

# XTREME- THERM<sup>®</sup>

HIGH-PERFORMING  
EQUIPMENT DESIGNED FOR  
CHEMICAL AND HARSH  
ENVIRONMENTS.





# XTREME-THERM FOR SEVERE-DUTY INDUSTRIAL APPLICATIONS

Mokon's Xtreme-Therm line features high-performing equipment designed for severe-duty environments in industrial manufacturing applications. Our portable chillers, combination heating and chilling systems, and circulating water and oil temperature control systems are built with robust polyester powder coated steel cabinetry. These high-quality products provide long-lasting operation in harsh industrial environments, assuring you a trusted, reliable temperature control solution. Mokon can customize any system to fit your specific requirements.



## TRUSTED STANDARD FEATURES

- Temperatures from 20°F to 600°F (-7°C to 315°C)
- Polyester powder coated heavy-gauge steel cabinets
- NEMA 4/12 panel with “Z” purge system suitable for Class I Division 2 locations
- cULus 508A labeled panel
- UL 98 disconnect switch
- Microprocessor controller
- Remote set point and retransmission control and communication capabilities
- Open loop (direct injection) single circuit design
- Incoloy sheathed heaters with NEMA 4 housings
- TEFC motors
- Suction and discharge pressure gauges
- Water-cooled and remote air-cooled condensers

# XTREME-THERM WATER SYSTEM

Mokon's Xtreme-Therm circulating water temperature control system features advanced heating technology with temperatures up to 250°F (121°C). The high-performance design offers higher heat transfer rates with unmatched control efficiency and accuracy. Built with non-ferrous and stainless steel materials, the Xtreme-Therm water system manages excellent corrosion resistance and leak-free operation in a compact, easy to move unit.



Pump	Flow Rate and Pressure	Heating Capacity kW			Connections (FNPT)		Approximate Dimensions (L x W x H)
					Process	Supply/Drain	
1 Hp	25 GPM @ 25 PSI	9	18	24	1"	1"	42" x 20" x 37"
1-1/2 Hp	40 GPM @ 32 PSI	9	18	24	1-1/2"	1"	42" x 20" x 37"
3 Hp	60 GPM @ 34 PSI	9	18	24	1-1/2"	1"	42" x 20" x 37"
5 Hp	80 GPM @ 38 PSI	9	18	24	1-1/2"	1"	42" x 20" x 37"

# XTREME-THERM HEAT TRANSFER FLUID SYSTEM

Mokon's Xtreme-Therm circulating oil temperature control system meets process heating requirements up to 600°F (315°C). Our durable, high-quality oil systems feature the latest control technology, unique cool oil reservoir philosophy and unmatched electrical/safety standards to ensure precise process fluid temperature control.



Pump	Flow Rate and Pressure	Heating Capacity kW	Connections (FNPT)		Approximate Dimensions (L x W x H)
			Process	Supply/Drain	
3 Hp	40 GPM to 51 PSI	12	1-1/2"	1"	45" x 30" x 60"
3 Hp	40 GPM to 51 PSI	24	1-1/2"	1"	45" x 30" x 60"
3 Hp	40 GPM to 51 PSI	36	1-1/2"	1"	45" x 30" x 60"
3 Hp	40 GPM to 51 PSI	48	1-1/2"	1"	45" x 30" x 62"
3 Hp	40 GPM to 51 PSI	60	1-1/2"	1"	45" x 30" x 62"

## XTREME-THERM PORTABLE CHILLER SYSTEM

Mokon's Xtreme-Therm portable chillers feature a scroll compressor that provides superior efficiency, unwavering reliability and quiet operation with a fluid temperature range of 20°F to 65°F (-7°C to 18°C). Mokon's portable chillers are available in air and water-cooled condensing, featuring high-quality components for increased life and decreased maintenance, giving you the durable equipment, you need for all your cooling solutions.



Capacity (BTU/Hr)		Compressor Hp	Process Pump Hp	Flow Rate and Pressure	Connections (FNPT)		Tank Size (Gallons)	Approximate Dimensions (L x W x H)
Air-Cooled <sup>1</sup>	Water-Cooled <sup>2</sup>				Process	Water-Cooled Condenser		
15,800	16,700	1*	3/4	15 GPM @ 32 PSI	1"	1/2"	10	38" x 25" x 38"
34,100	35,300	3	3/4	25 GPM @ 30 PSI	1"	1/2"	15	50" x 28" x 39"
56,100	58,100	5	1	30 GPM @ 37 PSI	1-1/2"	1"	20	58" x 37" x 45"
89,200	92,000	7.5	1	30 GPM @ 34 PSI	1-1/2"	1-1/2"	20	58" x 37" x 45"
117,900	121,400	10	1 1/2	35 GPM @ 37 PSI	1-1/2"	1-1/2"	20	58" x 37" x 45"

## XTREME-THERM HEATING AND CHILLING SYSTEM

Mokon's water based Xtreme-Therm temperature control system offers a combination of heating and chilling in one superior package. A Mokon water system combined with a chiller integrates the benefits and features of both products into one compact, self-supporting unit. The Xtreme-Therm heating and chilling systems are available with a temperature range of 20°F to 250°F (-7°C to 121°C).



Capacity (BTU/Hr) <sup>A</sup>		Compressor Hp	Process Pump	Flow Rate and Pressure	Connections ( FNPT)		Tank Size (Gallons)	Approximate Dimensions (L x W x H)
Air-Cooled <sup>1</sup>	Water-Cooled <sup>2</sup>				Process	Water-Cooled Condenser		
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"
34,100	35,300	3	Hp	GPM and PSI	FNPT	1/2"	20	50" x 28" x 63"
			3/4	25 GPM @ 26 PSI	1"			
56,100	58,100	5	1	30 GPM @ 32 PSI	1-1/2"	1"	20	58" x 37" x 69"
89,200	92,000	7 1/2	2	50 GPM @ 32 PSI	1-1/2"	1-1/2	20	58" x 37" x 69"
			3	60 GPM @ 34 PSI	2"			
117,900	121,400	10	5	80 GPM @ 38 PSI	2"	1-1/2"	20	58" x 37" x 69"

Full Range chart is based on 1 single zone up to 24 kW heater with open circuit and fluid temperature range 20°F to 200°F (-7°C to 93°C).

<sup>1</sup> Air-cooled based on 50°F chilled water at 2.4 GPM/Ton and 90°F ambient air. Air-cooled condensers are remotely mounted in a non-hazardous area.

<sup>2</sup> Water-cooled based on 50°F chilled water at 2.4 GPM/Ton and 85°F condensing water at 3 GPM/Ton.

\* Standard Compressor on 1 Ton is reciprocating type.

<sup>A</sup> Capacities shown need to be de-rated for heating system motor Hp used.

## CUSTOMIZABLE OPTIONS

- Water system temperatures up to 300°F (149°C)
- Hot oil heat transfer fluid system temperatures up to 650°F (343°C)
- Process cooling down to -20°F (-29°C)
- Heating capacity up to 500 kW
- Chilling capacity up to 120 Ton
- NEMA 4/12 panel with “X” purge system suitable for Class I Division 1 locations
- NEMA 7 cast aluminum panel suitable for Class I Division 1 or 2 locations
- Multi-zone circuits
- High-efficiency pumps up to 10 Hp
- Magnetic drive sealless pumps
- Vented and pressurized tanks
- Passivation/electro-polish surfaces
- Tool-free access panels
- Modulating cooling valve
- Stainless steel leveling legs
- Stainless steel and other custom finished cabinetry
- Audible and visual alarms
- SCR and solid-state relays
- Remote interface electrical enclosures
- Electronic controllers and sensors calibrated to ISO 17025 standards
- Variety of communication capabilities
- Remote start/stop



## APPLICATIONS

- Chemical processing
- Corrosive/harsh environments
- Explosion-proof areas
- Flammable liquids, gases and vapors
- Heat exchangers
- Heat tracing/jacketed pipe
- Jacketed vessels
- Metal die casting
- Mixers and blenders
- OEM equipment and systems
- Oil and gas refineries
- Ovens and furnaces
- Plating, electroplating and anodizing
- Vaporizers
- Vessels and reactors



## WITH OVER 60 YEARS OF SUPERIOR PERFORMANCE

Mokon has set the standard in the design and manufacture of high-performance heating and cooling process temperature control systems. Our energy-efficient lines of water and heat transfer fluid temperature control systems, portable chillers, centralized cooling systems and custom-engineered designs offer precise temperature control for any application. Through our long history of providing a quality and durable product, we have become experts in meeting customer requirements and building engineered products that meet or exceed specifications. Mokon is the right choice for all your temperature control needs.

## PRODUCT TESTING AND WARRANTY

Mokon's Xtreme-Therm temperature control systems are qualified for service by rigid, simulated field tests, and are 100% factory calibrated and run tested. Mokon offers extended warranties as standard – 3 years on system, 5 years on controller and safeties, lifetime on piping and canister.

## CUSTOMER SERVICE YOU CAN COUNT ON

At Mokon, the customer is our top priority. Our team of experienced sales and service professionals are ready to assist you before, during and after the sale. Our service capabilities include:

- 24-hour customer support right over the phone
- Installation and start-up assistance
- Customer training capabilities
- Complete factory repair and refurbishment services
- For technical support visit [mokon.com/customercenter](http://mokon.com/customercenter)
- Find components and replacement parts at [shop.mokon.com](http://shop.mokon.com)

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