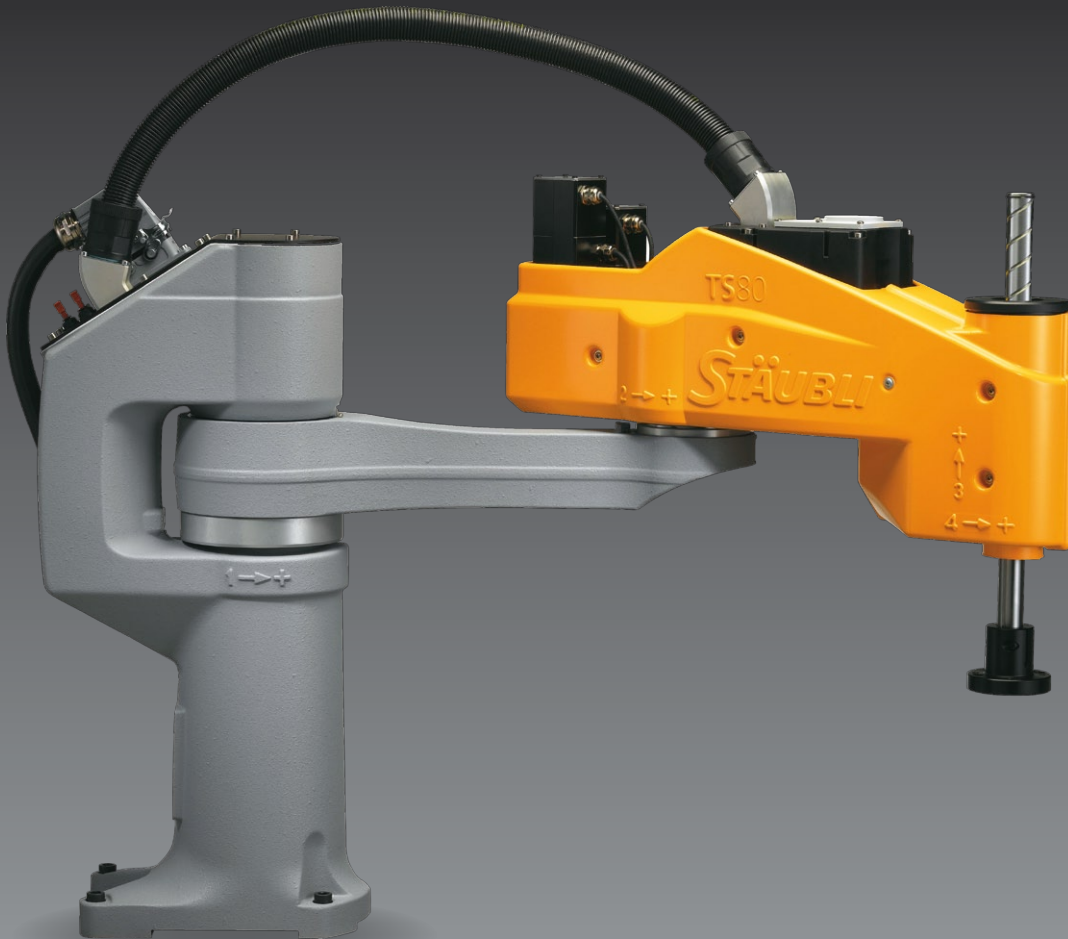


## TS80 industrial robot



Automotive & equipment  
manufacturers

Food

Electronics

Life Sciences & pharma

Machine tending

Photovoltaics

Plastics

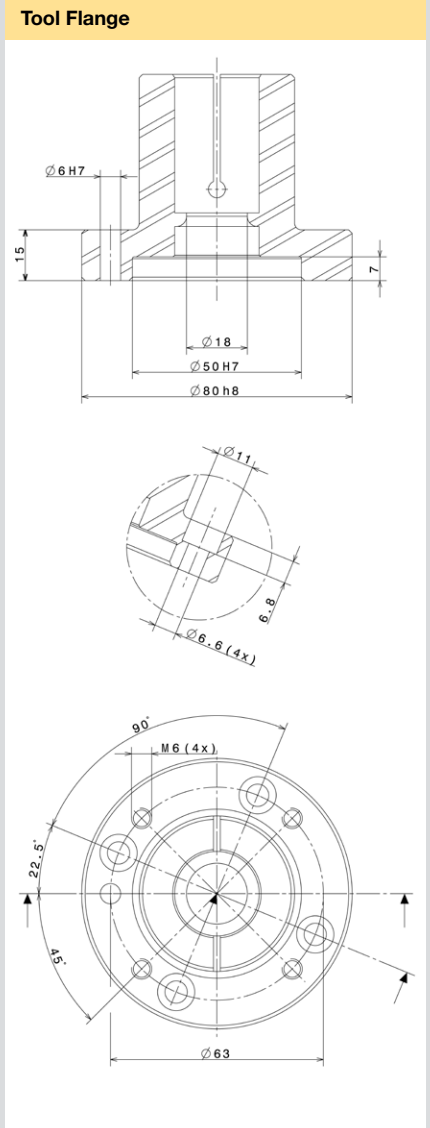
**TS**  
Scara / 4 axis

**TX**  
low payload / 6 axis

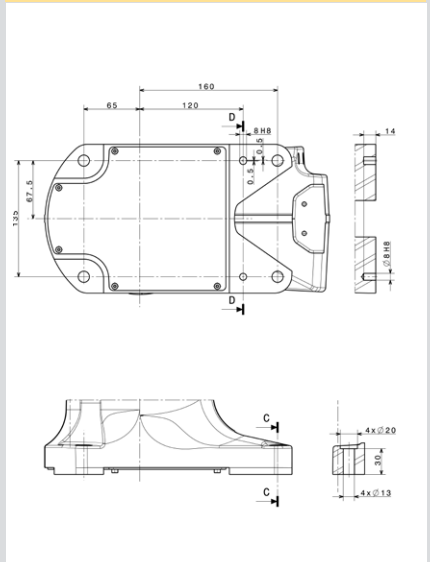
**RX/TX**  
medium payload / 6 axis

**RX/TX**  
heavy payload / 6 axis

| MODEL  |   | TS80                             |   |  |  |
|--|---|----------------------------------|---|--|--|
| <b>Characteristics</b>   |   |                                  |   |  |  |
| Maximum load <sup>(1)</sup>  |   | 8 kg                             |   |  |  |
| Nominal load   |   | 2 kg                             |   |  |  |
| Reach  |   | 800 mm                           |   |  |  |
| Number of degrees of freedom                                       |   | 4                                |   |  |  |
| Repeatability - ISO 9283   |   | ± 0,01 mm                        |   |  |  |
| Range of Motion  | Angular reach axis 1 (A)                  | ± 140°                           |   |  |  |
|  | Angular reach axis 2 (B)                  | ± 155°                           |   |  |  |
|  | Stroke                                    | 200 mm or 400 mm (optional)      |   |  |  |
|  | Angular reach axis 4 (D)                  | ±500° <sup>(2)</sup>             |   |  |  |
| Work Envelope  | Maximum radius between axis 1 & 3 (R.M)   | 800 mm                           |   |  |  |
|  | Radius between axis 2 & 3 (R. b)          | 370 mm                           |   |  |  |
|  | Minimum radius between axis 1 & 3 (R. m1) | 182,8 mm                         |   |  |  |
| Maximum Speed  | Axis 1                                    | 450 °/s                          |   |  |  |
|  | Axis 2                                    | 520 °/s                          |   |  |  |
|  | Axis 3                                    | 2100 mm/s                        |   |  |  |
|  | Axis 4                                    | 2020 °/s                         |   |  |  |
| Maximum inertias (Axis 4)  |   | 0,1 kg.m <sup>2</sup>            |   |  |  |
| Weight   | Floor version                             | 55 kg                            |   |  |  |
|  | Wall mounted version                      | 55 kg (estimate)                 |   |  |  |
| Brakes   |   | Axis 3 and 4                     |   |  |  |
| Cleanroom standard - ISO 14644-1 (version with bellow)             |   | 6                                |   |  |  |
| Protection class according to standard NF EN 60529                 |   | IP54                             |   |  |  |
| Stäubli CS8 series controller                                      |   | CS8C                             |   |  |  |
| <b>User Interface</b>  |   |                                  |   |  |  |
|  | On forearm                                | On forearm with optional CAN bus | On tool flange (optional)                 | On tool flange with optional CAN bus and user installation |  |
| Digital I/O (Input / Output)                                       | -   | 8/8                              | -   | 5/8  |  |
| Analog I/O (Input/ Output)   | -   | 4/4                              | -   | -  |  |
| Electrical cables  | 6 x 0,24 mm <sup>2</sup> (AWG24) shielded | -                                | 6 x 0,24 mm <sup>2</sup> (AWG24) shielded | -  |  |
| Pneumatic lines  | 2 x Ø4mm                                  | 2 x Ø4mm                         | 2 x Ø4mm                                  | 2 x Ø4mm   |  |
| Tension & maximum current by contact                               |   | 24 VDC - 2A                      |   |  |  |
| <b>Installation Environment</b>                                    |   |                                  |   |  |  |
| 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   |   | Floor/Wall                       |   |  |  |

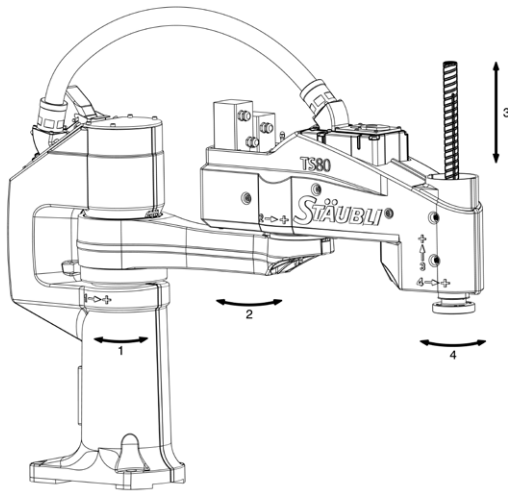


### Mounting

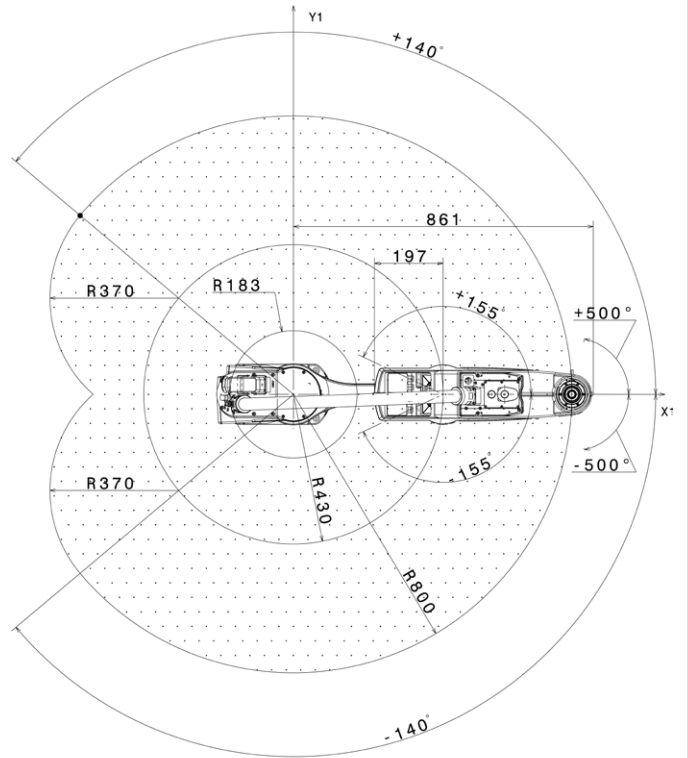


(1) Under special conditions with reduced speed and acceleration, consult us.  
(2) Software configurable up to ±18000°

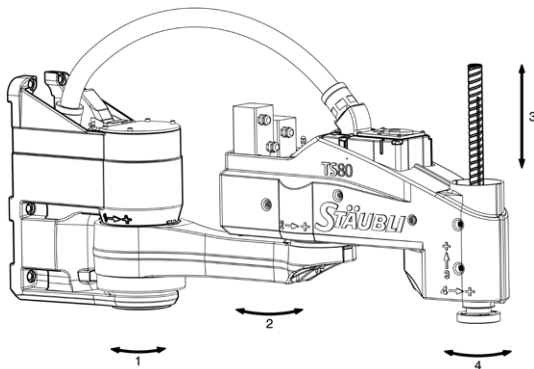
### Floor version



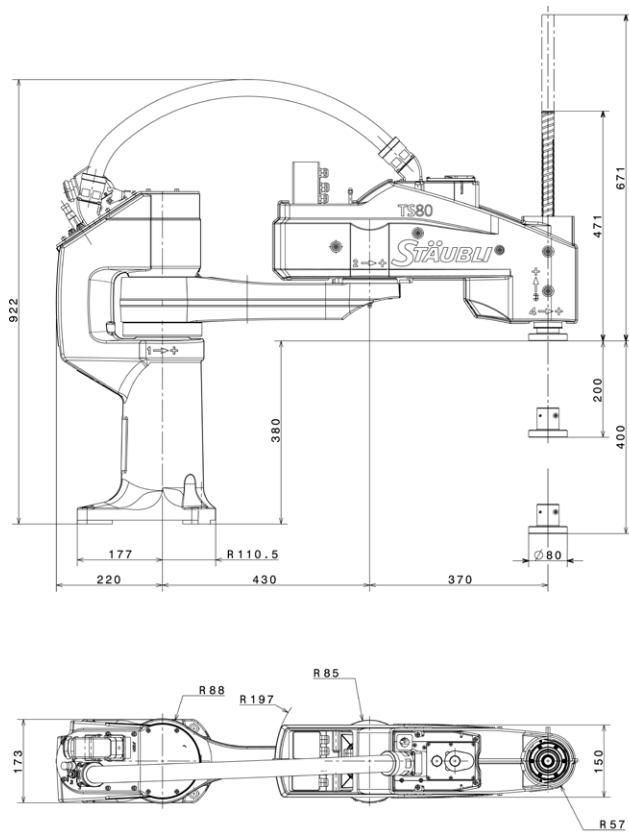
### Work envelope



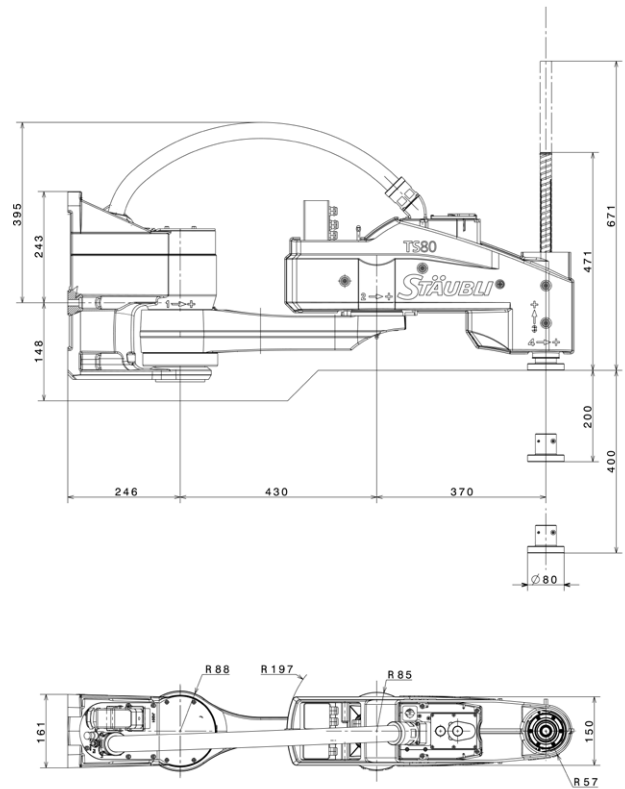
### Wall mounted version (under development)



### Standard floor version dimensions



### Standard wall mount version dimensions





## Product benefits

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



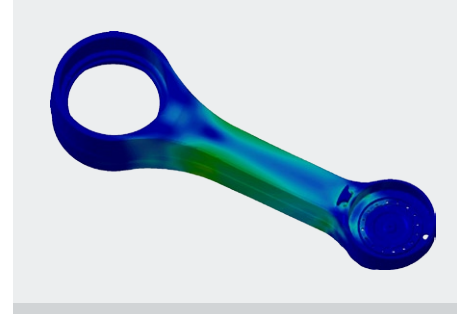
### HIGH SPEED

Fast robot with up to 100 pick per minute (ppm) capability.



### HIGH PAYLOAD CAPACITY

Standard Ø25 mm quill enables to carry heavy payload while maintaining high speed.



### RIGID STRUCTURE

Increased dynamic performance.



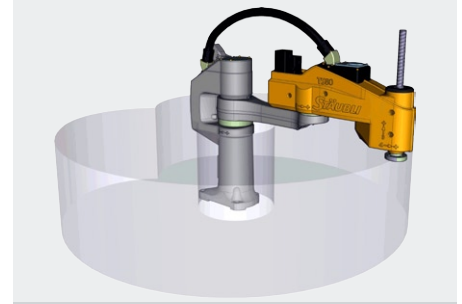
### MULTIPLE USER CONNECTION OPTIONS

Electrical, pneumatic and I/O connections are available on the forearm as well as on the tool flange.



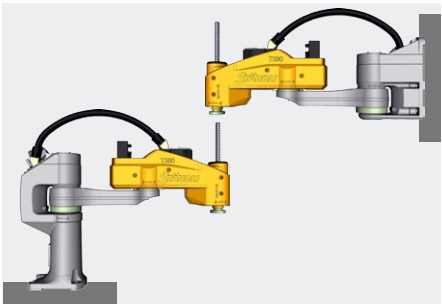
### MULTIPLE INTERCONNECT CABLE OPTIONS

Straight or angled connections facilitate robot integration.



### LARGE WORK ENVELOPE

200 or 400 mm stroke versions offer large work volume.



### MULTIPLE ATTACHMENT METHODS

Floor or wall mounting bring more adaptability and flexibility in robot integration.



### HIGH PROTECTION

IP54 rating, angled plate design & bellow bring better protection against dust & liquids.



### CERTIFICATION

TS80 robots meet CE certifications, UL and RoHS pending.

[www.staubli.com/robotics](http://www.staubli.com/robotics)

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**STÄUBLI**