Injet®

Click on the photo of the machine, you can download TDS of this machine.

technology of cleaning
SPRAY IN AIR

INJET cleaning machines are using high pressure spray-in-air technology for cleaning and rinsing process. They are built as one- or multi-chamber devices, due to requested application and needed cleaning capacity.
This technology is very effective for wide range of parts to clean as a stencils, misprinted PCBs, squeegees, pumprints, soldered PCBs and also maintenance parts cleaning applications.
Available as a vertical or horizontal spraying device, with large portfolio of options which can be add due to customer request, needed capacity or level of final cleanness.

SPRAY IN AIR - vertical machines

Injet 388 mCD	Injet 388 mCRD	Injet 388 mCRRD	Injet TWIN 388 mCRRD	Injet TWIN 499 CRRD
				

SPRAY IN AIR - horizontal machines

Injet 676 CRD	Injet 676 CRRD	Injet 888 CRD	Injet 888 CRRD
			

application – SPRAY IN AIR - vertical machines

Application name	🌡	Injet 388 mCD 👍	Injet 388 mCD 🕒	Injet 388 mCD ☰	Injet 388 mCRD 👍	Injet 388 mCRD 🕒	Injet 388 mCRD ☰	Injet 388 mCRRD 👍	Injet 388 mCRRD 🕒	Injet 388 mCRRD ☰	Injet TWIN 388 mCRRD 👍	Injet TWIN 388 mCRRD 🕒	Injet TWIN 388 mCRRD ☰	Injet TWIN 499 CRRD 👍	Injet TWIN 499 CRRD 🕒	Injet TWIN 499 CRRD ☰
Stencils (misprints, squeegees)	20 - 40 °C	★★★	15 min	32	★★★	18 min	27	★★★	18 min	27	★★★	15 min	48	★★★	18 min	96
PCB cleaning	35 - 55 °C	✖	-	-	★★	30 min	330*	★★★	30 min	384*	★★★	15 min	768*	★★★	35 min	2240*
Pumprint cleaning	40 - 55 °C	★★	35 min	14	★★★	38 min	13	★★★	38 min	13	★★★	38 min	28	★★★	38 min	56
Reflow and soldering parts	30 - 50 °C	✖	-	-	✖	-	-	✖	-	-	✖	-	-	✖	-	-
Conformal coating removing	40 - 55 °C	✖	-	-	✖	-	-	✖	-	-	✖	-	-	✖	-	-

application – SPRAY IN AIR - horizontal machines

Application name	Injet 676 CRD 👍	Injet 676 CRD 🕒	Injet 676 CRD ☰	Injet 676 CRRD 👍	Injet 676 CRRD 🕒	Injet 676 CRRD ☰	Injet 888 CRD 👍	Injet 888 CRD 🕒	Injet 888 CRD ☰	Injet 888 CRRD 👍	Injet 888 CRRD 🕒	Injet 888 CRRD ☰
Stencils (misprints, squeegees)	★	20 min	24	★	20 min	24	★★	20 min	24	★★	20 min	24
PCB cleaning	★★	60 min	640*	★★★	55 min	690*	★★	60 min	1064*	★★★	55 min	1160*
Pumprint cleaning	✖	-	-	✖	-	-	★	40 min	12	★	40 min	12
Reflow and soldering parts	★★★	40 min	132**	★★★	40 min	132**	★★★	40 min	240**	★★★	40 min	240**
Conformal coating removing	✖	-	-	✖	-	-	✖	-	-	✖	-	-

technical information – SPRAY IN AIR - vertical machines

	Injet 388 mCD	Injet 388 mCRD	Injet 388 mCRRD	Injet TWIN 388 mCRRD	Injet TWIN 499 CRRD
Number of chambers	1	1	1	2	2
Processes	cleaning | drying	cleaning | rinsing | drying	cleaning | rinsing | rinsing | drying	cleaning | rinsing | rinsing | drying	cleaning | rinsing | rinsing | drying
Device dimensions	800 x 1280 x 1650 mm	1050 x 1325 x 1850 mm	1050 x 1325 x 1850 mm	1050 x 2580 x 1820 mm	1400 x 2550 x 1965 mm
Max. dimension of cleaned part	190 x 860 x 790 mm	190 x 860 x 790 mm	190 x 860 x 790 mm	130 x 810 x 740 mm	130 x 910 x 860 mm
Weight *(without cleaning fluids)*	250 kg	350 kg	350 kg + 210 kg	650 kg	1300 kg
Internal mechanical filtration	cleaning: 20-100 μm	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm
External filtration 1 with tank / 2 without tank	✖ / ✖	€ / ✖	✔ / €	€ / €	€ / €
Flow rate | pressure of cleaning fluid	125 l/min | 2 Bar	125 l/min | 2 Bar	125 l/min | 2 Bar	125 l/min | 2 Bar	2x210 l/min | 2 Bar
Energy consumption *(per 1 cycle)*	0.58-2.35 kW/h; Ø1.47 kW/h	0.6-2.67 kW/h; Ø1.64 kW/h	0.63-2.66 kW/h; Ø1.65 kW/h	0.53-2.55 kW/h; Ø1.54 kW/h	0.91-3.91 kW/h; Ø2.41 kW/h
Cleaning fluid consumption *(per 1 cycle)*	0,05 - 0,2 l	0,05 - 0,3 l	0,05 - 0,3 l	0,05 - 0,2 l	0,1 - 0,4 l
Air consumption *(per 1 cycle)*	✖	<2 liters / 5 bar	<3 liters / 5 bar	<1 liters / 5 bar	<4 liters / 5 bar
Device control	4,6“ PLC	8,4“ PLC	8,4“ PLC	8,4“ PLC	8,4“ PLC
Traceability online / offline	€ / ✖	€ / €	€ / €	€ / €	€ / €

technical information – SPRAY IN AIR - horizontal machines

	Injet 676 CRD	Injet 676 CRRD	Injet 888 CRD	Injet 888 CRRD
Number of chambers	1	1	1	1
Processes	cleaning | rinsing | drying	cleaning | rinsing | rinsing | drying	cleaning | rinsing | drying	cleaning | rinsing | rinsing | drying
Device dimensions	1250 x 1295 x 1868 mm	1250 x 1295 x 1868 mm	1550 x 1500 x 1950 mm	1550 x 1500 x 1950 mm
Max. dimension of cleaned part	600 x 700 x 500 mm	600 x 700 x 500 mm	850 x 800 x 610 mm	850 x 800 x 610 mm
Weight *(without cleaning fluids)*	700 kg	700 kg + 210 kg	780 kg	780 kg + 210 kg
Internal mechanical filtration	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm	cleaning: 20-100μm rinsing: 5-20μm
External filtration 1 with tank / 2 without tank	€ / €	✔ / €	€ / €	✔ / €
Flow rate | pressure of cleaning fluid	183 l/min | 2 Bar	183 l/min | 2 Bar	210 l/min | 2 Bar	210 l/min | 2 Bar
Energy consumption *(per 1 cycle)*	0.53-4.40 kW/h; Ø2.50 kW/h	0.53-4.40 kW/h; Ø2.50 kW/h	0.73-5.80 kW/h; Ø3.30 kW/h	0.73-5.80 kW/h; Ø3.30 kW/h
Cleaning fluid consumption *(per 1 cycle)*	0,2 - 0,4 l	0,2 - 0,4 l	0,2 - 0,5 l	0,2 - 0,5 l
Air consumption *(per 1 cycle)*	<2 liters / 5 bar	<3 liters / 5 bar	<2 liters / 5 bar	<3 liters / 5 bar
Device control	8,4“ PLC	8,4“ PLC	8,4“ PLC	8,4“ PLC
Traceability online / offline	€ / €	€ / €	€ / €	€ / €

Instalation

Power connection:	**32A**
Central pressed air connection:	**6 mm**
Connection to air exhaust\.	**100 mm**

Applies to all machines with the exception of:

Injet TWIN 499 CRRD	power connection: 63A air exhaust: 2x 150 mm
Injet 888 CRRD and Airjet 4127	air exhaust: 150 mm
Injet TWIN 388 mCRRD	air exhaust: 2x 100mm

Airjet®

technology of cleaning
AIR BUBBLE

AIRJET cleaning machines are using for cleaning and rinsing process technology of air-bubbles in cleaning bath. These devices are designed for applications of maintenance cleaning, especially soldering frames, pallets, masks, reflow oven filters, wave soldering machine parts etc. Offering high capacity and big process chamber sizes, mostly built as a multi-chamber solutions.
Also available special one-chamber full automatic model Airjet 943 CRD designed for use with flammable solvents developed for removing of some special cured coating materials.

AIR BUBBLE

Airjet 366/486 m	Airjet 366/486 mCR	Airjet 366/486 mCRD	Airjet 4127 mCR	Airjet 4127 mCRD	Airjet 943 CRD
					

application – AIR BUBBLE

Application name	Airjet 366/486 m 👍	🌡	🕒	☰	Airjet 366/486 mCR 👍	🌡	🕒	☰	Airjet 366/486 mCRD 👍	🌡	🕒	☰
Stencils (misprints, squeegees)	✖	-	-	-	✖	-	-	-	✖	-	-	-
PCB cleaning	✖	-	-	-	✖	-	-	-	✖	-	-	-
Pumprint cleaning	✖	-	-	-	✖	-	-	-	✖	-	-	-
Reflow and soldering parts	★★★	20 °C	60 min	64/160**	★★★	40 °C	50 min	64/160**	★★★	40 °C	35 min	128/320**
Conformal coating removing	✖	-	-	-	✖	-	-	-	✖	-	-	-

Application name	Airjet 4127 mCR 👍	🌡	🕒	☰	Airjet 4127 mCRD 👍	🌡	🕒	☰	Airjet 943 CRD 👍	🌡	🕒	☰
Stencils (misprints, squeegees)	✖	-	-	-	✖	-	-	-	✖	-	-	-
PCB cleaning	✖	-	-	-	✖	-	-	-	✖	-	-	-
Pumprint cleaning	✖	-	-	-	✖	-	-	-	✖	-	-	-
Reflow and soldering parts	★★★	40 °C	50 min	384**	★★★	40°C	50min	768**	✖	-	-	-
Conformal coating removing	✖	-	-	-	✖	-	-	-	★★★	20°C	45 min	384*/40**

technical information – AIR BUBBLE

	Airjet 366/486 m	Airjet 366/486 mCR	Airjet 366/486 mCRD	Airjet 4127 mCR	Airjet 4127 mCRD	Airjet 943 CRD
Number of chambers	2	3	3	3	3	1
Processes	cleaning | rinsing	cleaning | rinsing	cleaning | rinsing | drying	cleaning | rinsing	cleaning | rinsing | drying	cleaning | rinsing | drying
Device dimensions	366: 1280 x 650 x 950 mm 486: 1550 x 900 x 950 mm	366: 1280 x 650 x 950 mm 486: 1550 x 900 x 950 mm	366: 1280 x 650 x 950 mm 486: 1550 x 900 x 950 mm	1870 x 1430 x 1000 mm	1870 x 1430 x 1000 mm	1842 x 1070 x 1595 mm
Max. dimension of cleaned part	366: 300 x 600 x 600 mm 486: 400 x 800 x 600 mm	366: 300 x 600 x 600 mm 486: 400 x 800 x 600 mm	366: 300 x 600 x 600 mm 486: 400 x 800 x 600 mm	440 x 1300 x 750 mm	440 x 1300 x 750 mm	900 x 380 x 220 mm
Dimension of carrier basket	366: 280 x 500 mm 486: 380 x 700 mm	366: 280 x 500 mm 486: 380 x 700 mm	366: 280 x 500 mm 486: 380 x 700 mm	420 x 1200 mm	420 x 1200 mm	360 x 880 mm
Weight *(without cleaning fluids)*	366: 170 kg | 486: 250 kg	366: 170 kg | 486: 250 kg	366: 170 kg | 486: 250 kg	450 kg	450 kg	650 kg
Internal mechanical filtration	✖	✖	✖	✖	✖	✔
External filtration 1 with tank / 2 without tank	✖ / ✖	✖ / ✖	✖ / ✖	✖ / ✖	✖ / ✖	€ / €
Energy consumption *(per 1 cycle)*	0.60-2.40 kW/h; Ø1.7 kW/h	0.60-2.40 kW/h; Ø1.7 kW/h	0.60-2.40 kW/; Ø1.7 kW/h	0.52-4.05 kW/h; Ø2.28 kW/h	0.86-2.97 kW/h; Ø1.92 kW/h	1.42-3.62 kW/h; Ø2.52 kW/h
Cleaning fluid consumption *(per 1 cycle)*	-	-	-	-	-	-
Air consumption *(per 1 minute)*	83 liters/5 bar	83 liters/5 bar	83 liters/5 bar	83 liters/5 bar	83 liters/5 bar	83 liters/5 bar
Device control	4,6“ PLC	4,6“ PLC	4,6“ PLC	4,6“ PLC	4,6“ PLC	8,4“ PLC

Sonix®

technology of cleaning
ULTRASONIC

SONIX cleaning machines are using ultrasonic technology for cleaning process, rinsing process is provided by air -bubbles.
Due to high efficiency of ultrasonic cleaning are these devices designed mainly for removing of cured varnishes or special degreasing applications.
Ultrasonic technology can be use also for PCB flux cleaning, if all components and materials use on PCB are compatible with ultrasonic energy.

ULTRASONIC

Sonix 355 CRRD	Sonix 943 CRD
	

application – ULTRASONIC

Application name	Sonix 355 CRRD 👍	🌡	🕒	☰	Sonix 943 CRD 👍	🌡	🕒	☰
Stencils (misprints, squeegees)	✖	-	-	-	✖	-	-	-
PCB cleaning	★★	45 °C	35 min	1440*	★	45 °C	35 min	490*
Pumprint cleaning	✖	-	-	-	✖	-	-	-
Reflow and soldering parts	✖	-	-	-	✖	-	-	-
Conformal coating removing	★★★	45 °C	60 min	960*/80**	★★★	45 °C	45 min	384*/40**

technical information – ULTRASONIC

	Sonix 355 CRRD	Sonix 943 CRD
Number of chambers	4	1
Processes	cleaning | rinsing | rinsing | drying	cleaning | rinsing | drying
Device dimensions	1360 x 972 x 1243 mm	1842 x 1070 x 1595 mm
Max. dimension of cleaned part	280 x 560 x 570 mm	900 x 380 x 220 mm
Dimension of carrier basket	260 x 460 mm	360 x 880 mm
Weight *(without cleaning fluids)*	400 kg	660 kg
Internal mechanical filtration	✖	✔
External filtration 1 with tank / 2 without tank	€ / €	€ / €
Energy consumption *(per 1 cycle)*	0.61-3.23 kW/h; Ø1.92 kW/h	1.4-3.95 kW/h; Ø2.67 kWh/h
Cleaning fluid consumption *(per 1 cycle)*		
Air consumption *(per 1 minute)*	83 liters/5 bar	83 liters/5 bar
Device control	5,7“ PLC	8,4“ PLC

Legend

🌡	recommend temperature of cleaning fluid	★	applicable	✖	not applicable	☰	capacity
👍	our application recommendation	★★	recommended	✔	included	*	eurocards (100 x 160 mm) per 8 hours (work shift)
🕒	total time of cleaning cycle	★★★	highly recommended	€	optional	**	parts in soldering palette (350 x 500 x 50 mm) per 8 hours (work shift)

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