



ELECTRIC PRE-HEATER ASSEMBLIES

Tasks

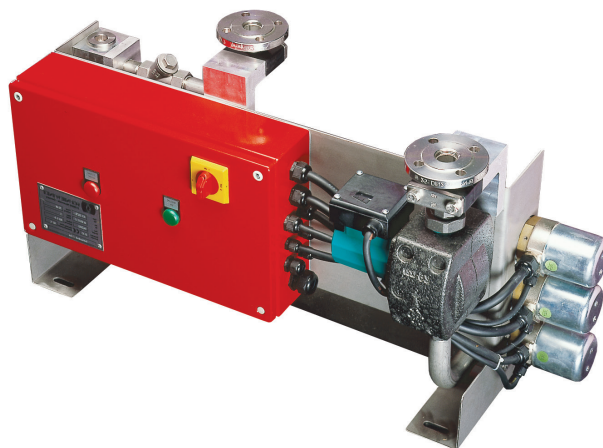
Combustion engines requiring immediate operational readiness must be preheated before starting. The well-known cold start problems are eliminated and the engine can be operated at full load from the beginning. Furthermore, cold start wear is considerably reduced. Typical fields of application for this type of pre-heater units are e.g. emergency power units (Diesel engine + generator) or locomotives and ships (Diesel engine for propulsion).

Unit functions

While the combustion engine is cold and out of operation, the cooling agent is pumped through the cooling loop of the combustion engine and through the circulation heater. The cooling liquid is circulated by a pump mounted on the pre-heating unit. Preheating of the cooling circuit provides a homogeneous heating of the motor. Once the cooling system is heated, the temperature is held constantly at the desired set-point. The heater is switched off, when the engine is in operation. A check valve mounted on the heater prevents the coolant to circulate through the heater during normal operation of the engine.

Unit design / components:

- Circulation heater module with compact design
- Heaters: Screw-plug immersion heater G 2" with tubular elements Ø 11.5 mm
- Circulation pump
- Check Valve
- Adjustable Thermostat
- Safety temperature limiter
- Control panel with electric control and safety elements
- Flow switch (optional)
- Safety valve (optional)
- Thermal insulation (optional)
- Mounting saddles
- Unit is completely assembled and electrically wired



Major advantages

- Drastically reduced wear of the combustion engine
- Cold start problems are a matter of the past
- The engine is immediately ready for service

Type	Output kW	Voltage V	Execution/ Approval	Pump	Dimensions L x B x H mm	Weight kg
ASP	10/20	400 V ~ 50 Hz	To customer specification	max. 185 W flow rate	945 x 296 x 427	ca. 66
ASP	20/30				945 x 296 x 427	ca. 75
ASP	20/40			945 x 296 x 427	ca. 85	
ASP	20/50			945 x 296 x 667	ca. 94	
ASP	36/60			1145 x 296 x 667	ca. 102	

Optionally available:

- Pump with a higher flow rate, e.g.:
Max 400W
flow rate 4m³/h 5m
8m³/h 4m
- Safety valve
- Mounting frame