



BETTER SOLUTIONS



InJet®

SPRAY IN AIR
TECHNOLOGY



CHAMBERS



INDIVIDUAL
PROCESSES



TECHNICAL DATA SHEET

InJet® 388 TWIN CRD-2PR CUSTOMLINE



APPLICATION

- STENCIL, MISPRINT, SQUEEGEE
- PUMPRINT
- PCBA

REMOVING

- SOLDER PASTES
- SMT ADHESIVES
- FLUX



GENERAL INFORMATION

CUSTOMLINE CLEANING SYSTEM

The **Customline section** is meant for customers who have specific requirements. Together we will configure the cleaning system to achieve the highest efficiency and quality of cleaning according to your wishes and expectations.

DEVELOPED AND INTENDENT FOR RECOMMENDED

APPLICATION

- STENCIL, MISPRINT, SQUEEGEE
- PUMPRINT
- PCBA

REMOVING

- SOLDER PASTES
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CLEANING TECHNOLOGY

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

CHAMBERS & PROCESSES

- 2 PROCESS CHAMBERS
- 3 PROCESSES - CLEANING, RINSING, DRYING

PROCESS CONTROL

- Real-time cleaning fluid pressure monitoring
- Control system of fluids limit pressures
- Liquid and filter replacement notification - cycle counting
- Minimum level warning - cleaning and rinsing fluid
- Conductivity measurement - rinse

BENEFITS

- 2. Touch panel 4,3" on output chamber
- Upgrade to 2-arm driven rotation - rinsing
- Upgrade to 3-arm driven rotation - cleaning
- Air Knife - swinging - drying chamber
- Air Knife - static - clean chamber
- Filtration 2PR sandwich - integrated with automatic regulation

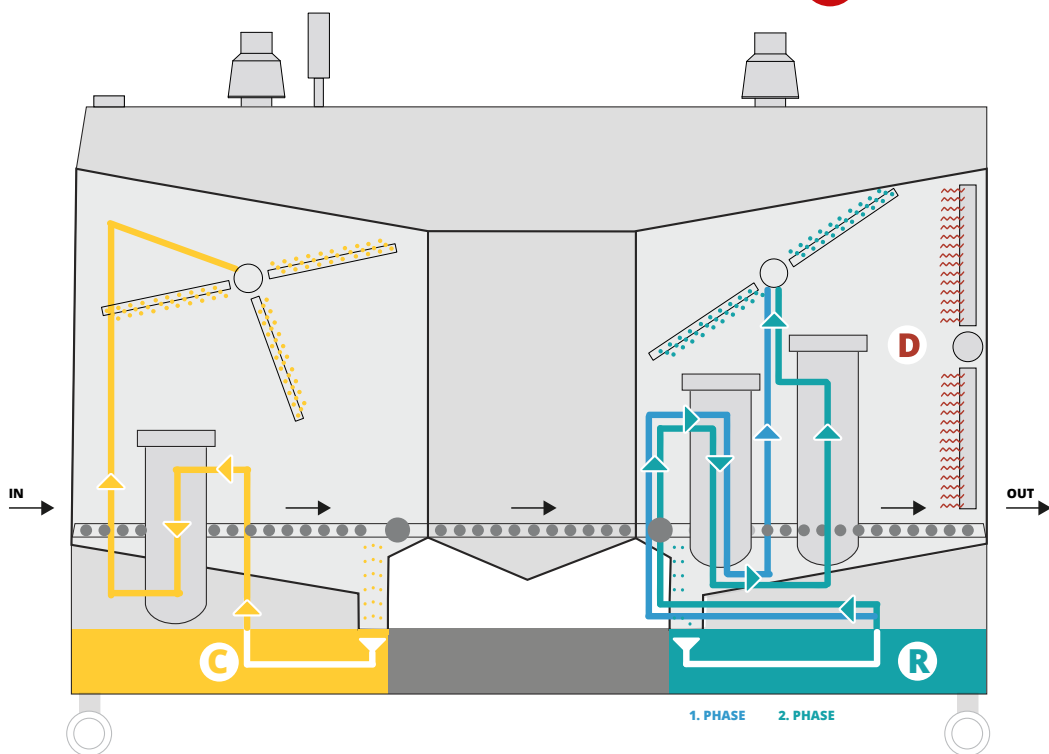


2 PROCESS CHAMBERS



3 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 ***
PCBA	★	35 – 55°C	95 – 131 °F	30 min.	768 *

LEGEND: ★ HIGHLY RECOMMENDED ★ RECOMMENDED ★ APPLICABLE

- * PCBA eurocards / per 8 hours (calculated for dimension of 100 x 160 mm / 3.94 x 6.3 in)
- ** Parts in soldering coating 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



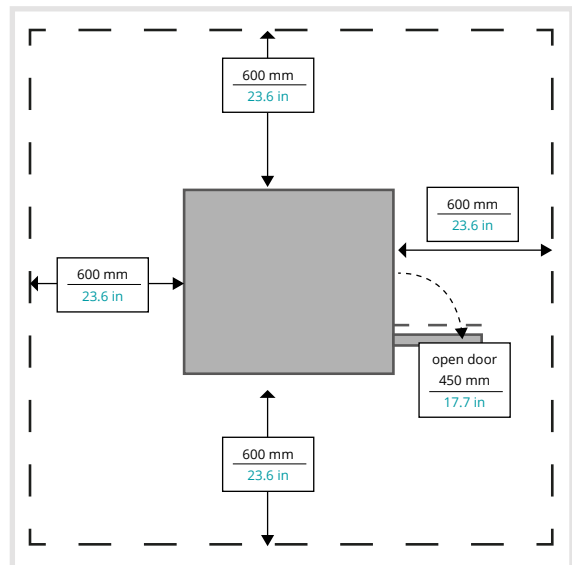
TECHNICAL PARAMETERS

	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	0 – 2000 µS/cm
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

DIMENSIONS



MINIMUM SERVICE SPACE AROUND THE MACHINE

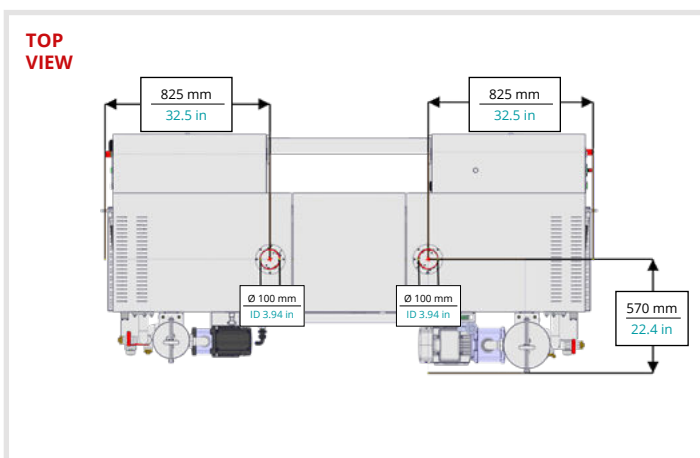
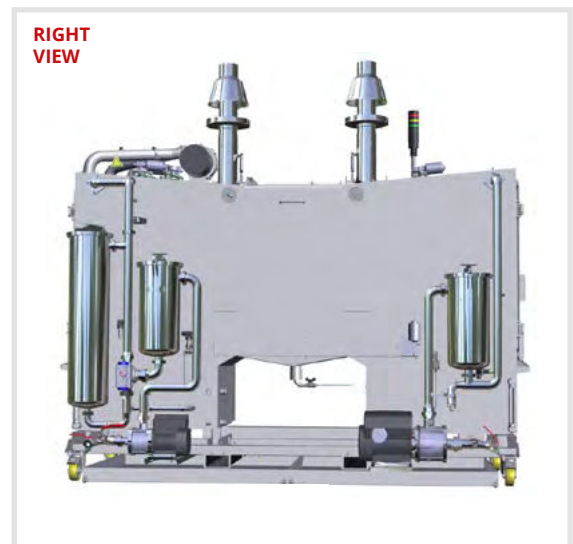
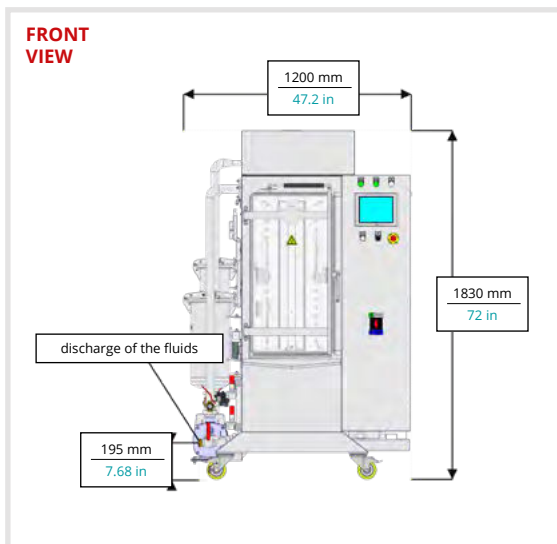




INSTALLATION REQUIREMENTS

	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 - 5 m	Pipe ID 0.24 in and ID 0,39 in - 196,9 in
Recommended working pressure	4,5 - 6 Bar	65.25 - 87 PSI
Compressed air quality	3. Class **	3. Class **
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
 ** According to the norm ISO 8573-1



STANDARD EQUIPMENT



MECHANICAL EQUIPMENT

Filtration of mechanical particles
Chimney flap - automatic
Draft diverter with drip plate - 100 mm
Pressurized air coupling for external pump connection
Castor wheels with brakes - BLICKLE
Door lock - automatic
Manual air-bleeding for pumps
Mechanical filter lock
Glass level gauge in stainless steel housing
Spare parts (base kit)



ELECTRO EQUIPMENT

PLC controller + 8,4" touchscreen display - IDEC
Heating system - cleaning fluid, prerinsing fluid, rinsing fluid
Drying system - hot air
Emergency stop button - EATON
ESD earthing point - for operator



SOFTWARE EQUIPMENT

Language version - Czech + English
Five programs with individually settable parameter
Three-level logging rights - operator, maintenance, engineer
Minimum level warning - cleaning and rinsing fluid
Liquid and filter replacement notification - cycle counting
Control system of fluids limit pressures
Real-time cleaning fluid pressure monitoring

MANDATORY EQUIPMENT



2. Touch panel 4,3" on output chamber
Status light main + acoustic signalization
Conductivity measurement - rinse 0-2000 μ S - blocking optional
Upgrade to 2-arm driven rotation - rinsing
Upgrade to 3-arm driven rotation - cleaning
Air Knife - swinging - drying chamber
Air Knife - static - clean chamber
Filtration 2PR sandwich - integrated with automatic regulation

OPTIONAL EQUIPMENT



HARDWARE EQUIPMENT

Common fluids draining- manual control
Common fluids filling- manual control
Drain distribution valve - automatic control
Automatic cleaning agent refilling (without pump-ready mix)
Automatic cleaning agent refilling - concentrate
Automatic cleaning agent discharging (without pump)
Automatic rinsing water refilling (without pump)
Automatic rinsing water discharging (without pump)
Integrated pump for automatic discharge
External pump for automatic discharge
Integrated pump for manual discharge
External portable pump
Stainless steel drip tray - ESD floor protection
Filtration sandwich - external
Valve with lock
Drain valve with lock
Squeegee for reservoir tank maintenance
Walkable platform TWIN/DOUBLE TRIPLE

OPTIONAL EQUIPMENT



ELECTRO EQUIPMENT

- Adjustable rotation arm speed
- Electronic control - drying spirals functionalit
- Electronically continuous level measurement - cleaning
- Electronically continuous level measurement - rinse
- Electronically continuous level measurement - pre-rinse
- Control of external exhaust ventilator - instalation at customer
- Frequency convertor
- Transformer with/without UL



SOFTWARE EQUIPMENT

- Fluid heating timer - cleaning , pre-rinsing, rinsing
- Language mutation (CZE, ENG, GER, POL, CHI, RUS, ITA, SPA, MAY, HUN)



TRACEABILITY

- Traceability OFF line
- Traceability ON line



FRAMES EQUIPMENT

- Frames for PCBAs
- Frames for frameless stencils
- Frames for frame stencils
- Frames for VectorGuard stencils
- Frames for squeegees
- Frames combined

OPTIONAL EQUIPMENT



TROLLEYS, STANDS, HOLDERS EQUIPMENT

Mechanical table holder for a mechanical carrier frames

Mechanical manipulation trolley - 1 PCBA carrier frame - Twin

Mechanical manipulation trolley of PCBA holders - 10 positions

Mechanical manipulation trolley of PCBA holders - 8 positions

Trolley guidance TWIN



EXTERNAL TANKS AND ACCESSORIES

Tank - 200l - rinse fluid

Conductivity measurement

Tank - 200l - cleaning fluid (readymix)

Tank - 200l - cleaning fluid (concentrate)

Air-based fluid mixing

Heating the fluids in the tanker (200 L)

Tank - 200l - cleaning fluid (concentrate) + dosing pump

1000l IBC tank

Monitoring the level in discharge external tank - IBC 1000 l

Monitoring the level in external tank for DI water - IBC 1000 l

Water pump with pressure tank



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.



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 cleaning systems 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 3 or 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** cleaning systems and their accessories.

Our cleaning systems, 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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