

Description of the cross filtration vessels

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1. General description

- **Manufacturer:**

PLANTTECH ENGINEERING GmbH
Louis-Berger-Weg 7 - 9
59379 Selm-Bork

- CIP and SIP capable
- Double jacket (volume aprox. 54 L)
- With temperature control (cooling)
- Inclusive safety valve
- Working pressure -1 / +3 bar
- Temperature limit 150 °C
- Product filter exchangeable (metal filter gauze, nominal 5 µm mesh size, build as cylindrical drum)
- Suitable for installation inside a clean room class C (ISO 8, in operation)
- Temperature sensor (Endress+Hauser TR-45 Ex ia, Profibus)
- Pressure transmitter (PMP 75 pressure transmitter in Ex ia, Profibus)
- Level sensor (Endress + Hauser; FTL50H-AYY9YY2G6C in Ex ia, Profibus)
- Level sensor (Endress + Hauser Levelflex M FMP40, Ex ia, Profibus)
- Safety valve (LESER Clean Service Type 481)
- Gross volume of the vessel aprox.: 165 L
- Height in the rack: 2.30 m
- Height of vessel only: 1.60 m
- Diameter inside: 393 mm
- Diameter outside: 444 mm
- Dimensions of cylindric filter gauze D=363mm, H=501mm
- Volume of cylindric filter gauze: aprox. 51.8 L
- Surface of cylindric filter gauze aprox. 5700 cm²

2. Material

- material certificates acc. to EN 10204, 3.1 at least 2.2
- In contact with product: 1.4435/1.4404 stainless steel; Ra < 0.8 µm ; welding seams <1,6 µm
- Not in contact with product: 1.4301 stainless steel surface polished with grain size 240 or better
- Sealings EPDM (FDA certified)

3. Equipment of the vessels

3.1 Ports on closure head of vessel

- 2 x DN 8 ISO connection CIP- Media(via Spray balls)
- 1 x DN 15 ISO safety valve (LESER Clean Service Type 481)
- 1 x DN 8 ISO product piping with manual valve (Product and WFI)
- 1 x DN 2" pressure transmitter PMP 75 in Ex ia, Profibus)
- 1 x DN 8 ISO connection for nitrogen with manual valve
- 1 x DN 15 ISO connection for ventilation

3.2 Ports on jacket of vessel:

- 1 x DN 8 ISO connection for coolant return with venting valve DN 8 ISO for sanitising

- 1 x DN 8 ISO connection for coolant feed with venting valve DN 8 ISO for sanitising
- 1 x Ingoldstutzen DN 25 for level display in filtrate room
- 1 x level sensor Endress + Hauser Liquiphant M FTL50H - GYY9YYAN6Y (dry running protection)
- 1 x level sensor Endress + Hauser Levelflex M FMP40, Ex ia, Profibus (in By-pass)
- Temperature sensor Endress+Hauser TR-45, Ex ia, Profibus
- NovaSeptum sampling port (5 needle 2mm, sampling in the middle of the vessel)
- Filling level device for filtration room (to be defined technically)
- 3 loading cells on plugs

3.3 Bottom of vessel:

- 1 x DN 8 ISO product outlet with manual valve
- 1 x DN 8 ISO filtrate outlet
- 1 x DN 8 ISO for level display in filtrate room
- Magnetic agitator
- 2 NovaSeptum sampling ports (2 needles 2mm) (sampling at the bottom of the vessel)

3.4 Connections

- Detachable pipe connections Clamp: ISO 2852
- Pipes: DIN 11866 row B
- Elbows: DIN 11865

General view



Top of the vessel



Bottom of the vessel



