FLUIDICS

Water Cooled Scroll

Packaged Chillers

1 to 56 Nominal Tons

J&M Fluidics Inc. Ph (888)539-1731 Fx (267) 203-8786 www.jmchillers.com

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To compliment our complete line of standard products that J&M Fluidics Inc. offers, we also have the ability and resources to custom design and build equipment to a customers specific needs.
Please contact the factory or your J&M Fluidics representative for a special application.

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Due to J&M Fluidics policy of continuous product improvement, J&M reserves the right to make changes without notice. Concept drawings in this booklet are representations of the equipment shown. Contact the factory for specific unit drawings.

J&M Fluidics Mission

"The J&M Fluidics mission is to provide innovative, high-quality process chillers, tank and pump skids, custom fluid cooling solutions and economizer products to the U.S. and international markets at competitive prices. J&M Fluidics strives to target medical, industrial, commercial, OEM, and residential markets and have its name in the industry become synonymous with process chillers. J&M Fluidics offers quality process fluid chillers built in the U.S. by Americans that are designed, manufactured, and delivered by quality people."

Company Profile

J&M Fluidics, Inc. was established in February 2013 with over 50+ years chiller experience between our management, sales, engineering and manufacturing team. Located in eastern Pennsylvania, our 20,000sqft facility has the equipment and personnel necessary to manufacture our chillers with the highest quality that our customers expect and deserve. Customer satisfaction is our number one priority. It starts with the initial contact and doesn't end there. Our team is passionate about our products and abilities to meet or exceed our customers expectation of product construction, performance and support. J&M Fluidics dedication to continuous product improvement is evident in the relationships we have established and cultivated.

Typical Chiller Applications

Commercial, Industrial & Residential Cooling Applications

Air Conditioning • Oil • Injection Molding • Plating Process • Welding Machine • Computer Room Air Conditioning • Laser • Dry Cleaning Machine • Jacket Cooling Water-Cooled Condenser • Printing Processing • Swimming Pool • *Aquariums • Low Temperature Process*

Medical & Pharmaceutical Applications

M.R.I. Magnet • Operating Room Air Conditioning • P.E.T. Scan • C.A.T. Scan • Lab Testing Hypothermia Pads and Blankets

Food & Beverage Industry Applications

Bakery Processing • Brewery • Winery • Drinking Water Fountain • Batch Cooling • Ice machine Pre-cool Fruit and Vegetable Washing and Processing

P= Packaged IE= Indoor Evaporator OC= Outdoor Condenser

Z= Scroll Compressor S= Semi Hermetic Compressor

A= Air Cooled W= Water Cooled Condensing Method

T= Tank Model PT= PolyTank

10= 10 Nominal Ton

S= Single Compressor D= Dual Compressor

Electrical Requirement:	E= 208/230-1-60	I= 575-3-60	N= 200-3-60
	F= 208/230-3-60	J= 220-1-60	P= 230-3-60
	G= 460-1-60	K= 200/208-3-50	
	H= 460-3-60	L= 380-3-50	

Refrigerant: 4= R134A 5= R407C 6= R404A

Caution

Low ambient, or lower leaving water temperatures, can require the recirculation of glycol solutions or other fluid blends. These solutions can effect unit capacities. Please consult the factory on these or other special applications for proper chiller and component sizing.

To properly select an air-cooled packaged chiller, the following information must be known:

1. The required cooling capacity, BTUH.
2. Delta T of entering and leaving fluid temperatures.
3. Fluid factor (ex. water = 500).
4. GPM of process fluid to be circulated.
5. Design ambient air temperature.

If you know any three of the items 1 through 4 above, you can calculate the fourth by using the formulas below.

For 100% water:

Cooling capacity (in BTUH) = GPM x Delta T x 500 GPM =Capacity (in BTUH) / Delta T x 500 Delta T = Capacity (in BTUH) / GPM x 500

Sample selection:

Select a water-cooled, packaged chiller to cool 15 GPM of 100% water from 54°F to 44°F. Design condensing temperature 105°F.

Find:

Water-cooled chiller model.

Solution:

1. Chilled fluid Delta T = 54°F - 44°F = 10°F
2. Capacity (in BTUH) = 15 GPM x 10°F Delta T x 500 = 75,000 BTUH
3. From the PZW chiller capacity tables, it can be determined that the PZW7S or PZW7D has the capacity to meet the requirements.

1S - 52D Scroll Chillers

Model	Compressor	LWT °F	105°F Condensing TONS	KW	EER
1S	ZR16K5E	**42.0**	1.05	1.10	11.9
		44.0	1.10	1.10	12.5
		45.0	1.13	1.10	12.8
		50.0	1.26	1.10	14.4
1.5S	ZS15KAE	**42.0**	1.77	1.73	12.7
		44.0	1.84	1.72	13.3
		45.0	1.88	1.72	13.5
		50.0	2.07	1.69	15.2
2S	ZS19KAE	**42.0**	1.99	1.94	12.7
		44.0	2.08	1.94	13.3
		45.0	2.12	1.93	13.6
		50.0	2.33	1.90	15.2
2.5S	ZS26KAE	**42.0**	2.98	2.56	14.4
		44.0	3.09	2.55	15.0
		45.0	3.16	2.55	15.3
		50.0	3.48	2.51	17.2
3S	ZS29KAE	**42.0**	3.33	2.85	14.5
		44.0	3.47	2.84	15.1
		45.0	3.53	2.84	15.4
		50.0	4.02	2.79	17.3
4S	ZB38KCE	**42.0**	4.25	3.88	13.5
		44.0	4.46	3.89	14.1
		45.0	4.54	3.90	14.4
		50.0	5.17	3.93	15.8
4.5S	ZB42KCE	**42.0**	4.46	4.64	12.0
		44.0	4.63	4.63	12.4
		45.0	4.71	4.40	11.6
		50.0	5.17	4.61	13.9
5S	ZB45KCE	**42.0**	5.19	4.54	14.2
		44.0	5.42	4.55	14.8
		45.0	5.53	4.56	15.0
		50.0	6.12	4.58	16.5
7S	ZB58KCE	**42.0**	6.75	5.98	14.0
		44.0	7.06	5.99	14.6
		45.0	7.21	5.99	14.9
		50.0	7.99	6.00	16.5
8S	ZB66KCE	**42.0**	7.66	6.70	14.2
		44.0	7.99	6.72	14.7
		45.0	8.17	6.73	15.0
		50.0	9.08	6.78	16.6
9S	ZB76KCE	**42.0**	9.00	8.02	13.9
		44.0	9.42	8.04	14.5
		45.0	9.58	8.05	14.8
		50.0	10.67	8.09	16.3
11S	ZB95KCE	**42.0**	11.04	9.82	13.9
		44.0	11.54	9.85	14.5
		45.0	11.79	9.87	14.8
		50.0	13.17	9.98	16.3

Model	Compressors	LWT °F	105°F Condensing TONS	KW	EER
7D	ZS29KAE	**42.0**	6.7	5.7	14.5
		44.0	6.9	5.7	15.1
		45.0	7.1	5.7	15.4
		50.0	8.0	5.6	17.3
9D	ZB38KCE	**42.0**	8.5	7.8	13.5
		44.0	8.9	7.8	14.1
		45.0	9.1	7.8	14.4
		50.0	10.3	7.9	15.8
9.5D	ZB42KCE	**42.0**	8.9	9.3	12.0
		44.0	9.3	9.3	12.4
		45.0	9.4	8.8	11.6
		50.0	10.3	9.2	13.9
10D	ZB45KCE	**42.0**	10.4	9.1	14.2
		44.0	10.8	9.1	14.8
		45.0	11.1	9.1	15.0
		50.0	12.2	9.2	16.5
13D	ZB58KCE	**42.0**	13.5	12.0	14.0
		44.0	14.1	12.0	14.6
		45.0	14.4	12.0	14.9
		50.0	16.0	12.0	16.5
15D	ZB66KCE	**42.0**	15.3	13.4	14.2
		44.0	16.0	13.4	14.7
		45.0	16.3	13.5	15.0
		50.0	18.2	13.6	16.6
18D	ZB76KCE	**42.0**	18.0	16.0	13.9
		44.0	18.8	16.1	14.5
		45.0	19.2	16.1	14.8
		50.0	21.3	16.2	16.3
22D	ZB95KCE	**42.0**	21.8	20.2	13.3
		44.0	22.8	20.3	13.8
		45.0	23.3	20.3	14.1
		50.0	25.9	20.6	15.5
25D	ZB114KCE	**42.0**	25.5	24.9	12.7
		44.0	26.7	25.0	11.2
		45.0	27.3	25.1	13.4
		50.0	30.3	25.4	14.7
35D	ZR250KCE	**42.0**	34.5	31.8	13.4
		44.0	36.0	32.0	13.9
		45.0	36.8	32.0	14.3
		50.0	41.0	32.2	15.7
43D	ZR300KCE	**42.0**	41.7	38.4	13.4
		44.0	43.5	38.6	13.9
		45.0	44.5	38.6	14.3
		50.0	49.5	39.0	15.7
52D	ZR380KCE	**42.0**	52.7	49.0	13.3
		44.0	55.0	49.2	13.9
		45.0	56.2	49.4	14.1
		50.0	62.3	49.8	15.5

1. Capacities on this chart are based on refrigerant R407C. Lower leaving water or low ambient can require the use of a glycol solution or other fluid blends. These solutions affect unit capacities. Please consult the factory on these or other special fluids.
2. KW input is for compressor(s) only.
3. EER = Energy Efficiency Ratio (BTU/watt-hour). Power input includes compressor (s) and control power.

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Packaged Water-Cooled Chillers

Standard Features *(All Models)*

- **ETL listed to UL1995 & CAN/CSA C22.2 No. 236-11, 4th edition, 10/14/2011**
- **Single point power connection**
- **Idec microprocessor controller with easy to use touch screen display**
- **STAINLESS STEEL**, brazed plate evaporator
- **Scroll** compressor with crankcase heater
- **Suction accumulator**
- **Water flow switch**
- **Hot gas by-pass capacity control**
- **24V control transformer**
- **Control circuit fusing**
- Condenser(s): Coaxial up to PZW22D
- Condenser(s): Shell and Tube PZW26D through PZW52D
- Compressor motor contactor
- Painted (Powder Coated), galvanized sheet metal cabinet
- 1/2" insulation on all water and refrigerant lines
- Liquid line drier, sight glass, solenoid, TXV
- Complete refrigerant charge from factory

Tank Models Only

- **STAINLESS STEEL** storage tank with 1/2" insulation
- Fused, **STAINLESS STEEL** re-circulation pump for tank operation with ball valve and cleanable strainer
- Tank pressure relief valve, vent and drain hose bibs

Available Options *(Most Models)*

VPN Router

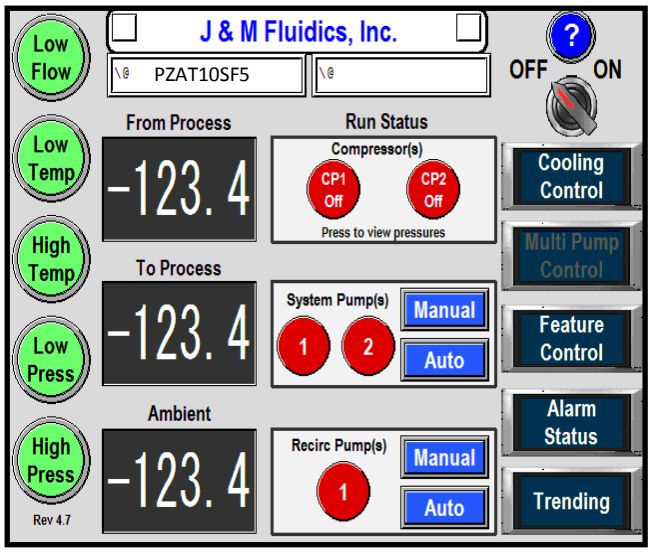
- **Remote Idec touchscreen control panel**
- **Industrial VPN Router**
- **5 Port Ethernet Switch**
- **BacNet Gateway**
- **Pump VFD controller**
- 4 year extended compressor warranty
- Casters *(factory mounted)*
- *Condenser water regulating valve*
- 115 volt (rain tight) service outlet
- Non Fused disconnect
- **Phase monitor**, line voltage monitor offering protection against phase loss/reversal, unbalance and hi/lo voltage
- Compressor fusing
- Factory installed evaporator heat tape freeze protection
- Low flow by-pass valve
- Fused, **STAINLESS STEEL** process pump
- Dual system pump with manual changeover (Some Models)
- Dual system pump with auto changeover (Some Models)
- Pump suction isolation valve
- Water pressure gauge set
- Water flow meter
- Auto city water changeover panel with filter
- Stainless steel, SCH80 PVC or Polypropylene piping for de-ionized and reverse osmosis water systems

Tank Models Only

- Storage Tank Sight Glass
- Tank low liquid level indicator

Remote Idec Touchscreen Control Panel

J&M - Touch Screen - User Interface



J&M Touch Screen Interface - Home Screen

Description: Harness the power with an industrial quality Human Machine Interface (HMI) that communicates with the Pentra MicroSmart Programmable Logic Controller (PLC).

Touch Screen Key Chiller Control Features:

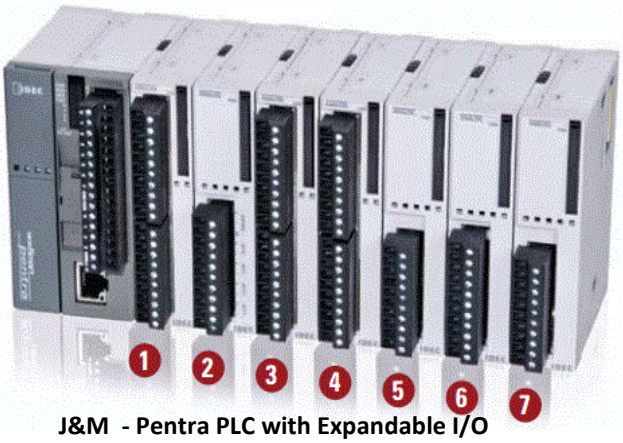
- **USB update slot for IN-PLACE HMI and PLC software updates available from JMCHILLERS.COM.**
- CE, UL Listed
- Built in Web Server
- SD slot for optional data storage
- Ultra bright display screen with auto screen saver
- Real-time Pressure and Temperature readings
- Real-Time SuperHeat, Subcooling, Chiller Supply and Chiller Return temperature graphical trending
- Automatic COMPRESSOR Lag/Lead with FIVE operational modes
- Automatic SYSTEM PUMP Lag/Lead with FIVE operational modes
- Factory configured for ALL J&M's available chiller options.

J&M's - Pentra Microsmart, Programmable Logic Controller (PLC)

Description: Best in class PLC now available for all J&M production chiller models. Factory installed and programmed into your next J&M Process Chiller. The Pentra PLC will seamlessly interface with our new HMI touch screen.

Pentra Key Features:

- CE, UL Listed
- Highly accurate and fast performance
- Embedded Ethernet Port
- Modbus TCP, RTU and ASCII for integration with most Building Automation Systems (BAS)
- Optional BacNet and LONWORKS communication protocols via third party bridge hardware
- Expandable I/O, ideal for custom chiller control projects.
- I/O status indicators on Pentra and I/O modules.
- Optional service alerts. Get an email or phone call about potential maintenance or service issues.



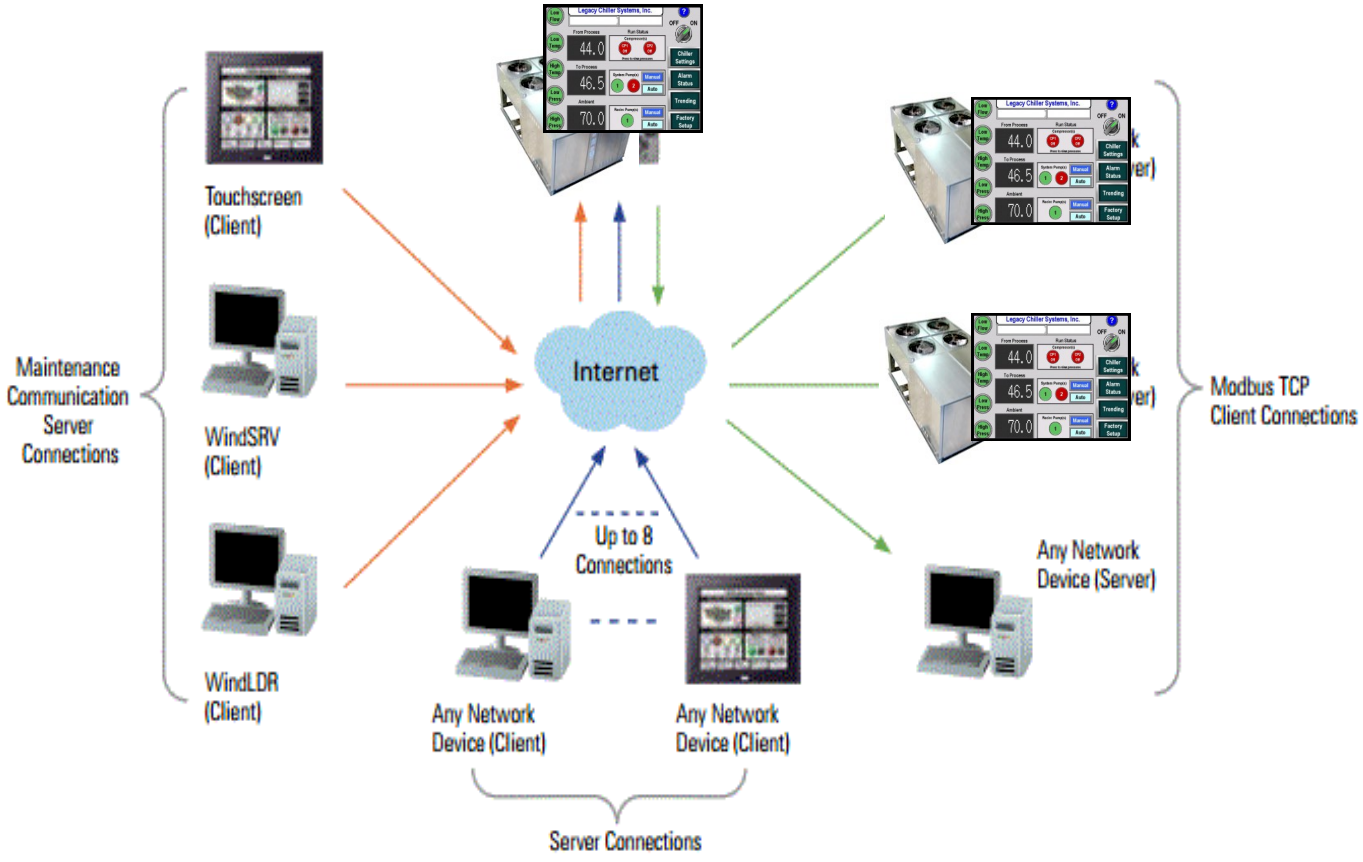
J&M - Pentra PLC with Expandable I/O

J&M - Pentra Microsmart, Programmable Logic Controller (PLC)

NOW offering extended connectivity options.

Up to 14 Simultaneous Connections

Using Maintenance Communication Server connections, up to 3 Client devices, such as an OI touchscreen, WindLDR software and SCADA OPC server such as WindSRV (KepServerEx), can simultaneously communicate with your MicroSmart Pentra PLC. Using Server Connections, an additional 8 connections can be established and each connection can be defined as Maintenance, User Communication or Modbus TCP server protocol. On top of that, another 3 connections can be configured as Modbus TCP client protocol, with a maximum of 255 requests. Each request can be for different slave devices with different IP addresses on the network.



IMPORTANT CONSIDERATION: J&M offers an optional Level 3 managed switch allowing MODBUS connectivity to the Pentra MicroSmart PLC controller. In most cases, end users firewall settings will need to be updated to allow remote WAN connectivity. J&M Fluidics can provide fee based network support for special Level 3 switch configuration.

Single Circuit Packaged Water Cooled Chillers

Chiller Model	BTUH 105°F Cond. 45°F LWT	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	MCA	M.O.P.	Chiller Fluid Conn.	Weight Pounds
					Qty.	HP						
PZW1SE5	13,500	36	34	36	1	1.3	9.3	40.3	15	20	1"FPT	210
PZW1.5SE5	22,500	36	34	36	1	2.0	15.0	68	20	30	1"FPT	215
PZW1.5SF5							8.9	58	15	20		
PZW1.5SH5							4.6	29	15	15		
PZW1.5SI5							3.4	24	15	15		
PZW2SE5	25,400	36	34	36	1	2.5	15.7	75	20	35	1"FPT	215
PZW2SF5							11.1	73	15	25		
PZW2SH5							5.7	38	15	15		
PZW2SI5							4.2	28	15	15		
PZW2.5SE5	37,900	36	34	36	1	3.5	22.1	104	30	45	1"FPT	245
PZW2.5SF5							14.3	93	20	30		
PZW2.5SH5							6.4	48	15	15		
PZW2.5SI5							5.3	38	15	15		
PZW3SE5	42,400	36	34	36	1	4	24.3	137	35	50	1"FPT	340
PZW3SF5							17.1	114	25	35		
PZW3SH5							7.9	58	15	15		
PZW3SI5							5.8	43	15	15		
PZW4SE5	54,500	46	34	36	1	5	30.1	175	40	60	1"FPT	400
PZW4SF5							20.7	128	30	45		
PZW4SH5							8.9	63	15	20		
PZW4SI5							7.1	50	15	15		
PZW4.5SE5	56,500	46	34	36	1	5	27.9	129	35	60	1"FPT	425
PZW5SF5	66,400	46	34	36	1	6	20.7	156	30	45	1"FPT	450
PZW5SH5							11.5	75	15	25		
PZW5SI5							7.9	54	15	15		
PZW7SF5	86,500	46	34	36	1	8	32.1	195	45	70	1.25"FPT	525
PZW7SH5							16.4	95	25	35		
PZW7SI5							12.0	80	15	25		
PZW8SF5	98,000	46	34	36	1	9	33.6	225	45	70	1.25"FPT	585
PZW8SH5							17.3	114	25	35		
PZW8SI5							13.5	80	20	30		
PZW9SF5	115,000	46	34	36	1	10	41.4	239	60	90	1.25"FPT	600
PZW9SH5							19.2	125	25	40		
PZW9SI5							13.8	80	20	30		
PZW11SF5	139,500	46	34	36	1	12	53.6	300	70	110	1.25"FPT	725
PZW11SH5							24.3	150	35	50		
PZW11SI5							20.7	109	30	45		

1) The calculations for the MCA and MOP are based on requirements of NFPA 70, the National Electrical Code (NEC) and CSA C22.1, the Canadian Electrical Code (CEC). The MCA is the minimum wire size needed to guarantee that the wiring will not overheat under any operating conditions. The MOP is the maximum allowable circuit breaker size that will properly disconnect power to the equipment under any anticipated fault condition.

2) Weights are based on models with standard features only. Weights will increase with each added option. Consult factory.

Dual Circuit Packaged Water Cooled Chillers

Chiller Model	BTUH 105°F Cond 45°F	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	MCA	M.O.P.	Chiller Fluid Conn.	Weight Pounds
					Qty.	HP						
PZW7DE5	84,800	65	34	36	2	4	25.0	132	60	80	1.25"FPT	725
PZW7DF5							14.6	115	35	45		
PZW7DH5							6.9	48	20	20		
PZW7DI5							5.9	40	15	15		
PZW9DE5	109,000	65	34	36	2	5	30.1	175	70	90	1.25"FPT	750
PZW9DF5							20.7	128	50	60		
PZW9DH5							8.9	63	20	25		
PZW9DI5							7.1	50	20	20		
PZW9.5DE5	113,000	65	34	36	2	5	27.9	129	70	90	1.25"FPT	775
PZW10DF5	132,800	65	34	36	2	6	20.7	156	50	60	1.25"FPT	800
PZW10DH5							11.5	75	30	35		
PZW10DI5							7.9	54	20	25		
PZW13DF5	173,000	75	34	36	2	8	32.1	195	80	100	1.25"FPT	900
PZW13DH5							16.4	95	40	50		
PZW13DI5							12.0	80	30	35		
PZW15DF5	196,000	75	34	36	2	9	33.6	225	80	100	1.25"FPT	965
PZW15DH5							17.3	114	40	50		
PZW15DI5							13.5	80	35	40		
PZW18DF5	230,000	75	34	36	2	10	41.4	239	100	125	1.5"FPT	975
PZW18DH5							19.2	125	50	60		
PZW18DI5							13.8	80	35	45		
PZW22DF5	279,000	75	34	36	2	12	53.6	300	125	150	1.5"FPT	1000
PZW22DH5							24.3	150	60	70		
PZW22DI5							20.7	109	45	60		
PZW26DF5	327,000	85	34	59	2	15	60.0	340	135	195	2"MPT	1950
PZW26DH5							31.4	173	80	100		
PZW26DI5							25.0	132	60	80		
PZW35DF5	442,000	85	34	59	2	20	81.4	505	200	250	2"MPT	2200
PZW35DH5							37.9	225	90	110		
PZW35DI5							32.1	180	80	100		
PZW43DF5	534,000	100	34	59	2	25	100.0	500	225	300	2"MPT	2350
PZW43DH5							48.6	250	110	150		
PZW43DI5							36.4	198	90	110		
PZW52DF5	674,000	100	34	59	2	30	121.4	599	300	350	2.5"MPT	2500
PZW52DH5							59.3	310	150	175		
PZW52DI5							47.1	239	110	150		

1) The calculations for the MCA and MOP are based on requirements of NFPA 70, the National Electrical Code (NEC) and CSA C22.1, the Canadian Electrical Code (CEC). The MCA is the minimum wire size needed to guarantee that the wiring will not overheat under any operating conditions. The MOP is the maximum allowable circuit breaker size that will properly disconnect power to the equipment under any anticipated fault condition.

2) Weights are based on models with standard features only. Weights will increase with each added option. Consult factory.

Packaged Water Cooled Chillers With Stainless Steel Tank

Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA	LRA	Recirculation Pump FLA	MCA	M.O.P.	Reservoir Gal.	Chiller Fluid Conn	Weight Pounds
					Qty.	HP	Ea.	Ea.						
PZWT1SE5	14,000	36	34	64.5	1	1.3	9.3	40.3	5.1	20	25	20	1"FPT	450
PZWT1.5SE5	18,000	36	34	64.5	1	2	15	68	5.1	25	35	20	1"FPT	500
PZWT1.5SF5							8.9	58	5.1	20	25			
PZWT1.5SH5							4.6	29	1.3	15	15			
PZWT1.5SI5							3.4	24	0.72	15	15			
PZWT2SE5	22,000	36	34	64.5	1	2.5	15.7	75	5.1	25	40	20	1"FPT	550
PZWT2SF5							11.1	73	5.1	20	30			
PZWT2SH5							5.7	38	1.3	15	15			
PZWT2SI5							4.2	28	0.72	15	15			
PZWT2.5SE5	28,800	36	34	64.5	1	3.5	22.1	104	5.1	35	50	20	1"FPT	600
PZWT2.5SF5							14.3	93	5.1	25	35			
PZWT2.5SH5							6.4	48	1.3	15	15			
PZWT2.5SI5							5.3	38	0.72	15	15			
PZWT3SE5	36,000	36	34	64.5	1	4	24.3	137	5.1	40	50	20	1"FPT	650
PZWT3SF5							17.1	114	5.1	30	40			
PZWT3SH5							7.9	58	1.3	15	20			
PZWT3SI5							5.8	43	0.72	15	15			
PZWT4SE5	49,200	46	34	69	1	5	30.1	175	5.1	45	70	50	1"FPT	700
PZWT4SF5							20.7	128	5.1	35	50			
PZWT4SH5							8.9	63	1.3	15	20			
PZWT4SI5							7.1	50	0.72	15	15			
PZWT4.5SE5	51,600	46	34	69	1	5	27.9	129	5.1	40	60	50	1"FPT	725
PZWT5SF5	55,200	46	34	69	1	6	20.7	156	5.1	30	50	50	1"FPT	775
PZWT5SH5							11.5	75	1.3	20	25			
PZWT5SI5							7.9	54	0.72	15	15			
PZWT7SF5	75,600	46	34	69	1	8	32.1	195	6.7	45	70	50	1"FPT	850
PZWT7SH5							16.4	95	1.7	25	35			
PZWT7SI5							12	80	1	20	25			
PZWT8SF5	84,000	75	34	70	1	9	33.6	225	7.9	50	80	80	1.25"FPT	1000
PZWT8SH5							17.3	114	2	25	40			
PZWT8SI5							13.5	80	1.5	20	30			
PZWT9SF5	98,400	75	34	70	1	10	41.4	239	10	70	100	80	1.25"FPT	1050
PZWT9SH5							19.2	125	2.8	30	45			
PZWT9SI5							13.8	80	1.8	20	30			
PZWT11SF5	122,400	75	34	70	1	12	53.6	300	10	80	130	80	1.25"FPT	1200
PZWT11SH5							24.3	150	2.8	35	50			
PZWT11SI5							20.7	109	1.8	30	45			
PZWT7DE5	73,200	75	34	70	2	4	25	132	6.7	70	90	50	1.25"FPT	1000
PZWT7DF5							14.6	115	6.7	40	50			
PZWT7DH5							6.9	48	1.7	20	20			
PZWT7DI5							5.9	40	1	15	20			
PZWT9DE5	96,000	75	34	70	2	5	30.1	175	10	80	100	80	1.25"FPT	1100
PZWT9DF5							20.7	128	10	60	70			
PZWT9DH5							8.9	63	2.8	25	30			
PZWT9DI5							7.1	50	1.8	20	25			
PZWT9.5DE5	102,000	75	34	70	2	5	27.9	129	10	80	100	80	1.25"FPT	1200
PZWT10DF5	108,000	75	34	70	2	6	20.7	156	10	60	70	80	1.25"FPT	1250
PZWT10DH5							11.5	75	2.8	30	40			
PZWT10DI5							7.9	54	1.8	20	25			
PZWT13DF5	147,000	75	34	70	2	8	32.1	195	10.5	90	110	80	1.5"FPT	1300
PZWT13DH5							16.4	95	3.2	40	50			
PZWT13DI5							12	80	2.3	30	40			
PZWT15DF5	167,000	85	34	70	2	9	33.6	225	7.9	90	110	120	1.5"FPT	1400
PZWT15DH5							17.3	114	2	45	50			
PZWT15DI5							13.5	80	1.5	35	45			
PZWT18DF5	190,800	85	34	70	2	10	41.4	239	5.6	100	125	120	1.5"FPT	1450
PZWT18DH5							19.2	125	2.8	50	60			
PZWT18DI5							13.8	80	1.8	35	45			
PZWT22DF5	240,200	85	34	70	2	12	53.6	300	5.6	150	175	120	2"FPT	1600
PZWT22DH5							24.3	150	2.8	60	80			
PZWT22DI5							20.7	109	1.8	50	60			

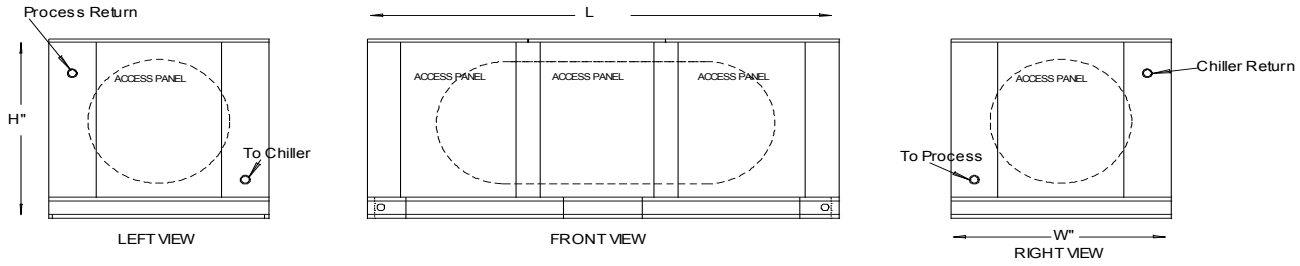
1) The calculations for the MCA and MOP are based on requirements of NFPA 70, the National Electrical Code (NEC) and CSA C22.1, the Canadian Electrical Code (CEC). The MCA is the minimum wire size needed to guarantee that the wiring will not overheat under any operating conditions. The MOP is the maximum allowable circuit breaker size that will properly disconnect power to the equipment under any anticipated fault condition.

2) Weights are based on models with standard features only. Weights will increase with each added option. Consult factory.

FLUIDICS

Dimensional Specifications, Features and Options

TANK MODEL	LENGTH IN.	WIDTH IN.	HEIGHT IN.	WATER CONN.	TANK CAPACITY	RECIRCULATION PUMP	FLA 230/3Ø	FLA 460/3Ø	WEIGHT LBS.
RRT20-SS	36	34	36	1" FPT	20 GALLONS	1/2HP	2.6	1.3	475
RRT50-SS	46			1" FPT	50 GALLONS	1/2HP	2.6	1.3	525
RRT80-SS	75			1 1/4" FPT	80 GALLONS	3/4HP	3.5	1.7	600
RRT120-SS	85			1 1/2" FPT	120 GALLONS	1 1/2HP	5.6	2.8	675



Standard Features

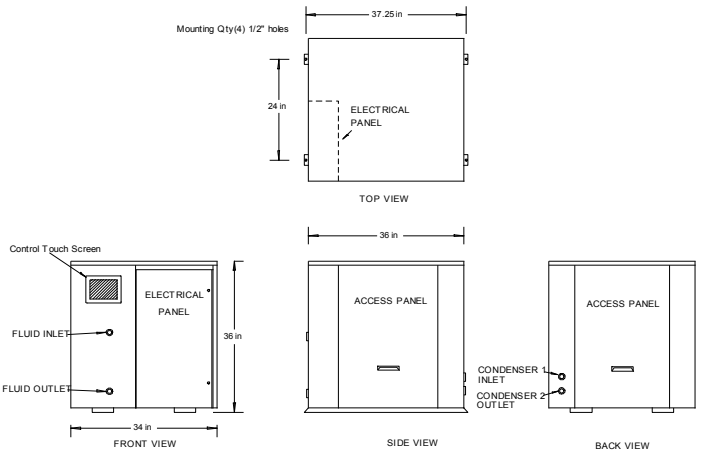
- STAINLESS STEEL storage tank
- 1/2" tank and fluid piping insulation
- Copper fluid piping
- Tank vent and drain connections
- Tank pressure relief valve
- Fused evaporator fluid re-circulating **STAINLESS STEEL** pump
- Fluid pump discharge ball valve and cleanable "Y" strainer
- Control box with pump terminal block
- Galvanized sheet metal cabinet

Available Options

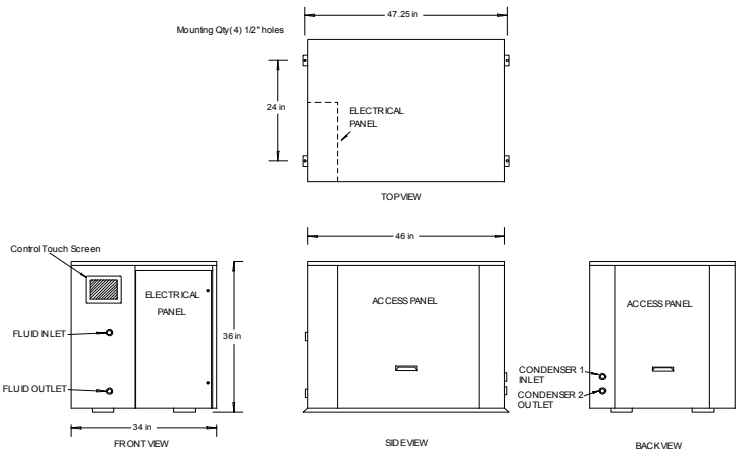
- Fused, STAINLESS STEEL process pump
- Dual process pump with manual changeover
- Dual process pump with auto changeover
- Pump suction isolation valve
- Tank fluid sight glass
- Tank liquid level indicator with dry contacts
- Low flow by-pass valve
- Water flow meter
- Stainless steel, SCH80 PVC or Polypropylene piping for de-ionized and reverse osmosis water systems
- 1" tank and piping insulation in lieu of 1/2"
- Seal-tight electrical conduit and connections

R407C Packaged, Water-Cooled Chillers

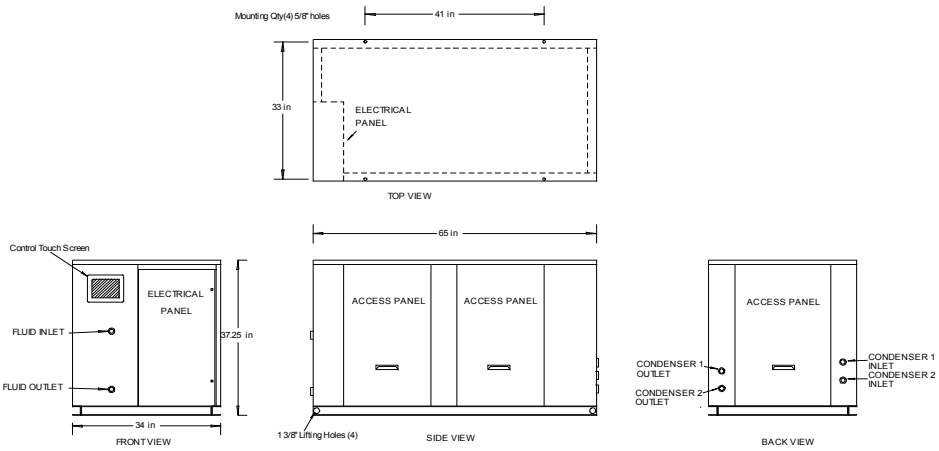
PZW1S, 1.5S, 2S, 2.5S, 3S



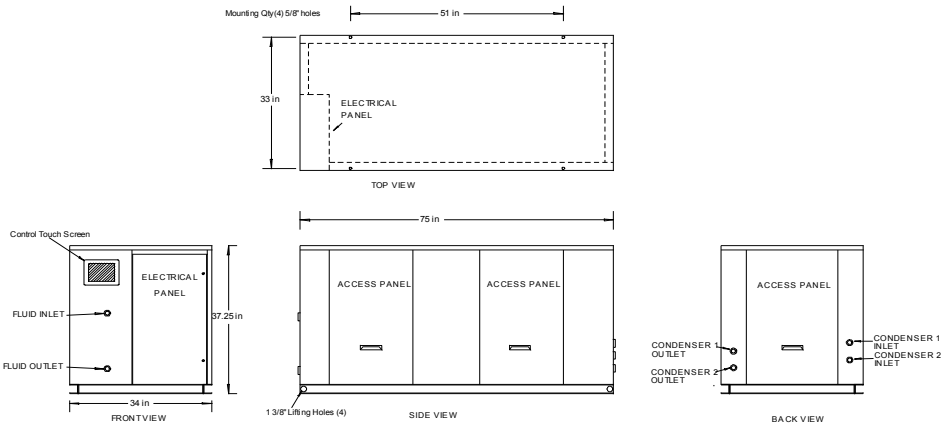
PZW4S, 4.5S, 5S, 7S, 8S, 9S, 11S



PZW7D, 9D, 9.5D, 10D

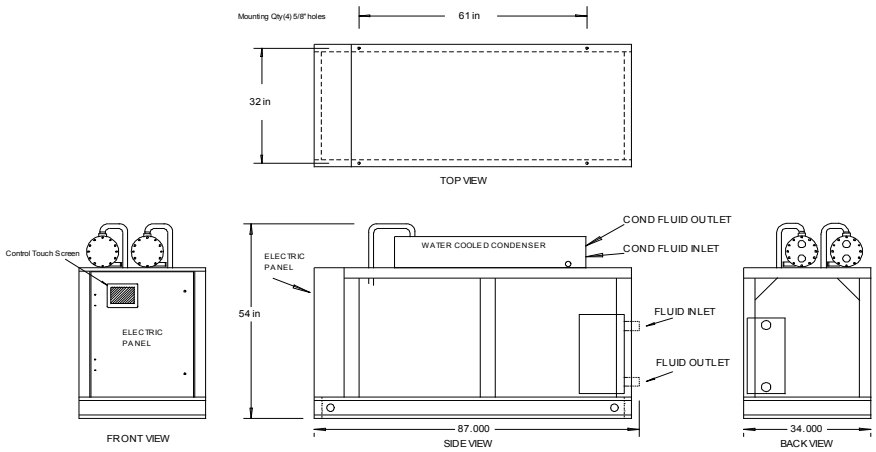


PZW13D, 15D, 18D, 22D

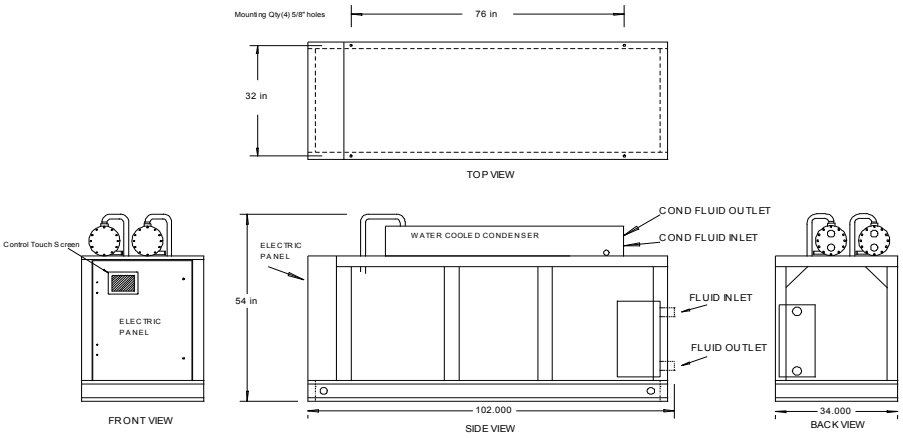


R407C Packaged, Water-Cooled Chillers

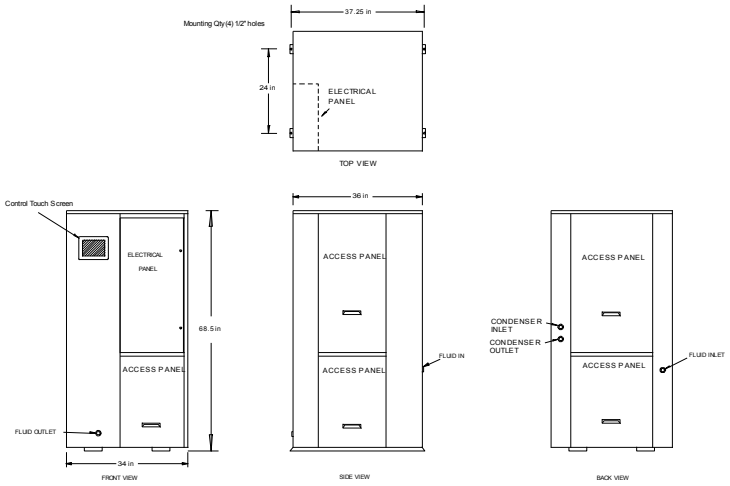
PZW26D, 35D



PZW43D, 55D

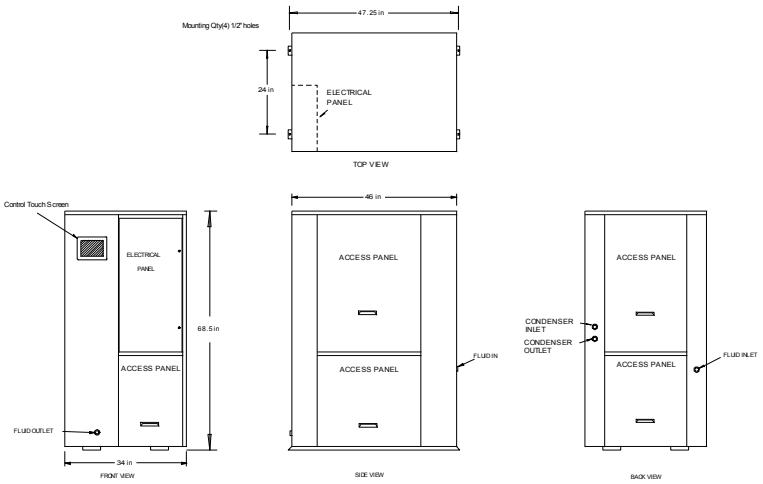


PZWT1S, 1.5S, 2S, 2.5S, 3S

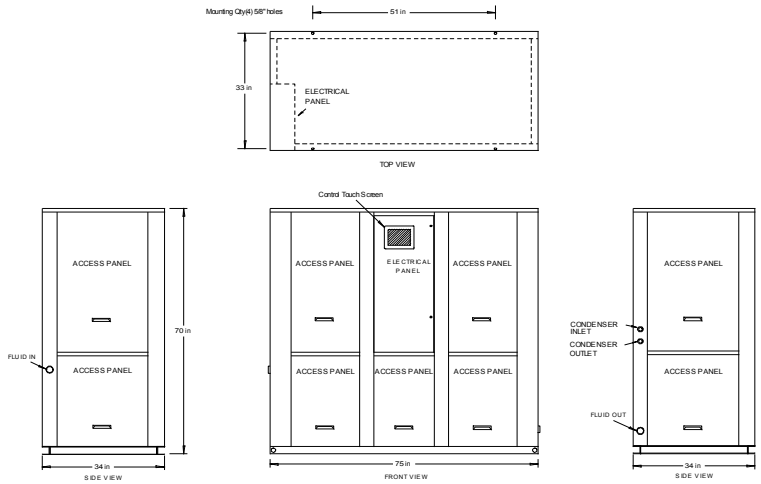


R407C Packaged, Water-Cooled Chillers

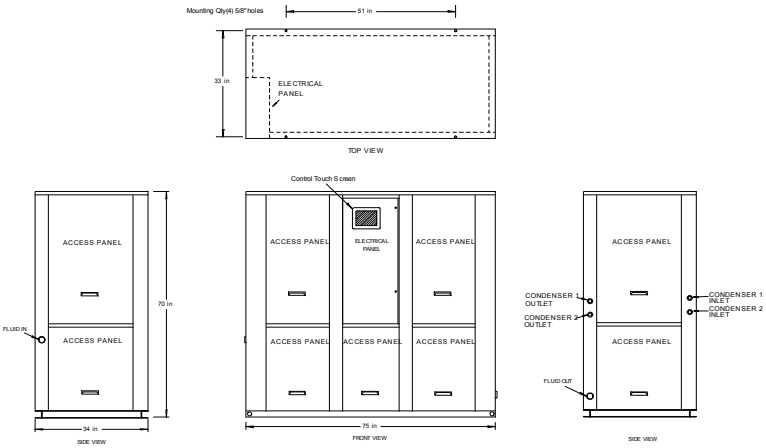
PZWT4S, 4.5S, 5S, 7S



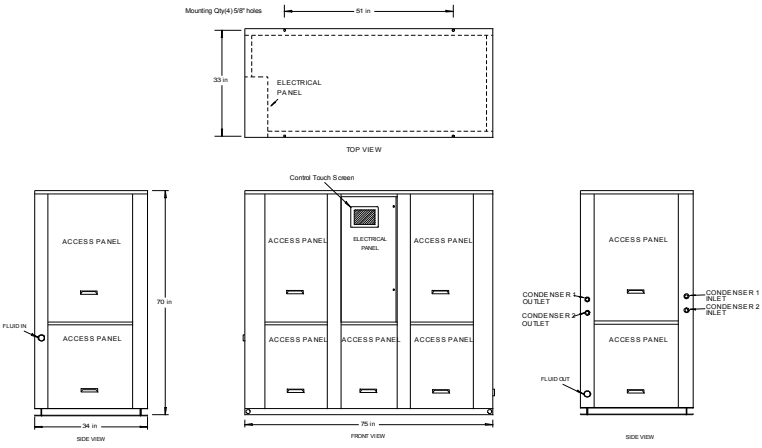
PZWT8S, 9S, 11S



PZWT7D, 9D, 9.5D, 10D, 13D



PZWT15D, 18D, 22D



PROPYLENE GLYCOL CAPACITY CORRECTION FACTOR TABLE							
PERCENT PROPYLENE GLYCOL BY WEIGHT	15%	20%	25%	30%	35%	40%	50%
FREEZING POINT IN °F	24	18	15	9	5	-5	-30
CAPACITY FACTOR MULTIPLIER*	0.992	0.986	0.972	0.960	0.950	0.928	0.878
PRESSURE DROP MULTIPLIER	1.04	1.08	1.13	1.21	1.26	1.47	2.79

ETHYLENE GLYCOL CAPACITY CORRECTION FACTOR TABLE							
PERCENT ETHYLENE GLYCOL BY WEIGHT	10%	15%	20%	25%	30%	35%	40%
FREEZING POINT IN °F	25	21	17	11	5	0	-10
CAPACITY FACTOR MULTIPLIER*	0.98	0.96	0.95	0.93	0.92	0.91	0.89
PRESSURE DROP MULTIPLIER	1.08	1.11	1.16	1.21	1.27	1.32	1.38

* At standard ARI 590 conditions: 54°F entering fluid temperature, 44°F leaving fluid temperature, 95°F ambient temperature, 0.0005 fouling.

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