MISSION

Our mission is to assist our customers in becoming leaders in their respective manufacturing fields. We accomplish this by providing high performance, reliable, and energy efficient process water systems and equipment. Our company and employees are committed to providing the highest quality product in design, manufacturing, installation and customer support.



SERVICES AND CAPABILITIES

Installation and Plant Piping

- Process Water Piping
- Compressed Air Piping
- Rigging
- Structural Steel
- Pipe Insulation
- Pipe Labeling
- System Commissioning and Testing

Ongoing Support

- Customer Operation and Maintenance Training
- Remote System Monitoring
- Spare and Replacement Parts
- Preventive Maintenance Programs
- 24/7 Customer Service

System Controls

- UL Approved System Control Cabinets
- Programmable Logic Controls (PLC)
- Variable Frequency Drive packages (VFDs)
- Integration with Customer-Specified BMS or SCADA Systems

Qualified, licensed and insured piping crews from each location bring years of expertise and knowledge to a wide variety of piping systems. The manufacturing facility has both pipe and certified structural welders on staff in addition to an in-house UL certified electrical panel shop. A new 60,000ft^2 state-of-the-art facility allows us to streamline workflows to provide some of the best deliveries in the industry, while maintaining stringent quality control.

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PROCESS® COOLING

Efficient Heat Transfer by Design

SUPERIOR SOLUTIONS FOR MEDIA FILTERS

- **Designed and Built for Industrial Applications**
- **Bronze Pump and Basket Strainer**
- **NEMA 4 rated Brass Actuator Valves**
- **NEMA 4 rated UL Listed Control Cabinet with Allen Bradley Processor**



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HIGH EFFICIENCY MEDIA FILTERS

Process Cooling Systems High Efficiency Media Filters are configured for either manual or automatic backwashing of the filter bed and are self-contained to provide efficient particulate filtration on systems with high particulate loading. Each filter includes a pump, motor, basket strainer, backwash valves, filter vessel and required controls for either manual or automatic backwashing of the filter bed. All components are rated for outdoor use, are factory assembled with interconnecting piping, and include UL listed electrical. Standard filters are configured for process water backwash but are available configured with city water backwash.

BASE:

High Density Polyethylene Pallet with 4 Way Access 3.6" Fork Slots and Grated Top

PUMP:

Self-priming pump complete with brass volute, pump shaft, and open-faced bronze impeller. Pump will be close coupled to a TEFC motor.

MOTOR:

TEFC, NEMA56 Industrial Frame motor. This motor offers consistent power to promote superior water circulation and filtration, safety feature protecting unit from overload, and a standard drip proof seal to minimize seal burnout and provides for easy maintenance. UL Recognized; CSA Certified. 3 Year Warranty.

STRAINER:

5" Brass Strainer with 2" NPT Connection Point. Unit will come complete with a 5" pump basket, brass pump lid, gasket seal and bronze tee handles with stainless steel studs.

FACEPIPING:

Manual Backwash: Brass piping assembly complete with influent / effluent pressure gauges (0-60 PSI liquid filled), brass interconnecting piping between pump discharge and valve assembly, Schedule 80 PVC filter vessel inlet and filter vessel outlet piping.

Automatic Backwash: Brass piping assembly complete with filter vessel pressure gauge (0-60 PSI liquid filled), brass interconnecting piping between pump discharge and valve assembly, Schedule 80 PVC filter vessel inlet and filter vessel outlet piping.

VALVES:

Manual Backwash: 3-Way manual bronze body ball valve with PTFE seals. Valves will be connected together with a mechanical linkage and a common actuator handle.

Automatic Backwash: 3-Way On/Off forged brass nickel-plated body, 304 stainless steel ball and stem, PTFE seats, L-port, 24-240 VAC, and NEMA 4 rating with Fail Safe actuator.



FILTER VESSEL:

Filter vessel consisting of an inner shell of fiberglass reinforced polyester resin wound over with fiberglass filament. The unit features an inflow diffuser for even distribution of the water flow across the filter bed, and hydraulically balanced PVC internal laterals to maximize water flow and filtration. The filter vessel is fitted with a manual drain fitting, large filter base for stable floor mounting and a manual pressure relief valve. The filter vessel is rated for 50 psi maximum allowable working pressure.

MEDIA:	Silica Filter Sand
Effective Size:	0.72mm
Uniformity Coefficient:	1.7

NOTE: Backwash from external water source (City Water Configuration) includes controls modification to stop pump during backwash. Installing contractor responsible for flow control valve, pressure regulator (maximum 30 psi) and/or backflow preventer, if required. Backwash flow rate, must be no less than 75% and no greater than 100% of the filters designed maximum GPM.

CONTROLS:

Manual Backwash

Manual Motor Protector

- NEMA 4 Rated
- Motor Starter with Overload and Short Circuit Protection
- Fused Disconnect Switch
- On/Off Selector Switch for Pump

Automatic Backwash

Automatic Backwash Control Panel

- NEMA 4 Rated
- Motor Starter with Overload and Short Circuit Protection
- Transformer to convert primary supply to 24 VAC control power for the valves
- Through the door disconnect
- HOA switch for pump motor
- Differential pressure switch mounted on backside of control panel.
- System Alarm Package
  - — Motor Overload Trip, Backwash (Pressure switch activated twice in a 6 hour period), Modulating Valve Fault, and Pressure Switch Fault Alarms



HIGH EFFICIENCY MEDIA FILTERS

Model Number	Backwash Configuration	Base Dimensions	Pump HP	Max GPM	TDH (Ft)	Full Load Current						Filter Media		Operating Weight (Lbs)
						Single Phase			Three Phase			Area (Ft²)	Vol (Ft³)	
						115V	208V	230V	208V	230V	460V			
HEFF-20	Manual	48" x 40"	1	40	55	16A	8.8A	8A	4.8A	4.2A	2.1A	2.15	2.19	473
	Automatic	48" x 40"	1	40	55	20A	11.2A	10.1A	7.2A	6.3A	3.2A	2.15	2.19	515
HEFF-24	Manual	48" x 40"	1.5	60	55	20A	11A	10A	6.9A	6A	3A	3.01	3.39	820
	Automatic	48" x 40"	1.5	60	55	24A	13.4A	12.1A	9.3A	8.1A	4.1A	3.01	3.39	860
HEFF-30	Manual	48" x 40"	2	80	55	—	13.2A	12A	7.8A	6.8A	3.4A	4.74	5.09	1000
	Automatic	48" x 40"	2	80	55	—	14.6A	14.1A	10.2A	8.9A	4.5A	4.74	5.09	1050

Sand filter specifications and electrcial data is subject to change without notice.

1 Cubic foot of media = 110 lbs.

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