






Neutralising Filters

Purion

Product Guide

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Contents

Please note: *Images in this product guide may vary and are a representation only. If you have any questions, please contact us for further information.*

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Neutralising Filters

For neutralising low pH (acidic) water

Up-flow Filters - Residential

FOR POTABLE & PROCESS WATERS - RESIDENTIAL/SMALL COMMERCIAL

CALCITE FILL PORT

CAUSES OF ACIDIC WATER

(1) Carbonic Acid

Acid water is prevalent along many coastal areas and is the result of the carbon produced from rotting vegetation mixing with water to form carbonic acid. Natural rainwater is generally acidic with the degree of acidity being dependent on the demographics of the region.

(2) Reverse Osmosis (RO) Systems

RO units remove minerals from the water but do not remove gas. For example, if excess carbon dioxide (CO2) is in the water supply it will permeate through the membrane causing an acid water (low pH) condition in the product water.

PROBLEMS CAUSED BY ACIDIC WATER

Acidic water corrodes metal pipes, fittings and water contact appliances and will leach copper from copper pipe causing green/blue staining on fixtures and fittings, pitting and the eventual failure of the piping system. In industry, acidic water or fluids have to be neutralised before disposal or reuse.

NEUTRALISING PROCESS

The acid water flows upwards through a bed of alkaline calcite media. The acid dissolves the calcite media adjusting the water to a neutral pH and negating the acidity. The calcite is sacrificial and will require periodic replenishment.

FILTER FEATURES

- Uses only inexpensive and safe to use calcite media
- When water is flowing, the up-flow filter keeps the calcite media in a fluid state preventing it from packing and channelling
- Downstream 5 micron filtration prevents calcite fines and precipitated iron flowing to service
- A large screw-cap top-fill valve to facilitate calcite loading
- No power required
- No backwashing required
- No wasted water
- Ideal for tank installations and areas suffering from higher than normal acid-rain conditions

Model	Description	In/Out (mm)	Max Flow (lpm)	Install Area w x d x h (cm)
WTWFN10UF	254mm x 1370mm tank, 25mm flow-thru valve, calcite media and loading funnel, 5 micron 20" post-filter	25	22.0	47 x 39 x 160
WTWFN12UF	305mm x 1320mm tank, 25mm flow-thru valve, calcite media and loading funnel, 5 micron 20" post-filter	25	22.0	52 x 41 x 155
WTWFN13UF	338mm x 1398mm tank, 25mm flow-thru valve, calcite media and loading funnel, 5 micron 20" post-filter	25	35.0	55 x 43 x 163
WTWFN14UF	355mm x 1650mm tank, 25mm flow-thru valve, calcite media and loading funnel, 5 micron 20" post-filter	25	22.0	56 x 44 x 185

Minimum recommended inlet pressure 280 kpa. Maximum inlet pressure 600 kpa with no water hammer. Figures based on residential application, intermittent flow only. Use lower flow rates for continuous use.

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Neutralising Filters

For neutralising low pH (acidic) water

Up-flow Filters - Commercial

FOR POTABLE & PROCESS WATERS - COMMERCIAL APPLICATIONS

CAUSES OF ACIDIC WATER

(1) Reverse Osmosis (RO) Systems

RO units remove minerals from the water but do not remove gas. For example, if excess carbon dioxide (CO_2) is in the water supply it will permeate through the membrane causing an acid water (low pH) condition in the product water.

(2) Carbonic Acid

Acid water is prevalent along many coastal areas and is the result of the carbon produced from rotting vegetation mixing with water to form carbonic acid. Natural rainwater is generally acidic with the degree of acidity being dependent on the demographics of the region.

PROBLEMS CAUSED BY ACIDIC WATER

Acidic water corrodes metal pipes, fittings and water contact appliances and will leach copper from copper pipe causing green/blue staining on fixtures and fittings, pitting and the eventual failure of the piping system. In industry, acidic water or fluids have to be neutralised before disposal or reuse.

NEUTRALISING PROCESS

The acid water flows upwards through a bed of alkaline calcite media. The acid dissolves the calcite adjusting the water to a neutral pH and negating the acidity. The calcite is sacrificial and will require periodic replenishment. Calcite can also add hardness to the water which, over time, can deposit a protective barrier on pipework to further prevent corrosion.

FILTER FEATURES

- Uses only inexpensive and safe to use calcite media
- When water is flowing, the up-flow filter keeps the calcite media in a fluid state preventing it from packing and channelling
- Downstream 5 micron filtration prevents calcite fines and precipitated iron flowing to service
- No power required
- No backwashing required therefore no wasted water

Model	Description	In/Out (mm)	[1]Max Flow (lpm)	[2]Install Area w x d x h (cm)
WTWFN16UF	400mm (D) x 1625mm (H) tank, flow-thru valve head, calcite media, 1 x 5 micron Big Blue post-filter	50	30.0	46 x 51 x 270
WTWFN21UF	525mm (D) x 1550mm (H) tank, flow-thru valve head, calcite media, 1 x 5 micron Big Blue post-filter	50	52.0	58 x 64 x 262
WTWFN24UF	600mm (D) x 1800mm (H) tank, flow-thru valve head, calcite media, 2 x 5 micron Big Blue post-filters in parallel	50	70.0	66 x 72 x 287

[1]Based on intermittent flow. Use lower flow rates for continuous operation. Minimum recommended inlet pressure 350 kpa. Maximum inlet pressure 600 kpa with no water hammer. [2]Height includes 1.0 metre clearance above filter to facilitate installation and servicing but does not include post-filtration cartridge filter/s.

Neutralising Filters

For neutralising low pH (acidic) water

Down-flow Filters - Automatic

FOR POTABLE & PROCESS WATERS - RESIDENTIAL/SMALL COMMERCIAL

CAUSES OF ACIDIC WATER

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FILTER FEATURES

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- When water is flowing, the up-flow filter keeps the calcite media in a fluid state preventing it from packing and channelling
- A large screw-cap top-fill valve to facilitate calcite loading
- Ideal for tank installations and areas suffering from higher than normal acid-rain conditions

Model	Description	In/Out (mm)	[1]Max Flow (lpm)	[2]Install Area w x d x h (cm)
WTWFN13	254mm x 1370mm tank, 25mm automatic valve, calcite media and loading funnel	25	23.0	54 x 33 x 137

imum recommended inlet pressure 280 kpa. Maximum inlet pressure 600 kpa with no water hammer. Figures based on residential application, intermittent flow only. Use lower flow rates for continuous use.

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BY THE DOWDENS GROUP

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