



BETTER SOLUTIONS



InJet®

SPRAY IN AIR
TECHNOLOGY



CHAMBERS



INDIVIDUAL
PROCESSES



TECHNICAL DATA SHEET

InJet® 388 TWIN CRRD CUSTOMLINE

Sausage Dog



APPLICATION

STENCIL, MISPRINT, SQUEEGEE
PUMPRINT
PCB

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
PCB

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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

3 PROCESS CHAMBERS
4 PROCESSES - CLEANING, PRE-RINSING, 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 - pre-rinse and rinse
- Conductivity measurement - (pre)rinse 0-2000 µS - blocking optional



GENERAL INFORMATION

BENEFITS

- 2. Touch panel 4,3" on output chamber
- Air Knife - swinging - drying chamber



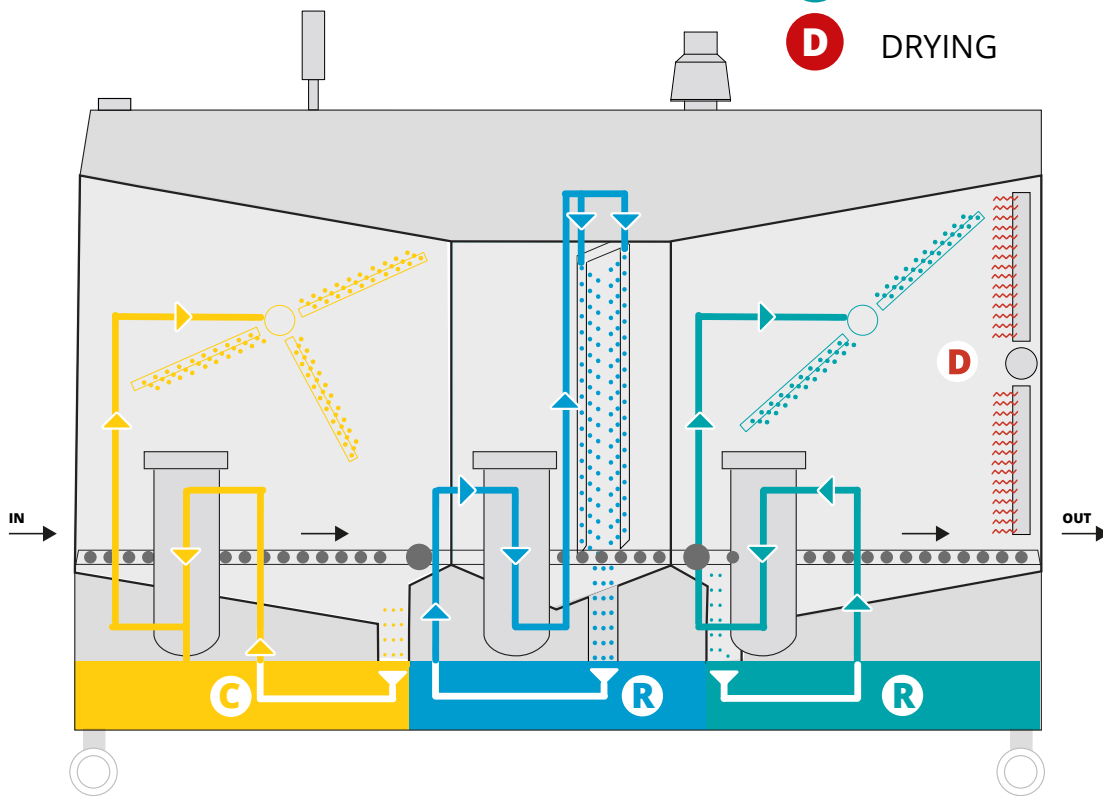


3 PROCESS CHAMBERS



4 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	18 min.	48 ***
PumPrint	★★★	40 – 55°C	104 – 131 °F	18 min.	48 ***
PCB	★★★	35 – 55°C	95 – 131 °F	30 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



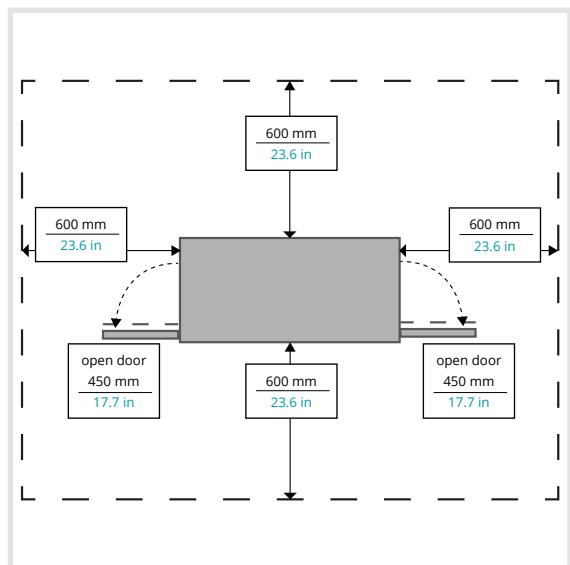
TECHNICAL PARAMETERS

	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	800 kg	1764 lbs
Ø energy consumption per cycle	1,54 kWh	1.54 kWh
Consumption of cleaning agent per cycle - empty process chamber	0,1 – 0,3 l (15 min, 45°C)	0.02 – 0.08 gal (15 min, 113°F)
Consumption of pre-rinsing fluid per cycle - empty process chamber	0,1 – 0,3 l (15 min, 45°C)	0.02 – 0.08 gal (15 min, 113°F)
Consumption of rinsing fluid per cycle - empty process chamber	0,1 – 0,3 l (15 min, 45°C)	0.02 – 0.08 gal (15 min, 113°F)
Compressed air consumption per cycle	2 l / cycle	0.52 gal / cycle
Air consumption of Air knife - chemical residue isolation	166 l / min	44 gal / min
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
Spraying pressure / 45°C / 113°F	2,3 Bar	33.36 PSI
Range pressure – cleaning / 45°C/ 113°F	0,7 – 3 Bar	10.15 – 45.51 PSI
Range pressure – pre rinsing / 45°C / 113°F	0,8 – 2 Bar	11.6 – 29.1 PSI
Range pressure – rinsing / 45°C / 113°F	0,1 – 2,8 Bar	1.45 – 40.61 PSI
Cleaning fluid flow rate	200 l / min	33 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	21.1 gal

DIMENSIONS



MINIMUM SERVICE SPACE AROUND THE MACHINE



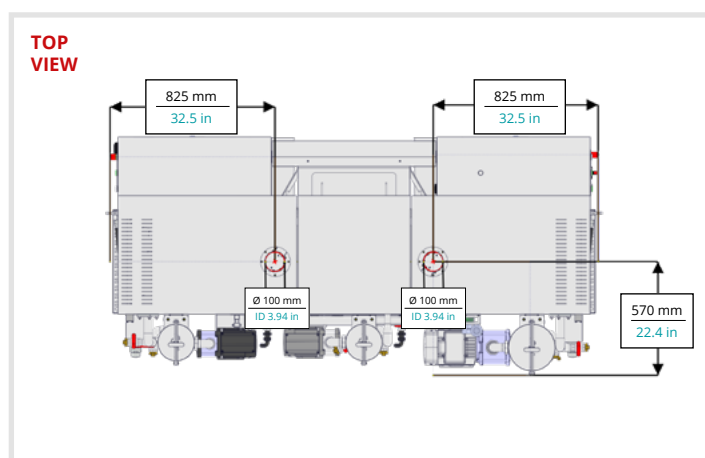
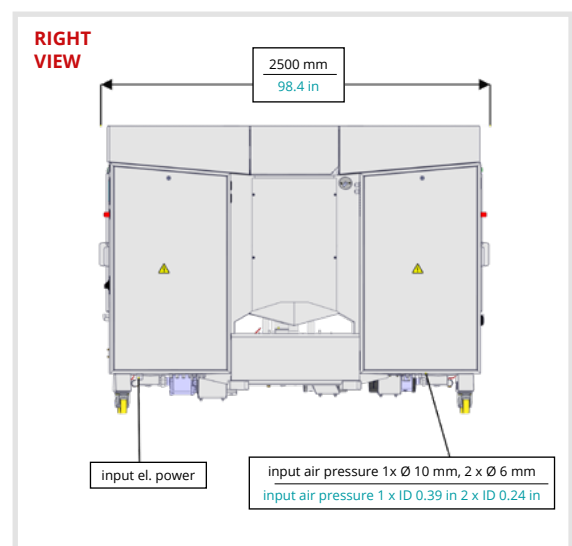
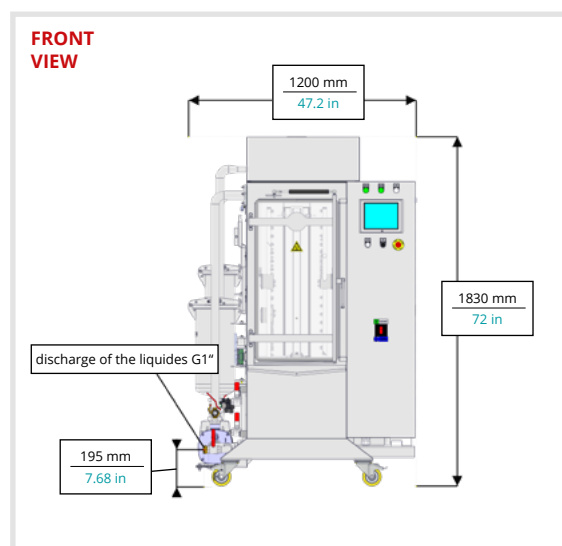


INSTALLATION REQUIREMENTS

	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
Air consumption - air knife	37 m³/h	1305 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 EQUIPMENT



MECHANICAL EQUIPMENT

Static pre-rinsing

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

Rotation - 3-arm driven rotation - cleaning

Rotation - 2-arm driven rotation - rinsing

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 - IDEC

Status light main + acoustic signalization - IDEC

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

Conductivity measurement - rinse 0-2000 µS - blocking optional

Air Knife - swinging - drying chamber

OPTIONAL EQUIPMENT



MECHANICAL 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)

Automatic pre-rinsing water refilling (without pump)

Automatic pre-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

Air Knife - static - clean chamber

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 PCBs
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 PCB carrier frame - Twin

Mechanical manipulation trolley of PCB holders - 10 positions

Mechanical manipulation trolley of PCB 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.

DCT Czech s.r.o.,
Tovární 85, 679 21 Černá Hora, Czech republic
e-mail: info@dct.cleaning, www.dct.cleaning