

Iron Removal System #1 - up to 6 ppm

How It All Works

Katalox filter with air draw

Watch Water's Katalox Light is a remarkable new iron removal media from Germany. It combines versatility and high performance resulting in higher levels of iron removal with the light weight properties of the traditional Birm media we used to use in the past. This gives us an economical treatment option for high levels of iron, manganese, and hydrogen sulfide that is easy to backwash. It is also able to perform well at low pH levels making it ideal for this region where pH is low and needs adjusting prior to the use of a traditional Birm (Iron Blaster or FOB) filter increasing the cost to the customer.

Like most iron removal medias, Katalox Light acts as an insoluble catalyst to enhance the reaction between dissolved oxygen and the iron compounds to form ferric hydroxide which is then removed through mechanical filtration in the media bed. As a catalyst, Katalox Light is not consumed in the iron removal process and it does not need to be regenerated. Also like most other iron removal media, the active ingredient in Katalox Light is manganese dioxide. Katalox Light is composed of a manganese dioxide coated zeolite, containing about 10% manganese dioxide, far higher than Birm.

- * concurrent treatment of iron, manganese and hydrogen sulfide (rotten egg odor)
- * low back wash flow rate
- * longer life and much more active ingredient than Birm
- * excellent filtration capabilities (down to as low as 3 microns under ideal conditions)
- * regeneration generally not required
- * ANSI/NSF 61 and 372 validated
- * high tolerance of oxidizers such as chlorine, hydrogen peroxide, and potassium permanganate (which can be used to boost performance in extreme treatment cases)
- * removal of arsenic and certain heavy metals possible through co-precipitation

Where iron removal is a pre-treatment to an arsenic filter, Katalox Light is a good choice as an iron removal media as it will convert trivalent arsenic to pentavalent arsenic to enhance removal at subsequent treatment steps. Where the iron level is at least 20 times the arsenic level, indirect removal of arsenic is also likely through adsorption to the ferric hydroxide particles created during iron removal (co-precipitation), so a dedicated arsenic filter may not even be required. Follow-up testing should be done to confirm satisfactory arsenic reduction.

About Muskoka Clean Water

- Well trained courteous staff.
- Store front location to serve all your water treatment needs.
- We use NSF certified and CSA certified products when and where applicable in our filters and installations.
- We service all types of water treatment systems even if we did not sell it.
- Members of the Canadian Water Quality Association and the Water Quality Association.

SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance

Financeit



77 Centre St. North
Huntsville, ON P1H 1T4
705-349-2837
www.muskokacleanwater.com
info@muskokacleanwater.com

Muskoka Clean Water

Making Your Lake Water Great Water

IRON REMOVAL

The water in our region is typically low in pH, low in hardness and will show iron from 0.3ppm to as much as 60ppm. Manganese is usually present in low levels but not often at a level that would require treatment.

The selection of an iron removal system is dependent on several factors including the total iron present in the raw water.

Most iron removal system used in this area require oxidation of the iron and then filtration of the oxidized iron to remove from the water. We have had great success with several systems including Katalox and Hydrogen Peroxide (sometimes both together)

When the level of iron is low the use of a softener and the ion exchange process, rather than oxidation, can also work. This can be a good solution when hardness is also present.

Ozone can also be used as an oxidization treatment for iron and has some advantages when there are other issues in the water like lead and arsenic. However, it tends to be more expensive and must be carefully installed.

