

Work sheet S 2.2 a

Edition 12/99

HYDROLIT – MN

Head loss

1. General

HYDROLIT-MN is a granular filtering material with round grains and a rough surface. It consists of slightly alkaline reacting core coated with a catalytic layer out of manganese oxide hydrate. It is used for filtration in demanganizing.

Head loss occurring during filtration can be read in the adjacent diagram for water temperatures of 5 °C to 15 °C with sufficient accuracy necessary for planning of conditioning plants.

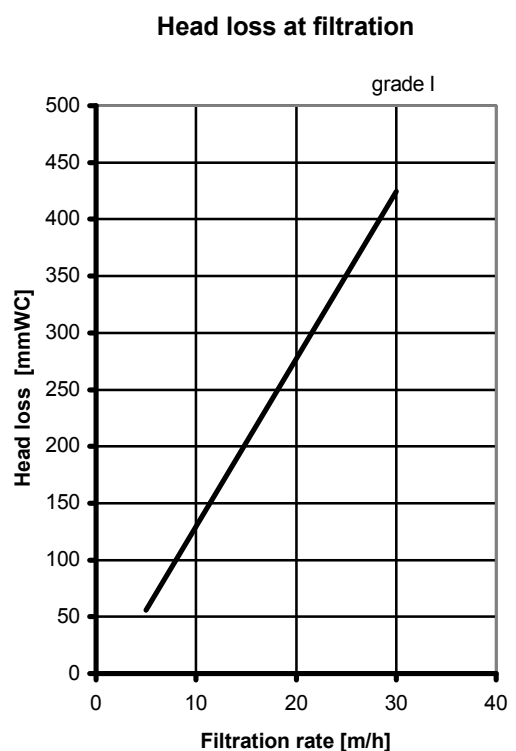
2. Head loss at filtration

Head loss is dependent on

- Grain diameter:
Head loss increases exponentially at decrease of grain diameter
- Height of layer:
Head loss increases linearly at higher layers of material
- Filtration rate:
Head loss increases at higher filtration rates
- Temperature:
Head loss increases at lower water temperatures

Diagram 1 shows head losses in dependence on filtration rate [m/h] in relation to height of layer in 1000 mm in cleanly washed filter. Values were established for materials with an average grain sizes distribution at a water temperature of 10 °C.

Diagram 1:



1000 mm WC = 100 mbar