



Designed to Perform. Built to Last.

DURATHERM NPS

*Positive and Negative Pressure
Temperature Control System
Up to 180°F (82°C)*

Keeps Production Up and Running

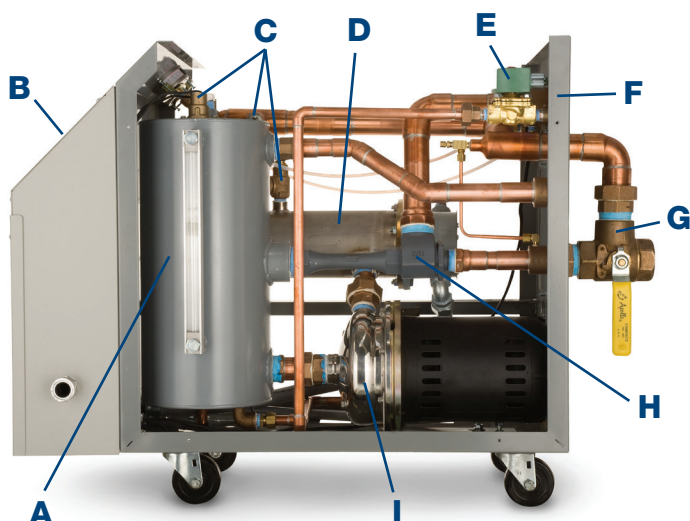
Even a minor cooling circuit leak from stress cracks or bad O-rings can stop operations, but with the Mokon Duratherm NPS positive & negative pressure temperature control system, you can finish the production run without the nuisance of a leak or the costly interruption of a repair. The Duratherm NPS gives you accurate temperature control while creating a negative pressure condition to pull the water through the mold – essentially generating a vacuum to stop the leak and preventing downtime from delaying your process.

Versatile. Whether your process requires positive pressure (no leaks present) or negative pressure (to stop a leak), Duratherm NPS provides the most efficient means of temperature control. It all starts with Mokon's proven design philosophy for circulating water temperature control systems. By incorporating a venturi jet pump and a uniquely designed reservoir, you are provided with a self-supporting means of accurate temperature control up to 180°F (82°C) in a positive or negative pressure condition.

Efficient and Accurate. The incorporation of the Mokon heating design – which assures a small hold-up volume of fluid in the system and induced turbulent flow in the heating chamber – results in the most energy efficient means of heating and controlling process fluid temperatures. Cutting-edge microprocessor controls, with PID auto tuning, provide accurate and precise temperature control to meet your process temperature control needs.

- **Reduces repair delays and increases efficiency by temporarily fixing cooling circuit leaks**
- **Allows production to continue through end of run**
- **Simplifies changeover with standard hose and pipe connections**
- **Meets NFPA 79 electrical safety standards**
- **UL 508A labeled electrical sub-panel**

Mokon turns negative pressure into a positive option



Standard Features

- A** System reservoir – fluid supply source and air separation device
- B** Microprocessor-based controller mounted in operator-friendly orientation
- C** Standard safety features include level switch, high temperature switch and pressure relief valve
- D** Horizontal stainless steel heater canister with copper heating element and stainless steel diverter
- E** Make-up water solenoid
- F** Powder-coated steel cabinet for protection and durability
- G** Three-way flow control valve to adjust system from positive pressure to negative pressure
- H** Venturi jet pump
- I** Stainless steel pump with silicon-carbide seal

System standard with NFPA 79 and UL 508A labeled electrical sub-panel

Specifications

Model	Pump (Hp)	Flow Rate & Pressure		Heating Capacity & Total Amps*			Process Connection	Supply/ Drain Connection	Cabinet Dimensions L x W x H (inches)	Shipping Weight (lbs.)
		Positive Mode	Negative Mode	9 kW	18 kW	24 kW				
DT-NPS	3/4	Up to 25 GPM @ 25 PSI	Up to 17 GPM	13	24	32	1" NPT	1/2" NPT	32 x 17 x 27.5	210
DR-NPS	1-1/2	Up to 40 GPM @ 32 PSI	Up to 27 GPM	14	25	33	1-1/2" NPT	1/2" NPT	32 x 17 x 27.5	210
DN-NPS	3	Up to 60 GPM @ 34 PSI	Up to 36 GPM	16	27	35	1-1/2" NPT	1/2" NPT	32 x 17 x 27.5	210
DO-NPS	5	Up to 80 GPM @ 38 PSI	Up to 52 GPM	18	29	37	1-1/2" NPT	1/2" NPT	38 x 17 x 27.5	225

*460/3/60 (for 230V, double the listed amps)
Temperature range up to 180°F (82°C)

Easy to Use. Designed to be used in the same manner as a circulating water system, the system requires no special piping, hoses or utilities. By simply moving a three-way flow control valve on the back of the cabinet, the system is changed from a positive pressure to a negative pressure system in an instant. The system's reservoir acts as a fluid supply source and air separation device, making the venting of the system automatic. The presence of a make-up water solenoid means the water in the tank is self-leveling. Easily removable cabinet panels provide access to internal components, making routine maintenance and adjustments simple and fast.

Product Testing and Warranty

All Mokon temperature control systems are qualified for service by rigid, simulated field tests, and are 100% factory calibrated and run tested. Mokon offers these extended warranties as standard on the Duratherm NPS system:

- 3 years on system
- 5 years on microprocessor controller and safeties
- Lifetime seals, piping and canister

“Negative” Benefits. Being negative isn't always a bad thing. With Mokon's Duratherm NPS, negative pressure creates a vacuum, essentially pulling air and water out of the mold instead of pushing it through the system. There are many benefits with this method, including:

- Repairs can be deferred until a more convenient time.
- The risk of hot fluid spray is reduced, improving worker safety.
- Less downtime means manpower and equipment are maximized, increasing productivity.

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.



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DNPS 10/18 MOK7750-1