



TECHNICAL DATA SHEET

## InJet® 388 CRD



**InJet®**



**CHAMBER**



- ★★★ **STENCIL, MISPRINT, SQUEEGEE** cleaning
- ★★★ **PUMPRINT** cleaning
- ★★★ **CONFORMAL COATING** removing
- ★★ **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 CRD**, including a 100% closed loop, with cleaning, rinsing and drying technology processes. All of the processes are fully automated, and take place in one process chamber.

**The InJet® 388 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 PCB cleaning, or for a combination of PCB cleaning and the afore-mentioned cleaning processes.

The machine can also be used for the removal of cured conformal coating.

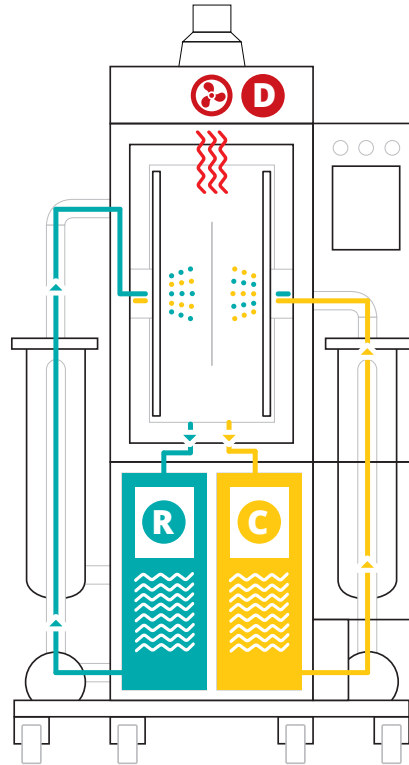


*Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.*



### 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.	27
PumPrint	★★★	40 – 55°C	104 – 131 °F	18 min.	27
Conformal coating	★★★	40 – 55°C	104 – 131 °F	60 min.	192 * / 16 **
PCB	★★	35 – 55°C	95 – 131 °F	30 min.	384 *

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



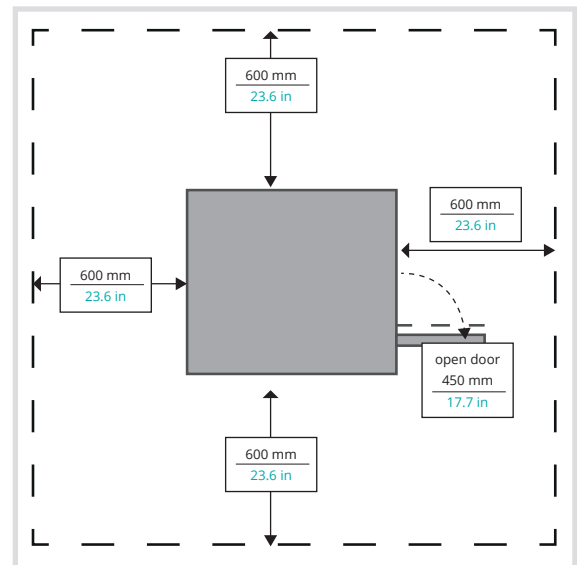
## TECHNICAL PARAMETERS

	<i>metric units</i>	<i>imperial units</i>
Dimensions (w x l x h)	1200 x 1390 x 2400 mm	47.2 x 54.7 x 94.5 in
Weight	450 kg	992 lbs
Ø energy consumption per cycle	2,5 kWh	2.5 kWh
Cleaning and rinsing fluid consumption per cycle	0,05 – 0,3 l	0.01 – 0.08 gal
Compressed air consumption per cycle	900 l / cycle	237.75 gal / cycle
Max. dimensions of the cleaned parts	190 x 800 x 760 mm	7.48 x 31.5 x 29.92 in
Max. dimensions of the cleaned parts with used air knife	100 x 800 x 760 mm*	3.94 x 31.5 x 29.92 in
Exchangeable mechanical filter of cleaning and rinsing fluid	5 – 200 µm	5 – 200 µm
Operating pressures	cleaning: 1,5 – 2,8 Bar, rinsing: 0,3 – 1,5 Bar	cleaning: 21.75 – 40.6 PSI rinsing: 4.35 – 21.5 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
Cleaning system control	PLC + 8,4" touchscreen	PLC + 8.4" touchscreen
Volume of the storage tanks	60 l	15.8 gal

\* Air knife is optional accessory



**DIMENSIONS**



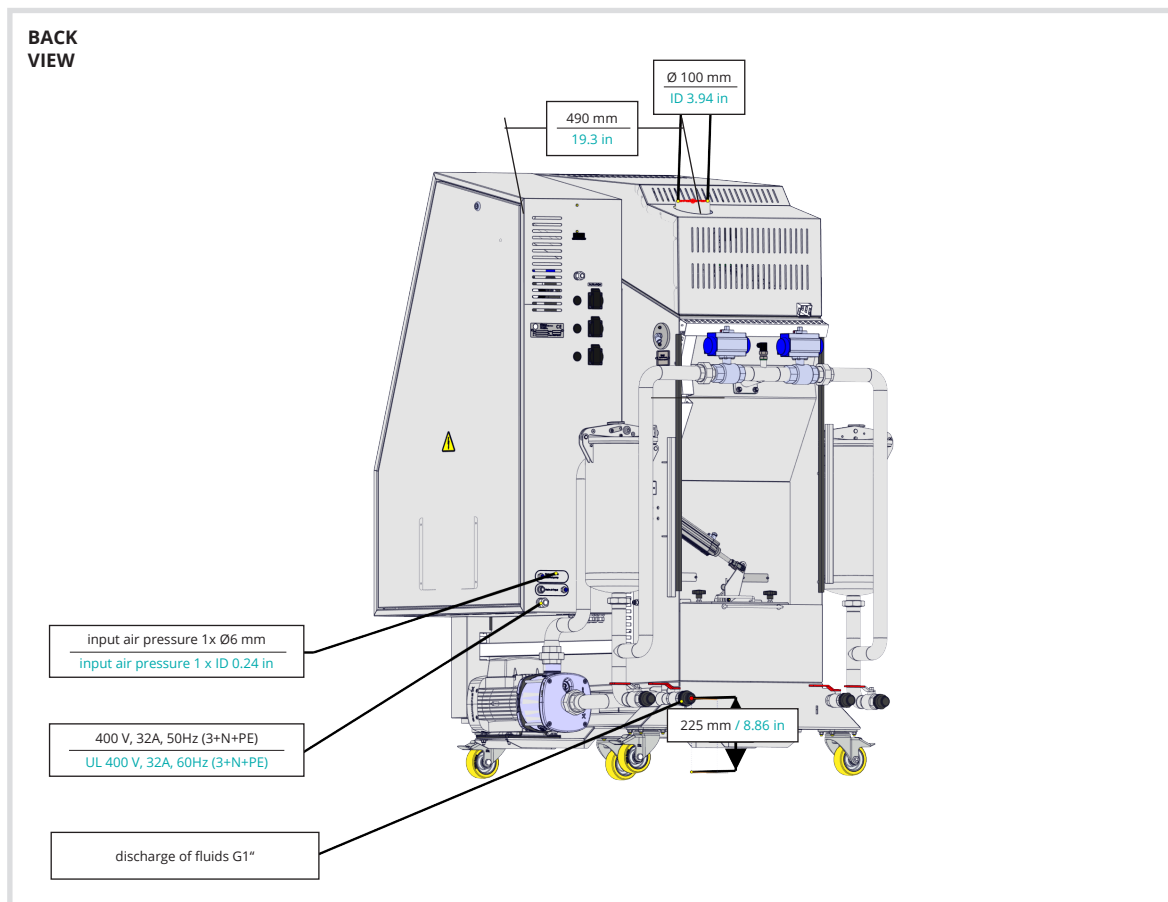
**MINIMUM SERVICE SPACE  
AROUND THE MACHINE**



## 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 <sub>max</sub>	12 kW	12 kW
Compressed air connection	Pipe Ø 6 mm	Pipe ID 0.24 in
Recommended working pressure	4,5 – 6 Bar	65.5 – 87 PSI
Exhaust pipe diameter	Ø 100 mm	ID 3.94 in
Exhaust pipe capacity	380 m <sup>3</sup> /h	13400 ft <sup>3</sup> /h
Minimum liquid for first run	2 x 50 l	2 x 13.2 gal
Service space required around the device	600 mm	23.6 in

\* When using frequency convertor





## STANDARD HARDWARE EQUIPMENT

---

1 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

---

Mechanical filtration

---

2 hot air blowers – drying

---

Chimney flap – electronically controlled

---

Pneumatic door lock

---

Emergency stop button

---

Manipulation wheels – lockable

---

Spare parts (base kit)

---

PLC controller + 8,4" touchscreen display



## STANDARD SOFTWARE EQUIPMENT

---

Electronic monitoring of fluid level

---

Electronic monitoring of fluid pressure

---

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 l and 400 l – cleaning / rinse fluid
Conductivity measurement – rinse 0–2000 µS – blocking optional
Filtration 2PR sandwich – integrated
Filtration sandwich – external
Electronically continuous level measurement
Adjustable arm rotation speed
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
Mechanical carrier frame – frame and VG stencils (reduction)
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



Date of issue: 7/2020

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

DCT Czech s.r.o., Tovární 85, 679 21 Černá Hora, Czech republic  
e-mail: [info@dict.cleaning](mailto:info@dict.cleaning), [www.dict.cleaning](http://www.dict.cleaning), [www.dctcleaning.us](http://www.dctcleaning.us)