

Dairy-Pro®

Extended Life Sanitary Spiral Elements

Advanced Membrane Filtration for Dairy Processing



K KOCH™
SEPARATION SOLUTIONS

Separation Technologies for a Better Future™

Blister Resistant, Energy Efficient, Robust Higher Productivity

Over 40 Years of Experience in Dairy Filtration

Koch Separation Solutions (KSS) is a global leader in innovative membrane filtration technologies. We've combined our 40 years of dairy industry experience with unmatched engineering and technical expertise to design Dairy-Pro® sanitary spiral wound elements specifically for demanding dairy filtration applications.

Improved Blister Resistance, Longer Operating Life

Dairy-Pro elements utilize a blister resistant design and cross flow filtration technology to improve energy efficiency, reduce operating costs, increase productivity, and decrease contamination risk. They are constructed to tolerate harsh cleaning requirements extending their operating life and optimizing every step of dairy membrane processing.

Dairy-Pro Technologies

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

Benefits of Dairy-Pro Products

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



A Dairy-Pro for any Application

	Benefits	Applications	Membrane Type
MF	<ul style="list-style-type: none"> • Cleaner Protein Separation • High Temperature Capability up to 85°C (185°F) • Blister Free 	<ul style="list-style-type: none"> • Whey Defatting • Casein Concentration • Brine Clarification • Native Whey, Casein Separation 	<ul style="list-style-type: none"> • MF-0.1 – 0.1 Micron
UF	<ul style="list-style-type: none"> • Increased Throughput up to 15%* • Lower Energy Consumption by 25%* • Blister Free • Chlorine Tolerant HpHT 	<ul style="list-style-type: none"> • Whey Protein Concentrate • Whey Protein Isolate • Milk Protein Concentrate • Brine Clarification 	<ul style="list-style-type: none"> • 3K Dalton (NEW) • 5K Dalton • 7.5K Dalton (NEW) • 10K Dalton • 70K Dalton (NEW)
NF	<ul style="list-style-type: none"> • Lower Energy Consumption by 15% • Blister Resistant • CIP Temperatures up to 60°C (140°F) • BAND-TITE® Reinforcement Straps for Easy Installation and Removal 	<ul style="list-style-type: none"> • Whey Concentration • Whey Demineralization • High Solids Concentrate <ul style="list-style-type: none"> – Whey and Milk Protein Concentrate – Whey Protein Isolate 	<ul style="list-style-type: none"> • NF-150 – 150 Dalton (NEW) • NF-200 – 200 Dalton
RO	<ul style="list-style-type: none"> • 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 Reinforcement Straps for Easy Installation and Removal 	<ul style="list-style-type: none"> • Milk, Whey, and UF Permeate Concentration • NF or RO Permeate Polishing • Evaporator Condensate Polishing 	<ul style="list-style-type: none"> • RO

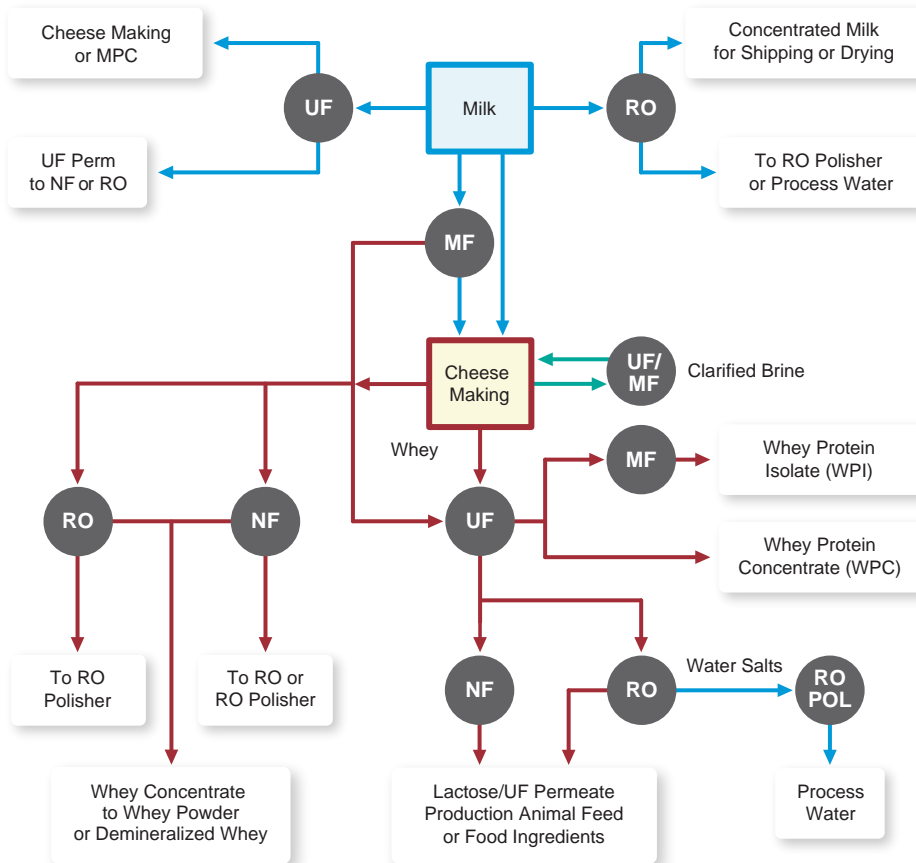
* Not yet available with HpHT elements.

Filtration, Purification, Separation

KSS Elements Have Processed Over 5 Trillion Pounds (2.3 Trillion Liters) of Dairy Products

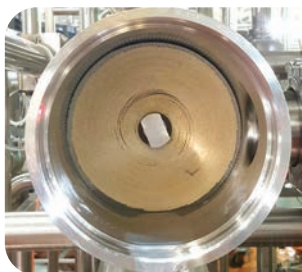
Dairy-Pro® elements benefit every step of dairy processing. Whether your application is the filtration, purification, concentration or separation of milk, whey, or protein, Dairy-Pro elements are energy efficient and will demonstrate high throughput. See where you can use Dairy-Pro to improve your productivity and results.

A Dairy-Pro Membrane for Every Process



BAND-TITE® Technology for NF and RO

BAND-TITE® Technology, consisting of our patented reinforcement Teflon bands, prevents element unwinding and its consequences.



Standard Element



BAND-TITE Element as removed from housing

Benefits of BAND-TITE® NF and RO 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

Koch Separation Solutions

Koch Separation Solutions (KSS) is a global leader in membrane filtration technologies with over 50 years of membrane experience. With best-in-class domain expertise, technology and systems, KSS is uniquely positioned to help customers purify and recover valuable process streams and achieve sustainability goals.

Koch Separation Solutions is part of Koch Industries, Inc. (KII). Based in Wichita, Kansas, KII is one of the largest private companies in America. It owns a diverse group of companies involved in refining, chemicals and biofuels; forest and consumer products; fertilizers; polymers and fibers; process and pollution control equipment and technologies; electronics; information systems; commodity trading; minerals; energy; glass; ranching; and investments. With a presence in about 60 countries, Koch companies employ more than 130,000 people worldwide.



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