Robot cell washer





Washing station placed in robotic cell.

Robot cell wash

Description:

The Machine series is a top-loaded dip washer, automatically fed by an external robot. As standard the series is designed to be manoeuvred by external control system, same system at the rest of the robotic cell. This external system is meant to control both pump, pneumatic lid, heating, level regulation and other options. The machine can of course also be equipped with its own control system. The machine is CE marked as a component according to machinery directive 2006/42/EC AnnexII.

The machine washes with the help of a robot which dips the goods in either a one-tank model (-11) or a two-tanks model (-22), i.e. wash/rinse. We offer three different washing methods; solely dipping, jacuzzi-flush and furthermore ultrasonic cleaning.

Solely dipping: Dip-tank 350-E, Dip-tank 500-E

Dip-tank including insulated stainless steel cabin with immersion heater. Washing is performed with an external robot moving the detail around in a water-based, alkaline, washing liquid. The E-machines can also be used as a separate rinsing stage to other washing machines. The E-machines do not include any swarf filters nor other particle filtration apart from sedimentation of heavy particles.

Dip-Wash with Jacuzzi-flushing: Dip-Wash 350-11, Dip-Wash 500-11 and Dip-Wash 500-22. The machine effectively washes the goods with a Jacuzzi-flush beneath the liquid surface. The Jacuzzi-flush creates an effective washing which gives access to cavities and hidden contours. The rinse step in Dip-wash 500-22 is solely dip-wash without Jacuzzi-flush. The machine comes in one-tank or two-tanks versions

Dip-Wash with Jacuzzi-flush and ultrasonic wash: Dip-wash 500-22U

When higher cleanliness are required, an even more effective ultrasonic-wash is recommended in extension to the Jacuzzi-flush. Depending on how the machine is controlled you can alter between wash systems or have different programs for different types of goods. The Jacuzzi-pump then have the possibility to work as a filtration pump instead of only washing. Machines with ultrasonic function are equipped with both wash and rinse steps (-22U). The rinse step in Dip-wash 500-22U is with solely dip-wash without Jacuzzi-flush and ultrasonic.

Standard equipment:

Stainless steel insulated tank.

Loading cover (1) where goods are lowered by the robot. Cylinder (2) and valve for loading cover, with position sensors on the cylinder.

Heating element (3) with thermal protection and thermostat directly on the cartridge. Pump (4) and Jacuzzi-flush beneath the liquid surface.

Automatic water filling from water net to rinse tank to wash tank

Overfill protection.

Manual (5) service cover for access to the tank.

Adjustable machine feet.

Stainless coarse filter (6) (swarf collection filter). Do not apply for E-models. At 2-tanks machines the second tank is indirectly heated by the wash tank.

Options:

Oil separator (7) integrated in the tank for removal of floating oils.

Bag filters in stainless steel (8).
Blowing Cabin (9) for dry-blowing to be connected to external compressed air.

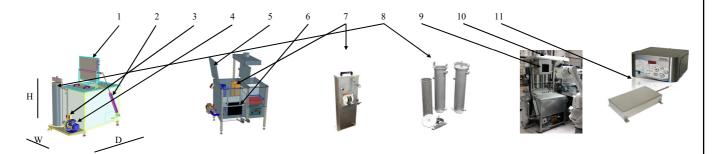
Ventilation hood (10) for connection to extraction. Stainless steel ventilation fan.

Heating element for montage above liquid surface.

(tanks do not need to be emptied for replacing heating elements). Automatic dip-function for loading above the liquid surface.

Ultrasonic function -22U(11) with reflector for efficient washing.

Partial emptying of liquid to external sewage treatment.



| | Dip-tank 350-E (Dip) | Dip-wash 350-11 (Jacuzzi) | | | |
|---|---------------------------|---------------------------|---|-----------------------------------|--|
| Denomination | Dip-tank 500-E (Dip) | Dip-wash 500-11 (Jacuzzi) | Dip-wash 500-22(Jacuzzi/Dip)Díp-wash 500-22U (ultrasonic/dip) | | |
| External dimensions 350 (WxDxH/H open hatch |) 750x1100x875/1475mm | 750x1400x875/1475mm | - | | |
| External dimensions 500 (WxDxH/H open hatch |) 850x1400x950/1700mm | 850x1700x950/1700mm | 1050x1550x980/1700mm | 1200x1250x980/1700 | |
| Height with ventilation hood/ brass cabin | 2150mm | 2150mm | 2150mm | 2150mm | |
| Wash dimensions incl. robotic tool 350 (WxDxH |) 410x350x500mm | 410x350x500mm | - | - | |
| Wash dimensions incl. robotic tool 500 (WxDxH |) 450x450x500mm | 450x450x250mm | 280x350x250mm | 280x350x150mm | |
| Liquid volume in liters(350/500) | 350 litres / 500 litres | 350 litres/ 500 litres | 470+150 litres | 375x70 litres | |
| Heater cartridge | 9kW (incl. thermostat) | 9kW (incl. thermostat) | 9kW (incl thermostat) | 9kW (incl thermostat) | |
| Jacuzzi pump/Filtration pump | - | 801/min, 2,5bar, 0,75kW | 80l/min, 2,5bar, 0,75kW | * 801/min, 2,5bar, 0,75kW | |
| Coarse filter/ basket filter | 500μm | 500μm | 500µm | 500μm | |
| Compression air in bar | 4-8 bar | 4-8 bar | 4-8 bar | 4-8 bar | |
| Ultrasonic effect | - | - | - | Generator 1200W/38kHz. Mounted in | |
| | | | | control cabinet IP55. | |
| Consumption of compressed air (litres/min) | Less than 10 litres / min | Less than 10 litres / min | Less than 10 litres / min | Less than 10 litres / min | |

^{*} For the ultrasonic model the spray function is used to filtrate the liquid from particles.

| | Dip-tank 350-E (Dip) | Dip-Wash 350-11 (Jacuzzi) | | | |
|---|------------------------|----------------------------|-------------------------|-------------------|----------------------|
| Options | Dip-tank 500-E (Dip) | Dip-Wash 500-11 ((Jacuzzi) | Dip-Wash500-22(Jacuzzi/ | Dip)Dip-Wash 500- | 22U (ultrasonic/dip) |
| Oil separator (7) integrated in the tank. | Option***/ Option | Option***/Option | Option | Option | 1 × - × - |
| Bag filters (8) at the pump flow. | Not available | Option | Option | Option | |
| Blowing stage(9) with compressed air. | Option | Option | Option | Option | |
| Ventilation hood (10) for connection to extractio | n Option | Option | Option | Option | |
| Stainless steel ventilation fan. | Option | Option | Option | Option | |
| Cost to exchange 9kW into 12kW above liquid. | Not available / Option | Not available / Option | Option | Option | |
| Jig for loading above surface. | Not available / Option | Not available / Option | Option | Option | |
| Partial emptying of liquid via external timer. | Option | Option | Option | Option | |
| Machine cabinet with plc. | Option | Option | Option | Option | |

^{**} The function does not include its own thermostat but has to be added in external control system. Is only suitable for Dip-Wash500 models. The function ensures that it is not needed to empty the tank of liquid to replace heating element.

^{***} External mounted oil separator.



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