BETTER SOLUTIONS

InJet®
SPRAY IN AIR
TECHNOLOGY

2
CHAMBERS

3
INDIVIDUAL
PROCESSES

STAINLESS
STEEL
DESIGN
AISI 304/316

TECHNICAL DATA SHEET

InJet® 388 TWIN CRD-2PR
CUSTOMLINE

APPLICATION		REMOVING
STENCIL, MISPRINT, SQUEEGEE	→	**Solder pastes**
PUMPRINT	→	**SMT adhesives**
PCB	→	**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		REMOVING
STENCIL, MISPRINT, SQUEEGEE	→	**Solder pastes**
PUMPRINT	→	**SMT adhesives**
PCB	→	**Flux**

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 eff ect commonly seen in horizontal cleaners, and maximizes the effi ciency of the cleaning process as the cleaning fl uid 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 & PROCCESSES

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**

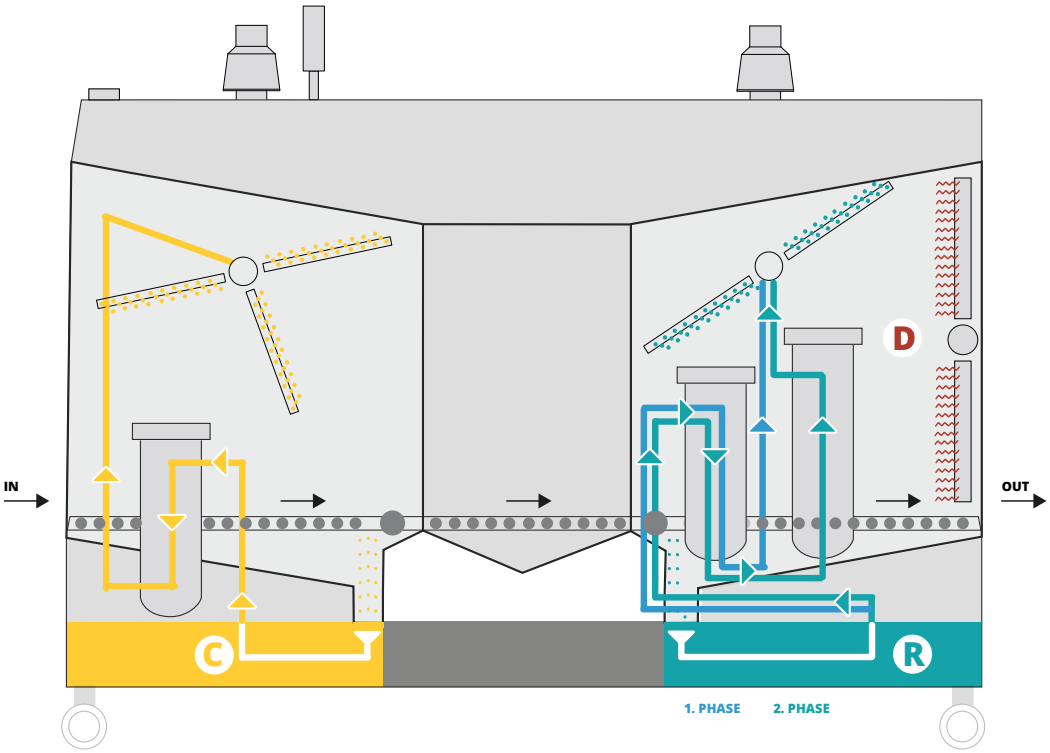
BENEFITS

- **2. Touch panel 4,3" on output chamber**
- **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 ***
PCB	★★	35 – 55°C	95 – 131 °F	30 min.	768 *

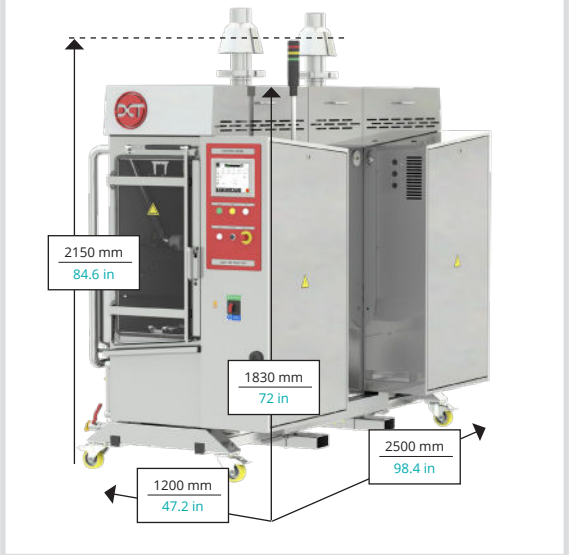
LEGEND: ★★★ highly recommended ★★ recommended ★ applicable

* 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

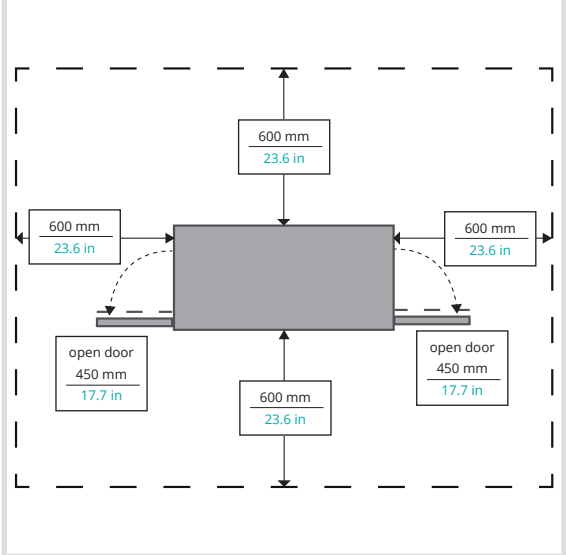
TECHNICAL PARAMETERS

	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	750 kg	1653 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 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 resiude 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
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

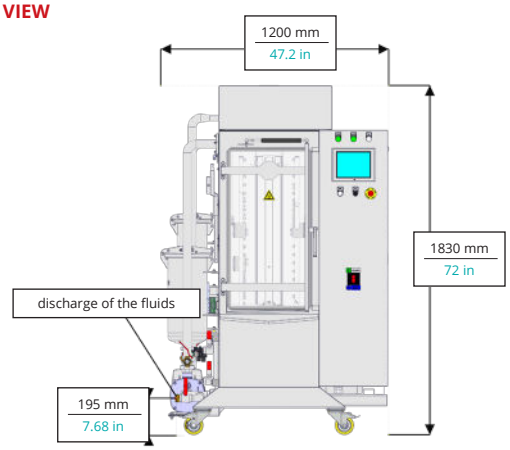


INSTALLATION REQUIREMENTS

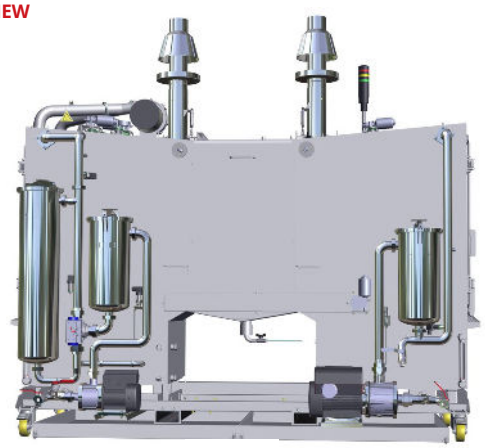
	metric units	imperial units
Power supply	400V, 32A, 50Hz (3+N+PE)	UL 400V, 32A, 60Hz* (3+N+PE)
Pmax	16 kW	16 kW
Compressed air connection	Pipe Ø 6 mm and Ø 10 mm - 5 m	Pipe ID 0.24 in and ID 0,39 in - 196,9 in
Recommended working pressure	4,5 – 6 Bar	65.25 – 87 PSI
Compressed air quality	3. Class **	3. Class **
Exhaust pipe diameter	2 x Ø 100 mm	2 x ID 3.94 in
Exhaust pipe capacity	580 m^3/h	20450 ft^3/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

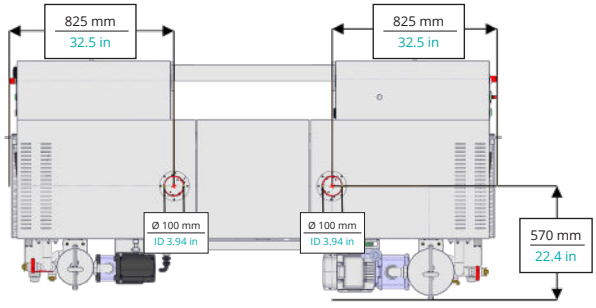
FRONT VIEW



RIGHT VIEW



TOP VIEW



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
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
Status light main + acoustic signalization
Conductivity measurement - rinse 0-2000 µS - blocking optional
Air Knife - swinging - drying chamber
Air Knife - static - clean chamber
Filtration 2PR sandwich - integrated with automatic regulation

OPTIONAL EQUIPMENT

MECHANICAL EQUIPMENT

Common fluids draining- manual control
Common fluids filing- 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 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 AISI 304/316

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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