



WATER & ENERGY SOLUTIONS SINCE 1969



Food Processing

www.kemcosystems.com

Our Story

Kemco Systems, the industry leader since 1969, designs custom systems that are built to the highest standards of excellence. Whatever your water handling requirements, your savings begin with low installation costs and continue with significantly lower operating costs. Kemco Systems offers outstanding quality, exceptional reliability, and top value for your energy dollar.

Satisfying your energy and water needs means choosing the best solution specific to your industry. Kemco Systems specifies, designs and manufactures full systems including: Water Reuse/ Recycling, Wastewater Treatment, Wastewater Filtration, Efficient Water Heating, High Pressure Pumping, Wastewater Heat Recovery, Stack Heat Recovery, Industrial Chilling, and Total System Monitoring with turnkey solutions.

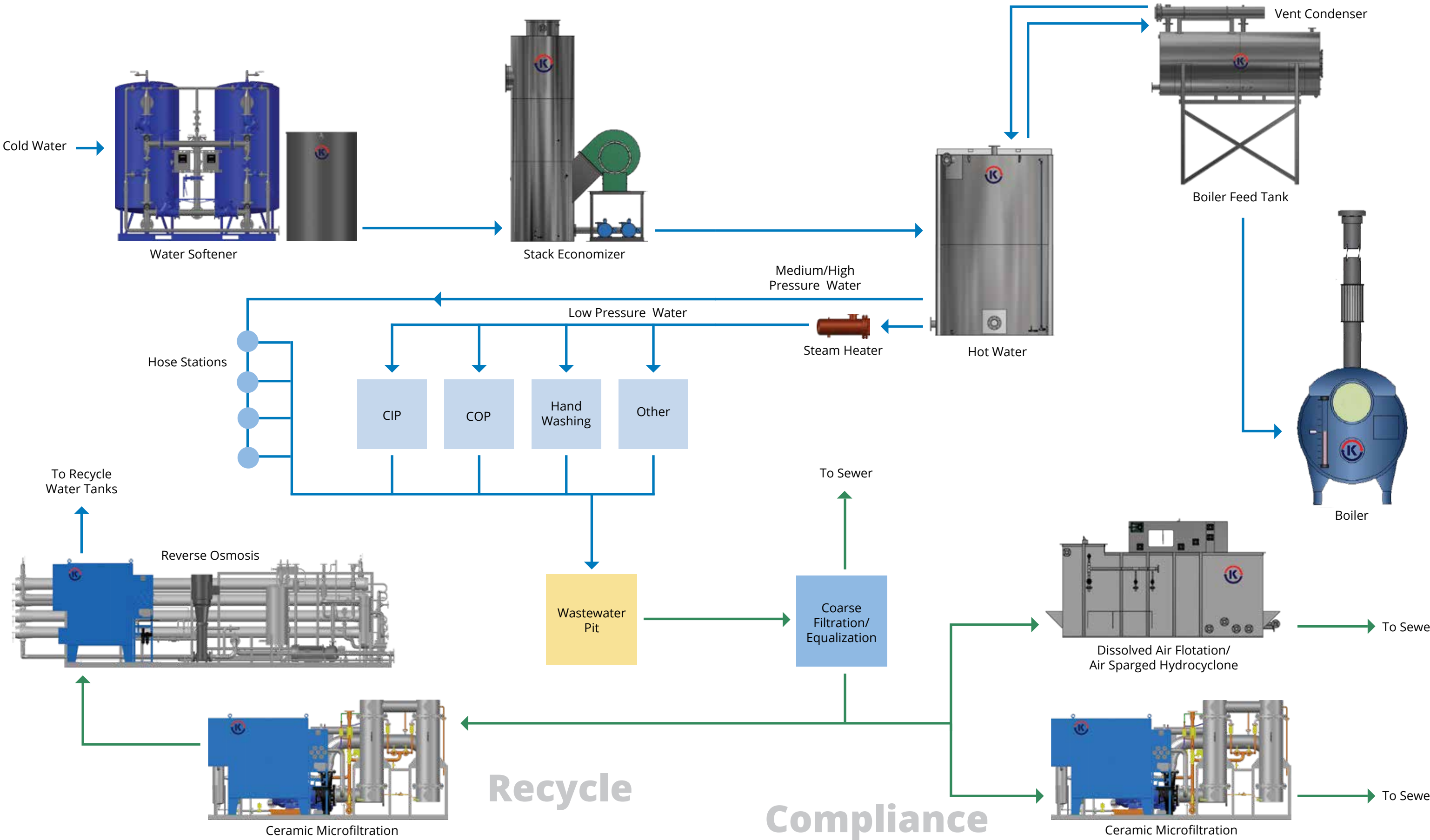
Kemco’s knowledge and experience has provided over 5,000 systems worldwide to the laundry, food, concrete, textile and automotive industries.



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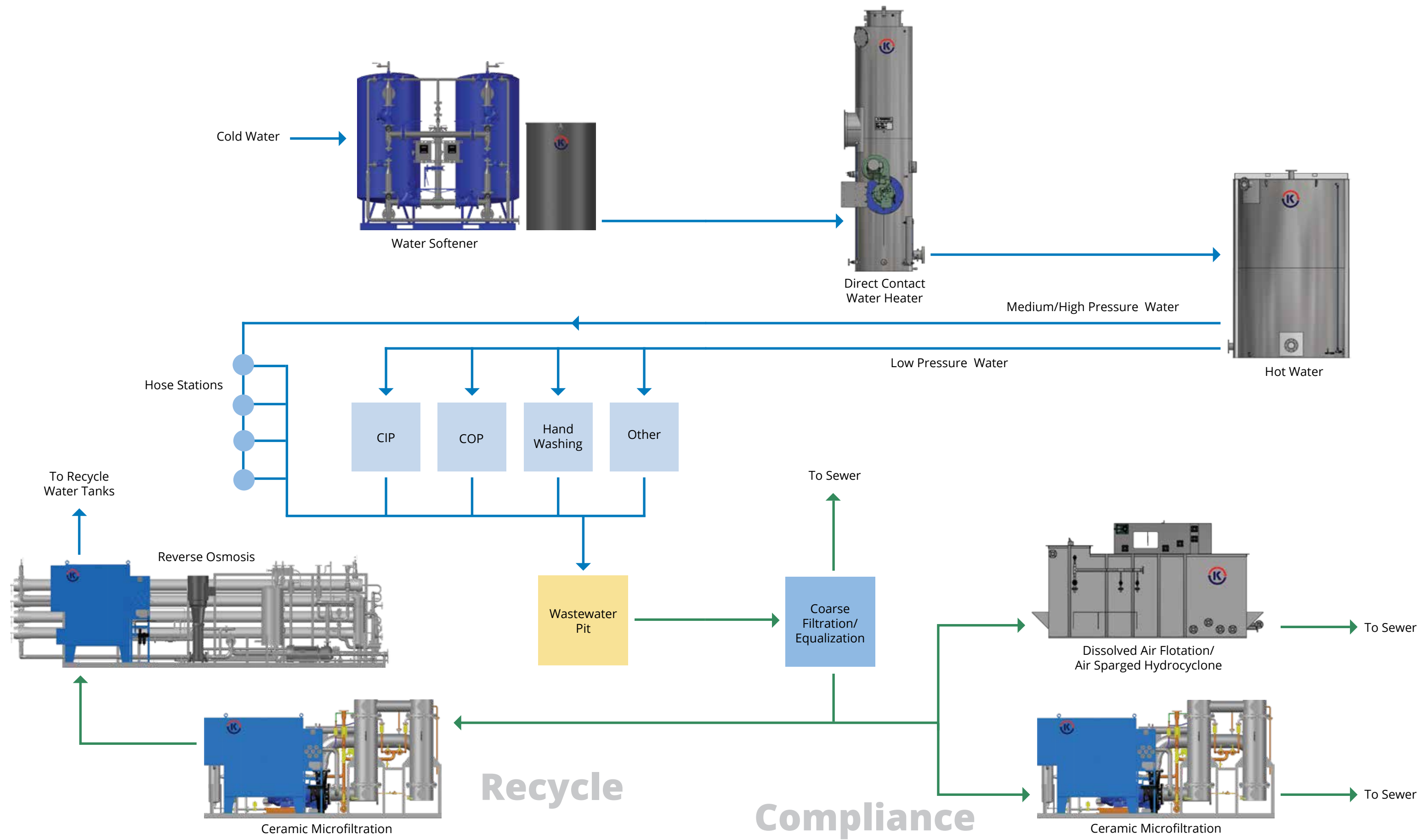
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Standard Processing Plant Flow

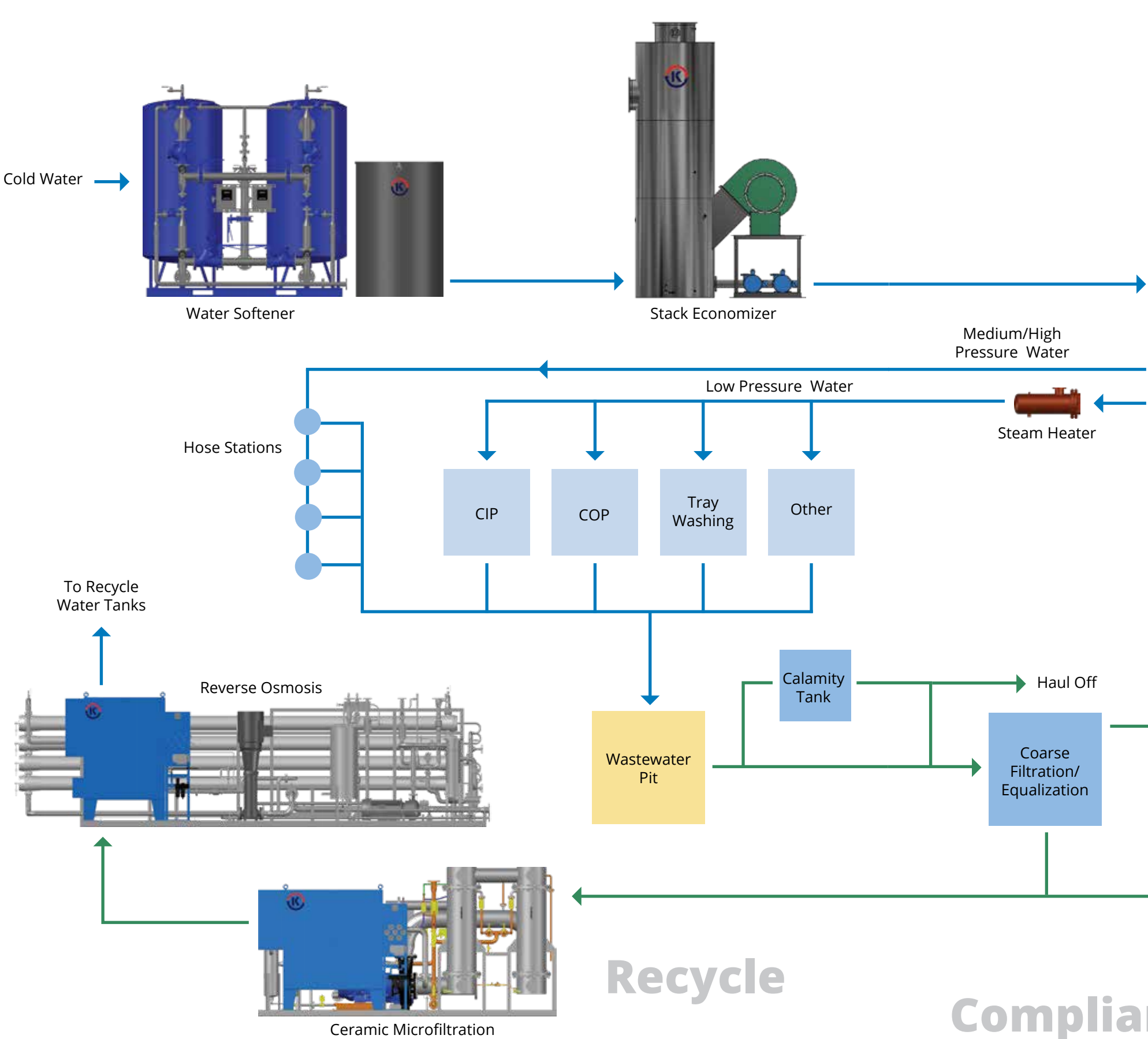


Standard Processing Plant Flow

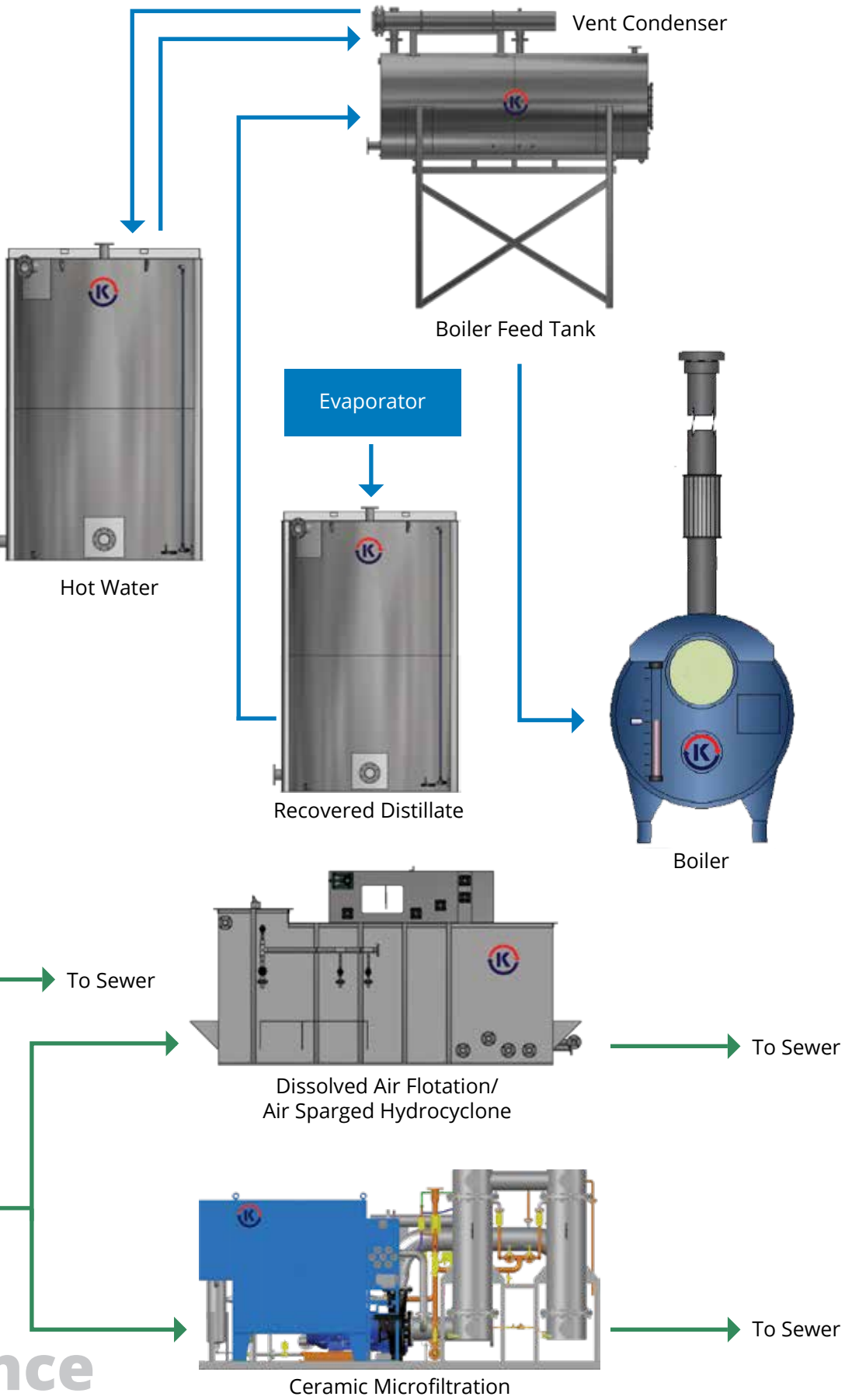
Meat Processing - Direct Contact Water Heater



Standard Processing Plant Flow

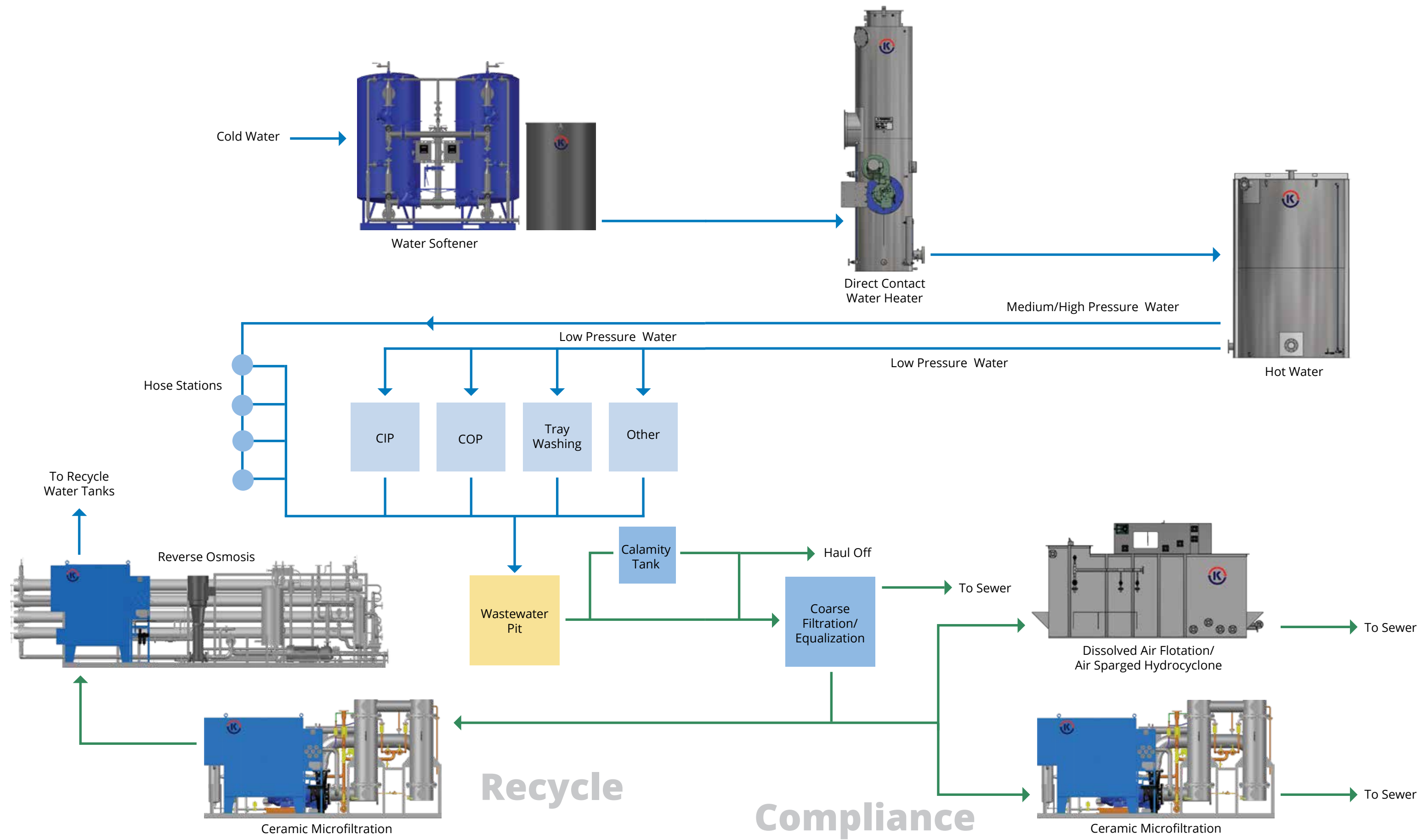


Dairy Processing - Stack Economizer



Standard Processing Plant Flow

Dairy Processing - Direct Contact Water Heater





Water Conditioning



Water Softeners

Water Softeners

Kemco water softeners are fully-loaded, using industrial-grade components designed and selected for optimum performance and reliability. High-capacity resin is used to remove calcium and magnesium ions from water supplied to the facility. This greatly improves the effectiveness in cleaning processes and minimizes damage to downstream equipment, fouling, scaling and thermal efficiency loss.

Features:

- Non-Coded or ASME-Coded Resin Tanks
- NSF/ANSI Standard 61 Certified Lining
- Stainless Steel or CPVC Piping
- Flow-Initiated Regeneration
- Automatic Valves
- Alternating Operation
- Pre-Piped
- Skid-Mounted
- Ready for Installation
- Single, Duplex and Triplex Design

Applications:

- City Water Conditioning
- Well Water Conditioning
- Boiler Feed Water Makeup



Specifications:

Tank Size (D x H)	Capacity (grains)	Brine Tank	Resin (cu. ft.)	Inlet	Outlet	Drain	Backwash (gpm)	Skid Dimensions (L x W x H)		
7" x 44"	15,000	18" x 33"	0.5	¾"	¾"	½"	1.2	38"	18"	52"
9" x 48"	30,000	18" x 33"	1.0	¾"	¾"	½"	2.0	42"	18"	56"
10" x 54"	45,000	18" x 40"	1.5	¾"	¾"	½"	3.0	45"	18"	62"
12" x 54"	60,000	18" x 40"	2.0	1"	1"	½"	3.5	49"	18"	60"
14" x 65"	90,000	18" x 40"	3.0	1"	1"	½"	5.0	54"	18"	73"
16" x 65"	120,000	24" x 40"	4.0	1"	1"	½"	6.0	64"	24"	73"
18" x 65"	150,000	24" x 40"	5.0	1 ½"	1 ½"	1"	8.0	72"	24"	75"
21" x 62"	210,000	24" x 50"	7.0	1 ½"	1 ½"	1"	12.0	78"	24"	75"
24" x 72"	240,000	24" x 50"	8.0	1 ½"	1 ½"	1"	15.0	84"	24"	82"
30" x 54"	300,000	24" x 60"	10.0	2"	2"	1 ½"	25.0	108"	44"	76"
30" x 60"	450,000	30" x 60"	15.0	3"	3"	1 ½"	25.0	114"	44"	82"
36" x 60"	600,000	39" x 60"	20.0	3"	3"	1 ½"	35.0	135"	50"	89"
36" x 72"	750,000	39" x 60"	25.0	3"	3"	1 ½"	35.0	135"	50"	101"
42" x 60"	900,000	42" x 60"	30.0	3"	3"	2"	45.0	150"	56"	94"
42" x 72"	1,050,000	50" x 60"	35.0	3"	3"	2"	45.0	158"	56"	106"
48" x 60"	1,200,000	50" x 60"	40.0	4"	4"	2"	60.0	190"	72"	98"

*Larger capacity systems available upon request

Reverse Osmosis - for water conditioning

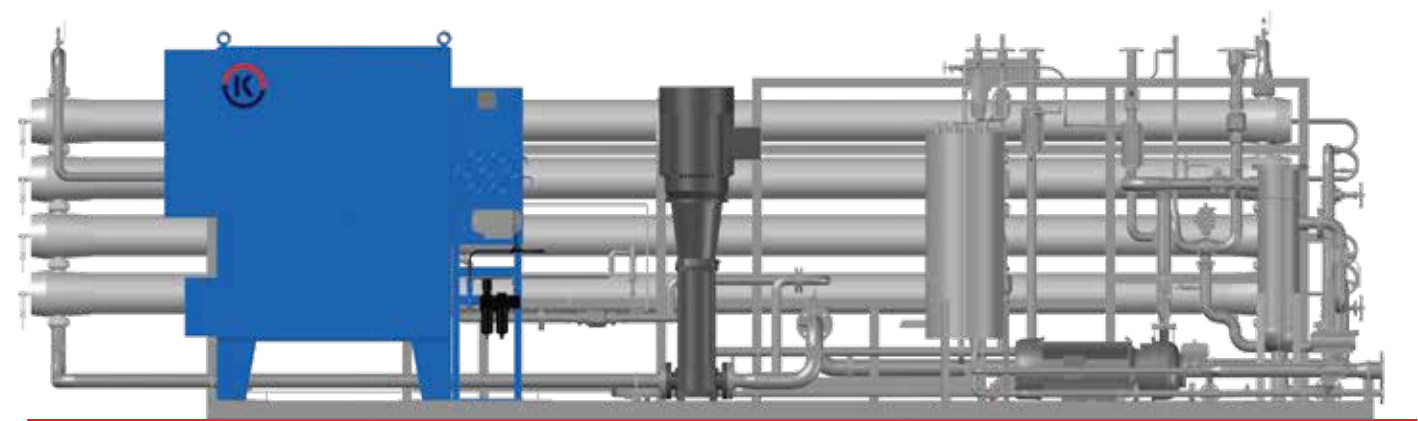
Kemco provides two offerings of reverse osmosis filtration - water conditioning and wastewater recycling. When used with water entering a processing plant, the reverse osmosis unit conditions the water, removing hardness ions, such as calcium and magnesium, as well as ions like salts. These impurities can cause fouling, scaling, oxidation damage, decrease efficiency and contaminate processes.

Features:

- Fully Packaged
- Low Pressure Design
- Flexible Design
- Variety of Types and Sizes of Membrane Housings
- Modular Design
- Automated Clean-in-Place

Applications:

- Process Water Softening
- Domestic Water Softening
- Boiler Feed Water Makeup
- Alternative to Traditional Ion Exchangers for Softening of Water



Specifications: (water conditioning)

Design (gpm)	Capacity (gpd)	RO Feed (gpm)	RO Reject (gpm)	Inlet Feed	Product	Reject	Nominal Operating Pressure (psi)	Pump (hp)	Shipping Weight (lbs)	Operating Weight (lbs)	Skid Dimensions (L x W x H)		
2.5	3,600	3.3-3.8	0.8-1.3	¾"	½"	½"	125	1.0	1,200	1,400	56"	17"	57"
3.8	5,400	5.0-5.8	1.2-2.0	¾"	½"	½"	125	1.0	1,250	1,550	56"	17"	57"
5.0	7,200	6.7-7.7	1.7-2.7	¾"	½"	½"	125	1.0	1,300	1,700	56"	17"	57"
6.3	9,000	8.4-9.7	2.1-3.4	¾"	½"	½"	125	1.0	1,350	1,850	56"	17"	57"
7.5	10,800	10.0-11.5	2.5-4.0	1"	1"	1"	125	1.5	1,500	2,050	56"	18"	66"
8.8	12,600	11.7-13.5	2.9-4.7	1"	1"	1"	125	1.5	1,600	2,250	56"	18"	66"
10.0	14,400	13.3-15.4	3.3-5.4	1"	1"	1"	125	1.5	1,700	2,450	56"	18"	66"
11.3	16,200	15.0-17.4	3.7-6.1	1"	1"	1"	125	1.5	1,800	2,650	56"	18"	66"
25.0	36,000	33.0	8.0	1 ½"	1 ½"	1"	125	10.0	3,150	5,000	146"	40"	82"
35.0	50,400	47.0	12.0	2"	1 ½"	1"	125	15.0	3,550	6,150	146"	40"	82"
50.0	72,000	57.0	17.0	2"	2"	1"	125	20.0	3,800	7,600	146"	40"	82"
65.0	93,600	87.0	22.0	2 ½"	2"	1 ½"	125	25.0	4,300	9,100	194"	46"	82"
80.0	115,000	107.0	27.0	2 ½"	2 ½"	1 ½"	125	25.0	4,600	10,600	194"	46"	82"
100.0	144,000	133.0	32.0	2 ½"	2 ½"	1 ½"	125	30.0	5,100	12,600	194"	46"	94"
125.0	180,000	167.0	42.0	3"	3"	2"	125	40.0	7,000	16,000	274"	50"	86"



Reverse Osmosis



Open Water Distribution

Open Water Systems

Kemco open water systems readily provide flywheel volume at pressures and temperatures needed by production equipment. This eliminates the sags in pressure and time lost while “waiting for water” as experienced in older, pressurized systems. Our stainless steel tank can be flat bottom, conical bottom, horizontal, vertical, cylindrical, oblong, or rectangular. The systems also include level control and the ability to start or stop fluid flow to the storage tank.

Features:

- Stainless Steel Construction
- Level Monitoring and Control
- Inlet Valve(s)
- Pumps and VFDs
- Stands

Applications:

- Cold Water Storage and Pressure Boosting
- Tempered Water Storage and Delivery
- Hot Water Storage and Delivery
- Reuse Water Storage and Delivery
- Boiler Feed Water Systems
- Recycle Water Storage and Delivery
- Wastewater Storage and Delivery
- Equalization and Delivery
- Sludge Collection, Conditioning and Delivery
- Water Recovery



Specifications:

- Various shapes and sizes up to 200,000 gallons
- Flat or Conical Bottom Tank
 - Horizontal or Vertical Tank
 - Cylindrical Tank
 - Oblong Tank
 - Rectangular Tank



Open Water Systems

Low Pressure Pumps

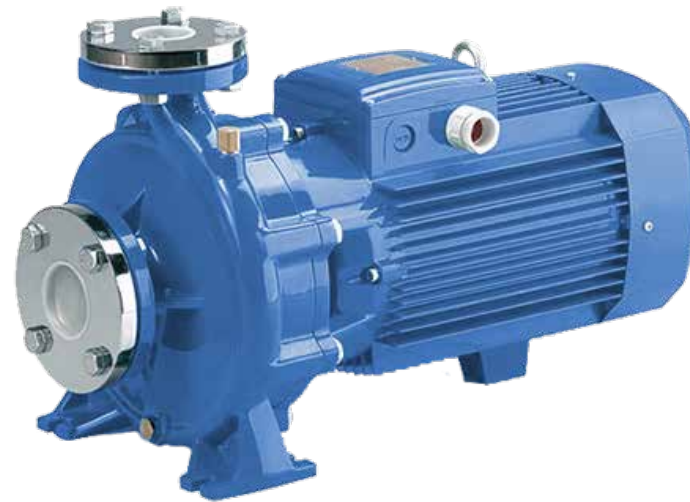
Kemco's low-pressure pumping systems are designed to provide a consistent pressure for plant applications requiring low pressure. Typical low-pressure applications require between 50 and 100 psi. Variable speed drives can be used to minimize the electrical demand and maintain consistent line pressure.

Features:

- High-Capacity Pumps
- Stainless Steel Prepipng
- Stainless or Carbon Steel Skids
- Monarch Integration
- Variable Speed Drives

Applications:

- Cold Water Pressure Boosting
- Hot Water Delivery
- Wastewater Delivery
- Sludge Delivery



Specifications:

Processed Water:

Close-coupled, end-suction, horizontally-mounted centrifugal pumps

Wastewater:

Self-priming centrifugal pumps and air-operated diaphragm pumps



Medium Pressure Pumps

Kemco's medium-pressure pumping systems are designed to provide a consistent pressure to plant applications requiring medium pressure. Typical medium-pressure applications require between 100 and 300 psi. Variable speed drives can be used to minimize the electrical demand and maintain consistent line pressure.

Features:

- High-Capacity Pumps
- Stainless Steel Prepipng
- Stainless or Carbon Steel Skids
- Monarch Integration
- Variable Speed Drives
- Soft Starts

Applications:

- Boiler Feed Water Systems
- Sanitation and Wash Down
- Pressure Boosting

Specifications:

Processed Water:

Close-coupled, end-suction, vertically-mounted, multi-stage centrifugal pumps



Open Water Distribution

High Pressure Pumps

Kemco's high-pressure pumping systems are designed to provide a consistent pressure to plant applications requiring high pressure. Typical high-pressure applications require between 400 and 900 psi. Variable speed drives can be used to minimize the electrical demand and maintain consistent line pressure.

Features:

- High-Capacity Pumps
- Stainless Steel Prepipng
- Stainless or Carbon Steel Skids
- Monarch Integration
- Variable Speed Drives
- Soft Starts

Applications:

- Boiler Feed Water Systems
- Sanitation and Wash Down
- Pressure Boosting



Specifications:

High Pressure Water:

Direct or belt driven, horizontally mounted, pilot tube or multi-stage centrifugal pumps



Open Water Distribution



Direct Contact Water Heaters

TE-100

Kemco's pioneering 99.7% efficient direct contact water heater, the TE-100 delivers hot water on demand. Each unit is custom designed to meet the customer's individual requirements, heating large volumes of water from an incoming cold temperature to a final hot usage temperature, in a single pass. Heated water, ready for use, is then stored in an open hot water tank.

Features:

- On-Demand Hot Water
- Stainless Steel Construction
- Non-Pressure Vessel
- Heating Flows to 500 gpm
- Temperature as High as 199°F
- NSF-Certified Models
- Insurance-Rated Gas Trains
- PLC-Based System Control Panel
- Media Tower Manway
- No Operator Certification Required
- Low NO_x Available

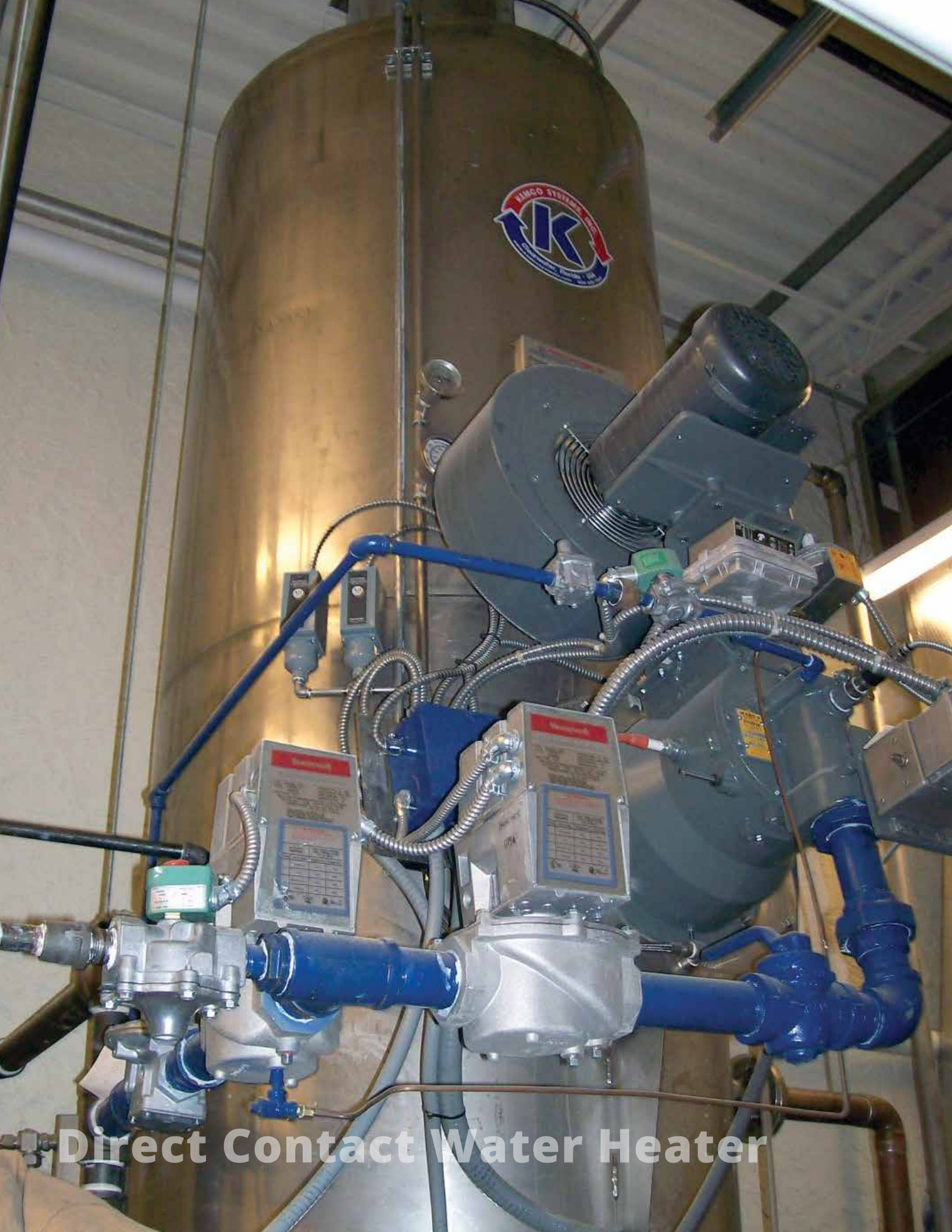
Applications:

- Process Hot Water
- Heating Water for "Water to Water" Heat Exchanger Applications

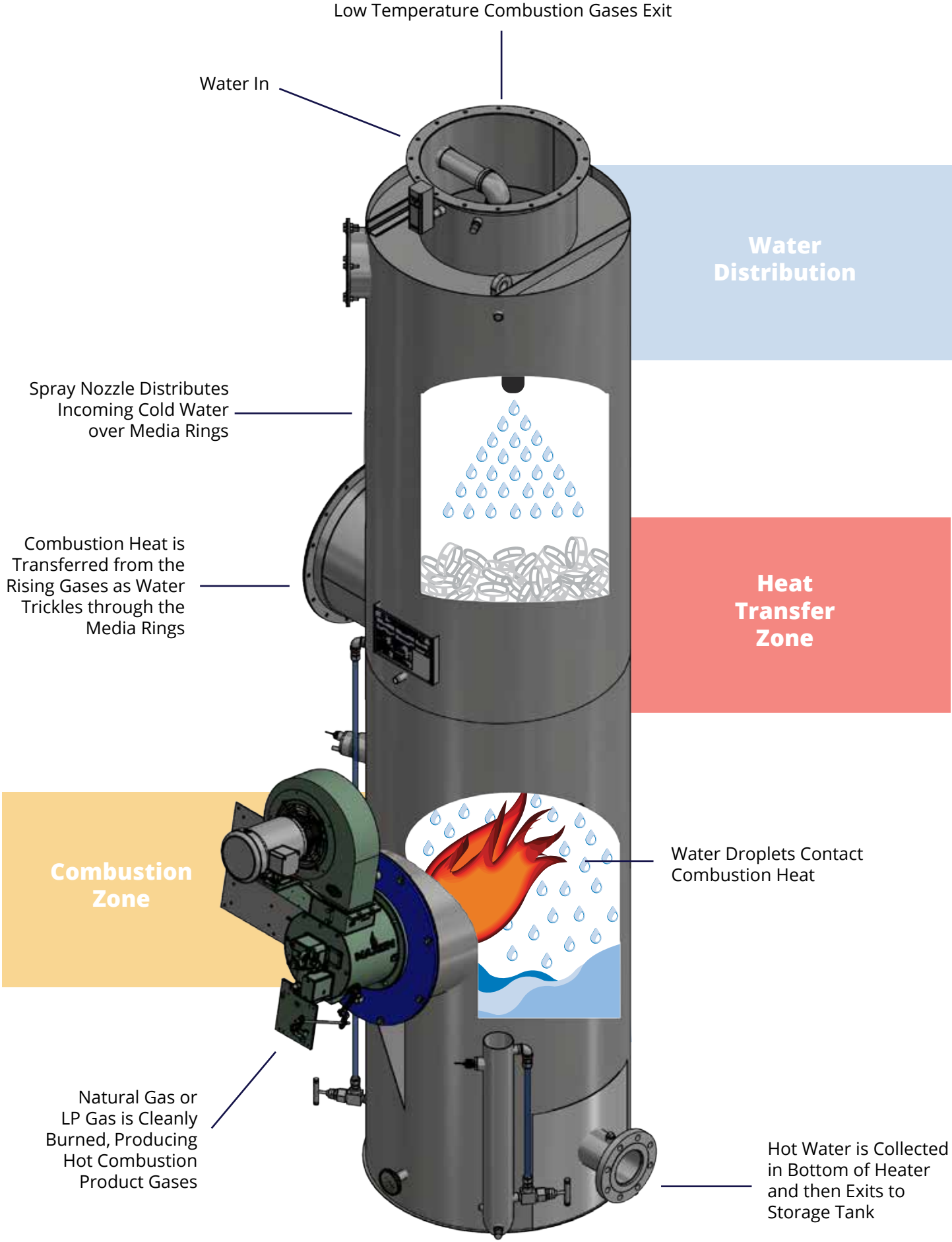
Heater Size (mbtu)	Water Heating Capacity at ΔT 100°F (gph)	Dimensions (D X H)	Weight Empty (lbs)	Weight Flooded (lbs)	Water Inlet	Water Outlet	Gas Inlet	Min. Typical Connected Load (FLA)
1.2	1,440	25 ½" x 9'	1,000	1,450	1" - 2"	2"	1 ½"	5.0
2.0	2,400	30" x 10'	2,400	3,100	1 ¼" - 2"	3"	1 ½"	5.0
3.0	3,600	30" x 10'	2,400	3,100	1 ½" - 2"	3"	1 ½"	6.5
4.5	5,400	42" x 10'	2,650	3,850	2" - 2 ½"	4"	2"	6.5
5.5	6,600	42" x 10'	3,000	4,250	2" - 3"	4"	2"	8.0
7.0	8,400	54" x 11'	3,200	5,800	2 ½" - 3"	4"	2"	14.5
9.0	10,800	54" x 11'	3,200	5,800	3"	4"	2"	17.5
10.0	12,000	54" x 11'	3,200	5,800	3" - 4"	4" - 6"	2 ½"	24.5
12.0	14,400	69" x 11'	4,900	9,100	3" - 4"	6"	3"	24.5
15.0	18,000	76" x 11'	5,100	10,200	4"	6"	3"	24.5
18.0	21,600	84" x 11'	6,000	12,200	4"	6"	3"	43.5
21.0	25,200	84" x 11'	6,000	12,200	4"	6"	3"	55.5
25.0	30,000	96" x 12'	7,000	15,100	4"	8"	3"	68.5



Direct Contact Water Heater



Direct Contact Water Heater





Waste Heat Recovery



Flue Gas Heat Recovery

Condensing Stack Economizer

Kemco's stack economizer is designed to be an energy savings solution to recover heat that would have otherwise been lost out of the boiler stack. Typical gas-fired boilers send 20% or more of their consumed energy out of their exhaust. This loss can mean that for every dollar spent on fuel, the boiler system delivers only 65 to 70 cents worth of useful heat (after transmission losses). The Kemco stack economizer will recover nearly 100% of the heat going up your stack; the dollars saved on fuel in just one year may be enough to pay for the cost of the system. This rapid return on investment exceeds that of other conventional economizer types of equipment on the market today.



Features:

- Stainless Steel Construction
- Draft Assistance - Minimizes Back-Pressure on Boiler
- Safely Reduce Stack Gases within 10°F of entering Cold Water Temperature
- Rapid ROI
- Side Stream - No Cold-End Corrosion
- Twice the Recovery when compared to Traditional Fin Tube Economizers

Applications:

- Process Water Preheating and Heating
- Boiler Feed Water Makeup Preheating

Specifications:

Boiler Size (hp)	Recoverable Energy (btu/hr)	Dimensions (D X H)	Weight Empty (lbs)	Weight Flooded (lbs)	Water Inlet	Water Outlet	Flue Gas Inlet	Flue Gas Outlet
100	670,000	30" x 8'	800	1,500	1 ½"	3"	18 "	18"
200	1,340,000	36" x 10'	1,200	2,200	2" - 2 ½"	4"	24"	24"
300	2,020,000	42" x 10'	1,300	2,600	2" - 2 ½"	4"	24"	24"
400	2,690,000	48" x 10'	1,400	3,100	2" - 2 ½"	4"	30"	30"
500	3,360,000	54" x 10'	1,600	3,700	2" - 2 ½"	4"	36"	36"
600	4,030,000	69" x 10'	1,900	5,300	2 ½" - 4"	4" - 6"	36"	36"



Kemtube

KemTube

The KemTube economizer, originally designed for building hydronic systems, is a good fit when there is more flue gas heat available than can be recovered by a condensing economizer alone. The special value of the KemTube Economizer is that it can be custom designed to deliver hot water at temperatures well above what a direct-contact condensing economizer can produce. This means that the KemTube can be used to boost the temperature of circulating process hot water streams, or it can be used in conjunction with a condensing economizer to boost the heat recovery and temperature of hot water delivered.

Features:

- Stainless Steel Construction
- Compression-Fit Tubes for Ease of Maintenance
- No ASME Code Welding Required
- Conventional and Condensing Operation
- Removable Rear Door for Full Access to Inside Unit

Applications:

- Process Water Preheating and Heating
- Boiler Feed Water Makeup Preheating
- Thermal Oil System Heat Recovery
- Oven System Heat Recovery
- Building Hydronic Heating Systems





Heat Exchangers

Steam Heater

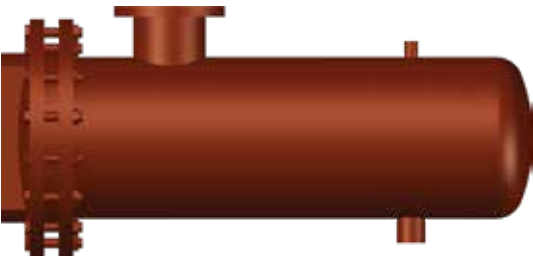
The Kemco steam heater provides a water heating method that is more efficient than live steam injection. Use of a shell and tube-type design allows for trapping and passing condensate back to the boiler feedwater system, saving the sensible heat energy in the water and reducing the required amount of make-up water and treatment chemicals. This aids in supplementing the efficient operation of the facility.

Features:

- Stainless Steel Tube Construction
- Standard Pressure Regulated Steam Inlet Controls
- Effective Steam Trapping Systems
- Pneumatic or Electric Condensate Pumping Systems
- Staged Steam Control Valves

Applications:

- Process Fresh Water Heating
- Process Wastewater Heating



Specifications:

Sizes (D x L)	Heat Transfer Area (sq. ft.)	Shipping Weight (lbs)	Operating Weight (lbs)	Steam Inlet	Condensate Outlet
6" x 60"	14	220	280	3"	1 ½"
6" x 72"	16	240	320	3"	1 ½"
6" x 84"	19	280	370	3"	1 ½"
8" x 60"	37	380	490	4"	1 ½"
8" x 72"	44	410	540	4"	1 ½"
8" x 84"	52	440	590	4"	1 ½"
10" x 60"	62	540	710	6"	2"
10" x 72"	74	600	800	6"	2"
10" x 84"	87	700	940	6"	2"



Wastewater Pretreatment & Wastewater Recycling



Physical - Chemical

pH Control

The requirement for pH adjustment or neutralization is common to industrial wastewater dischargers. Discharge pH limits vary from region to region, however, the consequences of discharging outside these limits are often fines and damage to the environment.

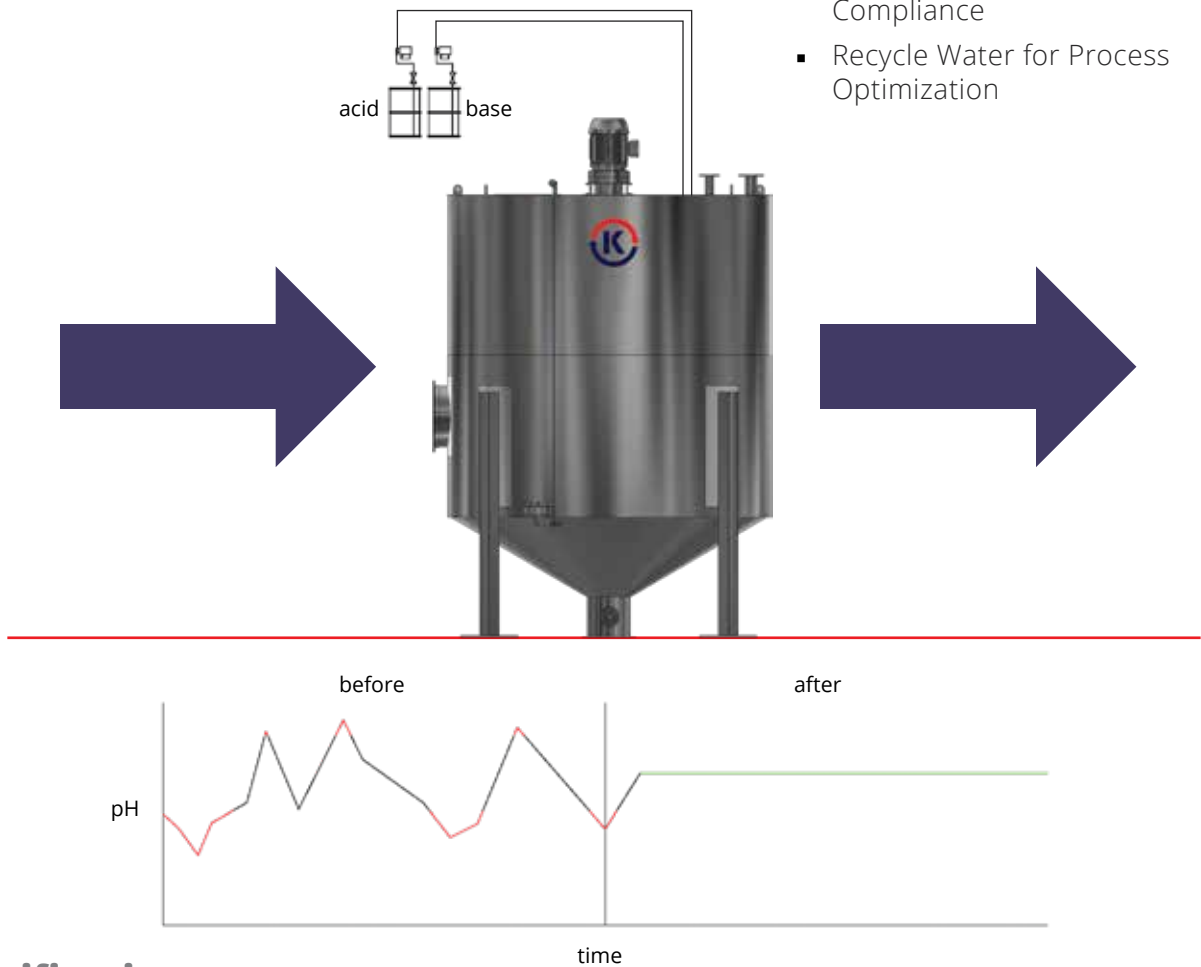
The preferred method for pH neutralization of waste streams is by automatic addition of acid or caustic. The ideal set-up consists of a treatment tank with a mixer, an in-tank pH sensor, in-tank level control, metering pumps for acid and caustic injection, an automated drain valve or pump for the effluent, and a control panel.

Features:

- Tunable Proportional (PID) Control System
- Non-Fouling Flat Glass pH Probes
- Precise Chemical Metering Pumps

Applications:

- Wastewater for Discharge Compliance
- Recycle Water for Process Optimization



Specifications:

pH Sensors:

- Analog pH signal for control function
- Accurate across full scale 0 to 14
- Polycarbonate construction with flat surface glass electrode

Chemical Metering Pumps:

- Positive displacement pumps
- Chemically resistant materials of construction for acids and bases
- Manually adjustable and external (pH signal) speed control

Dissolved Air Flotation

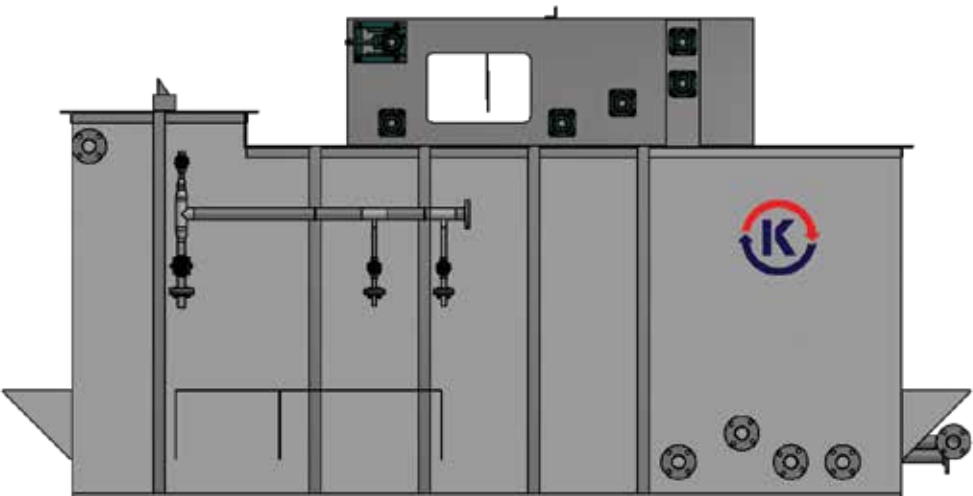
Kemco's Dissolved Air Flotation system (DAF) is designed to give maximum operator flexibility and maximum removal of oils, greases, skimmings and solids. We have taken DAF technology to a new level of performance with our centrifugal DAF pump. The multi-phase air saturation pump provides maximum air flotation with minimum maintenance cost and upkeep. The Kemco DAF system is available with chemical coagulant/flocculant mix systems designed to optimize the effectiveness of treatment chemicals.

Features:

- Stainless Steel Construction
- PLC Controls
- Chemical Mix Tanks or Serpentine Reactor
- Low-Profile Clarifier Design
- Compact Rectangular or Round Design
- Hydraulic Loading - 2 gpm to 8 gpm per sq. ft.
- Physical-Chemical Treatment System
- Monarch Integration

Applications:

- Wastewater Discharge Compliance
- Water Reuse



Specifications:

Model	Dimensions (L x W x H)	Connected Load (FLA)	Shipping Weight (lbs)	Operating Weight (lbs)	Inlet	Outlet	Flow (gpm)
KSI-DAF-50	144" x 58" x 66"	23	4,800	14,200	2"	2"	0 - 50
KSI-DAF-75	149" x 79" x 66"	28	5,500	26,300	4"	2 ½"	0 - 75
KSI-DAF-100	188" x 84" x 66"	46	6,700	34,800	4"	2 ½"	50 - 100
KSI-DAF-150	233" x 79" x 66"	56	7,700	42,800	4"	3"	100 - 150
KSI-DAF-200	296" x 99" x 66"	70	8,800	52,800	4"	3"	150 - 200
KSI-DAF-250	338" x 99" x 66"	80	9,700	62,900	4"	3"	200 - 250



Dissolved Air Flotation

Air Sparged Hydrocyclone

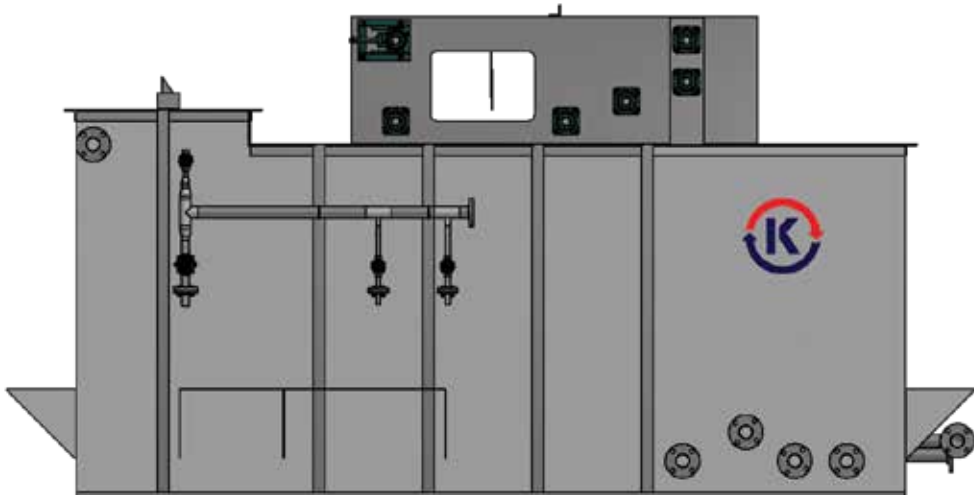
Combining centrifugal separation with air flotation, Kemco's Air Sparged Hydrocyclone (ASH) system produces efficiencies exceeding those in DAF and other wastewater treatment technologies in the removal of Fats, Oils and Grease (FOG), Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD). Using a significantly smaller footprint and vessel, Kemco's ASH system achieves performance superior to that of typical flotation technologies.

Features:

- Stainless Steel Construction
- PLC Controls
- Chemical Mix Tanks or Serpentine Reactor
- Multi-Stage Clarifier Design
- Compact Rectangular or Round Design
- Hydraulic Loading - 2 gpm to 8 gpm per sq. ft.
- Physical-Chemical Treatment System
- Monarch Integration

Applications:

- Wastewater Discharge Compliance
- Water Reuse



Specifications:

Model	Dimensions (L x W x H)	Connected Load (FLA)	Shipping Weight (lbs)	Operating Weight (lbs)	Inlet	Outlet	Flow (gpm)
KSI-ASH-50	125" x 60" x 66"	35	5,900	20,100	3"	3"	0 - 50
KSI-ASH-100	125" x 67" x 66"	43	7,700	40,800	3"	3"	50 - 100
KSI-ASH-150	164" x 67" x 66"	48	8,800	49,000	4"	4"	100 - 150
KSI-ASH-200	204" x 85" x 66"	62	11,000	58,000	4"	6"	150 - 200



Air Sparged Hydrocyclone



Sludge Dewatering

Filter Press

Kemco's filter press systems provide dewatering of liquid waste residuals for ultimate disposal of dry, solid waste. The filter press reduces the volume of waste and removes free liquids so the waste can be disposed of in landfills, reducing waste treatment and disposal cost.

Features:

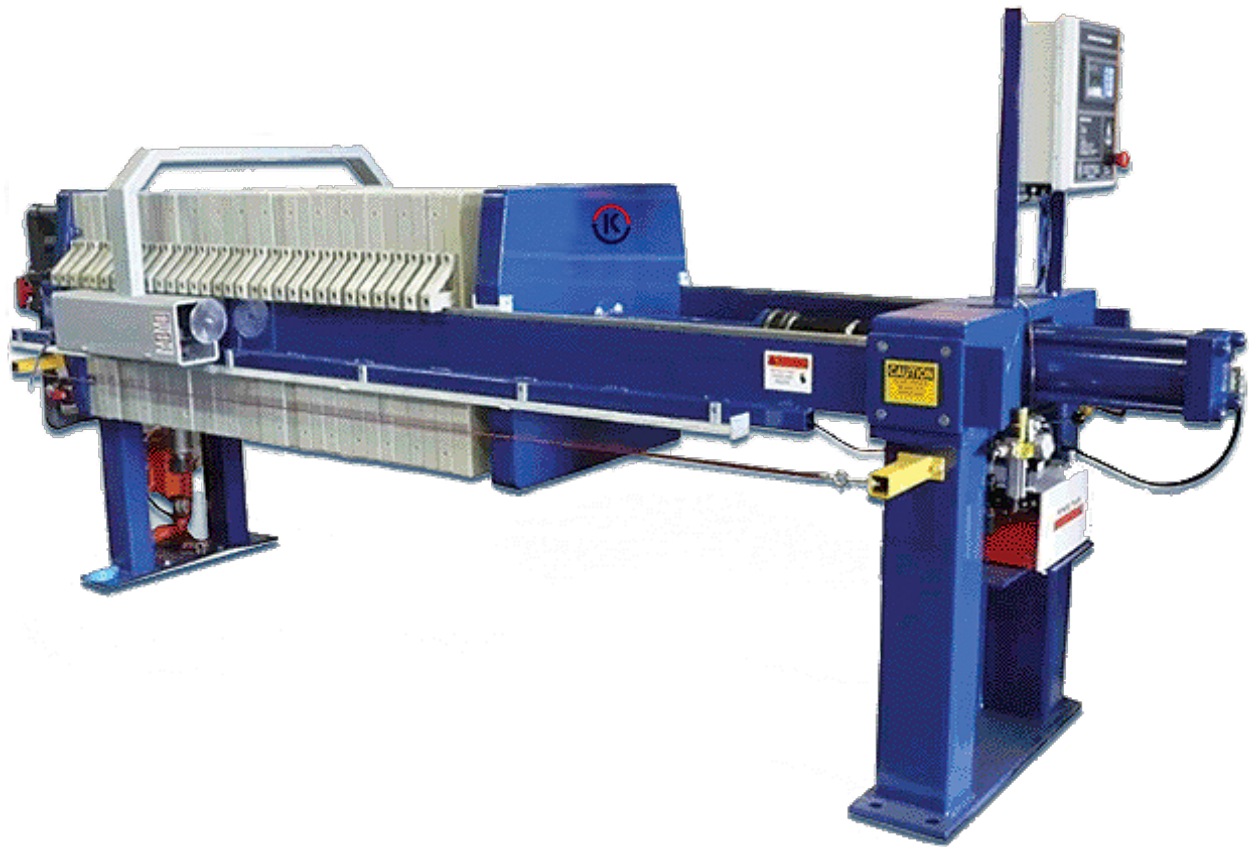
- Automated Operation
- Air-Operated Diaphragm Feed Pump
- Chemical Mix and Precoat
- Expandable
- Semi-Automatic Shifter Available

Applications:

- Dissolved Air Flotation Sludge Dewatering
- Ceramic Microfiltration Sludge Dewatering

Specifications:

Model	Capacity (cu. yds)	Surface-Area (mm)
KSI-470	5	470
KSI-630	12	630
KSI-800	30	800
KSI-1000	60	1,000
KSI-1200	80	1,200
KSI-1500	150	1,500





Coarse Filtration

Hydrocyclone

Kemco's hydrocyclone system is a centrifugal separating device which is designed for separating solids from liquids. The hydrocyclone can be used as a stand-alone product to reduce the sand and gravel from processing waste, or as a pre-filtration for the Kemco CMF/RO recycling system.

Features:

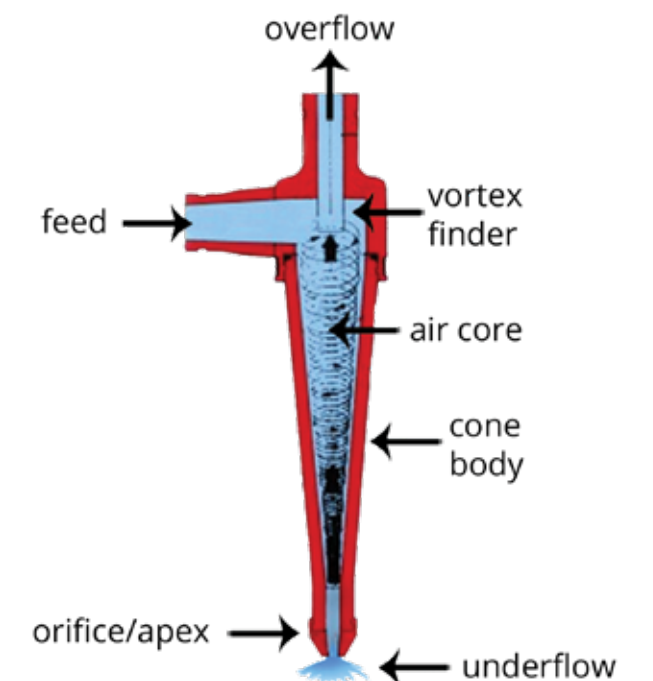
- High-Volume Capacity
- Fine Micron Separation
- No Moving Parts
- Small Space Requirements
- Low Maintenance
- Abrasion-Resistant Urethane
- Modular and Scalable Design

Applications:

- Coarse Filtration of Inlet Water Streams
- Coarse Filtration of Wastewater Streams
- Sludge Management
- Pretreatment for Ceramic Microfiltration

Specifications:

Flow: up to 50 gpm per module



Rotating Wedge Wire Screen

Kemco's rotating wedge wire screen is designed to efficiently perform liquid/solid separation for red meat, pork, poultry, seafood or vegetables. This helps reduce industrial waste and increase product recovery. Wedge-wire screens offer greater cleaning efficiencies, or reduce water requirements with an optional spray CIP option. Processors can gain significant savings with the Kemco rotating wedge wire screen.

Features:

- Stainless Steel Construction
- Self-Cleaning CIP
- Flow Rates up to 1,000 gpm

Applications:

- Food Processing Wastewater Coarse Filtration for Suspended Solids



Specifications:

Model	Screen Area	Inlet	Outlet	Flow (gpm)
KSI-50	15" x 48"	6"	6"	0 - 50
KSI-200	24" x 72"	6"	6"	50 - 200
KSI-400	48" x 72"	14"	14"	200 - 400
KSI-600	48" x 96"	14"	14"	400 - 600
KSI-1000	60" x 96"	18"	18"	600 - 1,000



Rotating Wedge Wire Screen



Membrane Filtration

Ceramic Microfiltration

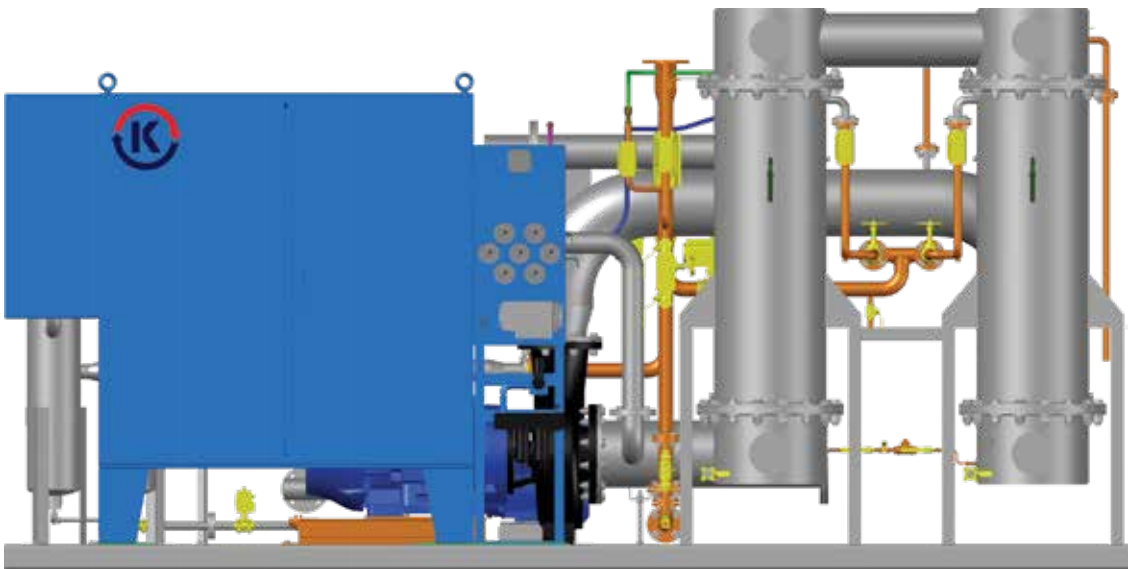
Kemco's ceramic microfiltration is a cost-effective way to achieve a high recycle rate for industries that require removal of suspended contaminants from wastewater without the addition of treatment chemicals. Through the use of ceramic elements with porosity of well less than 0.1 micron, wastewater is cleansed to a recyclable quality.

Features:

- Fully Packaged
- Standard Skid Design for Expandability
- Stainless Steel Construction
- Ceramic Filter Elements
- Tolerates pH 0 - 14
- Trouble-Free Cleaning
- High Temperature Tolerance
- Minimizes Disposal Charges
- Remote Monitoring
- Low Maintenance
- Monarch Integration
- Cross-Flow Design
- Ceramic Elements can be Thermally Rejuvenated

Applications:

- Suspended Solids, Oils & Greases, and BOD / COD Reduction
- Recycling Water in Industrial Processes
- Wastewater Compliance Measures in Lieu of DAF
- Water Volume Reduction and Concentration Processes



Specifications:

Media Porosity:
0.05 to 0.2 micron

Standard Skid:
Dimensions: 175" x 60" x 80"
Shipping Weight: 7,700 lbs
Flooded Weight: 12,000 lbs

Flow Rates:
10 - 200 gpm

Reverse Osmosis - for wastewater recycling

As a secondary filtration system to the CMF, Kemco's wastewater reverse osmosis increases the overall rate of water recycling by substantially removing Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Total Dissolved Solids (TDS).

Features:

- Fully Packaged
- Low Pressure Design
- Flexible Design
- Modular Design
- Proprietary High-Temperature Design
- Automated Clean-in-Place

Applications:

- Process Wastewater Compliance
- Process Wastewater Reuse/ Recycling

Specifications:

Flow Rates:
10 - 200 gpm



Reverse Osmosis

CMF - RO Patent Pending

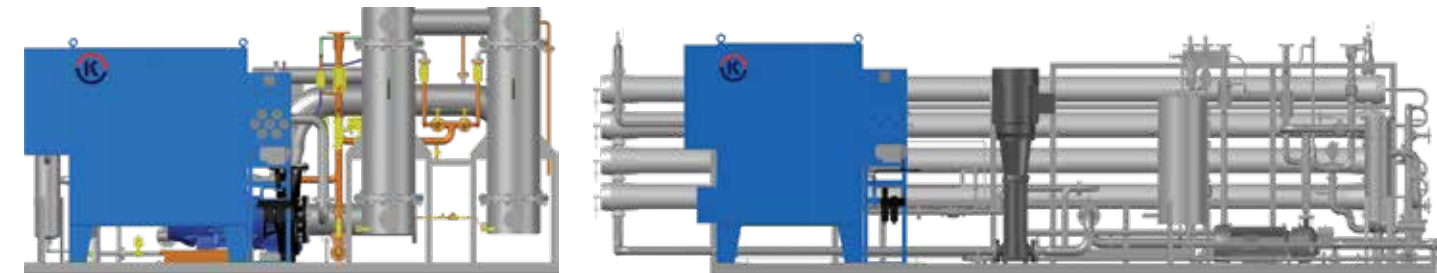
Kemco has a new, patent-pending, process for treating high-strength industrial wastewater. This innovation takes advantage of the robust ceramic microfiltration to remove Total Suspended Solids (TSS) and Oils and Greases (O&G). This first step, in combination with Kemco's specially designed high-temperature reverse osmosis system, can produce treated water that is of the highest standard, allowing for water reuse. Reverse osmosis can then remove Total Dissolved Solids (TDS) such as salts, organics, detergents and other contaminants. This combination achieves low TDS, low BOD and produces exceptional water which can be reused back in industrial process.

Features:

- Fouling-Resistant Cross Flow Filtration Technology
- Can withstand Aggressive Conditions: High Temperature, Acids, Alkaline and Corrosive Components
- Minimal Maintenance
- Automated System for User-Friendly Operation

Applications:

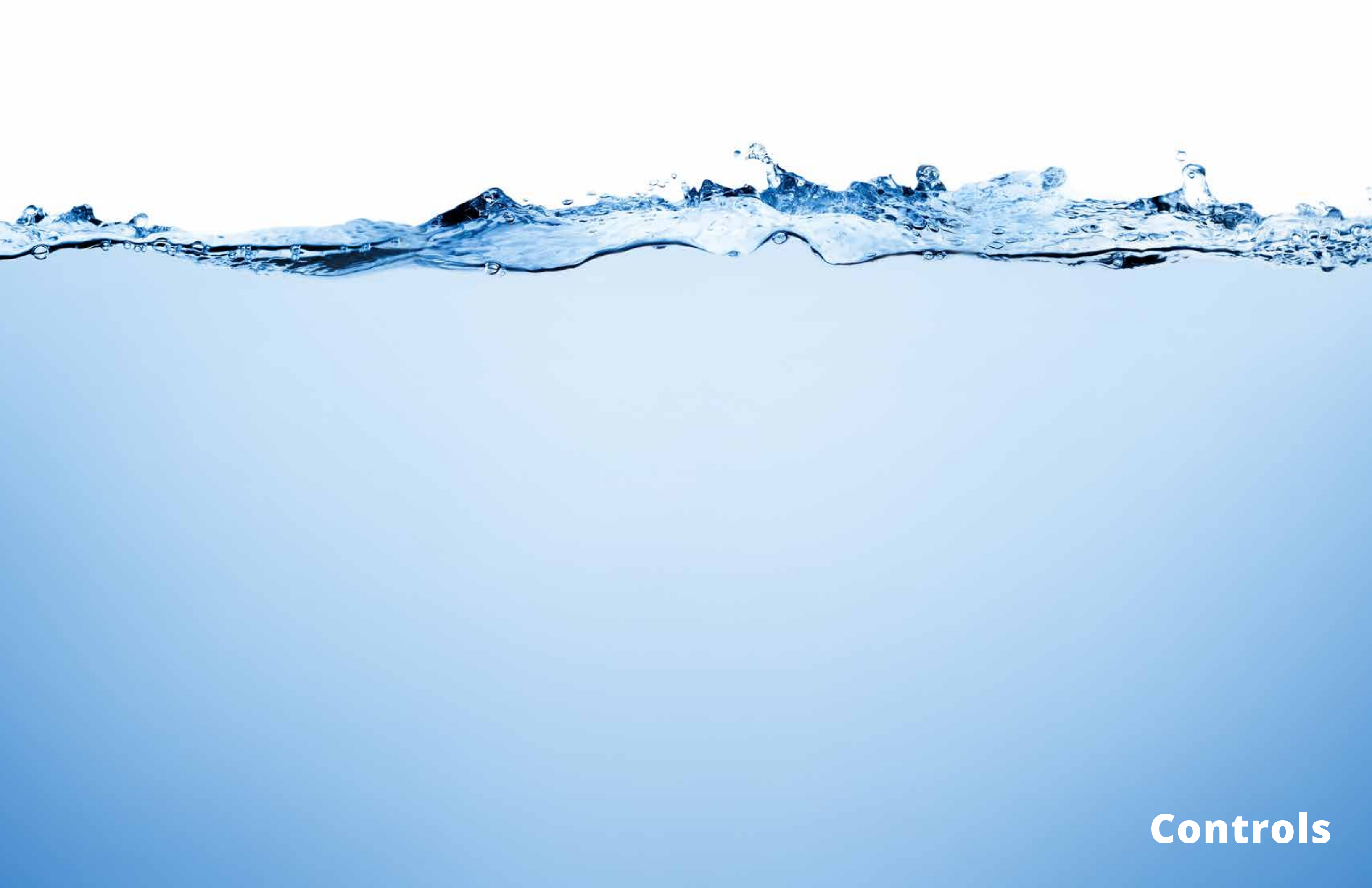
- Process Wastewater Recycling
- Process Wastewater Compliance



Ceramic Microfiltration



Reverse Osmosis



Controls

Monarch

The Monarch system optimizes process variables through perfectly balancing water and energy processing equipment. Monarch Controls can acquire, store, and log data efficiently. This allows for most process variables to be trended, providing you with a true efficiency evaluation. With Monarch Controls, you operate at optimal design efficiency, and realize 100% of your ROI throughout the life of your system.

Features:

- Data Logging
- Remote Access and Control
- Track Process Variables
- Monitor System Operation
- Alerts with Troubleshooting
- Building Management Control System Interface Available

Applications:

- Complete Water System Control and Monitoring

Specifications:

- Allen-Bradley Micrologix 1400 or Compact Logix PLC
- Industrial Computer or Magelis Color HMI



Relay Logic

A cost-effective electrical control method used on smaller systems, where the output of the control circuit is strictly dependent on the action of the input devices. Circuits are populated with relays which, dependent on position or type, provide the designated output.

Features:

- Simple
- Economical
- Compact
- Easy to Service

Applications:

- Equipment Control Circuits

Specifications:

- Designed to UL508A specs

Programmable Logic Controller (PLC)

A method of electrical control logic where a central processing unit reads and evaluates system parameters and can compare these inputs to current and historical values (sequential logic) and provide single or multiple outputs based on a programmed solution. The major differences between relay and PLC logic are combinational versus sequential logic and the speed under which similar tasking can be accomplished.

Features:

- Flexibility
- Easy to Modify
- No Wiring Change
- Expandable

Applications:

- Equipment Control Circuits
- Facility Utility Monitoring and SCADA or SQL Interface

Specifications:

- 120VAC or 24 VDC



Quality Service and Support

Well after the initial installation, Kemco continues to act as a partner delivering superior value and exceptional customer service. We support and service our complete product offering and have extensive knowledge and training available for the products that are integrated into your facility.

With our care, your equipment gets the treatment it needs from the people who know it best.

Questions about your equipment? Time for your next scheduled maintenance? Our well-trained service staff are here to provide you with the highest levels of customer service.

Product Support Services:

- 24/7 emergency service HOTLINE
- Startup and commissioning
- Troubleshooting
- Quick-ship delivery of parts

Maintenance Programs:

- Comprehensive preventative maintenance plans
- Planned, non-emergency corrective maintenance
- Emergency on-site response
- Remote monitoring and diagnosis of internet connected PLC controlled systems
- Monthly reporting plans as part of extended service plans for internet connected PLC controlled systems

Design and Build Services:

- Project management
- Mechanical room design and layout
- Turnkey installation services

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