

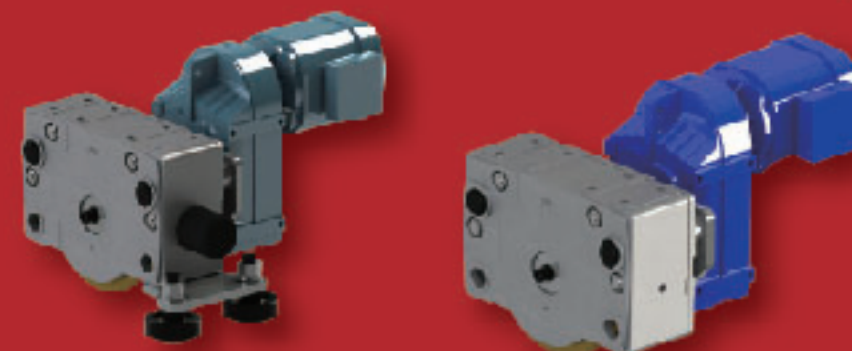
DRS轮箱产品手册

DRS wheel block manual

专业的欧式起重机合作伙伴!
professional overhead crane part



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01

DRS轮箱概述 Introduction

我公司生产的DRS轮箱可作为起重机、平台车、堆垛机等设备的运行机构。DRS轮箱
Our DRS wheel block can be used as the traveling mechanism of cranes, Rail Guided Vehicle, stackers and other

具有结构稳定、通用性广、承载量大、工作级别高、连接方便、安装准确等优点。
equipment. DRS wheel block has the advantages of stable structure, wide versatility, high load capacity, high working level, convenient connection and accurate installation.

对DRS轮箱，我公司能够提供DRS轮箱安装方案及图纸，减速机选型及参数，最优质
For DRS wheel boxes, our company can provide DRS wheel box installation schemes and drawings, reducer selection and parameters, the highest quality wheel boxes and components.

02

DRS轮箱型号

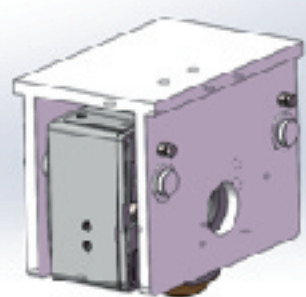
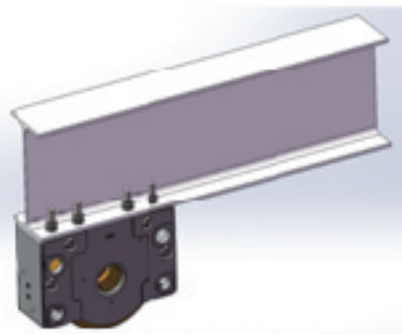
Type designation key (example) for basic wheel blocks



- ◆ 轮箱型号model: DRS125, DRS160, DRS200, DRS250, DRS315, DRS400
- ◆ 车轮形式wheel types:
 - D——双轮缘with flange on both sides
 - L——单轮缘with flange on one side
 - N——无轮缘without flange
 - C——大直径无轮缘without flange, with larger diameter
 - S——特殊外形车轮Special shape wheel
- ◆ 车轮材质Wheel material:
 - G——球铁车轮SG Iron wheel
 - C——合金车轮 (42CrMo/4140)
 - P——聚氨酯车轮Polyurethane wheel
- ◆ 导向轮Guide rollers:
 - A——带导向轮with guide rollers
 - X——不带导向轮without guide rollers
- ◆ 行走车轮踏面宽度wheel tread:
 - 60——行走车轮踏面宽度wheel tread
- ◆ 安装方式Connection variants:
 - T——顶部安装Top connection
 - S——销轴安装Pin connection
 - U——单侧安装Side connection
 - F——端面安装Box-section girder end connection
- ◆ 减速机型号gearbox type:
 - R——R系列斜齿轮减速机R series helical gear reducer
 - F——F系列平行轴-斜齿轮减速机F series parallel shaft helical gear reducer
 - K——K系列斜齿轮-伞齿轮减速机K series helical bevel gear reducer

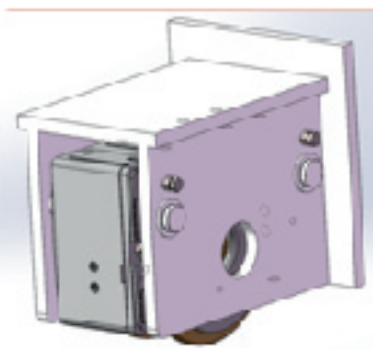
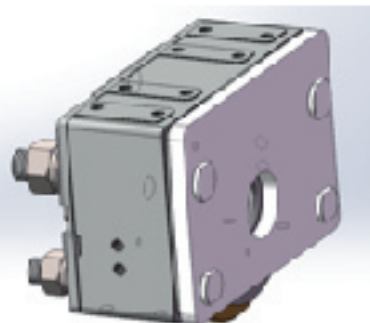
03 DRS轮箱安装方式 Connection variants

3.1 顶部安装 Top connection



3.2 销轴安装 Pin connection

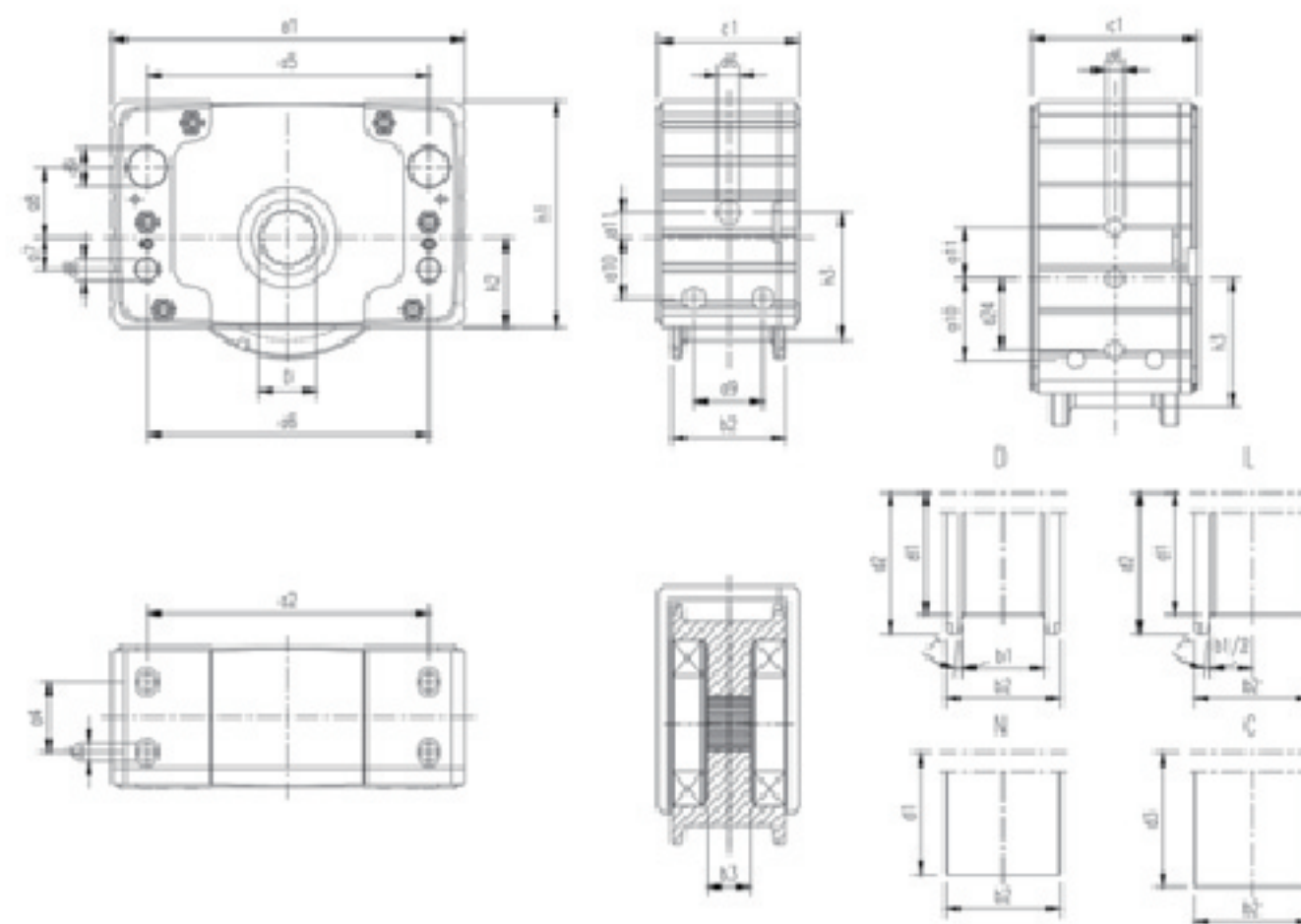
3.3 单侧安装 Side connection



3.4 端面安装 Box-section girder end connection

04 DRS轮箱尺寸 wheel block dimensions

4.1、DRS125~200轮箱尺寸 dimensions DRS125-DRS200

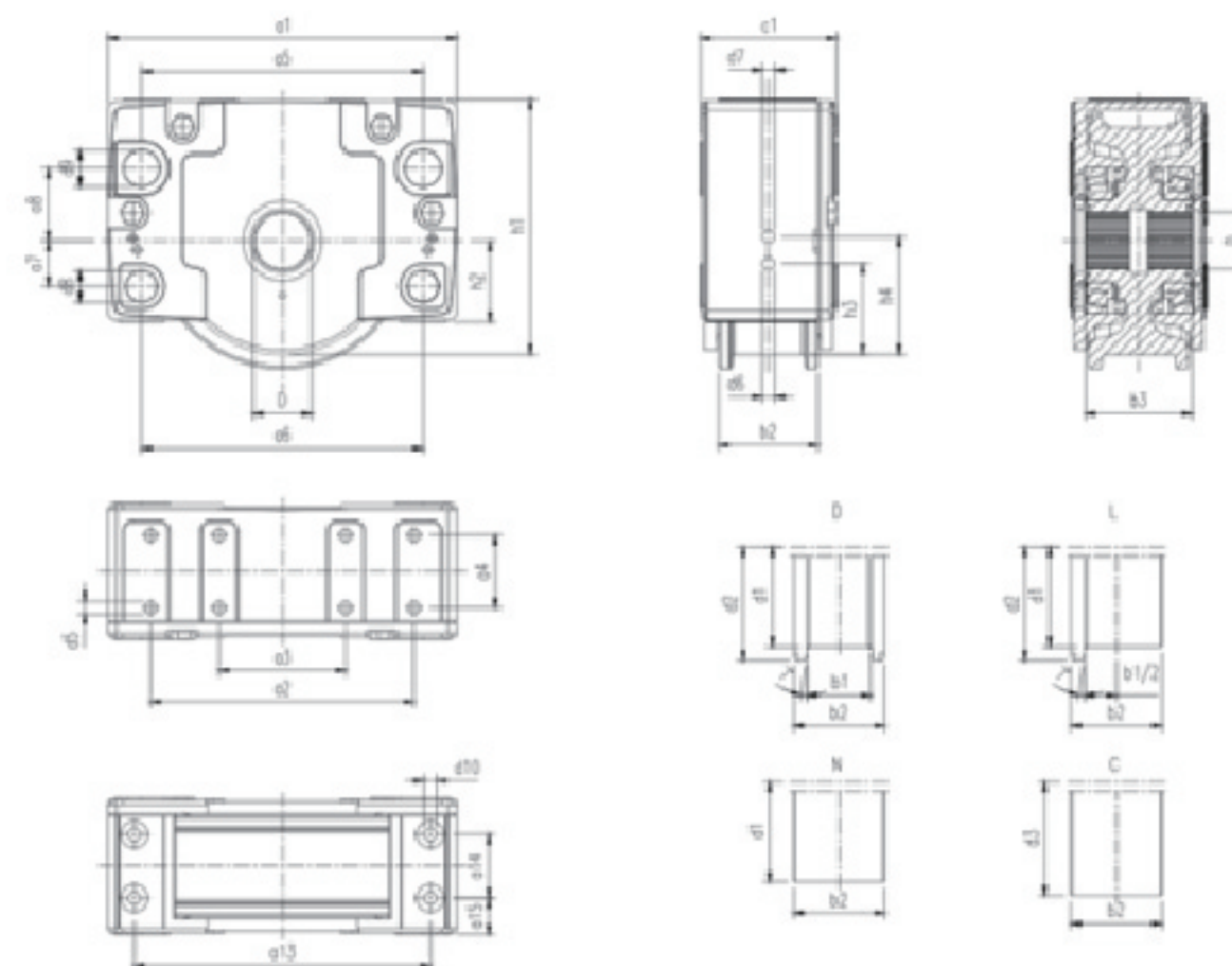


4.2、DRS250~400轮箱尺寸 dimensions DRS250-DRS400

轮箱型号 model	花键 型号 spline shaft	a1	a2	a4	a5	a6	a7	a8	a9	a10
Wheel block	DIN 5480				±0.02	±0.1	±0.1	±0.02		
DRS125	N30 N35	220	170	55	175	175	20	40	50	37
DRS160	N35 N45	275	220	55	220	220	25	55	54	47.5
DRS200	N45 N50	340	275	65	275	275	35	75	62	64

轮箱型号 model	a11	a24	b1	b2	b3	c1	d1	d2	d3	d5
Wheel block							-0.2		-0.2	
DRS125	37.5	-	60	80	33	98	125	150	145	M12
DRS160	20	-	65	89	33	110	160	188	183	M16
DRS200	40	56	70	100	36	130	200	230	226	M16

轮箱型号 model	d6	d8	d9	h1	h2	h3	单只轮箱最大重量 Max. weight of wheel block [kg]			
Wheel block			F8				D	L	N	C
DRS125	M12	13	21	147.5	53.5	100	9.8	9.2	8.6	11.5
DRS160	M12	17	30	187	70	100	17.9	16.8	15.8	19.8
DRS200	M12	20	35	238	90	100	34.3	32.7	31	40.2

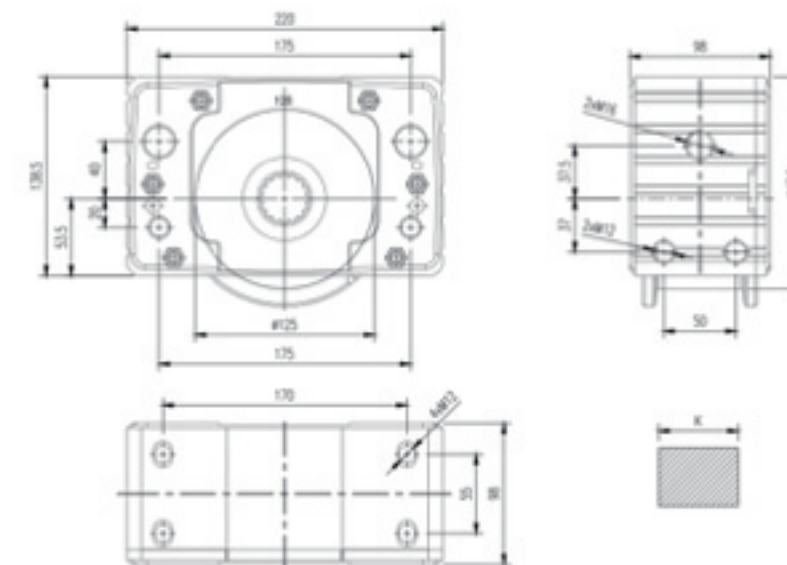


轮箱型号 model	花键 型号 spline shaft	a1	a2	a3	a4	a5	a6	a7	a8	a13	a14
Wheel block	DIN 5480		±0.2	±0.2	±0.2	±0.04	±0.04	±0.02	±0.02	±0.4	±0.2
DRS250	N50	385	290	140	80	310	310	50	80	326	70
	N65										
DRS315	N65	470	360	180	100	370	370	70	80	405	80
	N75										
DRS400	N75	580	440	210	120	450	450	95	130	501	100
	N90										

轮箱型号 model	a15	b1	b2	b3	c1	d1	d2	d3	d5	d6	d7
Wheel block	±0.2					-0.2		-0.2			
DRS250	40	80	110	117.5	150	250	282	270	8xM16	M12	-
DRS315	50	90	130	147	180	315	350	340	8xM16	M12	M12
DRS400	55	110	155	172	210	400	440	440	8xM20	M12	M12

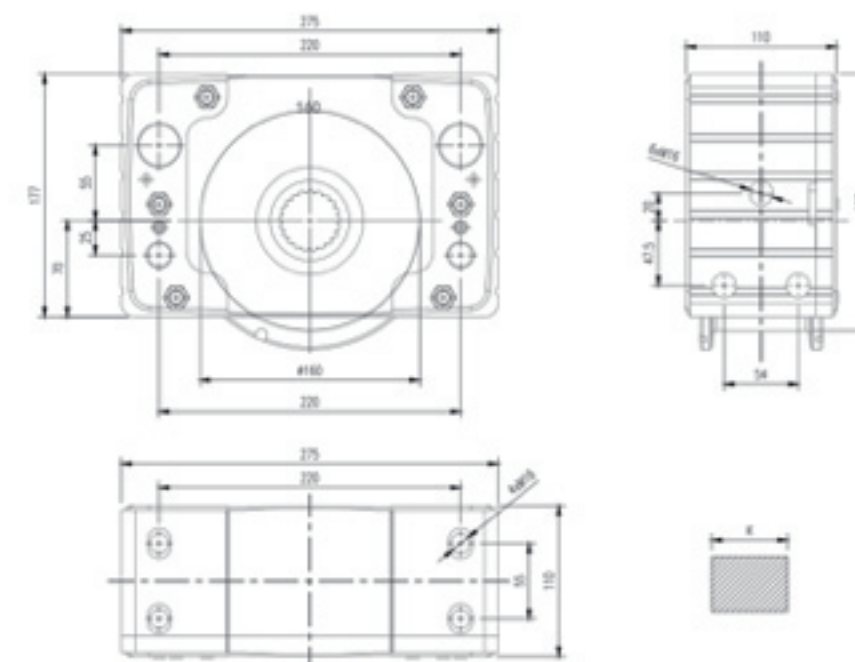
轮箱型号 model	d8	d9	d10	h2	h3	h4	单只轮箱最大重量 Max. weight of wheel block [kg]				
Wheel block		F8					A	B	C	D	E
DRS250	34F8	40	M16x20	281	89	100	-	61	59	57	63
DRS315	40F8	50	M20x20	349.5	114	100	130	121	116	113	126
DRS400	31H13	65	M24x25	440	114	100	130	214	206	197	232

4.3、DRS Wheel Block DRS125



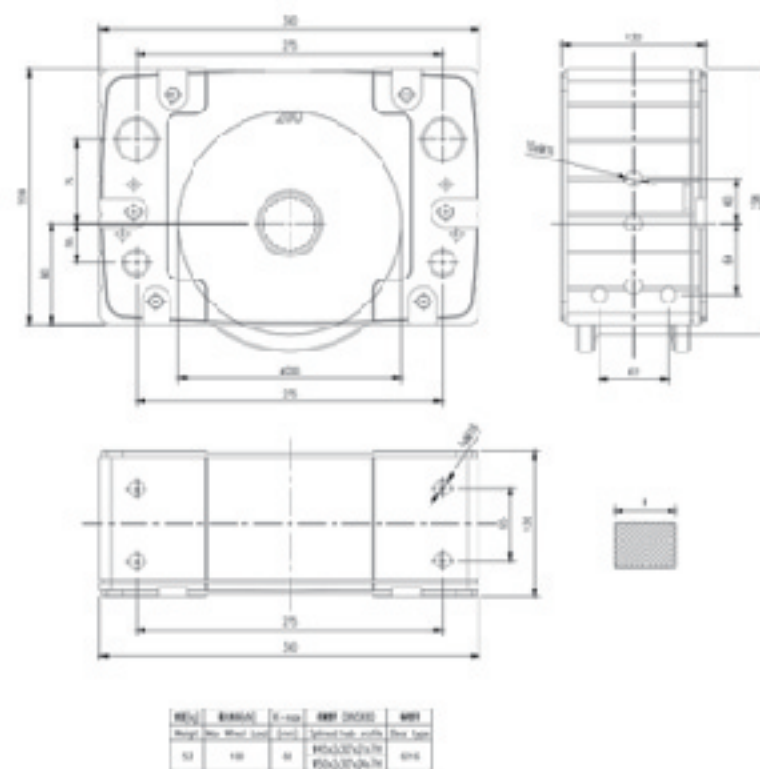
Weight [kg]	Max. Wheel Load [mm]	Max. Wheel Load [mm]	Max. Wheel Load [mm]	Max. Wheel Load [mm]
15	50	50	50	50

4.4、DRS Wheel Block DRS160

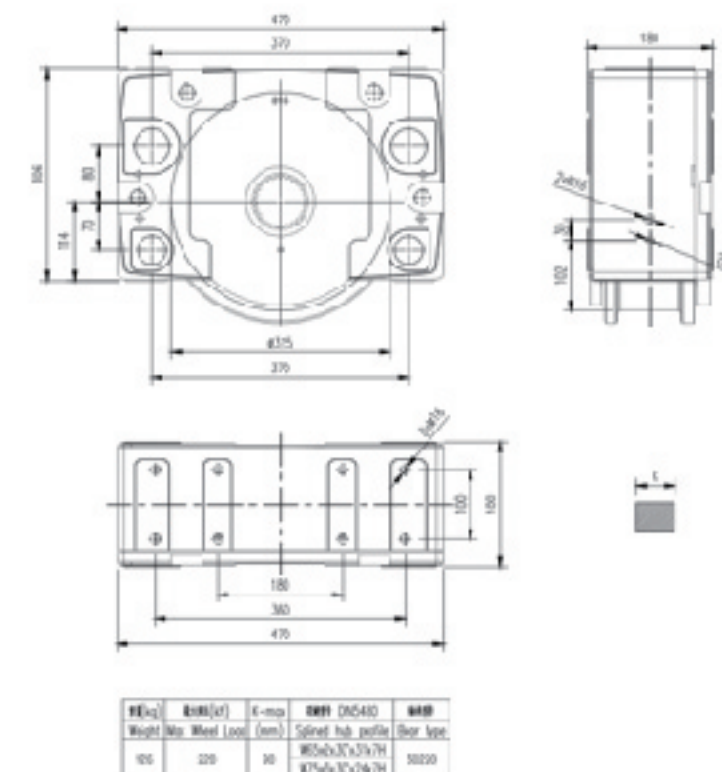


Weight [kg]	Max. Wheel Load [mm]	Max. Wheel Load [mm]	Max. Wheel Load [mm]	Max. Wheel Load [mm]
26.5	70	70	70	70

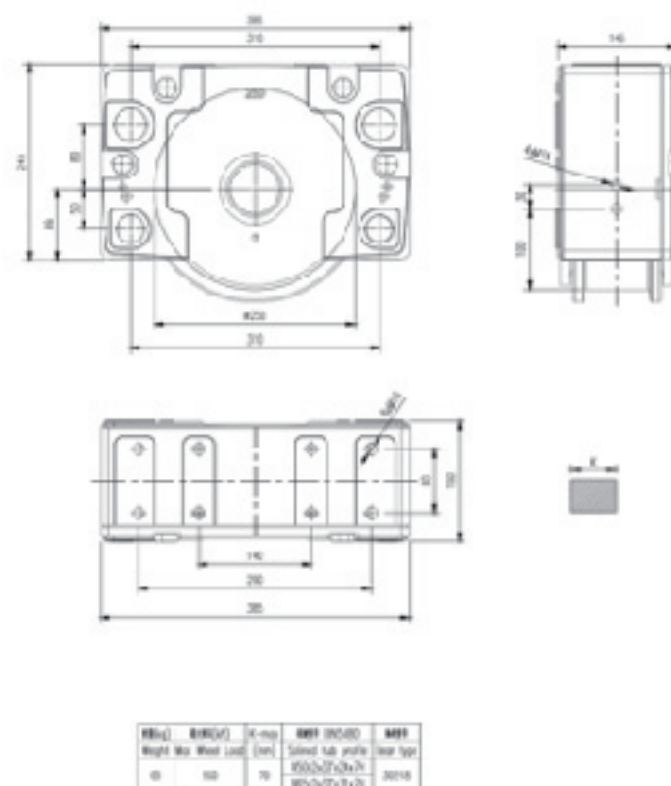
4.5、 DRS Wheel Block DRS200



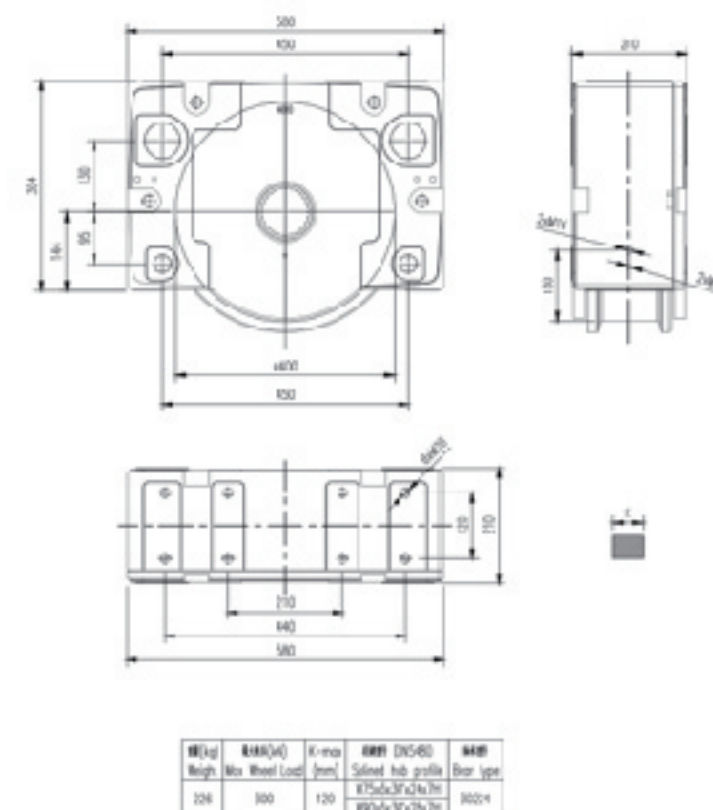
4.7、 DRS Wheel Block DRS315



4.6、 DRS Wheel Block DRS250

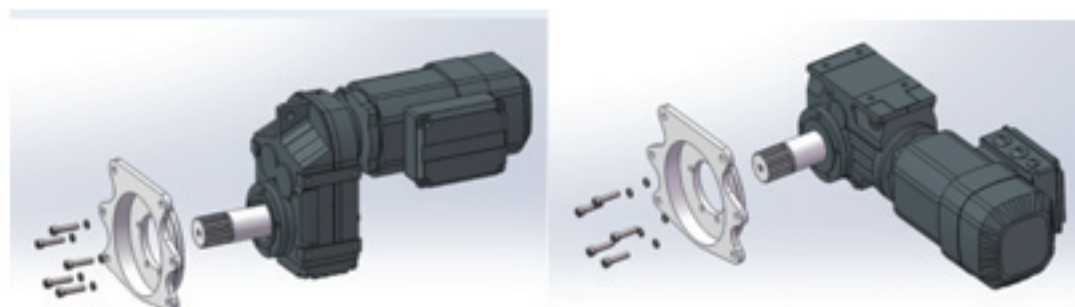


4.8、 DRS Wheel Block DRS400

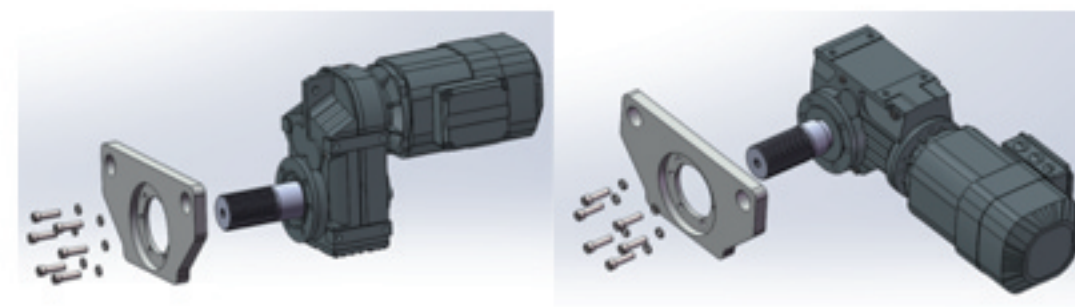


05 DRS轮箱与减速机连接 Drive arrangements

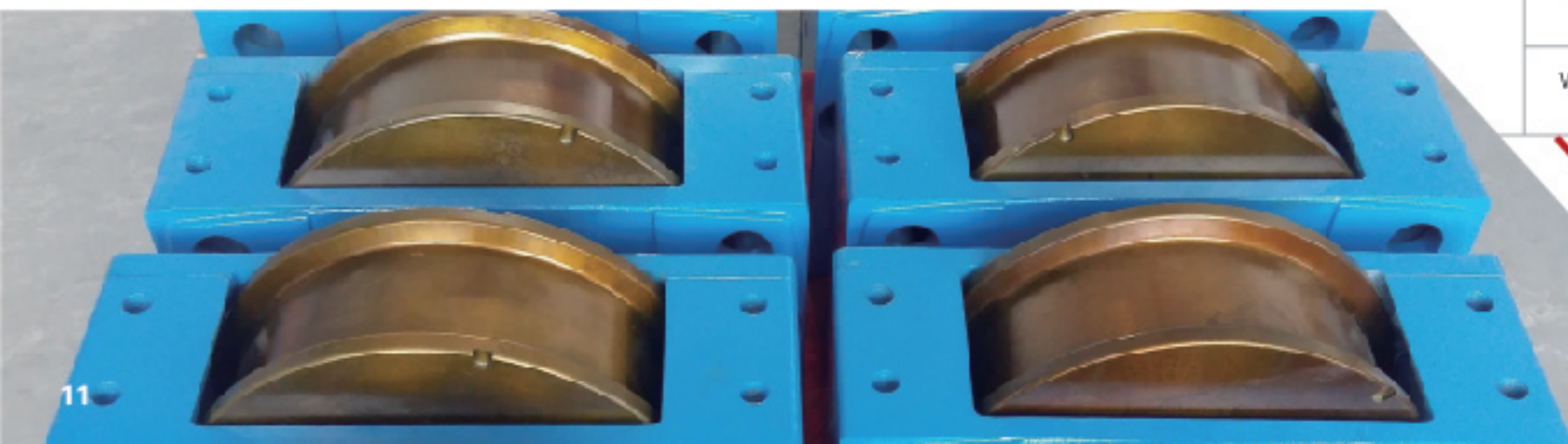
5.1、DRS125-200轮箱减速机连接 drive connection of DRS125-200



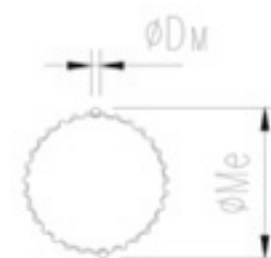
5.2、DRS250-400轮箱减速机连接 drive connection of DRS250-400



5.3、减速机可与设备连接固定，不需要轮箱法兰。 The drive can be fixed to the equipment without flange



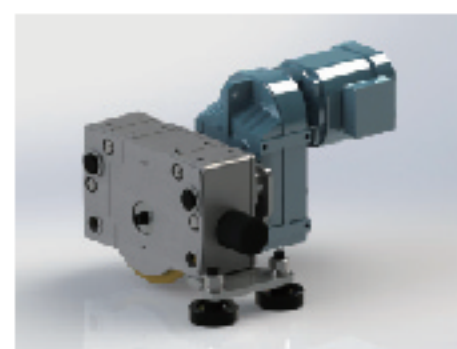
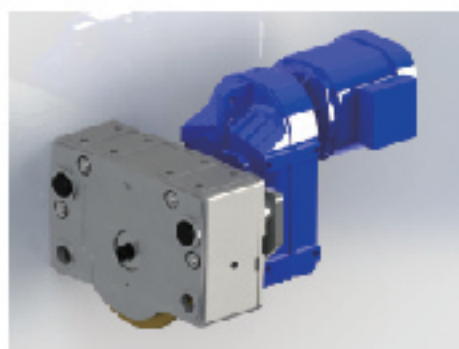
06 DRS轮箱花键 spline shaft



DIN5480花键 spline shaft	检查 直径 Diametral checking Me	量柱 直径 Measuring roller diameter DM	基本数据basic data					内花键hub dimensions		外花键shaft dimensions	
			基准 直径 Refer ence diam eter	模数 Mod ulus	齿 数 tee th	分度圆 直径 Referen ce circle diameter	齿槽宽 /齿厚 Space width /tooth thickness	齿根圆 直径 root circle diameter	齿顶圆 直径 tip circle diameter	齿根圆 直径 root circle diameter	齿顶圆 直径tip circle diameter
压力角30° pressure angle	Me	DM									
W30x1.25x22 H7/g6	33.078- 0.0196	2.75	30	1.25	22	27.5	2.613	30	27.5	27.25	29.75
W35x2x16 H7/g6	38.972- 0.023	4	35	2	16	32	3.603	35	31	30.6	34.6
W45x2x21 H7/g6	48.907- 0.022	4	45	2	21	42	3.603	45	41	40.6	44.6
W50x2x24 H7/g6	54.187- 0.025	4	50	2	24	48	3.026	50	46	45.6	49.6
W65x2x31 H7/g6	69.024- 0.028	4	65	2	31	62	3.603	65	61	60.6	64.6
W75x3x24 H7/g6	81.292- 0.028	6	75	3	24	72	4.539	75	69	68.4	74.4
W90x3x28 H7/g6	95.945- 0.0265	6	90	3	28	84	6.271	90	84	83.4	89.4
W110x3x35 H7/g6	116.036- 0.0306	6	110	3	35	105	5.694	110	104	103.4	109.4

07 DRS轮箱轮压参数 wheel load parameters

车轮规格 Wheel diameter mm	速度 speed m/min	轨道对应最大轮压 (kN) Max wheel load							
		P15	P22	P30	P38	P43	P50	QU70	QU100
125	20	13.5	13.5	13.5	13.4	13.4	13.4	20.2	/
	32	12.3	12.3	12.3	12	12	12	18.5	/
	40	11.6	11.6	11.6	11.3	11.3	11.3	17.4	/
160	20	16.9	16.9	16.9	16.5	16.5	16.5	24.2	24.2
	32	15.5	15.5	15.5	15.2	15.2	15.2	22.2	22.2
	40	15.1	15.1	15.1	14.8	14.8	14.8	21.7	21.7
200	20	21.5	21.5	21.5	21.1	21.1	21.1	28.9	28.9
	32	19.8	19.8	19.8	19.4	19.4	19.4	26.6	26.6
	40	19.1	19.1	19.1	18.8	18.8	18.8	25.7	25.7
250	20	/	28.9	28.9	28.3	28.3	28.3	35.9	35.9
	32	/	27.2	27.2	26.6	26.6	26.6	33.8	33.8
	40	/	26	26	25.5	25.5	25.5	32.4	32.4
315	20	/	38.2	28.2	37.4	37.4	37.4	48.2	48.2
	32	/	36.3	36.2	35.6	35.6	35.6	45.9	45.9
	40	/	35.2	35.2	34.6	34.6	34.6	44.5	44.5
400	20	/	/	49.7	49.1	49.1	49.1	67.7	67.7
	32	/	/	46.5	46	46	46	63.3	63.3
	40	/	/	45.6	45.1	45.1	45.1	62.1	62.1



参考计算标准Reference calculation standard

GB/T3811

《起重机设计规范》Crane design specification

JB/T6392

《起重机车轮》Crane wheel

GB2585

《铁路用热轧钢轨》Hot rolled rail for railway

YB/T5055

《起重机用钢轨》Crane rail

GB/T11264

《热轧轻轨》Hot rolled light rail

08 DRS轮箱使用实例 wheel block applications

