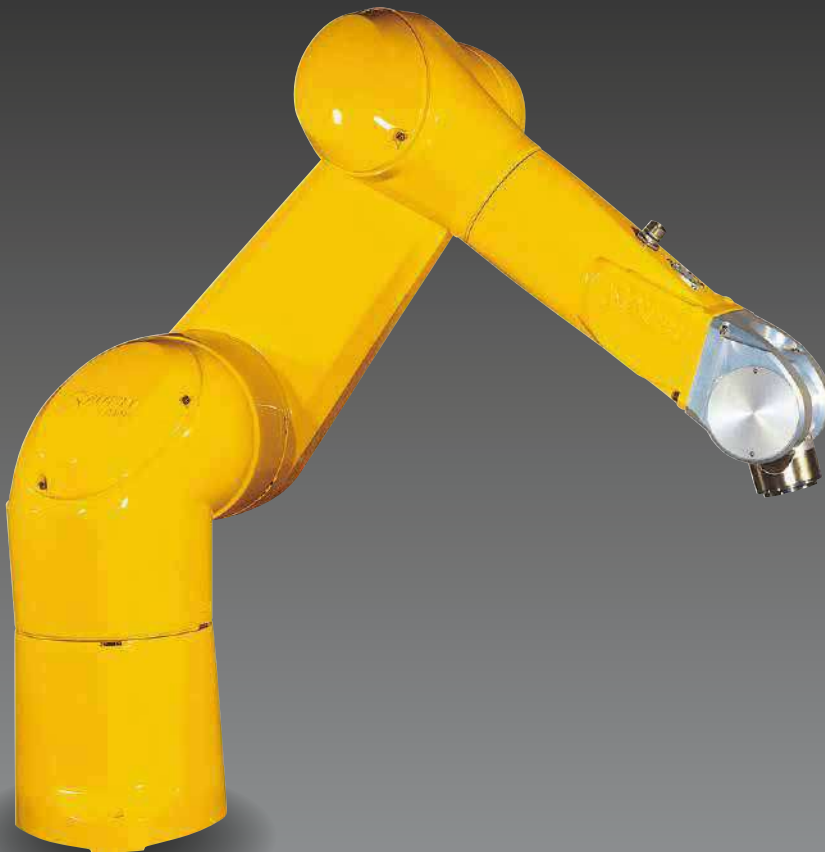


TX90 series industrial robots



Automotive and equipment
manufacturers

Cleanroom

Food

Life Sciences and pharma

Machine tending

Painting

Plastics

RS

Scara / 4 axis

TX

Low payload / 6 axis

RX

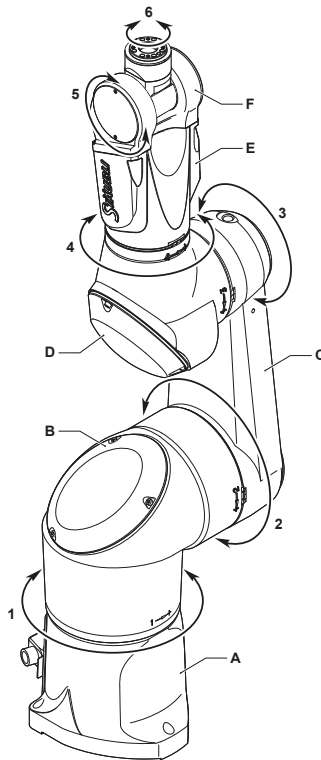
Medium payload / 6 axis

RX

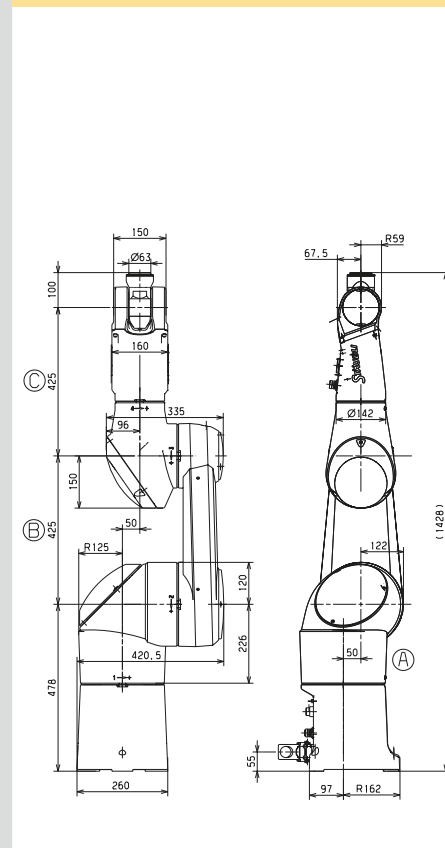
Heavy payload / 6 axis

MODEL		TX90	TX90L	TX90XL
Characteristics				
Maximum load ⁽¹⁾		20 kg	15 kg	12 kg
Nominal load		7 kg	6 kg	5 kg
Reach (between axis 1 and 6)		1000 mm	1200 mm	1450 mm
Number of degrees of freedom		6	6	6
Repeatability - ISO 9283		± 0,03 mm	± 0,035 mm	± 0,04 mm
Motion range	Axis 1 (A)	± 180°	± 180°	± 180°
	Axis 2 (B)	+147,5°/-130°	+147,5°/-130°	+147,5°/-130°
	Axis 3 (C)	± 145°	± 145°	± 145°
	Axis 4 (D)	± 270°	± 270°	± 270°
	Axis 5 (E)	+140°/-115°	+140°/-115°	+140°/-115°
	Axis 6 (F)	± 270° ⁽²⁾	± 270° ⁽²⁾	± 270° ⁽²⁾
Work envelope	Maximum reach between axis 1 and 5 (R. M)	900 mm	1100 mm	1350 mm
	Minimum reach between axis 1 and 5 (R. m1)	850 mm	1050 mm	1300 mm
	Minimum reach between axis 2 and 5 (R. m2)	200 mm	272 mm	327 mm
	Minimum reach between axis 3 and 5 (R. b)	256 mm	320 mm	391 mm
	Axis 1	425 mm	525 mm	650 mm
Maximum speed	Axis 2	400°/s	400°/s	400°/s
	Axis 3	400°/s	390°/s	350°/s
	Axis 4	430°/s	400°/s	410°/s
	Axis 5	540°/s	540°/s	540°/s
	Axis 6	475°/s	475°/s	475°/s
	Axe 6	760°/s	760°/s	760°/s
	Maximum speed at load gravity center		10,42 m/s	10,54 m/s
Maximum inertias	Axis 5	1,5 kg.m ²	1,25 kg.m ²	1 kg.m ²
	Axis 6	0,25 kg.m ²	0,20 kg.m ²	0,15 kg.m ²
Weight		111 kg	114 kg	116 kg
Brakes		All axis		
Forearm connections	Pneumatic	2 solenoid valves 5/2-way (compressed air) or 3/2-way (vacuum) 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-		+ 5°C to + 40°C		
Humidity according to standard directive NF EN 60 204-1		30% à 95% max. non-condensing		
Attachment methods		Floor/Wall/Ceiling		
Vertical cable outlet version ⁽³⁾		•	•	•
Pressurized version ⁽⁴⁾		•	•	•
HE (Humid Environment) version ⁽⁵⁾		•	•	•
Market specific versions				
CR Cleanroom - class 4 cleanliness - ISO 14644-1		•	•	•
SCR Cleanroom - class 2 cleanliness - ISO 14644-1		•	•	•
Plastics - Euromap 12/67 interface		•	•	•
Paint pour applications peinture, homologation Cenelec (Europe) et Factory Mutual ou cCSAus (USA)		•	•	•

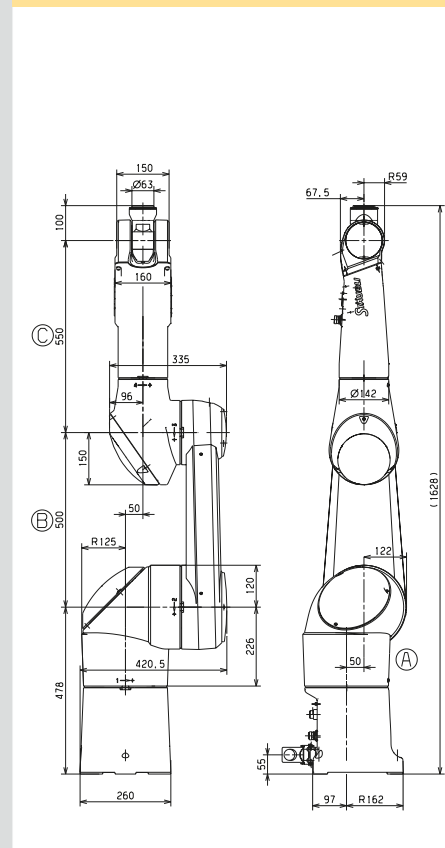
Motion range



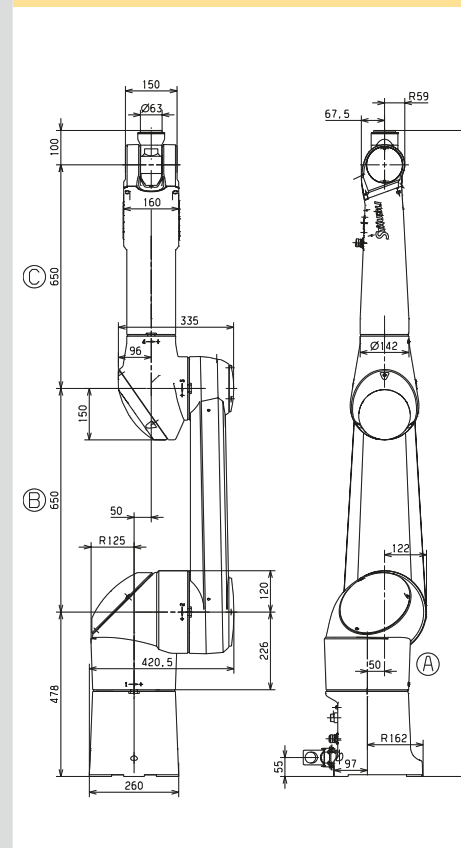
TX90 dimensions



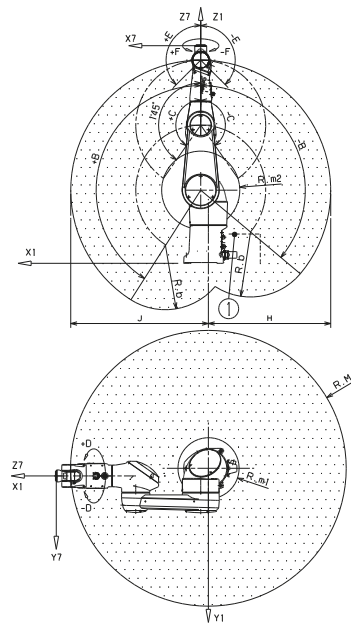
TX90L dimensions



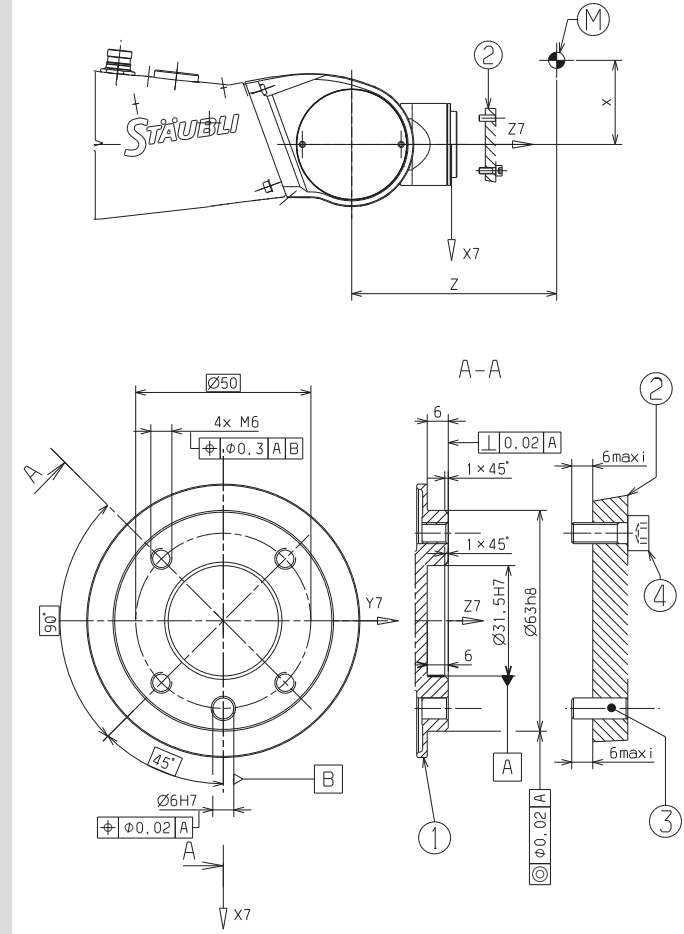
TX90XL dimensions



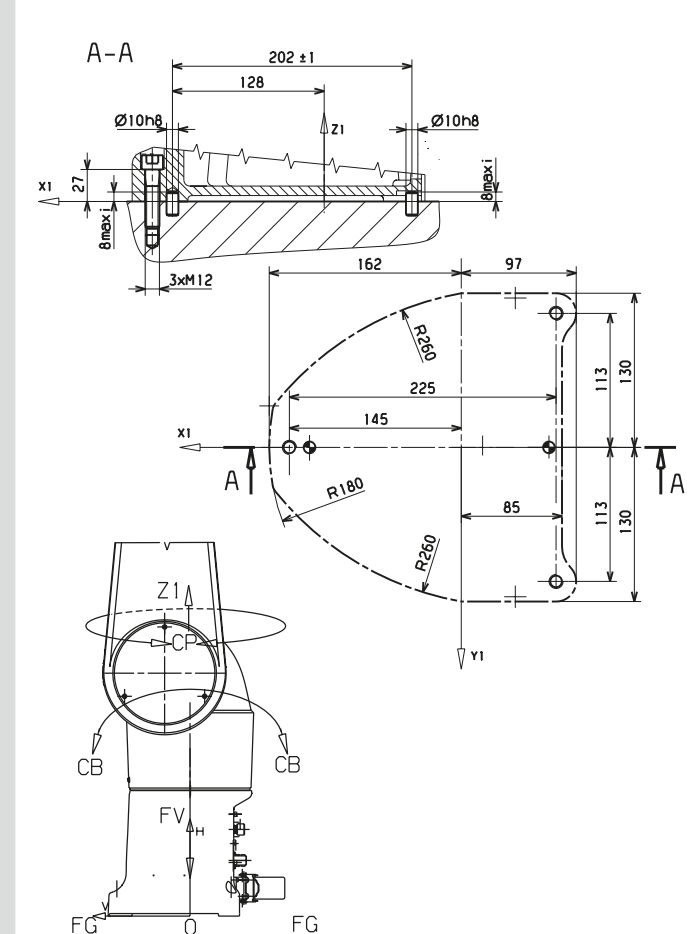
Work envelope



Wrist



Mounting (not for vertical cable outlet option)

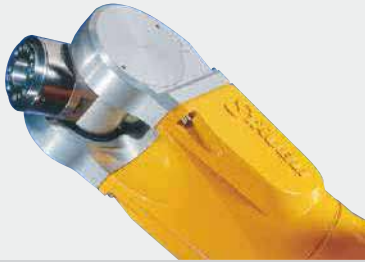


- (1) Under special conditions, consult us.
- (2) Software configurable up to ±18000°.
- (3) Pressurization kit : necessary for use in an environment with high dust levels or with substantial liquid splashing. This kit generates positive pressure in the arm. Factory installation only and required with Pressurization kit.
- (4) 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.
- (5) 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.



Product benefits

The TX90 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.



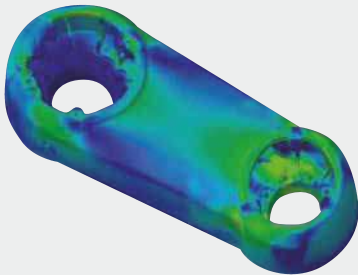
STÄUBLI PATENTED REDUCTION GEAR SYSTEMS

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.



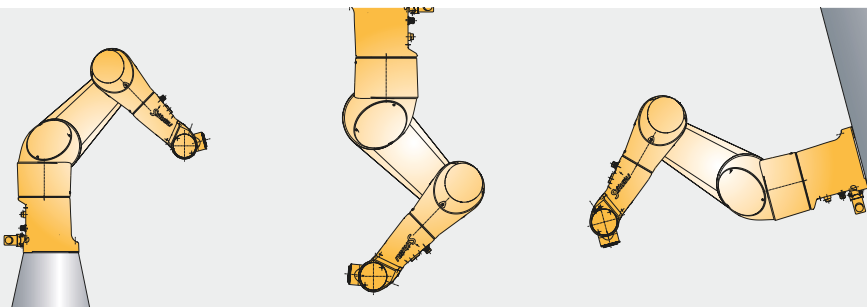
ENCLOSED STRUCTURE

Easy to clean and use in clean or hostile environments.



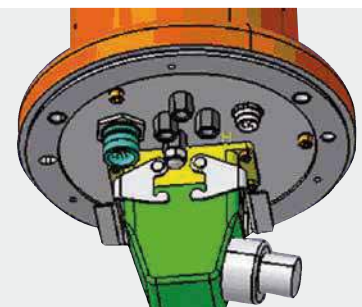
ARM FINISH

Smooth or textured, color customization.



MULTIPLE ATTACHMENT METHODS

Adaptability and flexibility (floor, ceiling, wall).



VERTICAL CABLE OUTLET VERSION

Better cable protections, use in clean environment.

www.staubli.com/robotics

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STÄUBLI