

DCF (Dynamic Cross-flow Filtration)

Dynamic membrane filtration for high-efficiency concentration of milk constituents



Energy reduction or new cheese product – what's your focus? Membrane filtration has found its way into many processing steps in dairies. Due to its highly specific filtration method based on molecule size, it is opening up the possibility of customizing milk in order to obtain the perfect raw material for each dairy product. Nevertheless, such factors as fouling, clogging, and cleanability often limit the equipment's application and feasibility. The

ANDRITZ SEPARATION DCF extends the limits infinitely, handling concentrations that could even replace evaporators, nozzle separators, and cheese presses and helps to ensure your success:

- Minimized operation costs thanks to reduced energy consumption
- Excellence performance due to unique cross-flow principle
- Full process control possible by means of variable speed and cooling jacket

- Excellent reliability due to open filtration area avoiding any blocking
- Optimized cleaning with hygienic design – even the membrane surface can be inspected
- Long service life because membranes are made of ceramic material
- Very compact and easy to install
- Best taste and highest quality products thanks to closed and self-venting design and gentle treatment

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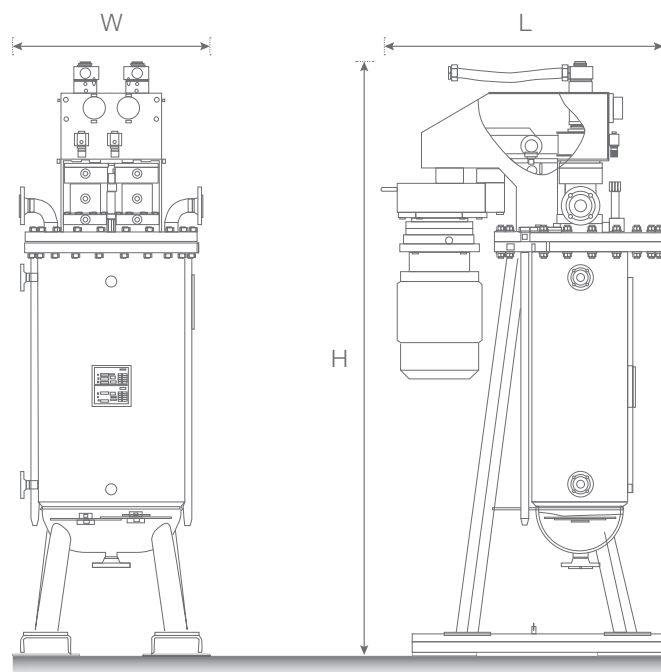
Standard design

- Horizontal arrangement of membrane disc stack
- Ceramic membranes in different pore sizes
- Mono V-belt drive with standard gearbox
- Lifting support for easy mounting and replacement of membrane stack
- Oval housing for minimum dead volume and plug flow characteristics
- Double jacket for heating or cooling
- All product wetted parts in stainless steel, better than AISI304
- Full CIP capability and hygienic design
- Feed bottom, discharge top for easy evacuation
- Product connections: DIN 11851
- Pressure gauge retentate
- Gaskets EPDM, single-acting mechanical seals

Type	DCF 312/2.0	DCF 312/4.0	DCF 312/6.0	DCF 312/8.0	DCF 312/10	DCF 312/12	DCF 312/14	DCF 312/16
Filtration surface [m²]	2	4	6	8	10	12	14	16
Retentate volume [dm³]	40	60	80	100	120	140	160	180
Motor [kW]	7.5	7.5	7.5	11	11	11	15	15
Typical performance [l/h]	50 to 150	10 to 300	200 to 500	250 to 600	300 to 800	400 to 1,000	450 to 1,100	500 to 1,300
Width [mm]	850	850	850	850	850	850	850	850
Length [mm]	1,100	1,100	1,100	1,250	1,280	1,280	1,280	1,280
Height [mm]	1,800	1,870	1,930	2,100	2,250	2,350	2,480	2,550
Operating weight [kg]	1,200	1,800	1,400	1,500	1,600	1,700	1,800	1,900

Options and accessories

- Polymeric or sintered metal membranes
- MCC and PLC
- Feed pump
- Flow meter
- Concentration monitoring
- TMP monitoring
- Flow control valves, manual or automatic
- CIP
- Skid-mounted, MOC better than AISI 304



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