CUT Membrane Technology

Customized filtration solutions

www.cut-membrane.com

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CUT Membrane Technology – customized filtration solutions

CUT Membrane Technology was founded in April, 2004 as an innovative manufacturer of membranes and modules for the most different applications in areas like chemistry, environmental studies, food industry, metal processing and many others. CUT produces a wide variety of tubular, hollow fibre, PP and spiral wound modules at the site in Erkrath near Dusseldorf, Germany. We offer our customers a comprehensive range of individually made micro, ultra and nanofiltration membranes and modules.

As an application specialist in niche markets, CUT is an industry leader in the manufacture and the application of membrane modules. For this, we have a vast number of material combinations as well as laboratory and pilot installations for experimental tests available. Our strong focus on the customers´ requirements in particular is demonstrated in areas where it is important to offer customized special designs and process solutions.

The Bürkert Membrane Technology Team looks forward to creating a customized process solution perfectly suited for your specific application.

T-CUT – Tubular modules for microfiltration and ultrafiltration

With its T-CUT series of micro- and ultrafiltration tubular modules, CUT Membrane Technology offers a comprehensive product family of robust modules with PVDF and PES membranes and a wide variety of cut offs.
The membranes are applied on very high-quality backing material and distinguish themselves in particular by extended durability and long service life.
Due to the high stability of the membrane and the possibility to clean this membrane with chemicals, T-CUT tubular modules are used very successfully in extreme applications, for instance such as the treatment of pickling baths. Further, T-CUT tubular modules have proven themselves in the metal-processing industry, for oil/water separation and the separation of biomass from water, just to name a few applications.
We are glad to offer you customized modules, tailored to your specific separation task.

Advantages

- **Robust and long lasting**
- **Optimized membrane area**
- **Suitable for high solid contents**
- **Easy to clean (chemically and mechanically)**

Technical data

Membrane material:	PVDF, PES
Pore size (kD) PVDF:	50; 70; 100; 120; 150; 200
PES:	20; 30; 100
Temperature range (°C):	5 – 60
Pressure range (bar):	1 – 10
pH range:	2 – 12

Customer specific options

Module length (mm):	1,000; 1,500; 2,800; 3,000; 3,100; custom-made
Membrane tube diameter (mm):	5.2; 8; 10; 12.5; 25.4
OD housing (mm):	25; 40; 75; 110; 150; 170; 200; 220; 300
Housing material:	Stainless-steel; PP; PVC; GFK
Connecting feed:	ANSI/JIS Flange; Victaulic; DIN; Clamp; Thread
Connecting permeate:	ANSI/JIS Flange; Victaulic; DIN; Clamp; Thread

C-CUT – Hollow fiber modules for microfiltration and ultrafiltration

With our C-CUT hollow fiber modules with membranes made from PES and PP, we provide a high quality product line to our customers, which has been especially developed for applications where a combination of filtration performance and high packing density is required.
Due to the high stability of the membrane and the possibility to clean this membrane chemically as well as mechanically backwash it, C-CUT hollow fiber modules are preferentially used for cleaning of process water and in wine and vinegar filtration. They are also successfully applied in diafiltration and in degreasing baths.
We offer you customized modules, tailored to your specific separation task.

Advantages

- **Robust and long lasting**
- **Optimized membrane area**
- **Suitable for backwashing**
- **Easy to clean (chemically and mechanically)**

Technical data

Membrane material:	PES, PP
Pore size MF (µm):	0.1; 0.2; 0.4;
UF (kD):	10; 20; 30; 50; 100; 150
Operating modus:	inside/outside
Temperature range (°C):	5 – 60
Pressure range (bar):	1 – 10
pH - range:	2 – 12

Customer specific options

Module length (mm):	500 – 1,500
OD housing (mm):	up to 300
Hollow fibre diameter (mm):	0.8; 1.2; 1.5; 1.8
Housing material:	Stainless steel, PS, PP, PVC
Feed connector:	DIN; ANSI/JSI Flange; Victaulic; Clamp
Permeate connector:	DIN; ANSI/JSI Flange; Screw; Victaulic, Clamp

T-CUT PP – Tubular modules for microfiltration

Designed for the filtration of abrasive media and applications under extreme conditions, the product range of CUT Membrane Technology is supplemented by another high-quality and robust tubular module – the T-CUT PP. Polypropylene membranes can be used throughout the entire pH range from 0 –14. Thus, the abrasion resistant PP tubular modules are perfect for use in the fields of acid and caustic recycling. They have also been used successfully for a long time in many other processes, including pigment separation and suspension concentration. T-CUT PP tubular modules are made exclusively out of polypropylene, allowing for a very high service life with extremely robust mechanical stability and long operating life. The symmetrically structured PP membrane is suitable everywhere where above average performance defines the standard. Upon request, we will be pleased to supply custom-made modules with polypropylene membranes.

Advantages

- Robust and long lasting
- Resistant to a wide range of chemicals
- Suitable for abrasive media
- Easy to clean (chemically and mechanically)

Technical data

Membrane material:	Polypropylene (PP)
Pore size (µm):	0.2
Membrane diameter (inch):	5.5
Temperature range (°C):	5 – 65
Pressure range (bar):	1 – 10
pH range:	1 – 14

Customer specific options

Module length (mm):	500; 750; 1,000; 1,360; 1,496; 1,500; 1,650; 3,000; 3,100; custom-made
OD housing (mm):	75; 110; 150; 170; 200; 220; 250; 300
Housing material:	Stainless-steel; PP; PVC; GFK
Connecting feed:	ANSI/JIS Flange; Victaulic; DIN; Clamp; Thread
Connecting permeat:	ANSI/JIS Flange; Victaulic; DIN; Clamp; Thread

S-CUT – (4S / 4I design) Spiral wound modules for micro-, ultra- and nanofiltration

In many pharmaceutical applications spiral wound modules are used in addition to hollow fiber modules. Particularly in the case of less sophisticated process flows, carrying a small particle load with them, S-CUT spiral wound modules are used preferably. An overriding advantage of S-CUT modules, in addition, exists in the high temperature resistance as well as in the comparatively simple module exchange.

Typical application areas for the usage of sanitary spiral wound modules (4S design) are the cleaning of products with diafiltration, the depyrogenization of pharmaceutical water and the separation of proteins (e.g. milk).

Typical areas of application for the use of industrial spiral wound modules (4I design) are industrial water treatment, (rinsing) water recycling, oil/water separation, wastewater treatment and the concentration of recyclable material solutions (e.g. cathodic electrophoretic paint (CEP)).

S-CUT spiral wound modules are available in a variety of different designs.

Advantages

- **Variable spacer configurations**
- **Optimized membrane area due to compact design**
- **Resistant to high temperatures**
- **Wide range of materials**

	S-CUT NF 4I-Design, Industrial	S-CUT UF/MF 4I-Design, Industrial	S-CUT UF/MF 4S-Design, Sanitary
Technical data			
Membrane material:	Polyamide	PVDF; PES	PVDF; PES
Pore size MF (µm): UF (kD):		0.1; 0.2 1; 3; 5;10; 30; 50; 70; 100; 200; 300; 500; 800	0.1; 0.2 1; 3; 5;10; 30; 50; 70; 100; 200; 300; 500; 800
Cut off (Dalton):	200 – 500		
Temperature range (°C):	5 – 85	5 – 85	5 – 85
Pressure range (bar):	up to 40	1 – 10	1 – 10
pH range:	2 – 12	2 – 12	2 – 12
Customer specific options			
Module length (inch):	12; 20; 40	12; 20; 40	12; 20; 38
Module diameter (inch):	2.4; 4.0; 8.0	2.4; 4.0; 8.0	1.8; 2.4; 3.8; 4.3; 5.8; 6.3
Spacer material feed/permeate:	PA; PET; PP	PA; PET; PP	PA; PET; PP
Outer wrap:	Epoxy; Net wrap; PE	Epoxy; Net wrap; PE	Net wrap
Permeate tube material:	Stainless steel; PP; PSU; PVC; ABS	Stainless steel; PP; PSU; PVC; ABS	Stainless steel; PSU
ATD material:	Stainless steel; PP; PSU; PVC; ABS	Stainless steel; PP; PSU PVC; ABS	Stainless steel; PSU

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Close to you

Since the beginning of 2013, CUT has been part of the Bürkert Group, one of the leading global providers of Fluid Control systems, with 2,500 employees and 36 global representative offices. The Bürkert Group covers a wide range of products from different process valves, control valves and solenoid valves for standard as well as special applications to complex instrumentation, control and regulation technology – cutting – edge technology at highest quality level. The consistent use of synergetic effects of both enterprises enables CUT Membrane Technology to get closer and closer to its customers worldwide.

CUT-Product Brochure 05/2015