

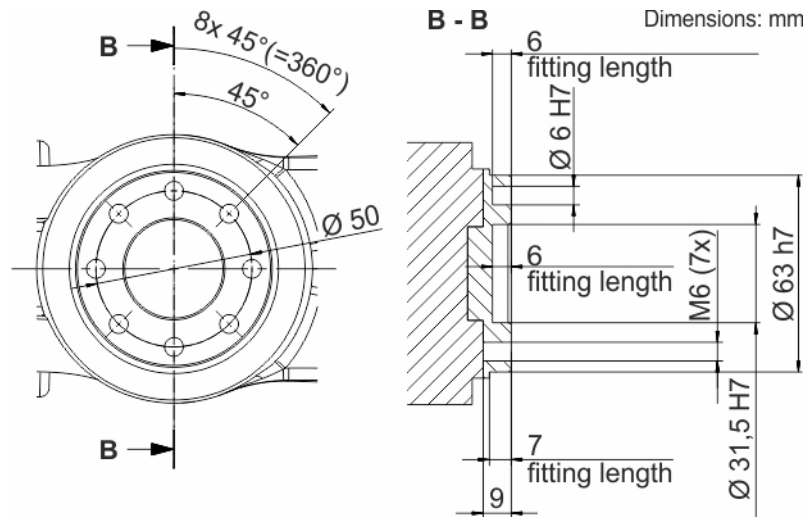
The manipulator is designed for its respective rated payload in order to optimize the dynamic performance of the robot. With reduced load center distances, higher loads up to the maximum payload may be used. The specific load case must be verified using KUKA.Load. For further consultation, please contact KUKA Support.

**Mounting flange**

Designation	Robot wrist type	Mounting flange
KR 8 R2010-2	ZH 8/12/16/20	see drawing
KR 12 R1810-2		
KR 16 R1610-2	ZH 16/22	
KR 16 R2010-2	ZH 8/12/16/20	
KR 20 R1810-2		
KR 22 R1610-2	ZH 16/22	

Mounting flange (hole circle)	50.0 mm
Screw grade	12.9
Screw size	M6
Number of fastening threads	7
Clamping length	1.5 x nominal diameter
Depth of engagement	min. 6 mm, max. 9 mm
Locating element	6 H7

The mounting flange is depicted with axes 4 and 6 in the zero position. The symbol  $X_m$  indicates the position of the locating element (bushing) in the zero position.



**Fig. 4-21: Mounting flange**

**Flange loads**

Due to the motion of the payload (e.g. tool) mounted on the robot, forces and torques act on the mounting flange. These forces and torques depend on the motion profile as well as the mass, load center of gravity and mass moment of inertia of the payload.

The specified values refer to nominal payloads at the nominal distance and do not include safety factors. It is imperative for the load data to be entered in the robot controller. The robot controller takes the payload into