

TX60 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

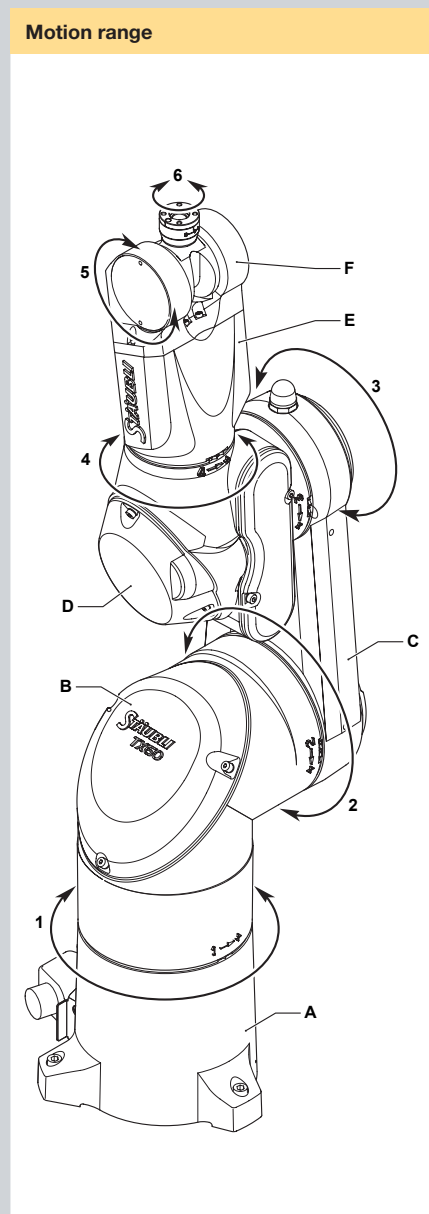
RX

Medium payload / 6 axis

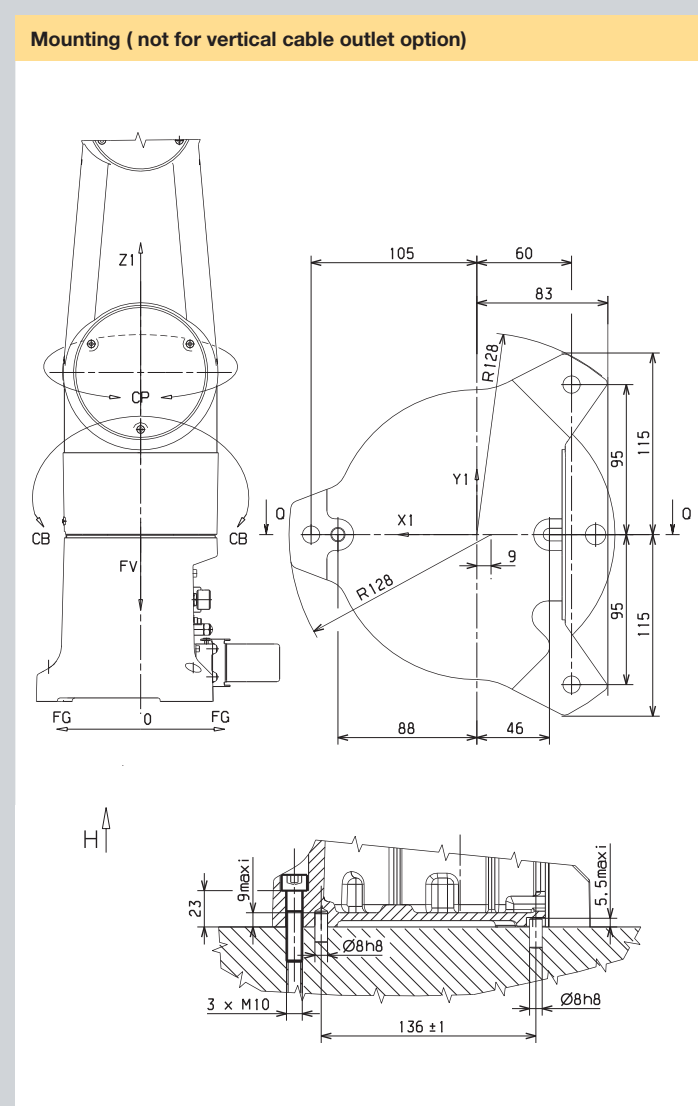
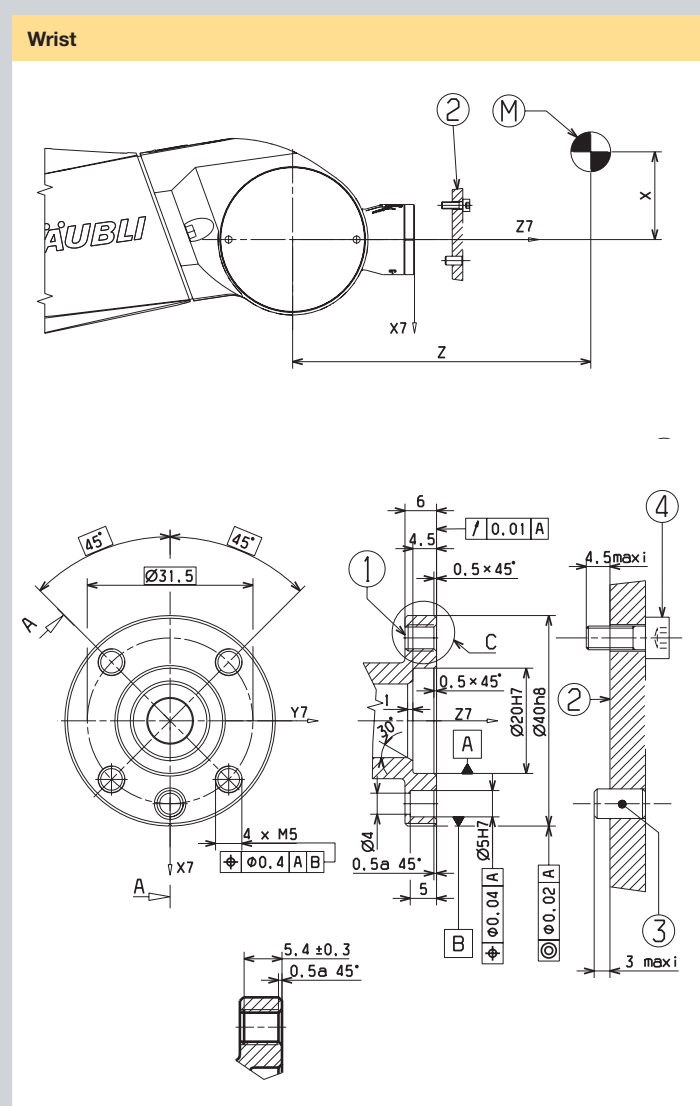
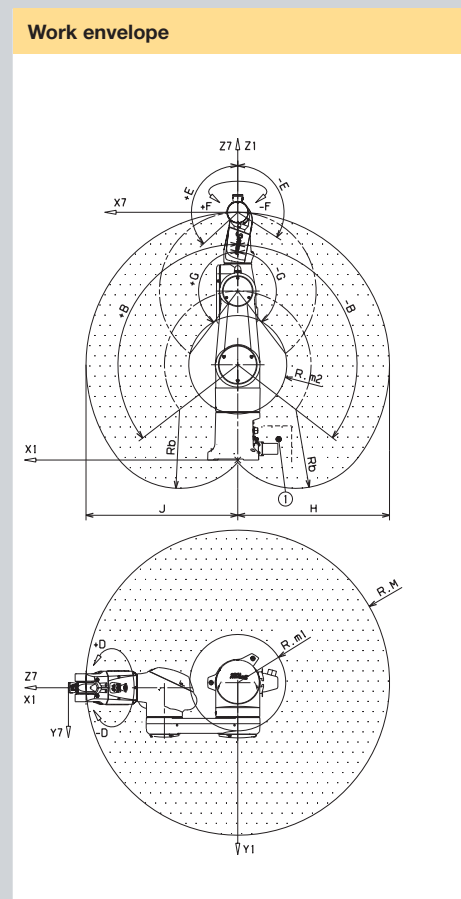
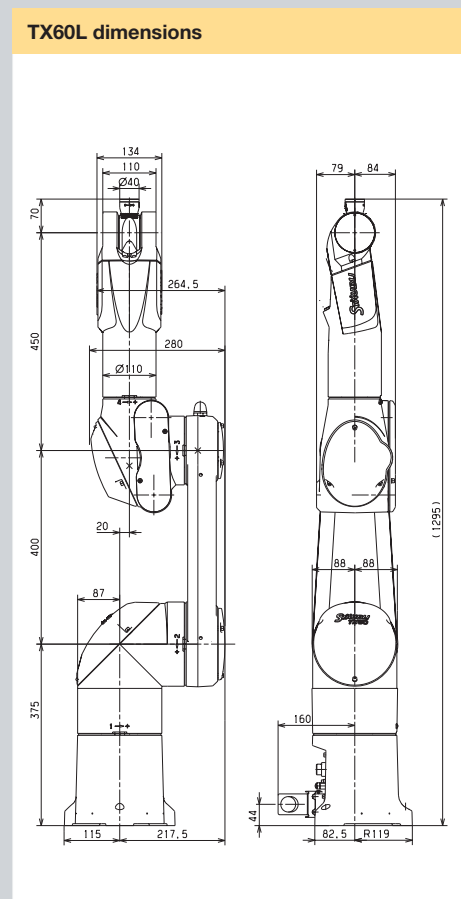
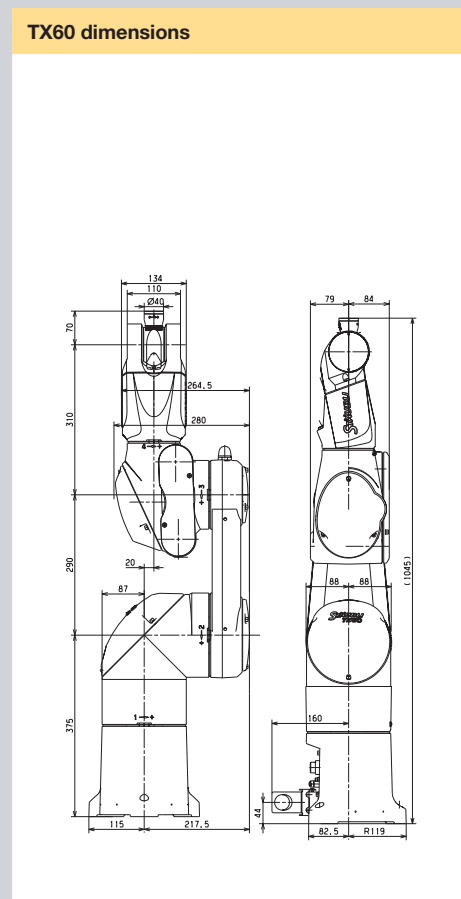
RX

Heavy payload / 6 axis

| MODEL | | TX60 | TX60L |
|--|--|--|-------------------------|
| Characteristics | | | |
| Maximum load ⁽¹⁾ | | 9 kg | 5 kg |
| Nominal load | | 3,5 kg | 2 kg |
| Reach (between axis 1 and 6) | | 670 mm | 920 mm |
| Number of degrees of freedom | | 6 | 6 |
| Repeatability - ISO 9283 | | ± 0,02 mm | ± 0,03 mm |
| Motion range | Axis 1 (A) | ± 180° | ± 180° |
| | Axis 2 (B) | ± 127,5° | ± 127,5° |
| | Axis 3 (C) | ± 142,5° | ± 142,5° |
| | Axis 4 (D) | ± 270° | ± 270° |
| | Axis 5 (E) | +133,5°/-122,5° | +133,5°/-122,5° |
| | Axis 6 (F) | ± 270° ⁽²⁾ | ± 270° ⁽²⁾ |
| Work envelope | Maximum reach between axis 1 and 5 (R. M) | 600 mm | 850 mm |
| | Minimum reach between axis 1 and 5 (R. m1) | 190 mm | 209 mm |
| | Minimum reach between axis 2 and 5 (R. m2) | 189 mm | 208 mm |
| | Minimum reach between axis 3 and 5 (R. b) | 310 mm | 540 mm |
| Maximum speed | Axis 1 | 435°/s | 435°/s |
| | Axis 2 | 410°/s | 385°/s |
| | Axis 3 | 540°/s | 500°/s |
| | Axis 4 | 995°/s | 995°/s |
| | Axis 5 | 1065°/s | 1065°/s |
| | Axis 6 | 1445°/s | 1445°/s |
| Maximum speed at load gravity center | | 8 m/s | 10,6 m/s |
| Maximum inertias | Axis 5 | 0,325 kg.m ² | 0,125 kg.m ² |
| | Axis 6 | 0,1 kg.m ² | 0,032 kg.m ² |
| Weight | | 51,4 kg | 52,5 kg |
| Brakes | | All axis | |
| Forearm connections | Pneumatic | 2 solenoid valves 5/2-way monostable 1 direct line between the base and the forearm | |
| | Electrical | 1 female 19-contact socket (8 twisted pairs including 2 shielded) | |
| 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/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 | | • | • |



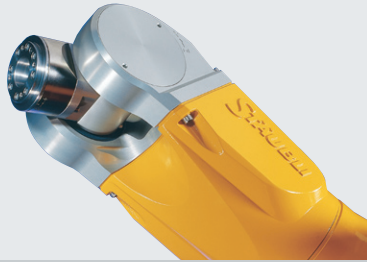
- (1) Under special conditions, consult us.
- (2) Software configurable up to ±18000°.
- (3) Pressurization kit : necessary for use in an environment with high dust levels or with substantial liquid splashing. This kit generates positive pressure in the arm. Factory installation only and required with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





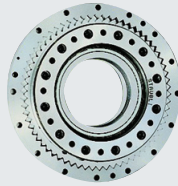
Product benefits

The TX60 robot series feature unique benefits to fit in all environments providing the best possible process quality and increased productivity.



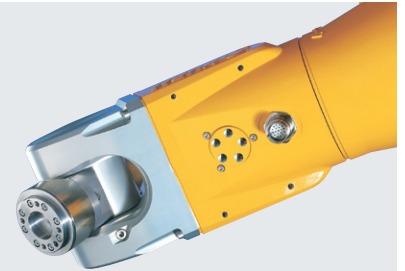
WRIST

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



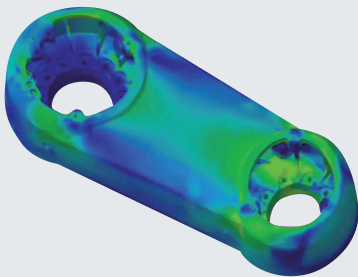
STÄUBLI PATENTED REDUCTION GEAR SYSTEMS

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.



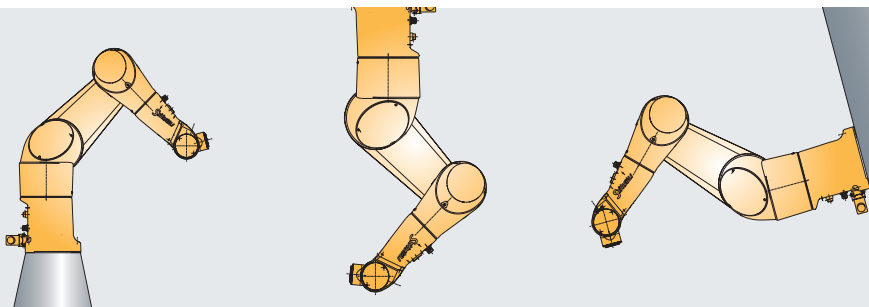
ENCLOSED STRUCTURE

Easy to clean and use in clean or hostile environments.



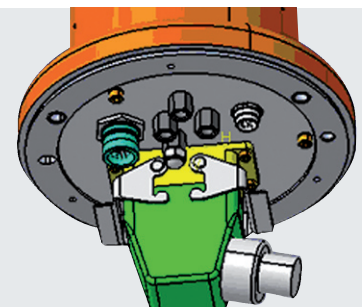
ARM FINISH

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.

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