

REFRIGERATION PRODUCTS

Product Catalog



MUELLER
REFRIGERATION PRODUCTS

*We offer cool products for
all your refrigeration needs!*





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*Rod Redman, Mueller
Craftsman Since 1992.*

3 x 5 Falling Film Chiller

Paul Mueller Company's 3 x 5 falling film chiller reduces chilling time, increases production, and brings a faster return on your investment.

Distribution pans are available with extra-low, low, and high flow rates, based on chilled water usage. Extra-low flow rates range from 4 to 10 gpm, low flow rates range from 8 to 15 gpm, and high flow rates range from 16 to 30 gpm (per evaporator).

Benefits

- Easy to clean and inspect with virtually no downtime for maintenance.
- The design of Mueller® Temp-Plate® eliminates potential chiller freeze-up.
- Accepts incoming fluid temperatures in excess of 80°F without the need for a secondary heat exchanger.



Mueller® 3 x 5 Falling Film Chiller Sizing Chart

Cabinet Size	No. of Plates		Dimensions L x W x H (in)	Maximum Shipping Weight (lbs)	Tank Capacity (gal)	Distribution Pan Connection Size
	Minimum	Maximum				
N	2	8	68½ x 39⅛ x 77¾	1,520	173	2" or 3"
O	2	8	68½ x 39⅛ x 99¼	1,720	365	2" or 3"

Notes:

- Refrigerant inlet connection size per plate is 1⅛" tube and the outlet size is 1½" tube.
- Maximum weight is based on the maximum number of plates that a chiller will hold.
- Low flow/extra-low flow distribution pan connection is 2".
- High flow distribution pan connection is 3".

4 x 8 Falling Film Chiller



The fully enclosed design of Paul Mueller Company's 4 x 8 falling film chiller eliminates product contamination.

The 4 x 8 enclosed-type falling film chiller ensures your product is free from airborne particles. The chiller is easily accessible through gasketed doors and is specifically designed for large-capacity chilling applications.

Distribution pans are available in extra-low, low, and high flow rates, based on chilled water usage.

Extra-low flow rates range from 6 to 16 gpm, low flow rates range from 13 to 24 gpm, and high flow rates range from 25 to 48 gpm (per evaporator).

Mueller 4 x 8 Falling Film Chiller Sizing Chart

Cabinet Size	No. of Plates		Dimensions L x W x H (in)	Maximum Shipping Weight (lbs)	Tank Capacity (gal)	Distribution Pan Connection Size
	Minimum	Maximum				
J	2	8	104½ x 39½ x 90¾	2,735	293	4" or 6"
K	2	16	104½ x 72¾ x 90¾	5,220	525	(2) 4" or 6"
L	2	24	104½ x 105¾ x 90¾	7,705	750	(3) 4" or 6"
M	2	32	104½ x 139 x 90¾	10,190	1,113	(4) 4" or 6"

Notes:

- Refrigerant inlet connection size per plate is 1½" tube and the outlet size is 2" pipe.
- Maximum weight is based on the maximum number of plates that a chiller will hold.
- Low flow and extra-low flow distribution pans have a 4" connection and high flow pans have a 6" connection.

Tankless Falling Film Chiller

Paul Mueller Company's tankless falling film chiller offers versatility to match your specific storage needs.

Mueller's tankless falling film chiller is designed for applications where it is necessary to place the chiller over the top of an existing tank.

Tankless falling film chillers are available with either open- or enclosed-type cabinets.

Distribution pans are available in extra-low, low, and high flow rates.

Units are available with both 3 x 5 and 4 x 8 evaporators from 4- to 24-plate cabinets.



Mueller Tankless Chiller Sizing Chart

Cabinet Size	Dimensions L x W x H (in)	Weight with Plates (lbs)	Refrigeration Inlet*	Connection Size Outlet*	Water Pan Connection Size
4 - 3 x 5	70 x 25 x 47	643	1½" Tube	1½" Tube	2" or 3" MPT
8 - 3 x 5	70 x 41 x 47	990	1½" Tube	1½" Tube	2" or 3" MPT
4 - 4 x 8	108 x 29 x 62	1,020	1½" Tube	2" Pipe	4" or 6" MPT
8 - 4 x 8	108 x 43 x 62	1,550	1½" Tube	2" Pipe	4" or 6" MPT
16 - 4 x 8	108 x 67 x 62	2,980	1½" Tube	2" Pipe	(2) 4" or 6" MPT
24 - 4 x 8	108 x 104 x 62	4,220	1½" Tube	2" Pipe	(3) 4" or 6" MPT

Notes:

*Inlet and outlet connection sizes are per plate connection sizes.

Packaged Water Chiller

Standard Features

- Stainless steel brazed-plate evaporator with ½" insulation, secured in a steel bracket.
- Hermetic compressor with crankcase heater.
- Copper tube/aluminum fin condenser(s).
- Direct drive condenser fan motor.
- Hot gas bypass capacity control.
- Return fluid sensing thermostat.
- High pressure refrigerant control.
- Compressor motor contactor.
- Suction accumulator.
- Water flow switch.
- 24v control transformer.
- Rust-resistant, high CFM aluminum condenser fan blade.
- Manual compressor lead lag switch (dual circuit units).
- Low pressure refrigerant control with time delay.
- LED 24v thermometers on water inlet/outlet.
- Liquid line drier, sight glass, solenoid, and TEV.
- ON/OFF switch for control circuit operation.
- Compressor and control circuit fusing.
- Compressor and hot gas valve time delays.
- Hard start kit (single-phase units only).
- Painted galvanized steel sheet metal cabinet.
- ½" insulation on all water and refrigerant lines.
- Full refrigerant charge from factory.

Available Options

- Low water flow indicator with dry contacts.
- High temperature indicator with dry contacts.
- Compressor run indicator.
- Power on indicator.
- Fault indicator with dry contacts.
- Casters (factory mounted).
- Water temperature freeze thermostat.
- Variable fan speed control (+20°F).
- Flooded condenser with receiver/head pressure control (-20°F).
- Factory-installed heat tape freeze protection, thermostatically controlled.
- Special piping for de-ionized and reverse osmosis.
- "Gold" finned condenser coil (coastal protection).
- Refrigerant suction/discharge gauge set.
- Fused stainless steel system process pump.
- Fused stainless steel system recirculation pump.
- Stainless steel storage tank with ½" insulation.
- Water-cooled coaxial steel/copper tube condenser.
- Fan cycle control (+40°F): 90S, 120S, and 240D only.
- Semi-hermetic compressor.
- Shell-and-tube chiller barrel.
- Fused disconnect.
- Water flow meter.
- Phase monitor.

Mueller packaged chillers can be used for commercial, industrial, medical, and food process cooling.



Quad-Plate Chiller

Providing automatic water temperature control for the modern baking industry.

Standard Features

- Outlet temperatures down to 34°F.
- Provides up to 192 gallons/1,601 lbs. of chilled water per hour.
- 120-gallon storage capacity.
- Batch draw-off flow rates to 20 gallons per minute.
- Inlet temperatures up to 80°F.
- Process and recirculation pump standard.
- 5 to 9 hp remote condensing units available.
- Adjustable digital temperature control with °F or °C display.
- ETL-listed.



Mueller Quad-Plate Chiller Performance Specifications

Model No.	Batches Per Hour	Gal/lbs Per Batch	Inlet Temp. (°F)	Outlet Temp. (°F)	Draw-Off Flow Rate (gpm)	Refill Flow Rate (gpm)	HP	Control Voltage	Condensing Unit Voltage	Tank Capacity (gal)
QPPK-005	4	28/234	70	34	20	20	5	208-230/60/1	208-230/60/1	120
QPPK-008	4	42/350	70	34	20	20	7.5	208-230/60/1	208-230/60/3	120
QPPK-008	8	21/175	70	34	20	20	7.5	208-230/60/1	208-230/60/3	120
QPPK-010	4	48/400	70	34	20	20	10	208-230/60/1	208-230/60/3	120
QPPK-010	8	24/200	70	34	20	20	10	208-230/60/1	208-230/60/3	120

Chiller Skid Technical Specifications

Model No.	Length (in)	Width (in)	Height (in)	Approx. Shipping Weight (lb)
QPPK-005	70	51	74	1,720
QPPK-008	70	51	74	1,825
QPPK-010	70	51	74	1,930

Condensing Unit Technical Specifications

Model No.	Unit Model No.	Length (in)	Width (in)	Height (in)	Approx. Shipping Weight (lb)
QPPK-005	A51-OESE	40	30.5	31.5	750
QPPK-008	A753-OESE-A	121	40.25	42.5	860
QPPK-010	A103-OESE-A	121	40.25	42.5	900

Note:

All of the above units consist of a quad-plate heat exchanger, storage tank, ON/OFF and temperature controls, chiller circulation pump, building supply pump, water piping, and refrigeration controls—all pre-piped, wired, and mounted on a skid. The condensing units for the above chillers are all shipped loose for outdoor installation. The refrigeration piping and refrigerant charge must be supplied by others.

Bakery Chiller

Providing automatic water temperature control for the modern baking industry.

Standard Features

- Outlet temperatures down to 36°F.
- Provides up to 70 gallons of chilled water per hour.
- 50- and 120-gallon storage capacities available.
- Process/recirculation pump standard.
- Adjustable digital temperature control with °F or °C display.
- Inlet temperatures up to 80°F.
- Remote condensing units.
- ETL-listed.



Mueller Bakery Chiller Technical Specifications

Model No.	GPH*	Lbs. Per Hour	Storage Capacity (gal)	Draw-Off Flow Rate (gpm)	Condensing Unit Type	Condensing Unit HP	Electrical Data	Estimated Shipping Weight (lbs)	Estimated Dimensions L x W x H (in)
PMC 40/50-RC	40	334	50	14	Outdoor	2	208-230/60/1	Skid-310	32 x 24 x 72
								CU-140	24 x 19 x 17
PMC 40/50-RS	40	334	50	14	None	—	208-230/60/1	310	32 x 24 x 72
PMC 70/120-RC	70	584	120	18	Outdoor	3.5	208-230/60/1	Skid-710	42 x 34 x 84
								CU-360	40 x 31 x 32
PMC 70/120-RS	70	584	120	18	None	—	208-230/60/1	710	42 x 34 x 84

Performance Specifications

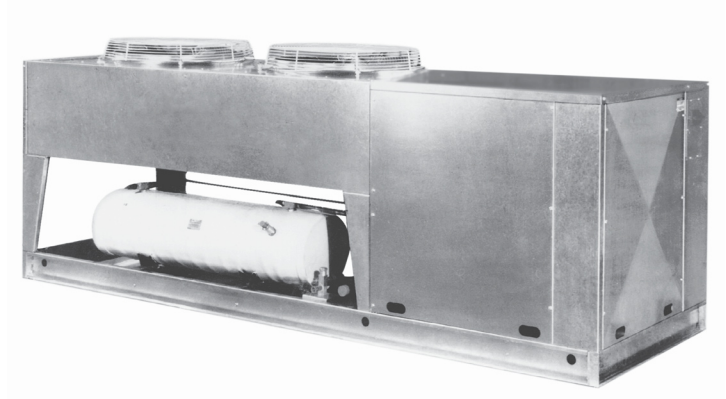
Inlet Temperature	Model No.	
	45/50 (GPH*/storage)	70/120 (GPH*/storage)
60°F	36°F	36°F
70°F	38°F	38 °F

Note:

*GPH capacities are based on a minimum water refill rate of at least 8 gpm, and on drawing evenly sized and spaced batches each hour.

Air-Cooled Condensing Unit

Mueller air-cooled condensing units can be used for standard refrigeration applications—or by adding the modified options, you have a unit designed to work with Mueller chillers.

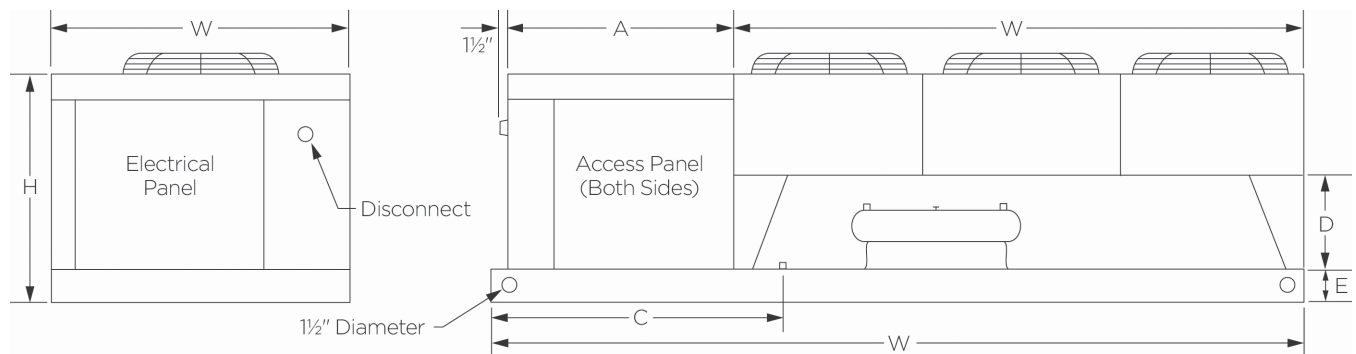


Standard Features

- Liquid receiver.
- Oil pressure control.
- Suction accumulator.
- High/low pressure control.
- Manual pump-down switch.
- Compressor contactor.
- Non-fused disconnect.
- Fan cycling thermostat.
- Outdoor weather hood.
- Weatherproof control panel.
- Condenser with subcooling circuit.
- Suction filter (replaceable core filter 15 hp and larger).
- Semi-hermetic compressor with crankcase heater.
- Compressor and condenser fuses (as required).
- Condenser fan contactors (as required).
- Suction/discharge vibration absorbers.
- Liquid line filter drier and sight glass.
- Head pressure control valve.
- Liquid and suction service valves.

Modified Unit Features

- Standard features listed above.
- Accumulator with heat exchanger in lieu of standard suction accumulator.
- Hot gas bypass valve (piped into accumulator) with hot gas solenoid valve.
- Liquid injection valve (piped into accumulator) with liquid injection solenoid valve.
- Separate low-pressure control to activate hot gas bypass and liquid injection solenoid valves.



Mueller Air-Cooled Condensing Unit Dimensional Data

Model No.	Condenser No. of Fans	Condensing Unit Dimensions (inches)								Estimated Shipping Weight (lbs)
		L	W	H	A	B	C	D	E	
COL-0500H	1	81	40.25	40.5	38	43	46	18	5	750
COL-0800H	2	121	40.25	40.5	38	83	46	18	5	860
COL-0900H	2	121	40.25	40.5	38	83	46	18	5	900
COL-1000H	2	121	40.25	40.5	38	83	46	18	5	900
COL-1500H	2	121	40.25	40.5	38	83	46	18	5	1,440
COL-2000H	2	176	48.00	53.5	55	109	63	21	6	1,560
COL-2500H	2	176	48.00	53.5	55	109	63	21	6	1,780
COL-3000H	2	176	48.00	53.5	55	109	63	21	6	1,870
COL-3500H	3	229	48.00	53.5	55	162	63	21	6	1,950
COL-4000H	3	229	48.00	53.5	55	162	63	21	6	1,960
COL-5000H	4	176	96.00	53.5	55	109	63	21	6	2,400
COL-6000H	4	176	96.00	53.5	55	109	63	21	6	2,680
COL-7000H	6	229	96.00	53.5	55	162	63	21	6	3,200
COL-8000H	6	229	96.00	53.5	55	162	63	21	6	3,500

Mueller Air-Cooled Condensing Unit Capacities

Model No.	HP	45	40	35	30	25	20	15	10
COL-0500H	5	64,400	58,800	53,400	48,000	43,200	38,700	34,400	30,400
COL-0800H	7.5	108,000	99,000	90,500	81,700	74,000	66,600	59,500	52,700
COL-1000H	10	148,500	136,600	125,400	113,800	103,800	94,300	85,300	76,900
COL-1500H	15	201,700	185,900	170,800	154,900	141,400	128,600	116,500	105,100
COL-2000H	20	223,000	204,000	186,000	167,300	151,500	136,700	122,900	110,100
COL-2500H	25	281,700	260,200	238,800	215,600	195,400	175,900	157,300	140,100
COL-3000H	30	328,800	302,600	277,300	250,700	227,600	205,700	184,900	165,400
COL-3500H	35	395,400	363,700	333,700	302,600	276,000	251,000	227,600	205,600
COL-4000H	40	482,900	446,100	410,700	372,900	340,700	310,000	280,900	253,300
COL-5000H	50	563,400	520,400	477,600	431,200	390,800	351,800	314,600	280,200
COL-6000H	60	657,600	605,200	554,600	501,400	455,200	411,400	369,800	330,800
COL-7000H	70	790,800	727,400	667,400	605,200	552,000	502,000	455,200	411,200
COL-8000H	80	965,800	892,200	821,400	745,800	681,400	620,000	561,800	506,600

Note:
Based on a 95°F ambient.

Fre-Heater®

Save energy and get FREE hot water!

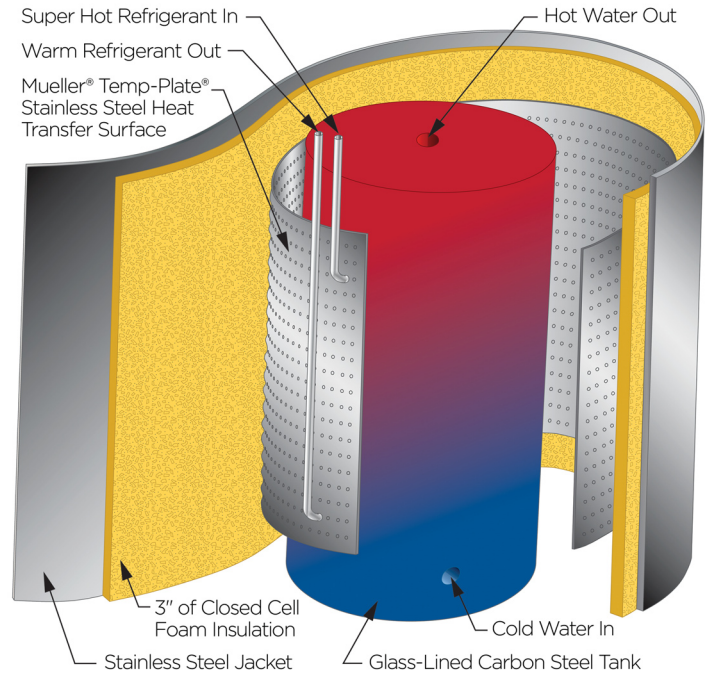
Up to 60% of the normally wasted energy discarded from refrigeration and air-conditioning systems is recovered with Paul Mueller Company's Fre-Heater. By transferring recovered heat energy to water, vast amounts of free hot water can be stored for use when and where the need arises.

Mueller Temp-Plate®, the heart of the Fre-Heater, is highly efficient heat transfer surface constructed of 100% stainless steel. Thoroughly tested and listed by CSA US, it meets all codes required for double-wall heat exchanger construction.

Mueller Fre-Heater's industrial-grade, glass-lined water storage tank resists rust and features two replaceable magnesium anodes for extra protection against natural water corrosion, increasing the life of the tank.

Mueller Fre-Heater heats and stores in one unit, plus it operates on any potable water supply because it is virtually immune to corrosion.

Walk-in coolers, freezers, commercial air-conditioning systems, ice machines, and other refrigeration systems all waste enough heat energy to produce hot water on a large scale. A Mueller Fre-Heater pays for itself while reducing your energy costs proportionately to your hot water usage.



Model "D" Features

- Channels recovered energy from up to six refrigeration sources into a single Fre-Heater unit.
- Designed for 150 psi maximum water working pressure and 426 psi maximum refrigerant working pressure.
- Available in 50-, 80-, and 119-gallon capacities, one of which will satisfy your hot water needs.
- A Model "DE" Fre-Heater offers all of the features of standard Model "D" Fre-Heaters with the addition of a 4,500-watt, 240-volt electric element. Available in 80- and 119-gallon sizes.



Model "DHS" Features

- Channels recovered energy into one Fre-Heater unit.
- Designed for 150 psi maximum water working pressure and 500 psi maximum refrigerant working pressure.
- 119-gallon capacity.
- Model "DHSE" Fre-Heaters offer all of the features of standard Model "DHS" Fre-Heaters with the addition of a 4,500- or 6,000-watt, 240- or 460-volt electric element.

Fre-Heater Specifications

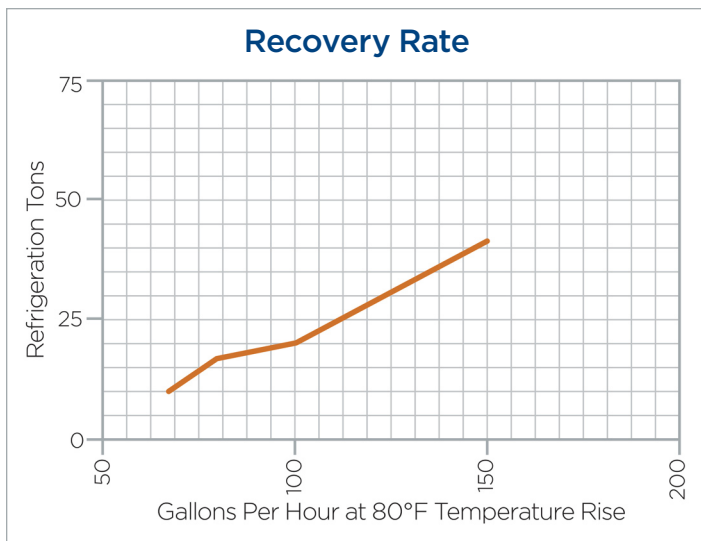
Fre-Heater Model No.	Part No.	Water Connection (in)	No. of Refrig. Circuits	Refrig. Connection Size (in)	Per Circuit Refrig. Application Capacity ¹	Dimensions Height (in)	Dimensions Diameter (in)	Approx. Shipping Weight (lb)
D-50	8823750	¾ FPT	1	⅝ ODM	½ through 4	53⅞	21¾	225
D2-50	8823751	¾ FPT	2	⅝ ODM	½ through 4	53⅞	21¾	225
D-80	8823780	¾ FPT	2	¾ ODM	1 through 5	58⅝	25¼	320
D-120	8823821	1½ FPT	2	¾ ODM	1 through 7½	61¾	29½	475
D2-120	8823820	1½ FPT	2	1⅞ ODM	3 through 15	61¾	29½	475
D2-120A ²	8823817	1½ FPT	2	1⅞ ODM	3 through 15	61¾	29½	475
DH-120	8823823	1½ FPT	2	1⅞ ODM	7 through 35	61¾	29½	475
DE-120	8823822	1½ FPT	2	1⅞ ODM	3 through 15	61¾	29½	475
DHS-120	8825141	1¼ FPT	1	1⅞ ODM	14 through 70	62	29½	440
DHSE-120A4	8825142	1¼ FPT	1	1⅞ ODM	14 through 70	62	29½	440
DHSE-120B4	8825143	1¼ FPT	1	1⅞ ODM	14 through 70	62	29½	440
DHSE-120A6	8825213	1¼ FPT	1	1⅞ ODM	14 through 70	62	29½	440
DHSE-120B6	8825214	1¼ FPT	1	1⅞ ODM	14 through 70	62	29½	440
DA-120 ³	8823826	1½ FPT	2	1 MPT	5 through 25	62	29½	440

Notes:

¹ Refrigeration tonnage capacities are 30°F evaporator ton loads, not total heat of rejection tons. Pressure drop through a Fre-Heater refrigeration circuit will be approximately 15 psi at the maximum tonnage application. Pressure drop at the mid-range of tonnage application will be about 5 to 7 psi. The best overall refrigeration/heat recovery system efficiency is usually obtained at or below the mid-range tonnage application.

² Aquastat included.

³ Ammonia only.



Electrically Assisted Units

Fre-Heater Model No.	Element Size	Electrical Requirements
DE-120	4,500 watt	208-230/60/1
DHSE-120A4	4,500 watt	208-230/60/1
DHSE-120B4	4,500 watt	460/60/1
DHSE-120A6	6,000 watt	208-230/60/1
DHSE-120B6	6,000 watt	460/60/1

Brazed Plate Heat Exchanger

Top quality, high efficiency, and exceptional value.

When you design around Paul Mueller Company's brazed-plate heat exchanger, you know what to expect in your finished product.

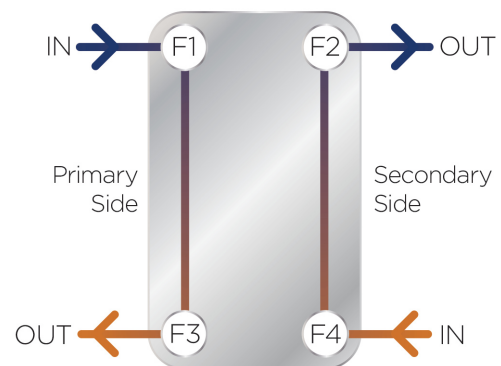
Mueller offers one of the broadest ranges of brazed-plate heat exchangers and the program is frequently expanded. Many of these units are available in stock and can be shipped the next day in most cases.

Many applications require small, efficient heat exchangers. The preferred choice is the brazed-plate heat exchanger (BPHE). A BPHE that is able to transfer 180,000 Btuh weighs only 44 pounds and is less than two feet high.

More than 90% of its mass constitutes highly efficient heat exchange surface, which is why it is smaller in size. Compare almost any kind of heat exchanger technology with a BPHE and you will find the BPHE's efficiency is superior and the benefits are substantial.

A BPHE contains up to 200 herringbone-pattern embossed stainless steel plates. Every other plate is turned 180°, causing the ridges of adjacent plates to intersect one another, thus forming a lattice of contact points. When these points are subsequently brazed together, the resulting unit is a compact, pressure-resistant heat exchanger in which almost all material is involved in the heat transfer process. The brazed plates form two separate channel systems. The two media assume a true counter-current flow, completely isolated from each other. This channel configuration is designed to produce high turbulence, promoting maximum heat transfer.

Applications include condensers, evaporators, subcoolers, oil coolers, industrial processes, water heating, snow melting, and heat pump, air conditioning, and chiller.



Standard Features

- A wide variety of available solder and threaded connections.
- Plates are constructed of AISI 316 stainless steel, connections are AISI 316 stainless steel, and brazing is 99.9% copper/nickel alloy. Copper-free units are available.
- CE, UL, cUL, CSA.
- 450 psig maximum pressure.
- 383°F maximum temperature.

Accu-Therm[®] Semi-Welded Heat Exchanger

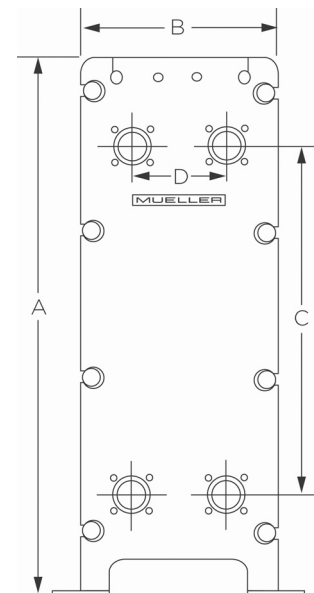
Paul Mueller Company's Accu-Therm semi-welded heat exchanger is ideal for solution chilling and refrigerant condensing in refrigeration applications.

The plate pack is built utilizing welded cassettes (two plates welded together). The refrigerant side is contained within the welded portion of the cassette to include welding of the solution port. Gaskets are used to seal the secondary side, which makes the plate pack easy to disassemble and clean.

The welded cassettes are designed for optimum gasket sealing. Higher pressure improves the sealing of the gaskets.

Standard Features

- Carbon steel, blue painted frame. (Optional stainless steel frame is available.)
- Plate material: 0.6 mm AISI (304 or 316) or titanium.
- 150 to 300 psig design pressure. ASME Code standard available.
- Gaskets are available in Nitril[®], EPDM, Viton[®], Neoprene, or Chloroprene.
- Rubber lined, carbon steel, or metal lined (stainless steel or titanium) nozzles.
- Connections: Studded port, slip-on or weld neck flange, sanitary ferrule, or stub end.



Mueller Accu-Therm Semi-Welded Heat Exchanger Specifications						
Model No.	A (in)	B (in)	C (in)	D (in)	Port Size (in)	Flow Rate (Maximum gpm)
AT-9W	34.9	13.2	22.2	4.9	1.5	120
AT-15W	45.2	13.2	32.5	4.9	1.5	120
AT-25W	49.8	21.7	30.5	10.1	4	800
AT-40W	67.4	18.7	47.5	8.3	3	450
AT-50W	68.7	21.7	49.4	10.1	4	800
AT-65W	68.9	28.7	45.4	12	8	3,200
AT-85W	90.2	28.7	66.7	12	8	3,200

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