



BETTER SOLUTIONS

TECHNICAL DATA SHEET

InJet® 388 TWIN CRD

Sausage dog



CHAMBER

- ★★★ **STENCIL, MISPRINT, SQUEEGEE** cleaning
- ★★★ **PUMPRINT** cleaning
- ★★ **PCB** cleaning



GENERAL INFORMATION

The InJet 388 series cleaning systems represent unique vertical Spray-In-Air technology developed and manufactured by DCT.

The vertically installed Spray-In-Air device minimizes the shadowing effect commonly seen in horizontal cleaners, and maximizes the efficiency of the cleaning process as the cleaning fluid is sprayed directly onto the cleaned component.

The InJet® 388 TWIN CRD, including a 100% closed loop, with cleaning, rinsing and drying technology processes.

All of the processes are fully automated and take place in 2 process chambers, whereby the cleaning takes place in the first inlet chamber, after which the part which is being cleaned is automatically transported via a central transfer area to the 2nd process chamber, where the rinsing and drying takes place. This chamber is also the outlet chamber. Both chambers can be used in parallel, which increases the machine's capacity and reduces cross-contamination when compared with single-chamber devices.

The InJet® 388 TWIN CRD is developed primarily for the removal of solder pastes and SMT adhesives from stencils, PumPrints, squeegees and misprints.

The cleaning system can also be used for PCBA, or for a combination of board cleaning and the afore-mentioned cleaning processes.

Both chambers can be used in parallel, thereby increasing capacity.

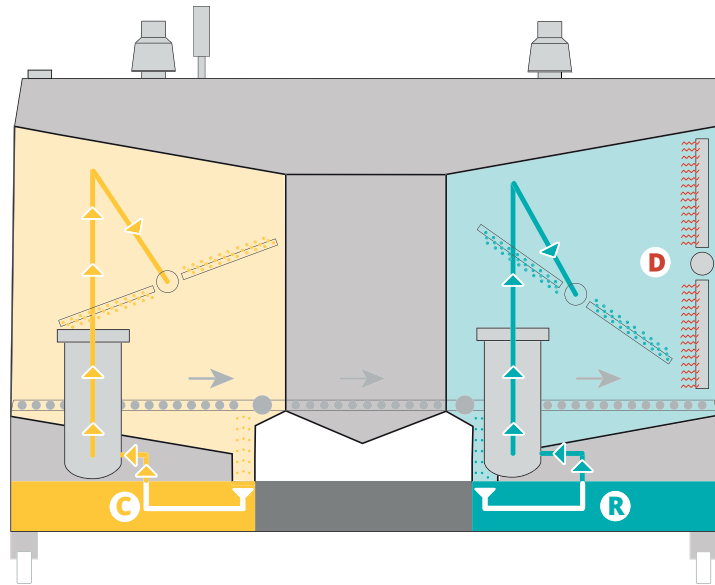


Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.



3 INDIVIDUAL PROCESSES

- C** CLEANING
- R** RINSING
- D** DRYING



CLEANING PARAMETRES

Application name	Recommended application	Recommended temperature		Total cleaning process time	Capacity per 8 hours
Stencil, misprint, squeegee	★★★	20 – 40°C	68 – 104 °F	18 min.	48
PumPrint	★★★	40 – 55°C	104 – 131 °F	18 min.	48
PCB	★★	35 – 55°C	95 – 131 °F	30 min.	768 *

LEGEND: ★★★ highly recommended ★★ recommended ★ applicable

* PCB eurocards / per 8 hours (calculated for dimension of 100 x 160 mm / 3.94 x 6.3 in)

** Parts in soldering palette / per 8 hours (320 x 500 x 50 mm / 12,6 x 19,7 x 1,97 in)

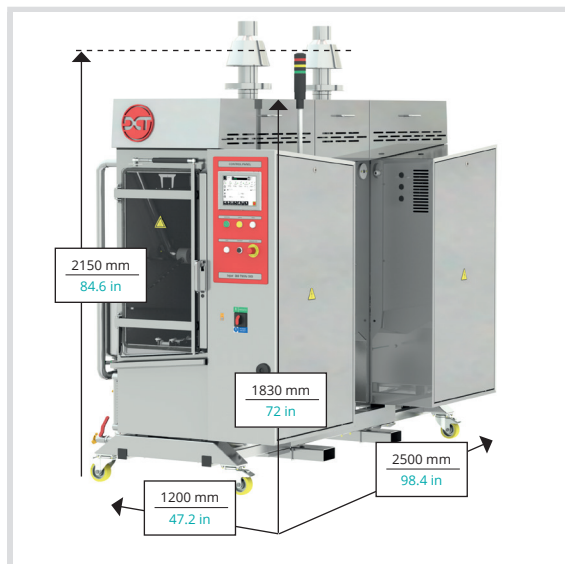
*** Stencils, pumprints larger than 736 x 736 mm / 29 x 29 in



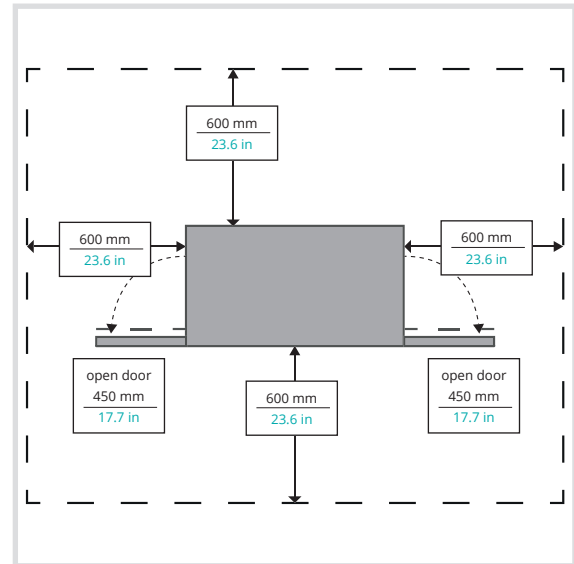
TECHNICAL PARAMETERS

	<i>metric units</i>	<i>imperial units</i>
Dimensions (w x l x h)	1200 x 2500 x 2150* mm	47.2 x 98.4 x 84.6* in
Weight	750 kg	1653 lbs
Ø energy consumption per cycle	1,54 kWh	1.54 kWh
Cleaning and rinsing fluid consumption per cycle	0,05 – 0,3 l	0.01 – 0.08 gal
Compressed air consumption per cycle	1 l / 5 Bar	0.26 gal / 72.5 PSI
Max. dimensions of the cleaned parts	100 x 810 x 740 mm	3.93 x 31.89 x 29.13 in
Exchangeable mechanical filter of cleaning and rinsing fluid	5 – 200 µm	5 – 200 µm
Operating pressures	cleaning: 1,5 – 2,8 Bar, rinsing 1: 0,1 – 2 Bar	cleaning: 27.76 – 40.61 PSI, rinsing: 4.35 – 21.76 PSI
Cleaning fluid flow rate	200 l / min	52.8 gal / min
Temperature range setting of the cleaning and rinsing fluid	From ambient temperature to 60°C	From ambient temperature to 140°F
Conductivity range settings of the rinsing fluid in the tanks.	0 – 2000 µS/cm * optional	0 – 2000 µS/cm * optional
Temperature range setting of the drying	From ambient temperature to 80°C	From ambient temperature to 176°F
Noise level	< 70 dB	< 70 dB
Device control	PLC + 8,4" touchscreen	PLC + 8.4" touchscreen
Volume of the storage tanks	80 l	21 gal

* Maximum dimension in operating condition



DIMENSIONS



**MINIMUM SERVICE SPACE
AROUND THE MACHINE**

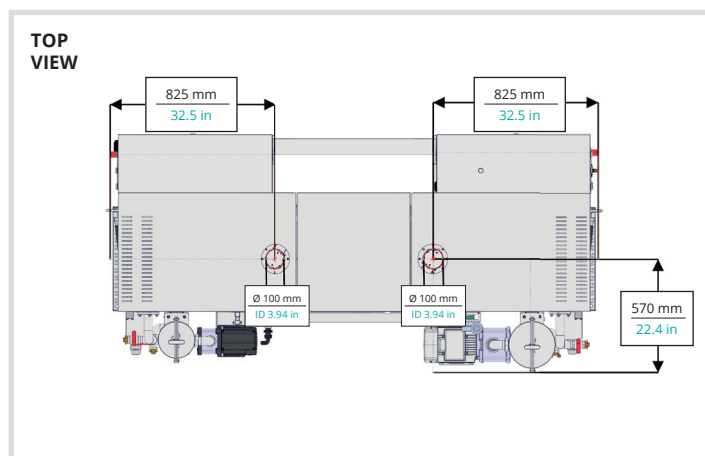
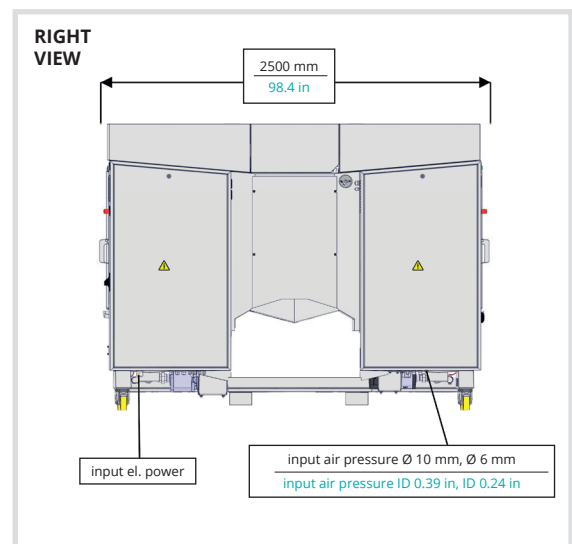
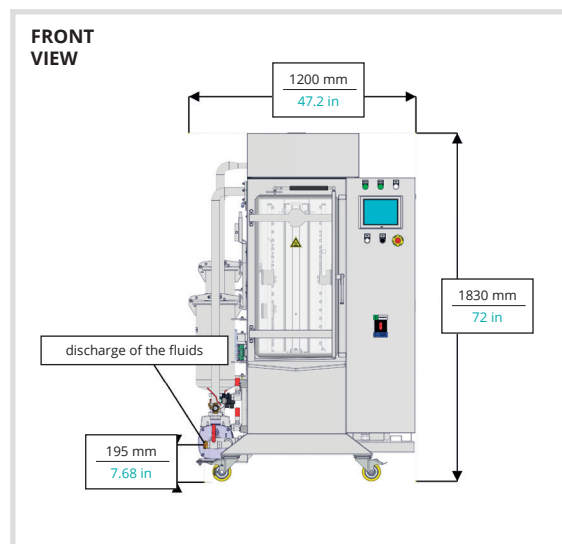


INSTALLATION REQUIREMENTS

	<i>metric units</i>	<i>imperial units</i>
Power supply	400V, 32A, 50Hz (3+N+PE)	UL 400V, 32A, 60Hz* (3+N+PE)
P _{max}	16 kW	16 kW
Compressed air connection	Pipe Ø 6 mm and Ø 10 mm	Pipe ID 0.24 in and ID 0.39 in
Recommended working pressure	4,5 – 6 Bar	65.25 – 87 PSI
Compressed air quality	3. Class **	3. Class **
Exhaust pipe diameter	2 x Ø 100 mm	2 x ID 3.94 in
Exhaust pipe capacity	580 m ³ /h	20450 ft ³ /h
Minimum liquid for first run	2 x 75 l	2 x 19.8 gal
Service space required around the device	600 mm	23.6 in

* When using frequency convertor

** According to the norm ISO 8573-1





STANDARD HARDWARE EQUIPMENT

2 process chamber – fully automated solution

100% closed loop fluid system

2 arm rotation – fluid powered – cleaning

2 arm rotation – fluid powered – rinsing

Cleaning and rinsing fluid heating

High-capacity mechanical filtration on all cycles

2 hot air blowers – drying

Chimney flap – electronically controlled

Pneumatic door lock

Emergency stop button

Manipulation wheels – lockable

Preparation for connecting external filtration

PLC controller + 8,4" touchscreen display

Spare parts (base kit)



STANDARD SOFTWARE EQUIPMENT

Electronic monitoring of fluid level

Electronic process cycle counter

3 levels of logging – operator, maintenance, engineer

Spraying fluid pressure – continuous measurement

Standard software language mutation – CZ, ENG

Liquid and filter replacement notification – cycle counting

Possibility of 5 programs – setting option

Smart warning – low or high pressure level

Smart warning – low fluid level



OPTIONAL HARDWARE EQUIPMENT

Common fluids draining – manual control
Automatic fluids refilling (without pump)
Automatic fluids discharging (without pump)
Tanker 200 a 400 l – cleaning/rinse fluid
Filtration 2PR sandwich – integrated
Filtration sandwich – external
Conductivity measurement – rinse 0-2000 µS – blocking optional
Electronically continuous level measurement – 2 sensors
3 or 2 arm rotation – electric powered

Other optional equipment - the complete list of optional accessories will provide you DCT or the local distributor.



OPTIONAL SOFTWARE EQUIPMENT

SW for CVA calculation (android, machine)
Adjustable timer of cleaning fluid heating
Upgrade machine for PROTON
Language mutation (CZE, ENG, GER, POL, CHI, RUS, ITA, SPA, MAY, HUN)
ONLINE access to cleaning device



OPTIONAL ACCESSORY – FRAMES AND OTHERS

Mechanical carrier frame – PCB
Mechanical carrier frame – frameless stencils
Mechanical carrier frame – frame stencils
Mechanical carrier frame – VectorGuard stencils
Mechanical carrier frame – squeegees

Other optional equipment - the complete list of optional accessories will provide you DCT or the local distributor.



OPTIONAL TRACEABILITY

Traceability OFF line, CSV to SD card
Traceability OFF line, Reader, CSV to SD card
Traceability ON line, PC WIN, file
Traceability ON line, READER, PC WIN, file
Traceability ON line, PC WIN, OPC Server CD, no file
Traceability ON line, PC WIN, READER, OPC Server CD, no file



DCT QUALITY

All of the InJet®, AirJet® and Sonix® cleaning systems developed by DCT are characterised by the highest quality on the market, high reliability, ease of use, simple maintenance, an extremely long lifespan, and the longest warranty on the cleaning system market.

These afore-mentioned benefits are achieved by the **precise manual production** of the machines in the Czech Republic, and thanks to the superior quality of the used materials and components.

Cleaning systems boast a **unique all-stainless-steel construction**, which is welded manually from AISI 304 and AISI 316 stainless steel and then chemically passivated.

The cleaning systems are designed and manufactured with a focus on **ease of use** by operators, **simple maintenance**, and **smart process parameter setting**. They are equipped with industrial PLC IDEC, a well arranged colour touch display with 3-level access (operator, maintenance, engineer), and with 5 adjustable cleaning programmes as standard.

The device **automatically and permanently checks** all **processes, operating fluid levels** and **process temperatures**, and also gives timely notification of the need to replace individual consumables or fluids.

Monitoring of the cleaning process history, whether offline or online, is ensured by an optional traceability function.

A wide range of **standard hardware** and **software equipment** is available for every cleaning system. However, DCT also excels by its **flexibility when resolving non-standard** machines and their accessories.

Our machines, together with our cleaning fluids and local application and technical support, bring you a long-term reliable, powerful and stable cleaning process, even under the most demanding continuous operation conditions.

With all its cleaning systems, DCT offers a **wide range of hardware and software equipment**, special frames with hitches for the parts you want to clean, and countless variants in addition to the basic process monitoring options which use traceability.



For more information, a list of options and a selection of suitable equipment, please contact a DCT specialist in your country or the manufacturer directly.

STAINLESS STEEL DESIGN:

- main support frame
- storage tanks
- process chambers
- fluid and air distribution systems
- spray arms and nozzles
- mechanical high-capacity filters
- process chamber door frame and handle
- external shielding
- active filters for rinsing DI water



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InJet® is a registration trademark of DCT Czech s.r.o.

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