

RX160 series industrial robots



Automotive and equipment
manufacturers

Cleanroom

Food

Life Sciences and pharma

Machine tending

Painting

Plastics

TS

Scara / 4 axis

TX

Low payload / 6 axis

RX / TX

Medium payload / 6 axis

RX / TX

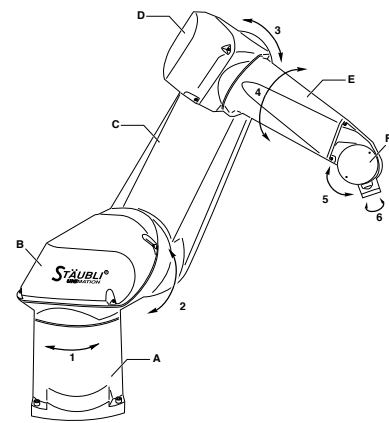
Heavy payload / 6 axis

TP

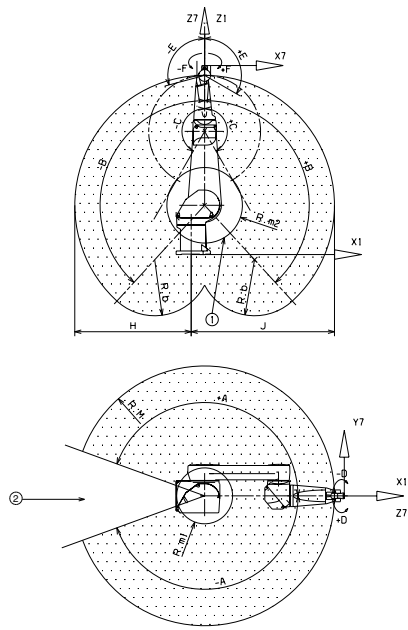
Picker / 4 axis

MODEL		RX160	RX160L	RX160HD
Characteristics				
Maximum load ⁽¹⁾		34 kg	28 kg	34 kg
Nominal load		20 kg	14 kg	20 kg
Reach (between axis 1 and 6)		1710 mm	2010 mm	1710 mm
Number of degrees of freedom		6	6	6
Repeatability - ISO 9283		± 0,05 mm	± 0,05 mm	± 0,05 mm
Motion range	Axis 1 (A)	± 160°	± 160°	± 160°
	Axis 2 (B)	± 137,5°	± 137,5°	± 137,5°
	Axis 3 (C)	± 150°	± 150°	± 150°
	Axis 4 (D)	± 270°	± 270°	± 270°
	Axis 5 (E)	+120°/-105°	+120°/-105°	+120°/-120°
	Axis 6 (F)	± 270° ⁽²⁾	± 270° ⁽²⁾	± 270° ⁽²⁾
Work envelope	Maximum reach between axis 1 and 5 (R. M)	1600 mm	1900 mm	1600 mm
	Minimum reach between axis 1 and 5 (R. m1)	312 mm	462 mm	312 mm
	Minimum reach between axis 2 and 5 (R. m2)	422 mm	463 mm	422 mm
	Minimum reach between axis 3 and 5 (R. b)	625 mm	925 mm	625 mm
Maximum speed	Axis 1	200°/s	200°/s	200°/s
	Axis 2	200°/s	200°/s	200°/s
	Axis 3	255°/s	255°/s	255°/s
	Axis 4	315°/s	315°/s	315°/s
	Axis 5	360°/s	360°/s	360°/s
	Axis 6	870°/s	870°/s	870°/s
Maximum speed at load gravity center		10,3 m/s	12,3 m/s	870°/s
Maximum inertias	Axis 5	4 kg.m ²	2,8 kg.m ²	4 kg.m ²
	Axis 6	1 kg.m ²	0,7 kg.m ²	1 kg.m ²
Weight		248 kg	250 kg	248 kg
Brakes		All axis		
Forearm connections	Pneumatic	2 solenoid valves 5/2-way (compressed air) monostable 1 direct line between the base and the forearm		
	Electrical	1 female 19-contact socket (7 twisted pairs including 2 shielded, 3 power contacts)		
Cleanroom standard - ISO 14644-1		5		
Protection class (*wrist) according to standard NF EN 60529		IP65 (*67)		
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% à 95% max. non-condensing		
Attachment methods		Floor/Ceiling		
Pressurized version ⁽³⁾		•	•	•
HE (Humid Environment) version ⁽⁴⁾		•	•	•
Market specific versions				
CR Cleanroom - class 4 cleanliness - ISO 14644-1		•	•	•
Humidity according to standard directive NF EN 60 204-1		•	•	•
Paint - ATEX (Europe), Factory Mutual or cCSAus (USA) certifications		•	•	•

Motion range

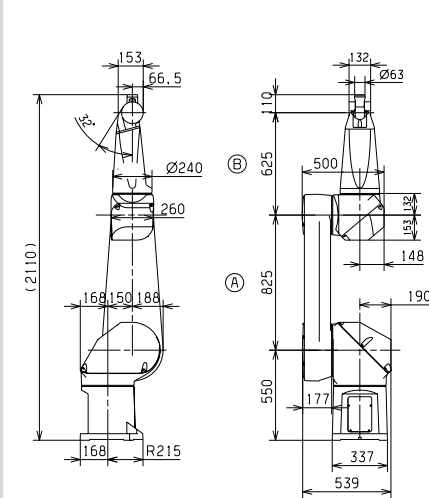


Work envelope

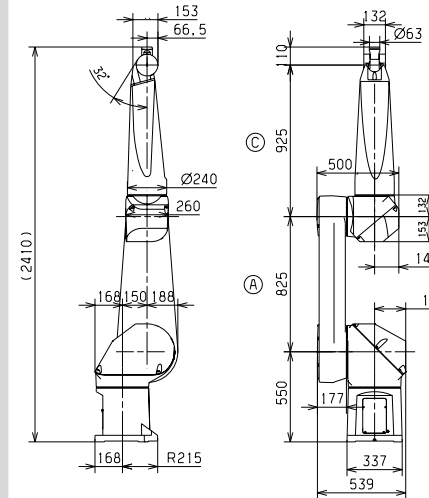


- (1) Under special conditions, consult us.
- (2) Software configurable up to ±18000°.
- (3) Pressurization kit : necessary for use in an environment with high dust levels or with substantial liquid splashing. This kit generates positive pressure in the arm. Factory installation only and required with Pressurization kit.
- (4) Version HE (Humid Environment) : designed for use in humid and oxidizing environments. The arm components are painted individually, providing additional arm protection against oxidation and corrosion. Factory installation only and required with Pressurization kit.

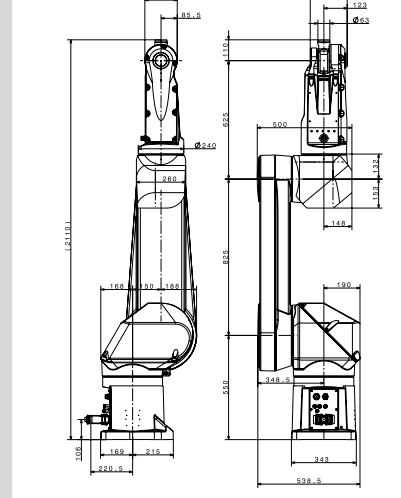
RX160 dimensions



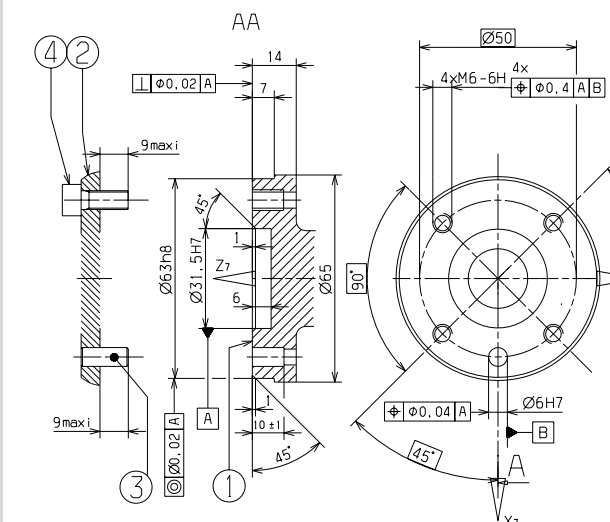
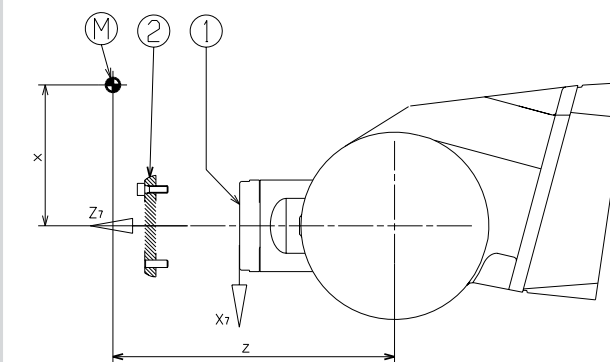
RX160L dimensions



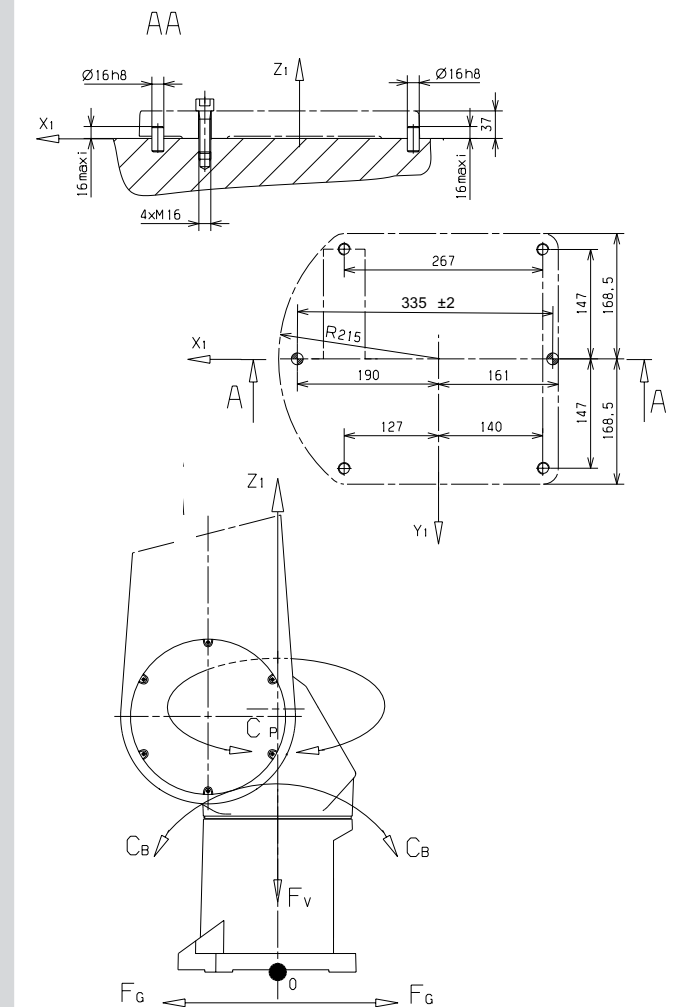
RX160HD dimensions



Wrist



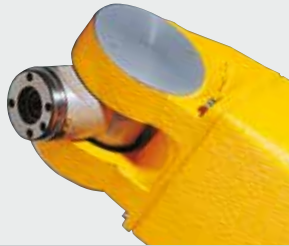
Mounting





Product benefits

The RX160 robot series feature unique benefits to fit in all environments providing the best possible process quality and increased productivity.



WRIST

IP67 rating, submersible, high robustness, limited built-up on wrist.



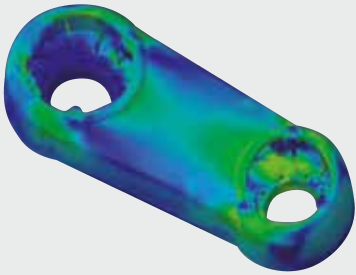
STÄUBLI PATENTED REDUCTION GEAR SYSTEMS

Unmatched precision, flexibility and speed, high rigidity, reduced maintenance.



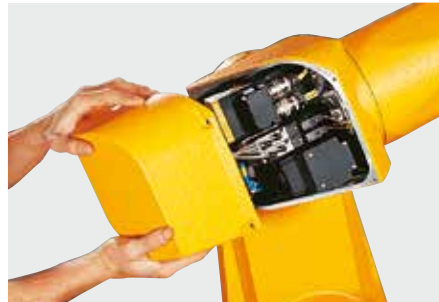
FOREARM CONNECTIONS

Electrical and pneumatic connections close to the tool, user lines already installed.



RIGID STRUCTURE

Better dynamic performance.



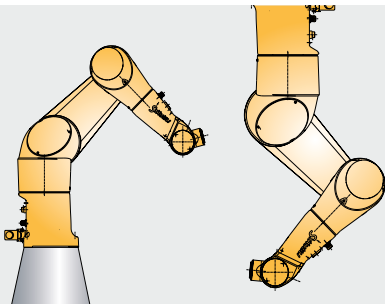
ENCLOSED STRUCTURE

Easy to clean and use in clean or hostile environments.



ARM FINISH

Smooth or textured, color customization.



MULTIPLE ATTACHMENT METHODS

Adaptability and flexibility (floor, ceiling).



HD WRIST

Standard kynematics robot with reinforced wrist

www.staubli.com/robotics

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