



SuperSWASH III

Config Guide

Updated March 2025

Plan 50



DIRECT
SPRAY



AIR KNIFE
DRYER



TRACEABILITY



RINSE
CONTROL



WATER
REGENERATION



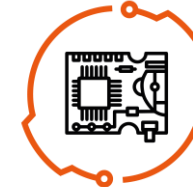
MES
CONNECTIVITY



Single chamber Spray-In-Air technology

Precise cleaning of PCBAs

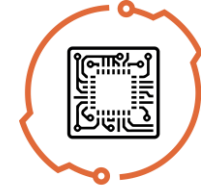
Direct spray for difficult to clean assemblies



PCBA



DBC



MISPRINTS

Features

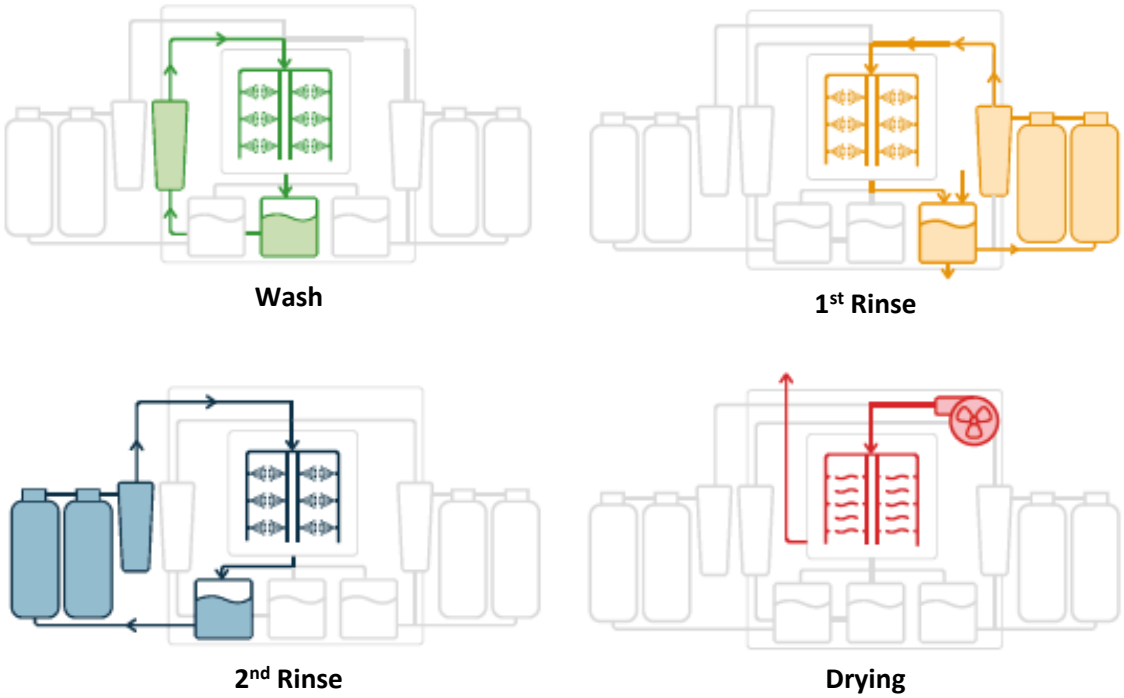
- Automatic cleaning machine for water-based chemicals
- High performance direct spray technology
- 4 stage process Wash, 1st Rinse, 2nd Rinse, Drying
- Rapid direct drying by heated air knife
- Closed loop eco drain system
- Perfect for complex PCBA cleaning
- Control SW language mutations

Applications

- Defluxing, removing activators and resin residues
- Cleaning contamination from handling and board manufacturing
- Cleaning highly populated electronic assemblies with low standoff components such as BGA, CSP, LGA, MELF etc.
- Cleaning of power electronics
- Cleaning electronic assemblies requiring extra short process time
- Cleaning second side misprints on complex assemblies
- Cleaning before conformal coating
- Cleaning before wire bonding

Parameters

Machine dimensions W x L x H	1 700 × 1 500 × 2 100 mm
Weight (without liquid)	600-630 kg
Power supply	3/N/PE AC 400/230 V 50/60 Hz, TN-S



SuperSWASH III	MECHANICAL FILTERS					
	Wash		1 st Rinse		2 nd Rinse	
	1pc	5 µm 20" length	2pcs	1 µm 10" length	2pcs	1 µm 10" length

Base

CHB-00000005-X

SuperSWASH III 230/400V 50Hz Wash + 1st Rinse + 2nd Rinse + Drying

CHB-00000007-X

SuperSWASH III 230/400V 60Hz Wash + 1st Rinse + 2nd Rinse + Drying

- Spray-In-Air cleaning machine
- Cleaning chamber with LED lighting
- Enhanced heating of wash tank up to 60°C
- Heating of 1st and 2nd rinse tanks up to 40 °C
- Air-knife drying system with heating up to 110°C
- PLC control system, HMI touchscreen
- Electric switchboard and wiring
- Liquid system – pumps, piping, mechanical filtration
- Wash and rinse tanks
- Emergency tray with leakage detection sensor
- Spray arm and air-knife crash detection sensors
- Two central stop buttons

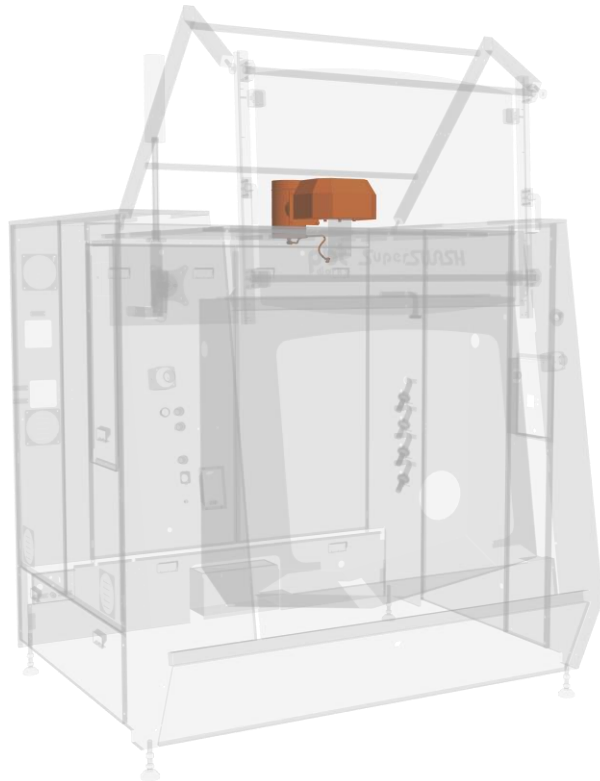


Exhaust system

CHS-00000001-X

Exhaust fan

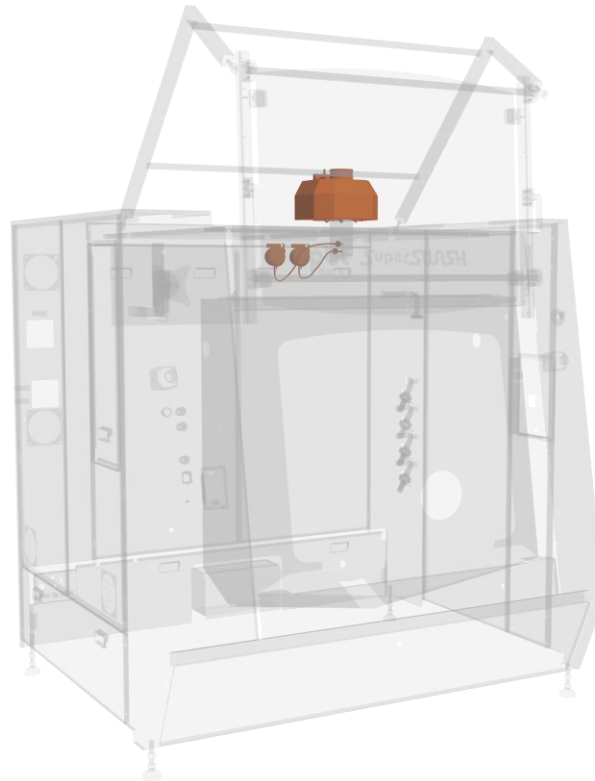
- Single phase electronic controlled radial fan (min. 400–450 m³/h)
- Connection - hose ø150 mm (use an adaptor ø100/150)
- Controlled by central control unit
- For customers without central extraction system



CHS-00000002-X

Exhaust flap incl. under-pressure sensor

- Servomotor controlled damper with two positions
- Fully open mode – while drying ventilator working
- Partially closed mode – other situations
- Under pressure sensor included, set on -50 Pa
- For customers with adequate central extraction system (min. 400–450 m³/h)



Signal tower

CHS-00000003-X

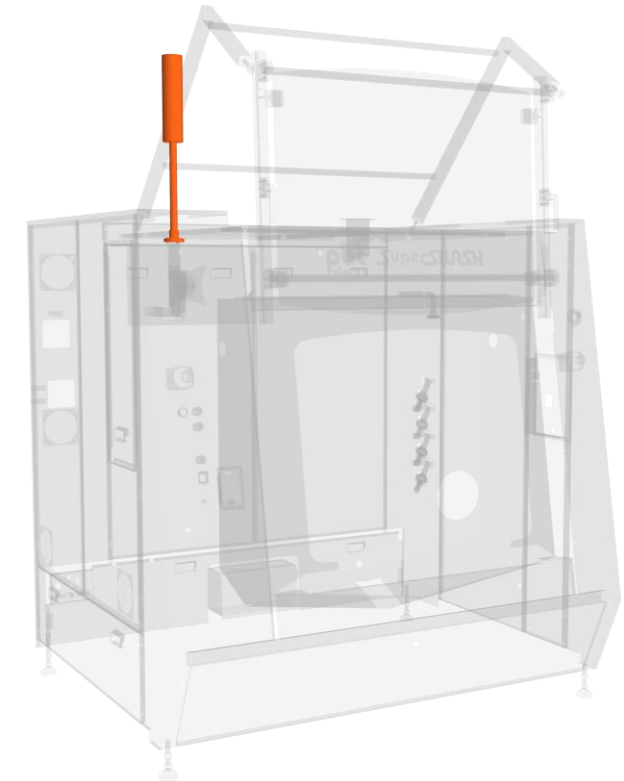
Signal tower

- Acoustic and visual alarm to signal individual processes
- Standard green/blue/red signalization

CHS-00000004-X

Signal tower white

- Acoustic and visual alarm to signal individual processes
- Customized green/orange/red signalization

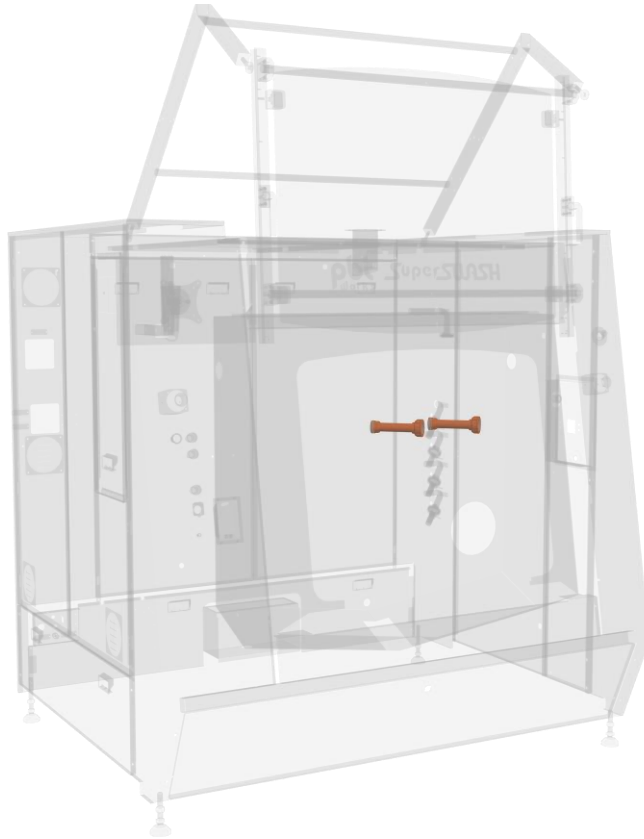


Open loop 1st Rinse

CHS-00000005-X

Open loop 1st rinse

- Automatic refilling of fresh water in rinse cycle
- Controlled input of tap/DI water
- Rinse tank overflow to drainage

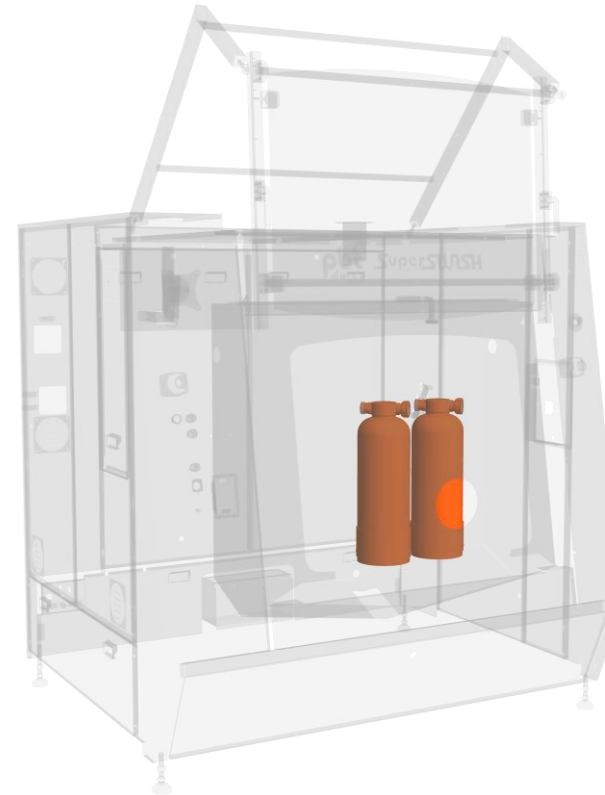


Built-in closed loop 1st Rinse

CHS-00000006-X

Built-in closed loop 1st rinse (Carbon, Mixbed small size vessels)

- Built-in closed loop with chemical filtration and a mechanical filter
- 1pc activated carbon and 1pc mixed bed vessels
- Compact solution without any external units

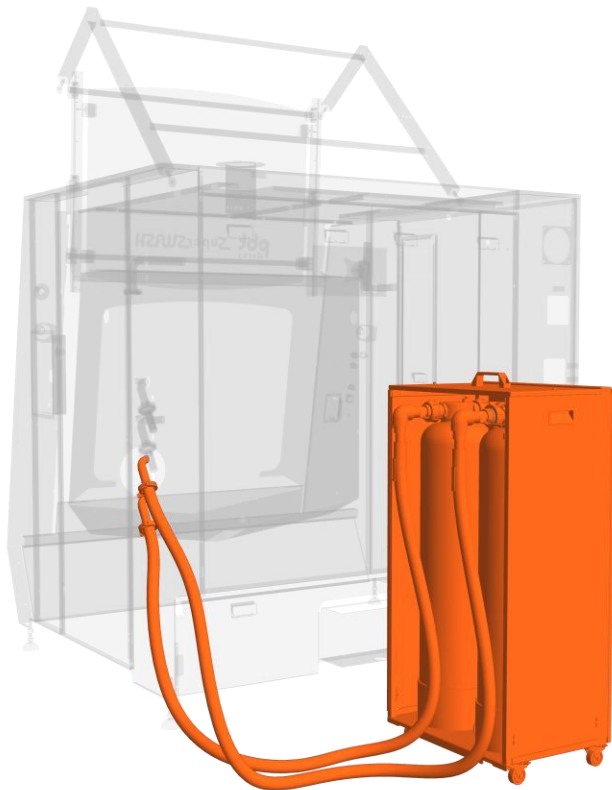


External closed loop 1st Rinse

CHS-00000007-X

External closed loop 1st rinse (Carbon, Mixbed medium size vessels)

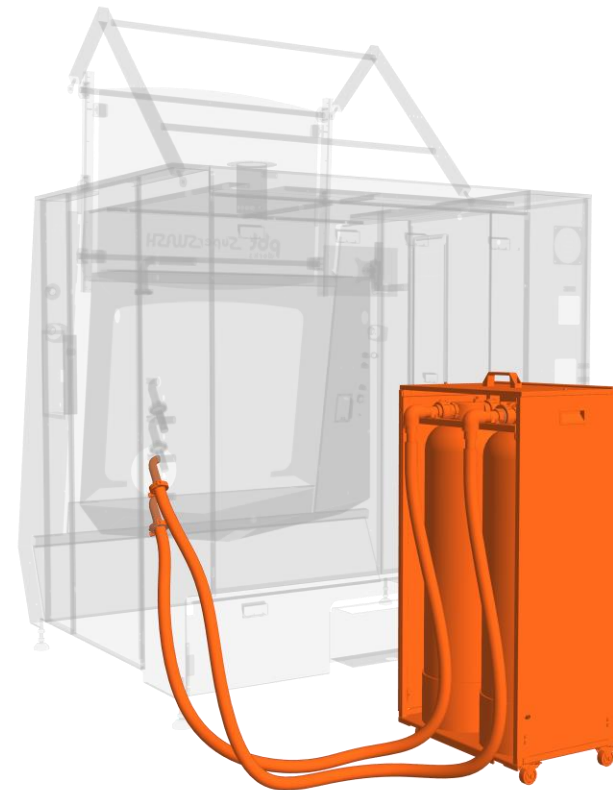
- External cart with 1pc medium mixbed and 1pc activated carbon vessels, 1µm 20" filter pad
- Extended lifetime



CHS-00000008-X

External closed loop 1st rinse (Carbon, Mixbed large size vessels)

- External cart with 1pc large mixbed and 1pc activated carbon vessels, 1µm 20" filter pad
- Extended lifetime

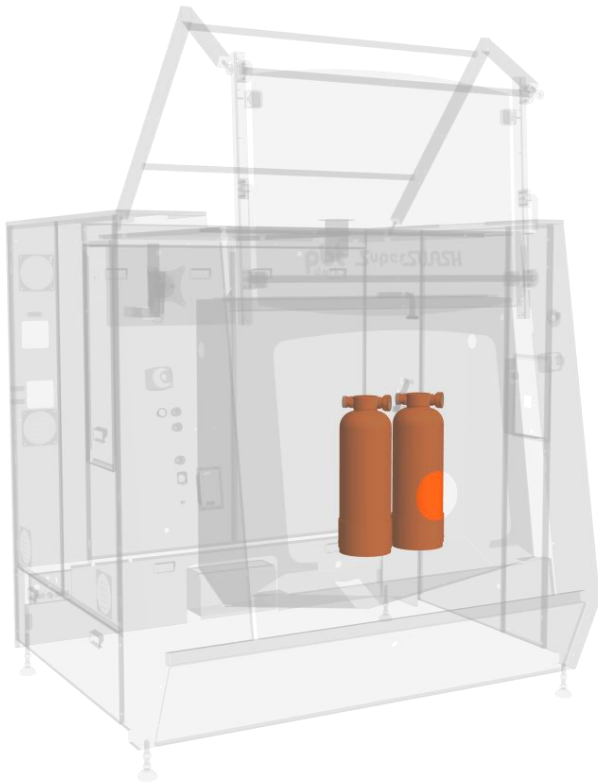


Built-in closed loop 2nd Rinse

CHS-00000010-X

**Built-in closed loop 2nd rinse incl. PBT conductometer
(Carbon, Mixbed small size vessels)**

- Built-in closed loop with chemical filtration and a mechanical filter
- 1pc activated carbon and 1pc mixbed vessels
- PBT conductometer for 2nd rinse
- Compact solution without any external units

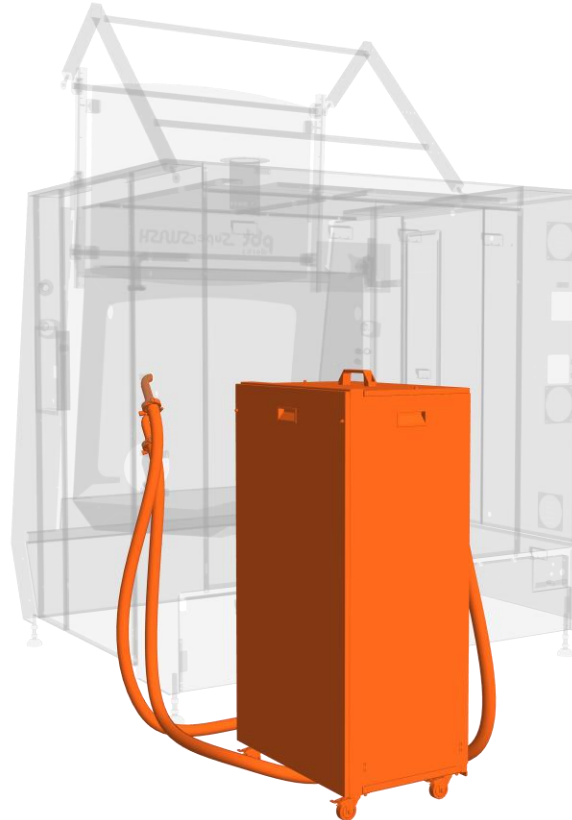


External closed loop 2nd Rinse

CHS-00000011-X

**External closed loop 2nd rinse incl. PBT conductometer
(Carbon, Mixbed medium size vessels)**

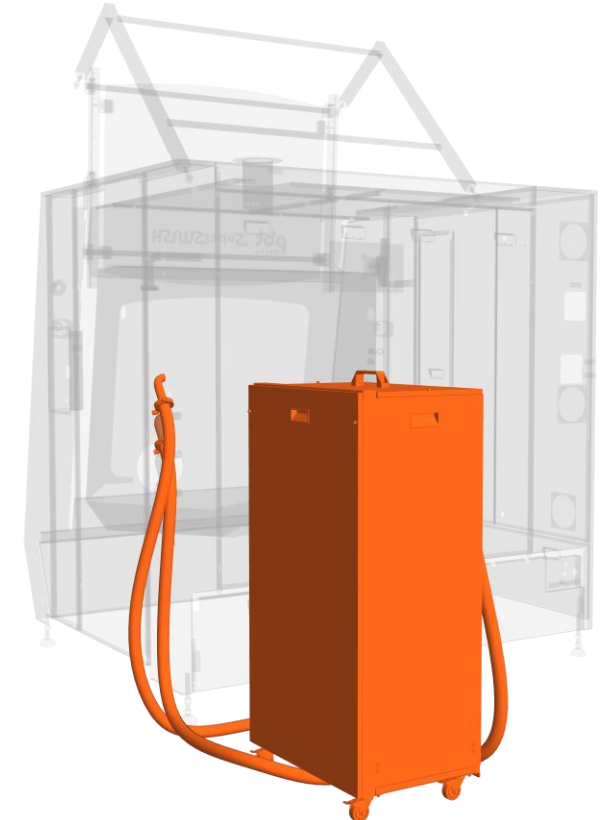
- External cart with 1pc medium mixbed and 1pc activated carbon vessels, 1µm 20" filter pad
- PBT conductometer for 2nd rinse
- Extended lifetime



CHS-00000012-X

**External closed loop 2nd rinse incl. PBT conductometer
(Carbon, Mixbed large size vessels)**

- External cart with 1pc large mixbed and 1pc activated carbon vessels, 1µm 20" filter pad
- PBT conductometer for 2nd rinse
- Extended lifetime

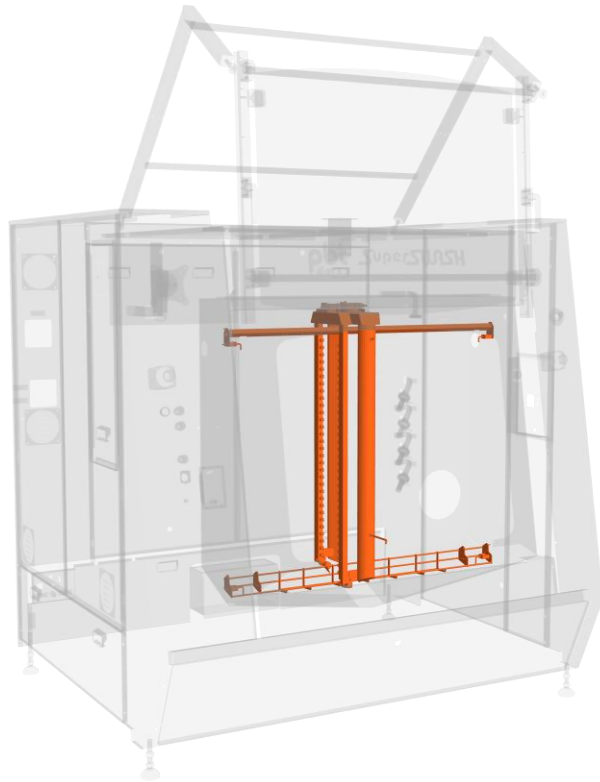


Chamber configuration

CHS-00000013-X

Nozzle & Air knife arm SINGLE 80 mm (incl. 1 set frame fixing)

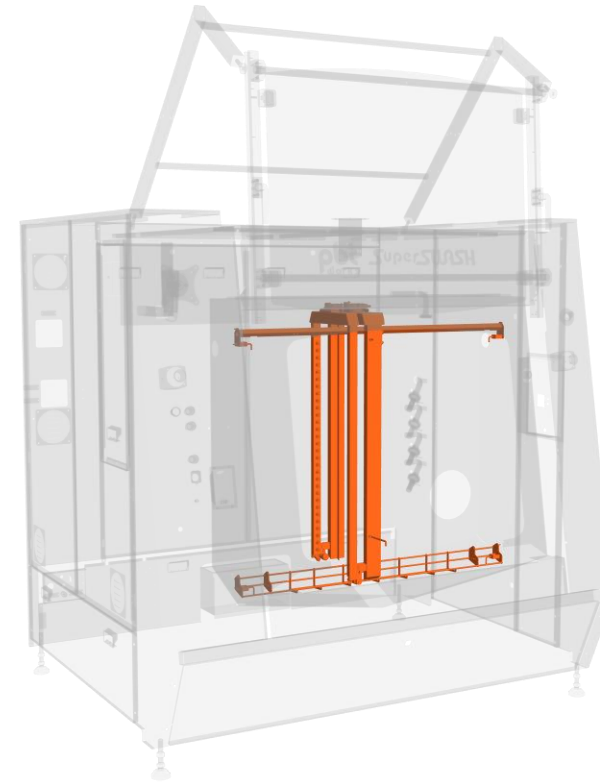
- Spray nozzle arm
- Air knife arm
- Upper and bottom frame fixing
- Max usable space (height of washed objects) is **80 mm**



CHS-00000015-X

Nozzle & Air knife arm SINGLE 150 mm (incl. 1 set frame fixing)

- Spray nozzle arm
- Air knife arm
- Upper and bottom frame fixing
- Max usable space (height of washed objects) is **150 mm**

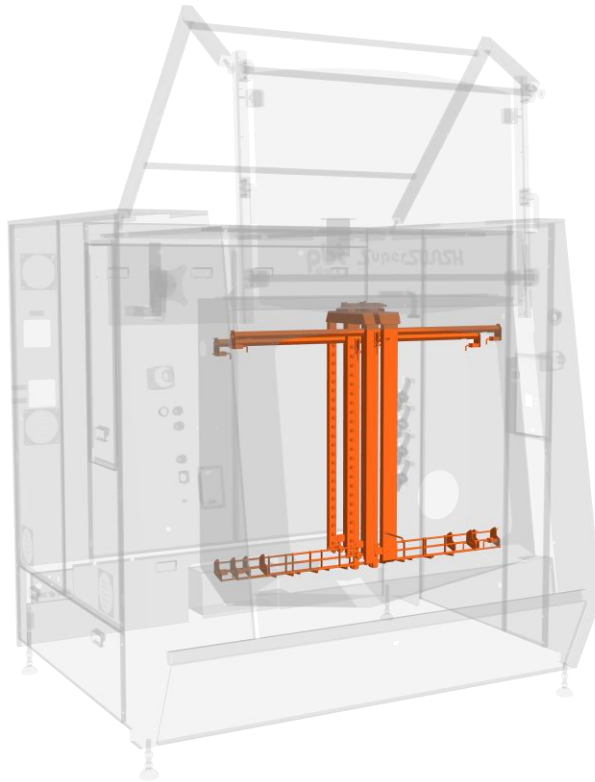


Chamber configuration

CHS-00000016-X

Nozzle & Air knife arm TWINGO 2x50 mm (incl. 2 sets frame fixing)

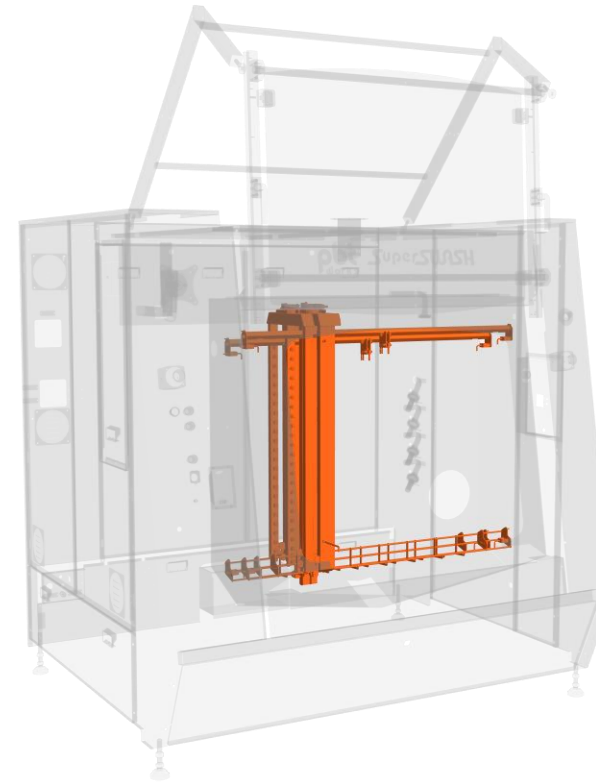
- Spray nozzle arm set
- Air knife arm
- Upper and bottom frame fixing
- Max height of washed objects is 2x **50** mm



CHS-00000017-X

Nozzle & Air knife arm TWINGO 2x50 mm for framed stencils 23"-29" (incl. 2 sets frame fixing)

- Special spray nozzle arm set and air knife arm
- Longer middle arm for greater drying range
- **Only for 23"-29" framed stencils cleaning**
- For direct insert into chamber



Automatic dosing

CHO-00000001-X

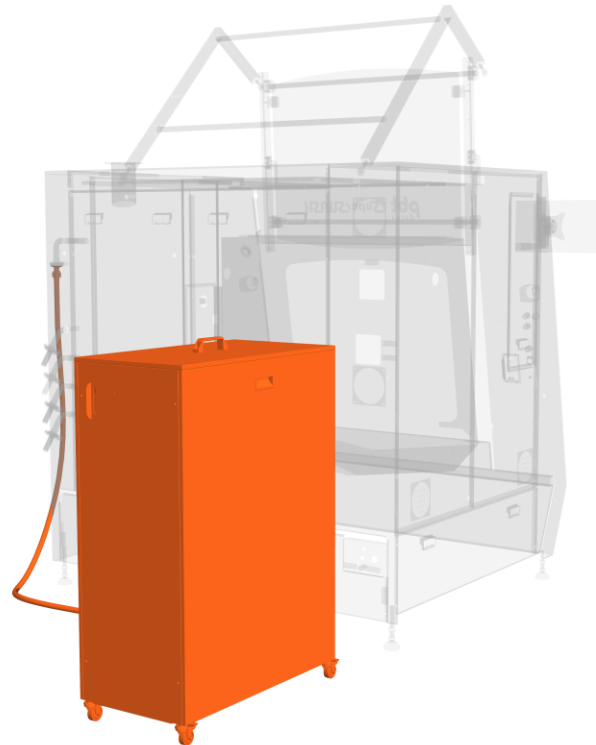
AD prep kit

- Preparation kit for retrofitting of the Automatic Dosing Unit

CHO-00000002-X

AD automatic dosing of cleaning agent incl. PBT AD conductometer

- Refills the wash tank with cleaning agent concentrate and DI water according to set concentration parameters
- In combination with concentration measuring unit can work according to measured concentration (Adaptive dosing)
- Must have tap water connection
- 1pc medium mixed vessel and 20µm 10" filter pad
- PBT AD conductometer measures the water input conductivity

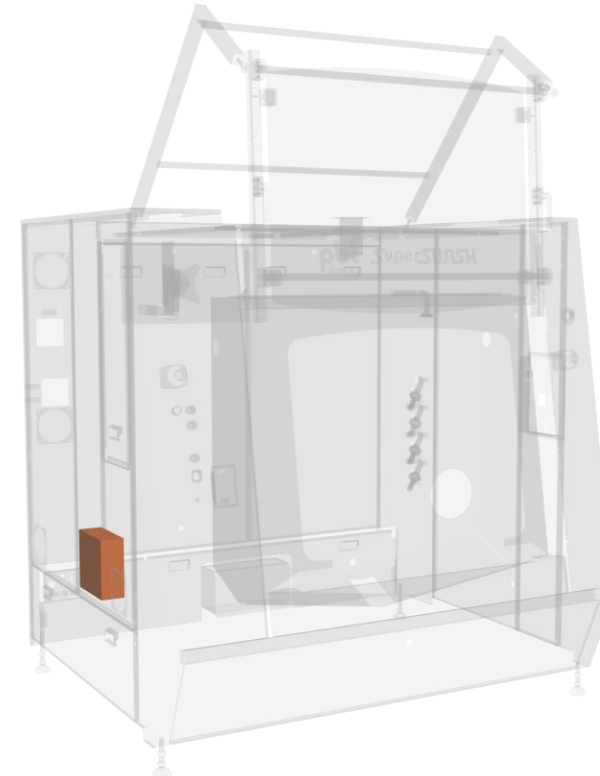


UPS

CHO-00000025-X

UPS for control system backup

- Control PC Power supply backup (in case of power cut, ensures safe PC shut down)



Concentration measuring

CHO-00000004-X

ZESTRON EYE - concentration measuring and data acquisition system SuSW

- Concentration monitoring of cleaning medium in wash loop
- Used for concentration measuring of circulated cleaning medium in piping
- The set includes sensor, controller, cable
- The sensor is calibrated for Zestron cleaning agents only

CHO-00000005-X

KYZEN ANALYST - concentration measuring and data acquisition system SuSW

- Concentration monitoring of cleaning medium in wash loop
- Used for concentration measuring of circulated cleaning medium in piping
- The set includes sensor, controller, HMI and cable
- The sensor is calibrated for Kyzen cleaning agents
- Other chemistry calibration is possible



Wash		1st Rinse	
07:20	00:00	09:58	
Temperature:		Temperature:	
52 °C	51.7 °C	40 °C	
Conductivity [µS/cm]:		Conductivity:	
30	1.9 AAD	50	
Concentration [%]:		Subprocess time:	
18	18.5	1 6/0 00:00	2 01:00
Subprocess time:		3 2/0 00:00	4 00:30
1 00:00 00:00			

XML Online Traceability

CHO-00000010-X

Traceability XML ONLINE prep kit

- Preparation kit for later retrofitting of XML Traceability
- This optional item is to be ordered with the machine, for future installation of traceability

CHO-00000011-X

Traceability XML ONLINE

- Designed for tracking cleaned items and allowing automatization of the cleaning process
- Automatic cleaning program selection based on the batch code
- NUC PC can be connected to LAN/Internet without any restrictions (for Windows and driver updates etc.)
- Machine standard control PC is safely separated from the Internet
- Multi-format IR code scanner – can read barcodes, DM and QR codes, etc.
- Traceability XML files are sent to NUC PC for further processing and backed-up on the standard PC
- XML files provide great opportunity for further machine processing and data analysis



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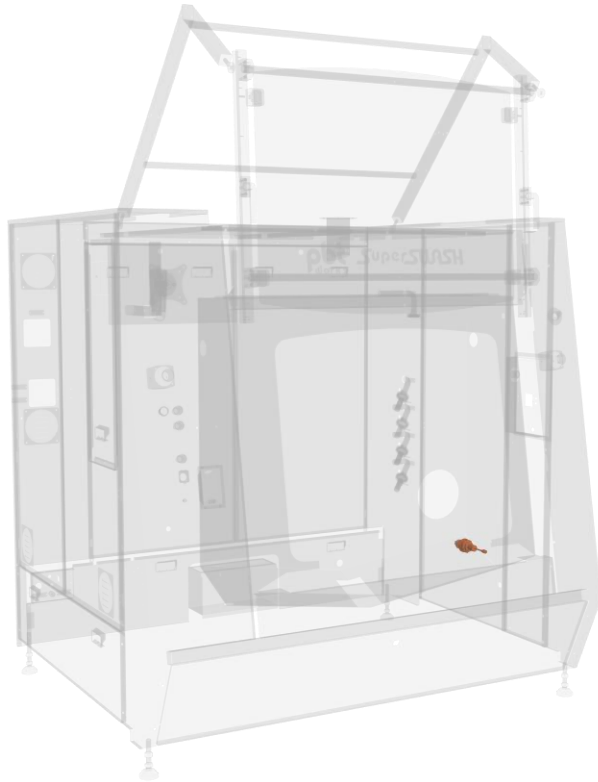
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    <Temperature>60</Temperature>
    <Conductivity>1</Conductivity>
  </General>
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    <Action>Spray</Action>
    <Outlet>Wash</Outlet>
    <AirTemperature>60</AirTemperature>
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  </Step_0>
  
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Conductometer

CHO-00000007-X

PBT conductometer 1st rinse

- Continual monitoring of rinse water conductivity

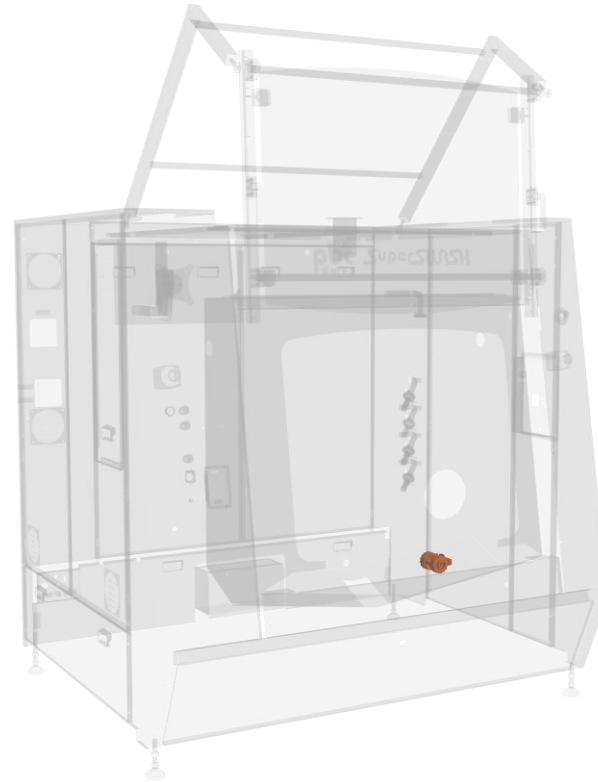


Linear valve

CHO-00000009-X

Linear valve 1st rinse

- Flow regulation for 1st rinse



Drain pump

CHO-00000020-X

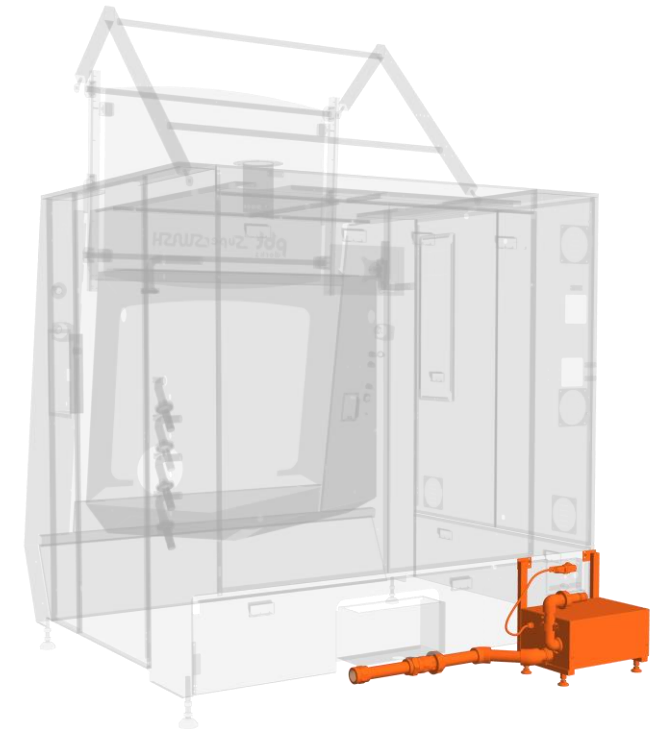
Drain pump 1st rinse loop prep kit

- Preparation kit for later installation of drain pump

CHO-00000006-X

Drain pump 1st rinse loop

- For easy draining of waste-water from rinse tank into drainage
- Recommended for open loop rinse with distant drainage
- Max pump capacity is 30 l/min



Tool for stencil pre-cleaning

CHO-00000019-X

Handheld tool for pre-cleaning PumpPrint stencil apertures

- For pre-cleaning PumpPrint stencil apertures before actual cleaning
- After inserting the stencil into the process chamber the tool is used to press the rest of glue out from apertures
- Better flow of cleaning solution
- Shortening of necessary cleaning time up to 50%



Hand pump

CHO-00000016-X

Handheld electric pump for filling from barrel or canister, 230V, 50/60Hz

- Handheld pump for easy pumping of cleaning medium from barrel/canister to tank

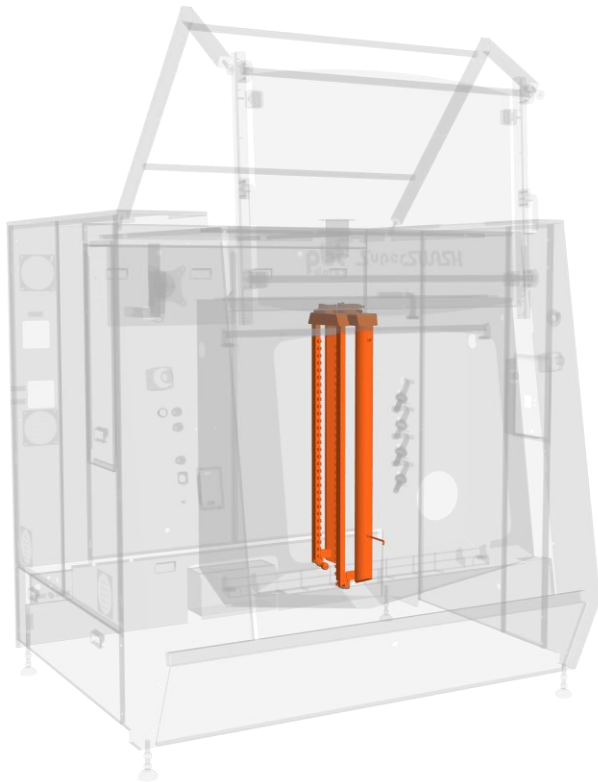


Additional chamber configuration

CHO-00000012-X

Nozzle & Air knife arm SINGLE 80 mm (w/o frame fixing)

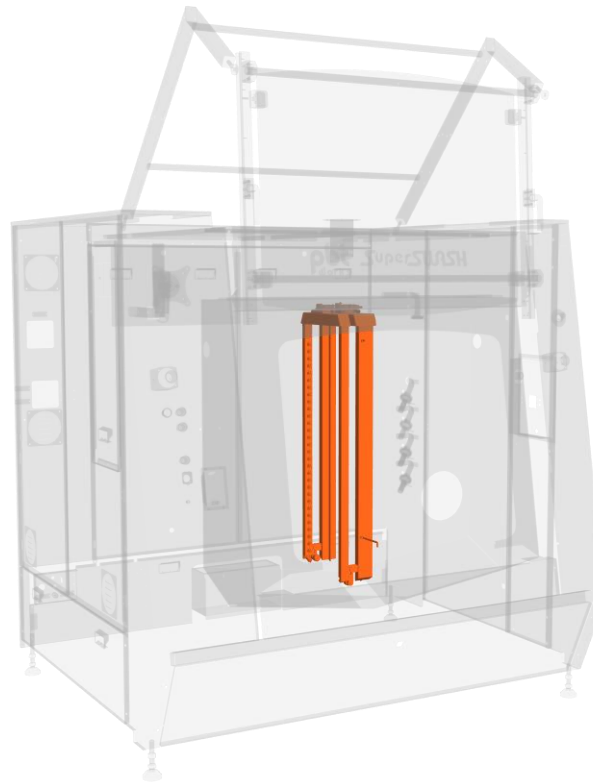
- Additional spray nozzle arm and air blade
- For exchange from **SINGLE 150** or **TWINGO** to **SINGLE 80**



CHO-00000014-X

Nozzle & Air knife arm SINGLE 150 mm (w/o frame fixing)

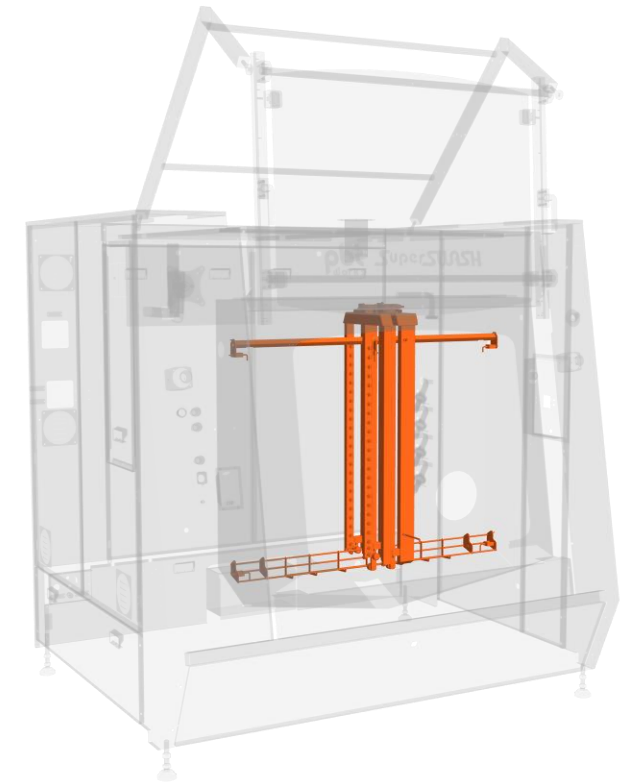
- Additional spray nozzle arm and air blade
- For exchange from **SINGLE 80** or **TWINGO** to **SINGLE 150**



CHO-00000015-X

Nozzle & Air knife arm TWINGO 2x50 mm (incl. 1 set frame fixing)

- Additional double spray nozzle arm and air blade
- Additional frame fixing
- For exchange from **SINGLE 80** or **SINGLE 150** to **TWINGO**

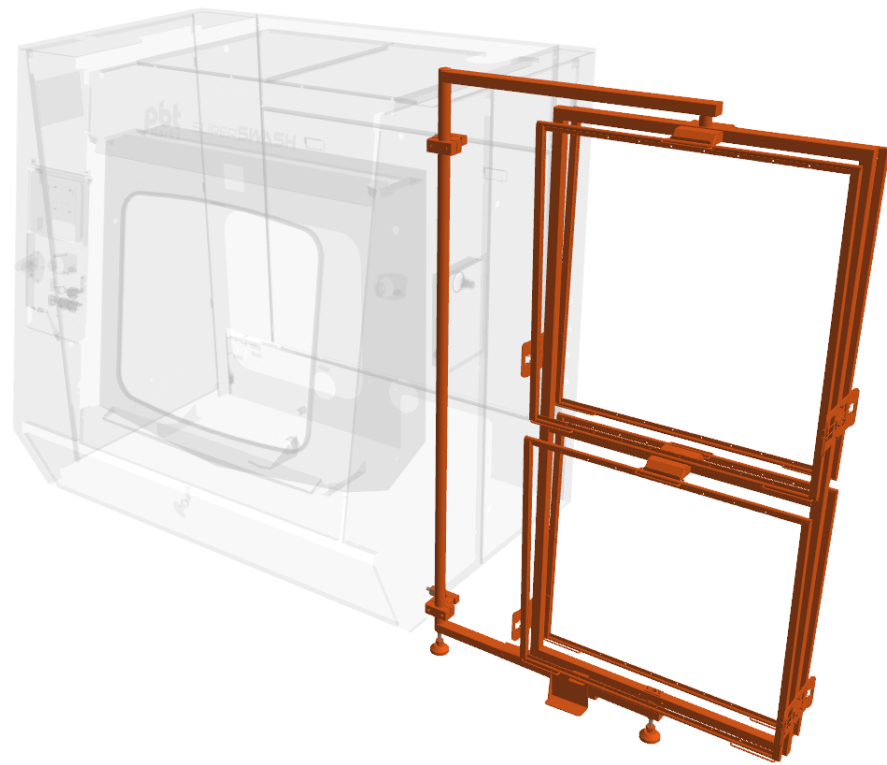


Clamping SINGLE & TWINGO

CLP-00000001-X

Rotating frame holder for 2 SINGLE /4 TWINGO frames

- Holds up to TWINGO basic frames or 2 SINGLE basic frames
- For easy manipulation and fixing of cleaned objects
- Can be fixed either to the right side or the left side or both
- Rotates around its own axis

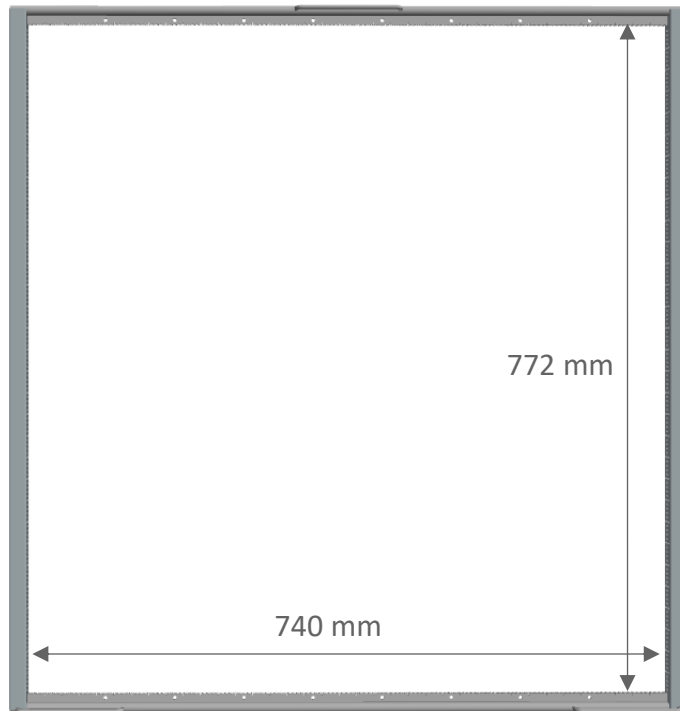


Clamping SINGLE

CLP-00000002-X

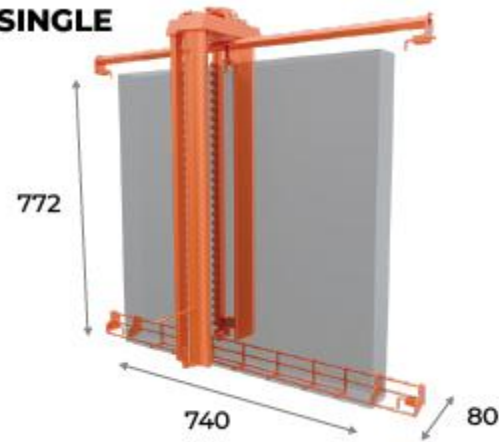
Basic frame SINGLE (usable 740x772 mm)

- Basic frame for SINGLE configuration



Standard clamping usable space

SINGLE

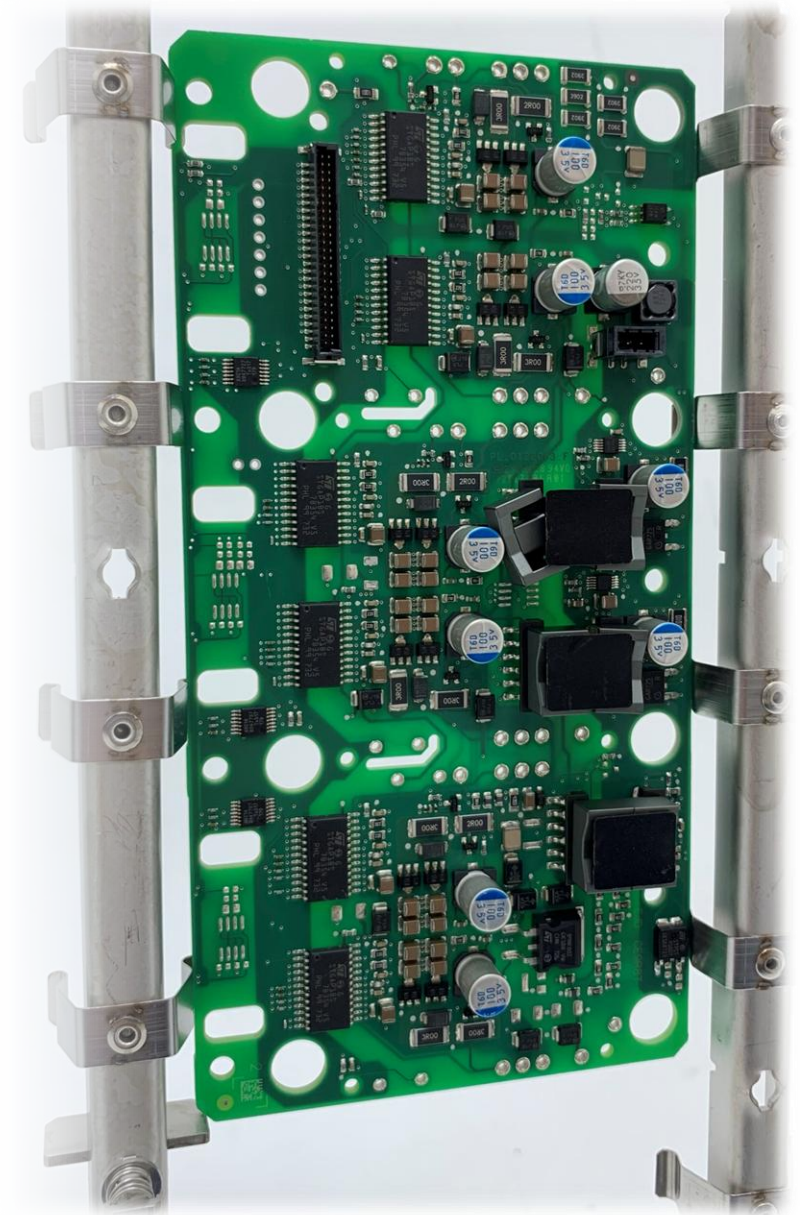
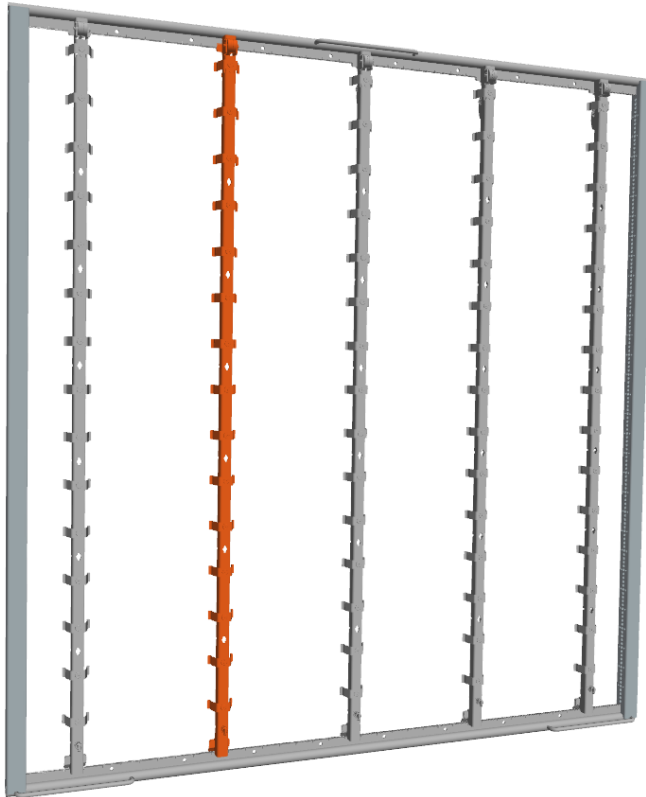


Clamping SINGLE

CLP-00000003-X

Spring fingers bar for PCB (vertical, pitch 50mm) into basic frame SINGLE

- Adjustable vertical bar with metal fingers
- For basic frame SINGLE

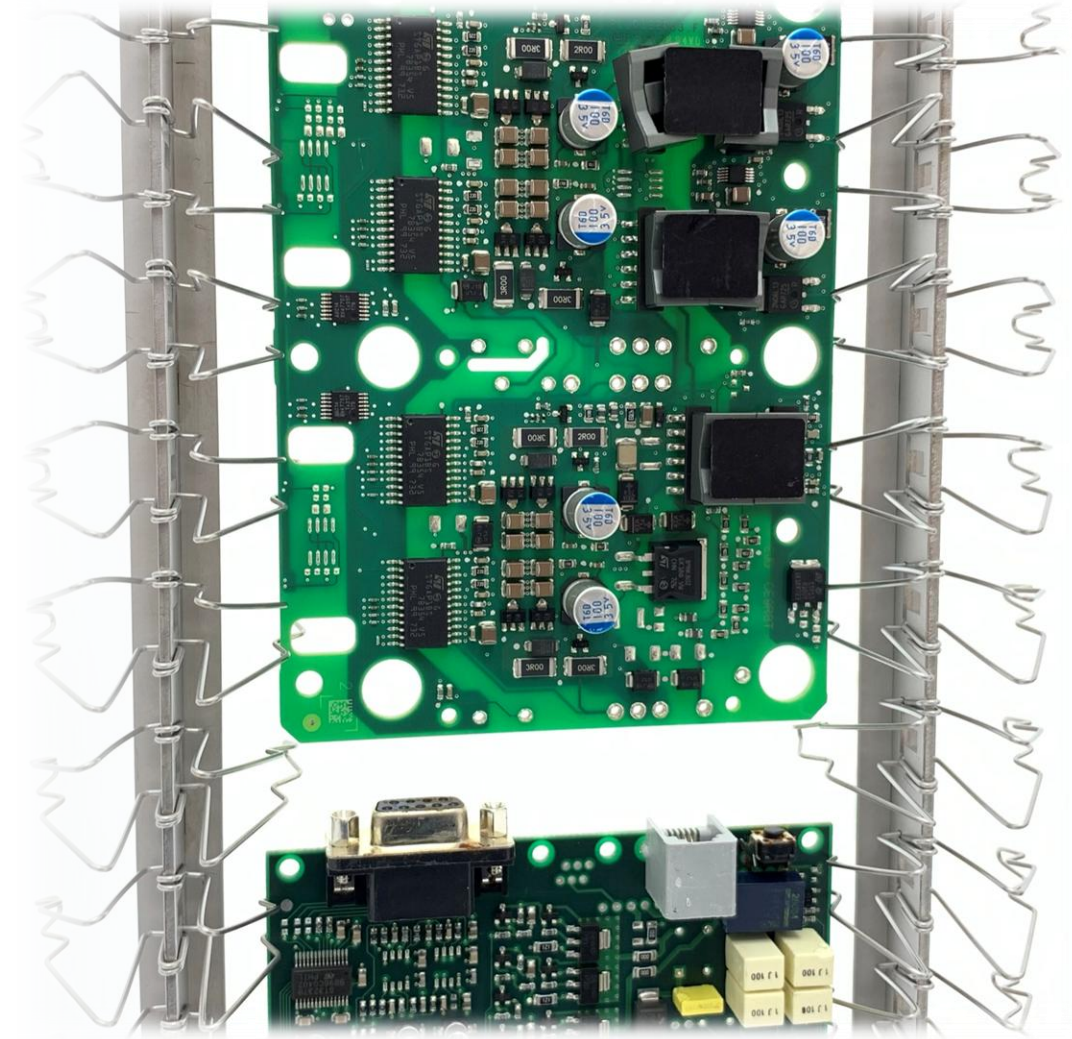
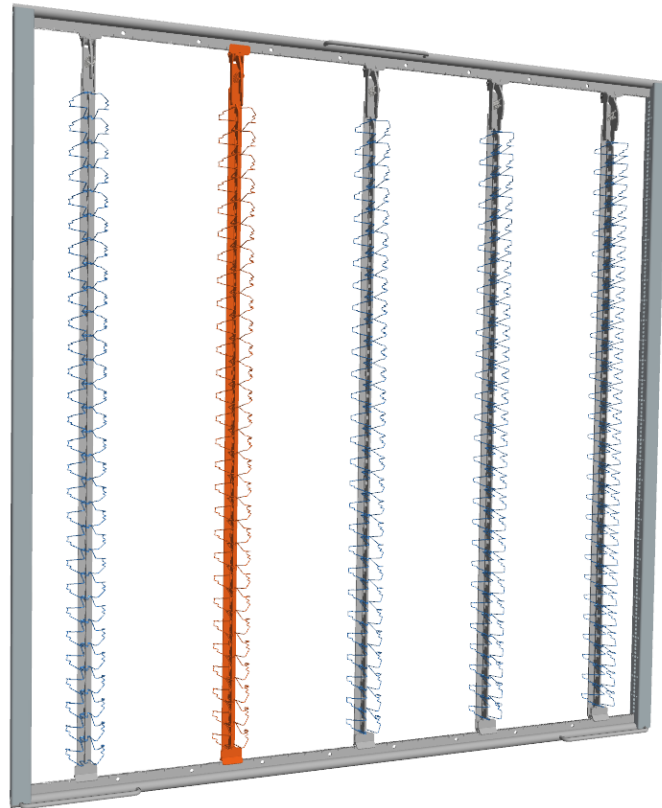


Clamping SINGLE

CLP-00000004-X

Spring wires bar for PCB (vertical, pitch 25mm) into basic frame SINGLE

- Adjustable vertical bar with spring wires
- For basic frame SINGLE

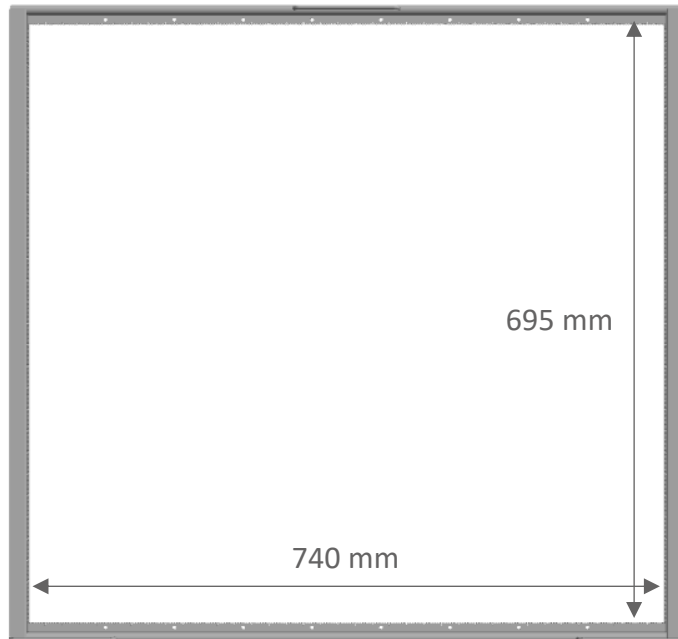


Clamping TWINGO

CLP-00000005-X

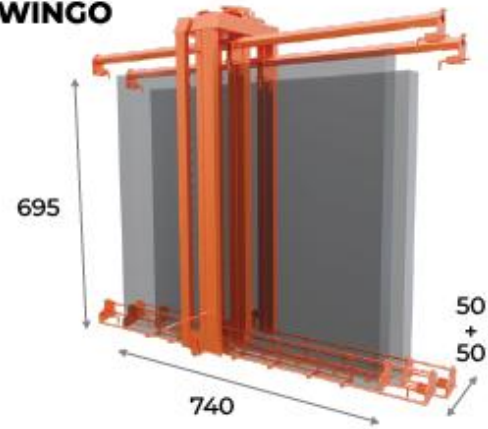
Basic frame TWINGO, MiSW (usable 740x695mm)

- Basic frame for TWINGO configuration



Standard clamping usable space

TWINGO

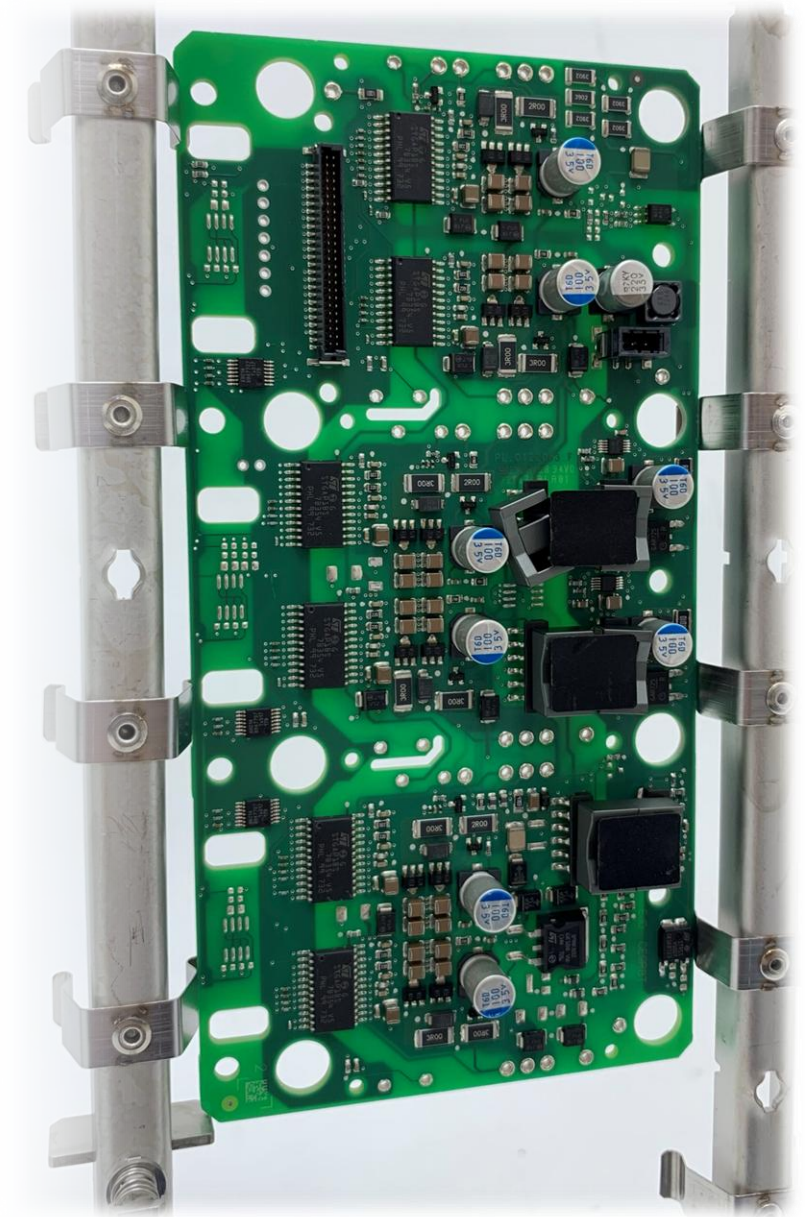
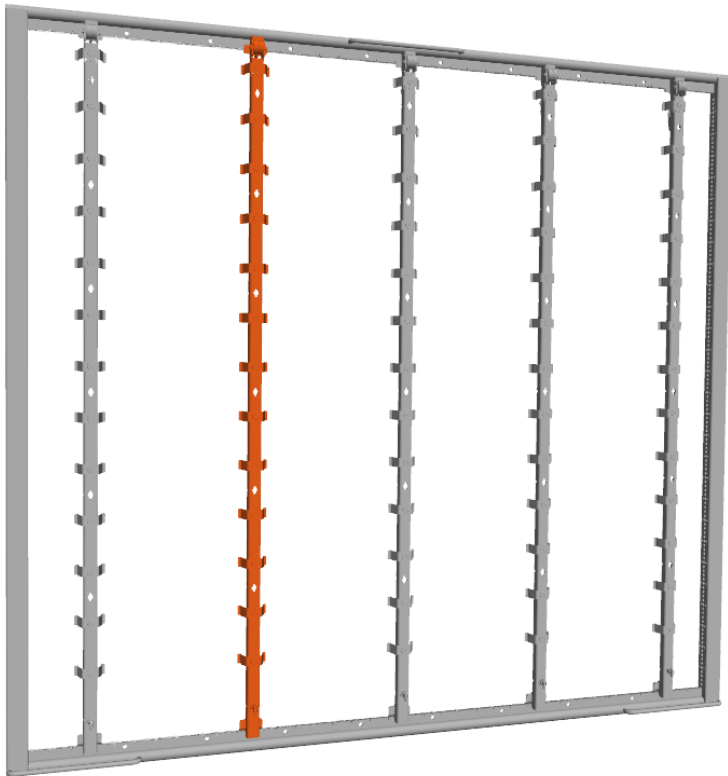


Clamping TWINGO

CLP-00000006-X

Spring fingers bar for PCB (vertical, pitch 50mm) into basic frame TWINGO, MiSW

- Adjustable vertical bar with metal fingers
- For basic frame TWINGO

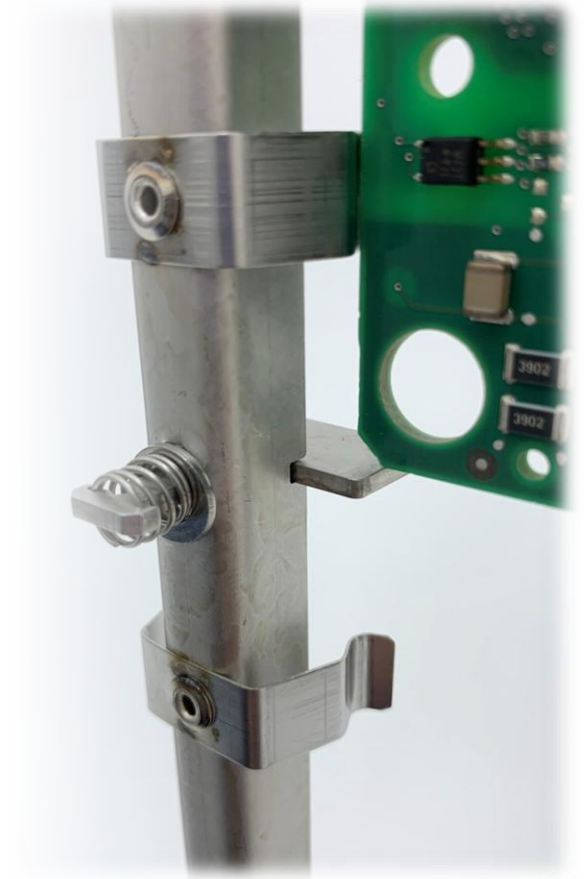
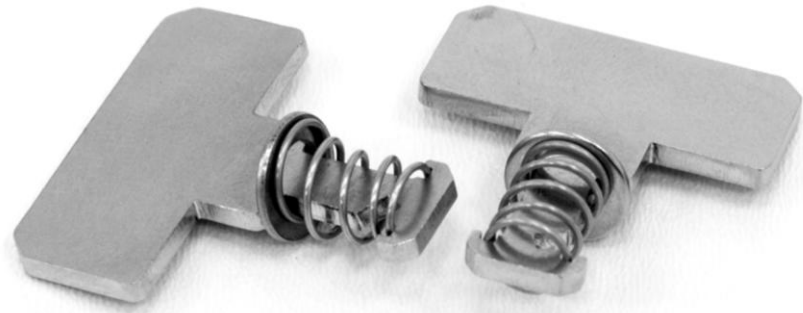


Clamping SINGLE & TWINGO

CLP-00000007-X

Support pin for spring fingers bar for PCB

- The pin keeps the PCB from sliding down
- Can be used only with vertical Spring fingers bar SINGLE CLP-00000003-X or TWINGO CLP-00000006-X

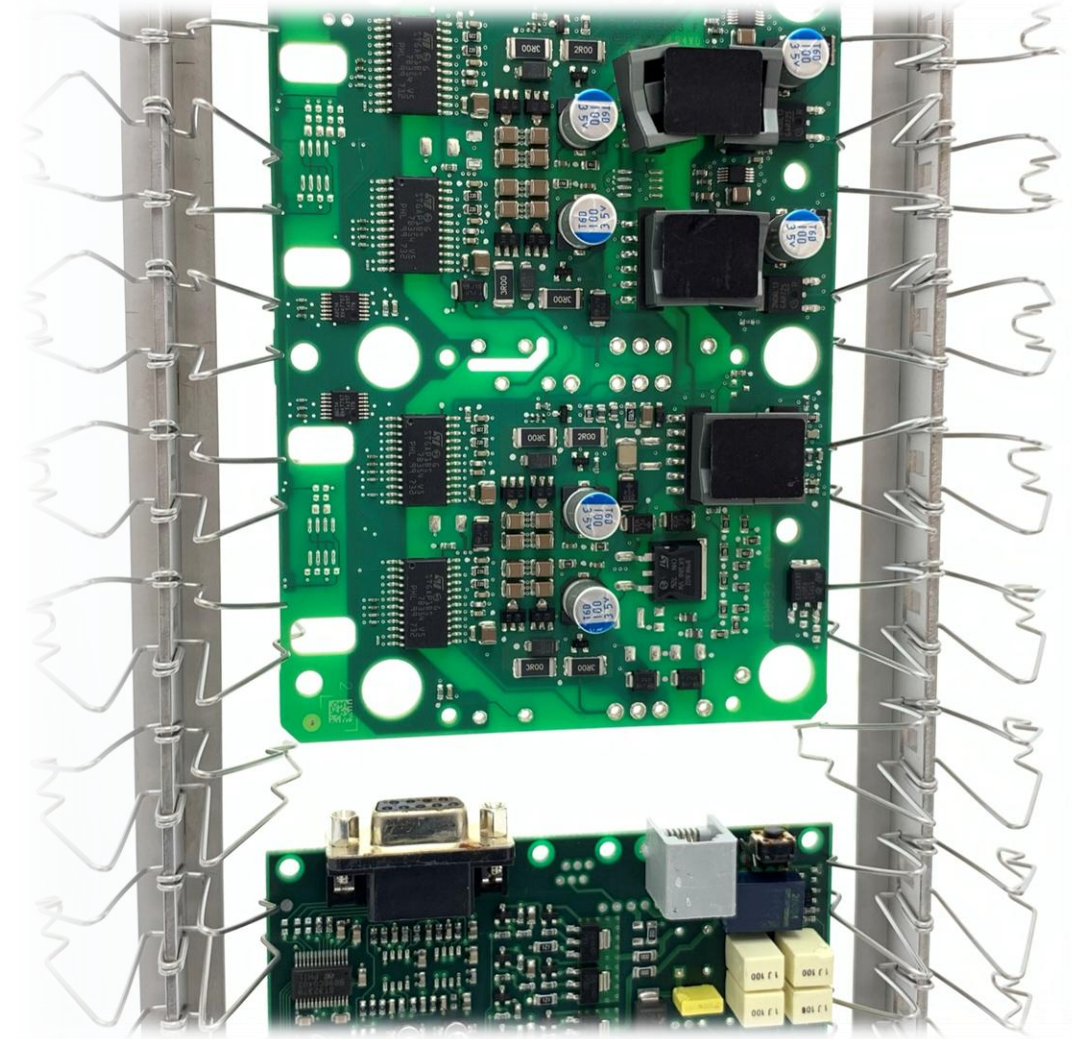
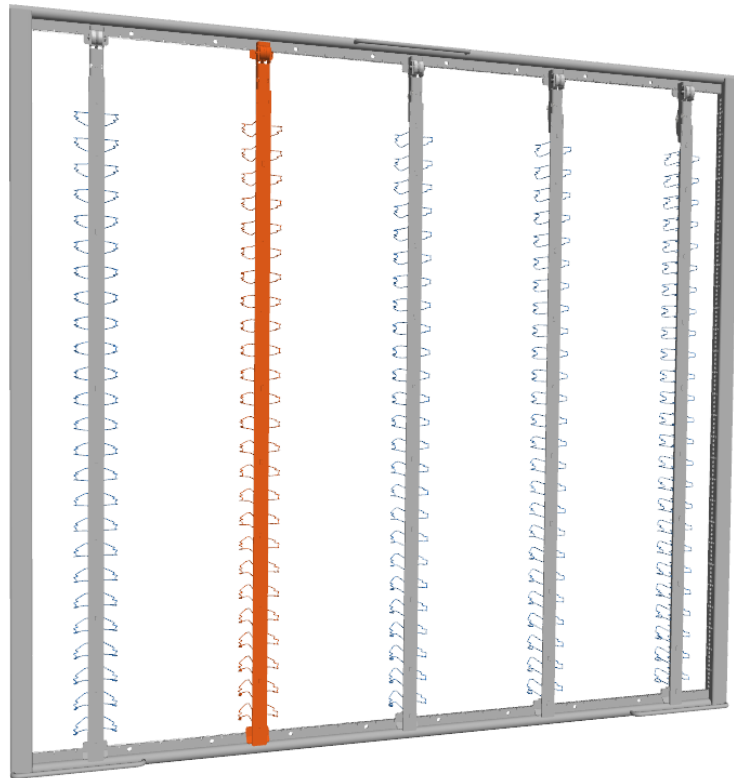


Clamping TWINGO

CLP-00000008-X

Spring wires bar for PCB (vertical, pitch 25mm) into basic frame TWINGO, MISW

- Adjustable vertical bar with spring wires
- For basic frame TWINGO

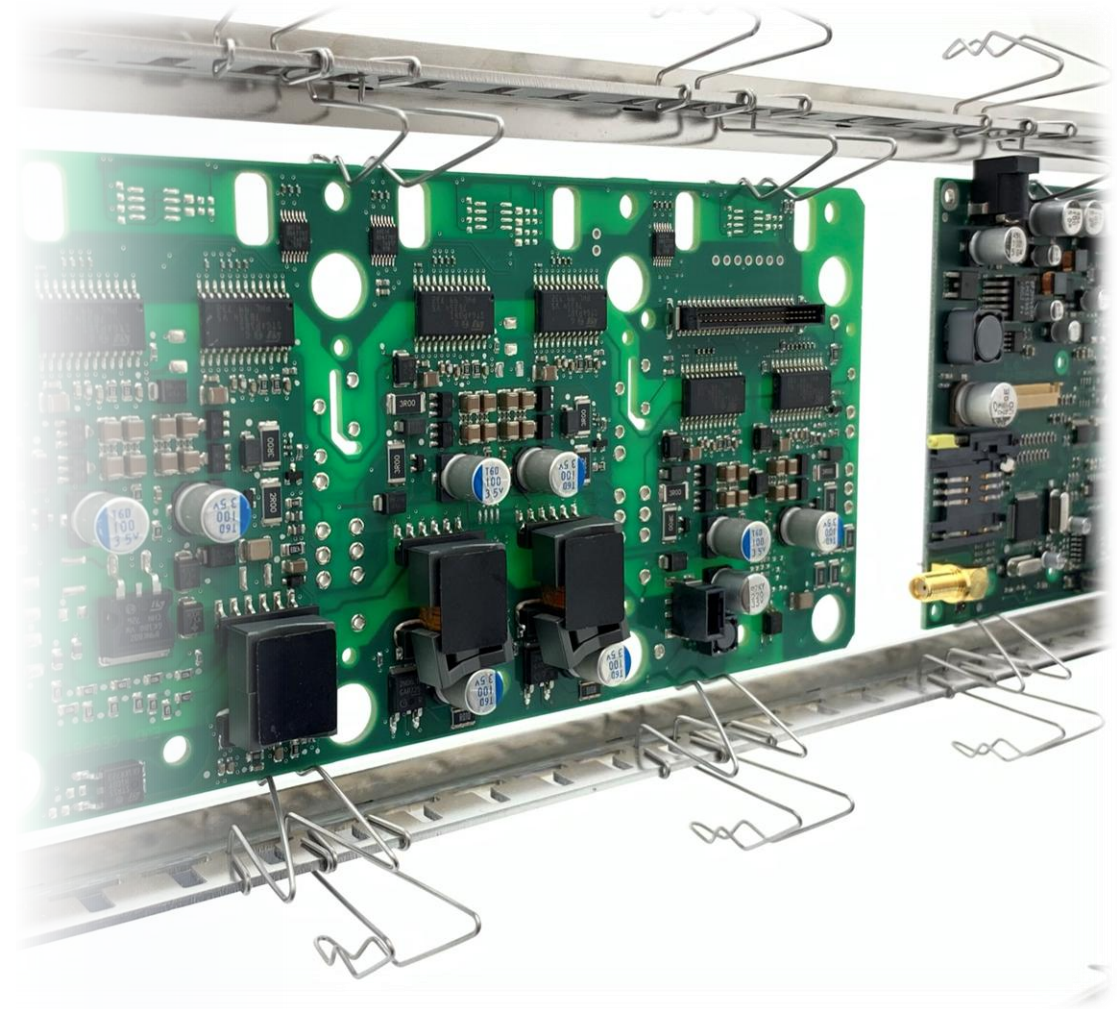
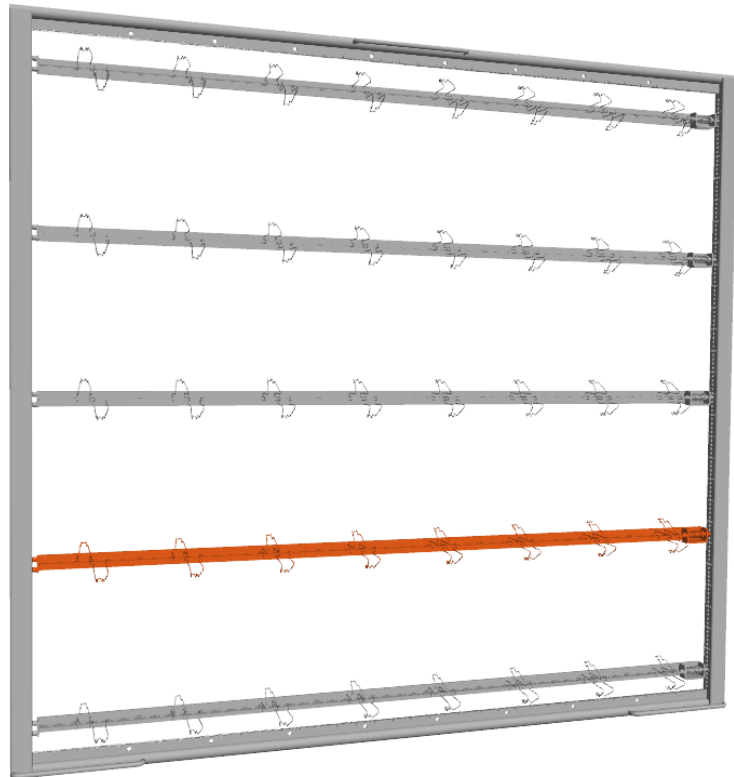


Clamping SINGLE & TWINGO

CLP-00000009-X

Spring wires bar for PCB (horizontal, T-profile) into basic frame SINGLE/TWINGO, MiSW

- Adjustable horizontal bar with spring wires



Clamping SINGLE & TWINGO

CLP-00000010-X

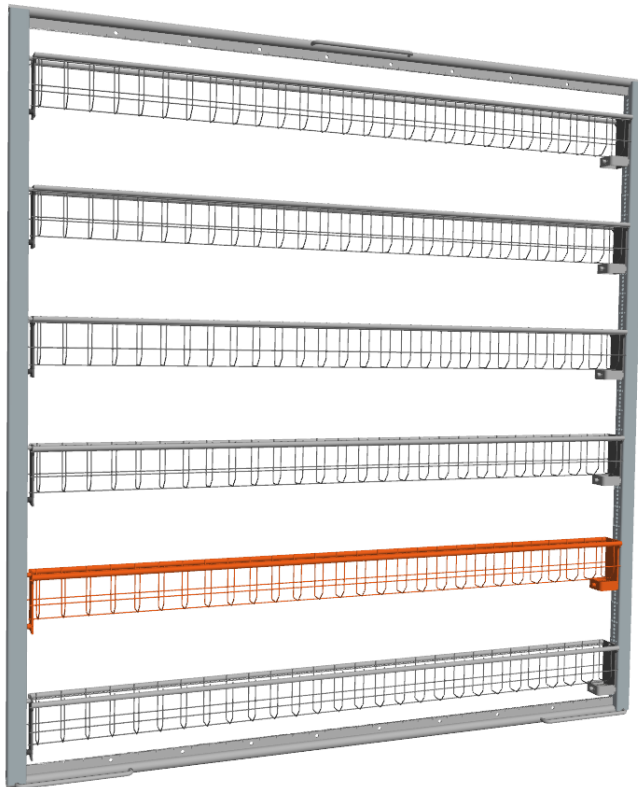
Wire basket 24x727x50 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 24 x 727 x 50 mm
- Max 6 pcs/frame

CLP-00000013-X

Wire basket 34x727x50 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 34 x 727 x 50 mm
- Max 6 pcs/frame



Clamping SINGLE & TWINGO

CLP-00000011-X

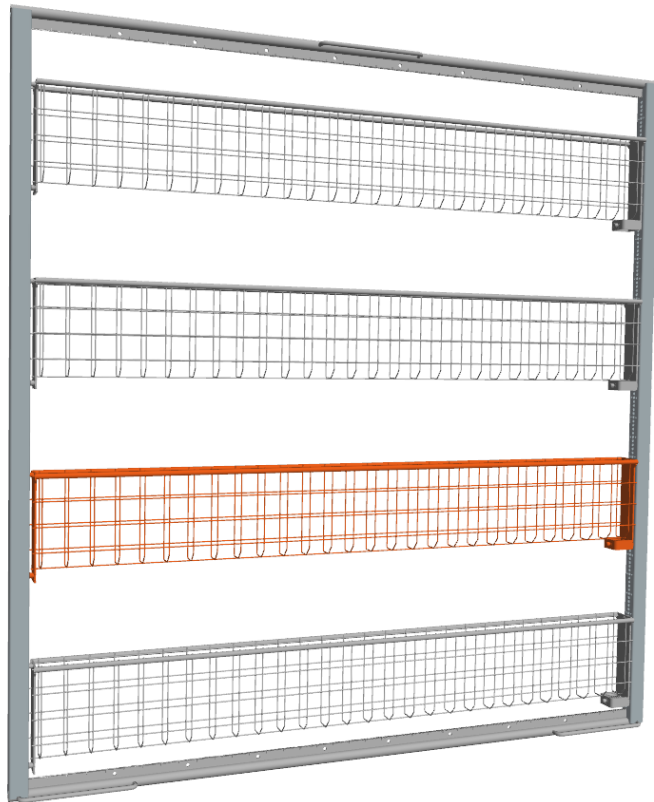
Wire basket 24x727x100 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 24 x 727 x 100 mm
- Max 4 pcs/frame

CLP-00000014-X

Wire basket 34x727x100 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 34 x 727 x 100 mm
- Max 4 pcs/frame



Clamping SINGLE & TWINGO

CLP-00000012-X

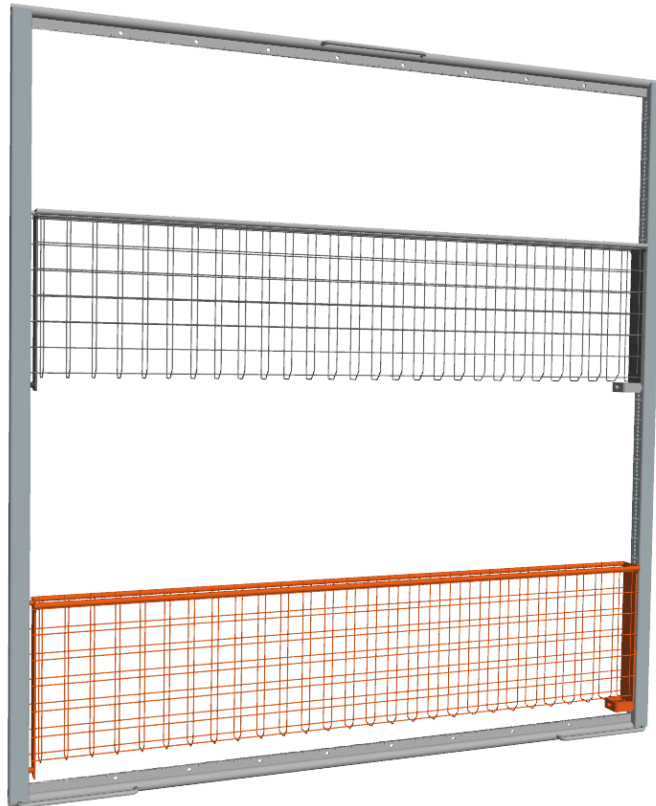
Wire basket 24x727x170 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 24 x 727 x 170 mm
- Max 2 pcs/frame

CLP-00000015-X

Wire basket 34x727x170 (WxLxH usable dim.) into basic frame SINGLE/TWINGO, MiSW

- Basket usable dimensions 34 x 727 x 170 mm
- Max 2 pcs/frame

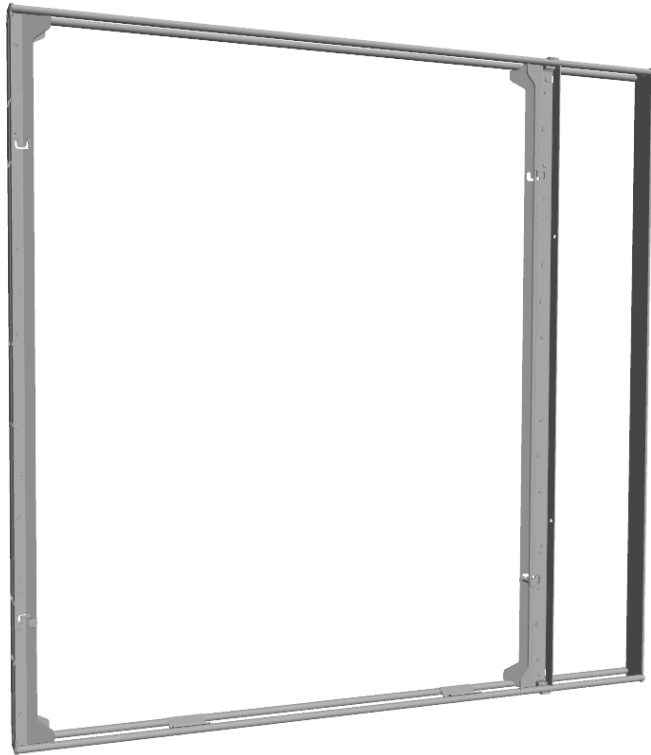


Stencil clamping

CLP-00000017-X

VectorGuard & Zelflex stencil holder, adjustable for all types-directly into SINGLE/TWINGO, MiSW

- DEK VectorGuard stencil and Zelflex Protect stencil can be easily inserted into the holder
- Suitable for size 23x23", 23x29", 29x29"



CLP-00000018-X

Tilting arm assembly for VectorGuard and Zelflex stencil holder for direct loading SuSW SINGLE/TWINGO

- Direct exchange of stencils in the chamber, no need to take out the holder
- Fast changeover of stencil by tilting the holder in the chamber

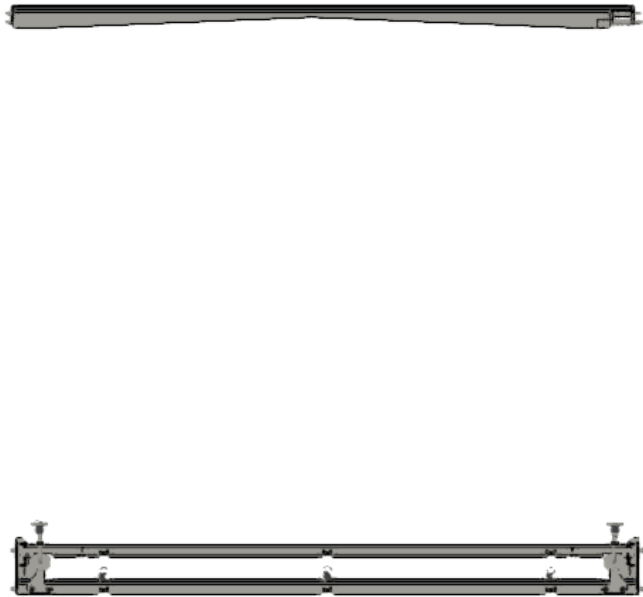


Stencil clamping

CLP-00000019-X

Stencil sheet holder w/o basic frame (SINGLE/TWINGO, MiSW) - MUST SPECIFY sheet type

- Necessary to specify type of stencil sheet (Gerber data)
- Max. stencil sheet size 740 x 633 mm
- Fits into Basic frame SINGLE or TWINGO (basic frame not included!)



FRAMED STENCILS

- Excellent for cleaning framed stencils up to 29x32"
- For direct insertion into the chamber
- SINGLE configuration max framed stencil dimensions 29"x32"
- TWINGO configuration max framed stencil dimensions 29"x29"

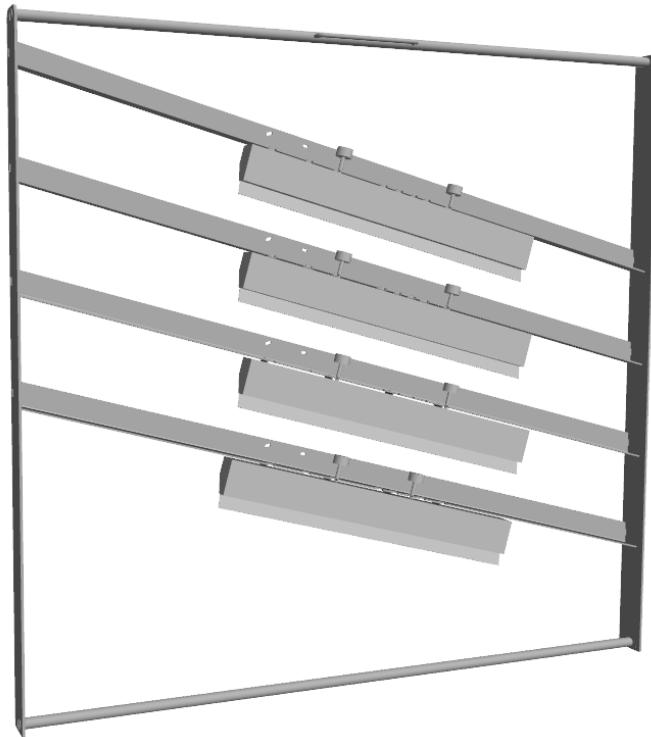


Squeegee clamping

CLP-00000020-X

Holder for 4 squeegees: DEK 152, 115; MPM 100, 146; SAMSUNG 140, 160, Juki 100, 127-into SuSW S/T, MiSW

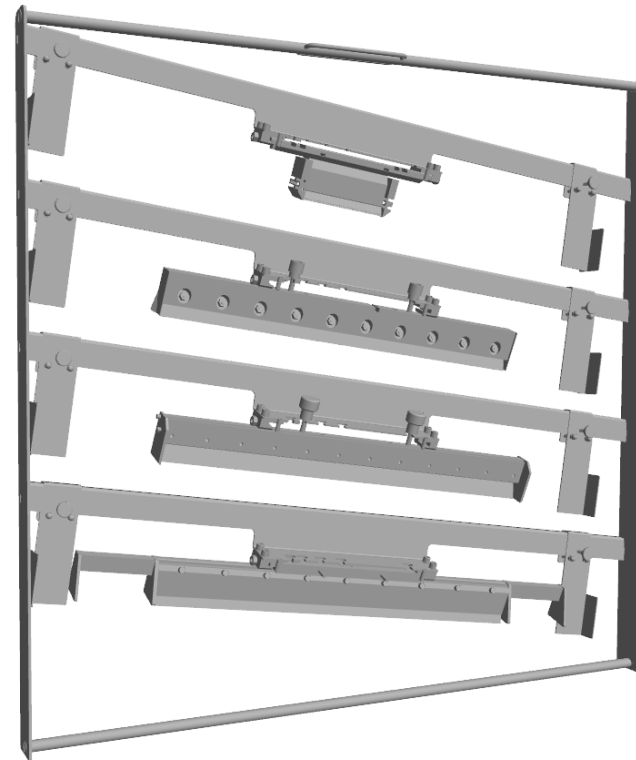
- Fits directly into machine chamber



CLP-00000022-X

Holder for 4 squeegees EKRA - directly into SuSW S/T, MiSW (bolt/click-on system)

- Fits directly into machine chamber

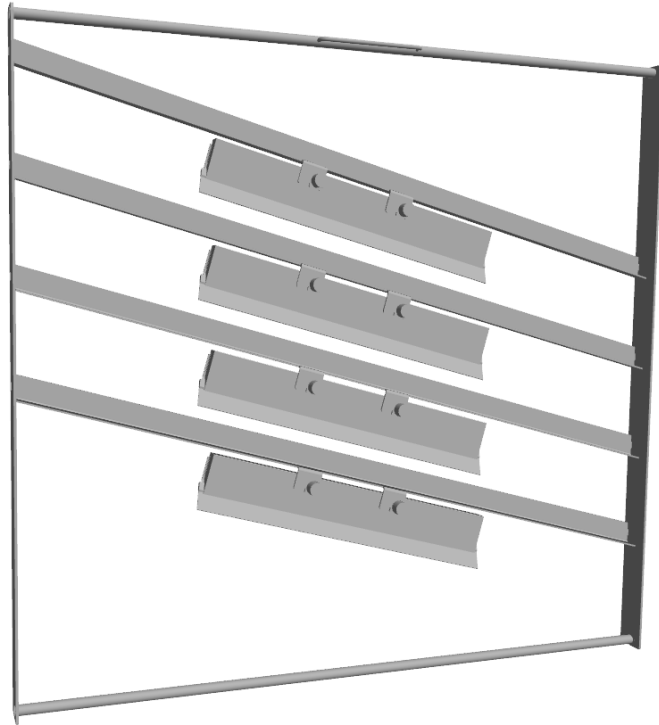


Squeegee clamping

CLP-00000021-X

Holder for 4 squeegees SAMSUNG (front screw 110-170) - directly into SuSW S/T, MiSW

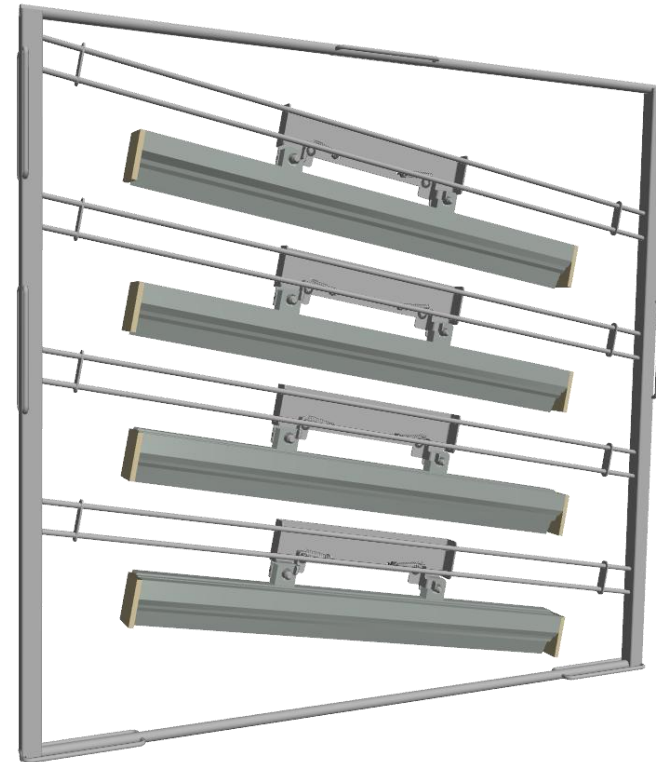
- Fits directly into machine chamber



CLP-00000023-X

Holder for 4 squeegees PANASONIC - directly into SuSW S/T, MiSW (through hole mounting)

- Fits directly into machine chamber



Packing

PKG-00000001-X

Transport wooden box incl. packing cost (SuSW) 2280 x 1710 x 2010 mm

- Standard wooden box for machine
- Including HT (heat treatment)
- Including Shockwatch shipping and handling indicator

PKG-00000002-X

Transport wooden box extended (SuSW) 2980 x 1710 x 2010 mm (for AD unit, large vessels)

- Extended wooden box for machine, AD unit or Softening Unit
- Including HT (heat treatment)
- Including Shockwatch shipping and handling indicator



SuSW SeaPack

Sea transport packaging surcharge SuSW

- Special packaging to prevent damage from climatic conditions if maritime transport



PHYTO_CERTIFICATE

Phytosanitary certificate of heat-treated wooden box

- Certificate that the wooden box meets specified import phytosanitary requirements



Spare parts packages

SPP-00000001-X

Spare parts package SuSW L1

- Consumables – set of selected sealings, o-rings, filters, mechanical filters
- Material usually used for regular maintenance



SPP-00000002-X

Spare parts package SuSW L2,3 50Hz

SPP-00000003-X

Spare parts package SuSW L2,3 60Hz

- Complex assemblies – sensors, pumps, motors, heating elements, power switches, valves, jets, chain
- For easy to challenging service





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