



TECHNICAL DATA SHEET

InJet® 888 CRD - 2F

BETTER SOLUTIONS



CHAMBER

- ★★★ **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 CRD-2F** including 100% closed loop with processes of cleaning, rinsing and drying technologies. All of the processes are fully automated, and take place in one process chamber.

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 central spray arm, large parts can be cleaned in one (lower) basket.

The **InJet® 888 CRD-2F** is developed **primarily for the removal of smelting residues from soldering frames, and the maintenance cleaning of soldering equipment components.**

The cleaning system can be used for PCBA, or for cleaning a combination of boards, misprints and stencils. It can also be used for cleaning of conformal coating frames and pallets.

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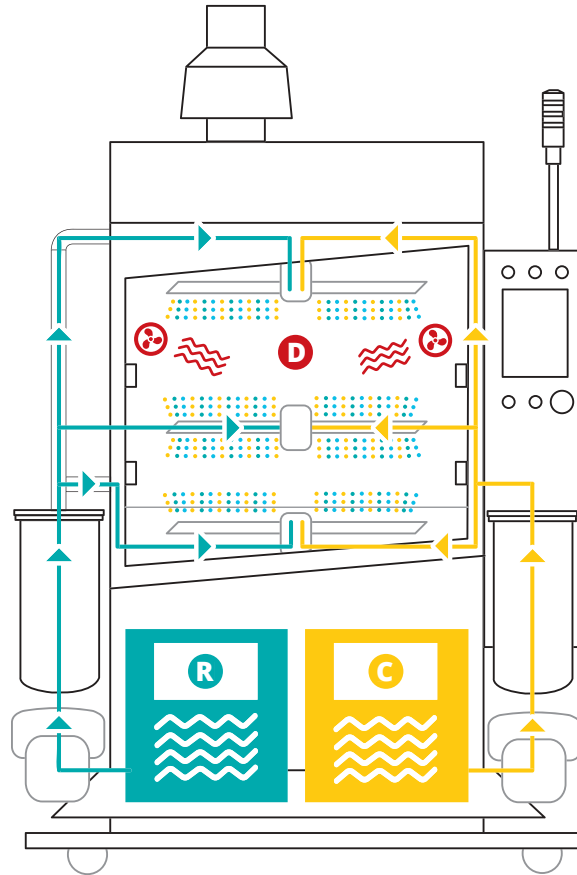


Depending on your cleaning requirements, the DCT project manager, in collaboration with a local distributor, will advise you on a suitable water-based cleaning fluid and the correct setup of the entire process.



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
Reflow and soldering parts	★★★	30 – 50°C	86 – 122 °F	40 min.	240 **
PCB	★★	35 – 55°C	95 – 131 °F	55 min.	2200 *
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

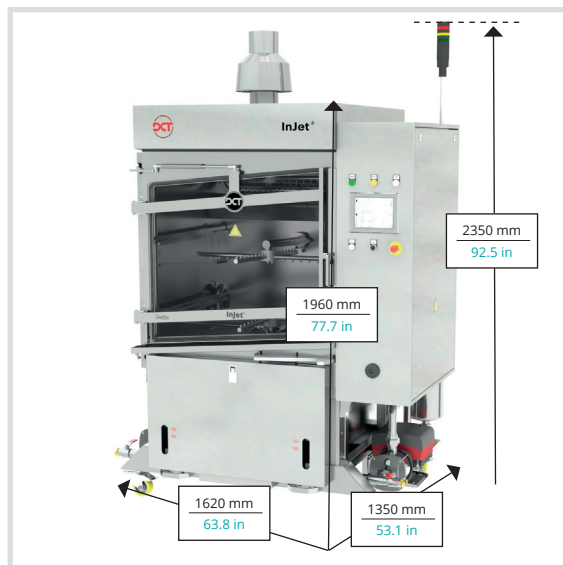


TECHNICAL PARAMETERS

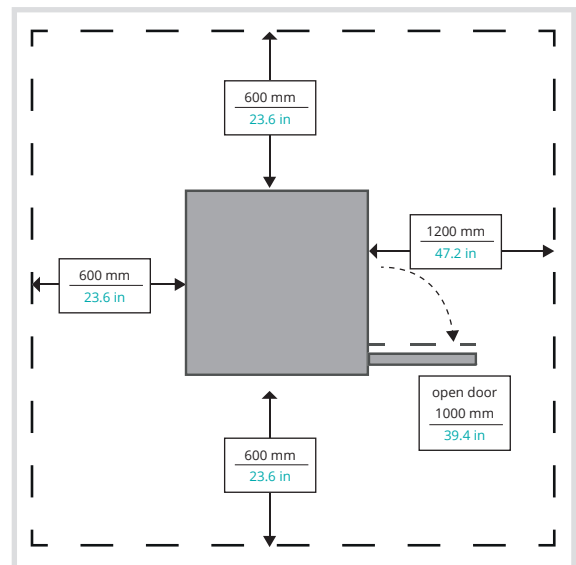
	<i>metric units</i>	<i>imperial units</i>
Dimensions (w x l x h)	1620 X 1350 X 2350* mm	63.8 x 53.1 x 92,5* in
Weight	680 kg	1500 lbs
Ø energy consumption per cycle	3,3 kWh	3,3 kWh
Cleaning and rinsing fluid consumption per cycle	0,2 – 0,5 l	0.05 – 0.13 gal
Compressed air consumption per cycle	1200 l / cycle / 4,5 bar	317 gal / cycle / 4,5 bar
Max. dimensions of the cleaned parts **	850 x 800 x 600 mm	33.46 x 31 x 22.7 in
Exchangeable mechanical filter of cleaning and rinsing fluid	5 – 200 µm	5 – 200 µm
Operating pressures frequency converter	1,8 Bar	26.1 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 the 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



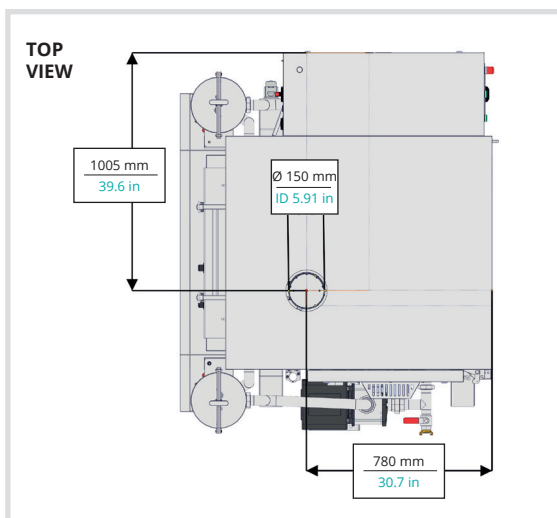
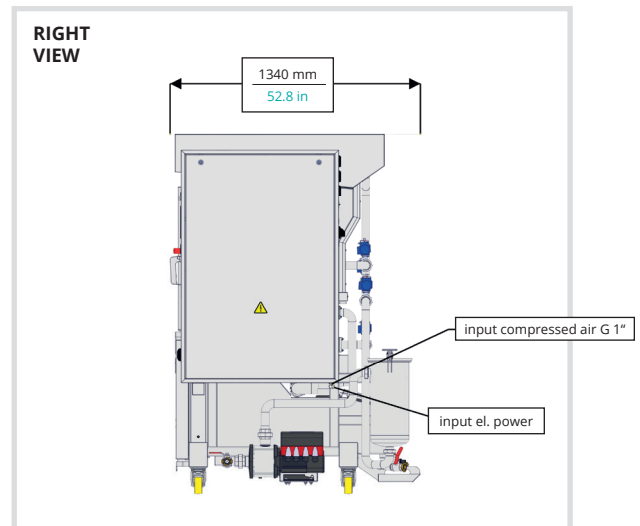
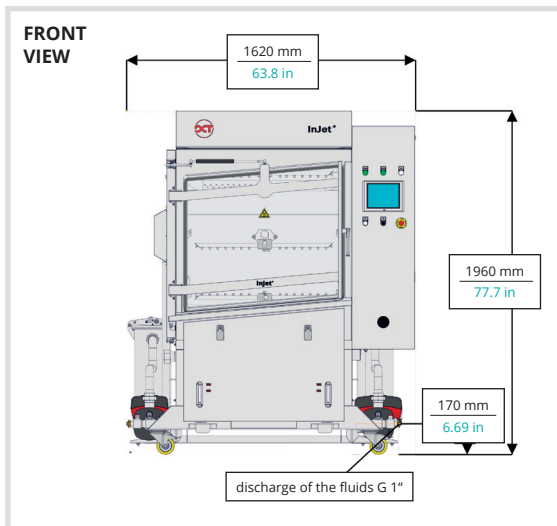
**MINIMUM SERVICE SPACE
AROUND THE MACHINE**



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	12 kW	12 kW
Compressed air connection	Pipe Ø 6 mm, Ø 10 mm	Pipe ID 0.24 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	Ø 150 mm	ID 5.91 in
Exhaust pipe capacity	380 m³/h	13400 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
 ** According to the norm ISO 8573-1





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

2 hot air blowers – drying

Chimney flap – electronically controlled

Pneumatic door lock

Emergency stop button

Manipulation wheels – lockable

Connection ready for external sandwich filtration

PLC controller + 8,4" touchscreen display

Spare parts (base kit)



STANDARD SOFTWARE EQUIPMENT

Electronic process cycle counter

Electronic monitoring of fluid pressure

Adjustable pump pressure cleaning/rinse 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

Common fluids draining – manual control

Automatic fluids refilling (without pump)

Automatic fluids discharging (without pump)

Tanker 200 and 400 l – cleaning/rinse fluid

Heating the liquids in the tanker

Bubbling grate for tanker

Filtration sandwich – external

Conductivity measurement – rinse 0-2000 µS – blocking optional

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 system



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 (5–8 holders)

Mechanical comb holder (18 slots)

Mechanical table holder – stencil or PCB carrier frame

Mechanical manipulation trolley – one/two floor

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



Date of issue: **6/2021**

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

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