

SOLARIS

Straight-Through Design for Thick Liquids & Slurries





By utilizing a straight-through design and a crossflow diffuser, the Solaris® is your go-to solution for thorough heating and mixing of different liquids and slurries, while reducing plugging, fouling, and pressure upsets in your process.

BENEFITS



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



Optimized Process Conditions through low pressure drop and low shear utilization



Uniform Heating & Mixing without the need for mechanical mixers or motors

IMPACT STATEMENT

Speciality paper mills turn to the Solaris® for in-line heating of freshwater and tank recirculation



Save Money No More Lost Production



Save Time Reach Temperature Faster



Less Maintenance / Downtime Optimize run-time



Easy Installation Integrate with existing equipment





A TRUSTED SLURRY HEATING **SOLUTION, SUITED FOR YOU**

The Solaris® is heating efficiency at its best, featuring an industrial design and a powerful heating range.

The rotation of the stem plug controls steam flow. To achieve precise temperature control, steam is metered via our patented diffuser technology and at high velocities, then dispersed across the entire cross-section to ensure thorough mixing and a uniform temperature profile.

As parameters change, the Solaris® doesn't flinch - its stability is second to none, able to handle a wide range of difficult applications, making it ideal for thick slurries and large particulates.

FEATURES

- · Straight-Through Design delivers uniform heating and mixing without plugging
- Patented Cross-Flow Diffuser uniformly distributes the heat into the liquid
- Rotating Stem Plug meters and regulates steam flow
- Instantaneous Condensation of steam eliminates hammer and vibration
- · Multiple heater sizes to meet your process needs

Steam Input

Process Fluid Input Large particulates easily pass through Rotating stem plug meters and regulates steam flow Robust stainless steel cast construction designed to **Patented Cross-Flow Diffuser**

technology for instantaneous

steam condensation

PERFORMANCE GUARANTEE

withstand the most

severe applications

Heated Product

Output



Directly integrates into existing plant utilities

Confidence

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

FOR MORE PRODUCT INFORMATION



SCAN HERE

SPECIFICATIONS

Applications

Sludge Heating
Pulp Stock Heating
Back Set Heating
Bleaching
Viscous/High Solid/Fibrous Slurries
Aseptic Applications (Tomato Paste)
Corn Oil
General Water Heating

Industries Served

Paper & Pulp Wastewater (Municipal, Industrial, Agricultural [RNG]) Food & Beverage Processing Ethanol, Starches & Sweeteners



Viscosities

Up to 40,000 cP

Flow Turndown

Up to 10:1 liquid turndown

Connection Types

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

Pressure & Temperature

Max pressure - 300 psig / 20.7 Barg Max temperature - 450°F / 232°C

Materials of Construction

316/316L Stainless Steel Other custom materials available

Sizing & Process Parameters 3"-32" / DN80-DN800	S203		\$204		S206		S208		S210		S212	
Steam Inlet (in./mm.)	2.5	64.0	2.5	64.0	4.0	102.0	4.0	102.2	6.0	152.4	6.0	152.4
Process Inlet (in./mm.)	3.0	76.2	4.0	102.0	6.0	152.4	8.0	203.2	10.0	254.0	12.0	304.8
Process Outlet (in./mm.)	3.0	76.2	4.0	102.0	6.0	152.4	8.0	203.2	10.0	254.0	12.0	304.8
Weight (lbs./kg)	105	47	134	61	235	106	287	130	346	157	519	235
Max. Flow (GPM/m³/hr)	180	41	600	136	1,300	295	2,200	500	3,700	840	5,000	1,136

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

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



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400 Pilot Court | Waukesha, WI 53188 Follow us 📊 @Hydro-Thermal

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