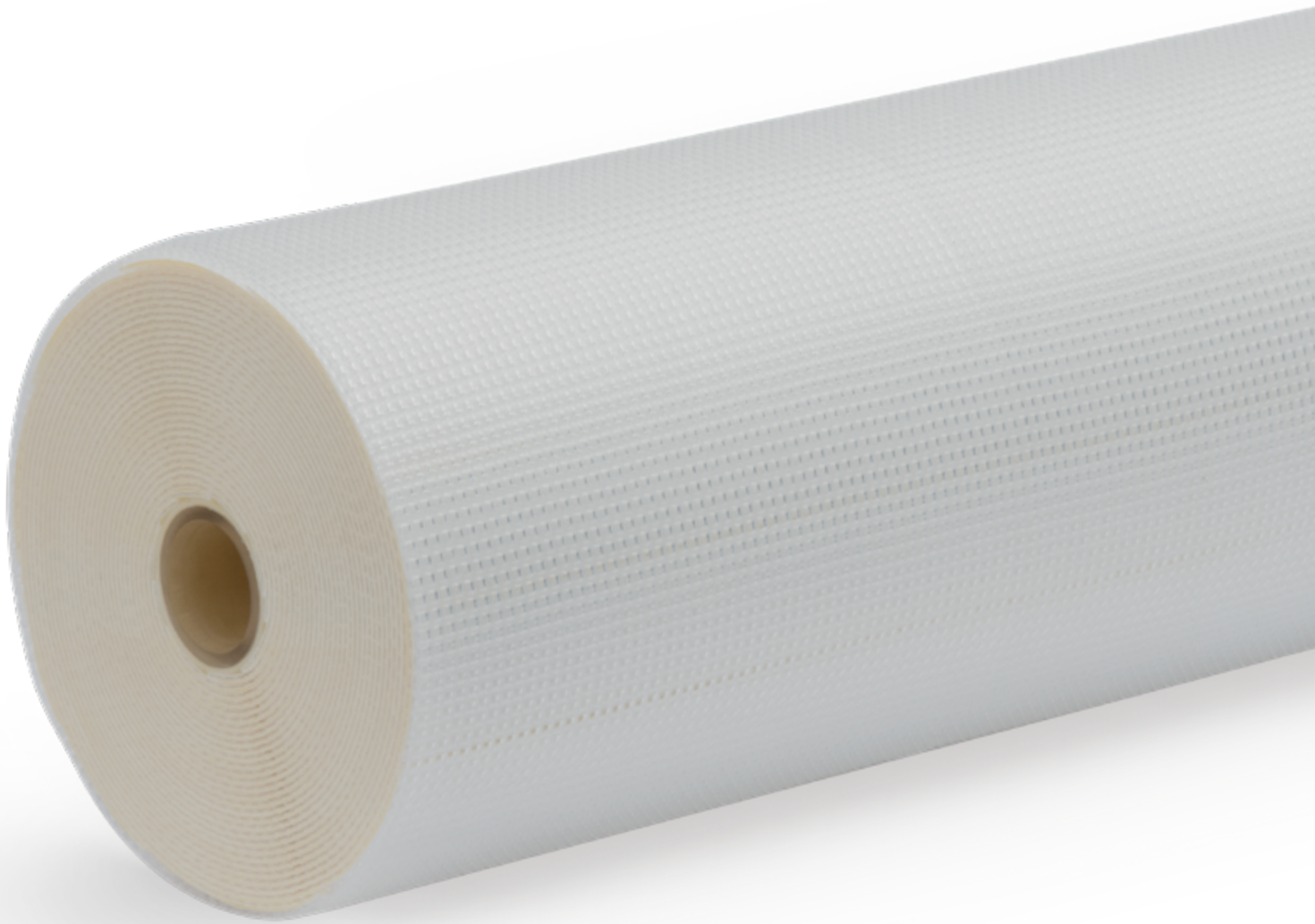


# Trisep DS Sanitary Elements



# TRISEP DS Sanitary Elements

Our TRISEP DS spiral-wound sanitary elements were engineered in Germany and have been on the market for several decades. Through a strong focus on continual improvement and MANN+HUMMEL's operational excellence in manufacturing, TRISEP DS is engineered to sustain product performance via a robust construction built with state-of-the-art technology, resulting in a long operating life.

Our sanitary elements are designed and manufactured to fit in your vessel, allowing some bypass flow around the product and eliminating stagnant zones that could lead to potential contamination and bacterial growth.

## TRISEP DS product range

MANN+HUMMEL offers **fully customizable solutions** tailored to your application needs. Design variables include membrane type, element dimensions, permeate tube, feed spacer, and feed properties that include HWS (heat sanitizable), HT (high-temperature continuous), XT (high pH/temperature), and HPR/UPR (high-pressure options).

TRISEP DS sanitary elements can be rolled using your choice of MANN+HUMMEL's broad range of high-performing membrane products. The table below highlights our core membranes, but a full list of available membranes can be found on our website.

Technologies	Membrane type
RO	ACM2
NF	TS40 XPNF XN45 UA60 TS80
UF	UP005 (5 kD) 10kUF (10 kD) UP020 (20 kD)
MF	MV020 (0.2 micron) MP005 (0.05 micron)



[NADIR & TRISEP Membrane Products](#)

TRISEP DS sanitary elements come standard with the following feed spacer options: 31-mil, 46-mil, 65-mil, and 80-mil. Other feed spacer thicknesses and geometries are available.



## Product customization

TRISEP DS sanitary elements are available for countless process and specialty applications. They may be customized for specific requirements.

- **Feed spacer thickness:** various sizes, from 24 to 90 mils
- **Feed spacer configurations:** diamond, parallel, asymmetric, and open channel designs
- **Element sizes:** ranging from 3.8" to 8.3" diameters plus 1.8" for testing and small scale/lab productions

## Applications

TRISEP DS net-wrapped sanitary elements for food, beverage, and dairy applications have a long history of outstanding stable field performance.

### The key applications are as follows:

- Milk and cheese whey processing
- Dextrose purification
- Blood plasma demineralization
- Sugar concentration
- Beer and wine processing
- Protein concentration
- Antibiotic purification and concentration
- Corn syrup clarification
- Egg white concentration
- Fruit juice processing
- Gelatin processing
- And many more...



Here you can find more information about our **Process Solutions.**

# Compliance and certifications

TRISEP DS sanitary elements are certified by the USDA according to the 3-A Sanitary Standard 45-03 for food, dairy, and beverage applications.

They comply with the following international standards:

- US FDA CFR Title 21
- EC Reg. No. 1935/2004
- EU Reg. No. 10/2011
- Halal and Kosher certified

## How to order MANN+HUMMEL's TRISEP DS sanitary elements

### Model nomenclature: TRISEP DS (Membrane) (Size)-(Spacer)-(Feature).

If you are interested in improving your protein concentration operation, MANN+HUMMEL's newest generation 10kUF membrane gives an optimized combination of excellent throughput without compromising on protein retention.

From the matrix to the right, you can choose any combination of membrane, element size, feed spacer, and feature. We can produce any product design you desire.

To order the 8038 version using 10kUF membrane, specify TRISEP DS 10kUF 8038-31.

Membrane	Size	Spacer	Feature
ACM2	3838	28	XT
TS40	3840	31	HT
XPNF	4333	46	HWS
XN45	4336	47P	HPR
UA60	4338	65	UPR
TS80	5838	80	
UP005	6338		
10kUF	6438		
UP020	7838		
UH030	8038		
UH050	8338		
UF400	8438		
MV020			
MP005			

### Americas

USA: +1 805 964 8003  
customerservicemus@mann-hummel.com

### Asia

APAC: +65 6586 8181  
info.wfs@mann-hummel.com  
China: +86 10 8413 9860  
waterchina@mann-hummel.com

### Europe

Germany: +49 611 7118 7480  
Italy: +39 0721 1796201  
info.wfs@mann-hummel.com

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