



**Electrocoat Paint**

# Solutions

Efficient systems to drive down costs and enhance quality



# Customer-Driven Solutions

*A pioneer in smart solutions for electrocoating efficiency for more than 40 years, Koch Membrane Systems helps you optimize your electrocoat system...*

KMS engineers have a deep understanding of the electrocoat process and its strict performance requirements and can help you enhance and improve your e-coat process.

## Our E-Coat Advantage:



**HIGHER QUALITY PAINT FINISH** – KPAK® PLUS UF membranes remove electrocoat bath contaminants to control conductivity, minimize paint defects and lower product rejection rates.



**LESS CHEMICALS** – By separating and recycling bath and rinsewater streams, Koch Membrane Systems can help you reduce chemical use up to 95% in some applications.



**REDUCED HAZARDOUS WASTE** – Recycling wastewater streams, process materials and concentrating hazardous wastes helps to minimize treatment and disposal expenses.



**SIMPLE OPERATION** – The KPAK PLUS element's potted housing design, minimal system connections, high throughput and flux recovery minimize maintenance and operation downtime.



**SAVE MONEY** – Higher productivity, extended bath life, reduced chemical use, lower waste disposal expenses and minimal downtime all add up to cost savings for you!



## Industries We Serve

- Automotive/Transportation
- Appliance
- Metal Furniture
- Lawn and Garden Equipment
- Sports & Recreation
- Hardware
- Jewelry

## Primary Applications:



### Paint Recovery

- Recovers up to 98% of paint solids for reuse
- Membranes available for both Cathodic and Anodic applications
- Removes excess free ions, low molecular weight resins and carry-in



### Rinsewater Recovery

- Solutions for pretreatment and DI rinsewater streams
- Able to tolerate complex blended rinsewaters
- Lowers deionized water production expenses



### Alkaline Cleaner Reuse

- Recovers alkali and lowers heat energy
- Removes emulsified oils and particulates
- Extends bath life and lowers disposal costs



### Heavy Metal Treatment

- Removes nickel and zinc from phosphate rinsewater to less than 0.1 PPM
- Offers an economical and environmentally sound heavy metals separation alternative

# Meaningful Product Features

*Simple design, high quality permeate, outstanding economies – our original KPAK® PLUS module sets the standard for electrocoat paint applications.*

The KPAK PLUS module has lower paint feed flow requirements, consumes less power than conventional spiral designs and is an easy upgrade to many other manufacturers' products.

## KPAK PLUS Series

KPAK PLUS spiral-wound ultrafiltration modules are ideal for the generation of clean permeate and the recovery of cathodic and anodic paint solids. KPAK PLUS modules feature a simple, cost-effective design that is easily installed, conserves resources, and provides a robust solution in harsh electrocoat process conditions.

### Energy Efficient, Zero-Bypass Spirals

- Higher, more stable fluxes
- Better flux recovery after cleaning
- Lower cleaning frequency

### Rugged Construction

- Long membrane life
- Able to withstand harsh cleaning chemicals

### Potted Spiral Design

- Self-contained, disposable plastic housing elements
- Fast installation and removal
- Optimized fitting for easy installation



Available in 8" and 10" diameters

## SPIRAPAK Series



For smaller electrocoating systems such as those involving clear electrocoat or small automotive parts, KMS offers the 4" SPIRAPAK element with the same quality membrane as our KPAK PLUS product.

### Perfect for:

- Small volume systems
- Test tanks
- Hollow fiber retrofits

## Products to enhance electrocoat plant operations...

### ABCOR® Tubular Membranes

**ULTRA-COR Series** – A solid and reliable ecoat alternative for manufacturers with existing tubular membrane systems. ULTRA-COR withstands high cleaning temperatures and pH extremes with superior chemical stability; high permeate rates and improved energy efficiency compared to other tubular membranes.

**FEG PLUS Series** – Durable and mechanically cleanable, FEG PLUS tubular ultrafiltration membranes are designed for use on alkaline cleaners and wastewaters containing high concentrations of suspended solids. The FEG PLUS membrane is the standard for applications commonly used in automotive parts manufacturing and metal fabrication and finishing.

### FLUID SYSTEMS® Spiral Elements

**TFC® HR RO Elements** – Thin-film composite RO membranes provide low conductivity process water from incoming water supply.

**TFC NF Elements** – Remove dissolved heavy metals from zinc phosphate rinsewater overflow in pretreatment. Also used for polishing of ultrafilter permeate from e-coat operations.

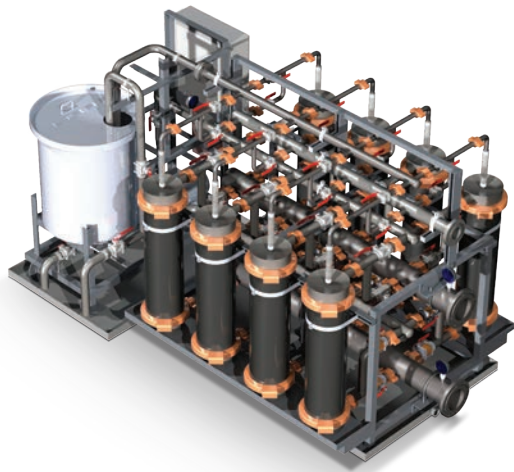


# The KPAK® PLUS Solution

KPAK PLUS systems use smaller pumps, less piping and fewer filters than other systems and come with easy-to-use connection hardware. Standard systems are available with 8" and 10" diameter KPAK PLUS membranes, with either individual module CIP or full rack CIP.

The KPAK PLUS family of systems offers options for 4, 6, 8, 12, 14 and 18 membrane positions.

- Individual module CIP option - no disruption in production
- Available as complete packaged systems or membrane racks
- Easy membrane storage during plant shutdowns
- Reduced system footprint - lower capital costs



## EDCORE® Pressurized ED Cells

*Efficient electro dialysis processing*

The EDCORE ED cells incorporate a unique seamless extruded (self-supported) tubular membrane designed to improve the efficiency of anionic/cationic e-coat processes.

- Energy efficient
- Secure operation
- Easily interchangeable
- Simple maintenance
- Long life

made by **alting**



Contact your local Koch Membrane Systems representative for more information:

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