

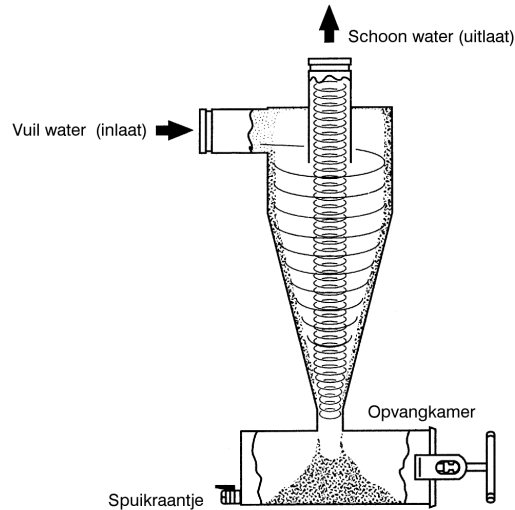
Instruction Manual

Hydrocyclone/Sand Separator Series 5000

UDI[®]
filters

General instructions:

This filter has been designed and made to meet the highest requirements as to quality and finish. The hydrocyclone/sand separator is a simple unit that is easy to maintain and operate. It has no moving parts or filter elements. The hydrocyclone separates sand and other solids from the water at a very small pressure loss and an effectiveness of 90% or higher, without the pressure loss increasing or the separated material being able to accumulate.



Flow diagram and separation principle of the hydrocyclone

Installation:

Install the hydrocyclone in a vertical position with the collecting chamber at the bottom of the hydrocyclone.

Pay attention to the correct direction of flow: the inlet horizontal and the outlet vertical. Check whether the present flow velocity through the hydrocyclone is within the recommended values. An incorrect value of flow velocity will reduce the effect.

When installing more than one hydrocyclone, allow enough room between the units for easier maintenance.

The general rule is that: separation improves as the diameter of the hydrocyclone diminishes and the pressure loss increases.

The maximum working pressure is 8 bar. The filter is designed to withstand a maximum pressure of 10 bar.

A pressure relief valve must be installed before the filter if the pressure is not sufficiently under control.

Do not open the filter cover and do not tighten it while the filter is being used or under pressure.

Operation:

Normal operating conditions are obtained when the differential pressure across the hydrocyclone is within the recommended values of 0.2-0.5 bar.

A differential pressure of less than 0.2 bar will reduce the separator's effectiveness.

A differential pressure exceeding 0.5 bar may result in increased erosion.

Emptying the collecting chamber:

To prevent the collecting chamber from being filled up with deposit, regularly empty the collecting chamber by opening the drain valve until the dirt has been removed.

In the case of high dirt concentrations, an electric valve and timer can be used for draining off.

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Periodic cleaning:

Stop the flow to the cyclone filter.
 Open the drain valve at the bottom of the collecting chamber to let pressure and dirt escape.
 Remove the cover (03/08).
 Remove all deposit accumulated in the collecting chamber.
 Thoroughly clean the inside of the empty collecting chamber.
 Place the cover (03/08) back on the collecting chamber, ensuring the cover rubber (04/09) fits snugly.
 Place the handle + tightening bracket (01+02) and tighten firmly, or place the bolts (13) and tighten them evenly.

Any damage to the protective coating of the filter must be repaired immediately.
 Before applying the protective paint, the damaged spot must be cleaned properly using a steel wire brush.

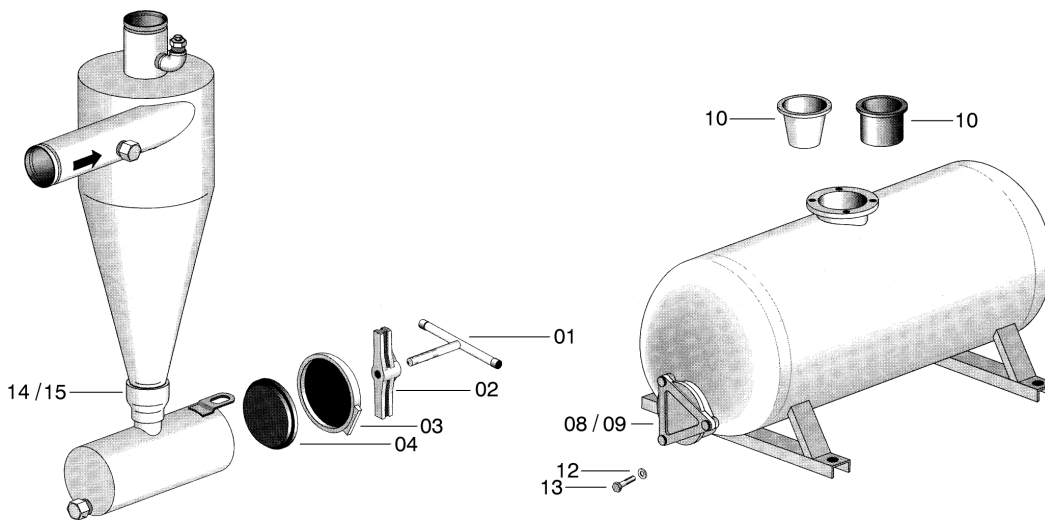
Maintenance:

Each filter comes with these installation, operating and maintenance instructions.
 Apply each year a film of grease on the thread of the spindle of the handle.

Notes:

The size of the hydrocyclone/sand separator must match the present flow velocity in the pipe.
 A smaller or larger separator does not have the velocity of circulation required, which will affect the filtrate quality.

In view of ongoing improvements, we reserve the right to change specifications without prior notice.



Filter type	Unit	50307	50410	50615	50820	50830	51243	51640	52060	52460
Connection	inch	3/4"	1"	1.5"	2"	3"	4" in/3" out	4"	6"	6"
Capacity	m ³ /h	2-3.5	3.5-7.5	7.5-12	11-17	18-34	35-52	52-82	98-160	140-230
Standard tank	litre	2	2	5	10	10	60	120	220	220