

TP80 industrial robot



Automotive and equipment
manufacturers

Electronics

Food

Life Sciences and
pharmaceutical

Plastics

Machine Tool

Photovoltaics

TS
Scara / 4 axis

TX
Low payload / 6 axis

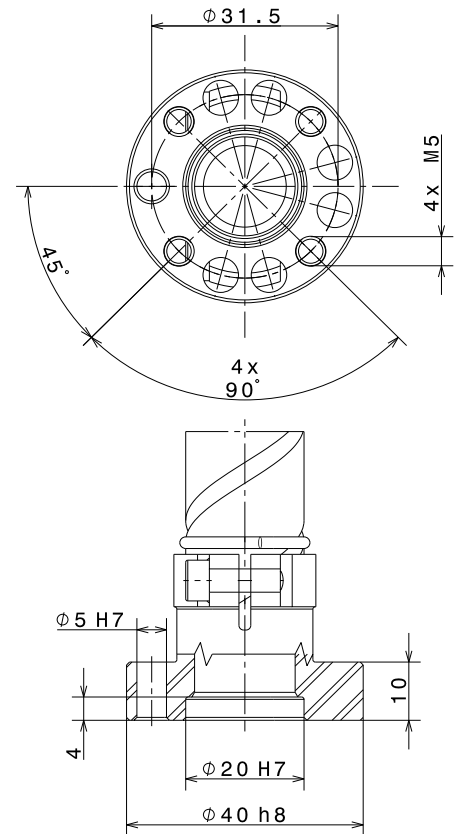
TX/RX
Medium payload / 6 axis

TX/RX
Heavy payload / 6 axis

TP
Picker / 4 axis

MODEL		TP80
Characteristics (preliminary data)		
Maximum load ⁽¹⁾		1 kg
Nominal load		0,5 kg
Reach		800 mm
Number of degrees of freedom		4
Motion range	Angular reach axis 1 (A)	± 117°
	Angular reach axis 2 (B)	± 153°
	Stroke (C1, C2)	100 mm
	Angular reach axis 4 (D)	± 500° ⁽²⁾
Work Envelope	Maximum radius between axis 1 and 3 (R. M)	800 mm
	Minimum radius between axis 1 and 3 (R. m1)	174 mm
Robot cycle-time ⁽³⁾ , sustained, at 25°C temperature	25-300-25 mm cycle:	up to (ppm = picks per minute)
	0,1 kg load	200 ppm
	0,5 kg load	185 ppm
	1 kg load	170 ppm
	50-700-50 mm cycle:	up to
	0,1 kg load	110 ppm
	0,5 kg load	105 ppm
	1 kg load	95 ppm
Repeatability - ISO 9283		< ± 0,05 mm
Maximum inertias (Axis 4)		0,014 kg.m ²
Weight		71 kg
User interface		
	On forearm	On tool flange (optional)
Electrical cables	8 x (2 x 0,21 mm ²) (AWG24) shielded	8 x (2 x 0,21 mm ²) (AWG24) shielded
Pneumatic lines	1 x Ø4 mm + 1 x Ø6 mm	1 x Ø4 mm + 1 x Ø6 mm (coupling of 2 x Ø4 mm)
Tension & maximum current by contact		24 VDC - 2A
Cleanroom standard - ISO 14644-1 (version with bellows)		6 / 5 ⁽⁴⁾
Protection class according to standard NF EN 60529		IP54 standard, IP65 with bellows
Stäubli CS8 series controller		CS8C
Installation environment		
Working temperature according to standard directive NF EN 60 204-1		+5°C to +40°C
Humidity according to standard directive NF EN 60 204-1		30% to 95% max. non-condensing
Attachment methods		Wall

Tool flange



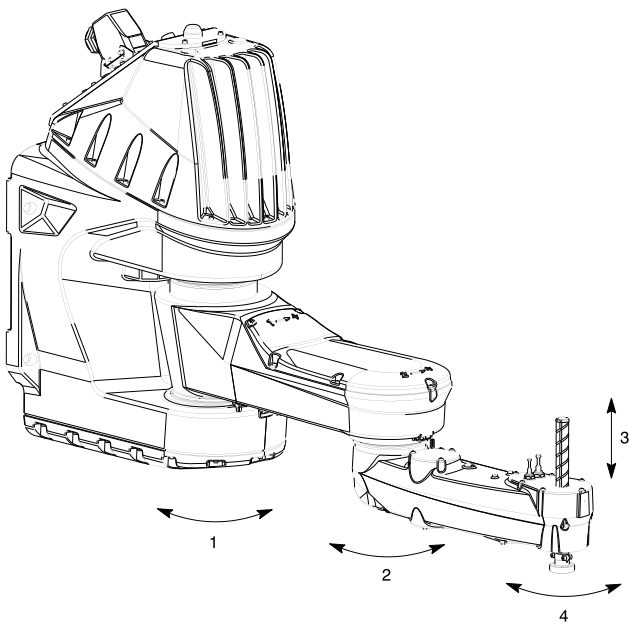
(1) Under special conditions with reduced speed and acceleration, consult us.

(2) Standard = ±500°
Configurable = ±18000°
With user cable optional = ±200°

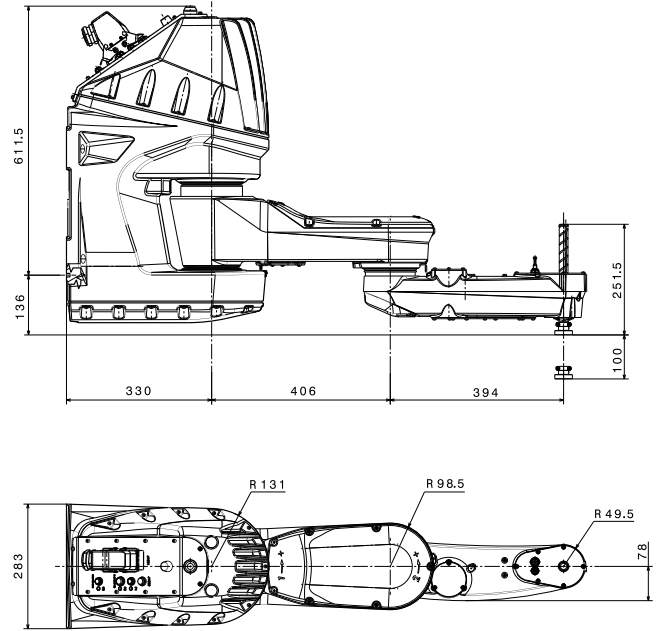
(3) Under special conditions, consult us.

(4) Optional.
To be confirmed, consult us.

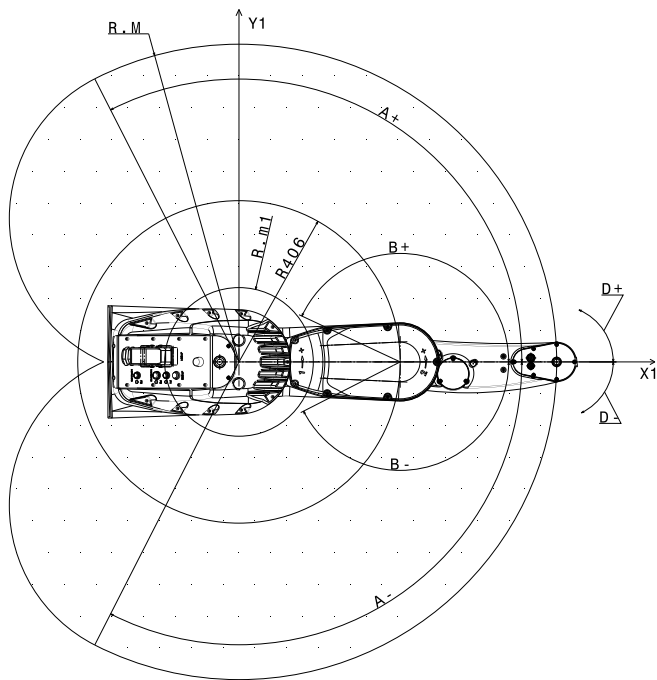
Motion range



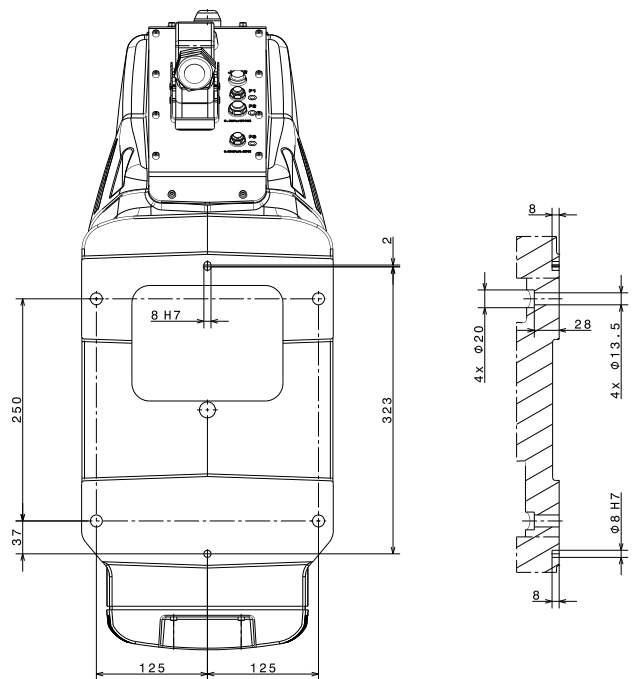
Dimensions



Work envelope



Attachment





Product benefits

The TP80 fast Picker is an extremely fast robot dedicated to handling operations of small parts (under 1 kg). It is particularly well-suited for packaging applications in various fields such as food, pharmaceutical, photovoltaics or cosmetics.



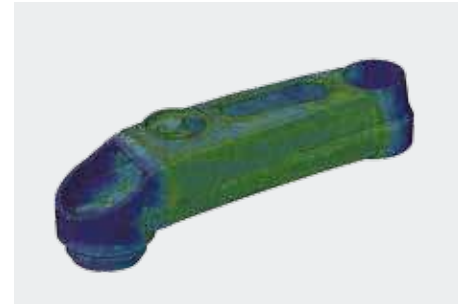
HIGH SPEED

Extremely fast robot with sustained 200 picks per minute (ppm) capability.



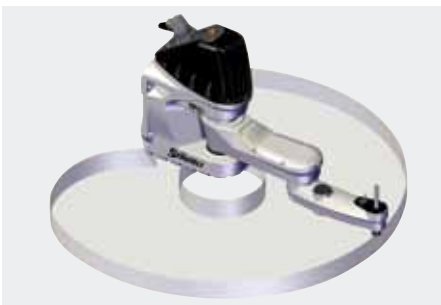
SIMPLE MOUNTING

Compared to parallel robots where a large gantry structure must be built to attach the robot, the TP80 fast Picker can be mounted on a much lighter base, bringing substantial cost savings and making it easier to integrate in a cell.



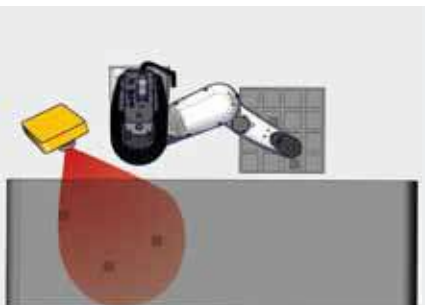
HIGH PRECISION AND RIGIDITY

The sturdy industrial design of the TP80 makes very repeatable throughout its work envelope.



LARGE WORK ENVELOPE

Its 800 mm reach with 100 mm stroke enables the TP80 to cover a large work envelope while maintaining high speed.



NO ARM INTERFERENCE WHEN USED WITH VISION

Unlike parallel robots with their multi-arm design, the TP80 does not interfere with the line of vision of the camera.



SLIM FOREARM

Its slim forearm enables the robot to access confined areas, for example slotted machine openings.



ALL USER CABLES RUNNING INSIDE THE ARM

Electrical, pneumatic and I/O connections are available on the tool flange with all cables running inside the arm.



HIGH PROTECTION

IP65 rating (with optional bellows) and angled connector design bring better protection against dust and liquids.



CERTIFICATION

TP80 robot meets CE and RoHS certifications, UL pending.

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