**RVP**<sup>®</sup>

# C Series

## **External Dimensions**





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Nabtesco Europe and Africa

> North and South America India Asia and others

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# New turntable gearhead equipped with a variable height mechanism

# **Nabtesco**

Nabtesco Corporation https://precision.nabtesco.com/ 





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# **Precision Reduction Gear RV™**



C Series



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## **Features**

- A gearhead utilizing the industrial robot industry-proven Precision Reduction Gear RV<sup>™</sup> High accuracy, rigidity, and reliability → Improved welding quality
- A turntable equipped with a tilt axis

Improved workability with human centered design  $\rightarrow$  Reduction of the burden on workers • Faster setting times • Improved mixed model production

Area weldable by robot increased  $\rightarrow$  Robot operating distance reduced  $\rightarrow$  Shorter cycle and reduced production times

• Support for all major servo motor manufacturers Compatible for collaborative work using many different robots

## **Application Example**

Improved workability with human centered design • Faster setting times • Increased flexibility for mixed model production



By varying the height, areas that would normally be unreachable for the robot can be welded



# **Specification Table**

Model		RVP-C40
Maximum allowable load		4,000kg
Maximum center of gravity height		500mm
Maximum tilt angle		±16deg *1
Hollow shaft diameter (Rotary axis/Tilt axis)		Ø85/Ø130
Allowable startup/	Rotary axis	7,840Nm
stop torque	Tilt axis	9,310Nm
Moment of inertia I	Rotary axis	3.40×10 <sup>-3</sup> kg-m <sup>2</sup>
(I=GD <sup>2</sup> /4) motor input conversion	Tilt axis	3.21×10 <sup>-3</sup> kg-m <sup>2</sup>
Backlash · Lost motion		1 arc.min.
Weight		609kg *2
Reduction ratio	Rotary axis	170
	Tilt axis	706.5
(Reference)	Rotary axis	17.6rpm (1.78sec/180deg)
Maximum output speed	Tilt axis	4.2rpm (1.78sec/16deg)

\*1 The maximum tilt angle is ±45 degrees, but may change depending on the load and the center of gravity of the load. For details, please refer to the figure below. Please contact us in advance if you plan to use a tilt angle of more than 25 degrees, as there is some additional work that is required.

\*2 Weight of motor flange and input spline are not included.

# Center of Gravity Height and Allowable Load Range

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 \* Loading beyond this range will exceed the startup/stop torque and/or allowable moment of the reduction gear, and may damage the reduction gear.
\* Loads given are reference values.







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