

How to exchange a coalescing prefilter cartridge and a moisture indicator cartridge

Feb. 2 2011 & Jan. 9 2012 (First & second exchange)

Prefilter

1. First, check the all gauges

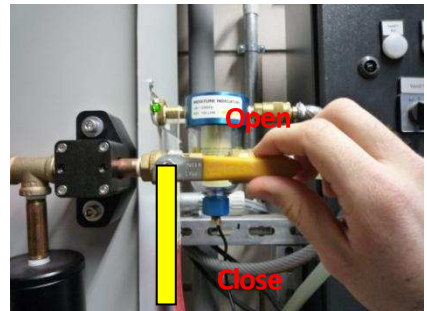
These are the conditions before exchanging old filters for new ones



Prefilter



2. Cut off the power supply of the moisture indicator (plug off), then close the yellow valve of the FT-IR Purge Gas Generator



3. The values of gauges drop to zero



4. Remove the silver metal cover of the prefilter. Twisting a bit and pulling it down. Afterward, using a same method, and pulling the dirty prefilter gently. Quite large amount of oil was absorbed in the filter



First, removing **this** part. Otherwise, the upper **metal cover** cannot be removed.



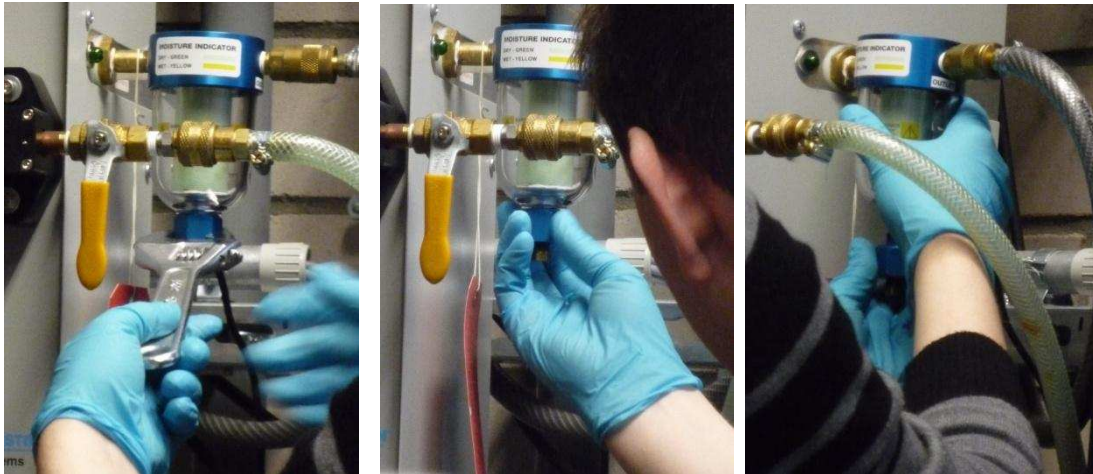
5. Now replacing a new filter and stabilizing the new filter with the silver metal cover



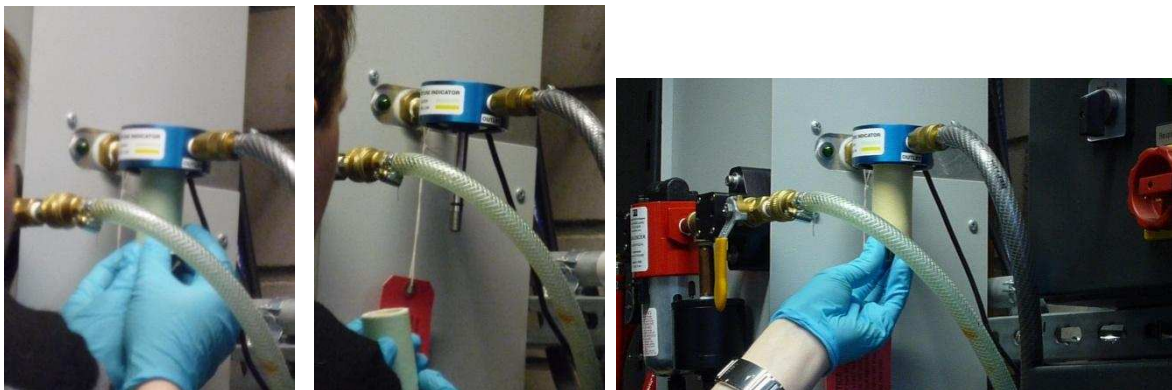
The prefilter exchange is over with these procedures. Now, move on to the exchange of a moisture indicating cartridge.

Moisture indicating cartridge

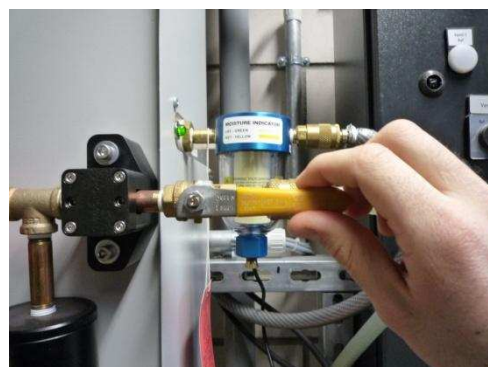
1. First, need to remove a big blue screw on a bottom part of the glass cover by making use of a wrench



2. Removing the dirty filter and replacing with the new one. At first, the color of the filter is yellow, but once the yellow valve is opened and gas flows inside of the moisture indicator, the color of the filter will change to light green (yellowish green)



3. Again putting the glass cover back and stabilizing the filter and the glass cover with the big blue screw which should be tightened up with the wrench
4. Now replacing part is over. Again turn on the power of the moisture indicator, then open the yellow valve for the FT-IR Purge Gas Generator



5. All the gauges should indicate the values just like before the replacement of the filters



70 (5 bar)



0.15 MPa



2.4, 2.4, 2.4, 1.4, 1.4

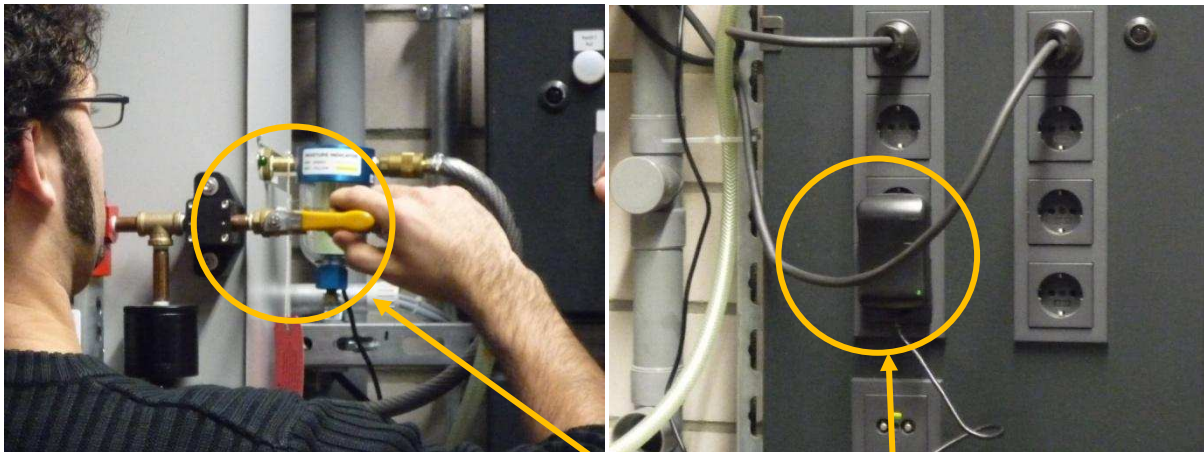
Note: The flow rates are a little higher than what the manual said because there was a problem with the stability of CO₂/H₂O concentrations before (by Robert).

It takes about 15 min. for all replacements.

January 9 2012

Procedure 4 and 5

4. Now replacing part is over. However, the color of the filter is still light yellow. Until it changes to light green, close the pressure reducer valve.



This valve is opened and the power is on.



But, this pressure reducer valve is closed. There is no flow to the flowmeter.



Wait until the filter color changes from light yellow to light green.

Note:

The manual from the company said that it is better to wait (more details in the manual). So, waited approximately 6 hours after the exchange (there is no precise information how long we have to wait in the manual). The color has changed a little. After that, Jens opened the pressure reducer valve, the color has changed to light green in very short time. Therefore, it is not easy to say whether this waiting time is necessary or not.

Note:

- There is some company information for these replacement parts in a manual from J.A. Woollam Co. Inc. However, McMaster-Carr (USA) does not send out their products anymore (3C-020-P02-Fi coalescer)
- It is possible to buy a product (3C-020-P02-Fi coalescer) from Reading Technologies, Inc. (USA) in England (not in Germany). Duncan Rogers takes care of their products. When you want to order it, you can use the website "Airlines-pneumatics)
- It is possible to order the filter tube for Y83-700-BX coalescing prefilter and moisture indicator cartridge (kit) (product from Parker Hannifin) in Germany. Contacting company in Germany is WICOM (Liebigstr. 16 D-64646 Heppenheim).

Company and price information

- 3C-020-P02-Fi coalescer (ordered Nov.. 29 2010)
Ducan Rogers (Engineering) Ltd
396 Hillington Road, Glasgow, G52 4BL, UK

2 filters for 89.84 GBP (78.93 Euro) (1 for 55.20 GBP)
Shipment 22.00 GBP (26.12 Euro)
- Filter tube for Y83-700-BX coalescing prefilter and moisture indicator cartridge (kit) (ordered Nov. 26 2010)
WICOM Germany GmbH
Liebigstr. 16
D-64646 Heppenheim, Germany
info@wicom.de
Tel. 06252-67370

Maintenance Kit 180,90 Euro (10% discount: Normal price 201,00 Euro)

Aug. 18 2011 by Akemi
Update Jan. 27 2012 by Akemi