

FILTRATION: WATER FILTRATION SYSTEMS



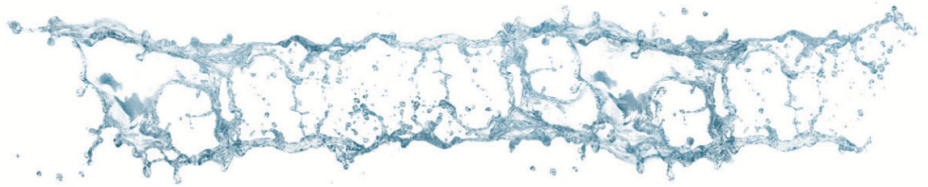
Lubron's range of pressure filter systems is readily configured for removing both particulates and various dissolved species in effluent, ground, process and surface waters.

The filters are based on an extensive range of high quality steel vessels, built to the latest European standards, with excellent internal access. The manifolds, available in PVC or, to special order, stainless steel, incorporate pneumatic or motorised backwash control valves, which are governed by a dedicated programmable microprocessor unit.

The most common applications include

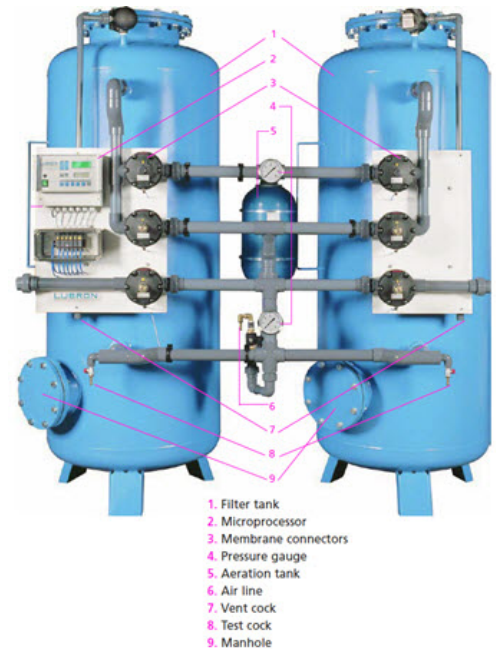
- for iron and manganese removal from borehole water
- for the removal of particulates in effluent, process and surface waters
- for elimination of organics, such as pesticides and chlorine.

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Iron removal from groundwater and borehole supplies calls for a knowledge of both the chemical reactions involved and how to engineer systems to ensure these can work effectively. Un-aerated groundwater usually contains dissolved iron salts. Introducing oxygen or air to the water causes the iron to oxidise and precipitate. Under correct conditions it can be filtered and removed from the water.

The efficiency of the process is dependent on many factors such as pH, level of oxygenation, operating pressure, media selection, filtration rate, etc. Also, because the process is catalysed by the presence of precipitated and filtered iron, new filters require a 'running in' period during which the optimum conditions are established. Uniquely, the precipitation and filtration process occurs within the filter bed - not just on the surface - increasing the capacity over other manufacturers' designs.



Manganese removal is effected in a similar manner, but the chemical and physical conditions for efficient precipitation and filtration are different to that of iron.

Lubron's own technical team of qualified chemists and engineers understand these requirements, as proven by their numerous successful installations, and are always pleased to provide recommendations and advice for specific treatment projects.

Great care has been taken to design all filter systems to use only the absolute minimum of backwash water by employing the following techniques.

- fully programmable backwash cycles with user-friendly interface
- air scour - standard on all systems
- multiplexed installation can use 'just filtered' water from one vessel to backwash another
- raw water may be used for backwashing by incorporating a 'service direction to drain' final stage
- backwashing can be programmed to initiate on head loss or time basis.

Filter Options Summary

- internal/external coatings to meet project requirements
- manifold and valve materials and control systems
- single, duplex, triplex or quadruplex installations as standard
- dedicated or customer specified plc steering
- fully automatic or manual backwash initiation
- filter media selected for specific filtrates
- all necessary backwash tanks and transfer pump systems can be included in proposals
- ancillary chemical dosing and air systems provided if required