



CARLOR  
ENGINEERING

## History

Carlor Engineering, ISO 9001 certified Belgian manufacturer, it is 15 years experience in the development of electric coolant heaters for all types of water-cooled engines. Carlor Engineering quickly became the leader in this field with the assets of a small company: reactivity, adaptation to market demand, quality and reliability.



## TOP START (BIO) DIESEL & OIL

(Bio)diesel & Oil preheater with circulation pump

The **TopSart (Bio)diesel & Oil** is an electrical preheating system with forced circulation made to warm up the (bio)diesel or oil of the engine. It is universal, reliable, easy-to-install and maintenance-free. The system has also following advantages: fuel savings, decreasing pollution, reduced engine wear, no more difficult cold starts.

CE



### Product benefits

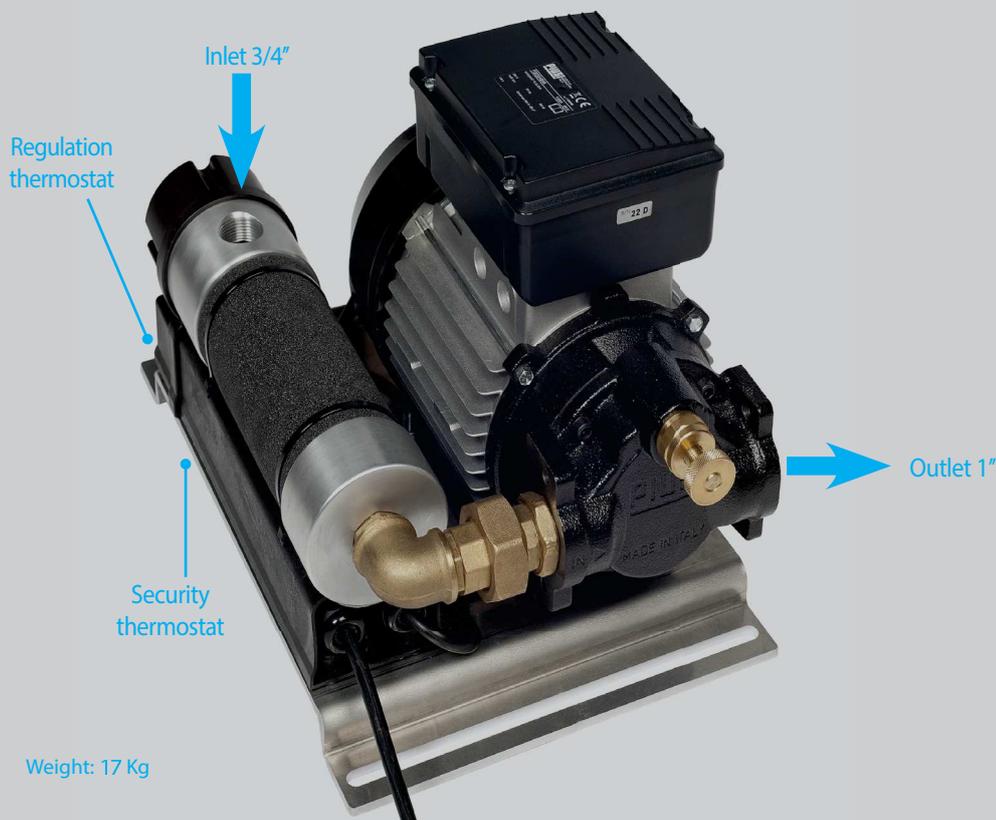
- Heavy machined aluminium body 100% recyclable
- Very compact product with integrated circulating pump for quick and homogeneous preheating
- Integrated powerful circulating pump saving electricity and improving the life cycle of engine components
- Heating element with top-quality shielding and low specific power, increasing its life-cycle and that of the coolant
- Control thermostat with high cutout power for an optimized life cycle
- Safety thermostat with manual re-set option to protect the heating element if (bio)diesel or oil levels in the circuit are low or if the control thermostat fails
- High waterproofness
- Easy replacement of parts
- Two years warranty on labour and spare parts



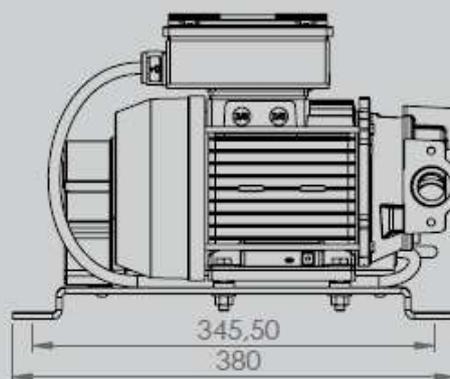
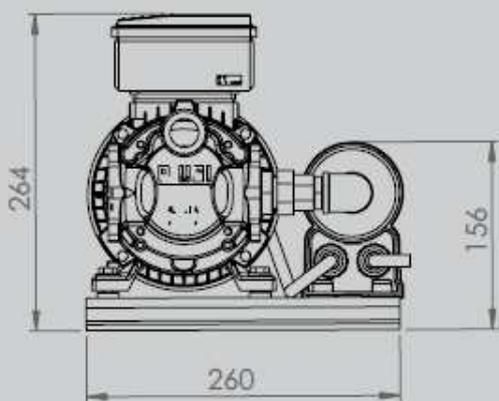
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# TOP START (BIO) DIESEL & OIL

(Bio)diesel & Oil preheater with circulation pump



Weight: 17 Kg



Technical characteristics

## HEATING UNIT

- Machined aluminium AlMgSi1 heating unit
- PA66 protection covers
- 1" Inlet and 3/4" outlet

## CIRCULATING PUMP

- Electric vane pump: 750W
- Voltage: 230V
- Frequency: 50Hz or 60Hz
- Flow: 25L/min at 6 bar

## WATER TEMPERATURE CONTROL THERMOSTAT

- Adjustable control thermostat with 25A cutout rating, 100,000 cycles
- Available temperature interval: 0°C - 40°C (32°F - 104°F)  
0°C - 80°C (32°F - 176°F)

## SAFETY THERMOSTAT

- Safety thermostat with manual re-set option and 25A cutout rating, 6,000 cycles (60°C / 140°F or 110°C / 230°F)

## HEATING ELEMENT

- Incoloy 800<sup>®</sup> shielded immersion heater with very low specific power (2.5 W/cm<sup>2</sup> - 0.39 W/sq in)
- Power: 1kW
- Voltage: 230V

