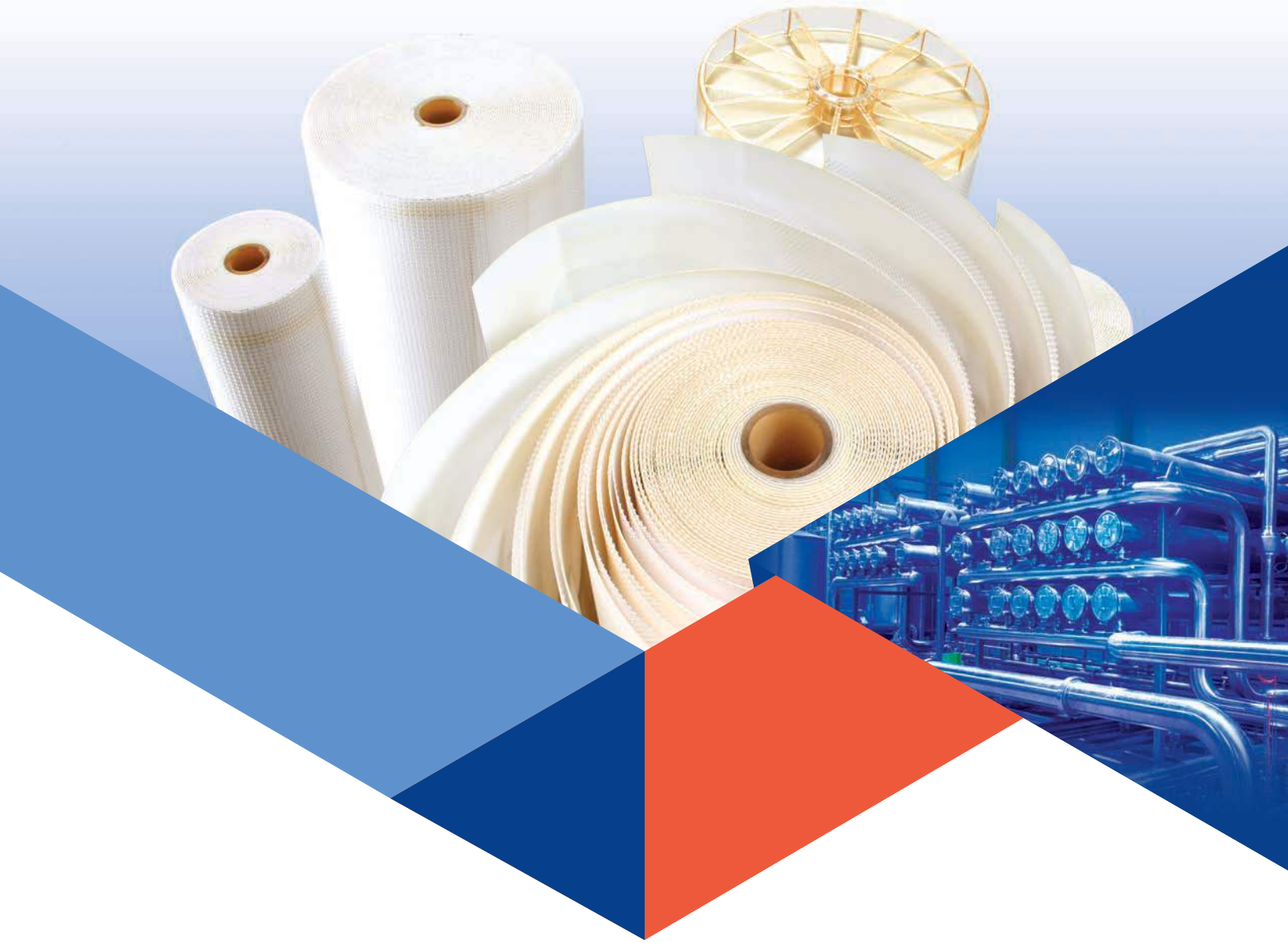
KOVALUS
Separation Solutions™



Sani-Pro®

Extended Life Sanitary Spiral Wound Elements

Cutting-edge Sanitary Spiral Wound Elements

Increased Operating Life with Improved Productivity and Energy Efficiency

KOVALUS SEPARATION SOLUTIONS™ (KSS) offers Sani-Pro® elements that combine cutting-edge construction techniques, optimized subcomponents, and our portfolio of industry-proven membranes, into the most advanced spiral-wound membranes available. These elements are designed to improve energy efficiency, reduce operating costs, increase productivity and decrease contamination risk. They are constructed to withstand harsh chemical cleaning which extends their operating life in demanding dairy, food and beverage membrane applications.

Sani-Pro Technologies

- Microfiltration (MF)
- Ultrafiltration (UF)
- Nanofiltration (NF)
- Reverse Osmosis (RO)

Benefits of Sani-Pro

- High Productivity
- Energy Efficient
- Blister Resistant Construction
- Long Operating Life
- Robust Construction
- USDA, FDA, 3A, EU, and Halal Compliant

	Benefits	Applications	Membrane Type
MF	• High temperature capability up to 85°C (185°F) • High flux • BAND-TITE® construction for easy installation and removal	• Sugar & sweetener clarification • Fermentation broth clarification • Whey defatting, casein concentration	• MFK603 (0.1 micron) • MFK618 (0.1 micron) • HpHT™ MFK603 (New)
UF	• Increased throughput up to 15%* • Lower energy consumption by 25%* • Blister free • Chlorine tolerant HpHT	• Plant- and animal-based protein separation • Gelatin, pectin and polysaccharide concentration • Blood plasma processing • Extract purification • Whey/milk protein concentration and brine clarification	• HFK 909 (3 kDalton) • HFK-328 (5 kDalton) • HFK-525 (7.5 kDalton) • HFK-131 (10 kDalton) • 30k (New) • 50k (New)
NF	• Lower energy consumption by 15% • Blister resistant • CIP temperatures up to 60°C (140°F) • BAND-TITE construction for easy installation and removal	• Protein, peptide and protein hydrolysate separation • Fermentation product concentration and desalting • Product purification • Whey concentration/demineralization	• SR3D (200 Dalton) • HP SR3D™ HT (High Press., High Temp.)
RO	• Lower energy consumption by 15% • Blister resistant • CIP temperatures up to 60°C (140°F) • Pressure capability up to 800 psi (55 bar) • BAND-TITE construction for easy installation and removal	• Sugar concentration • Juice concentration • Amino acid and fermentation product concentration • UF permeate polishing for water reuse • Whey/milk/permeate concentration	• HRX™ Pro (RO) (99.5% NaCl) • HP HRX™ Pro HT (High Press., High Temp.)

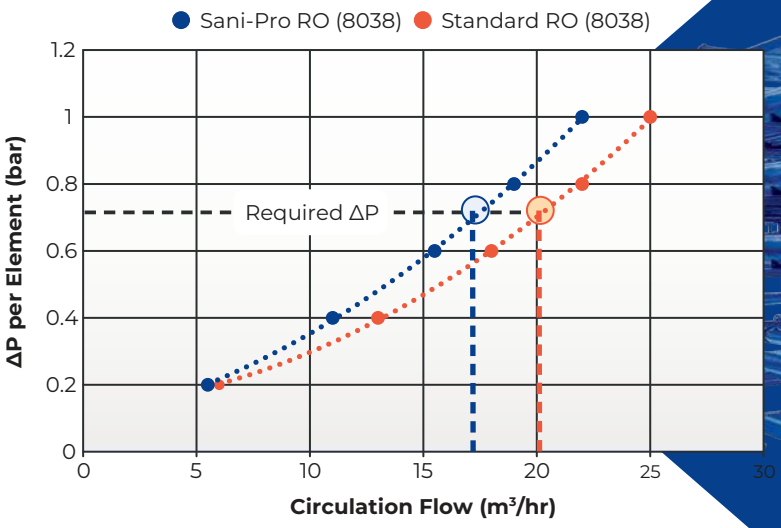
* Not yet available with HpHT elements.

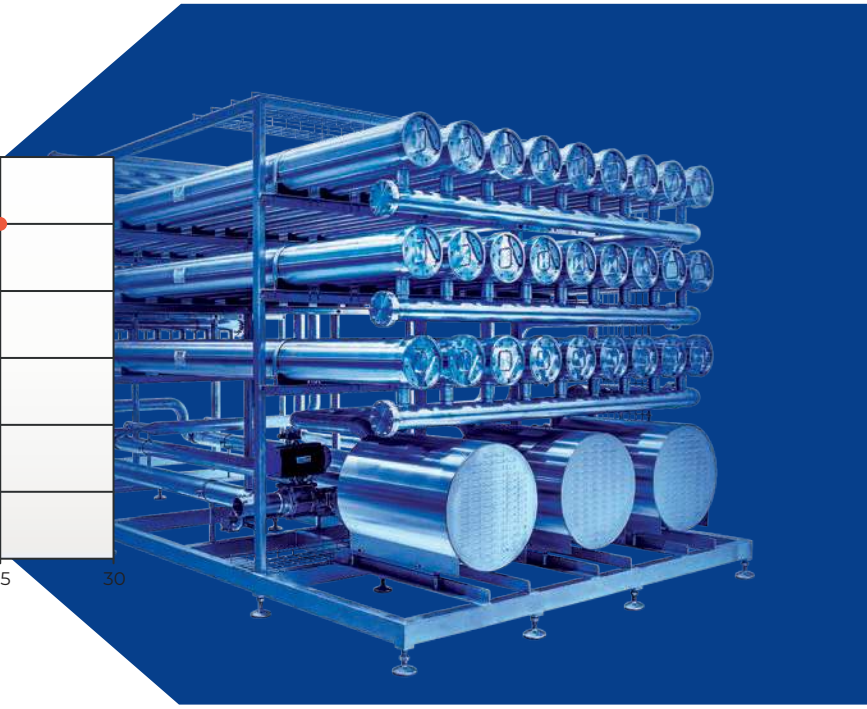
Benefits for Every Dairy, Food and Beverage Process

Up to 25% Reduction in Energy Consumption

Circulation pumping is typically the largest energy consumption in a cross-flow membrane separation. Sani-Pro® feed-spacers are specially designed to maximize membrane productivity while minimizing circulation flow requirements. Installation of Sani-Pro elements in your system can reduce overall energy consumption by 25% for UF and 15% for RO/NF.

Circulation Flow Comparison





Increased Productivity

Over the years, Kovalus has continuously improved the construction techniques used for spiral element construction. These improvements are rolled into every Sani-Pro element, allowing for increased membrane area, up to +15% productivity improvement, without any compromise of membrane rejection, compared to previous version.

BAND-TITE Technology for NF, RO and High Temperature MF

BAND-TITE® Technology consists of our patented reinforcement Teflon bands which prevents elements from unwinding.

Standard Element

BAND-TITE Element as removed from housing

Benefits of BAND-TITE NF and RO and High Temperature MF Elements

- Proper size element diameter for ease of loading and unloading
- Excellent element integrity
- Effective cleaning
- Long membrane life
- No more ineffective cleaning leading to reduced productivity, and poor permeate quality
- No more unwinding and channeling

Kovalus Separation Solutions™

We are excited to introduce Kovalus Separation Solutions, formerly Koch Separation Solutions. This evolution marks a pivotal moment for us as we continue our journey of pioneering advancements in separations technology. We're revolutionizing the field of separations through cutting-edge technologies like membrane filtration, ion exchange, evaporation, and drying. With over six decades of expertise, we provide comprehensive solutions for demanding applications in dairy, food and beverage, life sciences, and general industry sectors. Our extensive membrane portfolio features a range of pore sizes, enabling us to handle diverse process fluids, water, and wastewaters effectively. Collaborating with clients worldwide, we specialize in recovering high-value products, minimizing waste, reducing environmental footprint, enhancing productivity, and optimizing costs.

Kovalus Customer Support

We've got you covered with Kovalus support

With Kovalus-qualified personnel, we offer tailored expertise throughout the life cycle of your membrane filtration system, ensuring optimal performance, protecting your investment, and maximizing process efficiency. Our KSS ASSIST ™ program provides proactive site visits, remote monitoring, and operator training to keep your system running at peak levels, backed by global service and support. We're dedicated to delivering faster, more efficient solutions, forming lasting partnerships, and exceeding your expectations.

Additionally, we offer

The SepTrac™ Smart System which seamlessly integrates with any KSS system to collect live data, send notifications and alerts, store documentation, and manage influent logs, all while offering easy access to our customer service teams.

REACH US

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KOVALUS
Separation Solutions™

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