workingwater

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Water Recycling and Rain Water Harvesting Specialists

High Pressure Filtrations System

The largest use of mains water on a car wash is during the high pressure cleaning passes. Feeding the high pressure station with recycled water can therefore greatly reduce the overall water costs associated with running a car wash.

The water quality from the reclaim system is usually not good enough to use through the comparatively sensitive piston pumps on a high pressure station. Therefore extra and finer filtration is required.

This system takes the standard recycled water and pressure feeds it on demand to the high pressure station via a 25 micron filter; thereby significantly reducing the mains water usage while protecting the long life of the high pressure station's piston pumps.

Systems Includes As Standard

- Quality Grundfos pump system
- Booster pump controlled
- High capacity aluminium bag filter vessel
- 2 x 25 micron filter bags
- Pressure gauge
- Isolation valve
- Control panel
- Associated fittings & hose

System Specification

Electrical Details:	240 volt, 50 Hz, 0.71 kW, 3.3 amp
Typical footprint:	600mm wide x 450mm deep x 1800mm high (with access)
Typical bag life:	4 months

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High Pressure Filtrations System

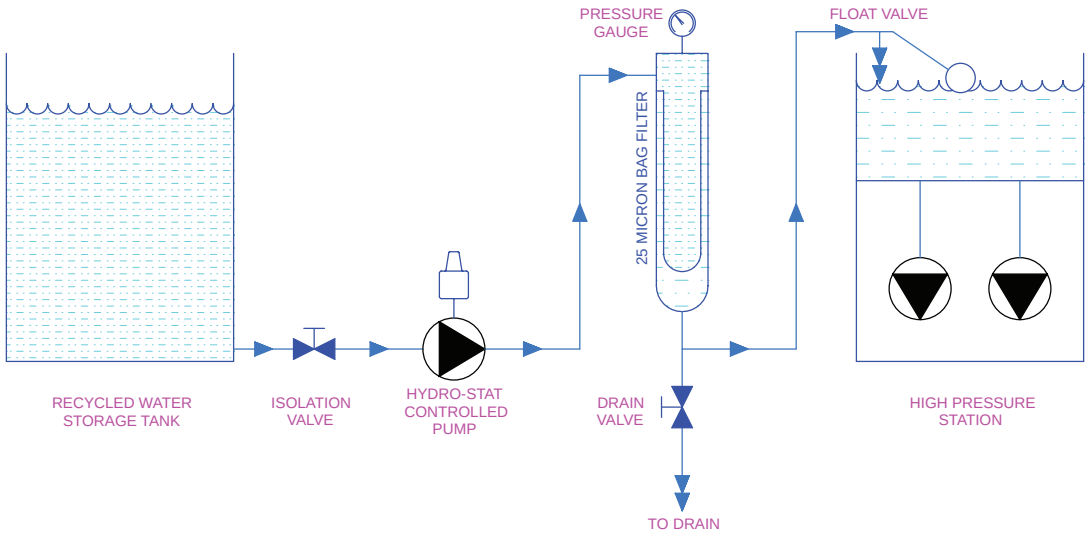
System Description

A connection is taken from the recycled water storage tank to a booster pump. This pump takes water and feeds it through a 25 micron aluminum bag filter vessel before discharging it into the high pressure station header tank.

The bag filter has no moving parts and is therefore a very reliable method of holding back particulate. The large capacity of the filter bags (7.2” dia x 32”) ensures a long life between bag changes.

The booster pump measures the pressure in the line to the high pressure station. When the pressure drops due to the header tanks float valve opening, the booster pump starts. Therefore the header tank always has a supply of filtered water.

Schematic Flow Diagram



Typical Water Saving Calculation

Total water used on a high pressure wash: 136.5 litres
Of which high pressure waster: 92.5 litres

$$\% \text{ high pressure water} = \frac{92.5}{136.5} \times 100 = 67\%$$

Therefore the addition of a H.P feed filtration system will INCREASE the existing percentage of recycled water by 67%

For a site providing 10,000 H.P. washes per year the annual water saving is:

ANNUAL WATER SAVING = 92.5 X 10,000 = 925,000 litres

VERY NEARLY 1 MILLION LITRES PER YEAR