VS-E Series Vertical articulated robot

VS-6556E Specifications

<table>
<tr><td rowspan="2" colspan="2">Item</td><td colspan="4">Specifications</td></tr>
<tr><td>Standard type</td><td>Dust-proof & splash-proof type</td><td>With brakes</td><td>Dust-proof & splash-proof type with brakes</td></tr>
<tr><td colspan="2">Model name of robot set (Note 1)</td><td>VS-6556E</td><td>VS-6556E-W</td><td>VS-6556E-B</td><td>VS-6556E-BW</td></tr>
<tr><td colspan="2">Model name of robot unit</td><td>VS-6556EM</td><td>VS-6556EM-W</td><td>VS-6556EM-B</td><td>VS-6556EM-BW</td></tr>
<tr><td colspan="2">Overall arm length</td><td colspan="4">270 (first arm) + 295 (second arm) = 565 mm</td></tr>
<tr><td colspan="2">Arm offset</td><td colspan="4">J1 (swing): 75 mm, J3 (front arm): 90 mm</td></tr>
<tr><td colspan="2">Maximum motion area</td><td colspan="4">R = 733 mm (end-effector mounting face)
R = 653 mm (Point P: J4, J5, J6 center)</td></tr>
<tr><td colspan="2">Motion range</td><td colspan="4">J1 : ±170°, J2 : +135°, -100°, J3 : +166°, -119°
J4 : ±190°, J5 : ±120°, J6 : ±360°</td></tr>
<tr><td colspan="2">Maximum payload</td><td colspan="4">5 kg</td></tr>
<tr><td colspan="2">Maximum composite speed</td><td colspan="4">8200 mm/s (at the center of an end-effector mounting face)</td></tr>
<tr><td colspan="2">Position repeatability (Note 2)</td><td colspan="4">In each of X, Y and Z directions: ±0.02 mm</td></tr>
<tr><td colspan="2">Maximum allowable inertia moment</td><td colspan="4">Around J4 and J5: 0.295 kgm^2
Around J6: 0.045 kgm^2</td></tr>
<tr><td colspan="2">Position detection</td><td colspan="4">Simplified absolute encoder</td></tr>
<tr><td colspan="2">Drive motor and brake</td><td colspan="2">AC servomotors for all joints,
Brakes for joints J2 to J4</td><td colspan="2">AC servomotors for all joints,
Brakes for joints J2 to J6</td></tr>
<tr><td colspan="2">User air piping (Note 3)</td><td colspan="4">7 systems (ϕ4x6, ϕ6x1), 3 solenoid valves
(2-position, double solenoid) contained.</td></tr>
<tr><td colspan="2">User signal line</td><td colspan="4">10 (for proximity sensor signals, etc.)</td></tr>
<tr><td rowspan="2">Air source</td><td>Operating pressure</td><td colspan="4">1.0×10^5 Pa to 3.9×10^5 Pa</td></tr>
<tr><td>Maximum allowable pressure</td><td colspan="4">4.9×10^5 Pa</td></tr>
<tr><td colspan="2">Degree of protection</td><td>IP40</td><td>IP54
(Wrist: IP65)</td><td>IP40</td><td>IP54
(Wrist: IP65)</td></tr>
<tr><td colspan="2">Weight</td><td colspan="4">Approx. 28 kg</td></tr>
<tr><td colspan="6">Note 1: The model name of robot set refers to the model name of a complete set including a robot unit and robot controller.
Note 2: Position repeatability is the value at constant ambient temperature.
Note 3: Only the ϕ4x6 air piping system may be controlled by built-in solenoid valves.</td></tr>
</table>

VS-6577E Specifications

Item		Specifications			
		Standard type	Dust-proof & splash-proof type	With brakes	Dust-proof & splash-proof type with brakes
Model of robot system **(Note 1)**		VS-6577E	VS-6577E-W	VS-6577E-B	VS-6577E-BW
Model of robot unit		VS-6577EM	VS-6577EM-W	VS-6577EM-B	VS-6577EM-BW
Overall arm length		365 (first arm) + 405 (second arm) = 770 mm			
Arm offset		J1 (swing): 75 mm, J3 (front arm): 90 mm			
Maximum motion area		R = 934 mm (end-effector mounting face) R = 854 mm (Point P: J4, J5, J6 center)			
Motion range		J1 : ±170°, J2 : +135°, -100°, J3 : +169°, -119° J4 : ±190°, J5 : ±120°, J6 : ±360°			
Maximum payload		5 kg			
Maximum composite speed		7600 mm/s (at the center of an end-effector mounting face)			
Position repeatability **(Note 2)**		In each of X, Y and Z directions: ±0.03 mm			
Maximum allowable inertia moment		Around J4 and J5: 0.295 kgm^2 Around J6: 0.045 kgm^2			
Position detection		Simplified absolute encoder			
Drive motor and brake		AC servomotors for all joints, Brakes for joints J2 to J4		AC servomotors for all joints, Brakes for joints J2 to J6	
User air piping **(Note 3)**		7 systems (φ4x6, φ6x1), 3 solenoid valves (2-position, double solenoid) contained.			
User signal line		10 (for proximity sensor signals, etc.)			
Air source	Operating pressure	1.0×10^5 Pa to 3.9×10^5 Pa			
	Maximum allowable pressure	4.9×10^5 Pa			
Degree of protection		IP40	IP54 (Wrist: IP65)	IP40	IP54 (Wrist: IP65)
Weight		Approx. 29 kg			

Note 1: The model name of robot set refers to the model of a complete set including a robot unit and robot controller.

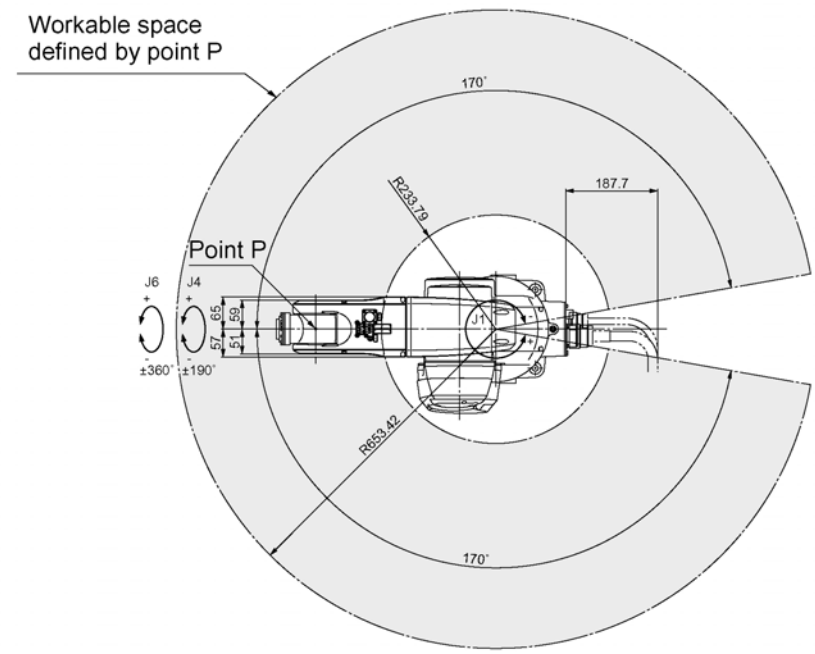
Note 2: Position repeatability is the value at constant ambient temperature.

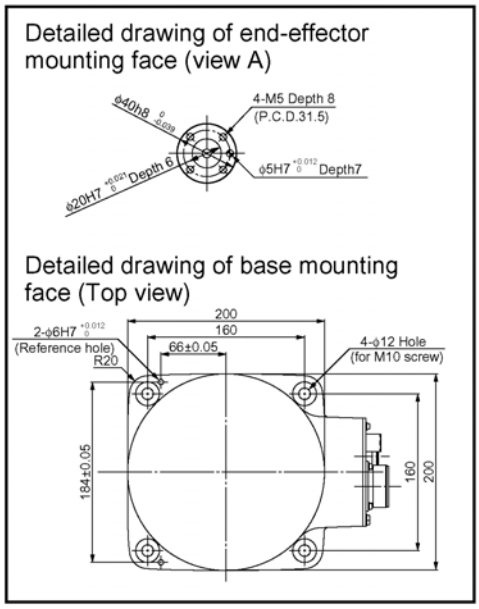
Note 3: Only the φ4x6 air piping system may be controlled by built-in solenoid valves.

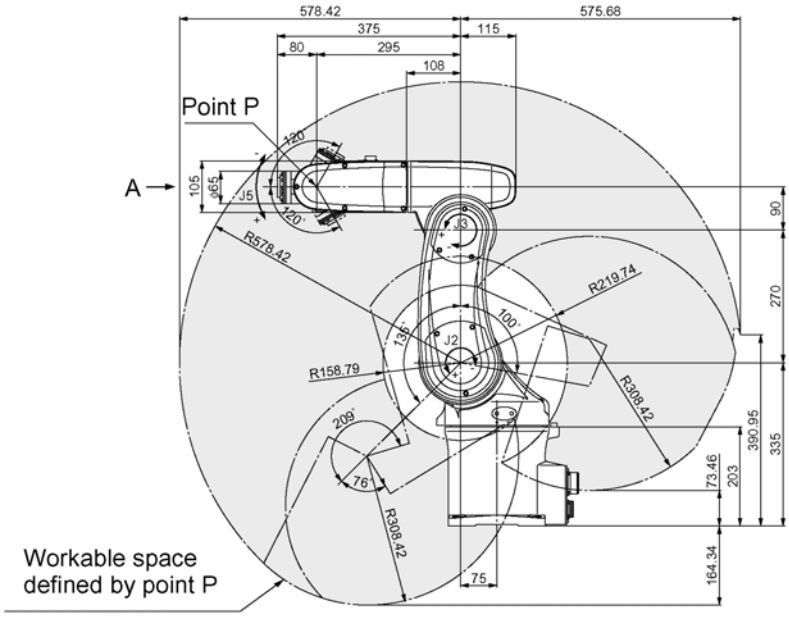
VS-E Series Vertical articulated robot (Standard type)

Outer Dimensions and Workable Space [VS-6556E]

(1) VS-6556E (Standard type)

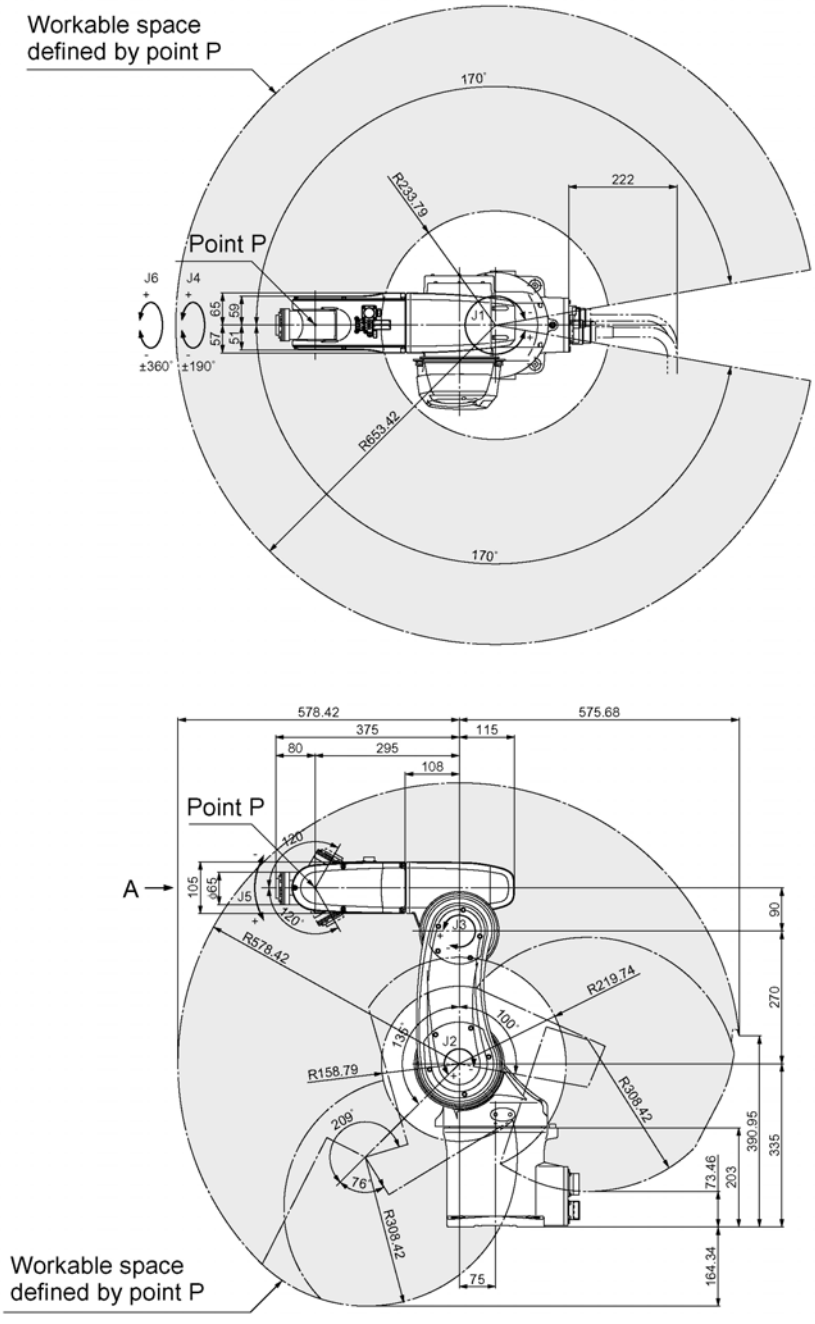


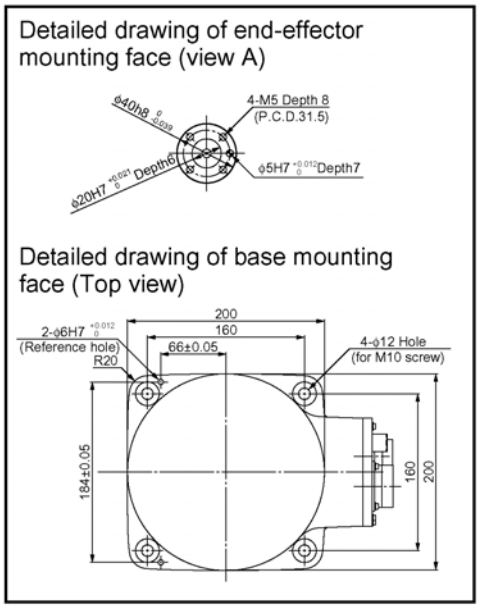




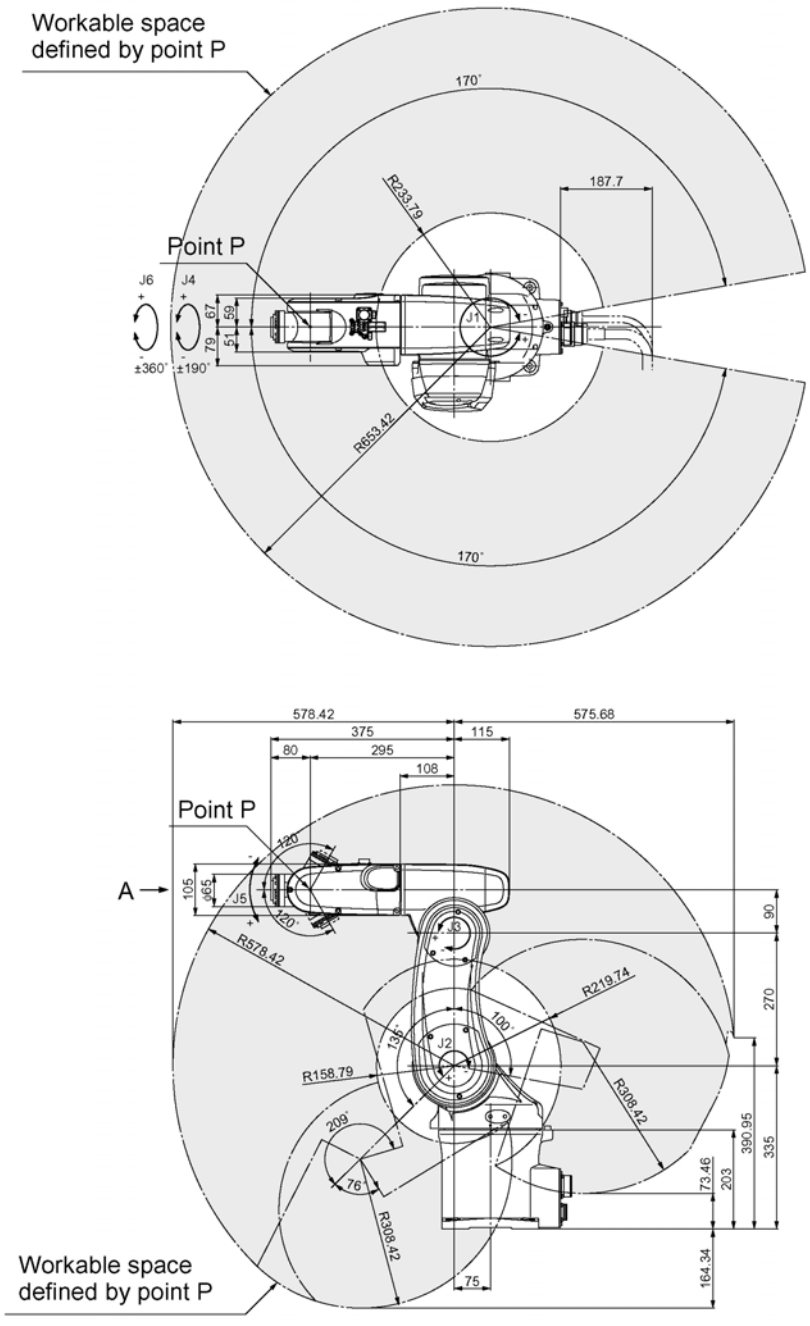
Outer Dimensions and Workable Space [VS-6556E-W]

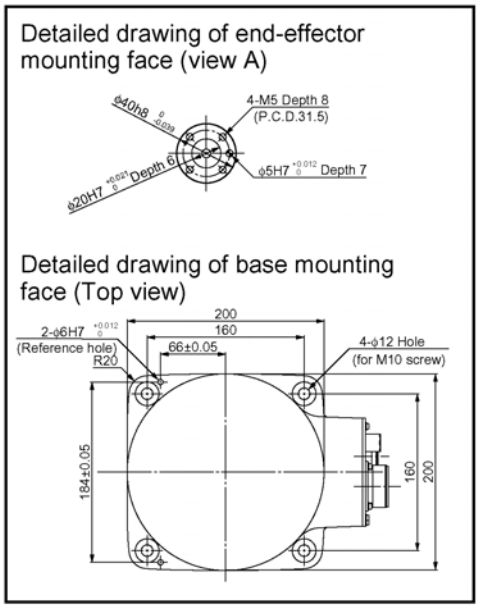
(2) VS-6556E-W (Dust-proof & splash-proof type)



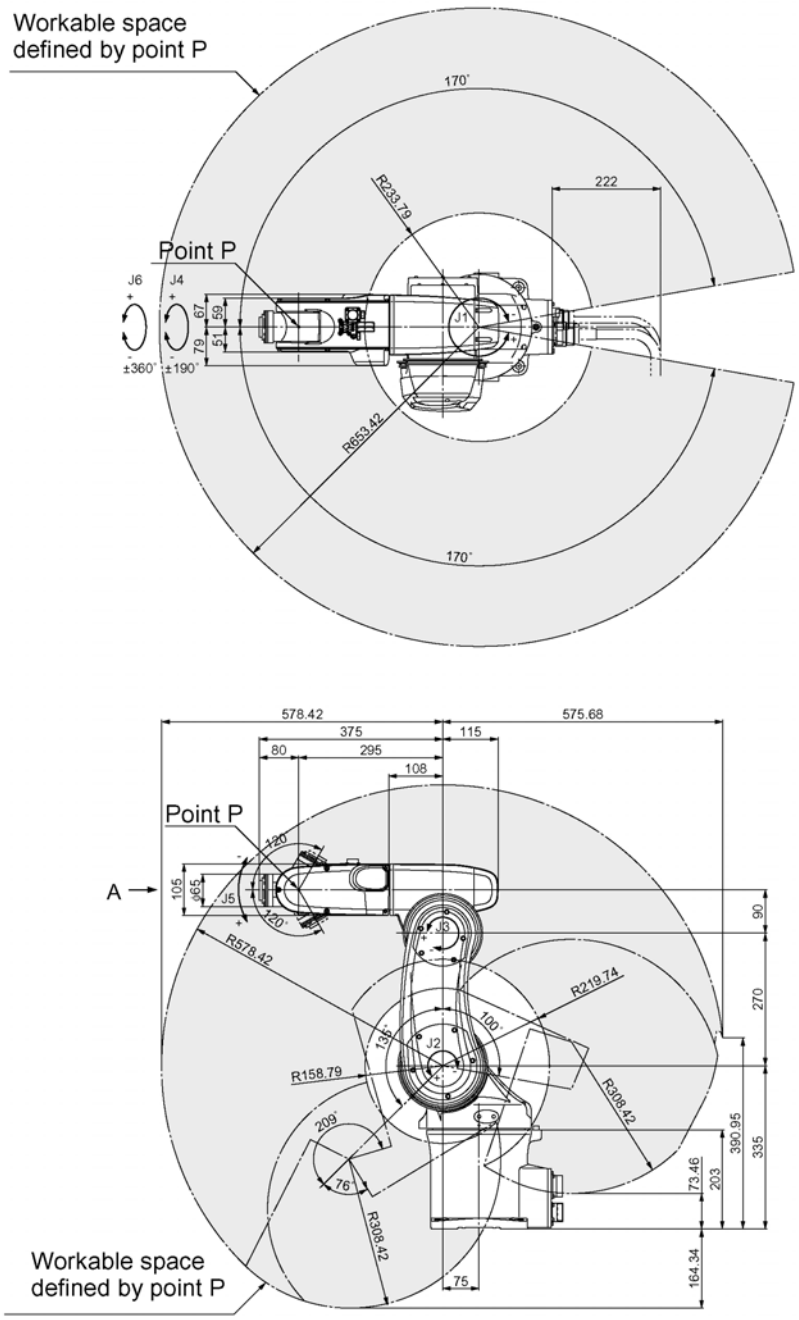


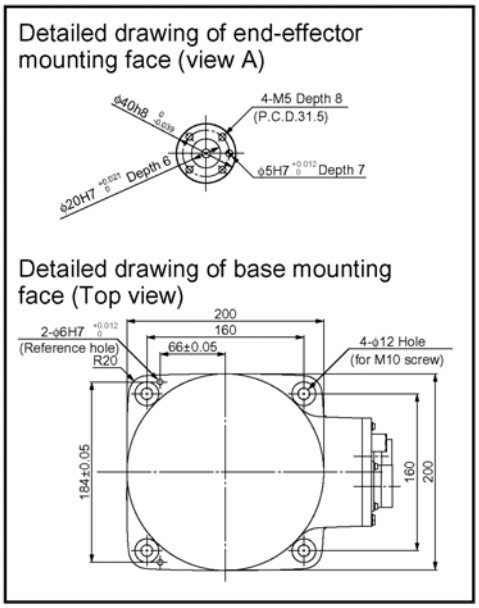
(3) VS-6556E-B (with brakes)





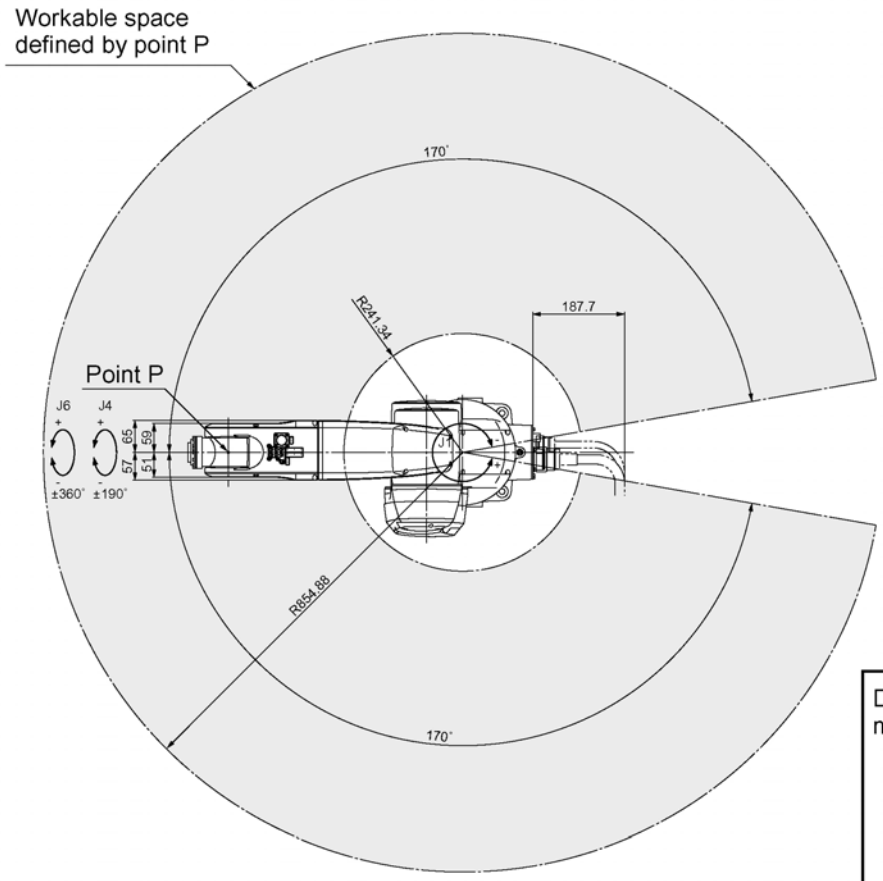
(4) VS-6556E-BW (Dust-proof & splash-proof type with brakes)

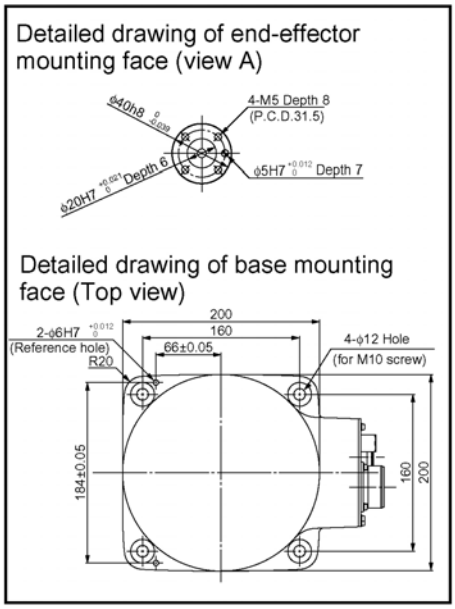


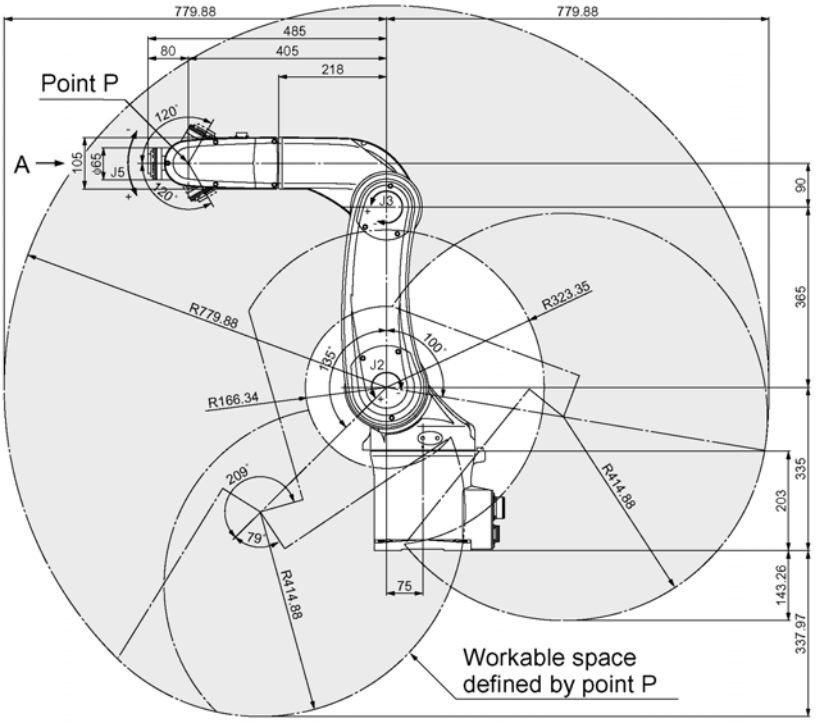


Outer Dimensions and Workable Space [VS-6577E]

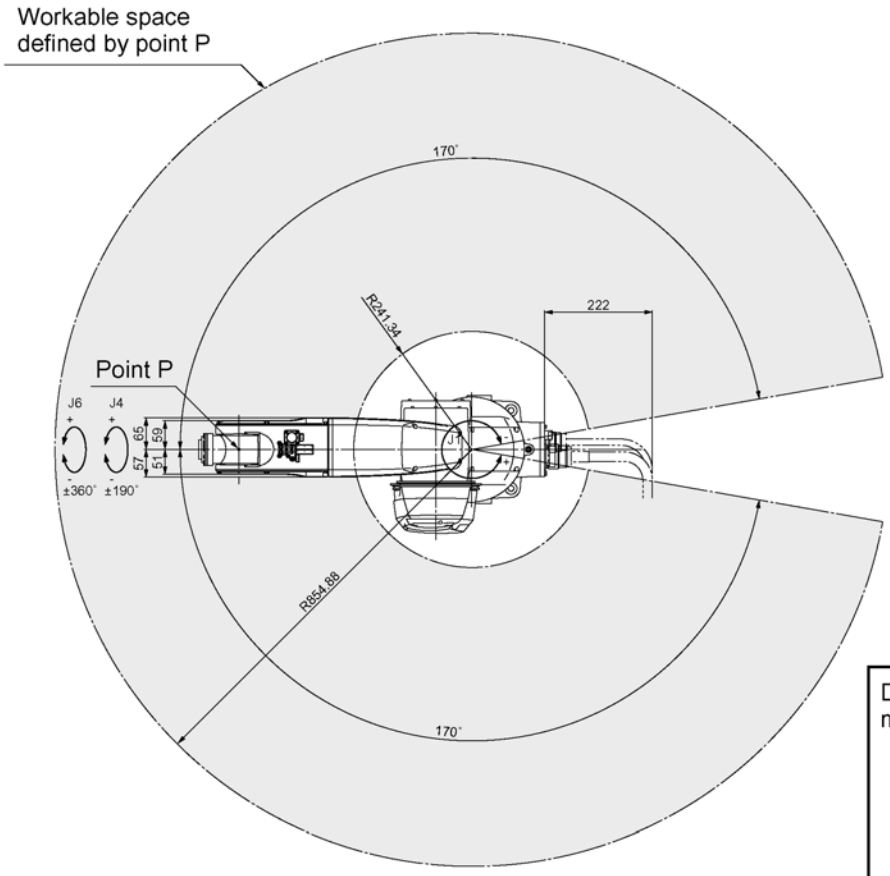
(5) VS-6577E (Standard type)

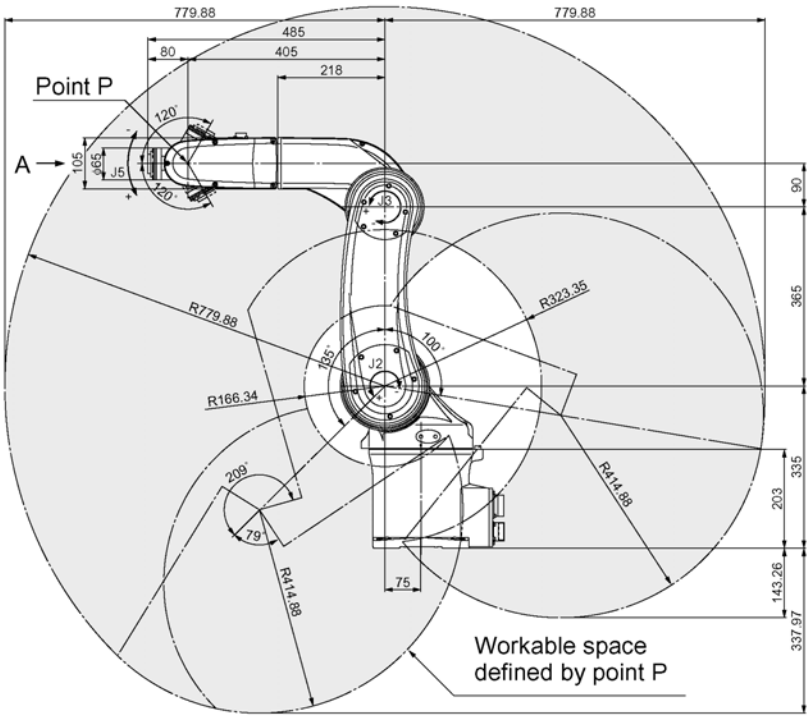


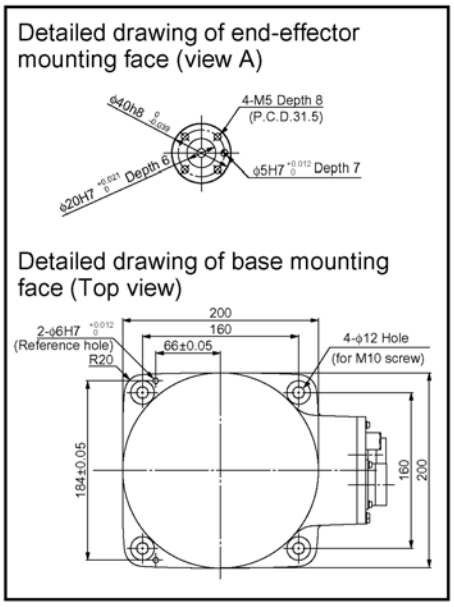




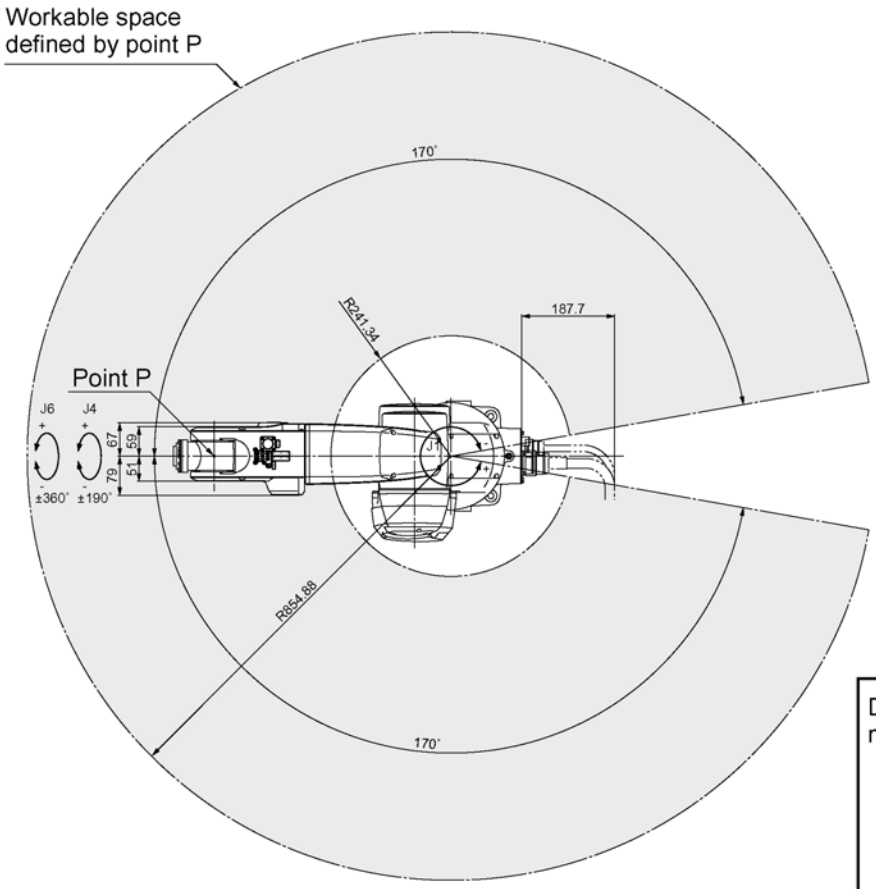
(6) VS-6577E-W (Dust-proof & splash-proof type)

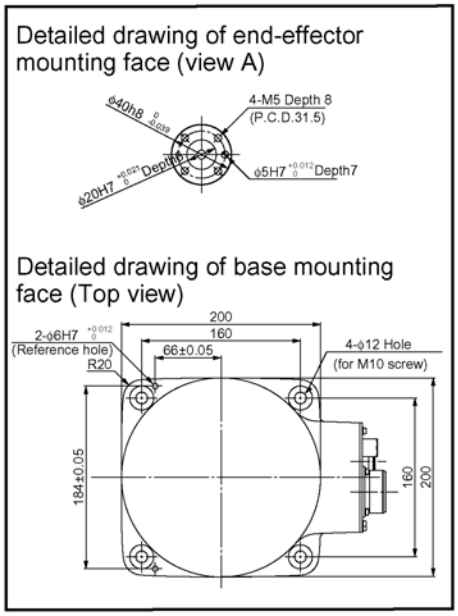


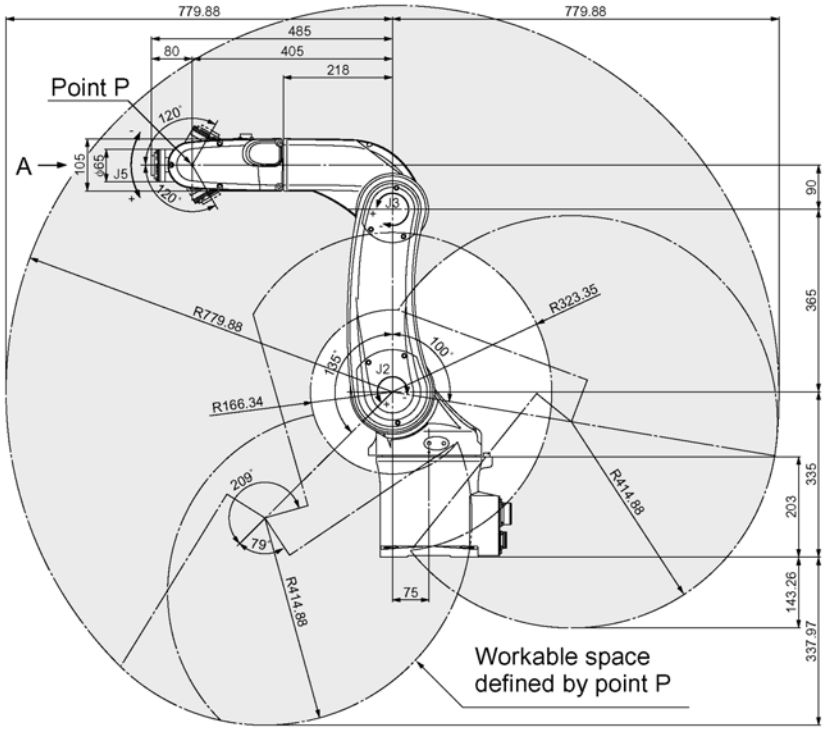




(7) VS-6577E-B (With brakes)







(8) VS-6577E-BW (Dust-proof & splash-proof type with brakes)