

**CUT Membrane Technology**

Customized filtration solutions



[www.cut-membrane.com](http://www.cut-membrane.com)



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## CUT Membrane Technology – The Application Specialists

For more than a decade CUT Membrane Technology is committed to customized membrane filtration solutions. We are working process-oriented with an eye on your individual application, providing best-in-class technology.

We are application specialists. We are used to manage the balancing act between a wide range of applications from waste water to hygienic, from landfill leachate treatment to fruit juice clarification. In order to adapt to the specific processes of our customers, we offer our wide range of experience and our laboratory and pilot equipment to run empirical tests.

The CUT product portfolio includes innovative solutions to face micro- and ultrafiltration tasks with focus on tubular membrane technology. In our state-of-the-art production facilities in Erkrath we produce a big variety of membranes and manufacture our filtration module range – optimized for the individual needs of our customers.

Are you looking for an individual solution for your filtration process? The application specialists from CUT Membrane Technology are looking forward to discuss your filtration task!

# T-CUT

## Tubular Modules for Ultrafiltration

With our T-CUT series we are able to offer you extremely robust tubular modules with different cut-offs and a wide range of variations. The membranes are applied on high-quality support material and are particularly distinguished by durable and long-lasting service lives. T-CUT tubular modules are used very successfully in many applications with extreme requirements thanks to the high stability of the membranes and the possibility of using chemicals to clean them. Our T-CUT series has been especially customized for the waste water sector offering outstanding efficiencies when it comes to separating biomasses or the complex separation of oil/water emulsions when used for downstream ultrafiltration. We would be pleased to provide you with modules customized to your specific filtration task.



### Advantages

- high stability and long lasting
- optimized membrane area
- outstanding filtrate output
- suitable for high solid concentrations
- easy to clean

### Technical data T-CUT Series

Module Series		4"	6"	8"	10"
Connection Feed	[mm]	114.3	168.3	219.1	273
Connection Permeate	[mm]	48.3 [1.5"]	60.8 [2"]	73 [2.5"]	88.9 [3"]
Length [mm]	Bore-Ø	Membrane Area [m <sup>2</sup> ]			
3,000	5.4	7.9	21.0	34.6	52.2
	8.2	6.6	15.0	27.4	41.0
	10.2	5.4	11.9	21.4	32.6
4,000	5.4	--- *	--- *	46.2	70.0
	8.2	--- *	--- *	36.5	55.0
	10.2	--- *	--- *	29.0	43.5
Connection Type			Victaulic*		
Housing Material			FRP*		
Temperature Range		[°C] 5 - 60			
Max. Operating Pressure		[bar] 10			
MWCO Pore Size		[kDa] 50; 100; 150; 200			

\* more module-, housing- and connection variants upon request.



## T-CUT Core

### Tubular Module Replacement Solution

Our T-CUT Core replacement concept enables you to significantly reduce your membrane exchange costs. Reusing the pressure housing along with a reduction of total transport costs (weight reduction) that is associated with the replacement concept means that the Core solution provides an economically and ecologically attractive alternative to purchasing a completely new module. Changing a membrane is a user-friendly process and can be done with little effort in practice. The old core, which is no longer sufficiently functional, is removed from the pressure housing and replaced by a new core in accordance with the plug & play principle. The huge membrane cross-section makes a T-CUT Core module best suited for the filtration of media with high solid content.

#### Advantages

- high filtrate output
- high solid content possible
- easy rinsing/cleaning
- smooth surfaces
- extremely high mechanical stability
- easy to install



#### Technical data T-CUT Core

Core-Series		1910	3710	1912	3712
Core Length	[mm]	3,050 (10')	3,050 (10')	3,658 (12')	3,658 (12')
Core Diameter	[mm]	75	107	75	107
<b>Membrane Area</b>	<b>[m<sup>2</sup>]</b>	<b>2.2</b>	<b>4.3</b>	<b>2.7</b>	<b>5.2</b>
Membrane Quantity	[qty]	19	37	19	37
Header Material		Polysulfone			
MWCO Pore Size	[kDa]	50; 100; 150; 200			
Ø-Membrane (inside)	[mm]	12.5			
<b>Housing Material</b>		Stainless Steel [SS 316]			
Connection Type		Tri-Clamp*			
Feed Connection	[inch]	3	4	3	4
Permeate Connection	[inch]	1	1	1	1

\* more module-, housing- and connection variants upon request.

## T-CUT PP

### Tubular Modules for Microfiltration

CUT provides a high-quality and robust tubular module range that has been especially designed for filtering abrasive media and applications under extreme conditions - the T-CUT PP series. With their polypropylene membranes welded into rugged housings the entire 0 - 14 pH range is feasible to operate. Our highly resistant PP tubular modules can be found in use, for example, in acid and lye recycling. They have also been used successfully in various other processes for many years, such as pigment or abrasive particle separation from suspensions. T-CUT PP tubular modules are made exclusively from a single material (polypropylene) without using potting resins, which enables very durable and long-lasting service lives to be realized together with extremely robust mechanical stability. T-CUT PP tubular modules are especially convincing where conventional compound membranes fail.



#### Advantages

- highest stability and long lasting
- resistant to a wide range of chemicals
- extreme abrasion resistance
- easy to clean
- suitable for backwashing

#### Technical data T-CUT PP Series

PP-Series		PP01	PP04	PP05	PP08	PP09	PP16	PP19
Length Module	[mm]	1,000	1,360	1,360	2,710	2,710	2,710	3,388
Length Connectors (2x)	[mm]	-	-	145	145	145	195	195
Length Total	[mm]	1,000	1,360	1,650	3,000	3,000	3,100	3,778
Module Diameter	[mm]	110	200	200	200	200	250	250
<b>Membrane Area</b>	<b>[m<sup>2</sup>]</b>	<b>1*</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>9</b>	<b>16</b>	<b>19</b>
Membrane Quantity	[qty]	60	174	199	174	199	324	324
Membrane Material		Polypropylene (PP)						
MWCO Pore Size	[µm]	0.2						
Ø-Membrane (inside)	[mm]	5.5						
Connection Type		Flange*						
Housing Material		Polypropylene (PP)						
Temperature Range	[°C]	5 - 65						
pH Range		0 - 14						
Max. Operating Pressure	[bar]	6						

\*lab-/pilot modules with Tri-clamp or threaded connections. Please refer to the data sheets.

## C-CUT and C-CUT Core

### Flexible Hollow Fiber Modules MF/UF

With our C-CUT and C-CUT Core ranges we have created versatile product groups for your applications, offering a combination of high filtrate output and high packing density. The C-CUT hollow fiber modules are made with polyether sulfone (PES) or polypropylene (PP) membranes encased in stainless steel or plastic housings. Either self-contained with our high-quality approved resin mixtures - or designed as „Core“-type replacement solutions. The high mechanical stability of our membranes allows for chemical cleaning as well as effective backwashing, making our hollow fiber products the prime selection in applications such as wine and vinegar filtration or process water cleaning. They are also most successfully applied in diafiltration processes and the treatment of degreasing baths. We are looking forward to learn more about your filtration task and to provide our best solution for you!

#### Advantages

- high stability and long lasting
- high packing densities
- available as replacement solutions
- suitable for backwashing
- easy to clean



#### 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 mode	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 fiber 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

For further information regarding  
waste water please visit us on:

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