

Direct Steam Injection Heaters for Sanitary Applications

Sanitary Hydroheaters are self-draining from multiple orientations. The unit can be easily disassembled for CIP, and the steam and liquid inlets can rotate 360°. The unit will drain in a vertical position or, if horizontal, with steam and liquid inlets downward, angled below horizontal plane.

Hydroheaters ensure quick heating with no warm-up time needed and 100% thermal efficiency, because both latent and sensible heat of the steam are used.

The unique design eliminates hammering normally associated with other direct injection heating devices.

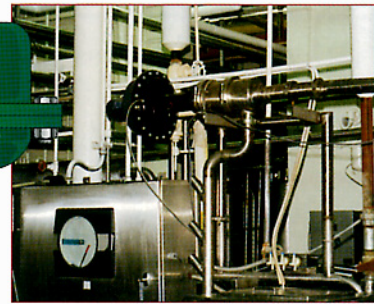
Packing and gasket meet USDA/3A requirements.

Internal steam flow modulation eliminates the need for external steam control valves.

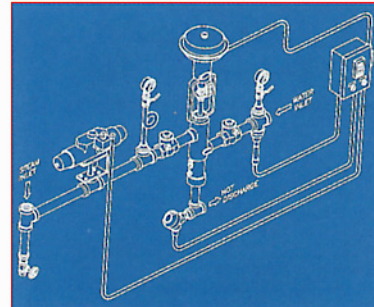
Clean-Flow design prevents plugging of product.

High velocity steam provides efficient heat transfer in addition to self-cleaning of internal surfaces.

Provides precise temperature control to $\pm 1/2^\circ\text{F}$ ($1/4^\circ\text{C}$).



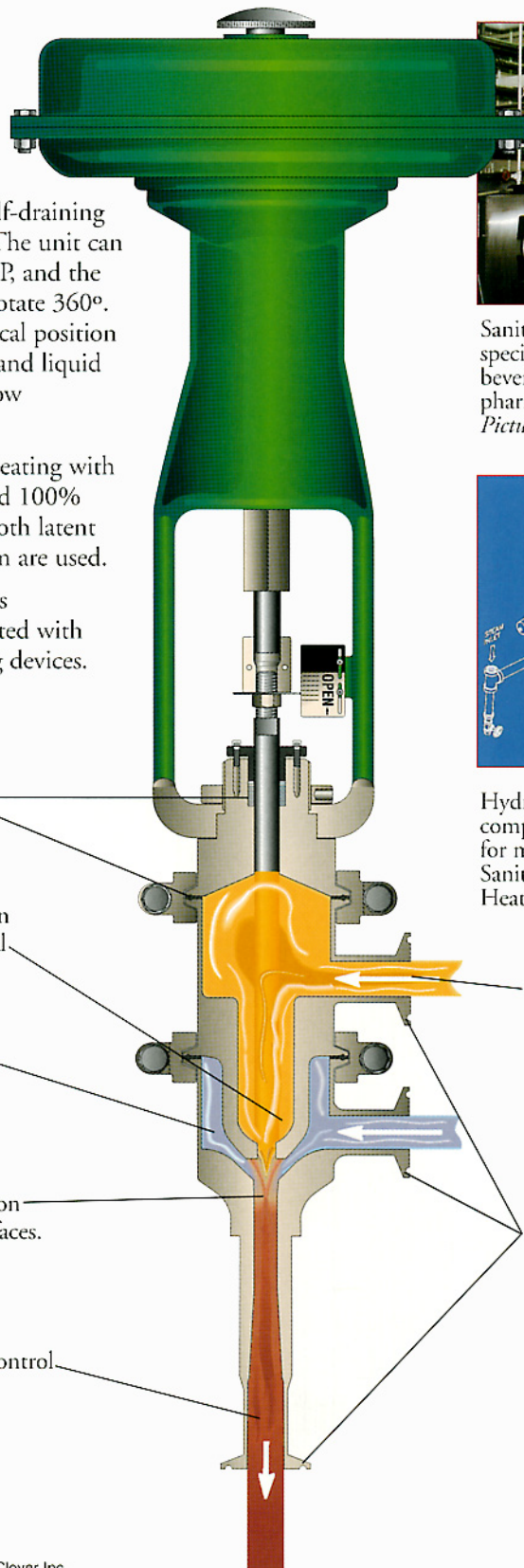
Sanitary Hydroheaters are designed specifically for the food, dairy, beverage, cosmetics and pharmaceutical processing industries. Pictured is a dairy CIP installation.



Hydro-Thermal also manufactures complete heating systems. Call for more information about our Sanitary EHS™—Engineered Heating Systems.

Accommodates steam supply pressure up to 150 psig and steam flow rates up to 13,000 lbs./hr. with a maximum temperature rise to 250° F. Heats water and many types of liquid mixtures.

Handles a wide range of liquids and flow rates. Six different sizes (for .5", 1", 1.5", 2" and 2.5" connections) can accommodate flow rates up to 180 gallons a minute. Standard Tri-Clamp®* connections. I-Line connections available on request.

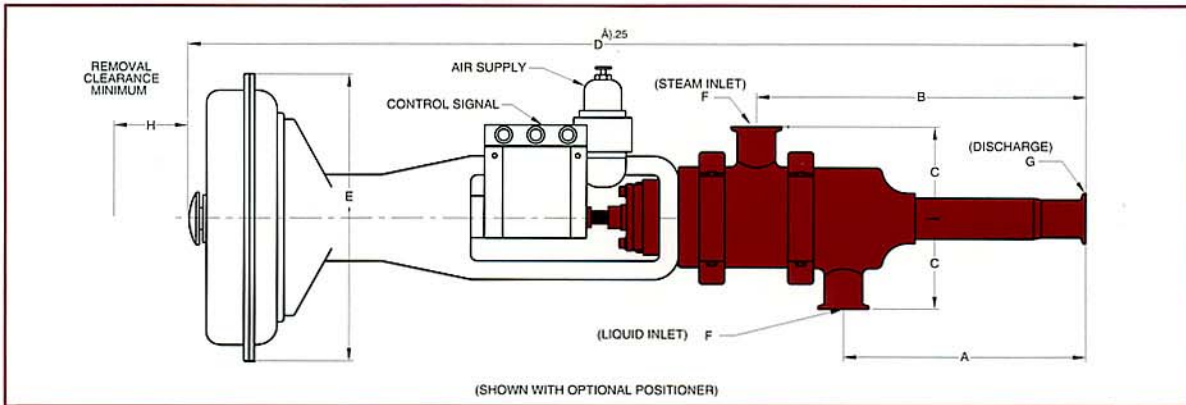


*Tri-Clamp is a registered trademark of Tri-Clover Inc.



HYDRO-THERMAL

Direct Steam Injection Heaters for Sanitary Applications Size Selection and Specifications



Note: ALL DIMENSIONS IN INCHES. STANDARD PIPING TOLERANCES APPLY.

| Model | A | B | C | D | E | F | G | H | Approx. Wt. |
|-------|-------|-------|------|-------|-------|------|------|-------|-------------|
| A204 | 2.87 | 5.37 | 2.64 | 16.26 | 8.50 | 0.50 | 0.50 | 10.00 | 20# |
| A206 | 6.79 | 10.29 | 3.10 | 32.18 | 11.38 | 1.00 | 1.00 | 10.00 | 45# |
| A207 | 8.15 | 11.65 | 2.90 | 33.54 | 11.38 | 1.50 | 1.00 | 10.00 | 50# |
| A208 | 9.36 | 12.86 | 3.63 | 42.24 | 13.13 | 1.50 | 1.50 | 10.00 | 85# |
| A209 | 11.30 | 15.30 | 3.90 | 44.93 | 13.13 | 2.00 | 1.50 | 10.00 | 95# |
| A210 | 14.00 | 19.47 | 5.00 | 53.89 | 16.00 | 2.50 | 2.50 | 10.00 | 125# |

Standard Construction

MATERIAL

Head

(S) Stainless Steel 316L

Internal Components

Steam Nozzle, Steam Plug and
Combining Tube:

Stainless Steel 316L

Stem:

Stainless Steel ASTM A564 (17-4PH)

*Other materials available per application
or on request.

CONNECTIONS

Standard Tri-Clamp®

I-Line available on request.

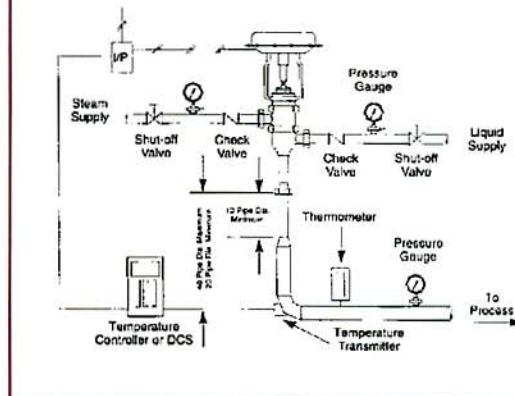
STANDARD ACTUATORS

Fisher reverse-acting diaphragm actuator
operated by 3-15 psi (0.2 to 1 bars) signal from
user's temperature controller.
Positioner and filter/regulator optional.

RATINGS

150 psig/design temperature based on material.
Specifications may change without notice.

Typical Installation



hydro THERMAL®

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