

1.2 INSTALLATION

Fig. 1.2 (a) shows the robot base dimensions. Please use the Installation plate in which the flatness is 0.15 during installation.

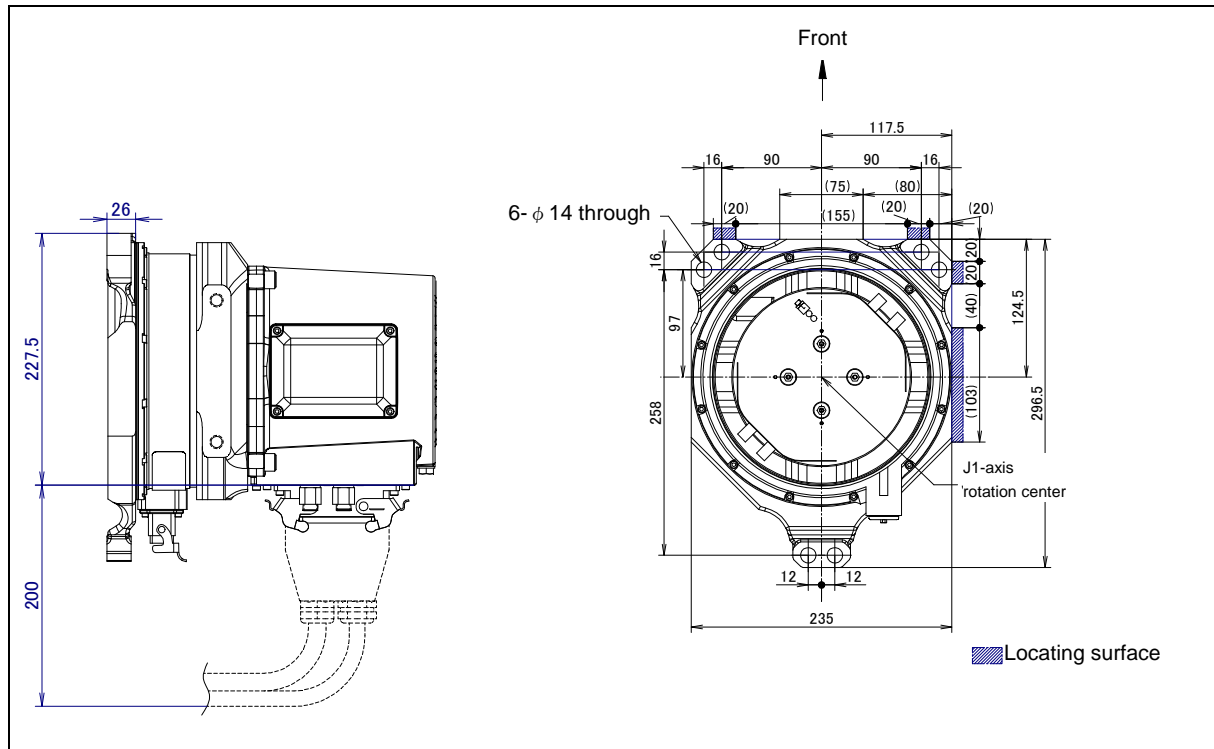


Fig. 1.2 (a) Dimensions of the robot base (back side connector plate)

Prepare the recommended Installation plate for delivering high performance, referring to Fig. 1.2 (b).

Make sure that the area of $296.5\text{mm} + \alpha$, on which the robot base is to be installed, is not painted or fabricated to ensure a level mounting area.

⚠ CAUTION

- Flatness of robot installation surface must be less than or equal to 0.15mm. Inclination of robot installation surface must be less than or equal to 0.5° . The robot may not deliver the high performance if its installed area was not flat enough after installation on the floor. Ensure there is no gapping between the installation plate and the floor; also confirm no foreign materials are between the mounting surfaces. Fill any open spaces or gaps, especially directly underneath the robot base, with shim (spacer), grout or similar method so that the plate does not flex or become warped and so no gaps are present after installation.
- Use six hexagon M12 bolts (Tensile strength $1200\text{N}/\text{mm}^2$ or more), and tighten them diagonally evenly with a force of 94Nm.

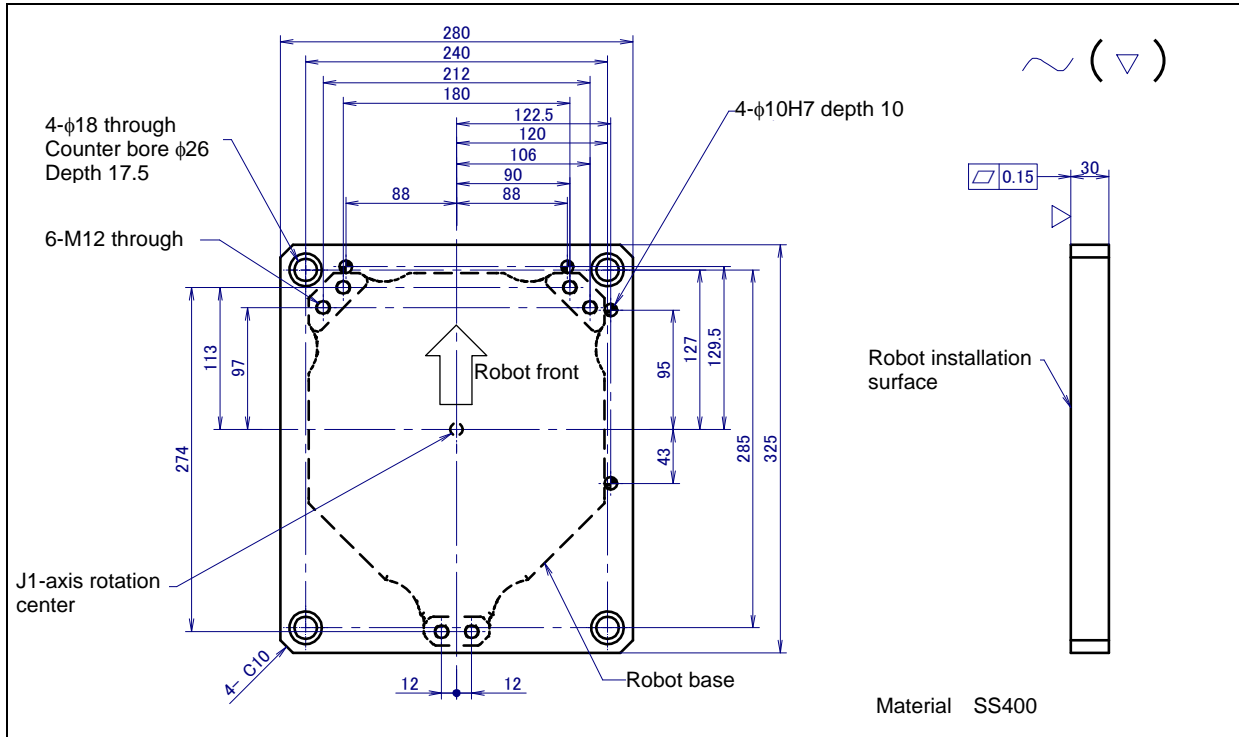


Fig. 1.2 (b) Recommended Installation Plate

Fig. 1.2 (c) and Table 1.2 (a) to (d) indicate the force and moment applied to the base plate. Table 1.2 (e) to (g) indicate the stopping distance and time of the J1 to J3 axis until the robot stopping by Power-Off stop, by Controlled stop or by Smooth stop after input of the stop signal. Refer to the data when considering the strength of the installation face.

NOTE

Table 1.2 (e) to (g) are measured reference value complied with ISO10218-1. Values differ depending on each robot individual difference, payload and the program. So confirm the real value by measurement. Values in Table 1.2 (e) are affected by the robot operating status and number of times of the Power-Off stop. Periodically measure the real values and confirm those.

Table 1.2 (a) Force and moment that acts on J1 base (CR-4iA)

	Vertical moment M_V (Nm)	Force in Vertical direction F_V (N)	Horizontal moment M_H (Nm)	Force in Horizontal direction F_H (N)
During stillness	58.9	509.6	0	0
During acceleration or deceleration	83.9	559.2	43.4	91.3
During Power-Off stop	377.9	864.0	204.6	599.9

Table 1.2 (b) Force and moment that acts on J1 base (CR-7iA)

	Vertical moment M_V (Nm)	Force in Vertical direction F_V (N)	Horizontal moment M_H (Nm)	Force in Horizontal direction F_H (N)
During stillness	115.5	588.0	0	0
During acceleration or deceleration	200.1	793.0	68.3	179.6
During Power-Off stop	704.5	1329.0	382.8	900.3