



# BETTER SOLUTIONS

TECHNICAL DATA SHEET

## InJet® 388 TRIPLE CRRD



CHAMBER

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



## GENERAL INFORMATION

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**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 TRIPLE CRRD**, including a 100% closed loop, with cleaning, rinsing and drying technology processes.

All of the processes are fully automated, and take place in 3 process chambers, whereby the cleaning takes place in the first inlet chamber, after which the part which is being cleaned is automatically transported to a central chamber where the first rinsing process takes place. The third, and last, outlet chamber is designed for the final rinsing and the drying process.

All 3 chambers can be used in parallel, which increases the machine's capacity and reduces cross-contamination when compared with single-chamber devices.

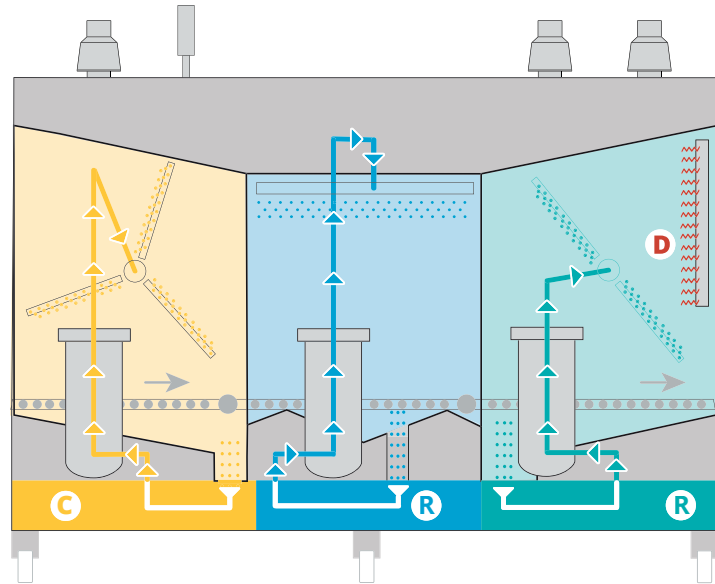


*Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.*



## 4 INDIVIDUAL PROCESSES

- C** CLEANING
- R** PRE-RINSING
- 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  | 20 min.                     | 48                   |
| PumPrint                    | ★★★                     | 40 – 55°C               | 104 – 131 °F | 20 min.                     | 48                   |
| PCB                         | ★★★                     | 35 – 55°C               | 95 – 131 °F  | 32 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)

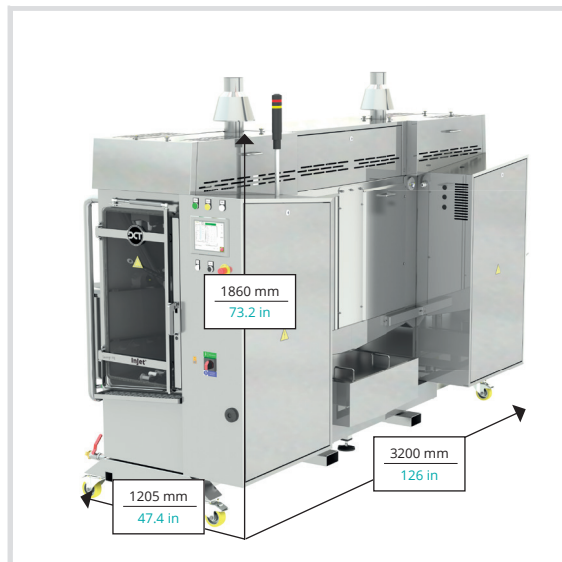
\*\* Parts in soldering palette / per 8 hours (320 x 500 x 50 mm / 12,6 x 19,7 x 1,97 in)

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

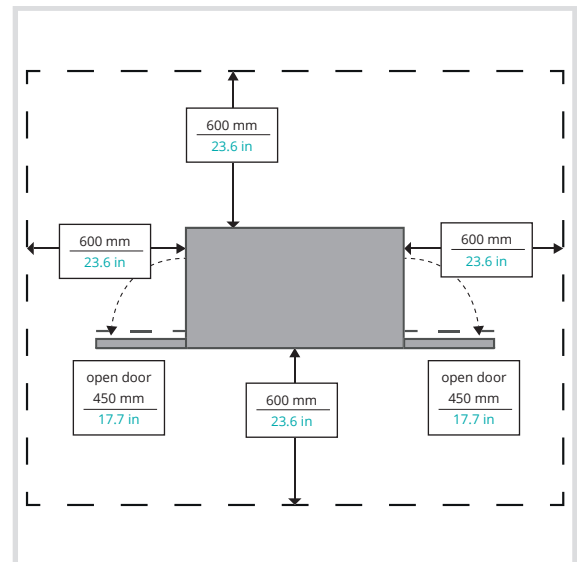


## TECHNICAL PARAMETERS

|                                                                | <i>metric units</i>              | <i>imperial units</i>             |
|----------------------------------------------------------------|----------------------------------|-----------------------------------|
| Dimensions (w x l x h)                                         | 1205 x 3200 x 1860 mm            | 47.4 x 126 x 73.2 in              |
| Weight                                                         | 890 Kg                           | 1962 lbs                          |
| Ø energy consumption per cycle                                 | 1,65 kWh                         | 1.65 kWh                          |
| Cleaning and rinsing fluid consumption per cycle               | 0,05 – 0,3 l                     | 0.01 gal – 0.08 gal               |
| Compressed air consumption per cycle                           | 2 l / 5 Bar                      | 0.52 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 pressure / 45 °C / 113 °F<br>Cleaning                | 0,3–2,8 bar                      | 4.35–40.61 PSI                    |
| Operating pressure / 45 °C / 113 °F<br>Rinsing                 | 0,0–1,5 bar                      | 0.0–21.76 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                                    | 75 l                             | 19,81 gal                         |



**DIMENSIONS**



**MINIMUM SERVICE SPACE  
AROUND THE MACHINE**

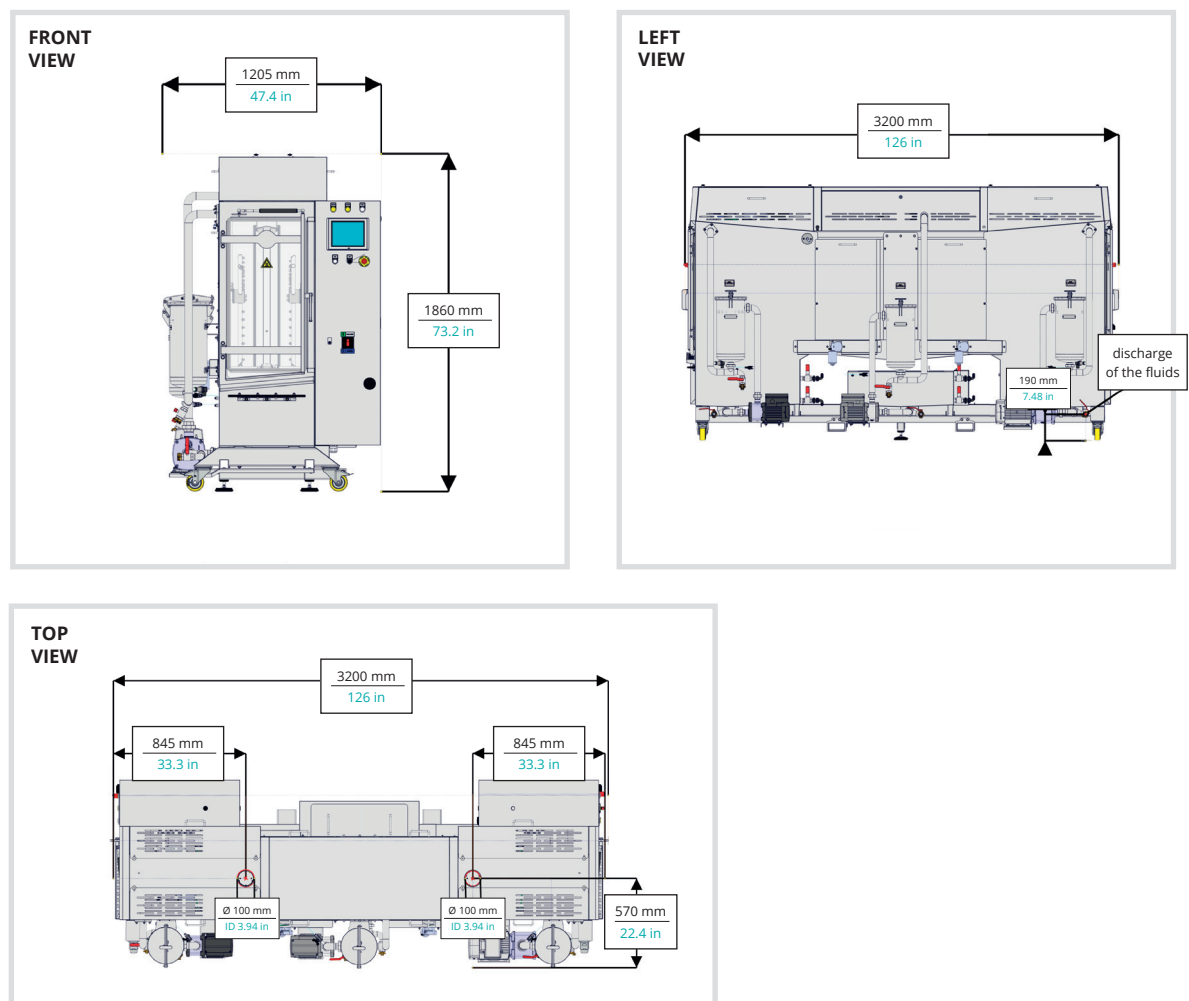


## INSTALLATION REQUIREMENTS

|                                          | <i>metric units</i>      | <i>imperial units</i>     |
|------------------------------------------|--------------------------|---------------------------|
| Power supply                             | 400V, 32A, 50Hz (3+N+PE) | 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 and 0.39 in  |
| Recommended working pressure             | 4,5 – 6 Bar              | 65.25 – 87 PSI            |
| Compressed air quality                   | 3. Class **              | 3. Class **               |
| Exhaust pipe diameter                    | 3 x Ø 100 mm             | 3 x ID 3.94 in            |
| Exhaust pipe capacity                    | 580 m³/h                 | 20450 ft³/h               |
| Minimum liquid for first run             | 3 x 75 l                 | 3 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

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3 process chamber – fully automated solution

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100% closed loop fluid system

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3 arm rotation – fluid powered - cleaning

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2 arm rotation – fluid powered - rinsing

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Cleaning and rinsing fluid heating

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High-capacity mechanical filtration on all cycles

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2 hot air blowers – drying

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Chimney flap – electronically controlled

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Pneumatic door lock

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Emergency stop button

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Manipulation wheels – lockable

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PLC controller + 8,4" touchscreen display

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Spare parts (base kit)



## STANDARD SOFTWARE EQUIPMENT

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Electronic monitoring of fluid level

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Electronic monitoring of fluid pressure

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3 levels of logging – operator, maintenance, engineer

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Spraying fluid pressure - continuous measurement

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Standard software language mutation – CZ, ENG

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Liquid and filter replacement notification – cycle counting

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Possibility of 5 programs – setting option

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Smart warning – low or high pressure level

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Smart warning – low fluid level



## OPTIONAL HARDWARE EQUIPMENT

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Common fluids draining- manual control

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Automatic fluids refilling (without pump)

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Automatic fluids discharging (without pump)

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Tanker 200 or 400 lit – cleaning/rinse fluid

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Filtration 2PR sandwich – integrated

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Filtration sandwich – external

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Conductivity measurement – pre-rinse/rinse 0-2000 µS – blocking optional

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



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Smart warning – low fluid level



## OPTIONAL ACCESSORY – FRAMES AND OTHERS

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Mechanical carrier frame – PCB

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Mechanical carrier frame – frameless stencils

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Mechanical carrier frame – frame stencils

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Mechanical carrier frame – VectorGuard stencils

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Mechanical carrier frame – squeegees



## OPTIONAL TRACEABILITY

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Traceability OFF line, CSV to SD card

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Traceability OFF line, Reader, CSV to SD card

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Traceability ON line, PC WIN, file

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Traceability ON line, READER, PC WIN, file

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Traceability ON line, PC WIN, OPC Server CD, no file

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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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