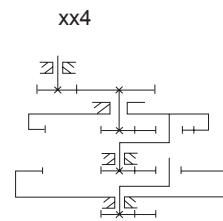
The usage-stage of framework is T4.

The ambient temperature of working condition is from -40℃ to +45℃. The lubricate oil should be preheated before starting when the ambient temperature is under 0℃.

二、型号说明 The Reducer Type Illustrate:



三、传动形式简图 The Transmission Diagram:



四 减速机的选用 The Reducer Selection

选用输出扭矩时, 要考虑到工况系数KA, 当计算扭矩为Tc时, 则T=KA · Tc。

We should considerate the service factor KA when the output torque T is to be selected.

When the calculating torque is Tc, following T=KA · Tc.

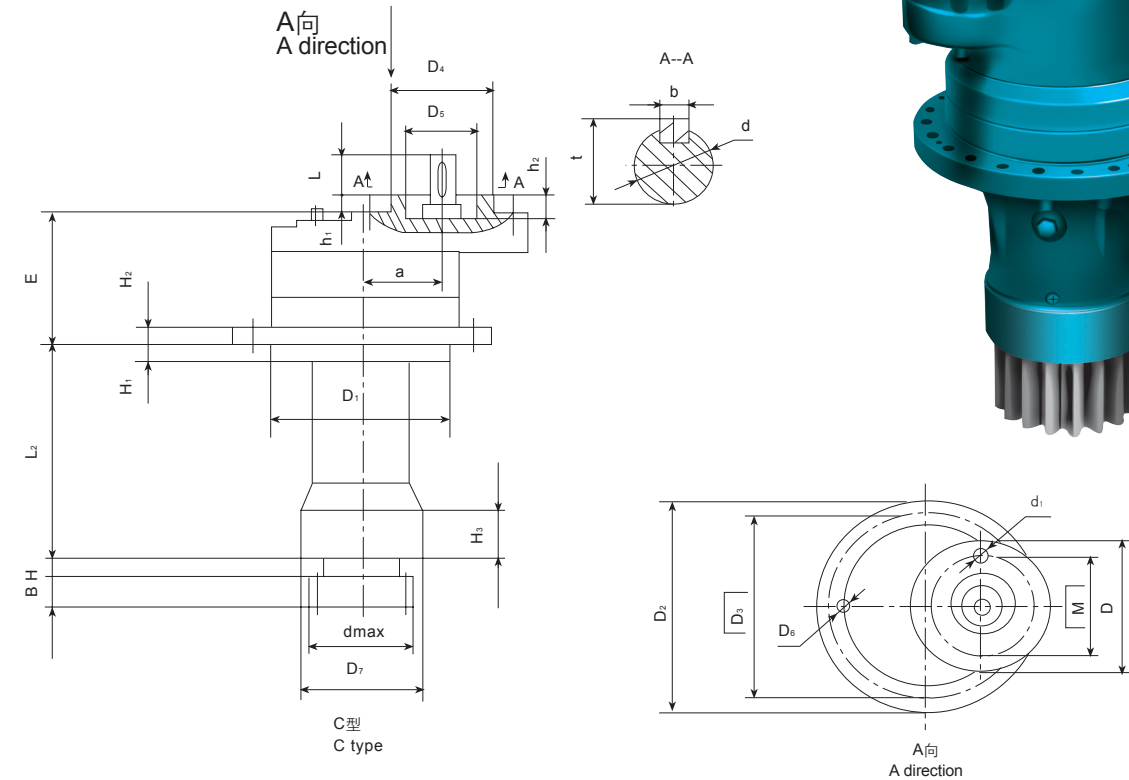
KA值列表如下:

The ka is as follows

动力 Prime move	载荷 Load	一般载荷 General Load	交变载荷 Alternative Load	动擎载荷 Shock Load
液压马达 Hydraulic Motors	1	1.2	1.4	1.6
交流电动机 electric Motors	1.2	1.4	1.6	1.6

五、外形及安装尺寸

Outlook and Installation Size.



型号 Type	输入速度 Input Rotate Speed (r/min)	输出扭矩(N,m) OUTPUT TORQUE (N,m)		主要安装尺寸 main Installation coupling size									输出轴端尺寸 Size of output Shaft end		
		T额 T Rated	T最大 T Max	D1(h7)	D2	D3	D4(h7)	D5(H7)	D6	H	H1	H2	D7(H7)	H3	L2
xx-25	1500	2500	3750	220	280	250	85	70	12-ø14	5	15	20	170	55	200
xx-40	1500	4000	6000	260	320	290	85	70	24-ø14	5	15	25	176	66	230
xx-63	1500	6300	9450	260	320	290	85	70	24-ø14	5	15	25	200	70	230
xx-80	1500	8000	12000	295	370	340	85	70	24-ø18	12	20	30	220	70	315
xx-100	1500	10000	15000	330	420	380	ø170H7	170	24-ø18	12	40	30	260	60	315
xx-160	1500	16000	24000	415	500	465		180	24-ø18	25	20	30	280	100	550
xx-250	1500	25000	37500	505	580	545	200H7	200	24-ø22	5	20	35	330	100	600

型号 Type	输出尺寸 Output Gear Size		外廓尺寸 Coutour Size		输入轴端尺寸 Size of Input shaft END									
	Dmax	B	E	a	d	b	t	h1	h2	L	M	d1	D	
xx-25	120	90	204	82	20h6	6	22.5	4	10	41	160	6-M12	205	
xx-40	150	80	232	102	25h6	8	28	4	10	40	160	6-M12	196	
xx-63	150	85	220	102	25js6	8	28	5	10	43	160	6-M12	215	
xx-80	168	85	290	102	25js6	8	28	5	10	47	160	6-M12	200	
xx-100	184	90	347	124	30k6	8	33		10	40	245	6-M12	316	
xx-160	210	110	364	155	42k6	12	45		15	47	260			
xx-250	260	140	364	155	55k6	16	59		15	65	280			

系列型谱
Serious pedigree

传动比 transmission ratio		额定输出扭矩 rated output torque	2500	4000	630	8000	10000	16000	25000
代号 No									
xx1	6	·	·	·	·	○	○	○	○
	7.5	·	·	·	·	○	○	○	○
	8	·	·	·	·	○	○	○	○
xx2	10	·	·	·	○	○	○	○	○
	11.2	·	·	·	○	○	○	○	○
	12.5	·	·	·	○	○	○	○	○
	14	·	·	·	○	○	○	○	○
	16	·	·	·	·	·	○	○	○
	18	·	·	·	·	·	○	○	○
	20	·	·	·	·	·	○	○	○
	22.4	·	·	·	·	·	○	○	○
	28	·	·	·	·	·	○	○	○
	31.5	·	·	·	·	·	○	○	○
xx3	36	·	·	·	·	○	○	○	○
	45	·	·	·	·	·	○	○	○
	54	·	·	·	·	·	○	○	○
	56	·	·	·	·	·	○	○	○
	64	·	·	·	·	·	○	○	○
xx4	63	·	·	·	·	·	○	○	○
	71	·	·	·	·	·	○	○	○
	80	·	·	·	·	·	○	○	○
	90	·	·	·	·	·	○	○	○
	100	·	·	·	·	·	○	○	○
	112	·	·	·	·	·	·	○	○
	125	·	·	·	·	·	·	○	○
	135	·	·	·	·	·	·	○	○
	140	·	·	·	·	·	·	○	○
	157.5	·	·	·	·	·	·	○	○
	160	·	·	·	·	·	·	○	○
	180	·	·	·	·	·	·	○	○
195	·	·	·	·	·	·	○	○	

注：·表示优先选用方案；○为可选方案

Annotation: · means optimum seeking methods; ○ means available methods

TJZ系列减速器 TJZ SERIES REDUCERS

1、前言 Preface

TJZ系列减速器，是铸轧机轧辊驱动装置专用减速器，是泰隆公司根据自己的专利传动原理综合研制成功的新型减速器，是ZZJ系列双行星齿轮传动减速器的重大突破。

Being special reducer of casting roll motor equipment, the TJZ series reducers are produced by TAILONG COMPANY according to the self know-how. It's a breakthrough of ZZJ series double planet gear thansmission reducers.

2、类型、特点和适用范围 Type, characters and applied scope

铸轧机轧辊驱动专用减速器按安装形式有两种类型。即：机座安装型(见图1、图2)和上下安装型(见图3、图4)。

铸轧机轧辊驱动专用减速器按驱动形式有两种类型。即：由多台电机驱动的单驱动形式(不带分流箱，见图1、图3)和一台电机驱动的集中驱动形式(带分流箱，见图2、图4)。

铸轧机专用减速器的单驱动形式传动装置简单，轧辊辊速用电器装置控制，可用于不同辊径、不同辊速的铸轧机。集中驱动形式的传动装置比单驱动形式多了分流箱，用它代替了单驱动形式的电器控制装置。从经济指标考虑，优先推荐单驱动形式的传动装置。

铸轧机专用减速器的单驱动形式和集中驱动形式适用于任何铸轧机的轧制工作状态。对于轧辊在工作中处于磨损状态的铸轧机，单驱动形式的铸轧机专用减速器可通过对电机转速的调节来保证轧辊辊速相同，从而保证轧制工件的表面质量。单驱动形式不仅能用于相同直径的轧辊，还可用于不同直径(不仅是直径的磨损)的轧辊。集中驱动形式仅适用于轧辊直径相同的铸轧机，当产品表面质量要求较高时，只能通过修正辊径来保证轧辊辊速。

There are two types according to assembling mode, which is stand assembling type (see graph one and two) and up-down assembling type (see graph three and four).

And if classified according to motor type, there are another two types, which is single-motor mode with series motors (without current dividers, see graph one and three) and concentrating motor mode with one motor (with current divider, see graph two and four).

The single motor transmission set is rather simple. The electric roll device can be controlled and suitable for different roll caliber with different speed. The concentrating motor transmission set has another current divider which replaces

the electric controlling set of single motor mode. We recommend single motor mode transmission set for economy consideration.

Both single and concentrating motor modes of special reducers are suitable for any kind of casting machine. If the roll is wear, the motor speed can be adjusted by single motor mode casting machine to guarantee the roll speed. Such step can guarantee the quality of casting products. The single motor mode can applied for both the same caliber and the different caliber (the wearing caliber) rollers. The concentrating motor mode is only for casting machine with same roller caliber. Should there be high demand for surface quality, the roller caliber would be modified to guarantee the roller speed.

3、主要技术参数 Main technic parameters

铸轧机专用减速器主要技术参数见表1。

The charter one shows the main technic parameters of special reducers for casting machines

4、外形、安装尺寸 Outline and mounting Sizes

铸轧机专用减速器外形安装尺寸见表2。

The outline and mounting size of special reducers for casting machine are listed in charter two.

表1 主要技术参数
Table 1 Main technic parameters

型号 Type	适用轧辊辊距 roller space(mm)	输出转矩 output torque(kN.m)	输出转速 output rotate speed	传动比 drive ratio	重量 weight(kg)
TJZ630A	560-630	120X2	0.84	1250	3800
TJZ630B					5200
TJZ630C					3300
TJZ630D					1600
TJZ740A	660-740	200X2	0.84	1250	6500
TJZ740B					8600
TJZ740C					5800
TJZ740D					7700
TJZ980A	860-980	450X2	0.84	1250	16800
TJZ980B					20500
TJZ980C					13200
TJZ980D					16500

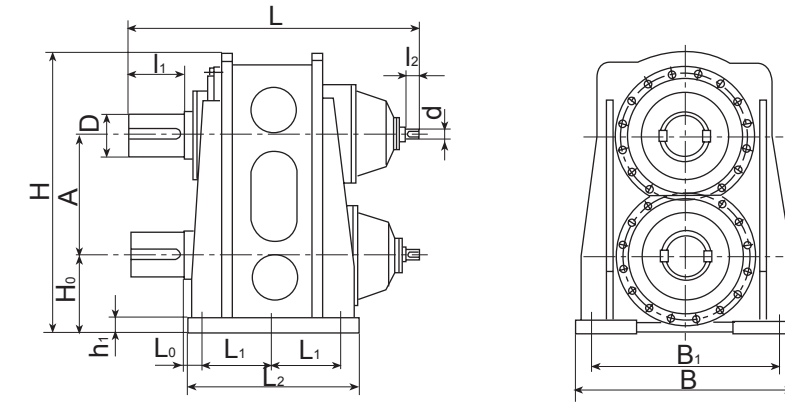


图1 机座安装形单独驱动的铸轧机专用减速器(TJZ***A)
Figure 1 Special reducer of casting roll machine with stand assembling type and single-motor mode

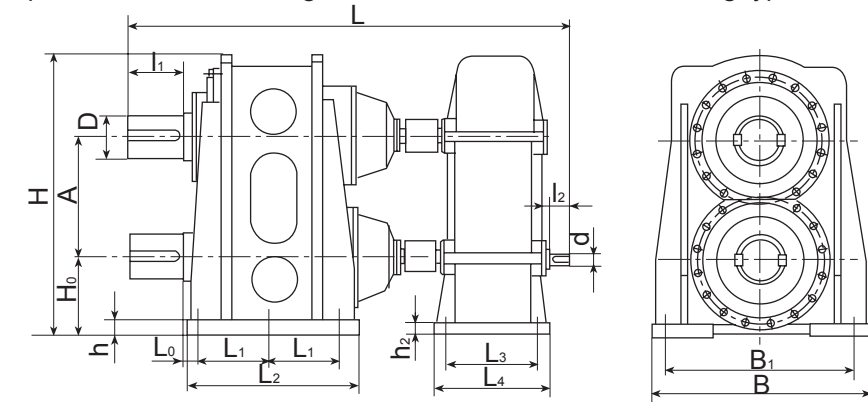


图2 机座安装形集中驱动的铸轧机专用减速器(TJZ***B)
Figure 2 Special reducer of casting roll machine with stand assembling type and concentraing motor mode

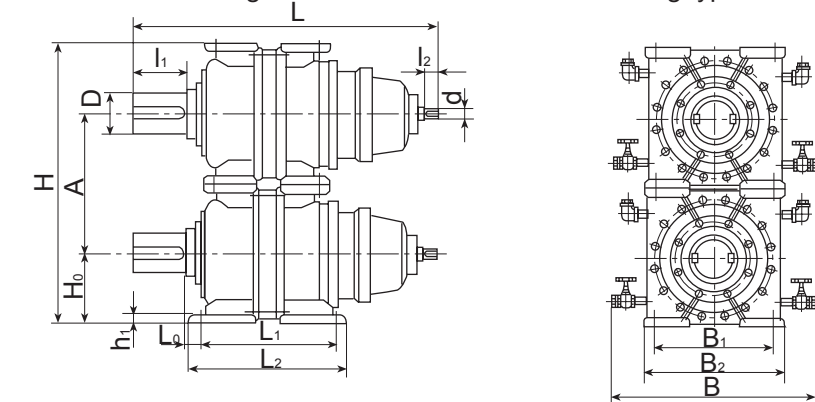


图3 上下安装形单独驱动的铸轧机专用减速器(TJZ***C)
Figure 3 Special reducer of casting roll machine with up-down assembling type and single-motor mode

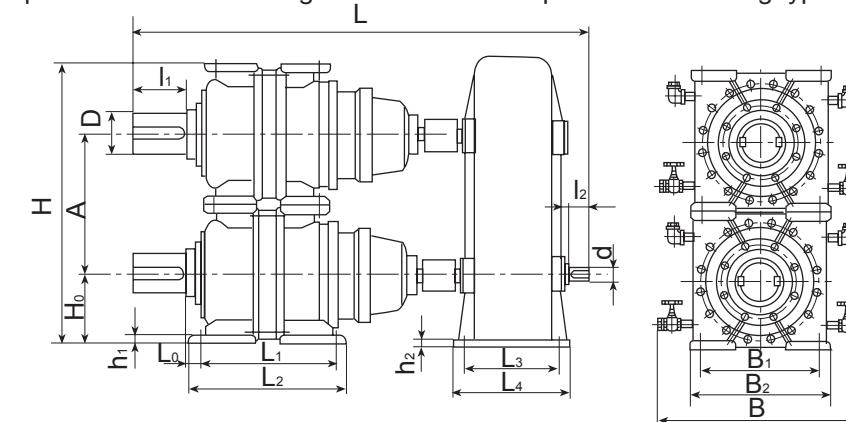


图4 上下安装形集中驱动的铸轧机专用减速器(TJZ***D)
Figure 4 Special reducer of casting roll machine with up-down assembling type and concentraing motor mode

表2 外形、安装尺寸

Table 2 Outline and mounting sizes

型号 Type	外形尺寸及中心距 Outline size and center space					轴伸尺寸 axes extension					地脚尺寸 foot size									
	L	B	H	H ₀	A	D	l ₁	d	l ₂	L ₀	L ₁	L ₂	L ₃	L ₄	B ₁	B ₂	h ₁	d ₀	h ₂	d ₀₁
TJZ630A	1580							50	92				-	-						
TJZ630B	2110	1050	1420	385				60	140	90	400	935	290	360	930	-	60	M36	30	M20
TJZ630C	1580				630	250	330	50	82				-	-						
TJZ630D	2110	970	1260	315				60	140	90	600	700	290	360	580	680	45	M36	30	M20
TJZ740A	1800							60	105				-	-						
TJZ740B	2380	1320	1680	460				75	140	100	420	1020	350	430	1120	-	80	M48	40	M24
TJZ740C	1800				740	280	380	60	105				-	-						
TJZ740D	2380	1080	1480	370				75	140	90	680	810	350	430	660	790	60	M48	40	M24
TJZ980A	2320							85	130				-	-						
TJZ980B	3080	1600	2220	600				100	210	110	700	1600	400	500	1400	-	100	M64	50	M32
TJZ980C	2320				980	380	450	85	130				-	-						
TJZ980D	3080	1350	1960	490				100	210	100	880	1080	400	500	880	1060	80	M64	50	M32

注: 1. 出入轴全部为平键联接, 联接尺寸符合GB/T1095。
2. 出轴联接尺寸有特殊要求的, 用户可特别提出。
3. 外形、安装尺寸有特殊要求的, 用户可特别提出。

Note: 1. The output/input axes are all flat axes connector, the connecting size confort to GB/T1079
2. Customers can suggest for special output axes connecting size.
3. Customers can suggest for special size and assembling measurement.

5、选型方法 Selection method

铸轧机专用减速器的选型方法是根据铸轧机的轧辊中心距和轧辊所需轧制力矩及轧辊的转速来选择。

例: 有一轧辊中心距为960mm的铸轧机, 轧螺丝所需的轧制力矩是2x400kN.m, 轧辊转速0.84r/min。查表1, 则选择TJZ980传动装置。

The central space, demand torque and speed of roller determine the selecting method.

Example: a casting machine with the central space of 960mm, the necessary torque is 2x400KN.m. the roller speed is 0.84r/min. check the charter one we select the TJZ980 transmission device.

6、安装、使用与维护 Mounting, Operation and maintainence

传动装置中的减速器与电动机和工作机械之间的连接应用弹性联轴器、齿式联轴器或其他非刚性联轴器。并进行认真仔细的调整, 以保证装配精度。

严禁强行打击或冲击装配, 以防损坏密封件、挡圈和轴承等零件。

传动装置中的减速器投入使用之前, 特别要检查减速器是否注入了所要求的润滑油。在任何情况下, 减速器油位不能低于油标最低位置。

安装好的减速器正式使用前必须负荷试车。负荷试车前空运转2h。在空运转正常的情况下开始负荷试验。在条件许可时应按以下四阶段逐步加载:

第一阶段为额定载荷的25%;

第二阶段为额定载荷的50%;

第三阶段为额定载荷的75%;

第四阶段为额定载荷的100%;

对于现场条件不可能逐步加载时, 最少也必须进行空转2h及满负荷运转4h。

铸轧机专用减速器采用油池润滑。首次使用时, 减速器运转300~600h后, 润滑油就必须更换; 扫放润滑油需在减速器停车后润滑油未冷时。此后每当减速器运转1500~5000h更换一次, 这主要由工作环境决定; 但是润滑油每次更换的间隔时间不应超过18个月。减速器应更换同等级的润滑油, 不同等级的或者不同工厂所生产的润滑油绝不能混合在一起使用。

The connection between reducer, motor and related machine is elastic axle connector, gear axle connector or non-fast coupling. Before operation the client should adjust accordingly to guarantee assembling precision.

Please note strong attack or assembling are prohibited to avoid damage of sealing spare pads, bearing or stop collar. Before operation you should check if the demanded lubrication oil has been applied. Please note at any situation the reducer oil position should be no lower than the rain oil position.

The assembled reducers must be load operation before normal operation and before that the reducers should racing operate two hours sparately. The load experience should be started under normal racing operation.

There are four steps below:

First the rated load is 25%;

The second step the rated load is 50%;

The third step the rated load is 75%;

The forth step the rated load is 100%.

Should there be no situation for steeply load, the reducer must guarantee racing operation for two hours and full load of four hours.

The special reducers apply oil pool lubrication. When the machine is firstly operated for 300-600 hours the lubrication oil must be changed. When the oil is hot after operation the lubrication oil should be change accordingly. When normal operation each 1500-5000 hours the oil should be changed, which is determined by working environment. Please note that the lubrication oil should be changed less than 18 months. Also the lubrication oil with defferent grades or factories should not be mixed together.

辊道马达减速器

Roller Motor Decelerators

单独传动辊道马达减速器由辊道专用电动机和齿轮减速器两大部件组成，本品主要用于轧机($i \leq 12.5$)及连铸机($i \leq 12.5$)单独传动运输辊道，对于起动、制动频繁，过载较大声次数较多的其它机械传动也很适用；对于一般轻工、化工、通用机械等运输较平稳连续工作的机械传动也可采用本产品。

The single transmission roller motor reducer are made up by roller motor and gear reducer. It's mainly used in rolling mill($i \leq 12.5$)and continuous metalling machine ($i \leq 12.5$) as single transmitting roller. Also it's applied in other mechanism with frequently switching on and off or large numbers of lanchness. The products can be used in light industry and chemical industry as general machinery in stable continuous candition.

本产品所采用的电动机是新标准Y系列电动机，该电动机工作性能稳定，连续工作的能力且高效 节能 寿命较长。不足之处是辊道专用电动机价格较贵，但本产品现采用的Y系列辊道电动机的联结尺寸与其它型号电动机是相同的，所以用户若想采用其它电动机可与制造厂协商得到满意的产品。

The motors we applied are Y series of new standard motor, with a stable properity of long serivce life, high efficiency and Lower power. While it's expensive by contrast. The client can cuntact the producer for a change since the connection size of Y series Toller motor applied in this product are the same as those of other motors.

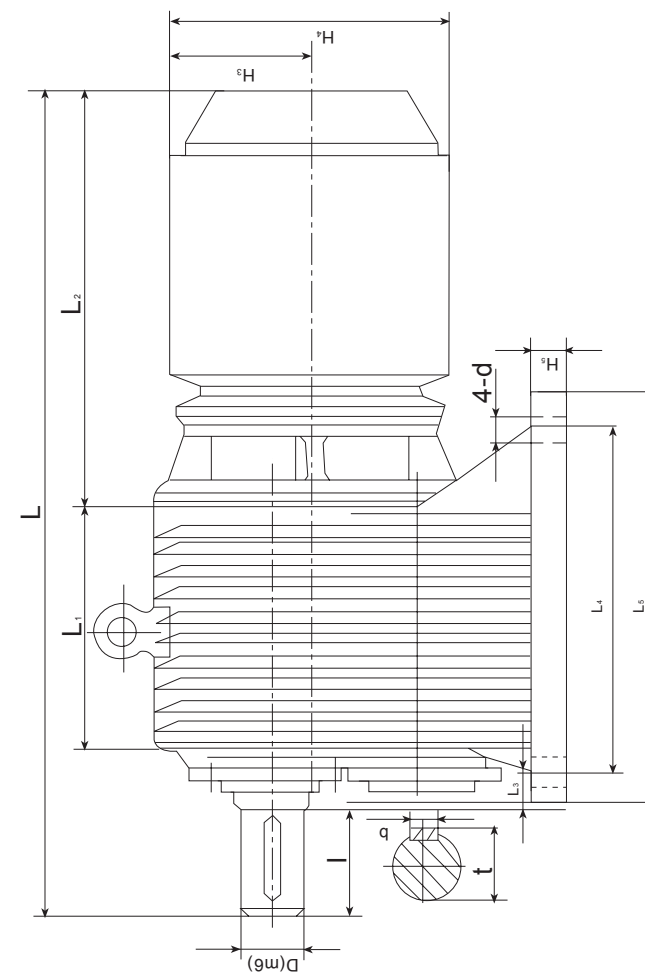
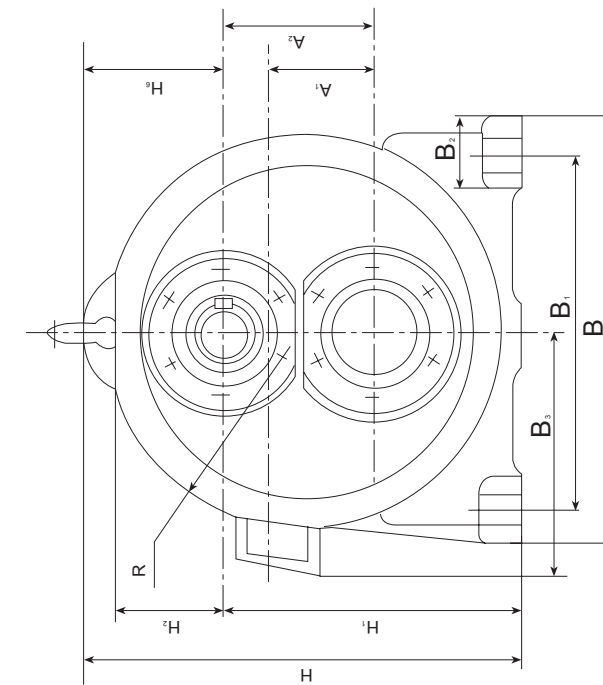
辊道马达减速器可正反两方向运转，工作环境高于 40°C 时，应采用降温措施。

The right and invesry direction are allowed for roller motor reducer and cooling measures should be taken if actuating temperature is higher than 40°C 。

对于采用YZG型辊道专用电动机的马达减速器，当对电动机起动次数大于6次/小时和其它要求时(150次/小时、300次/小时、600次/小时)请订货时。满足150次/小时以上的辊道马达减速器在安装尺寸上长度增大，其它尺寸和本选用说明书相同。

Please give clear indication of request for YZQ services of motor dlecelerator with rolling specialized motor when starting time is more than 6t/h or other(150r/h, 300r/h, 600r/h), The installing size of roller motor reducer with 150r/h starting times should be arose, and others remain unchange.

YGL、YZL系列马达减速器的型式、尺寸
Type and size of YGL、YZL series motor decelerator



75型号 Type	中心距 center space		L	B	H	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	R	D	I	b	t	d	重量 (kg) weight kg
	高速级A ₁ high speed degree A ₁	低速级A ₂ low speed degree A ₂																
YGL132M117	75	100	695	320	333	200	120	132	265	28	133	155	45	82	14	48.5	24	150
YGL132M217	75	100	695	320	333	200	120	132	265	28	133	155	45	82	14	48.5	24	160
YGL160L127	118	150	975	482	460	300	145	160	315	32	160	218	65	105	18	69	28	350
YGL180L127	118	150	975	482	485	300	145	185	370	32	160	218	65	105	18	69	28	378
YGL132M117	75	100	734	320	333	200	120	143	285	28	133	155	45	82	14	48.5	24	142
YZL132M217	75	100	734	320	333	200	120	143	285	28	133	155	45	82	14	48.5	24	154
YZL160M127	118	150	876	480	460	300	145	163	325	32	160	218	65	105	18	69	28	272
YZL160M227	118	150	876	480	460	300	145	163	325	32	160	218	65	105	18	69	28	285

2. 马达减速器的代号与标志

The type and symbol of motor decelerator

2.1 YGL-YGAG型 (Y系列辊道专用三相异步) 电动机与两级圆柱齿轮减速器组成的马达减速器系列代号。

The series types of motor decelerator formed by YGL-YGAG type(Y series roller three-phase asynchronous) motor and two stage cylinder gear decelerator.

2.2 YZL-YZG型 (Y系列辊道专用三相异步) 电动机与两级圆柱齿轮减速器组成的马达减速器系列代号。

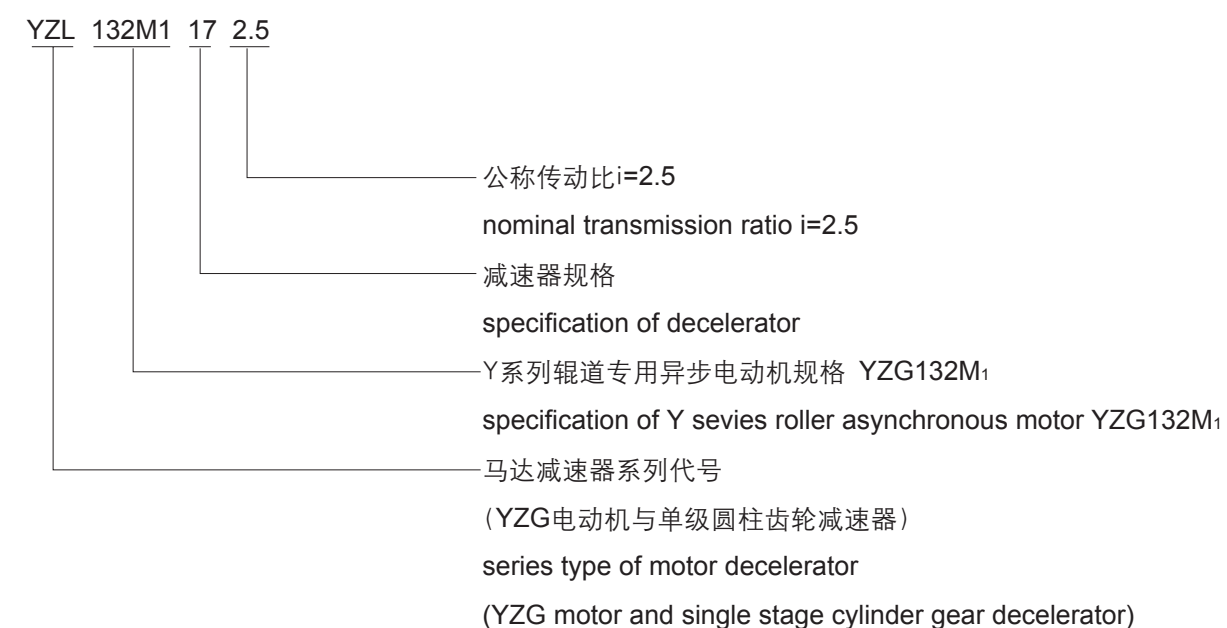
The series types of motor decelerator formed by YZL-YZG type(Y series roller three-phase asynchronous) motor and two stage cylinder gear decelerator.

2.3 YGX-YGAG型 (Y系列辊道专用三相异步) 电动机与行星齿轮减速器组成的马达减速器系列代号。

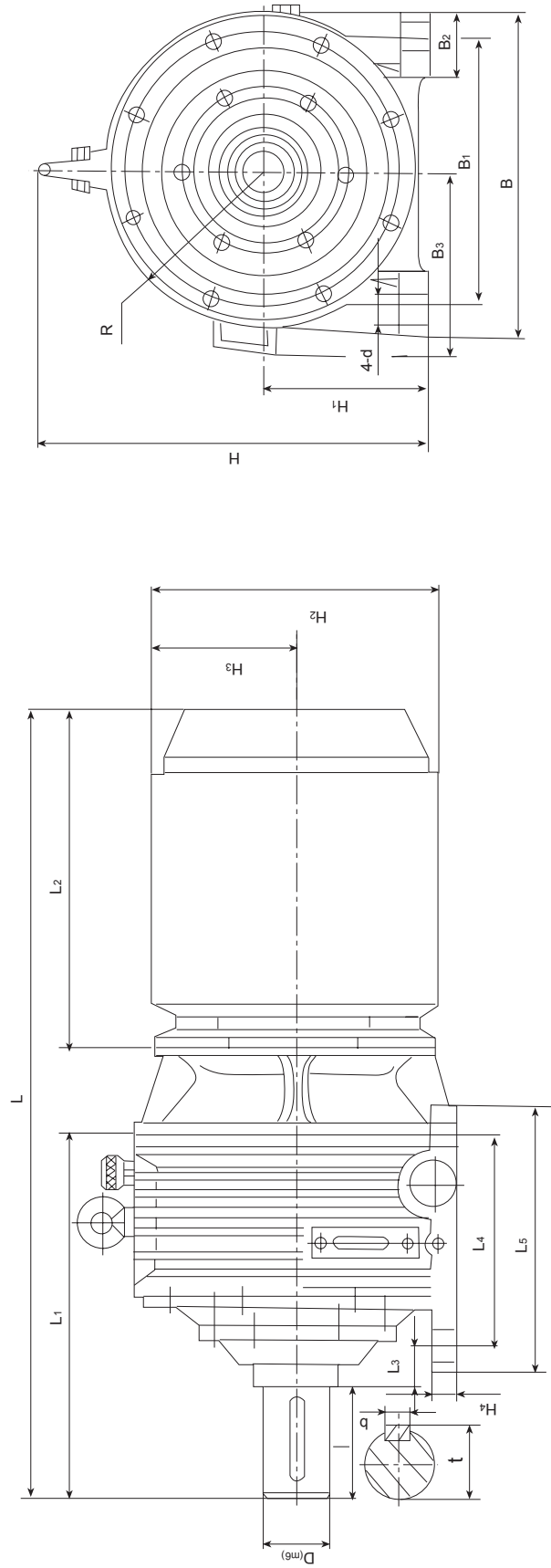
The series types of motor decelerator formed by YGL-YGAG type(Y series roller three-phase asynchronous) motor and planetary gear decelerator.

2.4 YZX-YZG型 (Y系列辊道专用三相异步) 电动机与行星齿轮减速器组成的马达减速器系列代号。

The series type of motor decelerator formed by YZX-YZG type(Y series roller three-phase asynchronous) motor and planetary gear decelerator.



YGL、YZLT系列马达减速器的型式、尺寸
Type and size of YGL、YZLT series motor decelerator



型号 type	L	B	H	L1	L2	L3	L4	L5	B1	B2	B3	H1	H2	H3	H4	R	D	I	b	t	d	质量 weight kg
YGX132M11	698	280	307	268	340	33	190	240	220	60	220	140	265	132.5	22	133	50	82	14	53.5	20	142
YGX132M211	698	280	307	268	340	33	190	240	220	60	220	140	265	132.5	22	133	50	82	14	53.5	20	158
YGX132M21	716	305	325	286.5	340	25.5	205	265	235	65	220	140	265	132.5	25	140	60	105	18	64	25	165
YGX132M22	716	305	325	286.5	340	25.5	205	265	235	65	220	140	265	132.5	25	140	60	105	18	64	25	181
YGX160L41	978	380	425.5	373	486	48	250	310	320	75	250	180	315	157.5	33	180	80	130	22	85	28	323
YGX132M22	825	305	325	382	340	27	280	340	235	65	220	140	265	132.5	25	140	60	105	18	64	25	167
YGX132M22	907	380	425.5	465	340	40	355	415	320	75	220	180	265	132.5	33	180	75	105	20	79.5	28	238
YGX160L52	1195	420	465	590	486	62	445	535	360	75	250	200	315	157.5	35	200	90	130	25	95	28	446
YGX132M21	746	305	363	286.5	370	25.5	205	265	235	65		140	285	142.5	25	140	60	105	18	64	25	153
YGX132M22	746	305	363	286.5	370	25.5	205	265	235	65		140	285	142.5	25	140	60	105	18	64	25	155
YGX160M41	945	380	440	373	453	48	250	310	320	75		180	325	162.5	33	180	80	130	22	85	28	247
YGX132M242	946	380	403	465	370	40	355	415	320	75		180	285	142.5	33	180	75	105	20	79.5	28	222
YGX160M152	1061	420	465	590	365	62	445	535	360	75		200	325	162.5	35	200	90	130	25	95	28	360

6. 辊道马达减速器的使用

Roller motor reducer selection

用与轧机及连铸机单独传动辊道，按JB3251规定的方法选用。首先按JB3251的规定计算轧件或铸件在辊道的辊子上打滑时的最大静扭矩 M_{gmax} 和辊子带载启动时的最大扭矩 M_{max} ，然后从表4中初选辊道马达减速器的型号规格，查得其允许启动扭矩MQ值。并满足下列条件：

The products are applied to rolling or single transmission roller of continuous metalling machine, selected according to JB 3251 Stipulation of First, the maximum static torque of casing on the roller when slipping m_{gmax} and maximum torque of roller bearing beginning max one calculated, then, select the specifications or types of roller motor reducer in Graph4,and find out the allowed starting torque MQ. The inequality below must be satisfied.

$$M_{gmax} < MQ < M_{max}$$

当不能满足此条件时，一般应重选。但MQ略大于 M_{max} 可以选用缺点是动力偏大如MQ过大，则不经济且可能出现启动时轧件或铸件在辊道上打滑现象。

If the values don't apply to in equality, recheck the type, please, But if MQ is slight more than M_{max} , the value is yet applicable, with a shortcoming of a rather high power, If the MQ is two high, it's expensive and the casing may hlip on the roller.

例：某连铸机单独传动辊道。辊子直径 $d=300mm$,辊矩 $t=1500mm$,连送铸坯最大断面（厚×宽） $200 \times 1050mm$,坯长 $l=3600mm$ ，坯重 $59000N$ ，铸坯表面温度 $800^{\circ}C$ 。辊道带铸坯频繁启动，辊道输送速度 $V=0.46m/s$,要求选辊道马达减速器。按书籍V、d计算辊子转速 n_2

$$n_2 = 6000 \times v / \pi \cdot d = 60000 \times 0.46 / 300 \pi = 29.285r/min$$

Example, a single transmission roller of continuous metalling machine, roller diameter= $300mm$,roller space= $1500mm$,the maximum section of transporting casing(Thickness × width) $200 \times 1050mm$,Casing length $l=3600$ casing weight = $59000N$,casing surface temperature $800^{\circ}C$,roller casing started frequently, roller transmissing.

speed $V=0.46m/s$,roller motor decelerator selected. Calculate the roller wheeling speed n_2 according to $v \cdot d, n_2 = 60000v / d \times \pi = 60000 \times 0.45 / 300 \times \pi = 29.285r/min$

5. 马达减速器实际传动比表

Actual transmission ratio of motor decelerator

公称传动比 nominal transmission ratio	实际传动比 actual transmission ratio	1.4	1.6	1.8	2	2.24	2.5	2.8	3.15	3.55	4	4.5	5	5.6	6.3	7.1	8	9	10	11.2	12.5	25	28	31.5	35.5	40	
YGL132M ₁ -17																											
YGL132M ₂ -17		1.400	1.565	1.810	2.043	2.296	2.567	2.736	3.059	3.537	3.953	4.419	5.109	5.365	6.207												
YZL132M ₁ -17																											
YGL132M ₂ -17																											
YGL160L ₁ -27																											
YGL180L ₁ -27		1.393	1.626	1.818	2.097	2.265	2.488	2.848	3.075	3.494	4.081	4.427	4.815	5.497	6.000												
YGL160M ₁ -27																											
YGL160M ₂ -27																											
YGX132M ₁ -11													4.950	5.526	6.176	7.000	9.077	8.833	9.938	11.36	12.23						
YGX132M ₂ -11																											
YZX132M ₁ -21																											
YZX132M ₂ -21													4.950	5.526	6.176	7.000	8.077	9.918	9.800	11.31	12.25						
YZX132M ₁ -21																											
YZX132M ₂ -21																											
YGX160L ₁ -41																											
YZX160L ₁ -41																											
YGX132M ₁ -22																											
YGX132M ₂ -22																											
YZX132M ₂ -22																											
YGX160L ₁ -52																											
YZX160M ₁ -52																											

按JB3251的规定计算得:

when calculate under the stipulation of JB 3251,we get

$$M_{jmax}=2030Nm;$$

$$M_{max}=3080Nm;$$

查表, 选取MQ满足不等式 $M_{jmax} < MQ < M_{max}$ 的型号, 试选YZX121M242,其MQ=2903Nm,电动机转距 $n=2903Nm$,电动机转速 $n=915r/min$,实际传动比 i

We select the MQ value to satisfy the inequality $M_{jmax} < MQ < M_{max}$ should YZX132,242type, theMQ=2903Nm,motor cheeling speed $n=9152r/min$,actual transmission ratio $i=30.94$.

$$M_{jmax}=2030 < MQ =2903 < M_{max}=3080Nm$$

辊子实际转速 $n2'$, 辊道实际速度 V' 为: when actual roller rotate speed $n2$ and actual speed are,

$$n2' =n/i' =915/30.94=29.57 \approx n2=29.285r/min$$

$$V' =Dn2' /60000=300 \times 29.57/60000=0.4645 \approx V=0.46m/s$$

满足要求, 可以选定该型辊道马达减速器, 写出其代号

The inequality satisfied, we can select the roller motor reducer as follows,:

$$n2' =n/i' =915/30.94=29.57 \approx 29.285r/min$$

$$V' =Dn2' /60000=300 \times 29.57/60000=0.4645 \approx V=0.46m/s$$

YZX132M2 42-31.5

如果传动比不能满足要求, 可向我厂提出要求修改传动比。

用于其它负荷平稳的传动机械, 可按所要求的 n 、 i 、 P 、 MT 、 MQ 纵表中4中选取承载能力较大或相当的型号规格。

If the transmission ratio can't be applied, contact us for alternation.

For other stable bearing transmission machinery, please select the larger bearing capality type of n.i.p.MT.MQ.

