



## Medium Payload Handling Robot

# AII-V50

## AII Series

### WIDE RANGE & POWERFUL ARM

From handling to welding to spot welding and more..

**The AII-V50 provides a wide range of application capabilities!**

Vertical reach up to 2050mm is achievable

Strong wrist suitable for various tasks

Compact, Space-saving body design

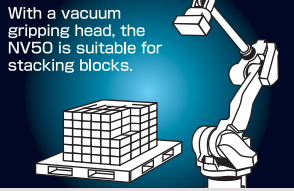
Dust-proof, Water-proof design



# Specifications & Operating envelope

Usage example

Handling, palletizing, grinding ... the strength of the NV-50 is demonstrated in a variety of processes.



## Specifications

Item		Specifications	
Name		NV50	
Structure		Vertical articulated type	
Number of Axes		6	
Maximum Payload Capacity		50kg	
Positional Repeatability		±0.07mm <b>*Note 1</b>	
Driving Method		AC Servo Motor	
Working Range	Arm	J 1 Rotation	±165°
		J 2 Lower arm	-135° ~ +80°
		J 3 Upper arm	-146° ~ +260°
	Wrist	J 4 Swing	±360°
		J 5 Bending	±125°
		J 6 Twist	±450°
Maximum Speed	Arm	J 1 Rotation	3.14rad/s (180°/s)
		J 2 Lower arm	3.14rad/s (180°/s)
		J 3 Upper arm	3.14rad/s (180°/s)
	Wrist	J 4 Swing	4.45rad/s (255°/s)
		J 5 Bending	4.45rad/s (255°/s)
		J 6 Twist	6.46rad/s (370°/s)
Wrist Allowable Load	Allowable Moment	J 1 Rotation	210N·m
		J 2 Lower arm	210N·m
		J 3 Upper arm	130N·m
	Allowable Moment of Inertia <b>*Note 2</b>	J 4 Swing	30kg·m <sup>2</sup>
		J 5 Bending	30kg·m <sup>2</sup>
		J 6 Twist	12kg·m <sup>2</sup>
Arm Cross-sectional Area		7.4m <sup>2</sup> ×330°	
Ambient Temperature/Humidity		0~45°C, 20~85%RH(No Condensation)	
Mass (weight)		640kg	
Upper Arm Maximum Carrying Capacity		15kg	
Installation Method		Floor <b>*Note 3</b>	
Paint Color		Arm : white / Base : blue	
<b>*Note 4</b> Environment Resistance	Arm	IP54 (Full-covered model : IP67)	
	Wrist	IP67	

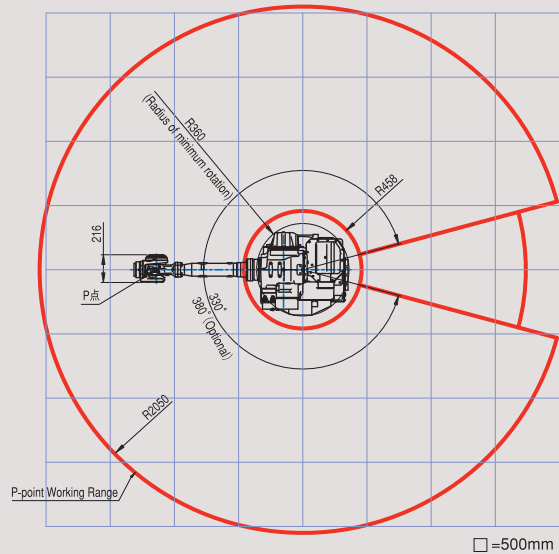
**\*Note 1.** Measured value obtained after sufficient repetition of automatic operation for stabilizing conditions of manipulator operation with upper arm maximum carrying capacity.

**\*Note 2.** It depends on the wrist load conditions.

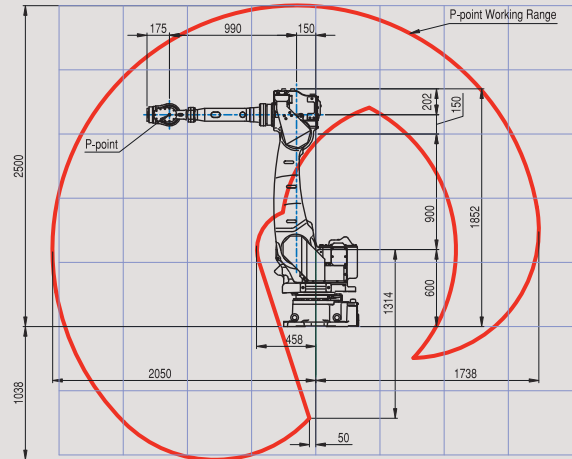
**\*Note 3.** Ceiling, Wall and Steep ground are optional.

**\*Note 4.** Do not use with organic solvent, acid, alkali, chlorine-based, gasoline-based or any other liquid that deteriorate the seal member.

## Specifications



□=500mm



※This figures show working ranges of P-point with no tools mounted.

In accordance with DAIHEN's policy to make continuing improvements, design and/or specifications are subject to change without notice.

## DAIHEN Corporation

4-1, Koyochonishi, Higashinada-ku, Kobe, Hyogo 658-0033, Japan  
 Phone: (Country Code 81) 78-275-2006  
 Fax: (Country Code 81) 78-845-8159

Distributed by :

Dayachand Engineering Industries (P) Ltd.,  
 F-2 Industrial Estate, Begrajpur,  
 Muzaffarnagar (U.P.)-251203  
 Ph. 9997722300, 9897501661  
 Web: www.fairweld.com  
 Email: info@fairweld.com

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 ●This catalog was printed with environmentally-friendly soy oil ink.

