

FLEXIBILITY
LATITUDE
ENGINEERING
EXECUTION
EXCELLENCE

H₂O_{SS} Selection Matrix Pretreatment Components

Product Description/Equipment Specifications

*Process Water Systems designed with ultimate **FLEXIBILITY** in mind.*



General Description:

The purpose of Pretreatment components is to prepare city feed water for further purification by downstream components. Depending on the modules chosen, Pretreatment can remove the particulate, hardness and chlorine that would be detrimental to downstream membranes. In addition, Pretreatment can also aid in the reduction of organics that may be detrimental to final water quality.

Mechanical Description:

A powder coated carbon steel structural frame supports the major components. These frames are configured to provide maximum support while allowing access for maintenance and operation. If more than one option is selected, they will be mounted on a single frame

The standard piping for the pre-treatment components is schedule 80 PVC (other materials available). The typical Pretreatment components are built to install from left to right and be positioned lengthwise along a wall (custom configurations available).

Utility Connections:

Utility connections for the Pretreatment components are simple; requiring a feed water source, a power source, drain access, and connections to the downstream equipment.

Electrical Service (If Applicable):	115 VAC, 1 phase, 60 Hz
Feed Water Source:	EPA Drinking Water Standards
Pretreatment outlet:	Connection to downstream equipment
Drain connections:	Direct access to drain

Factory Procedures:

Assembly	Fully assembled at factory.
Piping / Wiring	Fully wired and piped at the factory.
Testing	Hydrostatic pressure test, Factory functional test (<i>Optional FAT available</i>).
Shipping preparation	Crated for domestic shipment (some components may be removed for protection prior to shipment). Global freight preparation available.

Regulations and Standards:

Quality System	Factory procedures.
Plastic Joining	PVC solvent welding.
Carbon Steel Frame	ASME Compliant.
Electrical and Controls	Underwriters Laboratory (UL), National Electrical Code (NEC).
NEMA rating	NEMA 4 / 12
Pipe Pitching	Piping on skids is NOT pitched - it is plumb and true. If system pitching is required, please request at time of proposal.
Seismic rating	None (<i>Optional Seismic calculations available, must request at time of proposal</i>).

Pretreatment Component Selection Matrix

Select Select Select Select Select Select Select Select Select Select Select

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EXAMPLE PART NUMBER

PT 020 PVC X MM020 SD020 X X EXC X X

EXAMPLE ADDITIONAL SERVICES

SZD X X X X X

FIELD 1	Pretreatment Component(s)	
	Code	Code Description
	PT	Pretreatment Component(s)

FIELD 2	Flow and Pipe Size:	
	Enter the code for the desired treated water flow.	
	Code	Code Description
	005	5 GPM (19 LPM), 3/4" (25mm) Pipe
	010	10 GPM (38 LPM), 1" (32mm) Pipe
	020	20 GPM (76 LPM), 1¼" (40mm) Pipe
	030	30 GPM (132 LPM), 1½" (50mm) Pipe
	050	50 GPM (189 LPM), 2" (63mm) Pipe
	075	75 GPM (284 LPM), 2½" (75mm) Pipe
100	100 GPM (378 LPM), 3" (90mm) Pipe	

FIELD 3	Pipe Material:	
	Enter the code for the desired piping material. If another material is required, please contact the Customer Service Department at (813) 888-6300 or email inquiries@psconline.net.	
	Code	Code Description
	PVC	Schedule 80 PVC

FIELD 4	Inlet Pressure Regulator:	
	Enter the appropriate code if an inlet pressure regulator is required. If a pressure regulator is not required, place an X in this field	
	Code	Code Description
	1R	Pressure Regulating Valve Required

FIELD 5	Pre-Filtration:	
	Enter the code for the appropriate pre-filtration component. If pre-filtration is not required, place an X in this field. Included with the pre-filtration components are inlet and outlet pressure gauges, sample valves and isolation valves. ⁴	
	Code	Code Description
	PF	Cartridge Pre-Filter Housing ¹
	MM005	NextSand Filter, 10" x 40" (25cm x 101cm)
	MM010	NextSand Filter, 14" x 65" (36cm x 165cm)
	MM020	NextSand Filter, 18" x 65" (46cm x 165cm)
	MM030	NextSand Filter, 24" x 72" (61cm x 183cm)
MM071	NextSand Filter, 36" x 72" (92cm x 183cm)	

FIELD 6	Water Softener: Enter the code for the appropriate water softener. If a water softener is not required, place an X in this field. Included with the water softener are inlet and outlet pressure gauges, sample valves and isolation valves. ⁴	
	Code	Code Description
	S005	Simplex Water Softener, 12" x 52" (31cm x 132cm)
	S010	Simplex Water Softener, 16 x 65 (41cm x 165cm)
	S020	Simplex Water Softener, 24" x 72" (61cm x 183cm)
	S030	Simplex Water Softener, 30" x 72" (70cm x 183cm)
	S050	Simplex Water Softener, 36" x 72" (92cm x 183cm)
	S071	Simplex Water Softener, 42" x 72" (106cm x 183cm)
	SD005	Duplex Water Softener, 12" x 52" (31cm x 132cm)
	SD010	Duplex Water Softener, 16 x 65 (41cm x 165cm)
	SD020	Duplex Water Softener, 24" x 72" (61cm x 183cm)
	SD030	Duplex Water Softener, 30" x 72" (70cm x 183cm)
	SD050	Duplex Water Softener, 36" x 72" (92cm x 183cm)
	SD071	Duplex Water Softener, 42" x 72" (106cm x 183cm)
	ST005	Twin Alternating Water Softener, 12" x 52" (31cm x 132cm)
	ST010	Twin Alternating Water Softener, 16 x 65 (41cm x 165cm)
	ST020	Twin Alternating Water Softener, 24" x 72" (61cm x 183cm)
ST030	Twin Alternating Water Softener, 30" x 72" (70cm x 183cm)	
ST050	Twin Alternating Water Softener, 36" x 72" (92cm x 183cm)	

FIELD 7	Break Tank: Enter the code for the appropriate break. If a break tank is not required, place an X in this field. If a custom sized break tank is required, please contact the Customer Service Department at (813) 888-6300 or inquiries@psconline.net. Included with the break tank are an inlet solenoid valve, drain valve, return block and bleed valves, a sprayball and a 3-point level switch. ⁴	
	Code	Code Description
	55	PT005 & PT010: 55 Gallon (208 Liter) Polyethylene Break Tank
	200	PT020, PT030 & PT050: 200 Gallon (757 Liter) Polyethylene Break Tank
	500	PT075 & PT100: 500 Gallon (1,892 Liter) Polyethylene Break Tank

FIELD 8	Re-Pressurization Pump and Flow Meter: Enter the appropriate code if a re-pressurization pump(s) and flow meter are required. If a re-pressurization pump and flow meter are not required, place an X in this field. Included with the re-pressurization pump(s) and flow meter are a check valve(s), throttling diaphragm valve(s) and a pressure gauge. ⁴	
	Code	Code Description
	P1	Single CRN Multi-Stage Centrifugal Pump, 316SS Flanged and Flow Meter 115VAC/1PH/60Hz Motor-5 to 50 GPM 230/480VAC/3PH/60Hz Motor-75-100GPM ⁵
	P2	Duplex CRN Multi-Stage Centrifugal Pumps, 316SS Flanged and Flow Meter 115VAC/1PH/60Hz Motor-5 to 50 GPM 230/480VAC/3PH/60Hz Motor-75-100GPM ⁵

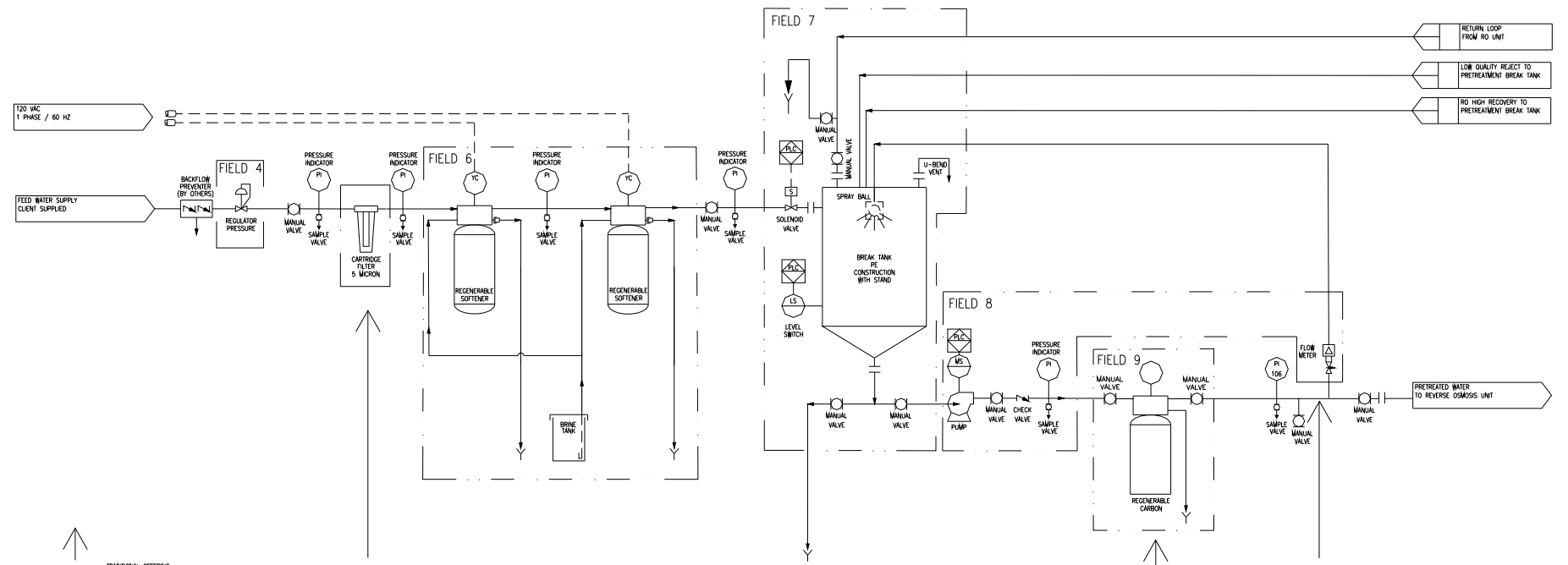
FIELD 9	Carbon Filtration: Enter the code for the appropriate carbon filtration component. If Carbon Filtration is not required, place an X in this field. Included with the carbon filtration components are inlet and outlet pressure gauges, sample valves and isolation valves. For the EXC option, all interconnecting hoses and carbon tanks are supplied by Others. ⁴	
	Code	Code Description
	EXC	Exchange Carbon Filter(s) Skid Connection(s) ²
	BC005	Backwashable Carbon Filter, 12" x 52" (31cm x 132cm)
	BC010	Backwashable Carbon Filter, 16 x 65 (41cm x 165cm)
	BC020	Backwashable Carbon Filter, 24" x 72" (61cm x 183cm)
	BC030	Backwashable Carbon Filter, 30" x 72" (70cm x 183cm)
	BC050	Backwashable Carbon Filter, 36" x 72" (92cm x 183cm)
	BC075	Backwashable Carbon Filter, 42" x 72" (106cm x 183cm)
BC100	Backwashable Carbon Filter, 48" x 72" (122cm x 183cm)	

FIELD 10	Ultraviolet Unit-Bacteria Destruct: Enter the code for the appropriate if an ultraviolet unit is required. If an ultraviolet unit is not required, place an X in this field. Included with the ultraviolet unit are a set of stainless steel light traps and an outlet pressure gauge and sample valve. ⁴	
	Code	Code Description
	UV	Bacteria Destruct Ultraviolet Unit with Light Traps

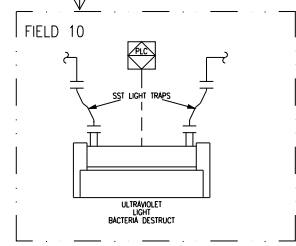
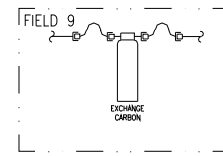
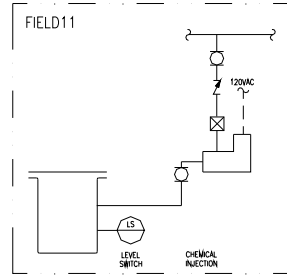
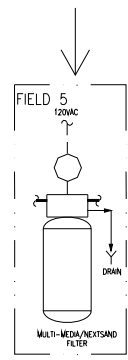
FIELD 11	Chemical Injection System: Enter the code if a chemical injection system is required for your system. If a chemical injection system is not required, place an X in this field. Included with the chemical injection system are a chemical pump, 35-gallon chemical tank, level switch and applicable valves included with the pump from the manufacturer. ⁴	
	Code	Code Description
	CHM	Chemical Injection System ³

FIELD 12	Additional Services: Enter the codes for the desired additional services.	
	Code	Code Description
	FSP	Factory System Passivation
	PGC	Pressure Gauge Calibration
	WHD	Welding Documentation
	SZC	Seismic Zone Wet Stamp
	SZD	Seismic Zone Drawings Only (Calculations by Others)
	BSI	Boroscope Inspection

NOTES:	¹ All applicable filter cartridges are provided by Others.
	² All applicable exchange carbon tanks and hoses are supplied by Others
	³ All applicable chemicals are supplied by Others.
	⁴ If multiple selections are chosen and components such as pressure gauges, sample valves and manual valves become redundant, the redundant components will be removed.
	⁵ A 3 Phase pump selection is mandatory for a required flow rate of 75 GPM or greater.



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TRADITIONAL OFFERING
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ALTERNATE TECHNOLOGIES



- NOTES:
1. ALL APPLICABLE FILTER CARTRIDGES ARE PROVIDED BY OTHERS.
 2. ALL APPLICABLE EXCHANGE CARBON TANKS AND HOSES ARE SUPPLIED BY OTHERS.
 3. ALL APPLICABLE CHEMICALS ARE SUPPLIED BY OTHERS.
 4. IF MULTIPLE SELECTIONS ARE CHOSEN AND COMPONENTS SUCH AS PRESSURE GAUGES, SAMPLE VALVES AND MANUAL VALVES BECOME REDUNDANT, THE REDUNDANT COMPONENTS WILL BE REMOVED.
 5. A 3-PHASE PUMP SELECTION IS MANDATORY FOR A REQUIRED FLOW RATE OF 75 GPM OR GREATER.