PACKAGE CHILLERS

Web: www.AdvantageEngineering.com

Phone: 317-887-0729

- **Temperature Control Units**
  Water & Oil
  30° - 500°F
- **Package Chillers**
  Air-Cooled
  20° - 70°F
- **Central Chillers**
  Air & Water-Cooled
  Packages & Modules
  20° - 70°F
- **Pump Tank Stations**
  Chilled or Tower Water
  200 - 3600 gallons
- **Cooling Tower Cells**
  45 - 540 tons
- **Filters**
- **Heat Exchangers**

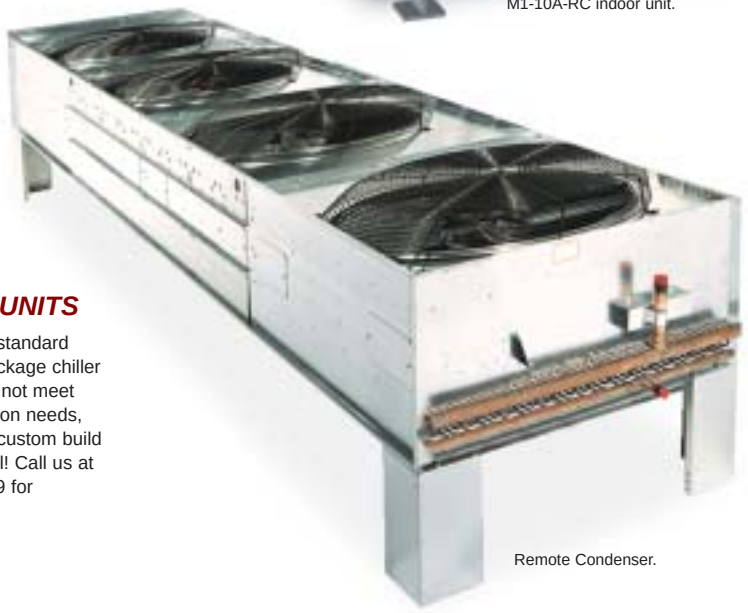
WARRANTY

- **1 Year:**
  Covering parts and labor
- **2nd Year:**
  FREE preventative maintenance visit

MAXIMUM SERIES

- **Air-Cooled Unit with Remote Condenser**
- **5 to 40 Tons**
- **20°F to 70°F**

M1-10A-RC indoor unit.



Remote Condenser.

CUSTOM UNITS

If one of our standard Maximum package chiller models does not meet your application needs, then we can custom build a unit that will! Call us at 317-887-0729 for more details.

INDUSTRIAL DUTY PACKAGE CHILLERS

When your process cooling requirements call for recirculated fluids at temperatures between 20°F and 70°F, the ADVANTAGE Maximum Series water chiller is your choice.

The Maximum Series chiller with remote condenser provides process cooling while rejecting the absorbed heat outside, eliminating heat gain to your building.

The included high flow pump circulates cooling water form the internal reservoir to process where heat is removed. The warmed process cooling water returns to the chiller where it is cooled by its refrigeration system.

Maximum Series chillers are controlled by a tailor made microprocessor control instrument that provides precise temperature control and system diagnostics.

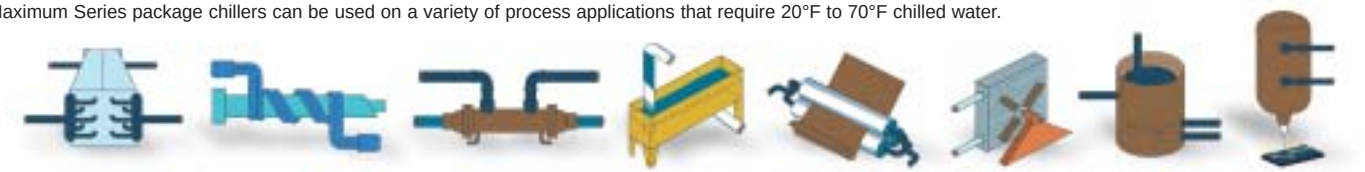
The remote condenser is installed outside and requires field piping and system charging by a qualified installer.

M1 CHILLER CONTROL

Designed for chilled water applications in industrial environments, offers digital temperature display and setpoint selection with machine function and diagnostic indicators.

APPLICATIONS

Maximum Series package chillers can be used on a variety of process applications that require 20°F to 70°F chilled water.



Molds & Dies | Nozzles, Barrels & Tools | Heat Exchangers | Troughs & Tanks | Rolls | Radiators and Air Coils | Jacketed Vessels and Mixers | Lasers

SPECIFICATIONS

M1-A-RC SPECIFICATIONS		*M1-5A-RC*	*M1-7.5A-RC*	*M1-10A-RC*	*M1-15A-RC*	*M1-20A-RC*	*M1-25A-RC*	*M1-30A-RC*	*M1-40A-RC*
COMPRESSOR	Capacity[4]	5.1	7.5	10	15	20	25	28	40
	HP	5	7 1/2	10	15	(2)10	(2)13	(2)15	40
	Type[5]	H	H	H	H	H	H	H	S
PROCESS PUMPS[1]	HP	2	2	2	3	3	5	5	7 1/2
	GPM	12	22	28	36	48	60	72	92
	PSI	52	50	48	58	55	59	57	61
CONNECTION SIZES (inches)	Process	1 1/2	1 1/2	1 1/2	2	2	2	2	2 1/2
	Make-Up	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
FULL LOAD AMPERAGE[2]	230 volt	32	40	48	68	88	116	124	166
@3Ø/60hz[3]	460 volt	16	20	24	34	44	59	62	83
REFRIGERANT	Type HCFC	22	22	22	22	22	22	22	22
TANK CAPACITY (gallons)	Holding	25	25	25	65	65	65	65	65
DIMENSIONS (inches)	Height	40	40	40	57	57	57	57	57
	Width	32	32	32	34	34	34	34	34
	Depth	40	40	40	56	80	80	80	80
WEIGHTS (pounds)	Shipping[7]	550	600	625	1,500	1,900	2,100	2,200	2,500

REMOTE AIR-COOLED CONDENSER									
CONNECTIONS[6]	Liquid & Hot Gas	1 3/8 & 1 1/8	1 1/8 & 1 5/8	1 1/8 & 1 5/8	1 3/8 & 2 1/8	1 5/8 & 2 1/8	1 5/8 & 2 1/8	1 5/8 & 2 1/8	2 1/8 & 2 5/8
AIR FLOW	Fan Quantity	1	1	1	2	2	2	3	3
FULL LOAD AMPERAGE[2]	230 volt	6.6	6.6	6.6	13.2	13.2	13.2	19.6	19.8
@3Ø/60hz[3]	460 Volt	3.1	3.1	3.1	6.2	6.2	6.2	9.3	9.3
DIMENSIONS (inches)	Height	49	49	49	49	49	49	49	49
	Width	46	46	46	46	46	46	46	46
	Depth	50	50	63	97	97	123	144	183
WEIGHT (pounds)	Shipping[7]	380	450	510	620	690	890	970	1,310
FACTORY ID		11	13	16	22	24	32	37	48

Notes:
1. Refer to FYI #3-A-235 and #3-C-36 for exact characteristics relating to pump curves.
2. Full load amps are higher than run load amps and must be used for sizing disconnects and supply wiring. Service disconnect by owner. Actual running amps at design conditions.
3. Consult factory for 50hz operation.
4. Tons capacity at 12,000 BTU/ton @ 50°F LWT @ 115°F condensing temperature (95°F ambient). Capacities may be +/- 5% as reserved by the compressor manufacturer. 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.
5. H - hermetic scroll compressor used on this model; S - semi-hermetic compressor used on this model.
6. Field installation and piping connections at condenser by others.
7. Approximate unit weight crated for shipment.

STANDARD FEATURES & OPTIONS

CHILLER CONTROL:
- Accurate control
- Large & Bright LED temperature display
- Digital Setpoint selection with soft touch keys
- Illuminated Chiller On / Off switch
- Compressor On light
- Basic chiller diagnostics with Refrigeration Fault light
- Capacity control light

CONSTRUCTION:
- Powder coated steel upright frame member
- Galvanized steel cross frame members
- Powder coated lift-off enclosure panels
- Lift-off molded front panel

REFRIGERANT CIRCUIT:
- Compressor:
  - Hermetic scroll in 5 to 30 ton models
  - 20 to 30 ton models use tandem compressors
  - Accessible hermetic discus in 40 ton model
- Air-Cooled Condenser
  - Remote, located outdoors
  - Finned tube
  - Fan generated air flow
- Filter-drier
- Liquid line solenoid valve
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Microprocessor controlled hot gas by-pass capacity control system
- Stainless steel brazed plate evaporators

COOLANT CIRCUIT:
- Coolant pump
  - High flow stainless steel centrifugal pump in 5 to 30 tons models (up to 5 HP)
  - High flow cast iron centrifugal pump on the 40 ton model (above 5 HP)
- Large capacity insulated non-ferrous reservoir
- Reservoir level sight tube
- Automatic water make-up system
- Standard NPT process fittings

PRESSURE GAUGES
- Refrigerant high pressure
- Refrigerant low pressure
- Coolant pressure gauge

LIMIT DEVICES:
- High refrigerant pressure
- Low refrigerant pressure
- Refrigerant pressure relief valve
- Process pump motor overload
- Instrument control circuit fuse

ELECTRICAL:
- Process pump motor starter
- Compressor contactor
- Fused transformer
- Power entry terminal block

WARRANTY:
- 1 Year covering parts and labor
- Free visit for preventative maintenance in the 2nd year

OPTIONS

REFRIGERANT CIRCUIT:
- Compressor CCPR valve for setpoints above 70°F

COOLANT CIRCUIT:
- Overhead piping - factory or field installation
- No tank for gravity return applications
- Low flow bypass circuit - manual or automatic
- Process line shut-off valves
- Larger process pumps

WARRANTY:
- Extended compressor warranty

ALARMS:
- Audible alarm
- Visual / audible alarm beacon

ELECTRICAL:
- Branch circuit fusing
- UL rated electrical enclosures

CONTROL INSTRUMENT 'LE' SERIES:
- Continuous *to process* and *setpoint* temperature display
- Selectable *from process* temperature display
- Temperature display in Fahrenheit or Celsius
- Status indicators for *power on*, *compressor*, *bypass/unload*, *alarm*, *reservoir level, freezestat, refrigerant circuit* and *low flow*
- Soft key operators
- RS-485 SPI communication with display indication

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ADVANTAGE PRODUCTS: TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

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