

MUELLER

Paul Mueller Company

Process Chiller Catalog

Toll-Free: (417) 575-9000

Email: contact@paulmueller.com

AIR-COOLED SCROLL CHILLERS

Packaged & Split-System Process Chillers



*With
Easy-to-Use
Touch Screen
Display
on ALL Chiller
Models*



*Have Questions? Give Us a Call at: **(417) 575-9000***

Website: www.paulmueller.com

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v-01.20.2022

Paul Mueller Company • 1600 W. Phelps St. • Springfield, MO 65802

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1600 W. Phelps St.
Springfield, MO 65802

Due to Paul Mueller's policy of continuous product improvement, Paul Mueller 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.

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*Our reputation is built on our commitment to excellence, advanced controls, user-friendly touch screen interface and our ability to **custom build units** exactly matched to your process application. **Your Satisfaction is what Drives Us!***



Aquariums



Laser Cooling



Ice Skating Rinks

TYPICAL MUELLER 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 Pools
- Aquariums
- Fish Hatcheries
- Ice skating Rinks
- Commercial Ship Cooling Applications
- Low Temperature Process
- Plastics & Rubber Industries
- Military
- Anodizing Process Cooling
- Semiconductor Cooling
- Chemical
- Energy
- Plasma Cooling
- Data Center Cooling
- Cold Storage
- Extrusion Cooling
- Custom Cooling Innovation

Food & Beverage Industry Applications

- Bakery Processing
- Brewery
- Winery
- Distillery
- Mushroom Production Cooling
- Drinking Water Fountain
- Batch Cooling
- Ice Machine Pre-Cool
- Fruit and Vegetable Washing and Processing
- Candy Manufacturing
- Dairy Cooling
- Soft Drink/Beverage Cooling



Dairy Cooling / Beverage Cooling



Winery & Brewery Process Cooling

Medical & Pharmaceutical Applications

- M.R.I. Imager Cooling
- Operating Room Air Conditioning
- P.E.T. Scan
- C.A.T. Scan
- Lab Cooling
- Hypothermia Pads and Blankets
- Pharmaceutical Process Cooling



Lab Cooling



M.R.I. Imager Cooling

**Have Questions...
Give Us a Call,
We are Here to Help!**

Paul Mueller Company...

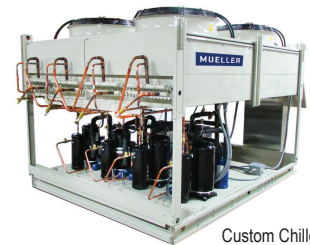
At Paul Mueller Company we are united by a belief that the only quality that matters is quality that works for life. With every piece of processing equipment we build, our goal is to have lasting impact. From solar milk coolers in rural Africa, to lifesaving medical technology we are making an impact across the globe.

***Paul Mueller** is committed to serving our clients' application needs with innovative, high-quality process chillers, tank and pump skids, custom fluid cooling solutions and economizer products. Our products are built to support a large variety of applications with a diverse product line.*

What We Build:

- Air-Cooled Scroll Process Chillers
- Air-Cooled Digital Scroll Process Chillers
- Air-Cooled Semi-Hermetic Process Chillers
- Portable Air & Water-Cooled Process Chillers
- Water-Cooled Scroll Process Chillers
- Water-Cooled Semi-Hermetic Process Chillers
- Custom / OEM / Private Label Process Chillers
- Tank & Pump Packages
- City Water Change-Over Panels

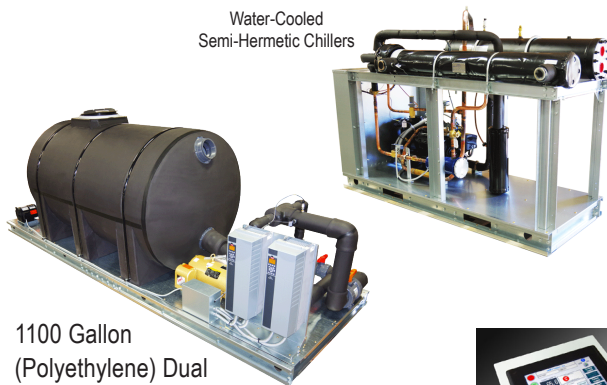
Air-Cooled
Scroll Packaged Chillers



Custom Chillers



Water-Cooled
Semi-Hermetic Chillers



1100 Gallon
(Polyethylene) Dual
Process Pump Package
with VFD Controllers

Air-Cooled
Semi-Hermetic Chillers



MAZ22DF5
Air-Cooled Chiller



To compliment our complete line of standard products that Paul Mueller offers, we also have the ability and resources to **custom design** and build equipment to a customers specific needs. **Please contact a Paul Mueller representative for a special application.**

Mueller also offers
“E-Coated” Condenser Coils
for Exceptional Protection
Against Corrosive Environments.



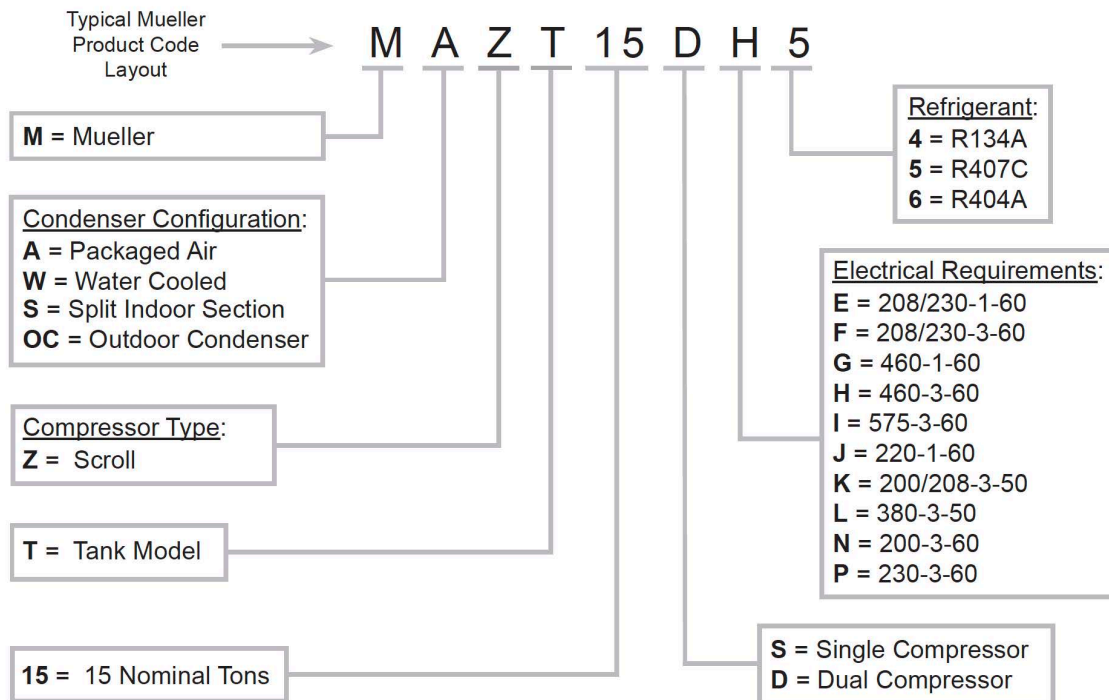
Mueller offers
Remote Access...
Complete Touchscreen
Control of the Chiller
from anywhere in Your Facility.

**City Water Change-
Over Panels** for Extra
Cooling Protection for
Your Process.

We also offer
**Custom Color
and Private Label Chillers**



NOMENCLATURE



HOW TO PROPERLY SELECT AN AIR-COOLED PACKAGED CHILLER...

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 above 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 an air-cooled, packaged chiller to cool 9.8 GPM of 100% water from 54°F to 44°F. Design ambient air temperature 95°F. **Find:** Air-cooled chiller model.

Solution:

1. Chilled fluid Delta T = 54°F - 44°F = 10°F
2. Capacity (in BTUH) = 9.8 GPM x 10°F Delta T x 500 = 49,000 BTUH
3. From the MAZ chiller capacity tables, it can be determined that the MAZ4S has the capacity to meet the requirements.

Need Help... Just Give Us a Call... We are Here to Help!

1S - 11S Scroll Chillers



Model	Compressor	LWT °F	80°F			90°F			95°F			100°F			105°F		
			TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
1S	ZR16K5E	42.0	1.2	1.2	7.5	1.2	1.3	6.8	1.1	1.4	6.3	1.1	1.4	6.0	1.1	1.5	5.6
		44.0	1.3	1.2	7.7	1.2	1.3	6.9	1.2	1.4	6.5	1.1	1.4	6.2	1.1	1.5	5.8
		45.0	1.3	1.2	7.8	1.2	1.3	7.0	1.2	1.4	6.6	1.2	1.4	6.3	1.1	1.5	5.9
		50.0	1.4	1.2	8.4	1.3	1.3	7.5	1.3	1.4	7.1	1.3	1.5	6.7	1.2	1.6	6.3
1.5S	ZS15KAE	42.0	1.8	1.7	8.9	1.7	1.8	7.9	1.7	1.9	7.4	1.6	2.0	7.0	1.6	2.2	6.5
		44.0	1.9	1.7	9.1	1.8	1.9	8.1	1.8	2.0	7.6	1.7	2.1	7.2	1.7	2.2	6.7
		45.0	1.9	1.7	9.3	1.8	1.9	8.3	1.8	2.0	7.7	1.7	2.1	7.3	1.7	2.2	6.8
		50.0	2.1	1.8	9.9	2.0	1.9	8.8	1.9	2.0	8.3	1.9	2.1	7.8	1.8	2.2	7.3
2S	ZS19KAE	42.0	2.0	1.9	9.7	1.9	2.1	8.6	1.9	2.2	8.1	1.8	2.3	7.6	1.8	2.4	7.1
		44.0	2.1	1.9	10.0	2.0	2.1	8.9	1.9	2.2	8.4	1.9	2.3	7.9	1.9	2.4	7.4
		45.0	2.2	1.9	10.2	2.1	2.1	9.1	2.0	2.2	8.5	2.0	2.3	8.0	1.9	2.5	7.5
		50.0	2.4	1.9	10.9	2.2	2.1	9.7	2.2	2.3	9.2	2.1	2.4	8.6	2.0	2.5	8.1
2.5S	ZS26KAE	42.0	3.0	2.8	10.4	2.8	3.1	9.1	2.7	3.3	8.4	2.7	3.5	7.9	2.6	3.7	7.3
		44.0	3.1	2.8	10.6	2.9	3.2	9.3	2.9	3.4	8.7	2.8	3.5	8.2	2.7	3.7	7.6
		45.0	3.2	2.9	10.8	3.0	3.2	9.5	2.9	3.4	8.8	2.8	3.5	8.3	2.7	3.7	7.7
		50.0	3.3	2.9	11.4	3.2	3.3	10.0	3.1	3.5	9.3	3.1	3.6	8.8	3.0	3.8	8.2
3S	ZS29KAE	42.0	3.3	3.4	10.3	3.2	3.8	9.2	3.0	3.9	8.6	3.0	4.1	8.1	2.9	4.3	7.6
		44.0	3.5	3.5	10.6	3.3	3.8	9.4	3.1	4.0	8.8	3.1	4.1	8.4	3.0	4.4	7.8
		45.0	3.6	3.5	10.8	3.4	3.8	9.6	3.2	4.0	9.0	3.2	4.2	8.5	3.1	4.4	7.9
		50.0	3.8	3.6	11.4	3.6	3.9	10.2	3.4	4.1	9.6	3.4	4.3	9.1	3.3	4.5	8.5
4S	ZB38KCE	42.0	4.2	4.0	10.9	4.0	4.4	9.5	3.9	4.6	8.9	3.8	4.8	8.3	3.7	5.1	7.7
		44.0	4.4	4.0	11.2	4.2	4.4	9.8	4.1	4.6	9.2	3.9	4.9	8.6	3.8	5.1	8.0
		45.0	4.5	4.0	11.3	4.3	4.4	9.9	4.2	4.7	9.3	4.0	4.9	8.7	3.9	5.2	8.1
		50.0	4.9	4.2	12.1	4.7	4.6	10.6	4.5	4.8	10.0	4.4	5.0	9.4	4.3	5.3	8.7
4.5S	ZB42KCE	42.0	4.8	4.3	11.2	4.6	4.8	9.7	4.4	5.1	9.0	4.3	5.4	8.4	4.2	5.8	7.7
		44.0	5.0	4.4	11.5	4.7	4.9	10.0	4.6	5.2	9.2	4.5	5.5	8.6	4.4	5.9	7.9
		45.0	5.1	4.4	11.6	4.8	4.9	10.1	4.7	5.2	9.3	4.6	5.5	8.7	4.5	5.9	8.0
		50.0	5.5	4.6	12.3	5.3	5.1	10.7	5.1	5.4	9.8	5.0	5.5	9.2	4.8	6.1	8.5
5S	ZB45KCE	42.0	5.4	4.6	12.0	5.1	5.1	10.5	5.0	5.4	9.7	4.9	5.7	9.1	4.7	6.0	8.4
		44.0	5.6	4.6	12.3	5.3	5.2	10.7	5.2	5.4	10.0	5.0	5.7	9.3	4.9	6.1	8.6
		45.0	5.7	4.7	12.5	5.4	5.2	10.9	5.3	5.5	10.1	5.2	5.8	9.4	5.0	6.1	8.7
		50.0	6.2	4.8	13.2	5.9	5.3	11.6	5.7	5.6	10.7	5.6	5.9	10.0	5.4	6.2	9.3
7S	ZB57KCE	42.0	7.0	5.9	11.1	6.6	6.6	9.8	6.4	6.9	9.1	6.3	7.3	8.5	6.1	7.7	8.0
		44.0	7.2	6.0	11.4	6.8	6.6	10.0	6.7	7.0	9.4	6.5	7.3	8.8	6.3	7.7	8.2
		45.0	7.3	6.0	11.6	6.9	6.7	10.2	6.8	7.0	9.6	6.6	7.4	9.0	6.5	7.8	8.4
		50.0	7.9	6.2	12.3	7.6	6.8	10.8	7.3	7.2	10.2	7.2	7.5	9.6	7.1	7.9	9.0
8S	ZB66KCE	42.0	7.9	7.1	10.9	7.5	7.8	9.7	7.3	8.2	9.1	7.2	8.6	8.5	7.0	9.0	8.0
		44.0	8.1	7.2	11.2	7.8	7.9	9.9	7.6	8.3	9.3	7.4	8.6	8.8	7.3	9.1	8.2
		45.0	8.3	7.2	11.4	7.9	7.9	10.1	7.8	8.3	9.5	7.6	8.7	8.9	7.4	9.1	8.4
		50.0	8.9	7.4	12.0	8.6	8.1	10.7	8.4	8.5	10.1	8.3	8.8	9.6	8.1	9.3	8.9
9S	ZB76KCE	42.0	9.0	8.4	10.8	8.6	9.2	9.6	8.4	9.7	9.0	9.0	10.1	8.4	8.0	10.6	7.9
		44.0	9.3	8.5	11.1	8.9	9.3	9.8	8.7	9.7	9.2	8.5	10.2	8.7	8.3	10.7	7.2
		45.0	9.5	8.6	11.3	9.1	9.3	10.0	8.9	9.8	9.4	8.7	10.3	8.9	8.5	10.7	7.3
		50.0	10.3	8.7	12.0	9.8	9.5	10.7	9.6	10.0	10.0	9.4	10.5	9.4	9.2	10.9	7.9
11S	ZB95KCE	42.0	10.5	9.1	11.9	10.0	10.0	10.4	9.7	10.5	9.7	9.5	11.1	9.1	9.2	11.7	8.4
		44.0	10.8	9.2	12.2	10.3	10.1	10.7	10.1	10.6	9.9	9.8	11.2	9.3	9.5	11.8	8.6
		45.0	11.0	9.2	12.4	10.5	10.2	10.8	10.3	10.7	10.0	10.0	11.2	9.4	9.7	11.9	8.7
		50.0	11.9	9.5	13.0	11.3	10.4	11.4	11.1	11.0	10.7	10.8	11.5	10.0	10.5	12.1	9.3

- Capacities on this chart are based on refrigerant R407C. Lower leaving water or low ambient requires 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
- KW input is for compressor(s) only.
- EER = Energy Efficiency Ratio (BTU/watt-hour). Power inputs include compressor (s), condenser fan motor (s) and control power.



7D - 52D Scroll Chillers

Model	Compressor	LWT °F	80°F			90°F			95°F			100°F			105°F		
			TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
7D	ZS29KAE	42.0	7.1	7.1	9.8	6.8	7.8	8.7	6.6	8.2	8.2	6.5	8.5	7.7	6.3	8.9	7.2
		44.0	7.4	7.2	10.1	7.0	7.9	9.0	6.9	8.3	8.5	6.7	8.6	7.9	6.5	9.0	7.5
		45.0	7.5	7.3	10.3	7.2	7.9	9.1	7.0	8.3	8.6	6.8	8.7	8.0	6.7	9.1	7.6
		50.0	8.1	7.4	10.9	7.8	8.1	9.7	7.6	8.4	9.1	7.4	8.8	8.6	7.2	9.2	8.1
9D	ZB38KCE	42.0	8.8	7.8	11.4	8.3	8.5	10.0	8.1	8.9	9.3	7.9	9.4	8.6	7.7	9.9	8.1
		44.0	9.2	7.8	11.7	8.7	8.6	10.3	8.5	9.0	9.6	8.2	9.5	9.0	8.0	10.0	8.4
		45.0	9.3	7.9	11.9	8.9	8.7	10.4	8.7	9.1	9.8	8.4	9.6	9.1	8.2	10.0	8.5
		50.0	10.2	8.1	12.6	9.7	8.9	11.2	9.4	9.3	10.4	9.2	9.8	9.8	9.0	10.3	9.2
9.5D	ZB42KCE	42.0	9.8	8.4	11.8	9.3	9.4	10.2	9.1	9.9	9.5	8.8	10.5	8.8	8.6	11.2	8.1
		44.0	10.2	8.5	12.1	9.7	9.5	10.5	9.4	10.1	9.7	9.2	10.6	9.0	8.9	11.3	8.3
		45.0	10.3	8.6	12.3	9.8	9.6	10.6	9.6	10.1	9.9	9.3	10.7	9.2	9.1	11.4	8.4
		50.0	11.2	8.9	13.0	10.7	9.8	11.3	10.5	10.4	10.5	10.2	11.0	9.8	9.9	11.7	9.0
10D	ZB45KCE	42.0	10.6	9.2	12.0	10.2	10.2	10.5	10.0	10.7	9.7	9.7	11.3	9.1	9.5	11.9	8.4
		44.0	11.1	9.3	12.3	10.6	10.3	10.7	10.3	10.8	10.0	10.1	11.4	9.4	9.8	12.0	8.7
		45.0	11.4	9.4	12.5	10.8	10.4	10.9	10.6	10.9	10.2	10.3	11.5	9.5	10.1	12.1	8.8
		50.0	12.3	9.7	13.2	11.8	10.7	11.6	11.4	11.2	10.8	11.2	11.7	10.1	10.9	12.4	9.4
13D	ZB57KCE	42.0	13.9	11.8	12.5	13.2	13.1	10.8	12.9	13.8	10.1	12.6	14.5	9.4	12.3	15.3	8.7
		44.0	14.4	11.9	12.8	13.7	13.2	11.2	13.4	13.9	10.4	13.1	14.6	9.7	12.8	15.4	9.0
		45.0	14.6	12.0	13.0	14.0	13.3	11.3	13.7	14.0	10.6	13.3	14.7	9.8	13.0	15.5	9.2
		50.0	15.7	12.3	13.7	15.2	13.6	12.0	14.7	14.3	11.2	14.4	15.0	10.5	14.0	15.8	9.8
15D	ZB66KCE	42.0	15.3	14.0	11.8	14.6	15.5	10.3	14.3	16.2	9.7	13.9	17.1	9.0	13.5	17.9	8.4
		44.0	16.3	14.3	12.3	15.5	15.7	10.8	15.2	16.5	10.1	14.8	17.3	9.4	14.5	18.2	8.8
		45.0	16.5	14.4	12.5	15.8	15.8	10.9	15.5	16.6	10.3	15.2	17.4	9.6	14.8	18.3	8.9
		50.0	17.8	14.8	13.2	17.1	16.2	11.6	16.8	17.0	10.8	16.4	17.8	10.2	16.0	18.7	9.5
18D	ZB76KCE	42.0	17.9	16.8	11.7	17.2	18.5	10.3	16.9	19.4	9.7	16.4	20.3	9.0	16.0	21.4	8.4
		44.0	18.5	17.0	12.0	17.7	18.7	10.5	17.3	19.6	9.8	17.0	20.6	9.2	16.5	21.6	8.6
		45.0	18.9	17.1	12.1	18.1	18.8	10.7	17.7	19.7	10.0	17.3	20.7	9.4	16.9	21.7	8.7
		50.0	20.3	17.6	12.8	19.5	19.3	11.3	19.0	20.3	10.4	18.7	21.2	9.9	18.2	22.2	9.2
22D	ZB95KCE	42.0	20.9	18.0	12.0	20.0	19.8	10.5	19.4	20.8	9.8	18.9	21.8	9.2	18.5	23.0	8.5
		44.0	21.7	18.2	12.3	20.7	20.0	10.7	20.1	21.0	10.0	19.7	22.0	9.4	19.2	23.2	8.8
		45.0	22.1	18.2	12.5	21.0	20.1	10.9	20.5	21.1	10.2	20.0	22.2	9.6	19.6	23.3	8.9
		50.0	23.8	18.8	13.1	22.8	20.6	11.6	22.1	21.6	10.8	21.7	22.6	10.2	21.3	23.7	9.5
26D	ZB114KCE	42.0	26.0	23.4	10.9	24.8	26.0	9.5	24.2	27.5	8.9	23.7	28.9	8.3	23.0	30.5	7.7
		44.0	26.7	23.5	11.2	25.2	26.2	9.7	24.9	27.6	9.1	24.3	29.1	8.5	23.7	30.7	7.9
		45.0	27.2	23.6	11.3	25.9	26.3	9.9	25.3	27.7	9.2	24.8	29.2	8.6	24.1	30.8	8.0
		50.0	29.1	23.9	12.0	27.8	26.6	10.5	27.1	28.1	9.7	26.5	29.5	9.1	25.8	31.1	8.5
35D	ZR250KCE	42.0	35.4	33.0	10.7	33.9	36.1	9.5	33.3	37.8	8.9	32.5	39.5	8.4	31.7	41.6	7.8
		44.0	36.7	33.3	11.0	35.1	36.5	9.7	34.4	38.3	9.1	33.7	39.9	8.6	32.9	42.0	8.0
		45.0	37.3	33.5	11.1	35.8	36.8	9.8	35.0	38.5	9.2	34.3	40.1	8.7	33.3	42.2	8.1
		50.0	40.3	34.5	11.7	38.7	37.8	10.4	37.8	39.5	9.8	37.2	41.0	9.3	36.3	43.2	8.6
43D	ZR300KCE	42.0	42.8	37.7	11.5	41.1	41.4	10.2	40.2	43.4	9.6	39.3	45.4	9.0	38.4	47.7	8.4
		44.0	44.2	38.1	11.8	42.5	41.8	10.5	41.6	43.7	9.8	40.8	45.8	9.3	39.8	48.1	8.7
		45.0	45.0	38.3	11.9	43.3	42.0	10.6	42.3	44.0	10.0	41.4	46.0	9.4	40.4	48.3	8.8
		50.0	48.8	39.4	12.6	46.8	43.0	11.2	45.8	44.9	10.6	44.9	46.8	10.0	43.8	49.2	9.4
52D	ZR380KCE	42.0	53.3	48.4	11.9	49.8	53.2	10.1	48.0	56.1	9.4	48.2	58.8	8.9	44.2	61.5	8.2
		44.0	55.7	49.1	12.1	52.1	54.1	10.3	50.2	56.7	9.6	49.2	59.3	9.0	46.2	62.0	8.4
		45.0	57.0	49.0	12.3	53.3	54.5	10.4	51.3	56.9	9.7	49.3	59.5	9.1	47.3	62.2	8.5
		50.0	63.3	50.5	12.9	59.3	55.5	11.0	57.2	58.4	10.4	55.0	59.9	9.8	52.8	63.4	9.1

1. Capacities on this chart are based on refrigerant R407C. Lower leaving water or low ambient requires 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 inputs include compressor (s), condenser fan motor (s) and control power.

Packaged & Split System Air-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
- Direct drive condenser fan motor
- Rust resistant, high CFM, aluminum condenser fan blade
- Condenser(s): copper tube/aluminum fin
- Compressor motor contactor
- Condenser motor and control circuit fusing
- Painted (Powder Coated), galvanized sheet metal cabinet
- 1/2" insulation on all water and Low pressure refrigerant lines
- Liquid line drier, sight glass, solenoid, TXV
- Complete refrigerant charge from factory



Idec Touchscreen



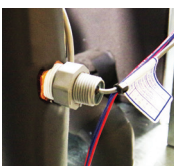
Brazed Plate Evaporator



Hot Gas By-Pass Capacity Control



Suction Accumulator



Water Flow Switch

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

Split System Models Only:

- Outdoor Condenser Section
- Discharge and Liquid Line ball valves on indoor and outdoor equipment

Available Options (All Models):

- 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)
- 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
- Fan cycle control (+40°F)
- Flooded condenser with receiver/head pressure control (0°F)
- Heated, flooded condenser with receiver/head pressure control (-20°F)
- Factory installed evaporator heat tape freeze protection
- Low flow by-pass valve
- Fused, **STAINLESS STEEL** process pump
- Dual system pump with manual changeover
- Dual system pump with auto changeover
- Pump suction isolation valve
- Water pressure gauge set
- Water flow meter
- Copper finned condenser coil (coastal protection)
- E-Coat condenser coil (coastal protection)
- Auto city water make up solenoid
- Auto city water changeover panel with filter
- Stainless steel, SCH80 PVC or Polypropylene piping for deionized and reverse osmosis water systems



Remote Idec Control Panel



5 Port Ethernet Switch



BacNet Gateway



VFD Controller



Industrial VPN Router



Disconnect Switch

Tank Models Only:

- Storage Tank Sight Glass
- Tank low liquid level indicator

Touch Screen User Interface



Touch Screen Key Chiller Control Features:

- USB update slot for IN-PLACE HMI and PLC software updates available
- Free Software Upgrades
- CE, UL Listed
- Monitor / Control your chiller from anywhere*
- 4gb SD card in slot for data storage - Standard
- Ultra bright display screen with auto screen saver
- Real-time Pressure and Temperature readings
- Automatic COMPRESSOR Lag/Lead with FIVE operational modes
- Automatic SYSTEM PUMP Lag/Lead with FIVE operational modes
- Factory configured for ALL chiller options

(Inside Mounted)
Touchscreen
Control Panel for
Outside Chillers



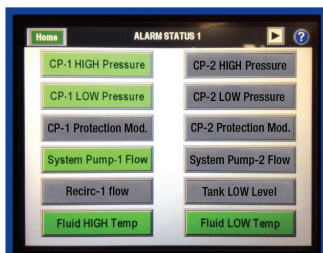
(PLC)
Pentra Logic
Controller

(Outside Mounted)
Touchscreen
Control Panel for
Indoor Chillers

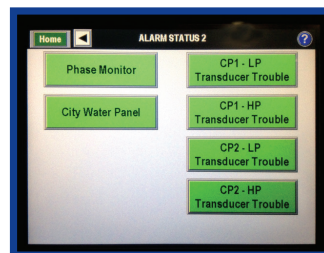


*Some network configuration required.

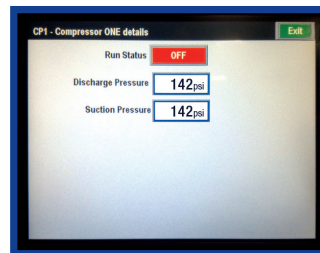
Other Touchscreen User Interface Examples...



Alarm Status Screen 1



Alarm Status Screen 2



Compressor Operation
Status and Pressures



Operational Data and
Fault Log

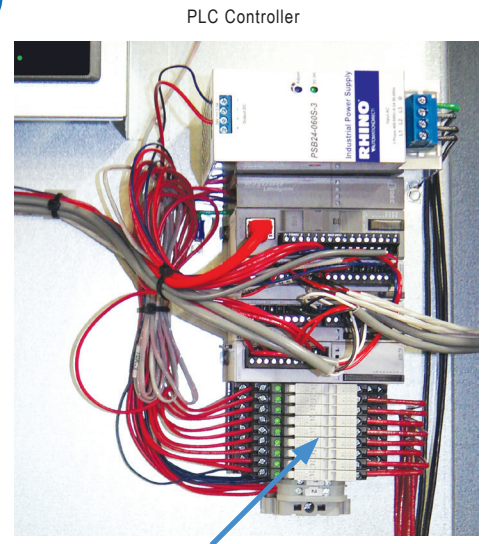
Pentra Microsmart, Programable Logic Controller (PLC)

Best-In-Class PLC
available for ALL Mueller
production chiller models.

Factory installed and
programmed into your next
Mueller Process Chiller.
The **Pentra PLC** will
seamlessly interface with
our HMI touch screen.

Pentra Key features include:

- CE, UL Listed
- Highly accurate and fast performance
- Embedded Ethernet Port
- Modbus (Slave) TCP, RTU and ASCII for integration with most Building Automation Systems (BAS)
- Optional BacNet and LONWORKS communication protocols via third party gateway hardware
- Expandable I/O, ideal for custom chiller control projects
- I/O status indicators on for easy diagnostics

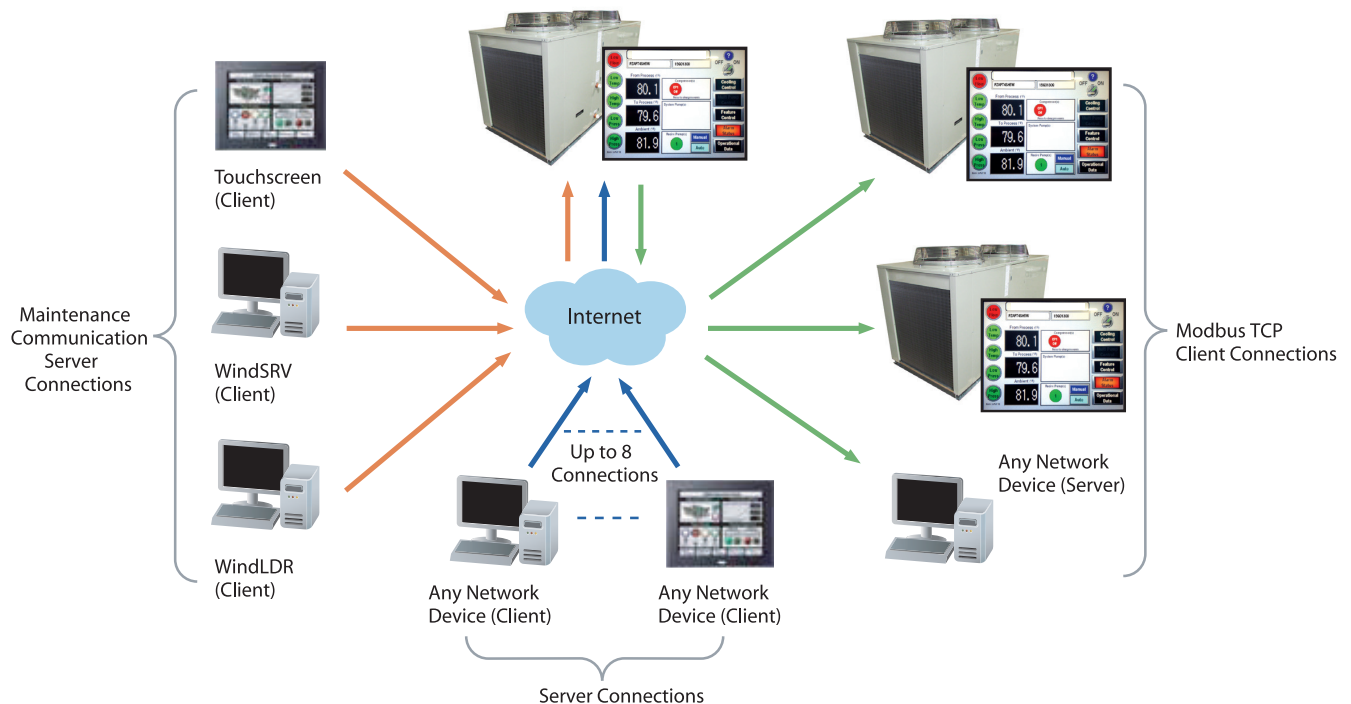


"Plugin" Control Relays for quick
easy replacement. No circuit board to
replace. Less downtime and cost.

Offering Extended Connectivity Options...

Up to 14 Simultaneous Connections!

Using Maintenance Communication Server connections, up to 3 Client devices, such as 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: Mueller 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. Mueller can provide fee based network support for special Level 3 switch configuration.

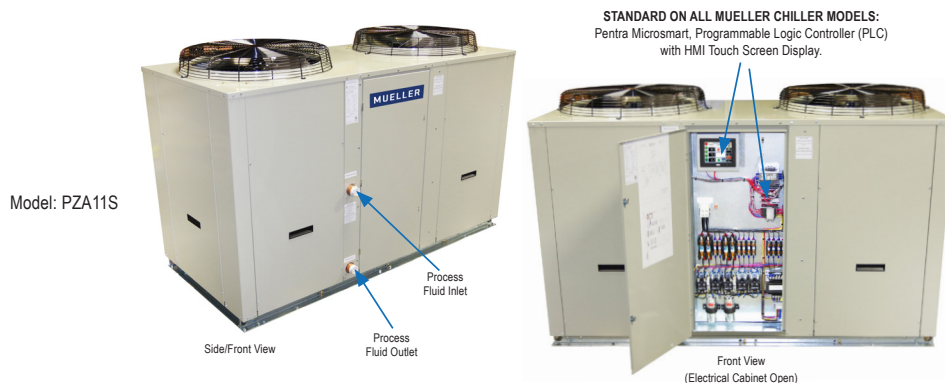


Single Circuit Packaged, Air-Cooled Chillers

Chiller Model	BTUH 95°F Air 45°F LWT	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	Fan Motor		MCA	M.O.P.	Chiller Fluid Conn.	Weight Pounds
					Qty.	HP			Qty.	FLA ea.				
MAZ1SE5	14,200	36	34	44	1	1.3	8.3	41	1	3.8	15	20	1"FPT	260
MAZ1.5SE5	21,500	36	34	44	1	2.0	13.5	68	1	3.8	20	30	1"FPT	265
MAZ1.5SF5							8.0	58		3.8	15	20		
MAZ1.5SH5							4.2	29		1.5	15	15		
MAZ1.5SI5							3.1	24		1.72	15	15		
MAZ2SE5	24,100	36	34	44	1	2.5	14.1	75	1	3.8	25	35	1"FPT	265
MAZ2SF5							9.9	73		3.8	20	25		
MAZ2SH5							5.1	38		1.5	15	15		
MAZ2SI5							3.8	28		1.72	15	15		
MAZ2.5SE5	34,800	36	34	44	1	3.5	19.9	104	1	3.8	30	45	1"FPT	295
MAZ2.5SF5							12.8	93		3.8	20	30		
MAZ2.5SH5							5.8	48		1.5	15	15		
MAZ2.5SI5							4.7	38		1.72	15	15		
MAZ3SE5	39,200	36	34	44	1	4	21.8	137	1	3.8	35	50	1"FPT	490
MAZ3SF5							15.4	114		3.8	25	35		
MAZ3SH5							7.1	58		1.5	15	15		
MAZ3SI5							5.2	43		1.72	15	10		
MAZ4SE5	50,000	46	34	48	1	5	27.1	175	1	3.8	40	60	1"FPT	490
MAZ4SF5							18.6	128		3.8	30	45		
MAZ4SH5							8.0	63		1.5	15	15		
MAZ4SI5							6.3	50		1.72	15	15		
MAZ4.5SE5	54,000	46	34	48	1	5	25.0	129	1	3.8	40	60	1"FPT	500
MAZ5SF5	60,000	46	34	48	1	6	18.6	156	1	3.8	30	45	1"FPT	500
MAZ5SH5							10.3	75		1.5	15	20		
MAZ5SI5							7.1	54		1.72	15	15		
MAZ7SF5	81,000	75	34	50	1	8	29.6	224	2	3.8	45	70	1.25"FPT	650
MAZ7SH5							13.2	99		1.5	25	35		
MAZ7SI5							10.5	82.4		1.72	20	25		
MAZ8SF5	91,000	75	34	50	1	9	30.1	225	2	3.8	50	70	1.25"FPT	650
MAZ8SH5							15.5	114		1.5	25	35		
MAZ8SI5							21.1	80		1.72	25	30		
MAZ9SF5	106,000	75	34	50	1	10	37.2	239	2	3.8	60	90	1.25"FPT	690
MAZ9SH5							17.2	125		1.5	25	40		
MAZ9SI5							12.4	80		1.72	20	30		
MAZ11SF5	132,000	75	34	50	1	12	49.4	300	2	3.8	70	110	1.25"FPT	750
MAZ11SH5							23.1	150		1.5	35	50		
MAZ11SI5							19.2	109		1.72	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, Air-Cooled Chillers



Chiller Model	BTUH 95°F Air 45°F LWT	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	Fan Motor		MCA	M.O.P.	Chiller Fluid Conn.	Weight Pounds
					Qty.	HP			Qty.	FLA				
MAZ7DE5	80,100	75	34	50	2	4	21.8	137	2	3.8	60	70	1.25"FPT	875
MAZ7DF5							15.4	114		3.8	45	50		
MAZ7DH5							7.1	58		1.5	20	25		
MAZ7DI5							5.2	43		1.72	20	20		
MAZ9DE5	106,400	75	34	50	2	5	27.1	175	2	3.8	70	90	1.25"FPT	900
MAZ9DF5							18.6	128		3.8	50	60		
MAZ9DH5							8.9	63		1.5	25	25		
MAZ9DI5							6.3	50		1.72	20	20		
MAZ9.5DE5	111,800	75	34	50	2	5	25.0	129	2	3.8	70	80	1.25"FPT	950
MAZ10DF5	118,000	75	34	50	2	6	18.6	156	2	3.8	50	60	1.25"FPT	950
MAZ10DH5							10.3	75		1.5	30	35		
MAZ10DI5							7.1	54		1.72	20	25		
MAZ13DF5	160,000	85	40	50	2	8	29.6	224	2	3.8	80	100	1.25"FPT	985
MAZ13DH5							13.2	99		1.5	40	50		
MAZ13DI5							10.5	82.4		1.72	30	35		
MAZ15DF5	183,500	85	40	50	2	9	30.1	225	2	3.8	80	100	1.25"FPT	1000
MAZ15DH5							15.5	114		1.5	40	50		
MAZ15DI5							12.1	80		1.72	35	40		
MAZ18DF5	209,200	85	40	50	2	10	37.2	239	2	3.8	100	125	1.5"FPT	1000
MAZ18DH5							17.2	125		1.5	45	50		
MAZ18DI5							12.4	80		1.72	35	40		
MAZ22DF5	264,200	66	75	51	2	12	49.4	300	4	3.8	150	175	1.5"FPT	1150
MAZ22DH5							23.1	150		1.5	60	80		
MAZ22DI5							19.2	109		1.72	60	70		
MAZ26DF5	302,000	176.5	45.5	55	2	15	53.8	340	2	7	150	200	2"FPT	3490
MAZ26DH5							28.2	173		3.5	80	100		
MAZ26DI5							22.4	132		2.8	70	80		
MAZ35DF5	406,000	176.5	88	55	2	20	73.1	505	4	7	200	250	2"FPT	4800
MAZ35DH5							30.1	225		3.5	90	110		
MAZ35DI5							24.4	180		2.8	70	90		
MAZ43DF5	500,000	176.5	88	55	2	25	89.7	500	4	7	250	300	2"FPT	4900
MAZ43DH5							43.6	250		3.5	125	150		
MAZ43DI5							32.7	198		2.8	90	110		
MAZ52DF5	612,000	176.5	88	55	2	30	109	599	4	7	300	350	3"FPT	5200
MAZ52DH5							53.2	310		3.5	150	175		
MAZ52DI5							42.3	239		2.8	110	125		

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.

STANDARD ON ALL MUELLER CHILLER MODELS:

Idc Microprocessor Controller with
Touch Screen Display.
(Located inside front electrical cabinet)

Model: MAZ52D





Packaged, Air-Cooled Chillers with Stainless Steel Tank



Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA		Fan Motor		Recirculation Pump FLA	MCA	M.O.P.	Reservoir Gal.	Chiller Fluid Conn	Weight Pounds
					Qty.	HP	Ea.	Ea.	Qty.	FLA ea.						
MAZT1SE5	14,000	36	34	68	1	1.3	8.3	40.3	1	3.8	5.1	25	30	20	1"FPT	550
MAZT1.5SE5	18,000	36	34	68	1	2.0	15.0	68	1	3.8	5.1	30	40	20	1"FPT	600
MAZT1.5SF5							8.9	58		3.8	5.1	20	25			
MAZT1.5SH5							4.6	29		1.5	1.3	15	15			
MAZT1.5SI5							3.4	24		1.72	0.72	15	15			
MAZT2SE5	22,000	36	34	68	1	2.5	15.7	75	1	3.8	5.1	30	40	20	1"FPT	650
MAZT2SF5							11.1	73		3.8	5.1	25	30			
MAZT2SH5							5.7	38		1.5	1.3	15	15			
MAZT2SI5							4.2	28		1.72	0.72	15	15			
MAZT2.5SE5	28,800	36	34	68	1	3.5	22.1	104	1	3.8	5.1	40	50	20	1"FPT	700
MAZT2.5SF5							14.3	93		3.8	5.1	30	40			
MAZT2.5SH5							6.4	48		1.5	1.3	15	15			
MAZT2.5SI5							5.3	38		1.72	0.72	15	15			
MAZT3SE5	36,000	36	34	68	1	4	24.3	137	1	3.8	5.1	40	60	20	1"FPT	800
MAZT3SF5							17.1	114		3.8	5.1	35	45			
MAZT3SH5							7.9	58		1.5	1.3	15	20			
MAZT3SI5							5.8	43		1.72	0.72	15	15			
MAZT4SE5	49,200	46	34	72	1	5	30.1	175	1	3.8	5.1	50	70	50	1"FPT	850
MAZT4SF5							20.7	128		3.8	5.1	35	50			
MAZT4SH5							8.9	63		1.5	1.3	15	20			
MAZT4SI5							7.1	50		1.72	0.72	15	15			
MAZT4.5SE5	51,600	46	34	72	1	5	27.9	129	1	3.8	5.1	45	70	50	1"FPT	875
MAZT5SF5	55,200	46	34	72	1	6	20.7	156	1	3.8	5.1	35	50	50	1"FPT	900
MAZT5SH5							11.5	75		1.5	1.3	20	25			
MAZT5SI5							7.9	54		1.72	0.72	15	20			
MAZT7SF5	75,600	75	34	72	1	8	29.6	224	2	3.8	6.7	60	80	50	1"FPT	1100
MAZT7SH5							13.2	99		1.5	1.7	30	40			
MAZT7SI5							10.5	82.4		1.72	1	20	30			
MAZT8SF5	84,000	75	34	72	1	9	33.6	225	2	3.8	7.9	60	90	80	1.25"FPT	1150
MAZT8SH5							17.3	114		1.5	2.0	30	40			
MAZT8SI5							13.5	80		1.72	1.5	25	35			
MAZT9SF5	98,400	75	34	72	1	10	41.4	239	2	3.8	10.0	70	110	80	1.25"FPT	1250
MAZT9SH5							19.2	125		1.5	2.8	30	45			
MAZT9SI5							13.8	80		1.72	1.8	25	35			
MAZT11SF5	122,400	75	34	72	1	12	53.6	300	2	3.8	10.0	90	125	80	1.25"FPT	1300
MAZT11SH5							24.3	150		1.5	2.8	40	60			
MAZT11SI5							20.7	109		1.72	1.8	35	50			
MAZT7DE5	73,200	75	34	77	2	4	25.0	132	2	3.8	6.7	80	90	50	1.25"FPT	1100
MAZT7DF5							14.6	115		3.8	6.7	50	60			
MAZT7DH5							6.9	48		1.5	1.7	20	25			
MAZT7DI5	96,000	75	34	77	2	5	5.9	40	2	1.72	1	20	20	80	1.25"FPT	1200
MAZT9DE5							30.1	175		3.8	10.0	90	110			
MAZT9DF5							20.7	128		3.8	10.0	70	80			
MAZT9DH5	102,000	75	34	77	2	5	8.9	63	2	1.5	2.8	30	30	80	1.25"FPT	1250
MAZT9DI5							7.1	50		1.72	1.8	25	25			
MAZT9.5DE5							27.9	129		3.8	10.0	90	100			
MAZT10DF5	108,000	75	34	77	2	6	20.7	156	2	3.8	10.0	70	80	80	1.25"FPT	1250
MAZT10DH5							11.5	75		1.5	2.8	35	40			
MAZT10DI5							7.9	54		1.72	1.8	25	30			
MAZT13DF5	147,000	85	40	77	2	8	29.6	224	2	3.8	10.5	90	110	80	1.5"FPT	1300
MAZT13DH5							13.2	99		1.5	3.2	45	50			
MAZT13DI5							10.5	82.4		1.72	2.3	35	40			
MAZT15DF5	167,000	85	40	77	2	9	33.6	225	2	3.8	7.9	100	110	120	1.5"FPT	1400
MAZT15DH5							17.3	114		1.5	2.0	45	60			
MAZT15DI5							13.5	80		1.72	1.5	35	45			
MAZT18DF5	190,800	85	40	77	2	10	41.4	239	2	3.8	5.6	110	125	120	1.5"FPT	1450
MAZT18DH5							19.2	125		1.5	2.8	50	60			
MAZT18DI5							13.8	80		1.72	1.8	40	50			

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.

Split-System, Air-Cooled Chillers



Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	Fan Motor		MCA	M.O.P.	Chiller Fluid Conn	Weight Pounds	Condenser Selection
					Qty.	HP			Qty.	FLA ea.					
MSZ1SE5	14,200	44	28	36	1	1.3	8.3	40.3	1	3.8	15	20	1"FPT	225	OC1S
MSZ1.5SE5	21,500	44	28	36	1	2.0	13.5	68	1	3.8	20	30	1"FPT	225	OC1.5S
MSZ1.5SF5							8.0	58		3.8	15	20			
MSZ1.5SH5							4.2	29		1.5	15	15			
MSZ1.5SI5							3.1	24		1.72	15	15			
MSZ2SE5	24,100	44	28	36	1	2.5	14.1	75	1	3.8	25	35	1"FPT	370	OC2S
MSZ2SF5							9.9	73		3.8	20	25			
MSZ2SH5							5.1	38		1.5	15	15			
MSZ2SI5							3.8	28		1.72	15	15			
MSZ2.5SE5	34,800	44	28	36	1	3.5	19.9	104	1	3.8	30	45	1"FPT	500	OC2.5S
MSZ2.5SF5							12.8	93		3.8	20	30			
MSZ2.5SH5							5.8	48		1.5	15	15			
MSZ2.5SI5							4.7	38		1.72	15	15			
MSZ3SE5	39,200	44	28	36	1	4	21.8	137	1	3.8	35	50	1"FPT	500	OC3S
MSZ3SF5							15.4	114		3.8	25	35			
MSZ3SH5							7.1	58		1.5	15	15			
MSZ3SI5							5.2	43		1.72	15	15			
MSZ4SE5	50,000	44	28	36	1	5	27.1	175	1	3.8	40	60	1"FPT	550	OC4S
MSZ4SF5							18.6	128		3.8	30	45			
MSZ4SH5							8.0	63		1.5	15	20			
MSZ4SI5							6.3	50		1.72	15	15			
MSZ4.5SE5	54,000	44	28	36	1	5	25.0	129	1	3.8	40	60	1"FPT	575	OC4.5S
MSZ5SF5	60,000	44	28	36	1	6	18.6	156	1	3.8	30	45	1"FPT	600	OC5S
MSZ5SH5							10.3	75		1.5	15	20			
MSZ5SI5							7.1	54		1.72	15	15			
MSZ7SF5	81,000	44	28	36	1	8	29.6	224	2	3.8	45	70	1"FPT	700	OC7S
MSZ7SH5							13.2	99		1.5	25	35			
MSZ7SI5							10.5	82.4		1.72	20	25			
MSZ8SF5	91,000	44	28	36	1	9	30.1	225	2	3.8	50	70	1.25"FPT	725	OC8S
MSZ8SH5							15.5	114		1.5	25	35			
MSZ8SI5							12.1	80		1.72	25	30			
MSZ9SF5	106,000	44	28	36	1	10	37.2	239	2	3.8	60	90	1.25"FPT	750	OC9S
MSZ9SH5							17.2	125		1.5	25	40			
MSZ9SI5							12.4	80		1.72	20	30			
MSZ11SF5	132,000	44	28	36	1	12	49.4	300	2	3.8	70	110	1.25"FPT	850	OC11S
MSZ11SH5							23.1	150		1.5	35	50			
MSZ11SI5							19.2	109		1.72	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.

3) See Installation Instruction Manual Refrigerant Chart for additional refrigerant charge needed for extended pipe length.

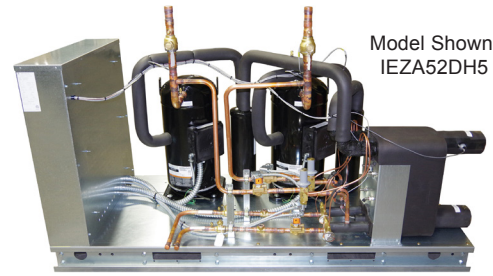
4) See condenser specification sheet for weight and dimension

Model Shown:
IEZA10DF5



Split-System, Air-Cooled Chillers

Model Shown:
IEZA52DH5



Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA ea.	LRA ea.	Fan Motor		MCA	M.O.P.	Chiller Fluid Conn	Weight Pounds	Condenser Selection
					Qty.	HP			Qty.	FLA ea.					
MSZ7DE5	80,100	65	30	37	2	4	21.8	137	2	3.8	60	70	1.25"FPT	900	OC7D
MSZ7DF5							15.4	114		3.8	45	50			
MSZ7DH5							7.1	58		1.5	20	25			
MSZ7DI5							5.2	40		1.72	20	20			
MSZ9DE5	106,400	65	30	37	2	5	27.1	175	2	3.8	70	90	1.25"FPT	1000	OC9D
MSZ9DF5							18.6	128		3.8	50	60			
MSZ9DH5							8.0	63		1.5	25	25			
MSZ9DI5							6.3	50		1.72	20	20			
MSZ9.5DE5	111,800	65	30	37	2	5	25.0	129	2	3.8	70	80	1.25"FPT	1100	OC9.5D
MSZ10DF5	118,000	65	30	37	2	6	18.6	156	2	3.8	50	60	1.25"FPT	1200	OC10D
MSZ10DH5							10.3	75		1.5	30	35			
MSZ10DI5							7.1	54		1.72	20	25			
MSZ13DF5	160,000	65	30	37	2	8	29.6	224	2	3.8	80	100	1.25"FPT	1400	OC13D
MSZ13DH5							13.2	99		1.5	40	50			
MSZ13DI5							10.5	82.4		1.72	30	35			
MSZ15DF5	183,500	65	30	37	2	9	30.1	225	2	3.8	80	100	1.25"FPT	1450	OC15D
MSZ15DH5							15.5	114		1.5	40	40			
MSZ15DI5							12.1	80		1.72	35	45			
MSZ18DF5	209,200	65	30	37	2	10	37.2	239	2	3.8	100	125	1.5"FPT	1450	OC18D
MSZ18DH5							17.2	125		1.5	45	50			
MSZ18DI5							12.4	80		1.72	35	40			
MSZ22DF5	264,200	65	30	37	2	12	49.4	300	4	3.8	150	175	1.5"FPT	1750	OC22D
MSZ22DH5							23.1	150		1.5	60	80			
MSZ22DI5							19.2	109		1.72	60	70			
MSZ26DF5	302,000	85	34	42	2	15	53.8	340	2	7	150	200	2"FPT	1500	BNH217
MSZ26DH5							28.2	173		3.5	80	100			
MSZ26DI5							22.4	132		2.8	70	80			
MSZ35DF5	406,000	85	34	42	2	20	73.1	505	4	7	200	250	2.5"FPT	1600	BNH421
MSZ35DH5							30.1	225		3.5	90	110			
MSZ35DI5							24.4	180		2.8	70	90			
MSZ43DF5	500,000	85	34	42	2	25	89.7	500	4	7	250	300	2"FPT	1700	BNH429
MSZ43DH5							43.6	250		3.5	125	150			
MSZ43DI5							32.7	198		2.8	90	110			
MSZ52DF5	612,000	85	34	42	2	30	109	599	4	7	300	350	2.5"FPT	1700	BNH434
MSZ52DH5							53.2	310		3.5	150	175			
MSZ52DI5							42.3	239		2.8	110	125			

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.



Shown:
MSZ91M Custom
Split-System
Chiller in testing
stages with the
outdoor condenser.

Split-System, Single Circuit Air-Cooled Chillers - *with Tank*



Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA	LRA	Fan Motor		Recirculation Pump FLA	MCA	M.O.P.	Reservoir Gal.	Chiller Fluid Conn.	Weight Pounds	Condenser Model
					Qty.	HP	Ea.	Ea.	Qty.	FLA							
MSZT1SE5	14,000	36	34	65	1	1.3	8.3	40.3	1	3.8	4.2	20	25	20	1" FPT	550	OC1S
MSZT1.5SE5	18,000	36	34	65	1	2.0	13.5	68	1	3.8	4.2	25	35	20	1" FPT	600	OC1.5S
MSZT1.5SF5							8.0	58		3.8	4.2	20	25				
MSZT1.5SH5							4.2	29		1.5	0.9	15	15				
MSZT1.5SI5							3.1	24		1.72	0.72	15	15				
MSZT2SE5	22,000	36	34	65	1	2.5	14.1	75	1	3.8	4.2	30	40	20	1" FPT	650	OC2S
MSZT2SF5							9.9	73		3.8	4.2	25	30				
MSZT2SH5							5.1	38		1.5	0.9	15	15				
MSZT2SI5							3.8	28		1.72	0.72	15	15				
MSZT2.5SE5	28,800	36	34	65	1	3.5	19.9	104	1	3.8	4.2	35	50	20	1" FPT	700	OC2.5S
MSZT2.5SF5							12.8	93		3.8	4.2	25	35				
MSZT2.5SH5							5.8	48		1.5	0.9	15	15				
MSZT2.5SI5							4.7	38		1.72	0.72	15	15				
MSZT3SE5	36,000	36	34	65	1	4	21.8	137	1	3.8	4.2	40	60	20	1" FPT	800	OC3S
MSZT3SF5							15.4	114		3.8	4.2	30	40				
MSZT3SH5							7.1	58		1.5	0.9	15	20				
MSZT3SI5							5.2	43		1.72	0.72	15	15				
MSZT4SE5	49,200	46	34	69	1	5	27.1	175	1	3.8	4.2	45	60	50	1" FPT	850	OC4S
MSZT4SF5							18.6	128		3.8	4.2	35	45				
MSZT4SH5							8.0	63		1.5	0.9	15	20				
MSZT4SI5							6.3	50		1.72	0.72	15	15				
MSZT4.5SE5	51,600	46	34	69	1	5	25.0	129	1	3.8	4.2	40	60	50	1" FPT	875	OC4.5S
MSZT5SF5	55,200	46	34	69	1	6	18.6	156	1	3.8	4.2	35	45	50	1" FPT	900	OC5S
MSZT5SH5							10.3	75		1.5	0.9	20	25				
MSZT5SI5							7.1	54		1.72	0.72	15	20				
MSZT7SF5	75,600	75	34	70	1	8	29.6	224	2	3.8	5.4	50	70	50	1" FPT	1100	OC7S
MSZT7SH5							13.2	99		1.5	1.4	30	40				
MSZT7SI5							10.5	82.4		1.72	1	20	25				
MSZT8SF5	84,000	75	34	70	1	9	30.1	225	2	3.8	6.6	60	80	80	1.25" FPT	1150	OC8S
MSZT8SH5							15.5	114		1.5	1.7	25	35				
MSZT8SI5							12.1	80		1.72	1.5	25	30				
MSZT9SF5	98,400	75	34	70	1	10	37.2	239	2	3.8	7.9	70	90	80	1.25" FPT	1250	OC9S
MSZT9SH5							17.2	125		1.5	2.5	30	40				
MSZT9SI5							12.4	80		1.72	1.5	25	30				
MSZT11SF5	122,400	75	34	70	1	12	49.4	300	2	3.8	7.9	80	125	80	1.25" FPT	1300	OC11S
MSZT11SH5							23.1	150		1.5	2.5	35	50				
MSZT11SI5							19.2	109		1.72	1.5	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.

3) See Installation Instruction Manual Refrigerant Chart for additional refrigerant charge needed for extended pipe length.

4) See condenser specification sheet for weight and dimension



Split-System, Dual Circuit Air-Cooled Chillers - *with Tank*

Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Compressor		RLA	LRA	Fan Motor		Recirculation Pump FLA	MCA	M.O.P.	Reservoir Gal.	Chiller Fluid Conn.	Weight Pounds	Condenser Model
					Qty.	HP	Ea.	Ea.	Qty.	FLA							
MSZT7DE5	73,200	75	34	70	2	4	21.8	137	2	3.8	6.6	70	80	50	1.25" FPT	1350	OC7D
MSZT7DF5							15.4	114		3.8	6.6	50	60				
MSZT7DH5							7.1	58		1.5	1.7	25	25				
MSZT7DI5							5.2	43		1.72	1	20	20				
MSZT9DE5	96,000	75	34	70	2	5	27.1	175	2	3.8	7.9	80	100	80	1.25" FPT	1400	OC9D
MSZT9DF5							18.6	128		3.8	7.9	60	70				
MSZT9DH5							8.0	63		1.5	2.8	25	30				
MSZT9DI5							6.3	50		1.72	2.5	20	25				
MSZT9.5DE5	102,000	75	34	70	2	5	25.0	129	2	3.8	7.9	80	90	80	1.25" FPT	1450	OC9.5D
MSZT10DF5	108,000	75	34	70	2	6	18.6	156	2	3.8	7.9	60	70	80	1.25" FPT	1500	OC10D
MSZT10DH5							10.3	75		1.5	2.5	30	35				
MSZT10DI5							7.1	54		1.72	1.5	25	25				
MSZT13DF5	147,000	75	34	70	2	8	29.6	224	2	3.8	3.5	80	100	80	1.5" FPT	1700	OC13D
MSZT13DH5							13.2	99		1.5	1.7	40	50				
MSZT13DI5							10.5	82.4		1.72	1.0	30	35				
MSZT15DF5	167,000	85	34	70	2	9	30.1	225	2	3.8	3.5	80	100	80	1.5" FPT	1800	OC15D
MSZT15DH5							15.5	114		1.5	1.7	40	50				
MSZT15DI5							12.1	80		1.72	1.0	35	40				
MSZT18DF5	190,800	85	34	70	2	10	37.2	239	2	3.8	3.5	100	125	120	1.5" FPT	1900	OC18D
MSZT18DH5							17.2	125		1.5	1.7	45	60				
MSZT18DI5							12.4	80		1.72	1.0	35	40				
MSZT22DF5	238,800	85	34	70	2	12	49.4	300	4	3.8	5.6	125	150	120	1.5" FPT	2100	OC22D
MSZT22DH5							23.1	150		1.5	2.8	60	70				
MSZT22DI5							19.2	109		1.72	2.3	60	70				

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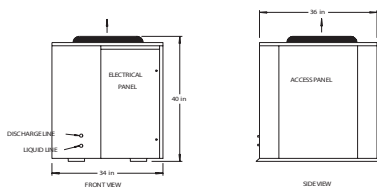


Model Shown:
MOC52D

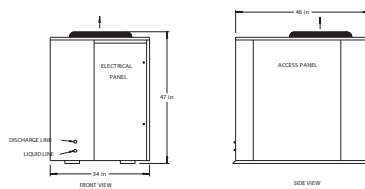
R407C Split-System Outdoor Condenser

Model	Length Inches	Width Inches	Height Inches	Fan Motor		Refrigerant Conn.		Weight Pounds
				Qty	HP	Discharge	Liquid	
MOC1S	36	34	40	1	1/2	1/2"	3/8"	125
MOC1.5S	36	34	40	1	1/2	1/2"	3/8"	135
MOC2S	36	34	40	1	1/2	1/2"	3/8"	145
MOC2.5S	36	34	40	1	1/2	1/2"	3/8"	200
MOC3S	46	34	47	1	1/2	5/8"	1/2"	205
MOC4S	46	34	47	1	1/2	3/4"	1/2"	225
MOC4.5S	46	34	47	1	1/2	3/4"	1/2"	235
MOC5S	46	34	47	1	1/2	3/4"	1/2"	235
MOC7S	75	34	47	2	1/2	7/8"	1/2"	355
MOC8S	75	34	47	2	1/2	7/8"	5/8"	355
MOC9S	75	34	47	2	1/2	7/8"	5/8"	355
MOC11S	75	34	47	2	1/2	1 1/8"	5/8"	400
MOC7D	75	34	47	2	1/2	5/8" (2)	1/2" (2)	515
MOC9D	75	34	47	2	1/2	3/4" (2)	1/2" (2)	535
MOC9.5D	75	34	47	2	1/2	3/4" (2)	1/2" (2)	655
MOC10D	75	34	47	2	1/2	3/4" (2)	1/2" (2)	655
MOC13D	85	40	47	2	1/2	7/8" (2)	1/2" (2)	745
MOC15D	85	40	47	2	1/2	7/8" (2)	5/8" (2)	745
MOC18D	85	40	47	2	1/2	7/8" (2)	5/8" (2)	745
MOC22D	66	75	49	4	1/2	1 1/8" (2)	5/8" (2)	1025
MOC26D	127	46	49	2	1 1/2	1 1/8" (2)	5/8" (2)	680
MOC35D	127	88	49	4	1 1/2	1 3/8" (2)	7/8" (2)	1240
MOC43D	127	88	49	4	1 1/2	1 3/8" (2)	7/8" (2)	1340
MOC52D	127	88	49	4	1 1/2	1 5/8" (2)	1 1/8" (2)	1440

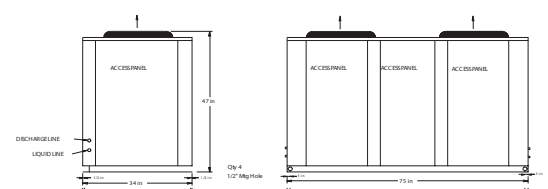
MOC1S, 1.5S, 2S, 2.5S



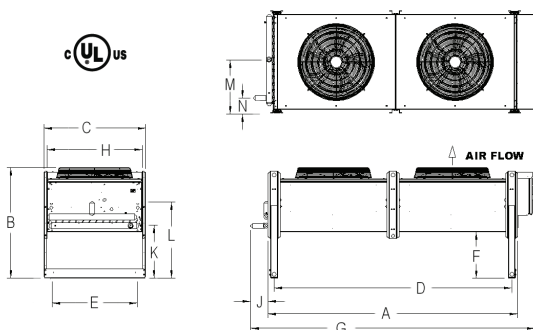
MOC3S, 4S, 4.5S, 5S



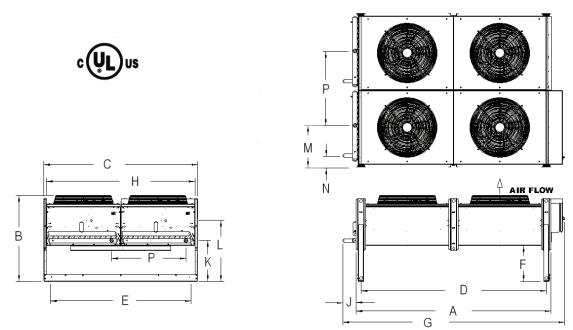
MOC7S, 8S, 9, 11S, 7D, 9D, 9.5D, 10D



MOC26D



MOC35D, 43D, 52D



Dimensional Specifications, Features and Option

Polyethylene Tank & Pump

TANK MODEL	LENGTH IN.	WIDTH IN.	HEIGHT IN.	WATER CONN.	TANK CAPACITY	RECIRCULATION PUMP	FLA 230/3Ø	FLA 460/3Ø	WEIGHT LBS.
RRT200	88	56	60	2" FPT	200 GALLONS	3HP	9.4	4.5	445
RRT300	88			2.5" FPT	300 GALLONS	3HP	9.4	4.5	465
RRT500	120			3" FPT	500 GALLONS	5HP	13.7	6.5	595
RRT600	120			4" FPT	600 GALLONS	5HP	13.7	6.5	625

Stainless Steel Tank & Pump

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

(Stainless Steel Tank) Standard Features:

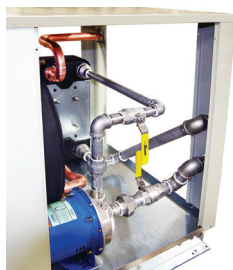
- **STAINLESS STEEL** storage tank
- 20, 50, 80, & 120 gallon tank sizes
- 1/2" tank and fluid piping insulation
- Copper fluid piping
- Tank vent and drain connections
- Tank pressure relief valve
- Fused evaporator fluid re-circulating **STAINLESS STEEL** pump
- Fluid pump discharge ball valve and cleanable "Y" strainer
- Control box with pump terminal block
- Painted (Powder Coated), galvanized sheet metal cabinet



(Stainless Steel Inside Tank)
Model: RST120H

Available Options:

- Fused, **STAINLESS STEEL** process pump
- Dual process pump with manual changeover
- Dual process pump with auto changeover
- Pump suction isolation valve
- **Process Pump VFD Controller**
- **Tank liquid sight glass**
- Tank liquid level indicator with dry contacts
- Low flow by-pass valve
- **Water low meter**
- Auto city water make up solenoid
- 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



Shown Below:
Model: RST120H,
with Stainless Steel
Piping inside

(Polyethylene Tank) Standard Features:

- Open Vented **Polyethylene tank**
- **200, 300, 500, & 600 gallon open-vented tank sizes**
- 1/2" tank and fluid piping insulation
- SCH80 PVC and Polypropylene piping
- Fused evaporator fluid re-circulation **STAINLESS STEEL** pump
- Chiller evaporator pump discharge ball valve and cleanable "Y" strainer
- Control box with pump terminal block
- Galvanized steel sheet metal cabinet
- Hinged removable access panels



(Polyethylene Tank)
600 Gallon Tank & Pump
Package with
Dual Process Pumps

Available Options:

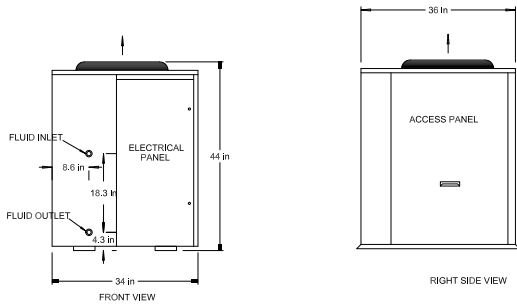
- Fused, **STAINLESS STEEL** process pump
- Dual process pump with manual changeover
- Dual process pump with auto changeover
- Pump suction isolation valve
- **Process Pump VFD Controller**
- **Tank liquid sight glass**
- Tank liquid level indicator with dry contacts
- Low flow by-pass valve
- **Water low meter**
- Auto city water make up solenoid
- 1" tank and piping insulation in lieu of 1/2"
- Seal-tight electrical conduit and connections



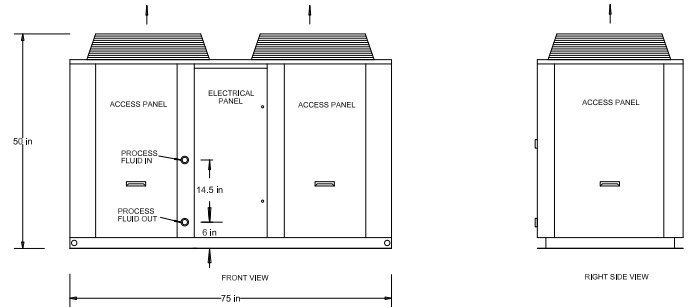
Inside View:
Model: RRT600H,
Dual Vertical 10 HP
Process Pumps

R407C Packaged, Air-Cooled Chillers

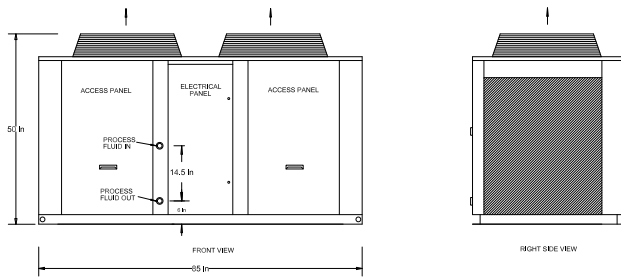
MAZ1S, 1.5S, 2S, 2.5S, 3S, 4S, 4.5S, 5S



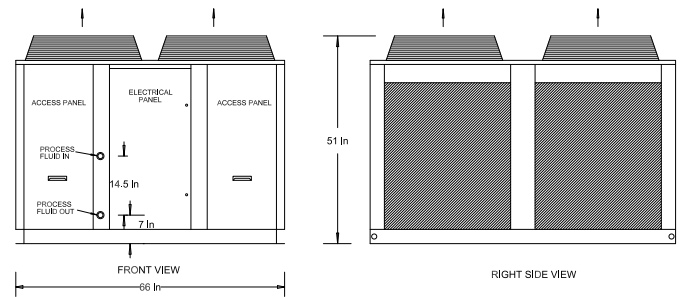
MAZ7S, 8S, 9S, 11S, 7D, 9D, 9.5D, 10D



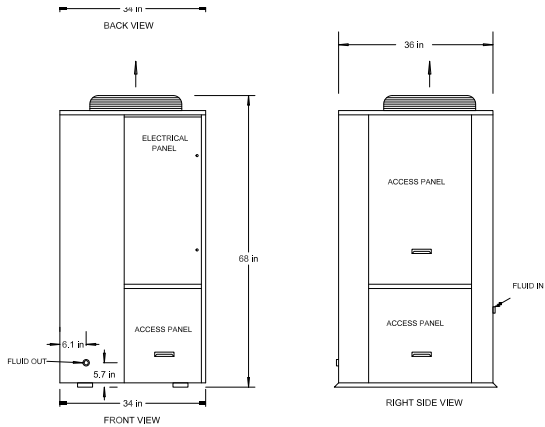
MAZ13D, 15D, 18D



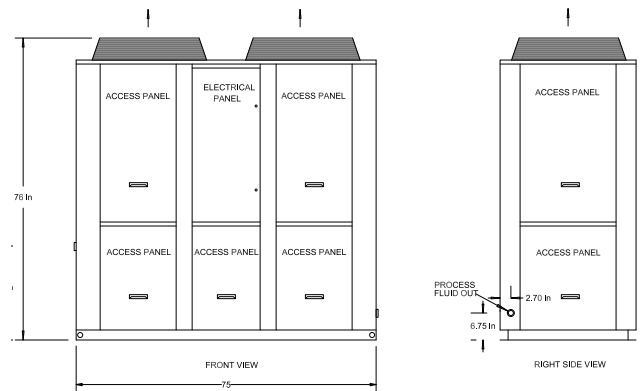
MAZ22D (four fans)



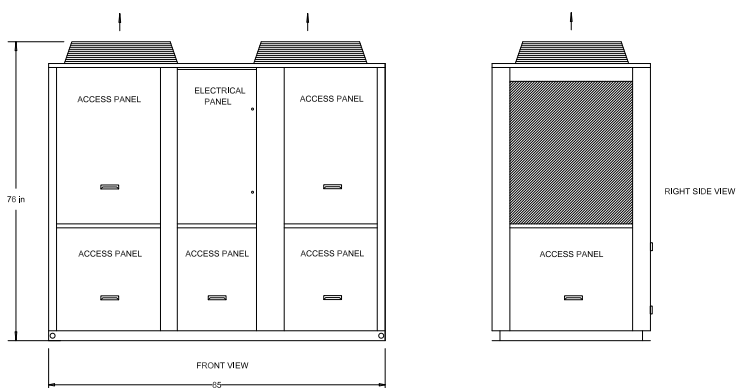
MAZT1S, 1.5S, 2S, 2.5S, 3S, 4S, 4.5S, 5S



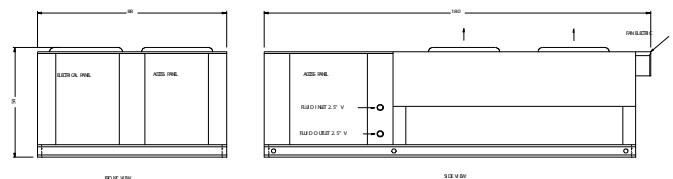
MAZT7S, 8S, 9S, 11S, 7D, 9D, 9.5D, 10D



MAZT13D, 15D, 18D



MAZ35D, 43D, 52D



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.

MUELLER

Process Chiller Catalog

Have Questions? Give Us a Call at:

(417) 575-9000

Email: contact@paulmueller.com

Website: www.paulmueller.com

