

## FD-V166H

**High-speed 6-axis production and handling robot for heavy loads (up to 166kg) with integrated cable routing, improved collision protection and easy maintenance.**

The FD-V166 is extremely efficient when handling heavy weights (up to 166kg). Like all robots in the FD series, the FD-V166 also has collision protection through improved fault detection / elimination. Thanks to the easily accessible cable routing, the V166 is very easy to maintain. In addition, the integrated hose package guarantees optimal protection against getting caught during the robot operation.



### Specification

Type	FD-V166H
Number of axes	6
Working range	R 2654 mm
Max. payload capacity	166 Kg
Additional payload capacity Axis 3	45 Kg (Note 7)
Installation type	F
Weight	1060 Kg
Ambient temperature and humidity	0 ~ 45°C, 20 ~ 80 % RH (No condensation)

### Product information

Order No.	116000013
Model No.	0

### Performance

Position repeatability (ISO 9283) +/- 0,1 mm (Note 1)

	Working Range	Max Speed	Wrist load
Axis 1	+/- 180°	2,18 rad/s {125°/s}	
Axis 2	-80° ~+ 60°	2,01 rad/s {115°/s}	
Axis 3	-146,5° ~+ 150°	2,11 rad/s {121°/s}	
Axis 4	+/- 360°	3,14 rad/s {180°/s}	88,9 kg m <sup>2</sup>
Axis 5	+/- 135°	3,02 rad/s {173°/s}	88,9 kg m <sup>2</sup>
Axis 6	+/- 360°	4,54 rad/s {260°/s}	45,0 kg m <sup>2</sup>

Note 1: The value of the positional repeatability is at the tool center point (TCP) compliant to ISO 9283.

Note 2: The value in the parentheses indicates the wall-hung condition. J2 axis may occur the limitation of the working range.

Note 3: There are occasions where restrictions can be made to the operation range of the J2 axis when the wall-hung condition.

Note 4: The operation range of the J3 axis is restricted to -170 degrees to + 180 degrees when floor based welding is applied (In overhead mounting it's a combination of J2 + J3 axis).

Note 5: This is the specification for the case that the coaxial power cable are let into the centrum of J4 and J6 axis. The value given in parentheses presents for other specifications.

Note 6: There are occasions where restrictions can be made to the operation range of the J6 axis, depending on the J5 axis's posture.

Note 7: Max. Load to the upper shoulder, when loading the max. payload capacity at the end effector.

F= Floor W=Wall C=Ceiling