



# KATALOXLIGHT OPERATION MANUAL

Katalox Light® media should to be properly backwashed & rinsed before placing into Service.

## **Installation Basic** (for the first time installation only!):

1. Open the bag of fresh Katalox Light® media and put into the Pressure Vessel/container.
2. Fill up the pressure vessel/container with fresh water from bottom to the top (as in Backwash mode).
- 3.. **RAPIDLY BACKWASH THE MEDIA FOR 40 MINUTES ( 10-12 GMP/FT<sup>2</sup>)** . This backwash time is for the first time installation only.
- 4.. After backwashing, Fast Rinse the media for 15 minutes (for the first time only)

Katalox Light® systems can be backwashed. During backwashing the water flow direction of water through Katalox Light® filter is reversed, cleaning out trapped metals and solids. Three factors can be used to assess when a filter needs backwashing.

Filter-Run Time Controlled: Time can be adjusted according to use of Filter-Run and the recommendation of Backwashing and cleaning is in interval of 48 hours or max. 72 hours of Filter Operation (i.e. every 2 or 3 days).

Head Loss (loss of pressure): Head loss is loss of pressure (also known as head) by water flowing through Katalox Light® (Fixed Bed). When water flows through a clogged filter, friction causes the water to lose energy so that the water leaving the filter has lesser pressure than the water entering the Katalox Light® filter. Head loss is displayed on head-loss gauge. Once the head loss within the filter has reached in the range of typical 0.5 bar - 0.7 bar (7 psi - 10 psi), the Katalox Light® media bed should be backwashed.

Backwash Time - 10 minutes: Backwash should begin slowly. Backwash should continue until the backwash water appears to be clean. The backwash water must have enough velocity (20 - 25 m/h, 8 - 10 gpm/ft<sup>2</sup>) and volume to agitate the Katalox Light® media bed and carry away the foreign matters which has been collected there. It's very important to do surface washing after backwash.

Bottom Surface Washing or Fast Rinse: After a good backwash, the bottom surface area of the filter (near bottom distributors) should be washed for minimum 2-5 minutes before going back to service.

**Note:** Katalox Light® filters are usually operated of a service rate of 15 - 30 m/h (6 - 12 gpm/ft<sup>2</sup>) and the recommended backwash rate is 20 - 25 m/h (8 - 10 gpm/ft<sup>2</sup>). Wastewater or Water Reuse filters should operate at 7 - 10 m/h (3 - 4 gpm/ft<sup>2</sup>) and should be backwashed at 20 -22 m/h (8 - 9 gpm/ft<sup>2</sup>).



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**Troubleshooting: pH increment:** Water pH increment might be observed with newly installed Katalox Light® system which eventually gets neutralized (stabilized to the inlet water pH) with time. The reasons for this could be various:

- ☐ High surface area of the media can help O<sub>2</sub> from the air to stick on its surface (normal when installed for the first time) which immediately increase the water pH
- ☐ Katalox Light® media's high catalytic oxidation capability can immediately oxidize some water impurities (that was dissolved in lower pH value) and make the water pH go higher
- ☐ If the water is hard (carbonate hardness), it can undergo CO<sub>2</sub> diffusion which would increase the pH

**Solution:** If there is a noticeable increase in the pH above the normal range, simply repeat points **3 & 4** from the "Installation Basic" section (page 1). This could vary from system to system and different water constituents.

**Note:** Having water pH near or above 7.0 is already an added advantage for the following

- ☐ It provides Anti microbiological effect that prevents the growth of biology in the media bed column
- ☐ Readily available pH for efficient iron & manganese removal
- ☐ Applications like Cooling Towers, Boilers; Heat Exchangers generally requires water pH above the normal range