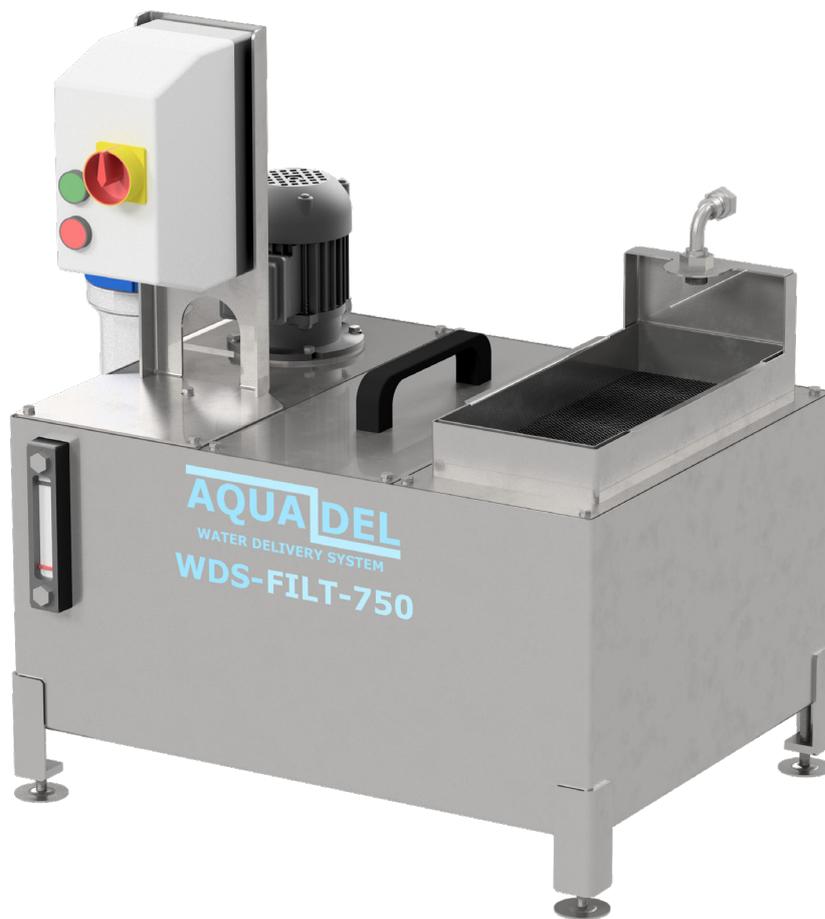


AQUA DEL

WATER DELIVERY SYSTEM



Operations Manual

February 2024 - Issue 1



**Pumps &
Equipment**

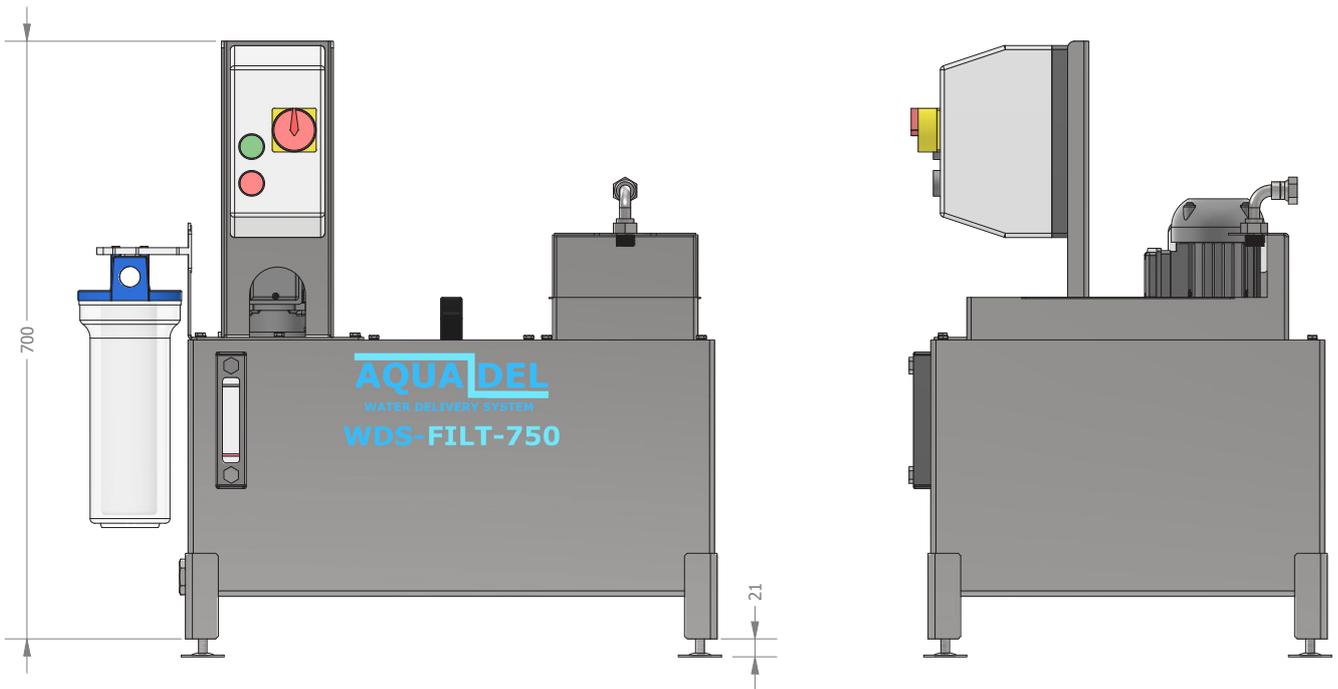
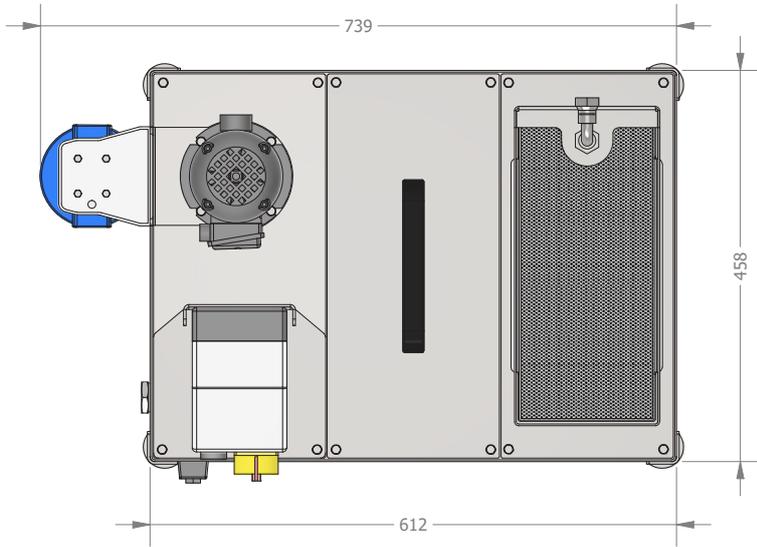
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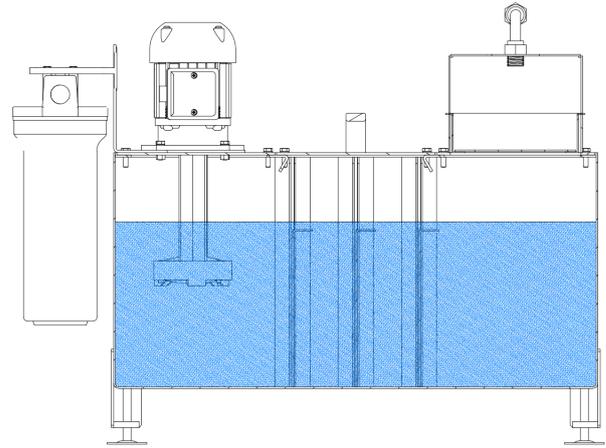
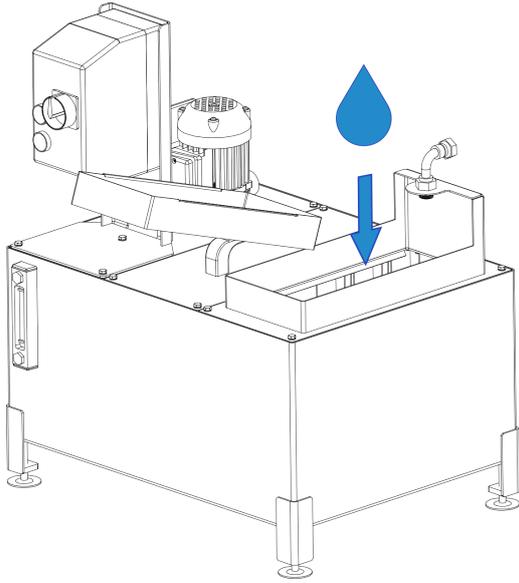


SYSTEM FOOTPRINT

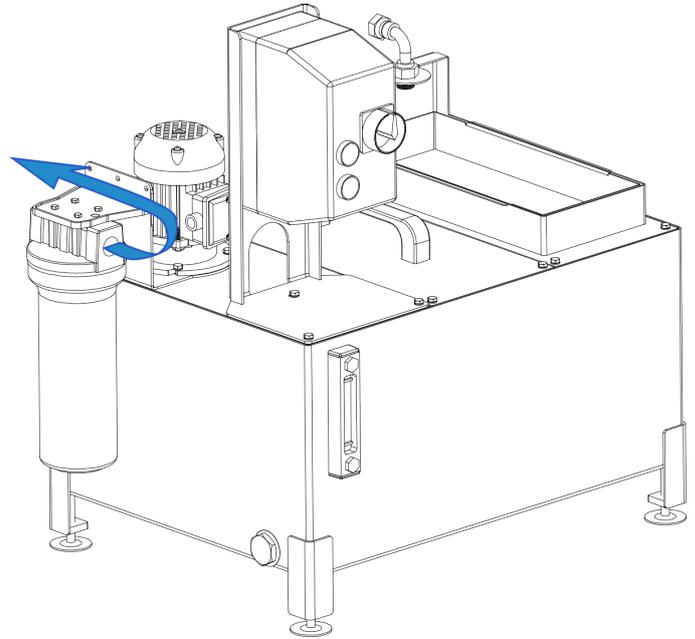
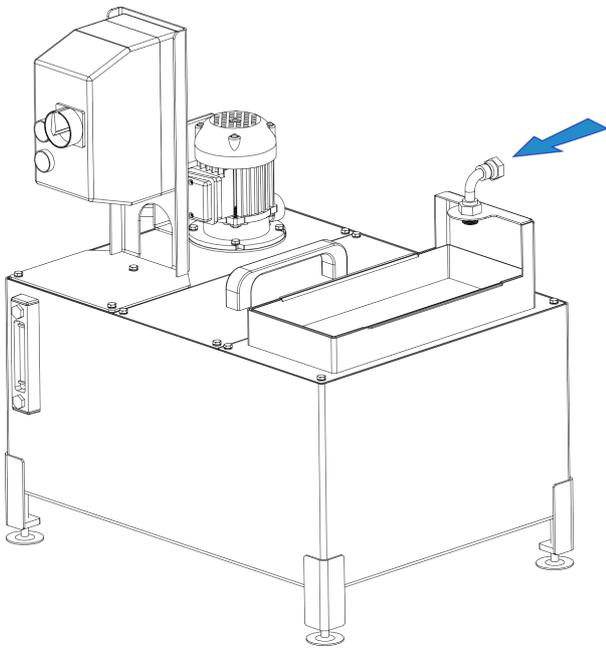


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FLUID MANAGEMENT AND CONNECTION



To fill the tank, remove the mesh catch tray and fill the tank to just above the removable baffle plates (shown above).



Connect the Aquadel system to the machine using the supplied 1/2in. clear hoses.



Control the supply flow using the red valve handle.



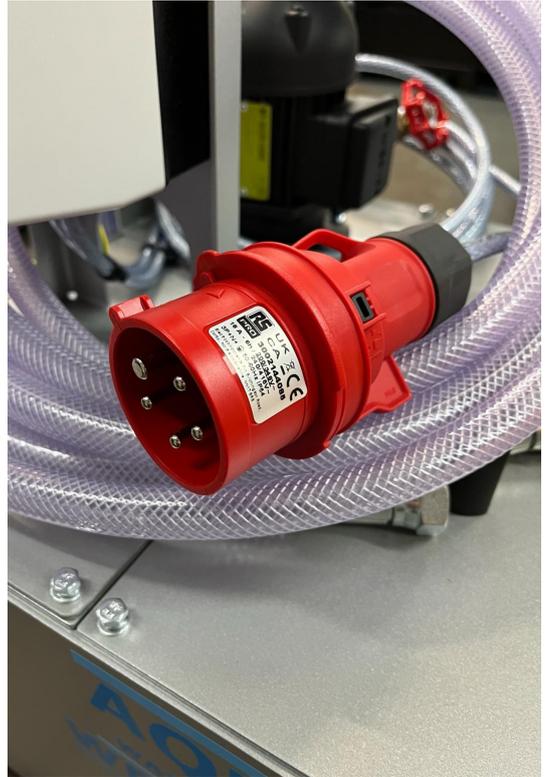
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HIGH PRESSURE COOLANT SYSTEM

KIT CONTENTS



FILTER CARTRIDGE (1mic PE255F OR 100mic PE312F)
AND FILTER CASING TOOL.



POWER SUPPLY CABLE AND MAINS CONNECTION PLUG



FILTER HOUSING (1/2" OUTLET SHOWN)



INTEGRATED CONTROL UNIT AND CONNECTION HOSES



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SYSTEM PUMP - SACEMI SPV 18

Submersible motor-driven pumps

Type SPV 12-18



Uses

They are suitable for transferring liquids containing impurities up to 3 mm in size. Their hydraulic components: impeller, feed screw and pump body in PBT allow them to be used with water, emulsions and oily substances in general, with a viscosity not exceeding 21 cSt (3° Engel). The temperature of the liquid must not exceed 70°C. They are commonly used on:

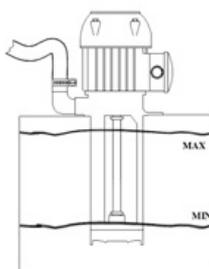
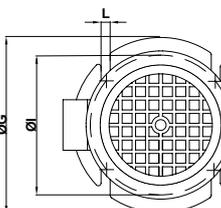
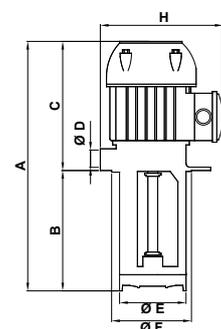
- machine tools (milling and turning machines-drills)
- glass processing machinery (TRI version)
- printing machines

They are normally installed on a tank with a capacity which is proportional to their flow rate, about 3-4 cm from the bottom. It is important to make sure that the maximum liquid level in the tank is always 3-4 cm lower than the support flange (see figure). Should the liquid be particularly dirty, it is advisable to build a compartment tank in order to allow the sludge to deposit before it is sucked by the pump. For different uses, please consult our Technical Office.

Size and weights table

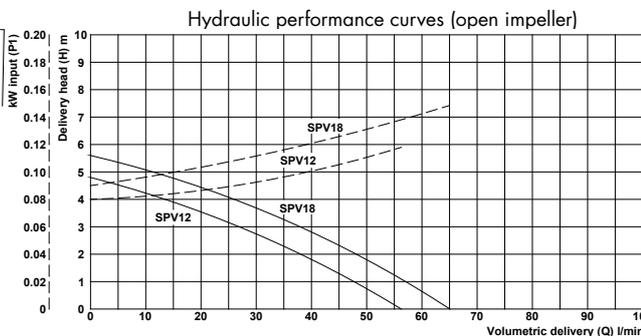
| Type of pump | A mm | B mm | C mm | ØD | ØE mm | ØF mm | ØG mm | H mm | ØI mm | L mm | Mass kg |
|--------------|------|-------|------|------|-------|-------|-------|------|-------|---------|---------|
| SPV 12 | 255 | 90 T | 165 | 3/4" | 98 | 100 | 130 | 151 | 115 | 7 (n.4) | 2.8 |
| | 285 | 120 T | | | | | | | | | 2.9 |
| | 335 | 170 T | | | | | | | | | 2.9 |
| | 385 | 220 T | | | | | | | | | 3.0 |
| | 435 | 270 T | | | | | | | | | 3.1 |
| | 515 | 350 | | | | | | | | | 3.3 |
| SPV 18 | 255 | 90 T | 165 | 3/4" | 98 | 100 | 130 | 151 | 115 | 7 (n.4) | 2.8 |
| | 285 | 120 T | | | | | | | | | 2.9 |
| | 335 | 170 T | | | | | | | | | 3.0 |
| | 385 | 220 T | | | | | | | | | 3.1 |
| | 435 | 270 T | | | | | | | | | 3.2 |
| | 515 | 350 | | | | | | | | | 3.3 |

On demand: T= TRI mode



Rating plate data

| Type of pump | kW | | V 230/400 - Hz 50 | | | Q - maxQ litres/min | maxH - H metres |
|--------------|------------|-----------|-------------------|---------------------|-------|---------------------|-----------------|
| | Input (P1) | Nom. (P2) | In Amp. | n min ⁻¹ | cos φ | | |
| SPV 12 | 0.15 | 0.07 | 0.52/0.30 | 2770 | 0.71 | 6 - 56 | 4.5 - 0 |
| SPV 18 | 0.17 | 0.09 | 0.55/0.32 | 2730 | 0.72 | 2 - 65 | 5.5 - 0 |



Hydraulic performance table (open impeller)

| Type of pump | Volumetric delivery (Q) l/min ↓ | | | | | | | | | | | | | |
|--------------|---------------------------------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|---|--|
| | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | |
| SPV 12 | 56 | 52 | 48 | 43 | 38 | 33 | 27 | 21 | 13 | 6 | | | | |
| SPV 18 | 65 | 61 | 57 | 53 | 48 | 43 | 38 | 32 | 26 | 19 | 12 | 2 | | |



Pumps & Equipment

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FILTER - PE255F (1 MICRON) / PE312F (100 MICRON)



Wound Depth Cartridge Design Function

Wound cartridges offer a gradual pressure increase during cartridge life versus surface-type media that have an abrupt flow cutoff when loaded. All wound cartridges provide true depth filtration utilizing hundreds

of tapered filtering passages of controlled size and shape. As the cartridge is wound, each layer of roving is napped to increase filtration capabilities. The result, each layer of roving contributes to true depth

filtration by trapping its share of particles. In addition, the irregular outer surface reduces surface blinding, assuring both longer cartridge life and full cartridge utilization.

Unique Ultrafine Wound Depth Cartridges for Critical Filtration Applications

Included in the Honeycomb™ wound depth cartridge family is a unique filter cartridge specifically designed for critical filtration applications in the 0.5µm range. Where absolute 0.5µm filtration is required, the Ultrafine cartridge can be used as a prefilter, thereby significantly extending membrane life. Ultrafine cartridges remove

99% of test contaminants with 39% distribution of particles in the 0.5µm range (AC Fine Dust). This type of filtration provides excellent protection for equipment or processes that must be protected from fine particles. Laboratory testing concluded that 90% of micro-organism contamination is removed with ultrafine filtration.

Suggested applications include:

- Prefilter for membranes
- Fine filtration of photoresists for the semiconductor industry
- Rinse water in semiconductor manufacturing
- Fine filtration for ultrasonic parts, washer solvents and other high-purity solvents
- Prefilter for industrial reverse osmosis equipment



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FILTER HOUSING - LT10

Specifications

Materials of Construction:

Blue reinforced polypropylene head with clear styrene Acrylonitrile (SAN) shell.

Operating Conditions:

Maximum operating temperature:
125°F (52°C) @ 100 psi (6.9 bar)

Maximum operating pressure:
150 psi (10.3 bar) @75°F (22°C)

Maximum Recommended Flow Rate:

6 gpm (23 lpm)

Connection Dimensions:

3/4 in BSP

Head-to-shell O-ring:

2.5 barg (36 psid)

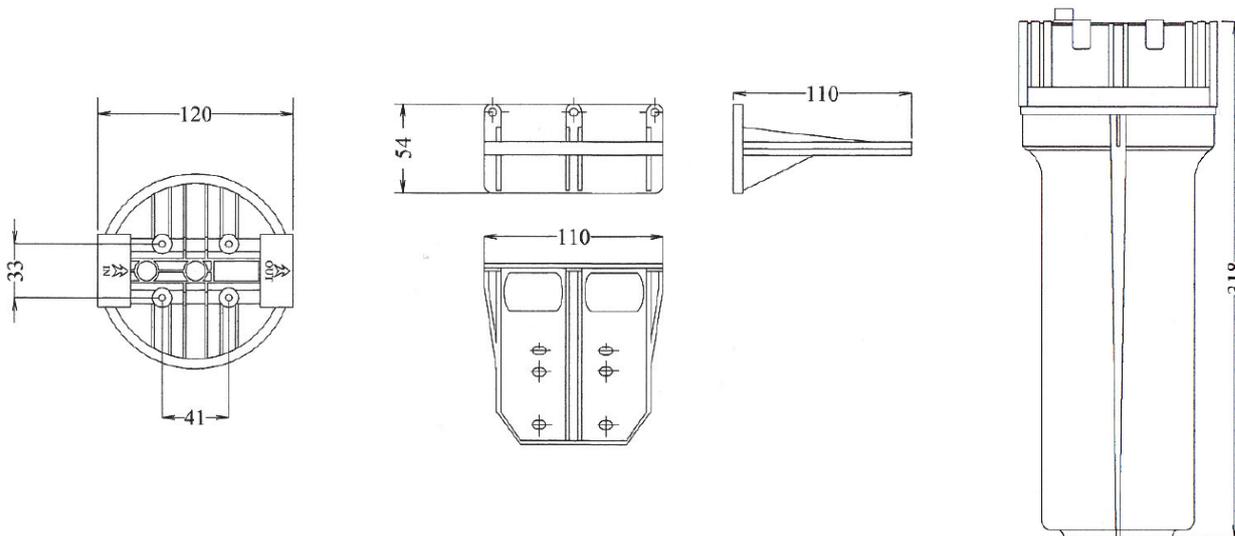
Accepts Industry Standard Cartridge Sizes (Nominal):

Lengths
9 13/16 in (249 mm)
I.D. - 1 1/16 in (27 mm)
O.D. - 2 1/2 in (64 mm)

Specifications:

| | |
|-----------------------|-------------------------------------|
| Head: | Filled Polypropylene |
| Bowl: | Transparent SAN |
| O-ring: | Nitrile |
| Working pressure: | 8 bar max |
| Bursting pressure: | 35 bar |
| Working temperature: | 50°C |
| Cyclic Pressure test: | Passes 200,000 cycles from 0-10 bar |

Dimensions - shown 3/4" ported versions



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NOTES



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