

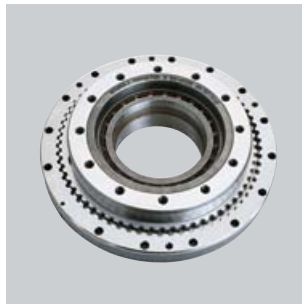
Product range



The added value of Stäubli robot arms

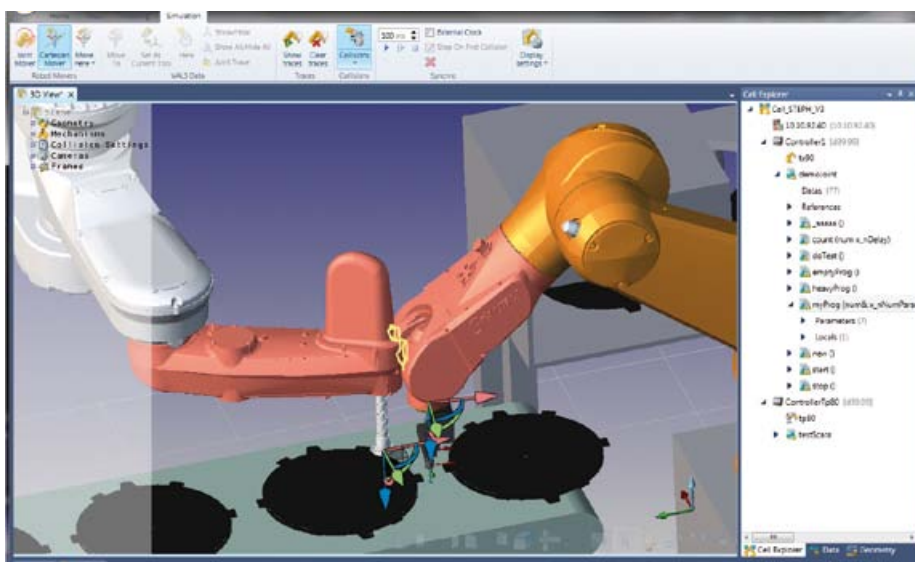
Versions adapted to various environments

- JCS gearbox designed by Stäubli for high precision, high performances and reliability, elevated lifetime, and reduced maintenance.
- Small base for a reduced footprint
- Enclosed arm structure (IP65) allows for the robot to perform extremely clean applications, and the possibility to pressurize the arm adds a level of protection while working in hostile environments.
- Large spherical work envelope
- Cable outlets and connections located underneath the robot base for improved protection (optional).
- Electrical and pneumatic connections located on the forearm near the tool flange.
- Multiple robot mounting possibilities (Floor/Wall/Ceiling).



Comprehensive software solutions

Simulation and offline programming software workbench



Three distinct approaches to program a Stäubli robot

VAL 3 language

Language for the development of robotic applications.

VALproducts solutions

Simplified programming interface.

uniVAL drive

«Ready to connect» solution to drive Stäubli robots with controllers dedicated to OEMs solution.

A unique platform of CS8 controllers pilots all Stäubli robot arms



MODEL	CS8C M	CS8C		CS8C paint	CS8C HP	CS8 / CS8 EX
Dimensions (H x W x D) (mm)	520 x 200 x 258,5	331 x 445 x 455	481 x 445 x 455	1035 x 850 x 780	1035 x 607 x 815	1000 x 600 x 715
Protection class	IP20	IP20 (IP54 optional)	IP20 (IP54 optional)	IP54	IP54	IP54
Storage capacity	512 Mb RAM					
Backup	2 GB Flash disk and USB port					
Communication	RS232/422 serial link, 2 Ethernet ports (Socket, FTP Server/Client)					
Inputs/Outputs (I/O)	1 or 2 boards 16/16 digital I/O, optional				1 or 2 boards 16/16 digital I/O, optional	16/16 board and/or 32/32 digital I/O
Field bus	Modbus TCP/IP Server (standard), Client (option) Profibus DP Master & Slave, DeviceNet Master & Slave, CanOpen Master Ethernet IP Scanner / Adapter, ProfiNet IO-Controller and IO-Device, EtherCAT Slave, PowerLink Slave					
Weight (kg)	17	50	60	140	140	170
Stäubli robot arm	TS20	TS40, TS60, TS80, TX40, TX60, TX60L, TX90, TX90L, TX90XL	RX160, RX160L, RX160 HD TP80	TX250 paint	TX200, TX200L TX340 SH	RX170 hsm RX90 paint







SP1 manual control unit: The power of Stäubli at your fingertips














This unique terminal combines a lightweight design (700 g), ergonomics (for left or right-handed user) and robustness to deliver advantages in all environments:

- built-in programming, maintenance and supervision,
- safety functions (3-position dead-man control, presence detection).

A complete range of robots

Standard arm range

Standard arm range				
<div></div>				
	TS20	TS40	TS60	TS80
	LOW PAYLOAD 4 axis (1 to 8 kg)			
MODEL	TS20	TS40	TS60	TS80
Maximum payload ⁽¹⁾ (kg)	1	8	8	8
Nominal payload (kg)	0,5	2	2	2
Reach at wrist (mm)	220	400	600	800
Number of axes	4	4	4	4
Repeatability to ISO 9283 (mm)	±0,01	±0,01	±0,01	±0,01
Protection class (*wrist)	IP10	IP54	IP54	IP54
Working range				
Axis 1	±133°	±105°	±125 / ±140° ⁽¹⁾	±140°
Axis 2	±131°	±143°	±150°	±155°
Axis 3	100 mm	200 or 400 mm (option)	200 or 400 mm (option)	200 or 400 mm (option)
Axis 4	±250°	±500° ⁽³⁾	±500° ⁽³⁾	±500° ⁽³⁾
Axis 5	-	-	-	-
Axis 6	-	-	-	-
Maximum speed				
Axis 1	867°/s	650°/s	490°/s	490°/s
Axis 2	867°/s	800°/s	610°/s	585°/s
Axis 3	600 mm/s	2220 mm/s	2220 mm/s	2220 mm/s
Axis 4	2460°/s	1929°/s	1929°/s	1929°/s
Axis 5	-	-	-	-
Axis 6	-	-	-	-
Arm weight (kg)	15	50	55	57
Mounting positions	Floor	Floor/Wall		
Robot controller	CS8C M	CS8C		
Market specific robots				
Paint				
Plastics				
Cleanroom				
Supercleanroom				
Stericlean				
Humid Environment / Food				
ElectroStatic Discharge (ESD)		x	x	x
Food graded oil ⁽⁴⁾				

												
TX40	TX60	TX60L	TX90	TX90L	TX90XL	RX160	RX160 HD	RX160L	TX200	TX200L	TX340 SH	TP80
LOW PAYLOAD 6 axis (1 to 10 kg)			MEDIUM PAYLOAD 6 axis (10 to 80 kg)						HEAVY PAYLOAD 6 axis (over 80 kg)			FAST PICKER
TX40	TX60	TX60L	TX90	TX90L	TX90XL	RX160	RX160 HD Reinforced wrist version	RX160L	TX200	TX200L	TX340 SH Shelf	TP80
2,3	9	5	20	15	9	34	34	28	130 ⁽²⁾	80 ⁽²⁾	190 ⁽¹⁾	1
1,7	3,5	2	7	6	5	20	20	14	100 ⁽²⁾	60 ⁽²⁾	165	0,5
515	670	920	1000	1200	1450	1710	1710	2010	2194	2594	3680	800
6	6	6	6	6	6	6	6	6	6	6	6	4
±0,02	±0,02	±0,03	±0,03	±0,035	±0,04	±0,05	±0,05	±0,05	±0,06	±0,1	±0,1	< ±0,05
IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65 (*67)	IP65	IP54 standard, IP65 with bellows
±180°	±180°	±180°	±180°	±180°	±180°	±160°	±160°	±160°	±180°	±180°	±180°	±117°
±125°	±127,5°	±127,5°	+147,5°/ -130°	+147,5°/ -130°	+147,5°/ -130°	±137,5°	±137,5°	±137,5°	±120°	±120°	-50°/ +170°	±153°
±138°	±142,5°	±152,5°	±145°	±145°	±145°	±150°	±150°	±150°	+145°/ -140°	+145°/ -140°	-18,8°/ -288°	100 mm
±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±500°
+133,5°/ -120°	+132,5°/ -122,5°	+132,5°/ -122,5°	+140°/ -115°	+140°/ -115°	+140°/ -115°	+120°/ -105°	+120°/ -120°	+120°/ -105°	±120°	±120°	±125°	-
±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	±270° ⁽³⁾	-
555°/s	435°/s	435°/s	400°/s	400°/s	400°/s	200°/s	200°/s	200°/s	160°/s	160°/s	85°/s	600°/s
475°/s	410°/s	385°/s	400°/s	390°/s	350°/s	200°/s	200°/s	200°/s	160°/s	160°/s	90°/s	1600°/s
585°/s	540°/s	500°/s	430°/s	420°/s	410°/s	255°/s	255°/s	255°/s	160°/s	160°/s	110°/s	1790 mm/s
1035°/s	995°/s	995°/s	540°/s	540°/s	540°/s	315°/s	315°/s	315°/s	260°/s	260°/s	130°/s	2850°/s
1135°/s	1065°/s	1065°/s	475°/s	475°/s	475°/s	390°/s	390°/s	390°/s	260°/s	260°/s	130°/s	-
1575°/s	1445°/s	1445°/s	760°/s	760°/s	760°/s	870°/s	870°/s	870°/s	400°/s	400°/s	195°/s	-
27	51	52	111	114	116	248	248	250	1000	1020	1430	71
Floor/Wall/Ceiling						Floor/Ceiling			Floor/Ceiling ⁽¹⁾		Floor	Wall
CS8C									CS8C HP			CS8C
			x	x	x	x		x				
x	x	x	x	x	x	x	x	x	x	x	x	
x	x	x	x	x	x	x		x				
x	x	x	x	x	x	x		x				
	x	x	x	x	x	x	x	x	x	x		
x	x	x	x	x	x	(4)	(4)	(4)	(4)	(4)		(4)

(1) Under special conditions, consult us. (2) For ceiling version, consult us. (3) Can be configured by software up to ±18000°. (4) Consult us.

Specialized robot arms to cover all requirements



TX250 paint	RX170 hsm
PAINTING	MACHINING
TX250 paint	RX170 hsm High Speed Machining
10	-
5	-
2547,5	1915
6	5
⁽⁴⁾	±0,04
IP65	IP65 (*67)
±160°	±180°
±137,5°	±120°
±150°	±130°
±540°	±190°
±540°	±120°
±540°	-
140°/s	±155°/s
125°/s	±130°/s
185°/s	±205°/s
350°/s	±237°/s
350°/s	±151°/s
450°/s	-
250	755
Floor/Ceiling	Floor
CS8C paint	CS8
x	Two choices of spindle:
	<ul style="list-style-type: none"> • PRECISE SD5084 500 to 25 000 rpm 8 kW / 5 Nm • FISCHER MFM1224/42 2 000 to 42 000 rpm 17 kW / 5 Nm



Plastics

6-axis robots made for the Plastics industry :

- Ease of use by operators (dedicated VALplast software),
- Built-in communications with IMM (pre-wired EUROMAP/ SPI interface,
- Additional operations at the foot of the press.



**Cleanroom/
Supercleanroom**

TX Cleanroom (CR) and Supercleanroom (SCR) range developed to meet clean environment needs (semiconductor, pharmaceutical):

- High cleanliness ISO class 2/3 for SCR versions,
- ISO class 4 for CR.



Stericlean

TX Stericlean robots designed for VHP decontamination process :

- fully hydrogen peroxide (H₂O₂) resistant,
- High reliability proven by the leaders in life sciences,
- Systems and user connections protected under the base of the robot.



**Humid
Environment**

6-axis TX HE robots (Humid Environment) ideally suited for applications in very humid environments (water jet cutting, cleaning, food processing) :

- Resistant to liquids with pH between 4.5 and 8.5,
- Waterproof (IP65 enclosed arm structure, IP67 wrist, arm pressurization),
- Protection of structures and components (surface finishing, cable connection under the foot of the robot),
- Easy cleaning

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International: priority to proximity

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- Partners

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