

Dual Fluid Heating System

DLV



Hotstart's DLV heating system is a coolant and oil preheater, developed to heat locomotive prime movers as well as diesel and gas engines for stationary land power, marine and mining equipment.



IDLE REDUCTION - COMPLETE HEATING

By heating and circulating both coolant and oil throughout the entire engine, the DLV heating system eliminates unnecessary idling and saves fuel all while ensuring engine lubrication oil is kept at the optimal starting temperature.



POWERFUL & RELIABLE

The DLV heating system is capable of heating engines up to 300 L displacement and features accurate PT-100 temperature sensors. Users can easily adjust the desired temperature for coolant and oil heat independently.



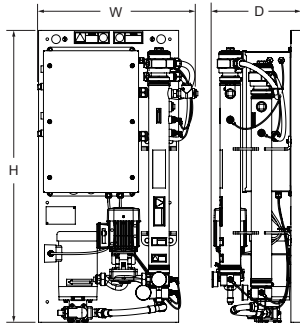
EASY INSTALLATION AND OPERATION

The DLV control box is equipped with a convenient side-mounted controls and a removable lid to maximize possible installation locations in locomotives where equipment space is at a premium.

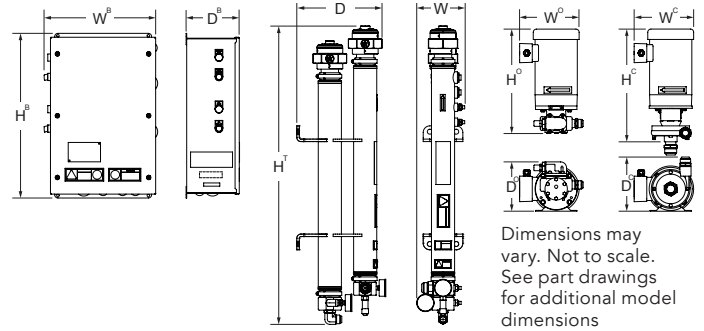


PLATE-MOUNTED OR MODULAR

To further minimize overall footprint, modular DLV systems are available, allowing the pumps and tanks to be installed near the engine plumbing ports while the control box is placed in a location convenient for system operator access and monitoring.



See part drawings for additional model dimensions.



Dimensions may vary. Not to scale. See part drawings for additional model dimensions

| Height (H) | Width (W) | Depth (D) | Weight |
|------------|-----------|-----------|---------|
| 50" | 26.9" | 15.9" | 310 lbs |
| 1270 mm | 683 mm | 404 mm | 141 kg |

| Box Height (H ^B) | Box Width (W ^B) | Box Depth (D ^B) | Tank Height (H ^T) | Tank Depth (D ^T) | Tank Width (W ^T) |
|------------------------------|-----------------------------|-----------------------------|-------------------------------|------------------------------|------------------------------|
| 25.5" | 16.29" | 8" | 45.1 | 13.5" | 6.7" |
| 648 mm | 414 mm | 203 mm | 1147 mm | 342 mm | 171 mm |

| System | |
|---------------------------|---|
| Phase | three-phase (3 Ø) |
| Voltage (60 Hz) | 208 V 240 V 480 V 575 V |
| Voltage (50 Hz) | 220 V 380 V 400 V 415 V |
| Control Box Ingress | NEMA 4, IP66 |
| Coolant/Oil Motor Ingress | IP55 / IP55 |
| Min./Max. Ambient Temp. | -4 °F / 104 °F (-20 °C / 40 °C) |
| Vibration Specification | Meets IEC 60068-2-64 |
| Shock Specification | Meets IEC 60068-2-27 |
| Certification | CSA C/US CE-compliant models available |

| Oil Assy. Height (H ^O) | Oil Assy. Width (W ^O) | Oil Assy. Depth (D ^O) | Coolant Assy. Height (H ^C) | Coolant Assy. Width (W ^C) | Coolant Assy. Depth (D ^C) |
|------------------------------------|-----------------------------------|-----------------------------------|--|---------------------------------------|---------------------------------------|
| 16.4" | 9.3" | 7.7" | 17.7" | 9.3" | 8.5" |
| 416 mm | 237 mm | 196 mm | 449 mm | 237 mm | 216 mm |

Ordering Information

DLV Plate-Mounted

| Coolant | |
|------------------|--|
| Fluid Type | Water Coolant mix (50% water / 50% glycol) |
| Heat Power | 24 kW 30 kW 36 kW |
| Temp. Control | Adjustable, 32–176 °F (0–80 °C) |
| Temp. High-limit | 194 °F (90 °C) |
| Pump Power | 0.75 hp (0.55 kW) |
| Flow (60 Hz) | 49 gpm @ 23 ft WC (185.5 L/min @ 7 m WC) |
| Flow (50 Hz) | 41 gpm @ 20 ft WC (155.2 L/min @ 6 m WC) |
| Inlet/Outlet | 1" NPT |
| Pressure Relief | 100 psi (690 kPa) |

| Engine Displacement | Oil Volume | Power Supply V | Hz | Coolant kW | Oil kW | Amps | Model Number |
|-----------------------------|-------------------------|----------------|----|------------|--------|------|-----------------|
| 9000–12000 CID 150–200L | 50–250 gal 190–950 L | 480 | 60 | 24 | 6 | 41 | DLV3240-0604-00 |
| | | 575 | 60 | 24 | 6 | 33 | DLV3240-0605-00 |
| 12000–15000 CID 200–250L | 50–250 gal 190–950 L | 400 | 50 | 30 | 9 | 62 | DLV3300-090A-00 |
| | | 480 | 60 | 30 | 9 | 52 | DLV3300-0904-00 |
| | | 575 | 60 | 30 | 9 | 43 | DLV3300-0905-00 |

| Oil | |
|-----------------------|---|
| Fluid Type | Lubrication oil |
| Heat Power | 6 kW 9 kW 12 kW |
| Temp. Control | Adjustable, 32–176 °F (0–80 °C) |
| Temp. High-limit | 194 °F (90 °C) |
| Pump Power | 2 hp (1.5 kW) |
| Flow | 10 gpm (37.9 L/min) 20 gpm (75.7 L/min) |
| Inlet/Outlet (10 gpm) | 1" NPT |
| Inlet/Outlet (20 gpm) | 1.5" NPT / 1" NPT |
| Pressure Relief | 75 psi (525 kPa) |

DLV Modular (-M00)

| Engine Displacement | Oil Volume | Power Supply V | Hz | Coolant kW | Oil kW | Amps | Model Number |
|-----------------------------|-------------------------|----------------|----|------------|--------|------|------------------|
| 9000–12000 CID 150–200L | 50–250 gal 190–950 L | 480 | 60 | 24 | 6 | 41 | DLV3240-0604-M00 |
| | | 575 | 60 | 24 | 6 | 33 | DLV3240-0605-M00 |
| 12000–15000 CID 200–250L | 50–250 gal 190–950 L | 400 | 50 | 30 | 9 | 62 | DLV3300-090A-M00 |
| | | 480 | 60 | 30 | 9 | 52 | DLV3300-0904-M00 |
| | | 575 | 60 | 30 | 9 | 43 | DLV3300-0905-M00 |

Other wattages available. Consult the factory.

Options shown represent typical tested or certified configurations. Additional options or configurations may be available. For assistance with your heating system application, contact Hotstart at 509.536.8660 or sales@hotstart.com.

