# Hydraulic Fluid Warmers

FEATURES

## BENEFITS

- Reduces cold weather viscosity
- Increases productivity –reduces idle equipmentand workers waiting for hydraulics to warm up
- Reduces pump cavitation and resulting damage
- Versatile design for use on various equipment
- Ample coolant flow due to large (3/4" NPT) connectors

## APPLICATIONS

- Hydraulic, Diesel, Oil & Water Compatible
- Logging
- Construction
- Mining
- Utility and Maintenance vehicles

## HYDRA LINER SERIES

Utilizes engine coolant to warm fluid reservoirs and improves productivity.

## SPECIFICATIONS

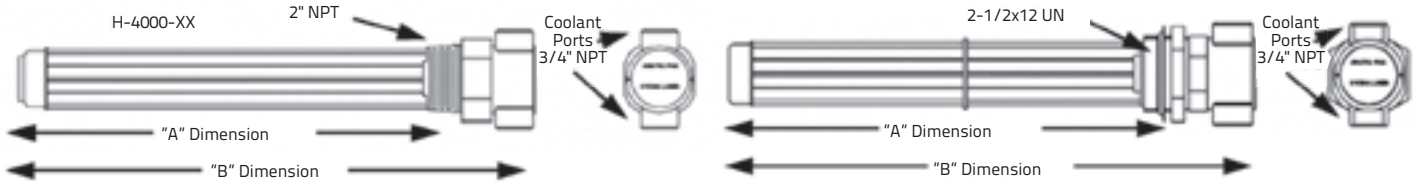
- 304 Stainless Steel Construction
- Large surface area exposed to fluid to maximize heat rise
- Ability to install multiple units for larger tanks or faster heat rise
- Install horizontally at bottom of tank
- Threads into standard 2" NPT female pipe thread or standard -32 Straight Thread-O-Ring (STOR)
- STOR Models include mounting flange TWF-32 weld-on adapter

| Part Number | "A" Tube Immersion Length | "B" Total Length | Surface Area Nominal | BTU/hr Nominal (1) | Typical Application (ambient air temp) to -20°F / -29°C (2)** | Typical Application (ambient air temp) to -40°F / -40°C (2)** |
|---|---|---|---|---|---|---|
| H-4000-8<br>H-4000-8-STOR | 7 inches<br>178 mm | 10 inches<br>254 mm | 105 $in^2$<br>8 $dm^2$ | Water 4,200<br>Oil 2,100 | Up to 20 US gallons<br>76 Liters | Up to 8 US gallons<br>30 Liters |
| H-4000-12<br>H-4000-12-STOR | 11 inches<br>280 mm | 14 inches<br>356 mm | 180 $in^2$<br>12 $dm^2$ | Water 7,200<br>Oil 3,600 | Up to 35 US gallons<br>133 Liters | Up to 14 US gallons<br>53 Liters |
| H-4000-16<br>H-4000-16-STOR | 15 inches<br>381 mm | 18 inches<br>457 mm | 250 $in^2$<br>16 $dm^2$ | Water 10,000<br>Oil 5,000 | Up to 50 US gallons<br>190 Liters | Up to 19 US gallons<br>72 Liters |
| H-4000-20<br>H-4000-20-STOR | 19 inches<br>483 mm | 22 inches<br>559 mm | 315 $in^2$<br>20 $dm^2$ | Water 13,000<br>Oil 6,500 | Up to 63 US gallons<br>239 Liters | Up to 25 US gallons<br>90 Liters |
| H-4000-24<br>H-4000-24-STOR | 23 inches<br>584 mm | 26 inches<br>660 mm | 385 $in^2$<br>24 $dm^2$ | Water 16,000<br>Oil 8,000 | Up to 77 US gallons<br>292 Liters | Up to 30 US gallons<br>113 Liters |

(1) Nominal BTU/hr based upon 180°F / 82°C Coolant flowing at 5 US Gallons / 19 Liters per minute.
Water—beginning temperature at +35°F / +2°C
Oil—ISO 32 Hydraulic Oil beginning temperature -20°F / 29°C

(2) Actual temperature rise will be affected by factors such as coolant temperatures and flow rate, specific heat capacity of fluids and air movement around reservoir.
**Contact Arctic Fox Application Engineering for estimated temperature rise for your specific application.**

## PRODUCT DIMENSIONS




## OPTIONAL WELD-ON TANK ADAPTERS (HORIZONTAL INSTALLATIONS)

| Part Number | Description | Application |
|---|---|---|
| A-3228HD | Steel—Schedule 80 2" NPT Female Coupling | Preferred for most installations on steel tanks |
| A-3228AHD | Aluminum T-6061—Schedule 80 2" NPT Female Coupling | Preferred for most installations of aluminum tanks |
| A-3228HD-STOR | Steel—Combination 32 STOR & 2" NPT | May be used to install either style of Hydra Liner |
| V6216 | Steel—Half Coupling—32 STOR | Used when external tank clearance is limited |
| A-5878SSHD | Stainless Steel—Half Coupling—32 STOR | Used when external tank clearance is limited |
| TWF-32 | Steel—Flange 32 STOR | Used when external clearance is limited |
| TWF-32N | Steel—Flange 2" NPT | Used when external clearance is limited |
| V-8916 | Stainless Steel -32 STOR Half Coupler | Used as a weld in half couple on Stainless Steel |



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