



Designed to Perform. Built to last.

# FULL RANGE

Process Heating and Chilling System  
-20°F to 380°F (-29°C to 193°C)



Mokon's Full Range Process Heating and Chilling system maximizes performance with process temperatures from -20°F to 380°F (-29°C to 193°C). The Full Range system offers a combination heating and chilling system all in one package. A Mokon water system, combined with an Iceman chiller, integrates the benefits and features of both products into one compact, self-supporting unit.

| Cooling Capacity <sup>1</sup>     |                                     | Compressor (Hp) <sup>4</sup> | Process Pump                                                                    |               |                  | Connections |                                            | Tank Size (Gal.) | Approximate Dimensions (L x W x H) <sup>3</sup> | Shipping Weight (Approx. lbs.) |
|-----------------------------------|-------------------------------------|------------------------------|---------------------------------------------------------------------------------|---------------|------------------|-------------|--------------------------------------------|------------------|-------------------------------------------------|--------------------------------|
| Air-Cooled (BTU/Hr) @ 50°F (10°C) | Water-Cooled (BTU/Hr) @ 50°F (10°C) |                              | Pump (Hp)                                                                       | Max Flow Rate | Minimum Pressure | Process     | Condenser Water-Cooled <sup>2</sup> (FNPT) |                  |                                                 |                                |
| 15,800                            | 16,700                              | 1                            | Select a standard pump to meet Process conditions or specify performance needs. |               |                  |             | 1/2"                                       | 10               | 38" x 25" x 62"                                 | 480                            |
| 34,100                            | 35,300                              | 3                            |                                                                                 |               |                  |             | 1/2"                                       | 15               | 50" x 28" x 63"                                 | 610                            |
| 56,100                            | 58,100                              | 5                            | Hp                                                                              | GPM (up to)   | PSI              | (FNPT)      | 1"                                         | 20               | 58" x 37" x 69"                                 | 715                            |
| 96,872                            | 100,236                             | 7 1/2                        | 1/2                                                                             | 15            | 15               | 1"          | 1-1/2"                                     | 20               | 58" x 37" x 69"                                 | 990                            |
| 112,354                           | 116,516                             | 10                           | 3/4                                                                             | 25            | 26               | 1"          | 1-1/2"                                     | 20               | 58" x 37" x 69"                                 | 1,010                          |
| 165,122                           | 170,972                             | 15                           | 1                                                                               | 30            | 32               | 1-1/2"      | 1-1/2"                                     | 68               | 80" x 52" x 65"                                 | 1,850                          |
| 226,800                           | 234,800                             | 20                           | 1-1/2                                                                           | 40            | 32               | 1-1/2"      | 1-1/2"                                     | 68               | 80" x 52" x 65"                                 | 2,050                          |
| 271,000                           | 280,000                             | 25                           | 2                                                                               | 50            | 32               | 1-1/2"      | 2"                                         | 100              | 142" x 50" x 80"                                | 3,900                          |
| 350,000                           | 362,000                             | 30                           | 3                                                                               | 60            | 34               | 1-1/2"      | 2"                                         | 100              | 142" x 50" x 80"                                | 4,150                          |
| 441,000                           | 455,000                             | 20/20                        | 5                                                                               | 80            | 38               | 1-1/2"      | 2"                                         | 100              | 200" x 52" x 85"                                | 5,300                          |
| 542,000                           | 560,000                             | 25/25                        | 7-1/2                                                                           | 100           | 40               | 2"          | 3"                                         | 150              | 200" x 52" x 85"                                | 5,700                          |
| 692,000                           | 715,000                             | 30/30                        | 7-1/2                                                                           | 120           | 35               | 2"          | 3"                                         | 150              | 200" x 52" x 52"                                | 5,295                          |

1. All chillers are based on chilled water at 2.4 GPM/Ton and 90°F (32°C) ambient air.

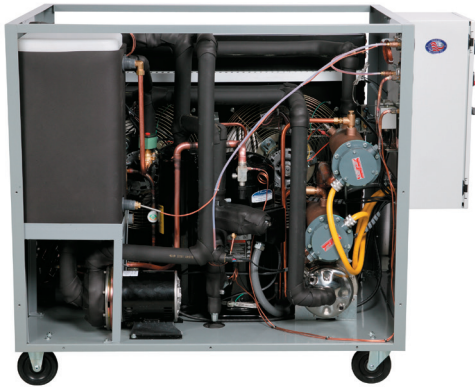
2. Water-Cooled chillers based on 85°F (29°C) condensing water at 3 GPM/Ton.

3. Water-Cooled chiller dimensions are the same or smaller than air-cooled models.

4. Scroll compressors except 1.0 Ton is Reciprocating.

Notes: Chart based on single zone with heating up to 24 kW, open circuit and 20°F to 200°F (-7°C to 93°C) fluid temperature range.

Capacities will be reduced based on heating system motor Hp used. 60 Ton Air-Cooled system is a dual circuit with remote air-cooled condenser.



## Standard Features

- Air-cooled or water-cooled condensing
- Compact, portable design
- Hermetically sealed reciprocating and scroll compressors, depending on tonnage
- Green friendly refrigerant
- Stainless steel centrifugal supply and process pumps
- Horizontally mounted stainless steel heater canister
- Stainless steel flow diverter
- Highly efficient brazed plate evaporator
- Highly accurate hot gas bypass circuit
- Low/high refrigerant gauges
- Heavy-duty insulated plastic tank
- Pilot light indication
- CPR valve (up to 30 Tons)
- Fluid level visible from outside of cabinet
- Insulated nonferrous plumbing and components
- 1/16 DIN non-proprietary microprocessor-based controller in easily accessible panel
- High and low refrigerant pressure switches
- Freeze stat protection
- Filter dryer
- Low pressure shut-off switch
- Supply pump pressure gauge
- Main power door disconnect
- NEMA/Type 1 electrical enclosure
- Heavy-duty casters for portability
- Powder-coated cabinet
- cULus 508A labeled electrical subpanel

## Controls

A non-proprietary microprocessor-based controller provides dual LCD indication of your process fluid setpoint and actual temperature to ensure process control accuracy. A variety of options and accessories to meet specific customer needs are available.

Technical data shown is subject to change without notice. The company will endeavor to supply the equipment as illustrated but reserves the right to make dimensional and other design changes as required.

## Common Options and Accessories

- Air duct flange (top)
- Air filters
- Alarms – audible and visual
- Automatic fill
- Blown fuse indication
- Control options – remote setpoint and re-transmission, communication ports
- Emergency stop
- Flow meters
- Heat exchangers
- Heating only and cooling only designs
- Low ambient kit
- Low water level indication
- Low/high refrigerant gauges
- Manifolds
- Modulating valves
- NEMA 4, 4X, and 12
- Oil Full Range designs ranging from 50°F to 650°F
- Other voltages, phases, frequencies
- Overhead piping kit
- Phase indicator
- Power cord
- Pressure regulators
- Process fluid purge (manual and automatic)
- Pump modifications to increase flow capacity
- Remote condenser
- Remote start/stop and control panels
- Solid state contactors/relays
- Special paint
- Stainless steel cabinet
- Strainers (process return)
- Supply and return thermometers
- Tank upgrades and modifications
- TEFC pump motors
- Timers
- UL, CSA, CE and EAC certifications
- Valved process bypass
- Water filter

## Product Testing and Warranty

All Mokon chillers are qualified for service by rigid, simulated field tests, and are 100% factory calibrated and run tested. Mokon offers a one-year warranty as standard.



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