



internal technology to efficiently transfer heat from steam to a liquid.

#### BENEFITS



**Precise** temperature control (+/- 1 degree) helps you reach & hold your desired set point



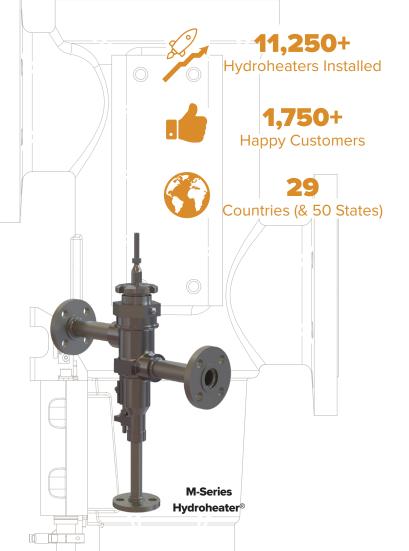
**Uniform Heating** of water, liquids, and slurries



**Process Flexibility & Stability** 

ensured through a detailed design and engineering process





# PROVEN TECHNOLOGY -RIGHT FROM THE SOURCE

Built upon our patented choked flow and internal modulation technology, the Hydroheater,® which is the **original Jetcooker**<sup>™</sup>, is the answer to your water, liquid, and slurry heating needs. Through its robust design, this heating solution delivers instantaneous heat, increasing process efficiency and your bottom line.

Both the K-Series & M-Series Hydroheater® product lines cover a wide array of industries, tailored to your specific needs. The Hydroheater® is a testament to our legacy and the ideal solution for you.

> Precisely-engineered nozzle & stem plug generates pressure differential conditions

temperature control

Automatic (or manual) combining tube assembly (CTA) to control process shear

withstand the most

severe applications

**Heated Product** 

Output

## **FEATURES**

- Patented internal design allows for precise control of steam & turn-down adjustability
- Self-Cleaning Design eliminates scale build-up and product fouling
- Steam Flow Control creates consistent, instantaneous mixing & steam velocity while eliminating hammer & vibration
- Choked Flow technology accurately meters steam for precise temperature control

Modulating stem plug adjusts, **Steam Input** controls, and meters steam flow (Choked Flow) for precise **Process Fluid** Input Self-Cleaning Design via high-velocity steam eliminates clogging, fouling, and scaling Robust stainless steel cast Directly integrates construction designed to into existing plant utilities, saving on installation costs and providing flexibility

FOR MORE PRODUCT INFORMATION



SCAN HERE

## PERFORMANCE GUARANTEE



### Confidence

100% performance guarantee gives you peace of mind that our products will perform as specified by YOUR application.

# SPECIFICATIONS

## **Applications**

Starch Cooking **Biofuels Anaerobic Digestion** Starch Conversion General Water Heating

#### **Industries Served**

Ethanol, Starches & Sweeteners Paper & Pulp Chemical Food & Beverage

# **Pressure & Temperature**

K-Series Hydroheater Max pressure - 300 PSIG / 20.7 Barg Max temperature - 450°F / 232°C

M-Series Hydroheater Max pressure - 300 PSIG / 20.7 Barg Max temperature - 450°F / 232°C

## Flow Turndown

K-Series Hydroheater 3:1 turndown ratio (Water) 2:1 turndown ratio (Viscous Slurries)

M-Series Hydroheater 3:1 turndown ratio (Water) 2:1 turndown ratio (Viscous Slurries)

# **Connection Types**

ANSI Class 150 & Class 300 DIN PN16, PN25, PN40 Other custom connections available

#### **Materials of Construction**

316 Stainless Steel Other custom materials available

Sizing & Process Parameters K-Series 2 1/2"-10" / DN65-DN250	K6	510	K611		K612		K613		K614	K615
Steam Inlet (in./mm)	2.5 63	3.5 3.0	76.2	3.0	76.2	4.0	101.6	6.0	152.4	8.0 203.2
Process Inlet (in./mm)	2.5 63	3.5 3.0	76.2	3.0	76.2	4.0	101.6	6.0	152.4	8.0 203.2
Process Outlet (in./mm)	2.0 50	0.8 2.0	50.8	2.5	63.5	4.0	101.6	6.0	152.4	8.0 203.2
Min. Flow (GPM / m³/hr)	28.0	6.4 40.0	9.1	40.0	9.1	120.0	27.3	300.0	68.1	400.0 90.9
Max. Flow (GPM/m³/hr)	174.0 39	9.5 402.0	91.3	402.0	91.3	750.0	170.3	1,800.0	408.8	2,500.0 567.8
Weight (lbs./kg)	160.0 72	2.6 297.0	134.7	305.0	138.4	447.0	202.8	704.0	319.3	934.0 423.7

Larger sizes are available upon request - contact your Sales Representative for more information

Sizing & Process Parameters M-Series 3/4"-2 1/2" / DN20-DN65	M103	M104	M105	M106	M107	M108	
Steam Inlet (in./mm)	0.75 19.1	0.75 19.1	1.0 25.4	1.0 25.4	1.5 38.1	1.5 38.1	
Process Inlet (in./mm)	0.75 19.1	0.75 19.1	1.0 25.4	1.0 25.4	1.5 38.1	1.5 38.1	
Process Outlet (in./mm)	0.13 3.2	0.25 3.2	0.50 9.5	0.50 9.5	0.75 19.1	1.0 25.4	
Min. Flow (GPM/m³/hr)	1.5 0.3	1.5 0.3	2.4 0.6	2.4 0.6	6.5 1.5	6.5 1.5	
Max. Flow (GPM/m³/hr)	10.0 2.3	10.0 2.3	25.0 5.7	25.0 5.7	46.0 10.4	46.0 10.4	
Weight (lbs./kg)	18.0 8.2	18.0 8.2	48.0 21.8	48.0 21.8	72.0 32.7	72.0 32.7	

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# THE GLOBAL REACH OF HYDRO-THERMAL

From the original Hydroheater® developed in 1934 to our latest designed and engineered solutions today, we harness the power of steam. We design, engineer, and deliver ultra-precise and dependable heating solutions that optimize temperature control, increase energy efficiency, and minimize maintenance requirements.

With more than 20,000 installations in 90+ countries - all backed by our 100% performance guarantee – we help you achieve The Perfect Temperature. Every Time.

Need more information about **Hydro-Thermal products?** 

- info@hydro-thermal.com
- www.hydro-thermal.com **®** 800.952.0121



The Perfect Temperature.



Every time.

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