
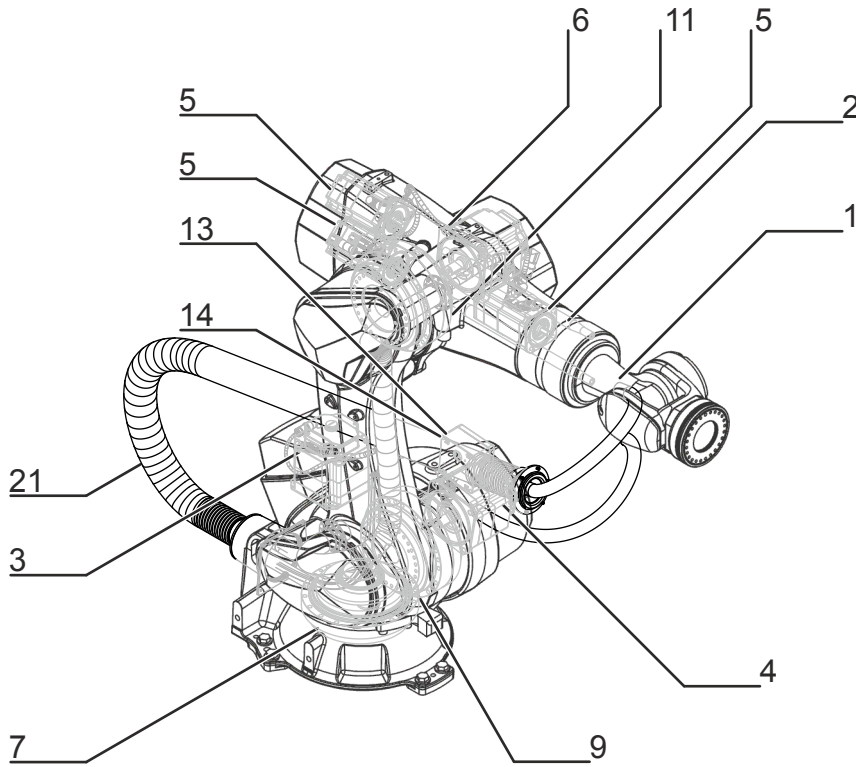


# KUKA | Xpert

Identification number: AR26355

货号	0000-294-633
材料状态	10 - 批准预生产
制造商	KUKA Roboter
产品图片	

# Spare parts



Spare parts graphic KR 180 R2100 nano F exclusive , schematic representation

Pos.	Article number	Designation	Component	Work instruction
1	0000-310-779	SPP IW 180 F exclusive	In-line wrist	
2	0000-269-586	SPP connecting shafts, A4, A5	Connecting shaft	
3	0000-192-296	SPP AC servomotor G1/1FK7100	Motor A1	Exchanging motor A1 Exchanging motor A3
4	0000-310-786	SPP AC servomotor A01/1FK7105	Motor A2	Exchanging motor A2
5	0000-192-297	SPP AC servomotor D01/1FK7063	Motor A4 Motor A5 Motor A6	Exchanging motor A4 Exchanging motor A5 Exchanging motor A6
6	0000-310-788	SPP AC servomotor 1FK7101	Motor A3	Exchanging motor A3
7	0000-258-634	SPP gear RV-400CS i=198,03 coat.,w/o oil	Gear A1	

Pos.	Article number	Designation	Component	Work instruction
8	0000-192-640	SPP Input shaft kit RV-700CS-198,03	Gear unit input shaft A1	
9	0000-310-793	SPP gear unit RV700N i=284, ctd, w/o oil	Gear A2	
10	0000-310-795	SPP input shaft inst. kit RV-700N-284.4	Gear unit input shaft A2	
11	0000-258-675	SPP gear RV-320ES I=225 coat., w/o oil	Gear A3	
12	0000-192-637	SPP Input shaft kit RV-320ES-225	Gear unit input shaft A3	
13	0000-246-872	Resolver Digital Converter RDC	RDC	Exchanging the RDC
14	0000-172-903	Electronic Data Storage EDS	EDS	Exchanging the EDS
15	0000-107-331	Gauge cartridge IP67 (A0)		
	0000-106-814	Gauge cartridge IP67 (A20) short		
16	0000-264-559	O-ring 390x3.5		
17	0000-264-560	O-ring 323x3.5		
18	0000-264-562	O-ring 335x3.5		
19	0000-264-561	O-ring 385x3.5		
20	0000-218-643	O-ring 112x1.5		
21	0000-254-030	Cable set 10m CON RDCextern	Cable set	Exchanging the cable set
22	0071-052-065	Adapter motor cable A/A0		

Export to Excel 

# Maintenance information

## Gear oil



The quantity of oil drained depends on the draining time and the oil temperature. The refilling quantity is the quantity of oil that was drained from the gear unit at the correct operating temperature and with the correct draining time. This oil quantity must be determined. Only this quantity of oil may be used when refilling.

If less than 70 % of the specified oil quantity flows out, flush the gear unit with the determined quantity of drained oil once, then pour in the amount of oil that was drained. If less than 50% of the specified oil quantity flows out (e.g. inclined installation), the flushing operation must be repeated twice. During the flushing procedure, move the axis at jog velocity throughout the entire axis range.

The oil quantities specified in the table correspond to the oil quantities in the gear unit at first filling.

Gear oil new filling quantity	
A1	6.00 l
A2	2.40 l
A3	1.90 l
A4	2.10 l
A5	0.90 l
A6	1.00 l
Gear oil refilling quantity	
A1	-
A2	-
A3	-
A4	-
A5	-
A6	-

# 技术数据

## 基本数据

	KR 180 R2100 nano F exclusive
轴数	6
可控制的轴数	6
工作空间体积	29.7 m <sup>3</sup>
位姿重复精度 (ISO 9283)	± 0.05 mm
重量	约 998 kg
额定负荷	180 kg
最大负载能力	-
最大运动范围	2100 mm
防护等级 (IEC 60529)	IP65 / IP67 / IP69
机器人腕部防护等级 (IEC 60529)	IP65 / IP67 / IP69
噪声等级	< 75 dB (A)
安装位置	地面
占地面积	850 mm x 615 mm
运动系统安装面布孔图	C590
允许倾角	≤ 5 °
标准色	盖板: 不锈钢
控制系统	KR C4
变压器名称	KR C4: KR180R2100 NANO FEX C4 FLR

# 环境条件

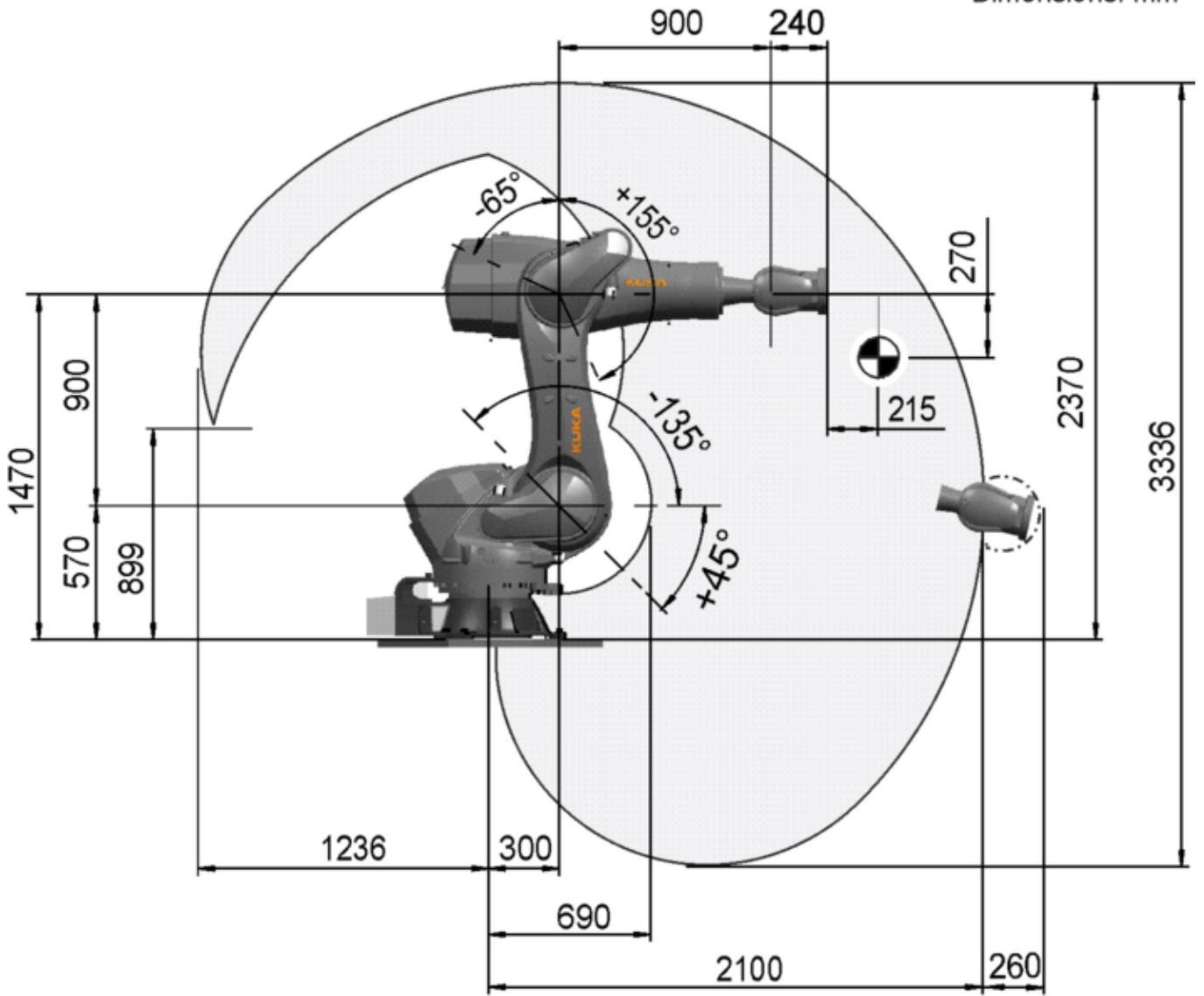
湿度等级 (EN 60204)	-
环境条件分类 (EN 60721-3-3)	3K3; 3Z10
环境温度	
运行时	10 °C 至 55 °C (283 K 至 328 K)
仓储和运输时	-40 °C 至 60 °C (233 K 至 333 K)

# 轴数据

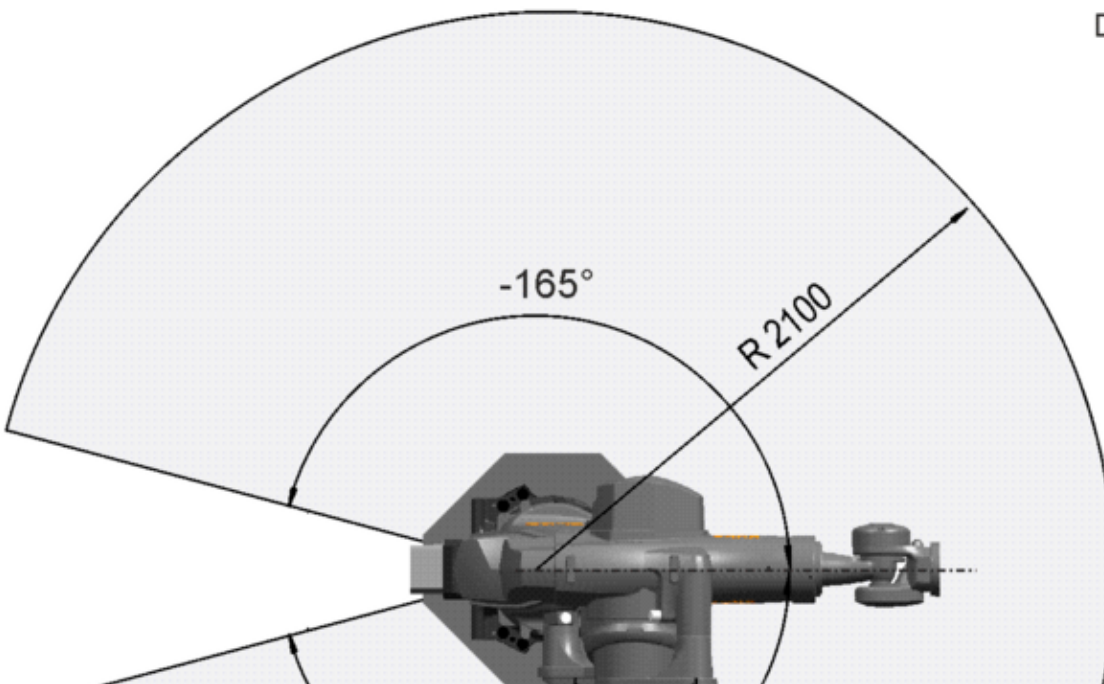
运动范围	
A1	$\pm 165^\circ$
A2	$-135^\circ / 45^\circ$
A3	$-65^\circ / 155^\circ$
A4	$\pm 350^\circ$
A5	$\pm 125^\circ$
A6	$\pm 350^\circ$
额定负载时的速度	
A1	136 °/s
A2	95 °/s
A3	120 °/s
A4	179 °/s
A5	172 °/s
A6	219 °/s

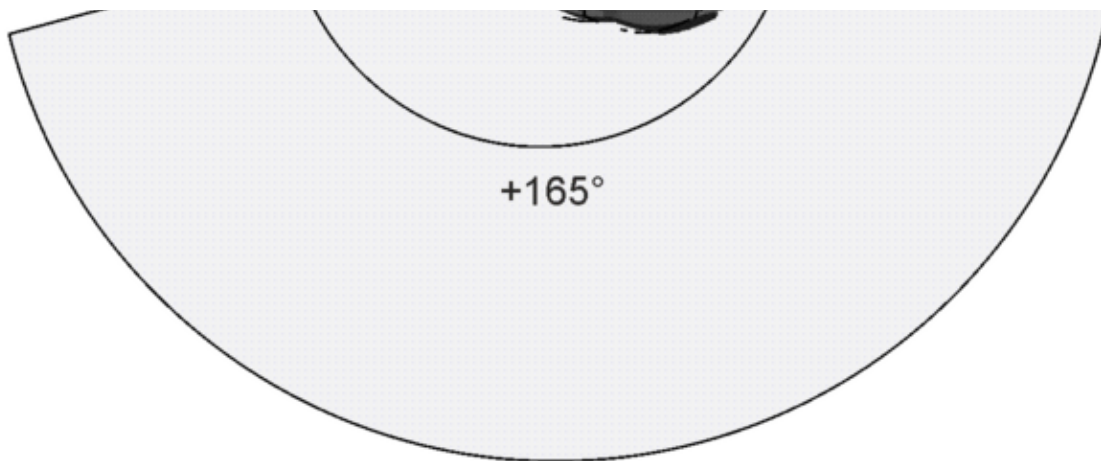
# 工作区域

Dimensions: mm



Dimensions: mm





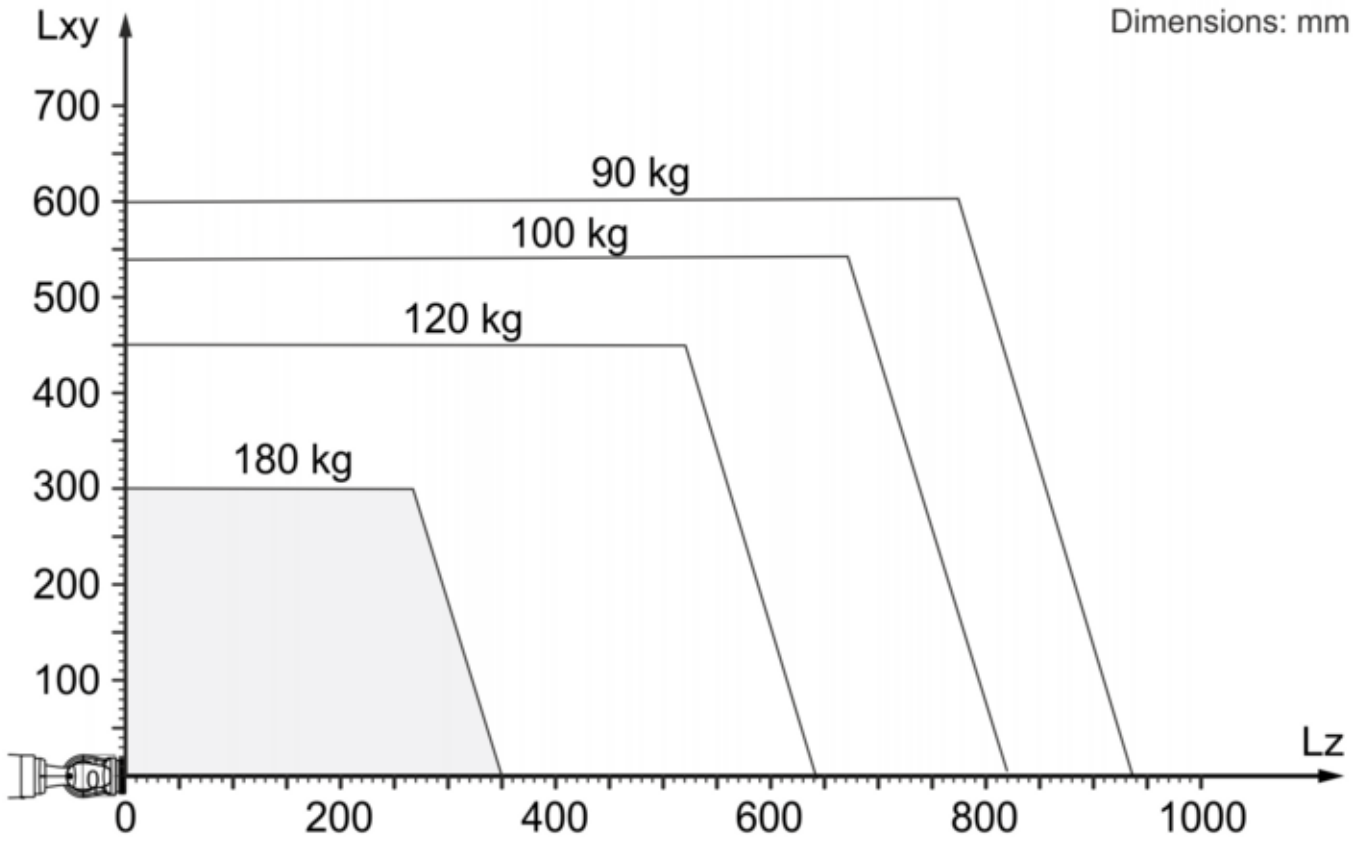
工作区域， KR 180 R2100 nano F exclusive



# 负载能力

额定负荷	180 kg
最大负载能力	-
法兰 <b>I<sub>x</sub></b> 额定质量转动惯量	90 kgm <sup>2</sup>
法兰 <b>I<sub>y</sub></b> 额定质量转动惯量	90 kgm <sup>2</sup>
法兰 <b>I<sub>z</sub></b> 额定质量转动惯量	90 kgm <sup>2</sup>
底座的额定附加负载	0 kg
底座的最大附加负载	0 kg
转盘的额定附加负载	0 kg
旋转机构的最大附加负载	0 kg
大臂的额定附加负载	0 kg
大臂的最大附加负载	0 kg
小臂的额定附加负载	30 kg
小臂的最大附加负载	30 kg
负载重心额定距离	
<b>L<sub>xy</sub></b>	270 mm
<b>L<sub>z</sub></b>	215 mm

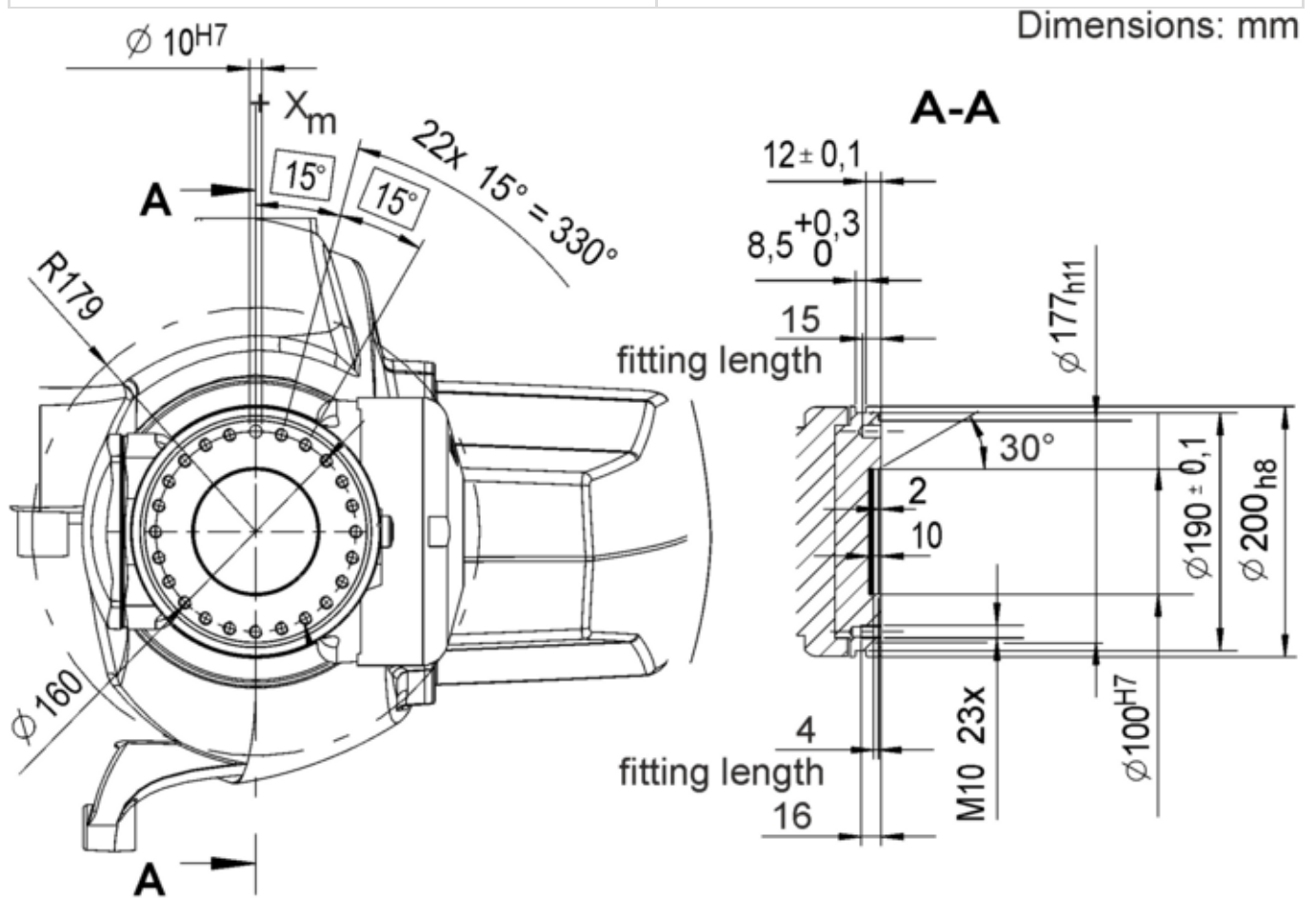
Dimensions: mm



负载能力图，KR 180 R2100 nano F exclusive

# 连接法兰

机器人腕部类型	ZH 180
连接法兰	见图纸



连接法兰 D = 160

# 地基负载

纵向动力 <b>F(v)</b>	
<b>F(v 正常)</b>	14324 N
<b>F(vmax)</b>	14909 N
横向动力 <b>F(h)</b>	
<b>F(h 正常)</b>	4025 N
<b>F(hmax)</b>	4617 N
倾覆力矩 <b>M(k)</b>	
<b>M(k 正常)</b>	13255 Nm
<b>M(kmax)</b>	16946 Nm
轴 2 转矩 <b>M(r)</b>	
<b>M(r 正常)</b>	4333 Nm
<b>M(rmax)</b>	4918 Nm

垂直力  $F(v)$ 、水平力  $F(h)$ 、倾斜力矩  $M(k)$ 、轴 1 的转矩  $M(r)$

# Process forces

Process forces are forces that are exerted on the robot in a defined manner by an external influence. Causes include pressing processes and machining tasks carried out by the robot. The process forces that the robot can withstand depend to a very great degree on the robot position, payload, direction and duration of action. For this reason, it is not possible for a simple limit value to be specified for permissible process forces.

Permissible process torques are therefore specified for all axes of the robot. These values indicate the torque that each robot axis can withstand on a sustained basis as a result of external forces.

The following load torques must not be exceeded:

<b>A1</b>	2900 Nm
<b>A2</b>	4100 Nm
<b>A3</b>	4100 Nm
<b>A4</b>	1100 Nm
<b>A5</b>	1100 Nm
<b>A6</b>	700 Nm

# 关税信息

统计货号	84795000
原产地	DE
制造商	-
重量	998 kg

- 
- > **KR 180 R2100 nano F exclusive** 带有如下的工具 (20)
  - > **KR 180 R2100 nano F exclusive** 带有如下的备件 (18)
  - > **KR 180 R2100 nano F exclusive** 有以下选项 (25)