



**Donaldson.**  
Filtration Solutions

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<b>TO:</b>	De Heer Rutten Marc	<b>CC:</b>	
<b>FAX N°</b>	03/309 05 52	<b>COUNTRY:</b>	Belgium
<b>FROM:</b>	Kurt Verstraeten		
<b>SUBJECT:</b>	Reinigen van Cylindrische filters		
<b>O/REF.:</b>		<b>V/REF.:</b>	Letter dd. 07/03/2000

Geachte Heer Rutten,

Gelieve hieronder een beschrijving te vinden voor het wassen van onze filters, gebruikmakend van BIOMEX.

### **Washing Procedure :**

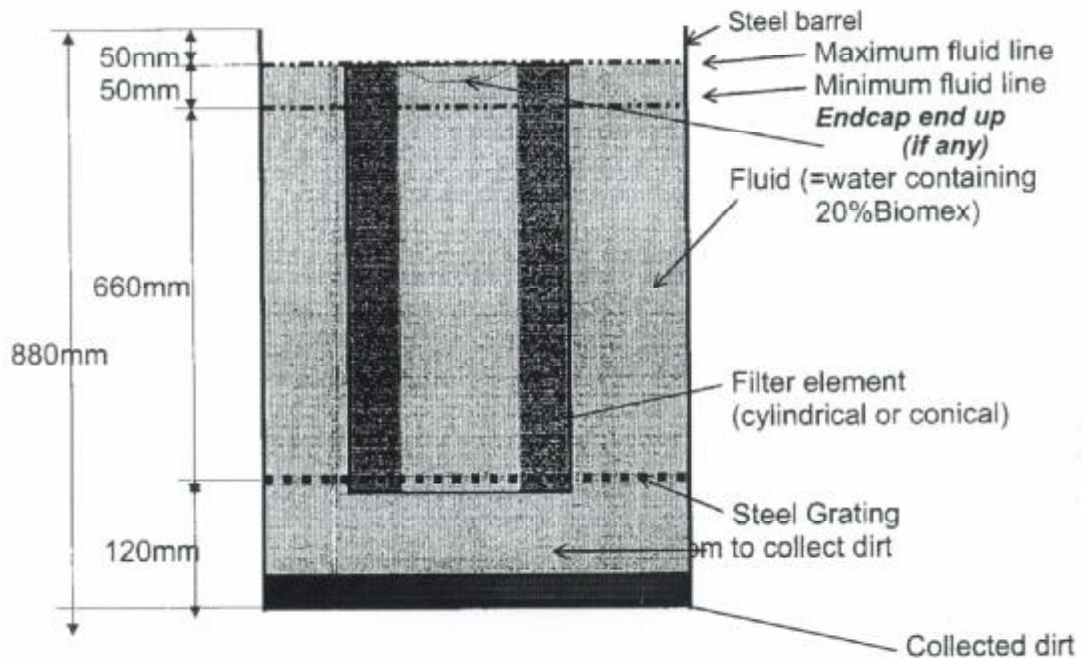
Biomex can be used for manual cleaning and is according to European requirements easily biodegradable, also non-corrosive and safe for clothing, does not affect metals, plastics, and does not constitute any fire hazard (see also specifications and safety data sheet in annex). It is also safe for skin, however it is recommended to prevent direct contact for a long time with the skin and to use watertight gloves when washing the elements.

#### **Instructions for washing :**

We recommend to wash the elements in a 220 liter standard type barrel( minimum dimensions are 580mm diameter, with a 880mm height) containing 20% of BIOMEX mixed with 80% water.

3 liters of pure Biomex and 9 liters of water have to be added when the fluid level in the bath is too low to submerge the filter element, to compensate the consumption/loss of liquid due to the washing of the elements.

The barrel must have a double bottom to collect all the washed-off dirt released from the filter elements. (see below sectional drawing)



Two of such baths are needed.

The first bath is used for impregnating during +/- 3minutes the element. After these three minutes the element must be shaken in vertical and rotating directions to take of the first layer of dirt.

The second bath is used to finalize the degreasing procedure. Here the element only has to be shaken in vertical and rotating directions to take of the last dirt.

To improve the cleaning effectiveness of the BIOMEX product, we recommend to have the water at 20 to 30°C.

A third bath with same construction as the 1<sup>st</sup> and 2<sup>nd</sup> bath must be filled with clear water, to remove the Biomex mixture present on the element. The water in this last bath should be replaced all 24 elements spooled.

The fourth step is rinsing the elements with gentle stream of water (not more than 2.5bar) from a hose connected to the water net (clear water), to take away the last traces of the Biomex mixture. The end of the hose must be a cut end. No nozzle on this water hose can be used (to prevent damage to the filtermedium). This last procedure is completed when the water coming from the element is clear.  
Always inject water from "clean" to "dirty" side



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The cleaned elements must than be placed during 72 hours in a ventilated room so that the most water is evaporated from the elements. Before installing the elements, make sure the elements are still clean and all rubber sealings on the elements are clean. If the sealing is damage or in poor condition, replace this element. Place a bright light inside the element and rotate it slowly. If any punctures or ruptures appear (like a bright spot), replace the element. These checked elements can than be reinstalled in the filterhouse.

The checked elements must be marked to keep track if this element already has been washed or not.

**!! CAUTION !! :**

***Do not reinstall damaged filter elements.  
To prevent damage to the elements instruct the involved people to handle these elements with great care.***

Hoping this meets your expectations,  
Best Regards,

Kurt Verstraeten  
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*The effective and friendly way of cleaning*

## **Washing compound for Donaldson Gas Turbines Air Filter Elements The effective and friendly way of cleaning**

BIOMEX HDI is a specially formulated, concentrated detergent for washing dry-type filter elements.

Its specially compounded detergent formula removes fine carbon particles from the pores of the filter media.

### **WASHING PROCEDURE :**

BIOMEX HDI can be used for manual cleaning and is according to European requirements easily biodegradable, also non-corrosive and safe for clothing, does not affect metals, plastics, and does not constitute any fire hazard ( see also specifications and safety data sheet ). It is also safe for skin, however it is recommended to prevent direct contact for a long time with the skin and to use watertight gloves when washing the elements.

### **Instruction for washing :**

We recommend to wash the elements in a 220 liter standard type barrel ( minimum dimensions are 580 mm diameter, with à 880 mm height ) containing 20 % of BIOMEX HDI mixed with 80 % water.

3 liter of pure BIOMEX HDI and 9 liters of water have to be added when the fluid level in the bath is too low to submerge the filter element, to compensate the consumption/loss of liquid due to washing of the elements.

The first bath is used for impregnation during +/- 3 minutes the element. After these 3 minutes the element must be shaken in vertical and rotating directions to take of the first layer of dirt.

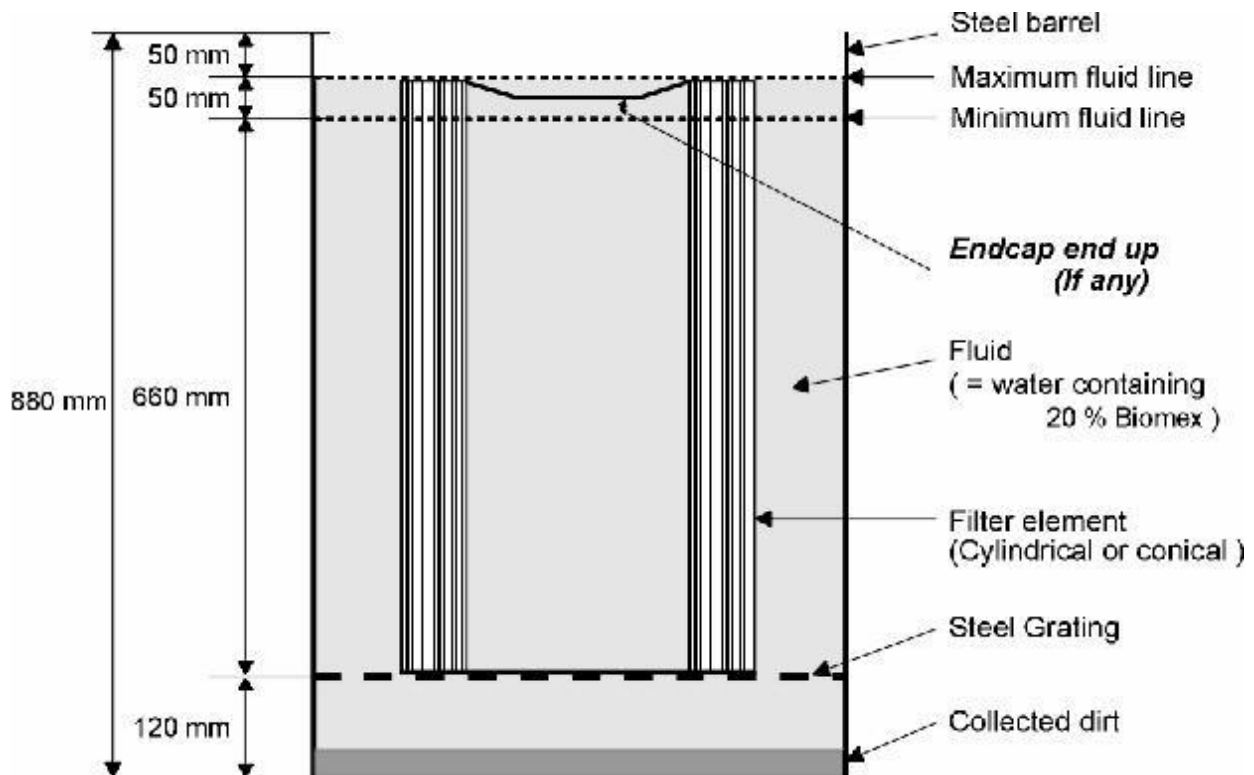
The second bath is used to finalize the degreasing procedure. Here the element only has to be shaken in vertical directions to take the last dirt.

To improve the cleaning effectiveness of the BIOMEX HDI product, we recommend to have the water at 20 to 30°C.

A third bath with same construction as the 1<sup>st</sup> and 2nd bath must be filled with clear water, to remove the BIOMEX HDI mixture present on the element. The water in this last bath should be replaced all 24 elements spooled.



## Two of such barrels are needed.



The fourth step is rinsing the elements with gentle stream of water ( not more than 2,5 bar ) from a hose connected to the water net ( clean water ), to take away the last traces of the BIOMEX HDI mixture.

The end of the hose must be a cut and. No nozzle on this water hose can be used (to prevent damage to the filtermedium). This last procedure is completed when the water coming from the element is clear.

Always inject water from 'clean' to 'dirty' side.

*The cleaned elements must be placed during 72 hours in a ventilated room so that the most water is evaporated from the elements. Before installing the elements, make sure the elements are still clean and all rubber sealing on the elements are clean. If the sealing is damaged or in poor condition, replace this element. Place a bright light inside the element and rotate it slowly. If any punctures or ruptures appear ( like a bright spot), replace the element. These checked elements can than be reinstalled in the filterhouse.*

*The checked elements must be marked to keep track if this element already has been washed or not.*

### **CAUTION !!**

*Do not reinstall damaged filter elements.*

*To prevent damage to the elements Instruct the involved people to handle these elements with grate care.*