

# PACKAGE CHILLER

- 5 - 180 Tons Capacity
- Using Non-Ozone Depleting Refrigerants
- Microprocessor Control
- Remote Air-Cooled Condenser
- Galvanized Steel Frame

The MA-RC Series central chiller provides precision temperature control from an economically affordable and reliable unit. Perfect for applications such as plastic injection molding, blow molding, extrusion and other industrial applications. A pump tank station is required to distribute the chilled water to the application use-points.

The MA-RC model allows for the primary chiller to stay indoors, while the remote condenser is installed outdoors. Chilling modules are offered in single, dual and triple zone configurations.

## REFRIGERANT CIRCUITS (per zone):

- Discus reciprocal, Scroll or Screw compressors
- Compressor suction service valve
- Compressor discharge service valve
- Brazed plate evaporator or shell and tube evaporator
- Remote air-cooled condenser
- Liquid line solenoid valve
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Hot gas by-pass capacity control or compressor unloading
- Liquid receiver
- 410A refrigerant
- Oil separator (units with scroll and reciprocating compressors)

## LIMIT DEVICES (per zone):

- High refrigerant pressure
- Low refrigerant pressure
- Evaporator flow

## PRESSURE GAUGES (per zone):

- Refrigerant high pressure gauge
- Refrigerant low pressure gauge
- Coolant pressure gauge

## ELECTRICAL:

- Fused transformer
- Nema rated electrical cabinet
- Power entry terminal block
- Fused compressor motor starter (dual and triple zone models)

## CHILLER CONTROL INSTRUMENT:

- Microprocessor, multizone controller
- Intelligent zone boards
- Large temperature display
- °F or °C display
- Large setup display
- Refrigerant circuit indicators
- Water circuit indicators
- SPI communications interface
- Selectable lead/lag mode

- Audible and visual alarm

## WARRANTY & SERVICE

- 1 year on parts & labor
- Nationwide network of service contractors

# MA-RC SERIES

with Remote Air-Cooled Condenser



Typical MA-RC chilling unit



Typical remote air-cooled condenser

## OPTIONS:

- Compressor CCPR valve
- Compressor hour meter
- Remote display kit
- Color touch screen PLC
- Extended compressor warranty
- UL listed electrical panel

## Authorized Dealer

**Southgate Process Equipment, Inc.**

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# Specifications

MODEL <sup>1</sup>		MARC-5	MARC-7.5	MARC-10	MARC-15	MARC-20	MARC-25	MARC-30	MARC-40	MARC-50	MARC-60
<b>REFRIGERANT CIRCUITS</b>	Quantity	1	1	1	1	1	1	1	1	1	1
<b>CAPACITY</b> @ 50°F LWT	Tons <sup>2</sup>	5	7.5	10	15	20	25	30	40	50	60
<b>COMPRESSOR</b>	Quantity	1	1	1	1	2	2	2	1	1	1
	Type <sup>3</sup>	SC	SC	SC	SC	SC	SC	SC	SC/S	S	S
<b>CONNECTION SIZES</b> <sup>4</sup> (inches)	To/From Process	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2	2	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	3	3
<b>FLOW REQUIREMENTS</b>	GPM	13	22	28	36	47	60	72	101	120	138
<b>UNIT AMPERAGE</b> <sup>5</sup>	230 volts	25	31	43	60	84	104	120	156	216	256
@ 3ø / 60 Hz <sup>6</sup> (full load)	460 volts	12.5	16	22	30	42	52	60	78	108	128
	575 volts	10	13	17	24	34	42	48	63	87	103
<b>REFRIGERANT</b>	Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
<b>DIMENSIONS</b> (inches)	Height	52	52	52	52	52	57	57	57	57	57
	Width	24	24	24	24	24	29	29	36	36	36
	Depth	62	62	62	70	70	70	70	84	84	84
<b>WEIGHTS</b> (pounds)	Shipping <sup>7</sup>	450	525	545	845	885	1,040	1,100	1,200	1,300	1,400
<b>REMOTE AIR-COOLED CONDENSER</b> <sup>8,9</sup>											
<b>QUANTITY</b>		1	1	1	1	1	1	1	1	1	1
<b>CONNECTIONS</b>	Liquid	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>
	Hot Gas	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>
<b>AIR FLOW</b> <sup>10</sup>	Fan Quantity	1	1	1	2	2	2	3	3	4	4
	<b>UNIT AMPERAGE</b> <sup>11</sup>	230 Volt	7	7	7	13	13	13	19	19	25
	@ 3ø / 60 Hz <sup>6</sup> (full load)	460 Volt	4	4	4	7	7	7	10	10	13
575 Volt		3	3	3	5	5	5	8	8	10	
<b>DIMENSIONS</b> (inches)	Height	49	49	49	49	49	49	49	49	49	49
	Width	46	46	46	46	46	46	46	46	46	46
	Depth	50	50	63	97	97	123	144	183	243	303
<b>WEIGHT</b> (pounds)	Shipping <sup>7</sup>	380	380	440	620	690	890	970	1,310	1,810	1,990
<b>Ref</b>		011	013	016	022	024	032	037	048	063	079

MODEL <sup>1</sup>		MARC-20	MARC-30	MARC-40	MARC-50	MARC-60	MARC-80	MARC-100	MARC-120	MARC-90	MARC-120	MARC-150	MARC-180
<b>REFRIGERANT CIRCUITS</b>	Quantity	2	2	2	2	2	2	2	2	3	3	3	3
<b>CAPACITY</b> @ 50°F LWT	Tons <sup>2</sup>	20	30	40	50	60	80	100	120	90	120	150	180
<b>COMPRESSOR</b>	Quantity	2	2	4	4	4	4	2	2	6	3	3	3
	Type <sup>3</sup>	SC	SC	SC	SC	SC	SC/S	S	S	SC	S	S	S
<b>CONNECTION SIZES</b> <sup>4</sup> (inches)	To/From Process	2	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	3	3	4	4	4	4	4	6	6
<b>FLOW REQUIREMENTS</b>	GPM	72	85	96	120	144	192	240	277	216	288	359	415
<b>UNIT AMPERAGE</b> <sup>5</sup>	230 volts	83	112	168	208	240	312	432	512	365	468	648	768
@ 3ø / 60 Hz <sup>6</sup> (full load)	460 volts	39	56	84	104	120	156	216	266	180	234	324	384
	575 volts	22	45	68	84	96	125	123	205	144	154	260	308
<b>REFRIGERANT</b>	Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
<b>DIMENSIONS</b> (inches)	Height	57	57	57	57	57	57	70	70	85	85	85	85
	Width	48	48	48	52	52	72	90	90	73	73	73	73
	Depth	76	76	76	79	79	84	115	115	130	130	130	130
<b>WEIGHTS</b> (pounds)	Shipping <sup>7</sup>	1,200	1,800	1,900	2,200	2,350	2,600	3,450	3,700	3,300	3,600	3,900	4,200
<b>REMOTE AIR-COOLED CONDENSER</b> <sup>8,9</sup>													
<b>QUANTITY</b>		2	1	1	1	1	1	1	1	3	3	3	3
<b>CONNECTIONS</b>	Liquid	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>
	Hot Gas	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>
<b>AIR FLOW</b> <sup>10</sup>	Fan Quantity	1	4	4	4	6	6	8	10	3	3	4	4
	<b>UNIT AMPERAGE</b> <sup>11</sup>	230 Volt	7	25	25	38	38	50	62	19	19	25	25
	@ 3ø / 60 Hz <sup>6</sup> (full load)	460 Volt	4	13	13	13	19	19	25	31	10	10	13
575 Volt		3	10	10	10	15	15	20	25	8	8	10	
<b>DIMENSIONS</b> (inches)	Height	49	49	49	49	49	49	49	49	49	49	49	49
	Width	46	88	88	88	88	88	88	88	46	46	46	46
	Depth	63	97	97	123	144	187	243	303	144	103	243	303
<b>WEIGHT</b> (pounds)	Shipping <sup>7</sup>	440	1,070	1,200	1,590	1,720	2,340	3,100	4,000	970	1,310	1,810	1,990
<b>Ref</b>		016	044	049	064	073	096	126	158	037	043	063	079

### Notes

- Since product innovation and improvement is our constant goal, all features and specifications are subject to change without notice or liability.  
Selection of certain optional features may change listed specifications.
- Tons or Kilowatts capacity at 12,000 Btu/hr/ton @ 50°F LWT, 95°F ambient and 115°F condensing.  
Capacity multipliers are 50°F - 1.00; 40°F - .80; 30°F - .60; 20°F - .40.  
The minimum recommended operating temperature when no glycol is used is 48°F.
- S = screw compressor, SC = hermetic scroll, D = disc compressor.
- Process connections may vary based on unique pump flow requirements of your process.  
Confirm you connection size requirement with your Advantage sales representative.
- Full Load amps are higher than run load amps and must be used for sizing disconnects and supply wiring.
- Consult factory for 50hz operation.
- Approximate unit weight crated for shipment.
- Field installation including piping connections and charging of remote air-cooled condenser by owner.
- Specifications shown are for a single unit.
- Vertical air discharge from condenser.
- Full load amperage shown for single condenser unit. Some models use multiple condensers.

For best pricing call [Southgate Process Equipment](http://SouthgateProcessEquipment.com) @ (770) 345-0010



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