



Discovering Racer-5 SENSITIVE ENVIRONMENTS

COMAU's Racer-5 SENSITIVE ENVIRONMENTS is designed for industrial sectors, such as Pharma and Cosmetics, Machine tending and Food&Beverage, where particular conditions and specific applications are needed.

These applications require high Ingress Protection level, ISO clean room classification, simplified cleanability, good resistance to chemicals, reduced risk of environment contamination.

Racer-5 SENSITIVE ENVIRONMENTS guarantees lower risks and operating costs while enhancing productivity, traceability and quality with clean room automation solutions.





Features

- 5 kg payload
- 0.63 m and 0.80 m reach (2 configurations)
- 0.03 mm repeatability
- IP67 in all installation positions
- ISO Cleanroom certification - grade 6 (grade 5 at medium speed)
- Possibility of cleaning and decontamination
- Food Grade H1 Grease
- All input connectors and fittings outside of production zone
- Stainless steel screws & covers
- Configurable cabling
- White painted surface suitable for food products contact (Reg Eu 1935/2004, Reg Eu 10/2011 and Reg Eu 1895/2005) for all types of food

Benefits

- High repeatability and accuracy
- High production rate
- Cleaning and decontamination resistant
- Full compatibility with machine/equipment control system (Arm version)
- Easy to program/integrate/use
- Easy to install
- Electrical and air connections near the wrist avoiding external harness

Variants

The Racer-5 Sensitive Environments is at your disposal in different configurations with a payload of 5 kg and individual reaches of 630 mm and 809 mm.

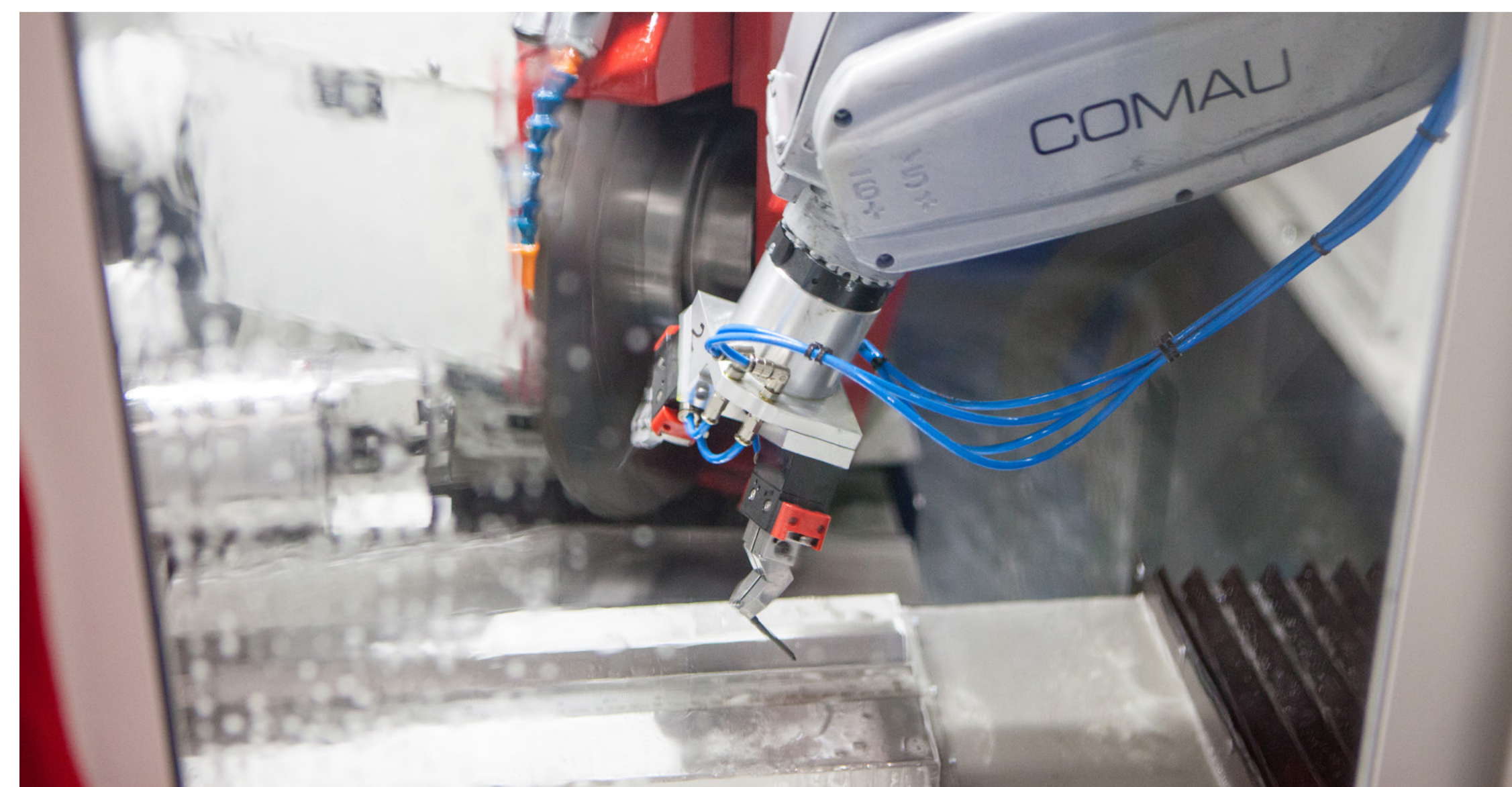
Each model is tabletop, inclined, wall and ceiling mountable.

An additional smooth-wrist version is available without connectors.

An Arm version could be also provided for further control integration.

Application sectors

All those environments that require high Ingress Protection level, ISO clean room classification, simplified cleanability, good resistance to chemicals, reduced risk of environment contamination.



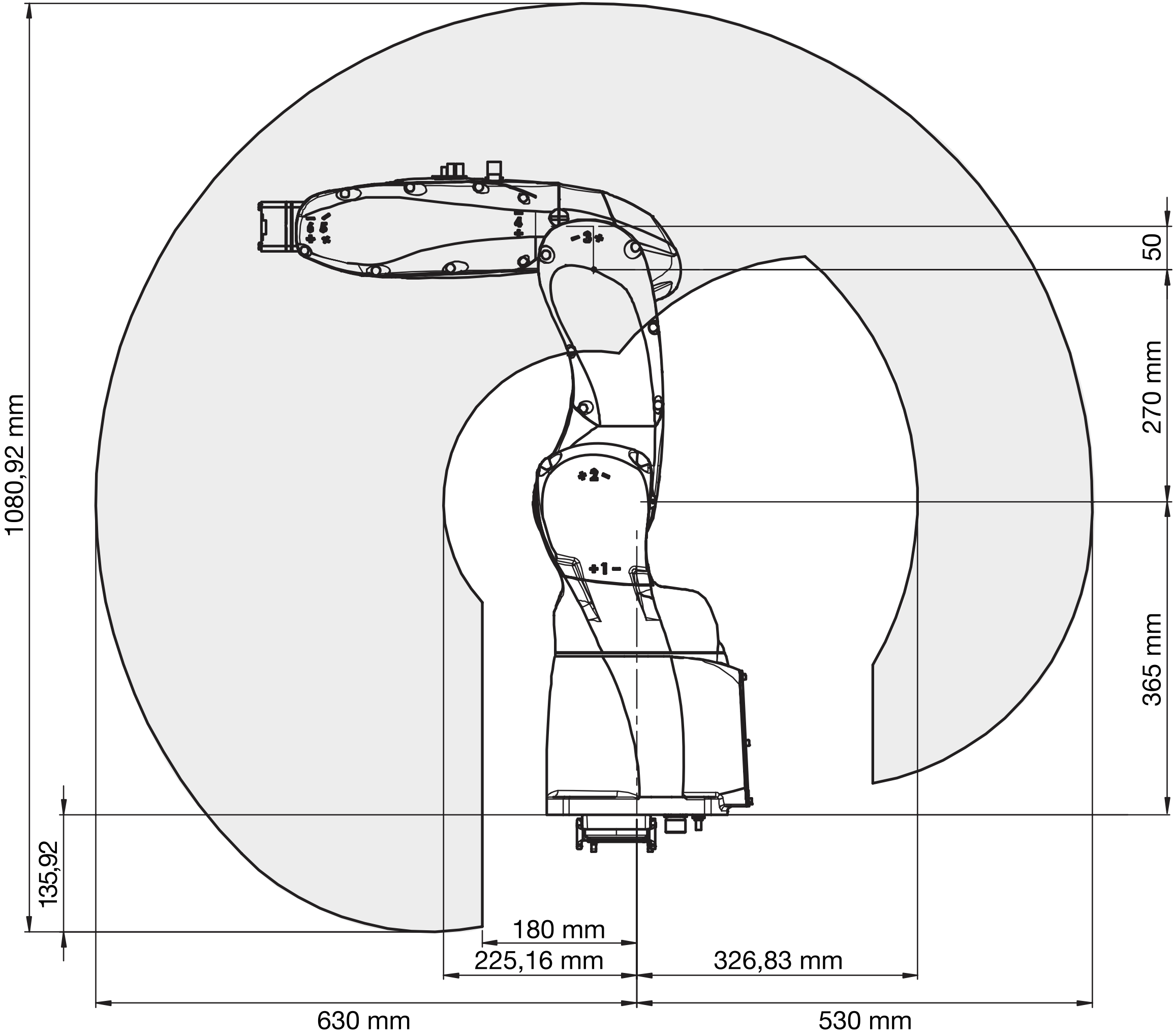
Technical features

VERSION		Racer-5-0.63-SE Racer-5-0.63-SE smooth version	Racer-5-0.80-SE Racer-5-0.80-SE smooth version
Structure / No. of axes		6 axes	
Maximum wrist load		5 kg (11.0 lb)	
Nominal wrist load		1 kg (2.2 lb)	
Axis 4 torque		8.83 Nm	
Axis 5 torque		8.83 Nm	
Axis 6 torque		4.91 Nm	
Admissible inertia on axis 4		0,42 kg x m²	
Admissible inertia on axis 5		0,42 kg x m²	
Admissible inertia on axis 6		0,18 kg x m²	
Stroke / Speed)	Axis 1	+/- 170° (400°/s) *1	
	Axis 2	-95° / +135 ° (360 °/s)	-85° / +135 ° (360 °/s)
	Axis 3	-155° / +90° (400 °/s)	
	Axis 4	+/- 200° (500 °/s)	
	Axis 5	+/- 125° (500 °/s)	
	Axis 6	+/- 2700° (800 °/s)	
Max horizontal reach		630 mm (2.07 ft)	809 mm (2.65 ft)
Repeatability		+/- 0.03 mm (1.18 mil)	
Robot weight		33 kg (73 lb)	35 kg (77 lb)
Features of the tool coupling Robot wrist		ISO 9409 - 1 - A 25	
Motors		AC Brushless	
Position measurement system		Encoder	
Protection degree		IP67	
Mounting position		Floor / Inverted / Angle / Wall *2	
Operating environment temperature		from 0°C to +45°C (from +32°F to +113°F)	
Storage temperature		from -10°C to +55°C (from +14°F to +131°F)	
Maximum temperature gradient		1,5 °C/min	
Colour White		RAL 9016	
ISO 14644-1 CleanRoom Certification assessment		ISO 6/5 *3	
Use of Food Approved gaskets		Yes	
Use of NSF H1		Yes	

*1 In the case of angle mounted Robot, the stroke of axis 1 must be limited according to the inclination of the angle itself and the payload.
For further details see par. 2.9.4 Axis 1 stroke limitations in case of angle-mounted Robot on page 56.

*2 Not allowed with maximum load

*3 ISO 6 guaranteed up to 80% angular speed of the robot axes (Axis 1: max. 320°/s; Axis 2: max. 288°/s; Axis 3: max. 320°/s;
Axis 4: max. 400°/s; Axis 5: max. 400°/s; Axis 6: max. 640°/s). ISO 5 guaranteed up to 40% angular speed of the robot axes (axis 1: max. 160°/s
axis 2: max. 144°/s; axis 3: max. 160°/s; axis 4: max. 200°/s; axis 5: max. 200°/s; axis 6: max. 320°/s)



Workspace Racer-5-0.63-SE version



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