

The VS-6556/6577 robots provide high speed and high power in a slim, compact body. A variety of options are available that allow operation in a range of environments.

- Fast cycle times from 0.59 to 0.49 sec
- Excellent repeatability from  $\pm 0.02$  to  $\pm 0.03$  mm
- Payloads up to 7 kg
- High maximum allowable moment of inertia
- Compact design saves floor space, facilitates integration
- Floor- or ceiling-mount, with no special hardware required
- Maximum composite speed: from 7,600 mm/s up to 8,200 mm/s
- Operation in dusty and wet environments (IP65 option)
- Operation in cleanrooms (ISO 4 or 5 option)
- ANSI and CE compliance allows global deployment



## Specifications

	VS-6556	VS-6577
Number of axes	6	
Overall arm length (mm)	565	770
Second-arm width (mm)	110	
Reach (to center of 5th axis, mm)	653	854
Minimum motion area (mm)	234	242
Maximum payload (kg) <sup>1</sup>	7	
Weight, approx. (kg)	35	36
Footprint (mm × mm)	200 × 200	
Cycle time (sec)	0.49 (with 1 kg weight)	0.59 (with 1 kg weight)
Maximum composite speed (mm/sec)	8,200	7,600
Maximum joint speed (°/sec)	J1: 375 J2: 300 J3: 375 J4: 410 J5: 410 J6: 660	
Repeatability <sup>2,3</sup> (mm)	$\pm 0.02$	$\pm 0.03$
Maximum allowable moment of inertia (kgm <sup>2</sup> )	J4, J5: 0.413 J6: 0.063	
Range of motion (°)	J1: $\pm 170$ J2: +135, -100 J3: +166, -119 J4: $\pm 190$ J5: $\pm 120$ J6: $\pm 360$	
Position detection	Absolute encoder	
Drive motors and brakes	AC servomotors on all axes; brakes on 2nd, 3rd and 4th axis (5th and 6th axis optional)	
Air piping (in-arm integrated)	10 lines (max. 1 A per line)	
Wiring (in-arm integrated)	7 systems ( $\phi 4 \times 6$ , $\phi 6 \times 1$ ), three 2-position double solenoid valves	
Protection class	Standard: IP40 Options: IP65/54 (wrist/unit) dust- and mistproof, cleanroom ISO 4 and 5	
Ceiling-mount <sup>4</sup>	✓	

VS-6556



VS-6577

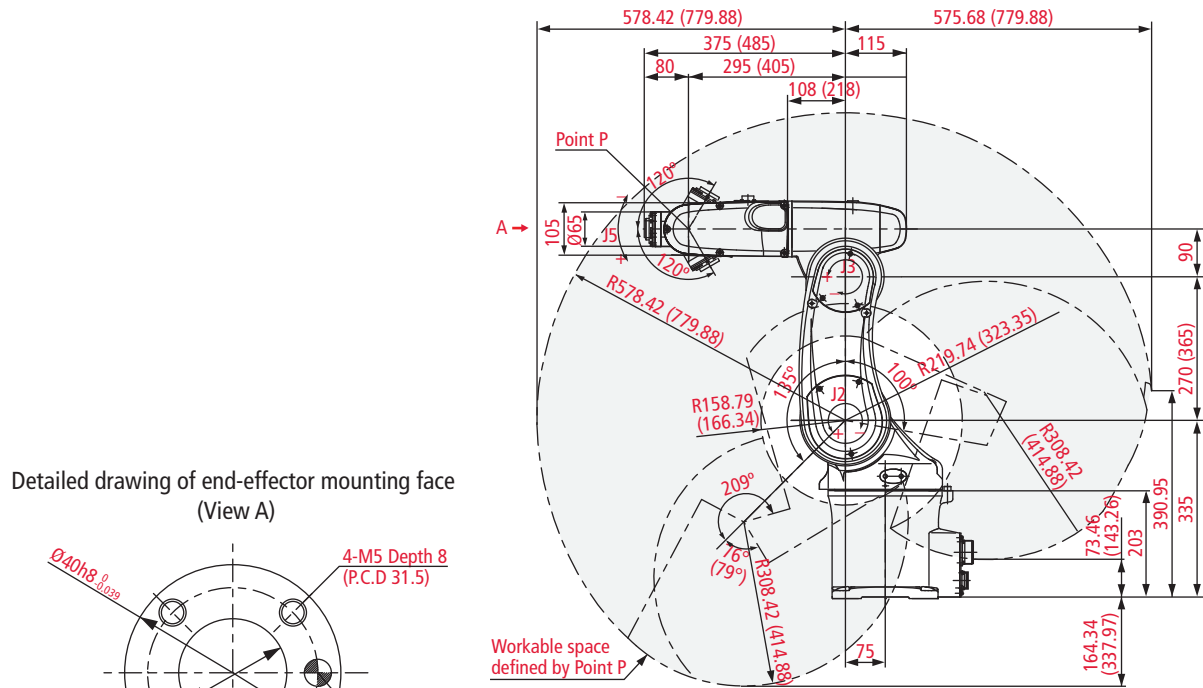


CEILING-MOUNT OPTION

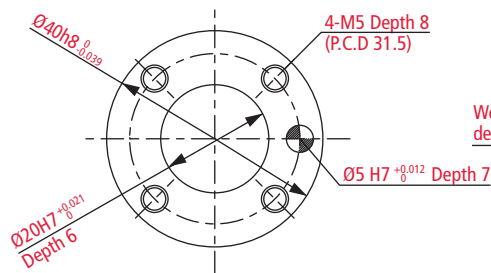


1. If downward movement of wrist and neck exceed  $\pm 45^\circ$ , maximum payload is 6 kg. 2. At constant ambient temperature. 3. In all directions. 4. All except cleanroom models, which can be floor-mounted only.

External Dimensions and Workable Space [ VS-6556-B ]

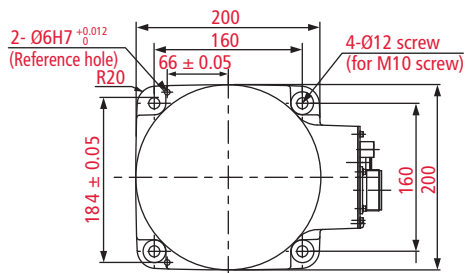


Detailed drawing of end-effector mounting face (View A)

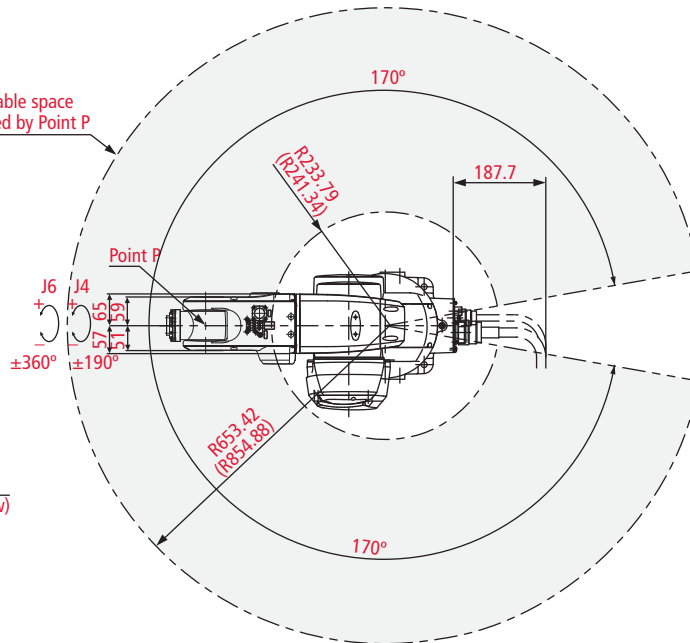


Workable space defined by Point P

Detailed drawing of base mounting face (Top view)



Workable space defined by Point P



Values in parentheses ( ) are for VS-6577.

Unit: mm

**Legend**

VS - 6 5 [ ] [ ] - [ ]

- VS: Small articulated robot
- Axes: 6: 6-axis
- Standard payload: 5: 6 kg  
\*Maximum payload is 7 kg
- Total arm length: 56: 650 mm  
77: 850 mm
- Options:
  - None: Standard
  - B: With brake
  - W: Dust- and splashproof (wrist: IP65, unit: IP54)
  - BW: With brake and dust- and splashproof protection
  - P: Cleanroom (ISO 4 and 5)
  - BP: With brake and cleanroom configuration

The data on this page is for standard models. For other options, visit our website at [www.densorobotics.com](http://www.densorobotics.com).