TECHNICAL DATA SHEET

# InJet® 388 TWIN CRD

*Sausage dog*

#BETTER SOLUTIONS


InJet®

2 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.

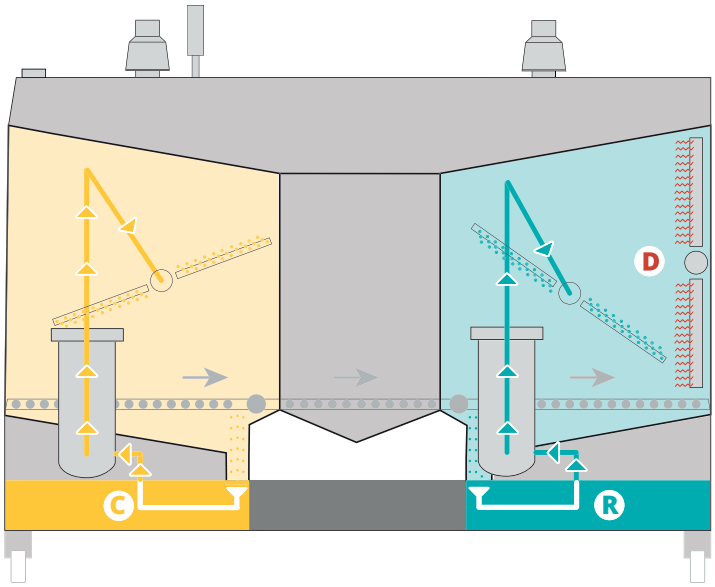

*Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.*

## 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)

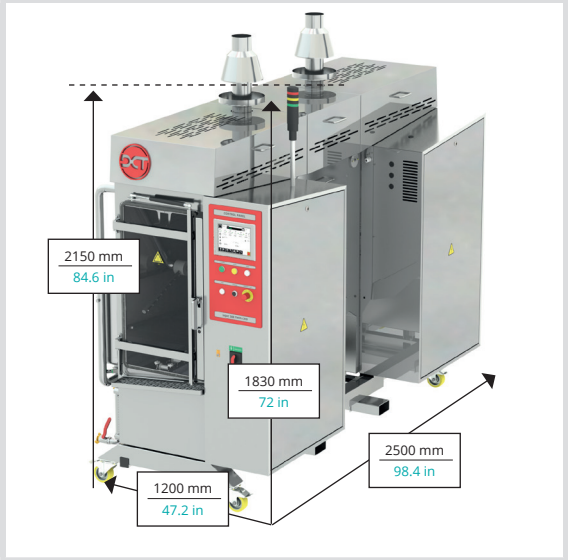
* * Parts in soldering palette / per 8 hours (320 x 500 x 50 mm / 12,6 x 19,7 x 1,97 in)

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

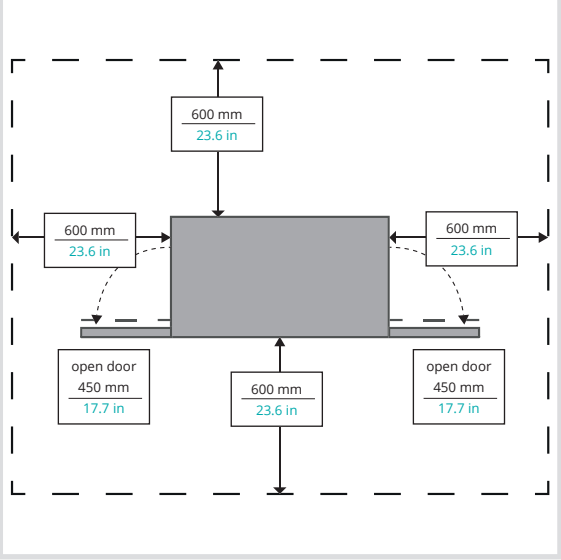
## TECHNICAL PARAMETERS

| | *metric units* | *imperial units* |
|---|---|---|
| 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**



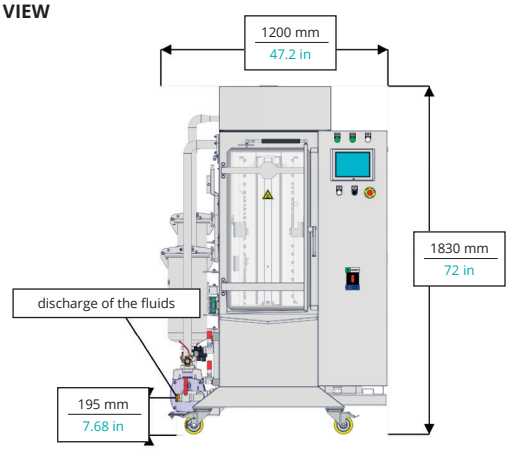

**MINIMUM SERVICE SPACE AROUND THE MACHINE**

## INSTALLATION REQUIREMENTS

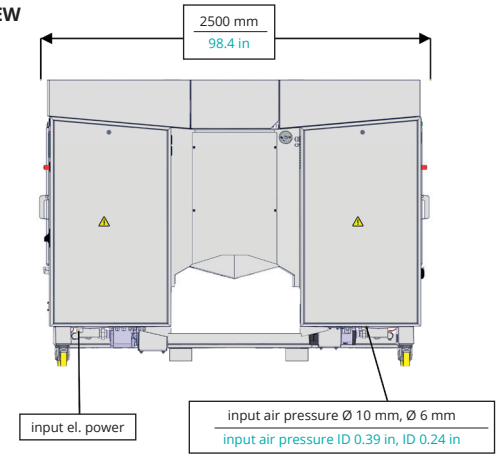
| | *metric units* | *imperial units* |
|---|---|---|
| Power supply | 400V, 32A, 50Hz (3+N+PE) | UL 400V, 32A, 60Hz* (3+N+PE) |
| Pmax | 16 kW | 16 kW |
| Compressed air connection | Pipe Ø 6 mm and Ø 10 mm | Pipe ID 0.24 in and ID 0.39 in |
| Recommended working pressure | 4,5 – 6 Bar | 65.25 – 87 PSI |
| Exhaust pipe diameter | 2 x Ø 100 mm | 2 x ID 3.94 in |
| Exhaust pipe capacity | 580 m³/h | 20450 ft³/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

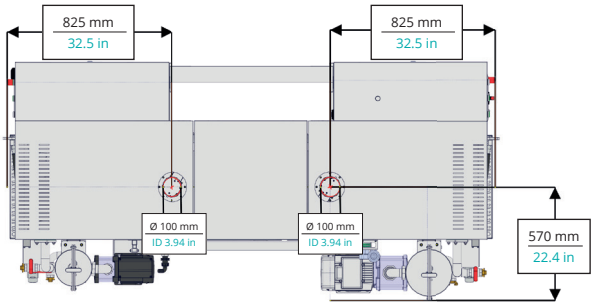
**FRONT VIEW**




**RIGHT VIEW**




**TOP VIEW**



## STANDARD HARDWARE EQUIPMENT

| |
|---|
| 2 process chamber – fully automatted 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 |
| Adjustable legs – 4 pcs |
| 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

| |
|---|
| Manipulation wheels – lockable |
| Common fluids draining – manual control |
| Automatic fluids refilling (without pump) |
| Automatic fluids discharging (without pump) |
| Tanker 200 a 400 l – celaning/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 |
| and other equipment ... |

## 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 |
| and other equipment ... |

## 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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