

CSA

Hotstart's CSA is an IECEx/ATEX certified compact coolant heating system for use in hazardous locations and is designed to maintain optimal engine starting temperatures for gas compression or offshore equipment applications.



ENGINE AVAILABILITY

To improve equipment startability and availability, the CSA maintains a consistent and uniform temperature by circulating heated coolant throughout the engine block – eliminating hot spots and preventing overheating at engine shutdown.



REDUCED MAINTENANCE & EMISSIONS

When compared to cold engine starts, maintaining optimal temperature during down time lowers NOx emissions at engine startup. Engine heating also eliminates the need for extended idling, reducing overall maintenance expenses.



COMPLETE PACKAGED DESIGN

Designed as a user-friendly, pre-packaged system, the CSA includes all necessary components and features a compact configuration to reduce overall footprint. Its remote automatic function and customer interface connections enable the CSA to be easily integrated into any control system.



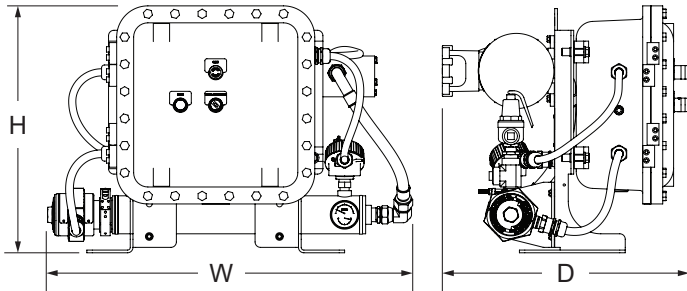
PREVENTS CONDENSATION

In warmer, humid climates, temperature variation can cause condensation to collect in the cylinders, resulting in starting issues and frequent maintenance. By maintaining temperatures above the dew point, the CSA eliminates the risk of condensation forming inside the heads during cool down periods.

MODEL INFORMATION

Proper heating system specification is dependent on multiple factors, including heated area dimensions, fluid volumes, ambient conditions, and other considerations. Additional heating system options not listed, including heat power, may be available. For assistance in selecting the heating system for your application, contact the Hotstart Oil & Gas office at 281.600.3700 or oil.gas@hotstart.com.

Typical model shown.
Dimensions may vary.



Height (H)	Width (W)	Depth (D)	Weight
22.8"	32.1"	19.2"	225 lbs
578 mm	816 mm	488 mm	102 kg

System	
Phase	single-phase (1 Ø) three-phase (3 Ø)
Voltage (50Hz)	230V 400V
Min./Max. Ambient Temp.	-4°F / 104°F (-20°C / 40°C)
Temp. Class	T3
Altitude Rating (Motor)	3,300 ft (1,000 m)
Certification	IECEx/ATEX

Coolant	
Fluid Type	Coolant mix (50% water / 50% glycol)
Heat Power	3kW 6kW 9kW 12kW
Temp. Control	32–176°F (0–80°C), adjustable
Control Set Point	122°F (50°C), factory set
Temp. High-limit	195°F (90°C)
Pump Power	1 hp (0.75 kW)
Flow	8.5 gpm (37.9 L/min)
Inlet/Outlet	0.75" NPT / 1" NPT
Pressure Relief	100 psi (690 kPa)

Certifications	
IECEx	IECEx UL 18.0106X Ex db IIA T3 Gb
ATEX	DEMKO 18 ATEX 2107X CE 0539 @ II 2 G Ex db IIA T3 Gb

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 281.600.3700 or oil.gas@hotstart.com.