

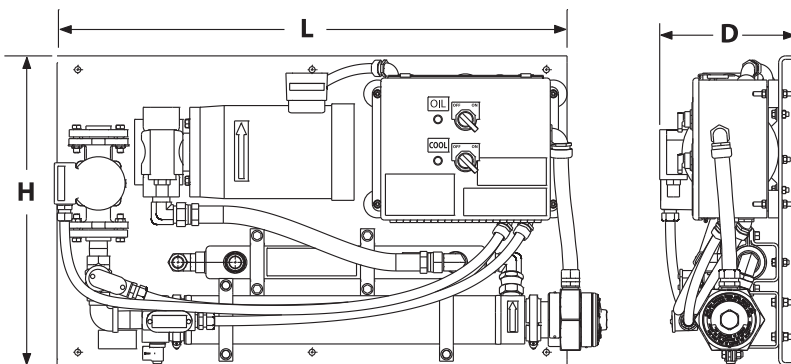
CFW Coolant and Fuel/Oil Heating System

The Hotstart® CFW is a complete pre-heater with a tank, heat exchanger, pump and all required controls. The CFW heats engines ranging in size from 40L to 150L (3000 to 9000 CID). Forced circulation of the coolant and fuel/oil delivers uniform heating throughout the entire engine, extends element life and reduces electrical consumption.



Specifications:

- Heating Fluid: Coolant and Fuel, or Oil
- Power: 12, 18 and 24kW
- Rated Voltage: 1 or 3 phase
(208V – 690V) 50Hz or 60Hz
- Tank Material: Steel (coolant)
- Stainless Steel (heat exchanger)
- Protection: IP44
- Fluid Capacity: 3.5L Coolant (0.925 gl)
1L Oil or Fuel (0.26 gl)
- Flow: 2.27 m³h (10 GPM)
- Pump Power: 0.122 kW (0.16 hp)
and 0.75 kW (1 hp)
- Head: 3.45 m (15 ft.)
- Max Pressure: 8.61 bar (125PSI)
- Pressure Loss: 0.20 bar (3PSI)
- Pressure Relief Valve: 6.2 bar (90PSI)
- Inlet/Outlet: 1 inch NPT (inlets), #16 JIC (outlets)
- Flow Switch: 0.45 m³/hr (2 GPM)



Dimensions & Weight		
Phase		1Ø or 3Ø
Height (H)	mm (In)	572 (22.5)
Length (L)	mm (In)	1018 (40.0)
Depth (D)	mm (In)	251 (9.88)
Weight	kg (lbs)	110 (242.5)

Features:

- CE compliant
- Standard Thermostat (38° - 48°C/100° - 120°F)
- Optional oil thermostat
- 24VDC relay for auto ON/OFF
- Flow switch for increased protection
- Optional 3-Way switch for local and remote operation



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ISO 9001:2000



CIRCULATING HEATING SYSTEMS

WET OR DAMP LOCATIONS (WATERTIGHT)

STANDARD COOLANT HEATING SYSTEMS

ENGINE DISPLACEMENT (In Cubic Inches)	MODEL NUMBER	KW	Volts	Hertz	Ø	Total Amps	HP/GPM
2000 TO 6000	CL11202	12	240	60	1	55.8	3/4 HP / 40 GPM
	CL11202-5	12	240	50	1	55.8	3/4 HP / 33 GPM
4000 TO 8000	CL31802	18	240	60	3	46.9	3/4 HP / 40 GPM
	CL31803-5	18	380	50	3	30	3/4 HP / 33 GPM
	CL31804	18	480	60	3	23.9	3/4 HP / 40 GPM
6000 TO 10,000	CL32402	24	240	60	3	61.4	3/4 HP / 40 GPM
	CL32403-5	24	380	50	3	39.1	3/4 HP / 33 GPM
	CL32404	24	480	60	3	31.7	3/4 HP / 40 GPM
10,000 TO 15,000	CL33003-5	30	380	50	3	48.3	3/4 HP / 33 GPM
	CL33004	30	480	60	3	38.8	3/4 HP / 40 GPM

COOLANT HEATING SYSTEMS

Kim Hotstart's large capacity systems heat and circulate coolant to efficiently maintain an engine's optimum temperature during shut-down and layover periods. This versatile heating system is available for engines from 3,000 to 30,000 C.I.D. Maintaining jacket water temperatures insures easy starting, reduces harmful emissions at start-up and allows engines to go to full power without needless idling. The circulation of heated coolant also warms the pre-ignition chamber on lean-burn engines which greatly aids engine start-up. All **CL** models, watertight by design, are engineered to function in wet or damp locations; ensuring safe, electrical operation. All **CL** systems are CSA approved.



All systems up to 27kw (coolant) carry CSA approval.

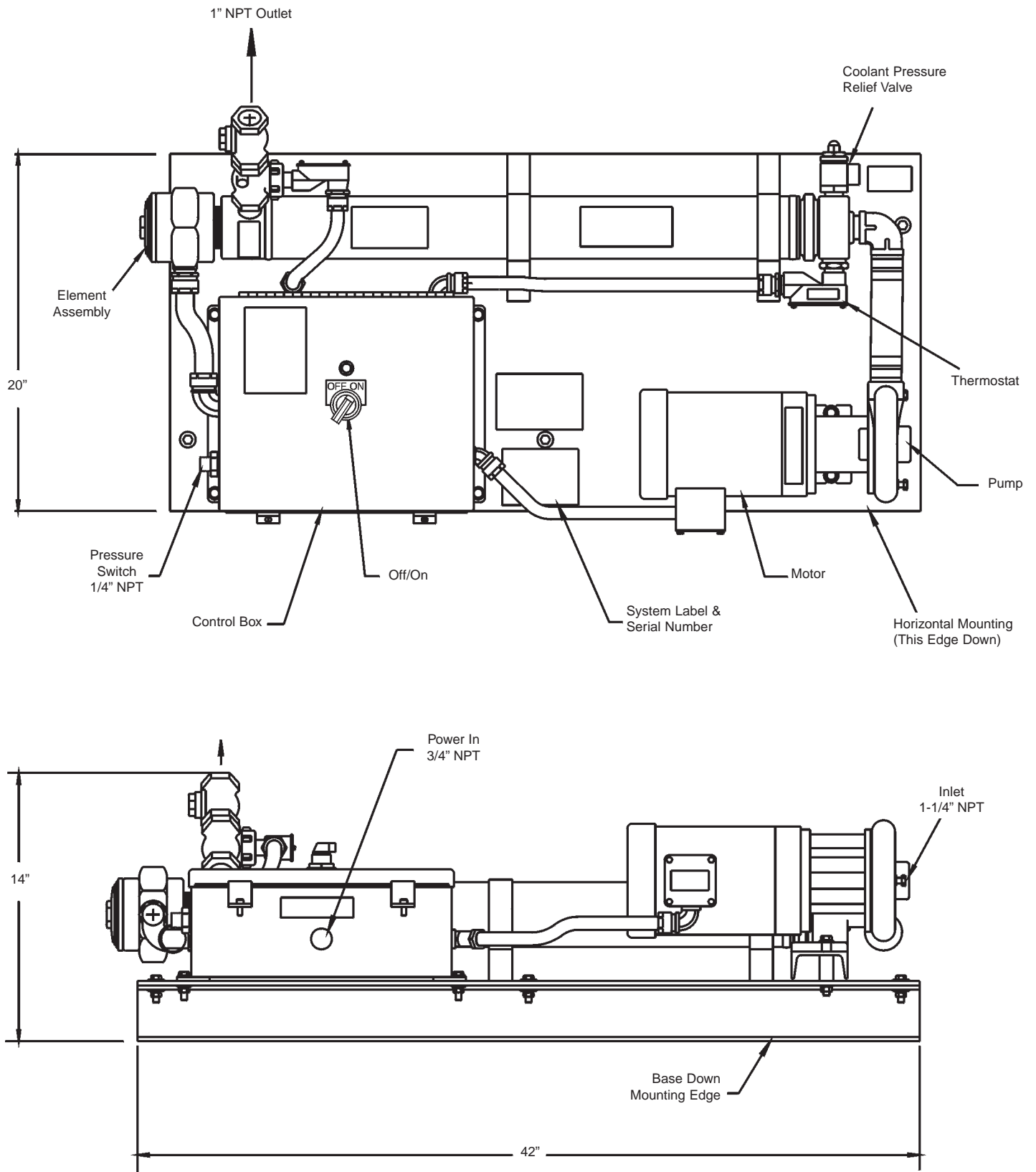
CL31804 (Watertight)

CL SYSTEM FEATURES

- Pressure switch for automatic operation
- Universal mounting for varied mounting configuration
- 100° to 120°F fixed thermostats
- On/Off switch for manual control
- Watertight components rated NEMA 4
- Viton mechanical seal pumps for extended seal life and temperatures to 350°F
- Flow detection switch for failsafe operation

SYSTEM DRAWINGS

Typical CL System FEATURES AND DIMENSIONS





CIRCULATING HEATING SYSTEMS

CLER Model

STANDARD COOLANT HEATING SYSTEMS

ENGINE DISPLACEMENT (In Cubic Inches)	MODEL NUMBER	KW	Volts	Hertz	Ø	Total Amps	HP/GPM
2000 TO 6000	CLER11202	12	240	60	1	55.8	3/4 HP/40 GPM
	CLER11202-5	12	240	50	1	55.8	3/4 HP/33 GPM
4000 TO 8000	CLER31802	18	240	60	3	46.9	3/4 HP/40 GPM
	CLER31803-5	18	380	50	3	30.0	3/4 HP/33 GPM
	CLER31804	18	480	60	3	23.9	3/4 HP/40 GPM
6000 TO 10,000	CLER32402	24	240	60	3	61.4	3/4 HP/40 GPM
	CLER32403-5	24	380	50	3	39.1	3/4 HP/33 GPM
	CLER32404	24	480	60	3	31.7	3/4 HP/40 GPM
10,000 TO 15,000	CLER33003-5	30	380	50	3	48.3	3/4 HP/33 GPM
	CLER33004	30	480	60	3	38.8	3/4 HP/40 GPM

COOLANT HEATING SYSTEMS

Kim Hotstart's large capacity coolant heating systems heat and circulate coolant throughout the engine's cooling system to efficiently maintain an engine at optimum starting temperatures. This versatile heating system is available for engines from 2,000 to 15,000 C.I.D. Maintaining jacket water temperatures insures easy starting, reduces harmful emissions at start-up and allows engines to go to full power without needless idling. Circulating heated coolant also warms the pre-ignition chamber on lean-burn engines which greatly aids engine start-up. All **CLER** models, explosion resistant by design, are engineered to function in hazardous locations; ensuring safe, electrical operation. All **CLER** systems are CSA approved.



All systems up to 27kw (coolant) carry CSA approval.

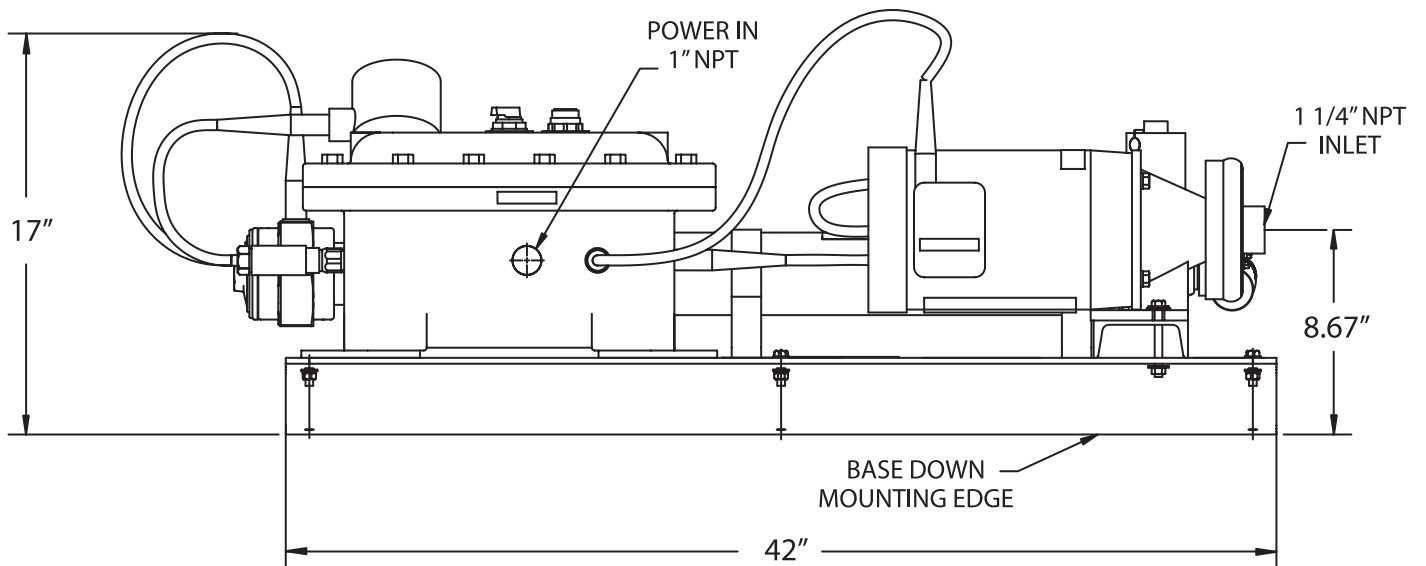
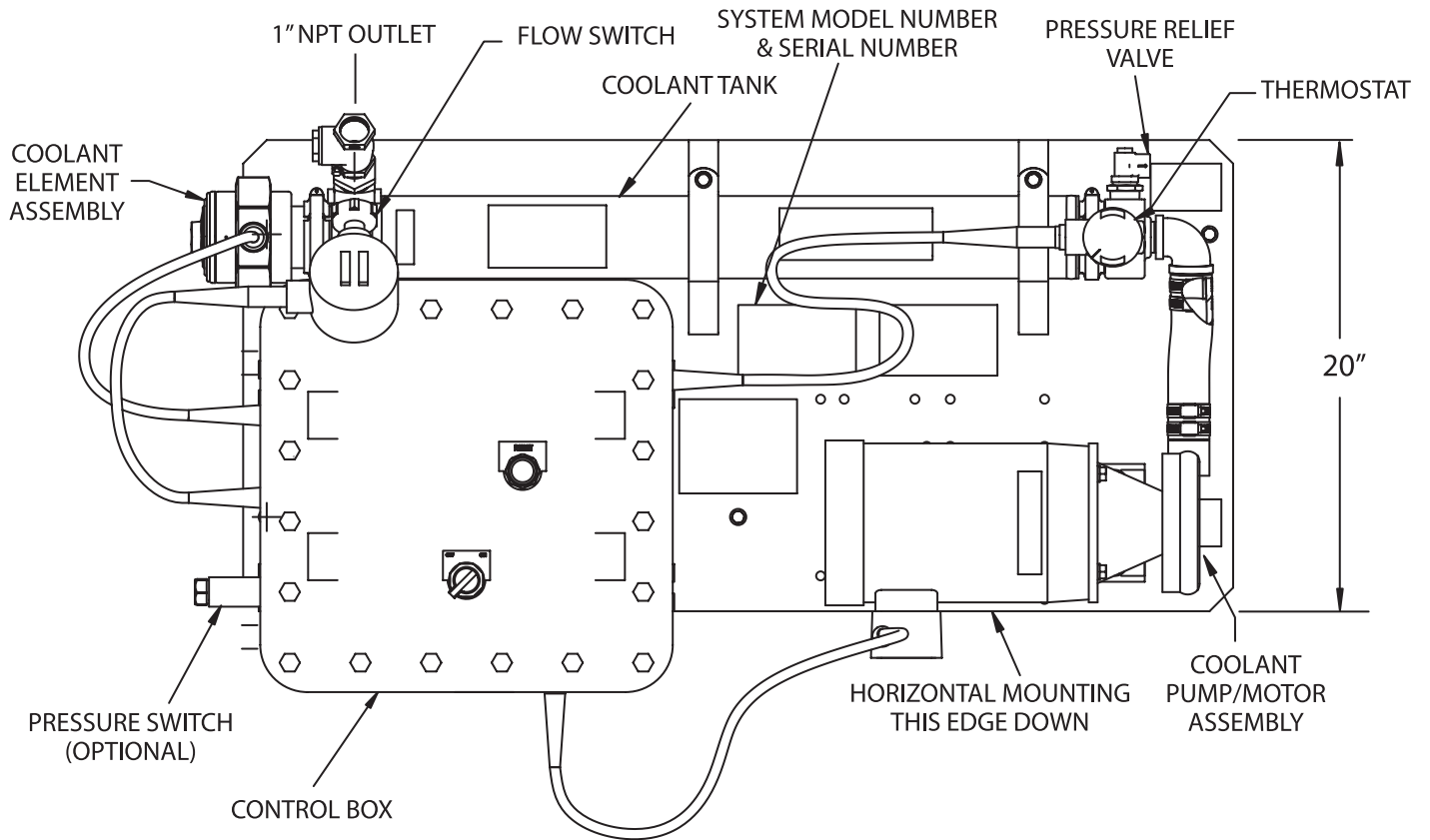
Typical CLER System (Explosion Proof)

CLER SYSTEM FEATURES

- Pressure switch for automatic operation
- Universal mounting for varied mounting configuration
- 100° to 120°F fixed thermostats
- On/Off switch for manual control
- Explosion proof/Watertight control box rated for Class 1 Group D Div. 1 & 2 and rated NEMA 12
- PVC jacketed MI cable resistant to sour gas
- Viton mechanical seal pumps for extended seal life and temperatures to 350°F
- External motor protective switch reset button

SYSTEM DRAWINGS

Typical CLER System FEATURES AND DIMENSIONS



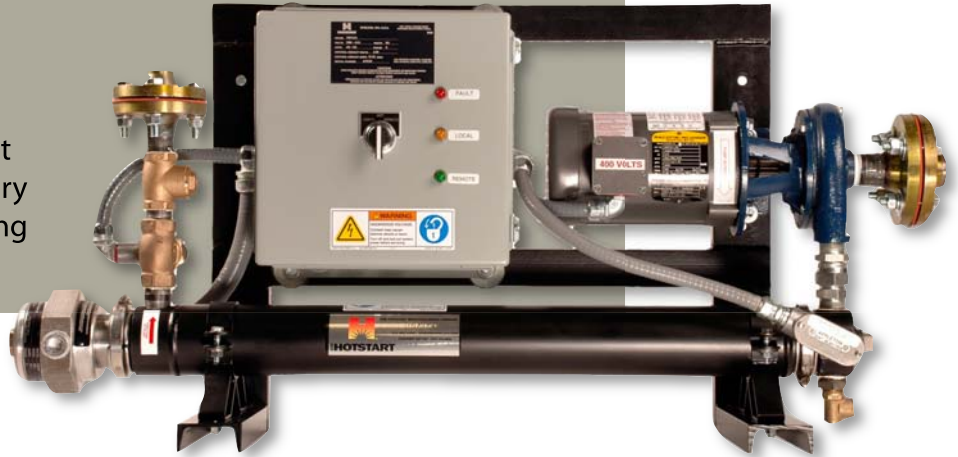
CLM Coolant Heating System

The Hotstart® CLM is a complete coolant preheater with thermostat, pump, flow switch and all required controls. The CLM heats engines ranging in size from 250L-800L displacement. Forced circulation of the coolant delivers uniform heating throughout the entire engine, extends element life and reduces electrical consumption.



Application:

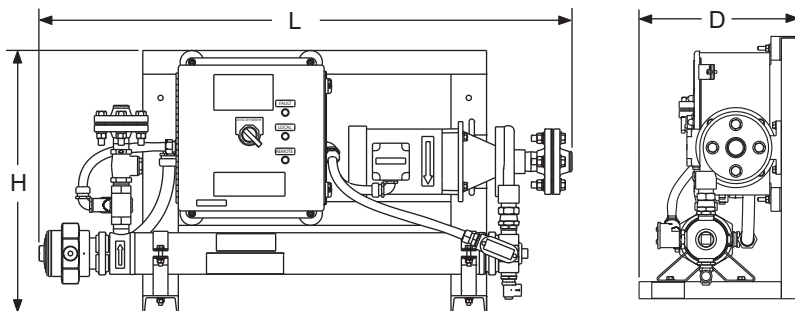
The CLM was developed to preheat diesel and gas engines for stationary land power, marine, rail, large mining and construction equipment.



Specifications:

- Heating Fluid: Engine coolant (50% glycol/50% water)
- Power: 36kW
- Rated Voltage: 3 Phase 400V (380-415V) 50Hz
3 Phase 460V (440-480V) 60Hz
- Tank Material: Steel
- Enclosure: IP54
- Fluid Capacity (including pump): 3.5L (.925 gl)
- Pump Power: 0.73kW
- Flow: 9.0 m³/hr (40GPM) (60Hz)
- Head: 12.20m (40ft)
- Flow Switch: 0.4 m³/hr (2GPM)
- Max Pressure: 8.61 bar (125PSI)
- Pressure Loss: 0.20 bar (3PSI)
- Pressure Relief Valve: 6.2 bar (90PSI)
- Inlet/Outlet: DN32 Inlet, DN25 Outlet (DIN2633)*

* Flange sold separately



Dimensions & Weight		
Phase		3Ø
Height (H)	mm (In)	562 (22.1)
Length (L)	mm (In)	1142 (44.9)
Depth (D)	mm (In)	341 (13.4)
Weight	kg (lbs)	77.6 (171)

Features:

- CE compliant
- Designed and tested to meet DNV Marine Classification
- Thermostat (50° - 60°C/120° - 140°F)
- 24VDC relay for auto ON/OFF
- Flow switch for increased protection
- Auxilliary contacts for remote monitoring
- Optional E-stop



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CMM Coolant Heating System

The Hotstart® CMM is a complete coolant preheater with thermostat, pump, flow switch and all required controls. The CMM heats engines ranging in size from 100L-400L displacement. Forced circulation of the coolant delivers uniform heating throughout the entire engine, extends element life and reduces electrical consumption.



Application:

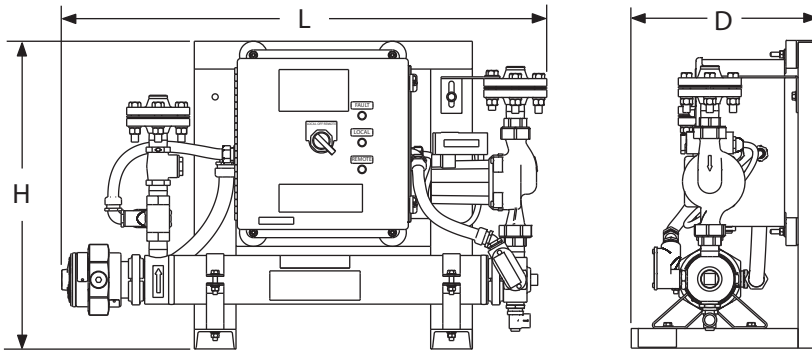
The CMM was developed to preheat diesel and gas engines for stationary land power, marine, rail, large mining and construction equipment.



Specifications:

- Heating Fluid: Engine coolant (50% glycol/50% water)
- Power: 18kW
- Rated Voltage: 3 Phase 400V (380-415V) 50Hz
3 Phase 460V (440-480V) 60Hz
3 Phase 690V 50/60Hz
- Tank Material: Steel
- Enclosure: IP44
- Fluid Capacity (including pump): 3L (.793 gl)
- Pump Power: 0.122kW
- Flow: 3.22 m³/hr (14GPM)
- Head: 3.45m (10ft)
- Flow Switch: 0.4 m³/hr (2GPM)
- Max Pressure: 8.61 bar (125PSI)
- Pressure Loss: 0.20 bar (3PSI)
- Pressure Relief Valve: 6.2 bar (90PSI)
- Inlet/Outlet: DN25 (DIN2633)*

* Flange sold separately



Dimensions & Weight

Phase	3Ø	
Height (H)	mm (In)	562 (22.1)
Length (L)	mm (In)	886 (34.9)
Depth (D)	mm (In)	341 (13.4)
Weight	kg (lbs)	55.4 (122)

Features:

- CE compliant
- Designed and tested to meet DNV Marine Classification
- Thermostat (50° - 60°C/120° - 140°F)
- 24VDC relay for auto ON/OFF
- Flow switch for increased protection
- Auxilliary contacts for remote monitoring
- Optional E-stop



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CIRCULATING HEATING SYSTEMS

WET OR DAMP LOCATIONS (WATERTIGHT)

STANDARD OIL and COOLANT HEATING SYSTEMS

C.I.D. 100° D T	OIL VOLUME	MODEL NUMBER	Coolant KW	Oil KW	Volt	HZ	Ø	AMP	Coolant HP/GPM	Oil HP/GPM
2000 TO 6000	50-250 Gallons	COL1110/0602	11	6	240	60	1	84.6	3/4 / 40	1 / 10
		COL1110/0602-5	11	6	240	50	1	84.6	3/4 / 33	1 / 8
4000 TO 8000	200-400 Gallons	COL1110/0902	11	9	240	60	1	95.2	3/4 / 40	2 / 16
		COL1110/0902-5	11	9	240	50	1	95.2	3/4 / 33	2 / 13
6000 TO 9000	50-250 Gallons	COL3180/0603-5	18	6	380	50	3	42.6	3/4 / 33	1 / 8
		COL3180/0604	18	6	480	60	3	34	3/4 / 40	1 / 10
8000 TO 12000	50-250 Gallons	COL3240/0603-5	24	6	380	50	3	51.7	3/4 / 33	1 / 8
		COL3240/0604	24	6	480	60	3	41.2	3/4 / 40	1 / 10
8000 TO 12000	200-400 Gallons	COL3240/0903-5	24	9	380	50	3	58.7	3/4 / 33	2 / 13
		COL3240/0904	24	9	480	60	3	47.8	3/4 / 40	2 / 16
10000 TO 15000	200-400 Gallons	COL3300/0903-5	30	9	380	50	3	67.7	3/4 / 33	2 / 13
		COL3300/0904	30	9	480	60	3	55	3/4 / 40	2 / 16

COOLANT/LUBE OIL HEATING SYSTEMS

The Kim Hotstart line of coolant/lube oil combination heating systems combine the benefits of coolant heating and oil heating into one pre-wired, pre-assembled dual heating package. Maintaining jacket water temperatures insures easy starting and allows engines to go to full power without needless idling. In turn, the engine emits less noise and air pollution and equipment availability and up-time is increased. Circulating heated coolant also warms the pre-ignition chamber on lean-burn engines which results in a reduction of harmful emissions during engine start-up. The **COL**, a watertight system by design, is engineered to function in wet or damp locations; ensuring safe, electrical operation. All **COL** systems are CSA approved.



All systems up to 27kw (coolant) carry CSA approval.

COL3180/0604

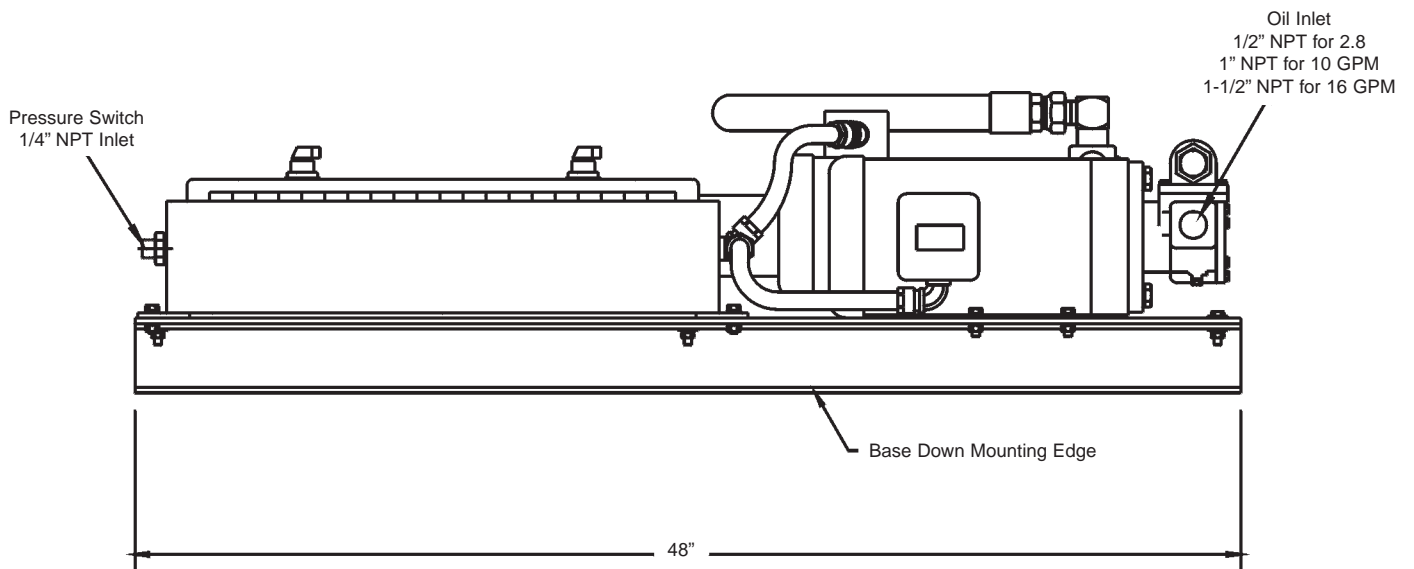
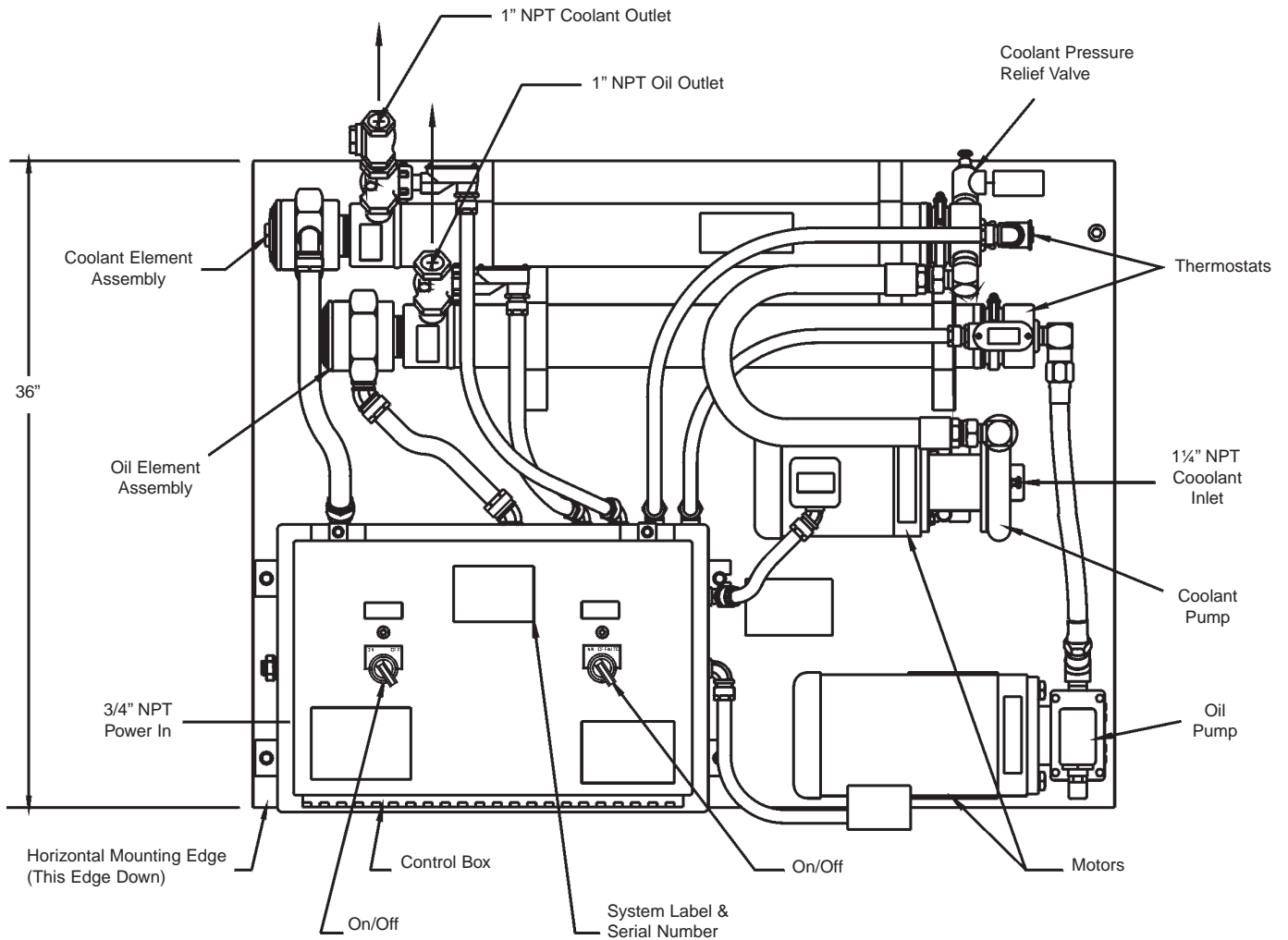
(Watertight)

COL SYSTEM FEATURES

- Pressure switch for automatic operation
- Universal mounting for varied mounting configuration
- 100° to 120°F coolant thermostat and 80° to 100°F oil thermostat
- On/Off switch for coolant and oil heating operations
- Watertight components rated for NEMA 4
- PVC jacketed MI cable resistant to sour gas
- Viton mechanical seal pumps for extended seal life and temperatures to 350°
- Flow detection switches for failsafe operation

SYSTEM DRAWINGS

Typical COL System FEATURES AND DIMENSIONS





CIRCULATING HEATING SYSTEMS

HAZARDOUS LOCATIONS (CLASS 1 GROUP D)

STANDARD OIL and COOLANT HEATING SYSTEMS

C.I.D.	OIL CAPACITY	MODEL NUMBER	COOLANT KW	OIL KW	VOLT	HZ	Ø	AMP	COOLANT HP/GPM	OIL HP/GPM
2000 TO 6000	50-250 Gallons	COLER1110/0602	11	6	240	60	1	84.6	3/4 / 40	1 / 10
		COLER1110/0602-5	11	6	240	50	1	84.6	3/4 / 33	1 / 8
2000 TO 6000	200-500 Gallons	COLER1110/0902	11	9	240	60	1	95.2	3/4 / 40	2 / 16
		COLER1110/0902-5	11	9	240	50	1	95.2	3/4 / 33	2 / 13
4000 TO 9000	50-250 Gallons	COLER3180/0603-5	18	6	380	50	3	42.6	3/4 / 33	1 / 8
		COLER3180/0604	18	6	480	60	3	34	3/4 / 40	1 / 10
8000 TO 12000	50-250 Gallons	COLER3240/0603-5	24	6	380	50	3	51.7	3/4 / 33	1 / 8
		COLER3240/0604	24	6	480	60	3	41.2	3/4 / 40	1 / 10
8000 TO 12000	200-500 Gallons	COLER3240/0903-5	24	9	380	50	3	58.7	3/4 / 33	2 / 13
		COLER3240/0904	24	9	480	60	3	47.8	3/4 / 40	2 / 16
10000 TO 15000	200-500 Gallons	COLER3300/0903-5	30	9	380	50	3	67.7	3/4 / 33	2 / 13
		COLER3300/0904	30	9	480	60	3	55	3/4 / 40	2 / 16

COOLANT/LUBE OIL HEATING SYSTEMS

The Kim Hotstart line of coolant/lube oil combination heating systems combine the benefits of coolant heating and oil heating into one pre-wired, pre-assembled dual heating system. Circulating heated coolant and lube oil throughout the engine ensures optimum starting temperatures and oil viscosity while eliminating condensation. Pre-heating greatly reduces friction and wear caused by cold starting and significantly reduces fuel costs by eliminating needless idling. Circulating heated coolant also warms pre-ignition chambers on lean-burn engines, greatly aiding start-up and prolonging spark plug life. The **COLER**, explosion resistant by design, is engineered to function in hazardous locations; ensuring safe, electrical operation. All **COLER** systems are CSA approved.



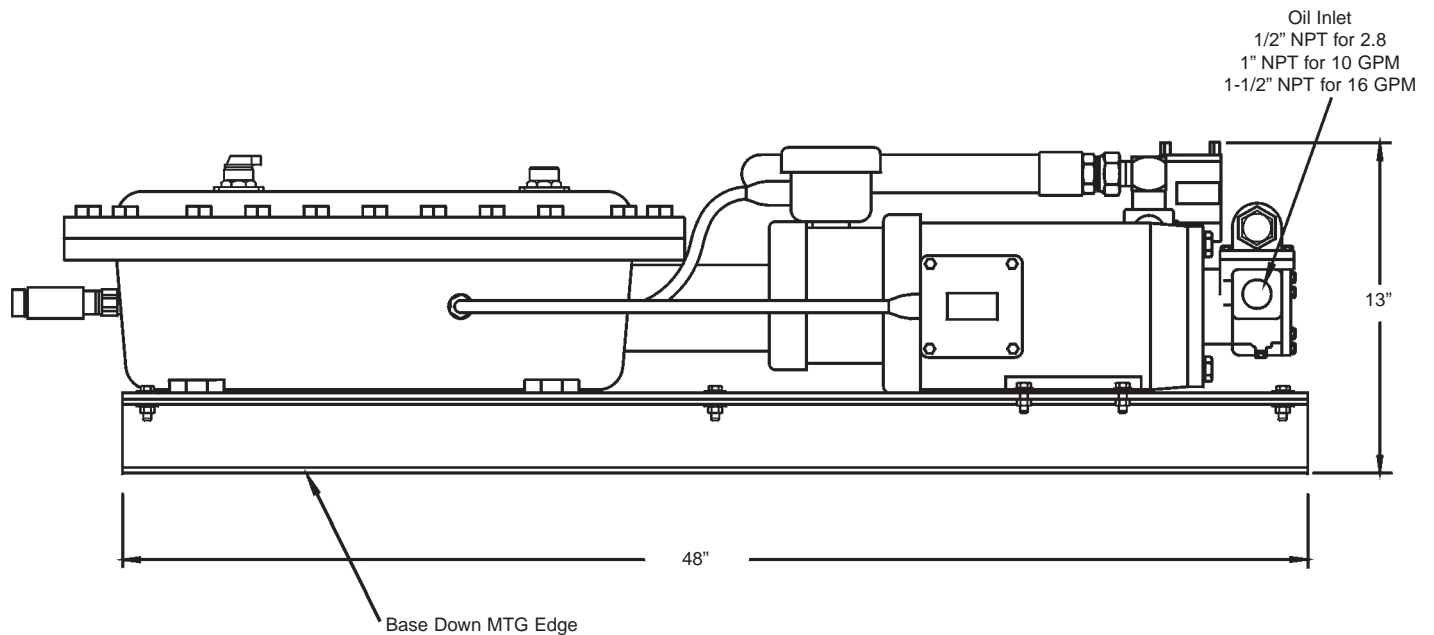
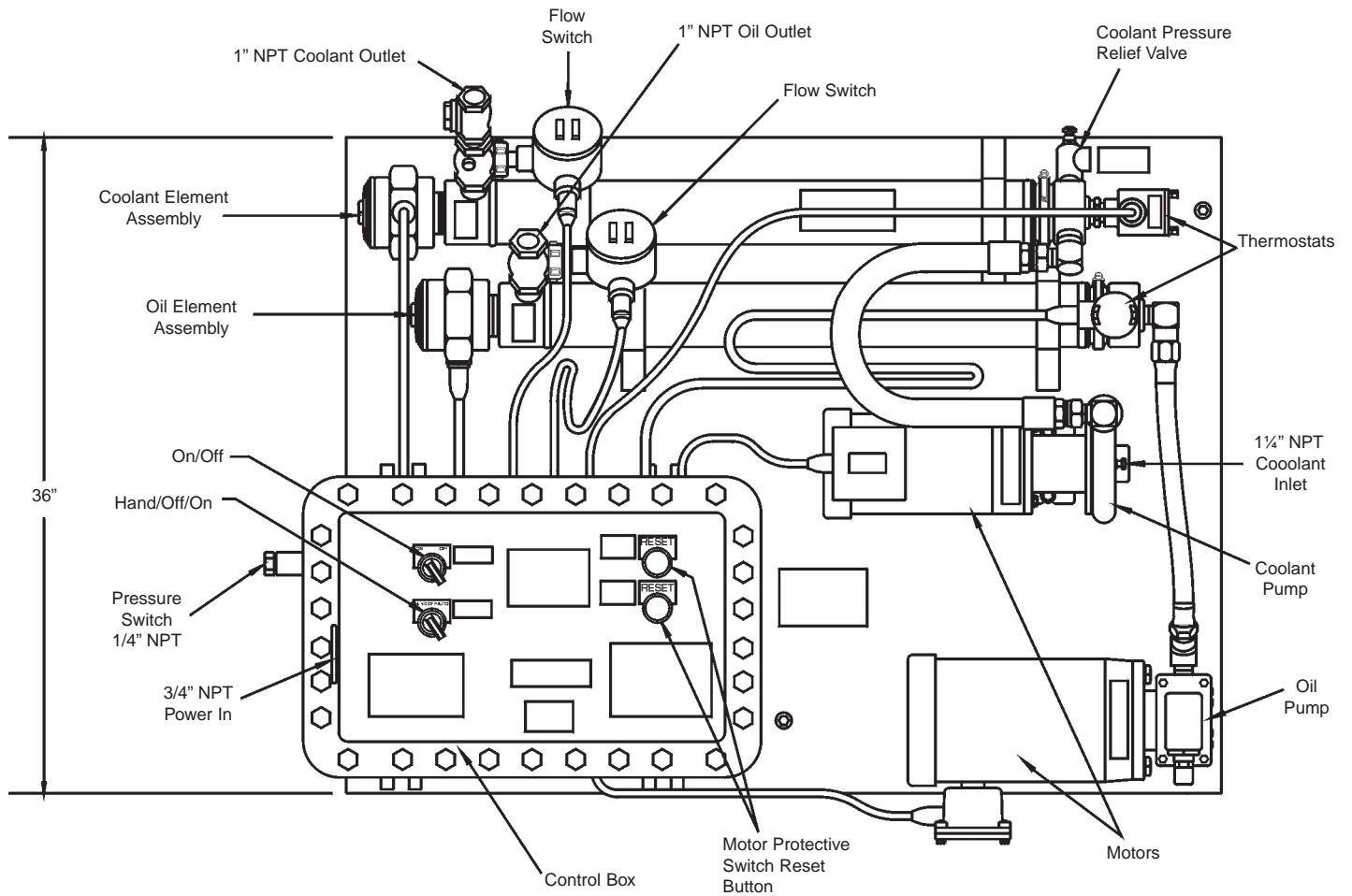
Typical COLER System
(Explosion Proof)

COLER SYSTEM FEATURES

- Adjustable pressure switch for automatic operation
- Universal mounting for varied mounting configuration
- 100° to 120°F coolant thermostat and 80° to 100°F oil thermostat
- On/Off switch for coolant; Hand/off/auto switch for oil
- Explosion proof/Watertight control box rated for Class 1 Group D Div. 1 & 2 and NEMA 4
- PVC jacketed MI cable resistant to sour gas
- Viton mechanical seal pumps for extended seal life and temperatures to 350°
- External motor protective switch reset buttons

SYSTEM DRAWINGS

Typical COLER System FEATURES AND DIMENSIONS



CSM Coolant Heating System

The Hotstart® CSM is a complete coolant preheater with thermostat, pump and all required controls. The CSM heats engines ranging in size from 15L-100L displacement. Forced circulation of the coolant delivers uniform heating throughout the entire engine, extends element life and offers a significant reduction in electrical consumption.

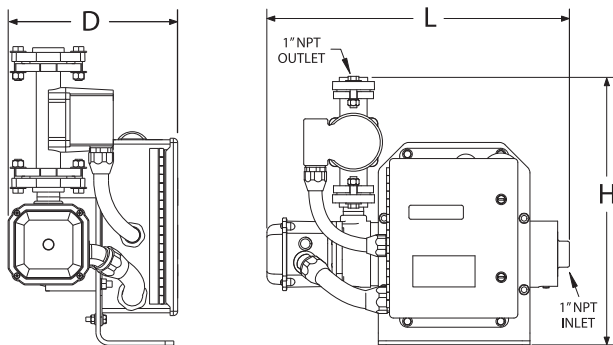
Application:

The CSM was developed to preheat diesel and gas engines for stationary land power, marine, large mining and construction equipment.



Specifications:

- Heating Fluid: Engine coolant (50% glycol/50% water)
- Power: 3, 6, 9 and 12 kW
- Rated Voltage: 1 or 3 Phase
120... 690 Volt (50 or 60Hz)
- Tank Material: Aluminum
- Adjustable T-Stat: 90° - 130°F (32°- 55°C)
Pre-set at 110°F (43.5°C)
- Ingress Protection: IP44 (50Hz), NEMA 2 (60Hz)
- Fluid Capacity: .6 gl (2.19L)
- Pump Power: 1/25HP (30W)
- Flow: 10GPM (2.2 m³/hr) @ 10ft head (.3 bar)
- Max Pressure: 125PSI (8.61 bar)
- Pressure Loss: .22PSI (.015 bar)
- 1" NPT Inlet, 1" NPT Outlet



Dimensions & Weight

Phase	1~ (less than 50 amps)	All Others
Height (H) In (mm)	15.2 (386)	17.2 (437)
Length (L) In (mm)	19.4 (493)	19.4 (493)
Depth (D) In (mm)	9.8 (249)	9.8 (249)
Weight lbs (kg)	37 (16.8)	54 (24.5)

Features:

- UL-C/US listed - (60 Hz models) - E250789CE
- CE compliant (50 Hz models)
- Controls for automatic operation
- Compact design
- Easy to install



ISO 9001:2000

CSM Coolant Heating System



1Ø or 3Ø
Over 240V



1Ø
240V or Less

Model Numbers:

Engine Size CID	Engine Size Liter	Part Number	Wattage	Voltage	Phase	Hz	Amps
1000 to 2000	15-30	CSM10301-000	3000	120	1	60	27.0
		CSM10308-000	3000	208	1	60	16.4
		CSM1030C-000	3000	220	1	50	15.6
		CSM10302-000	3000	240	1	60	14.5
2000 to 3000	25-50	CSM10608-000	6000	208	1	60	30.8
		CSM1060C-000	6000	220	1	50	29.3
		CSM10602-000	6000	240	1	60	27.0
		CSM10604-000	6000	480	1	60	14.5
		CSM30603-000	6000	380	3	50	11.1
		CSM30604-000	6000	480	3	60	9.2
		CSM30605-000	6000	575	3	60	6.0
3000 to 4500	50-75	CSM10908-000	9000	208	1	60	45.3
		CSM1090C-000	9000	220	1	50	42.9
		CSM10902-000	9000	240	1	60	39.5
		CSM10904-000	9000	480	1	60	20.8
		CSM30903-000	9000	380	3	50	15.7
		CSM30904-000	9000	480	3	60	12.8
4500 to 6000	75-100	CSM11202-000	12000	240	1	60	52.0
		CSM11204-000	12000	480	1	60	27.0
		CSM31203-000	12000	380	3	50	20.3
		CSM31204-000	12000	480	3	60	16.5

Other voltages available. Consult the factory.



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CTM Coolant Heating System

The Hotstart® CTM is a complete coolant preheater. It features an integrated pump that combines the benefits of forced circulation with a compact design that can mount to a variety of small engine applications. The CTM heats engines up to 20L displacement. Forced circulation of the coolant delivers uniform heating throughout the entire engine, extends element life and offers a significant reduction in electrical consumption.

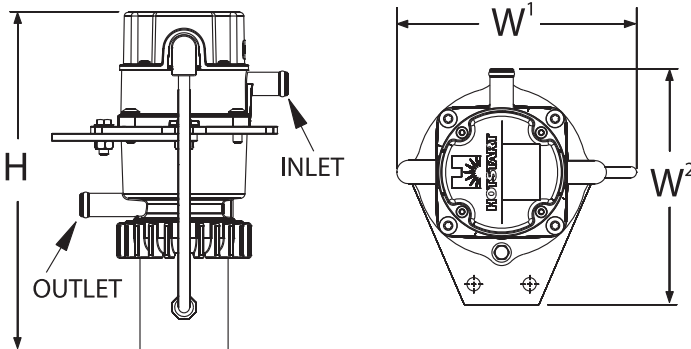
Application:

The CTM was developed to preheat diesel and gas engines for stationary land power, marine and construction equipment.



Specifications:

- Heating Fluid: Engine coolant (50% glycol/50% water)
- Power: 1, 1.5 and 2.5 kW
- Rated Voltage: 1 Phase 120 and 240 Volt
- Tank Material: Glass fiber reinforced thermoplastic
- Adjustable T-Stat: 90° - 130°F (32° - 55°C)
Pre-set at 110°F (43.5°C)
- Ingress Protection: IP44
- Flow: 5GPM (1.14 m³/hr) @ 3 PSI (.21 bar)
- Inlet/Outlet: .625 inch (16mm) hose barb
- Cord or conduit connected



Pending UL listing. Not currently for use on UL listed generator sets.

Dimensions & Weight

Height	H	In (mm)	9.04	(230)
Width ¹	W	In (mm)	6.42	(163)
Width ²	W	In (mm)	6.32	(161)
Weight		lbs (kg)	2.9	(1.3)

Features:

- Pending UL evaluation
- CE compliant
- Compact design
- Easy to install
- Patent pending

Engine Size CID	Liter	Part Number 120V	Part Number 240V	Part Number 240V (Euro)	Kw	Amps 120V/240V
0 - 500	0-8	CTM101A3-N00	CTM102A3-N00	CTM102A3-E00	1	8.8/4.4
500 - 750	8-12	CTM151A3-N00	CTM152A3-N00	CTM152A3-E00	1.5	13.0/6.5
750 - 1200	12-20	CTM251A3-N00*	CTM252A3-N00	CTM252A3-E00	2.5	21.3/10.7

*Available August, 2009



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Dual Heating System with Programmable Logic Control

Coolant/Lube Oil Heating Systems

Engine Displacement (In Cubic Inches)	Oil Volume	MODEL NUMBER	Water KW	Oil KW	Volts	Ø	Total Amps	Water HP/GPM	Oil HP/GPM
4,000	100	DH3180/0602	18	6	240	3	63.9	3/4 / 40	1/10
TO	TO	DH3180/0604	18	6	480	3	35.9	3/4 / 40	1/10
8,000	250	DH3180/0605	18	6	575	3	28.8	3/4 / 40	1/10
8,000	100	DH3240/0604	24	6	480	3	43.1	3/4 / 40	1/10
TO	TO	DH3240/0605	24	6	575	3	34.9	3/4 / 40	1/10
12,000	250								
10,000	100	DH3300/0604	30	6	480	3	54.0	3/4 / 40	1/10
TO	TO	DH3300/0605	30	6	575	3	43.9	3/4 / 40	1/10
15,000	250								
10,000	200	DH3300/0904	30	9	480	3	61.2	3/4 / 40	2/20
TO	TO	DH3300/0905	30	9	575	3	50.0	3/4 / 40	2/20
15,000	400								

Kim Hotstart's dual heating system heats and circulates coolant and lube oil throughout the entire engine and cooling system. The system features Programmable Logic Control to ensure fail-safe, reliable engine heating with fewer mechanical parts. Diagnostic indicators monitor vital operations to alert operators of potential trouble with the heating system. An optional modem is available for remote monitoring. The system is designed to accommodate horizontal mounting configurations only.

Optional non-standard voltages include 208, 277, 400, and 415

Features of Programmable Logic Control (PLC)

- Eliminates both mechanical flow switches.
- Eliminates time delay relays in control box.
- Senses flow by temperature measurement at both ends of the heating tank.
- Allows water and oil temperatures to be set to customer's specifications.
- Allows water and oil temperatures to be viewed on the text display.
- Operating temperature of both fluids can be changed in the field.

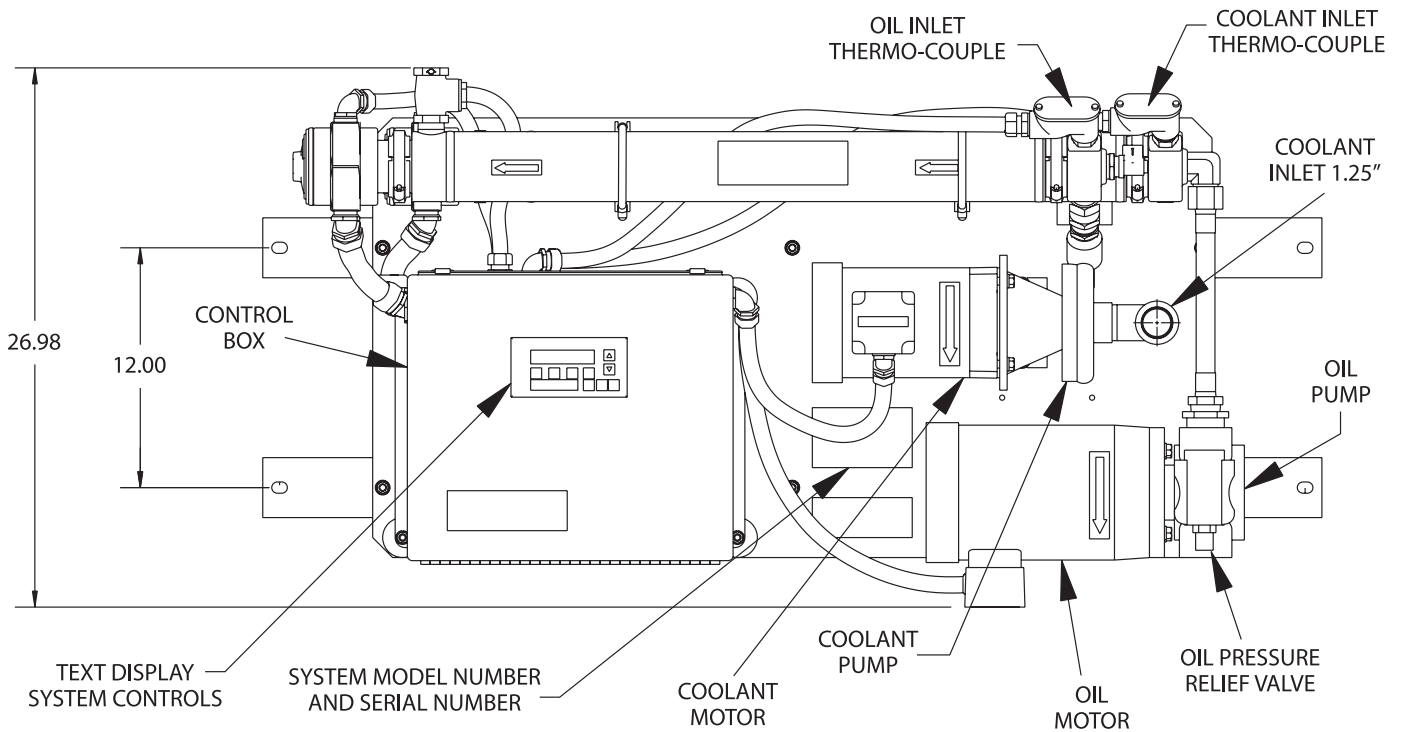
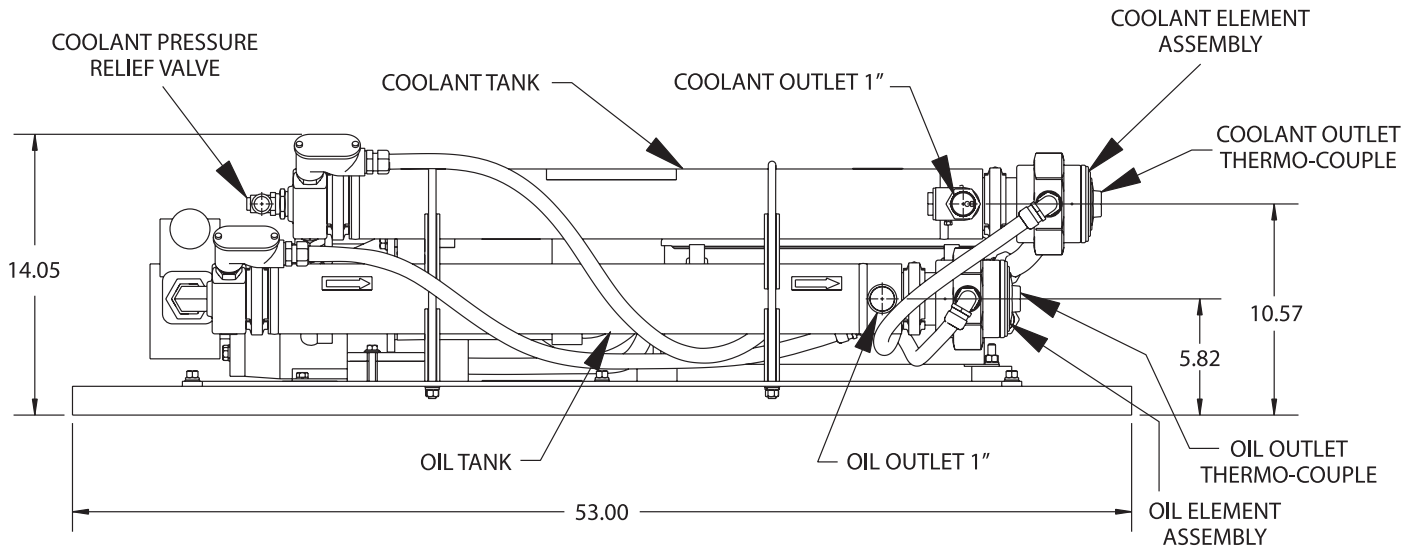
Diagnostic monitoring via the text display:

- High temperature of both fluids when element is energized.
- Low temperature of both fluids.
- Low flow and/or no flow of both fluids.
- Thermocouple module and thermocouples.
- Motor protective switch of both motors.



SYSTEM DRAWINGS

Typical *DH* System FEATURES AND DIMENSIONS



Dual Heating System with Programmable Logic Control

Coolant/Lube Oil Heating Systems

Engine Displacement (In Cubic Inches)	Oil Volume	MODEL NUMBER	Water KW	Oil KW	Volts	Ø	Total Amps	Water HP/GPM	Oil HP/GPM
4,000	100	DV3180/0602	18	6	240	3	66	3/4 / 40	1/10
TO	TO	DV3180/0604	18	6	480	3	34	3/4 / 40	1/10
8,000	250	DV3180/0605	18	6	575	3	29	3/4 / 40	1/10
8,000	100	DV3240/0604	24	6	480	3	41	3/4 / 40	1/10
TO	TO	DV3240/0605	24	6	575	3	35	3/4 / 40	1/10
12,000	250								
10,000	100	DV3300/0604	30	6	480	3	49	3/4 / 40	1/10
TO	TO	DV3300/0605	30	6	575	3	41	3/4 / 40	1/10
15,000	250								
10,000	200	DV3300/0904	30	9	480	3	54	3/4 / 40	2/20
TO	TO	DV3300/0905	30	9	575	3	45	3/4 / 40	2/20
15,000	400								

Kim Hotstart's dual heating system heats and circulates coolant and lube oil throughout the entire engine and cooling system. The system features Programmable Logic Control to ensure fail-safe, reliable engine heating with fewer mechanical parts. Diagnostic indicators monitor vital operations to alert operators of potential trouble with the heating system. An optional modem is available for remote monitoring. The system is designed to accommodate vertical mounting configurations only.

Features of Programmable Logic Control (PLC)

- Eliminates both mechanical flow switches.
- Eliminates time delay relays in control box.
- Senses flow by temperature measurement at both ends of the heating tank.
- Allows water and oil temperatures to be set to customer's specifications.
- Operating temperature of both fluids can be changed in the field.

Diagnostic monitoring via the text display:

- High temperature of both fluids when element is energized.
- Low temperature of both fluids.
- Low flow and/or no flow of both fluids.
- Thermocouple module and thermocouples.
- Motor protective switch of both motors.



SYSTEM DRAWINGS

Typical DV System FEATURES AND DIMENSIONS

