

# XCHANGE- THERM<sup>®</sup>

HIGH-PERFORMING  
EQUIPMENT DESIGNED  
FOR CRITICAL  
APPLICATIONS.



# XCHANGE-THERM SYSTEMS FOR INDUSTRIAL PROCESS APPLICATIONS



## APPLICATIONS

- Biotechnology and pharmaceutical
- Composite materials
- Converting/printing
- Extrusion
- Food and beverage processing
- Heat exchangers
- Heat reclamation and reuse
- Laboratory
- Medicine and vitamin processing
- Microelectronics
- Mixers and blenders
- Packaging
- Personal care/cosmetics
- Pet food processing
- Plastic injection and blow molding
- Reactors, sterilizers and fermenters
- Rubber processing
- Sanitary and cleanrooms
- Semiconductor
- Surgical equipment and devices
- Vessels/jacketed tanks



# **XCHANGE-THERM SYSTEMS FOR INDUSTRIAL PROCESS APPLICATIONS**

Mokon's Xchange-Therm line features high performing equipment designed for critical applications in the converting, food, medical, pharmaceutical, printing, semiconductor and many other industrial applications. Our high-quality products deliver efficient, cost effective and reliable temperature control, and can be operated in line with a hot water or steam boiler, or a supplied chilled fluid source. Mokon can customize any system to fit your specific requirements. Our systems are proudly designed and manufactured in the USA. Mokon is an ISO 9001 and ISO 14001 certified company.



## **TRUSTED STANDARD FEATURES**

- Temperatures up to 250°F (121°C)
- NEMA/Type 1 panels
- Heating, cooling, or heating & cooling designs
- Horizontal stainless steel heater canister with unique turbulent flow diverter
- Small hold-up volume and energy-efficient heater design
- Stainless steel pump, composite impeller, and silicon-carbide seal
- Non-ferrous materials
- Non-proprietary microprocessor-based controller in easily accessible panel
- Safety shut-off switches
- Solenoid cooling valve
- Open circuit (direct cooling) or closed circuit (indirect cooling)
- Heat exchanger (brazed plate or shell & tube)
- Painted steel powder-coated finish
- Removable panels for easy maintenance access
- Heavy-duty removable casters for portability
- cULus 508A labeled electrical subpanel

## XCHANGE-THERM WATER SYSTEM

Mokon's Xchange-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 Xchange-Therm water system manages excellent corrosion resistance and leak-free operation in a compact, easy to move unit.



## DIRECT INJECTION

Pump	Flow Rate and Pressure	Primary Steam Heat Exchanger (BTU/Hr)	Supply Water Cooling Solenoid Valve	Connections (NPT)			Approximate Dimensions (L x W x H)
				Process	Supply/ Drain	Heat Exchanger	
1 Hp	25 GPM @ 25 PSI	125,000	3/8"	1"	1"	1"	34" x 17" x 28"
1-1/2 Hp	40 GPM @ 32 PSI	200,000	3/8"	1-1/2"	1"	1-1/2"	34" x 17" x 28"
3 Hp	60 GPM @ 34 PSI	300,000	3/8"	1-1/2"	1"	1-1/2"	34" x 17" x 28"
5 Hp	80 GPM @ 38 PSI	400,000	1/2"	1-1/2"	1"	1-1/2"	34" x 17" x 28"

## INDIRECT INJECTION

Pump	Flow Rate and Pressure	Primary Steam Heat Exchanger (BTU/Hr)	Cooling Heat Exchanger (BTU/Hr)	Tank Size (Gallons)	Connections (NPT)			Approximate Dimensions (L x W x H)
					Process	Supply/ Drain	Heat Exchanger	
1 Hp	25 GPM @ 25 PSI	125,000	75,000	5	1"	1"	1"	34" x 17" x 52"
1-1/2 Hp	40 GPM @ 32 PSI	200,000	200,000	5	1-1/2"	1"	1-1/2"	34" x 17" x 52"
3 Hp	60 GPM @ 34 PSI	300,000	300,000	5	1-1/2"	1"	1-1/2"	34" x 17" x 52"
5 Hp	80 GPM @ 38 PSI	400,000	400,000	5	1-1/2"	1"	1-1/2"	34" x 17" x 52"



## XCHANGE-THERM HEATING AND CHILLING SYSTEM

Mokon's water-based Xchange-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 Xchange-Therm heating and chilling systems are available with a temperature range of 20°F to 250°F (-7°C to 121°C).



### FULL RANGE

Chilled Fluid Heat Exchanger (BTU/Hr)	Steam Supplied Heat Exchanger (BTU/Hr)	Process Fluid			Connections (FNPT)		Tank Size (Gallons)	Approximate Dimensions (L x W x H)
		Pump	Flow Rate	Pressure	Process	Heat Exchanger		
20,000	75,000	1/2 Hp	15 GPM	15 PSI	1"	1"	10	38" x 25" x 62"
40,000	200,000	1-1/2 Hp	40 GPM	32 PSI	1-1/2"	1-1/2"	20	50" x 28" x 63"
60,000	250,000	2 Hp	50 GPM	32 PSI	1-1/2"	1-1/2"	20	58" x 37" x 69"
100,000	300,000	3 Hp	60 GPM	34 PSI	1-1/2"	1-1/2"	20	58" x 37" x 69"
130,000	400,000	5 Hp	80 GPM	38 PSI	1-1/2"	1-1/2"	20	58" x 37" x 69"

### CUSTOMIZABLE OPTIONS

- High temperatures up to 300°F (149°C)
- Process cooling down to -20°F (-29°C)
- Heating capacity up to 96 kW and up to 60 Ton chilling capacity
- Multi-zone circuits
- 3-A heat exchangers and heat remover designs for process isolation
- High efficiency pumps up to 10 Hp
- TEFC motors
- Magnetic drive sealless pumps
- Suction and discharge pressure gauges
- Vented and pressurized tanks
- Sanitary tri-clamp connections
- Passivation/electro-polished surfaces
- Wash down designs
- Stainless steel cabinetry and wetted parts
- Suitable for ISO 14644 cleanroom standard and associated controlled environments
- Welded connections
- Tool-free access panels
- Modulating cooling valve
- Leveling legs
- Special paint
- Audible and visual alarms
- SCR and solid state relays
- Remote interface electrical enclosures
- Electronic controllers and RTD's calibrated to ISO 17025 standards
- Variety of communication capabilities
- Remote start/stop
- UL, CSA, CE, and System certifications

## WITH OVER 65 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 Xchange-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)

## CERTIFICATIONS AVAILABLE

- ISO 9001:2015 and ISO 14001:2015
- CE including MD, PED, EMC, LVD, WEEE, RoHS, REACh, Packaging directives
- EAC
- CSA
- UL, NFPA, NEMA and ASME designs

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65+  
YEARS

