



# BETTER SOLUTIONS



CHAMBER

TECHNICAL DATA SHEET

## InJet® 888 CRRD - 2F



- ★★★ **REFLOW** and **SOLDERING PARTS** cleaning
- ★★★ **PCB** cleaning
- ★ **STENCIL, MISPRINT, SQUEEGEE** cleaning



## GENERAL INFORMATION

---

**The InJet® 888 series cleaning systems represent unique horizontal Spray-In-Air technology developed and manufactured by DCT.**

Systems with horizontal spraying technology excel in high pressure and high liquid flow. Thanks to their large process chamber they have a large capacity basket, which also facilitates loading and unloading of the cleaned parts.

The basket can be pulled out of the cleaning chamber on built-in rails or onto a separate loading and handling trolley.

The **InJet® 888 CRRD-2F** including 100% closed loop with processes of cleaning, pre-rinsing, rinsing and drying technologies. All of the processes are fully automated, and take place in one process chamber.

The **InJet® 888 CRRD-2F** is designed primarily for removing flux residues from soldered boards. It is possible to insert and clean a stencil or misprints at the same time.

**The 2F designation refers to a 2-storey solution** where smaller parts can be cleaned in two baskets simultaneously to maximize cleaning capacity. After easy removal of the rotation arm, large parts can be cleaned in one (lower) basket.

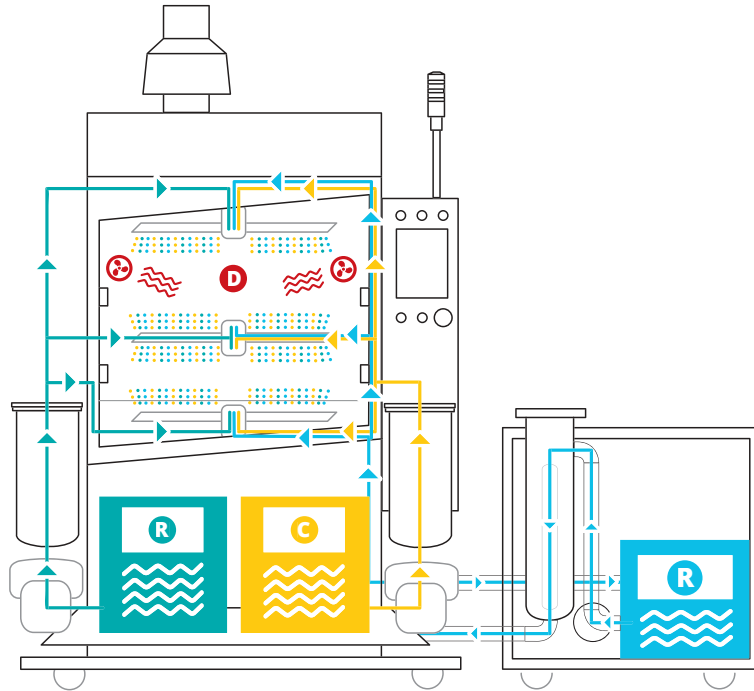


*Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.*



## 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
Reflow and soldering parts	★★★	30 – 50°C	86 – 122 °F	40 min.	240 *
PCB	★★★	35 – 55°C	95 – 131 °F	60 min.	2016 *
Stencil, misprint, squeegee	★	20 – 40°C	68 – 104 °F	20 min.	24

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

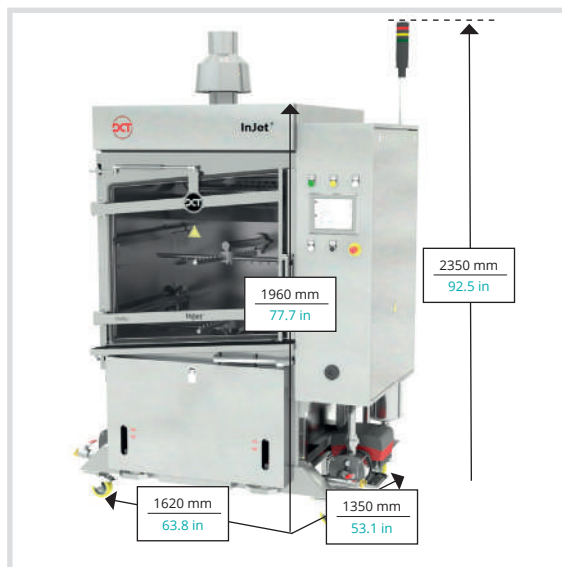


## TECHNICAL PARAMETERS

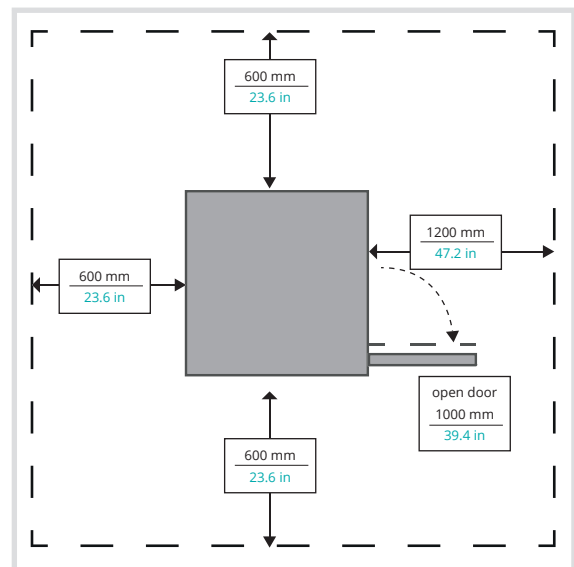
	<i>metric units</i>	<i>imperial units</i>
Dimensions (w x l x h)	1620 x 1400 x 2350* mm	63.8 x 55.1 x 92.5* in
Weight	795 kg	1753 lbs
Ø energy consumption per cycle	3,3 kWh	3.3 kWh
Cleaning and rinsing fluid consumption per cycle	0,2 – 0,5 l	0.05 – 0.13 gal
Compressed air consumption per cycle	1200 l / cycle / 4,5 bar	396.26 gal / cycle / 4,5 bar
Max. dimensions of the cleaned parts **	850 x 800 x 600 mm	32.7 x 31 x 22.7 in
Exchangeable mechanical filter of cleaning and rinsing fluid	5 – 200 µm	5 – 200 µm
Spraying pressure / 45 °C / 113 °F	2,4 Bar	34.8 PSI
Cleaning fluid flow rate	210 l / min	55.5 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 storage tanks	85 l	22,4 gal

\* Maximum dimension in operation condition

\*\* The maximum height of the board, if the basket has 2 floors, is 210 mm at a loading angle of 10°.



**DIMENSIONS**



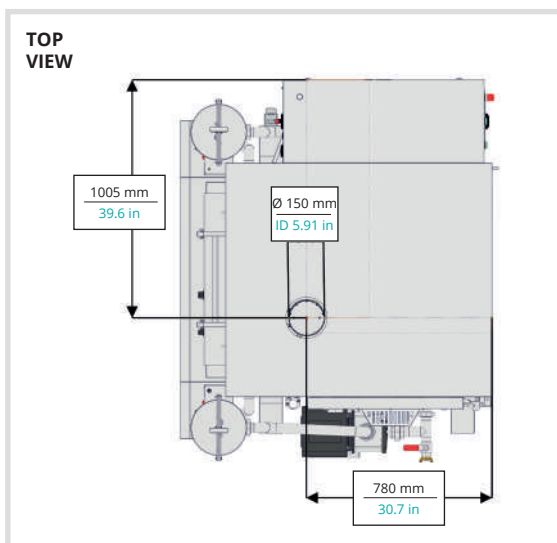
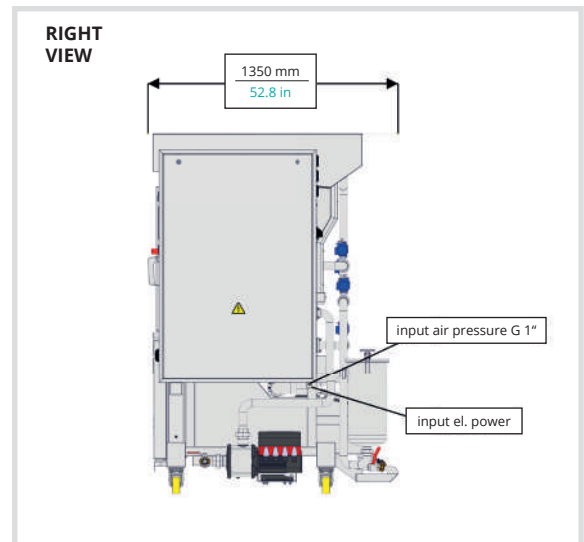
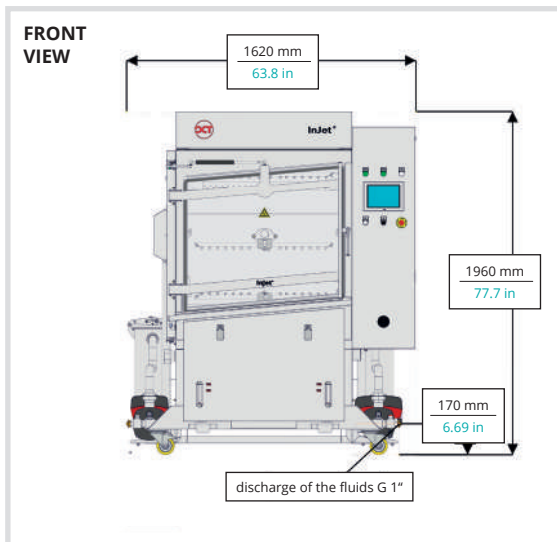
**MINIMUM SERVICE SPACE  
AROUND THE MACHINE**



## 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)
Pmax	16 kW	16 kW
Compressed air connection	Pipe Ø 6 mm	Pipe ID 0.24 in
Recommended working pressure	4,5 – 6 Bar	65.25 – 87 PSI
Exhaust pipe diameter	Ø 150 mm	ID 5.91 in
Exhaust pipe capacity	580 m <sup>3</sup> /h	20450 ft <sup>3</sup> /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





## STANDARD HARDWARE EQUIPMENT

---

1 process chamber – fully automated solution

---

100% closed loop fluid system

---

4 arm rotation – electric powered

---

Cleaning and rinsing fluid heating

---

High-capacity mechanical filtration on all cycles

---

75 litres external tank for pre-rinsing

---

2 hot air blowers – drying

---

Chimney flap – electronically controlled

---

Pneumatic door lock

---

Emergency stop button

---

Adjustable legs – 4 pcs

---

PLC controller + 8,4" touchscreen display

---

Spare parts (base kit)



## STANDARD SOFTWARE EQUIPMENT

---

Electronic monitoring of fluid level

---

Electronic monitoring of fluid pressure

---

Electronic process cycle counter

---

Adjustable pressure of cleaning and rinsing process

---

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 – cleaning or rinse fluid

Filtration sandwich – external

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

Heating fluids in tanker

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 basket

Mechanical basket – PCBs + 4 comb holders

Mechanical basket – PCBs without comb holders

Mechanical basket – soldering frames + paletts

Mechanical carrier stand – soldering frames + paletts (5–12 holders)

Mechanical comb holder (18 slots)

Mechanical table holder – stencil or PCB carrier frame

Mechanical manipulation trolley – one / two floor

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: **3/2021**

**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@dct.cleaning, [www.dct.cleaning](http://www.dct.cleaning)