

## Oil preheater uncontrolled

**For oil burners with a throughput capacity  
 from 1.5 to 6 kg/h  
 With a continuous heating capacity  
 of 35 or 55 watts**

### INTRODUCTION

Depending on the throughput and heating power of the SOVU 930, the oil outlet temperature is increased by 30... 50° C which increases the ignition capability of the burner considerably, and flame stabilisation is achieved.

### CONSTRUCTIONAL FEATURES

The basic component is a tube containing a sintered body, which by its nature has a very large surface area for transmitting the temperature to the oil. The heating power, per unit of surface area is correspondingly low, which prevents coking.

A heating element of 35 or 55 watts is wound round the tube and is protected by a solid brass jacket, secured against rotation. The oil is supplied through a central connection.

The release thermostat is thermally connected to the shaft and, together with the terminals for the heating element, is mounted in a plastic housing. This housing protects against shock damage and the ingress of dirt.

Supply cable and preheater can be separated by a plug connector. This permits easy installation and removal.



### TECHNICAL DATA

Operating voltage	220 / 240 V (-15... +10%) 50 Hz (40 - 60 Hz)
Release contact switching current	4 A permanent current (cos φ 0.6)
Heating power	55 / 35 W
Oil flow throughput	between 1.5 and ca. 6 kg/h
Permissible pressure	max. 25 bar
Oil volume	2 cm <sup>3</sup>
Preheat time at 15° C input temperature	35 / 55 sec.
Weight	105 g
Wrench size	
- jacket	SW 16
- oil inlet part	SW 13

## APPLICATIONS ENGINEERING FEATURES

To prevent switching off when not desired as a result of oil temperature fluctuations, the SOVU 930 preheater should always be operated with an automatic oil burner safety control having an overriding contact.

The burner safety control must switch off the preheater in the event of a shutdown caused by a fault.

The SOVU 930 preheater is a reliable and rugged design. The central oil connection, the cylindrical shape and the electrical supply with plug connector allow this unit to be fitted in any burner unit. The plug connector is fully compatible with all available connectors.

The **SOVE 930 electronically controlled preheater** is available for more demanding applications (providing increased heating power, oil outlet temperature independent of flow and inlet temperature; thermostat loop and overriding contact not necessary, max. temperature-limit at 80° C at 0-throughput).

The heating power of the oil preheater should be selected so that with the smallest possible throughput the outlet temperature corresponds to the desired demands according to the diagram shown below.

## DESCRIPTION OF OPERATION

The SOVU 930 preheater is an uncontrolled version with a heating element. The temperature of the oil is raised gradually by a heat exchanger with a large surface area. The design ensures a very good distribution of heat.

At the start, the oil gets heated by a heating power of 35 or 55 W until the release temperature has been reached. Then, the contact of the release thermostat closes and the burner will start. In operation, the oil outlet temperature depends mainly on the selected heating power, the throughput and the oil inlet temperature.

## COMMISSION AND MAINTENANCE

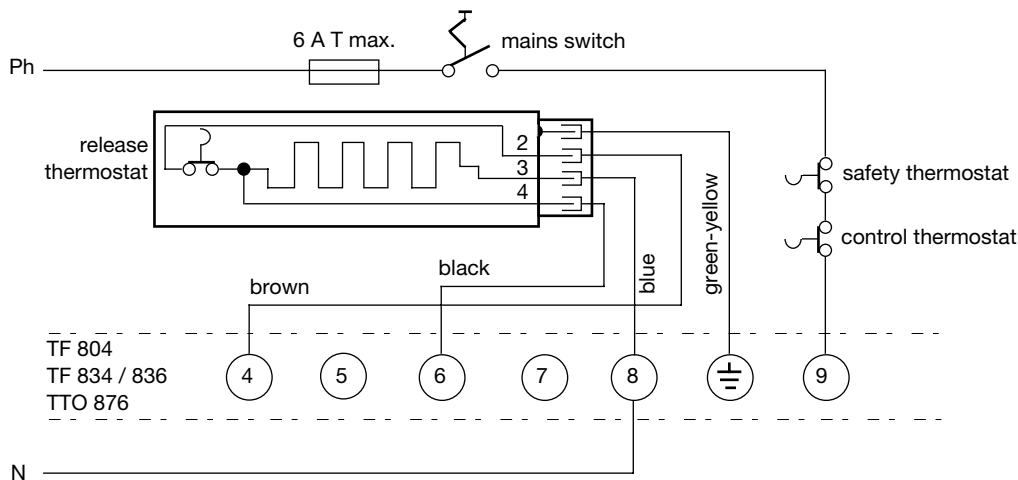
### Important notes

During assembly and wiring, the appropriate installation guidelines have to be fulfilled.

The chosen fuse rating must not, on any account, be higher than the valve given in the technical data.

Failure to observe this instruction could, in the case of a short circuit, have serious consequences for the preheater or burner system.

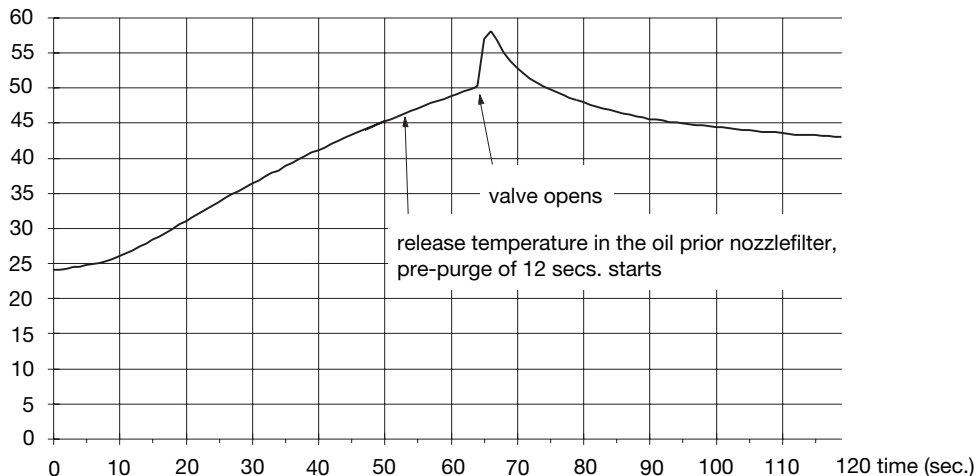
## WIRING DIAGRAM SOVU 930



## STARTPROCESS SOVU 930 35 W AT A THROUGHPUT OF 2.5 KG/H

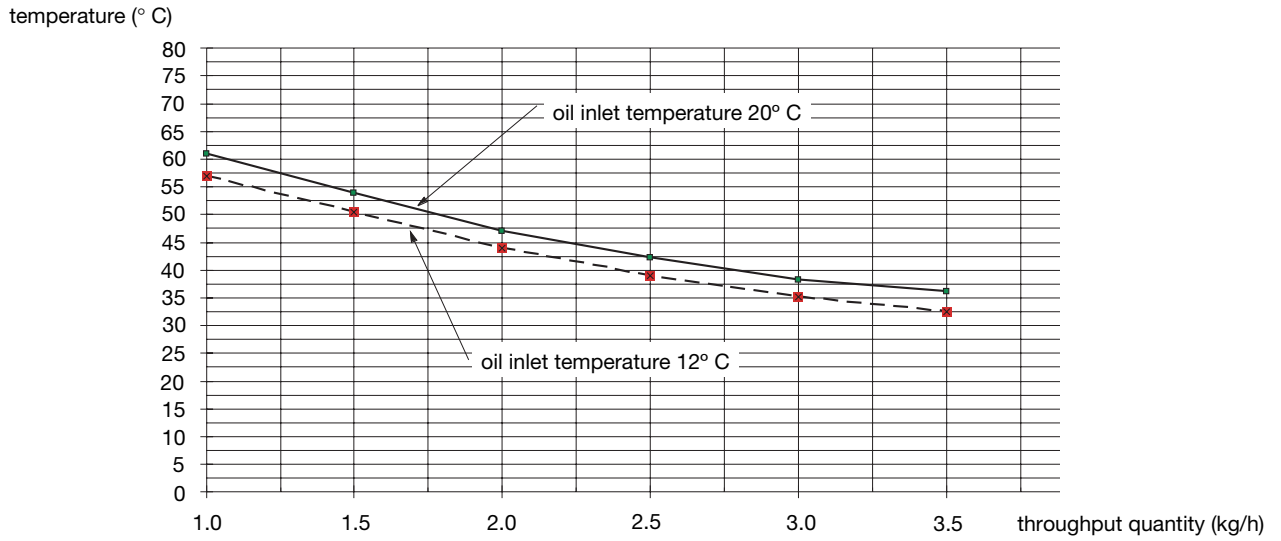
Place of measurement: in the oil between shaft and nozzle filter – Test fluid: Shell Calibration fluid – Voltage: 230 V

temperature (° C)



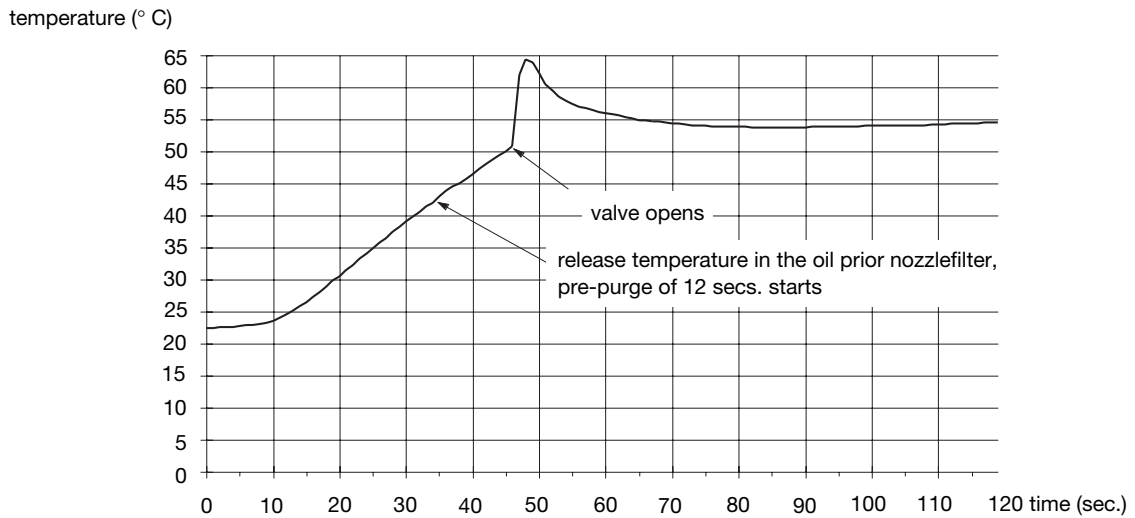
**SOVU 930 35 W, OIL OUTLET TEMPERATURE AS A FUNCTION OF THROUGHPUT AND POWER**

Place of measurement: in the oil between shaft and nozzle filter – Test fluid: Shell Calibration fluid – Voltage: 230 V



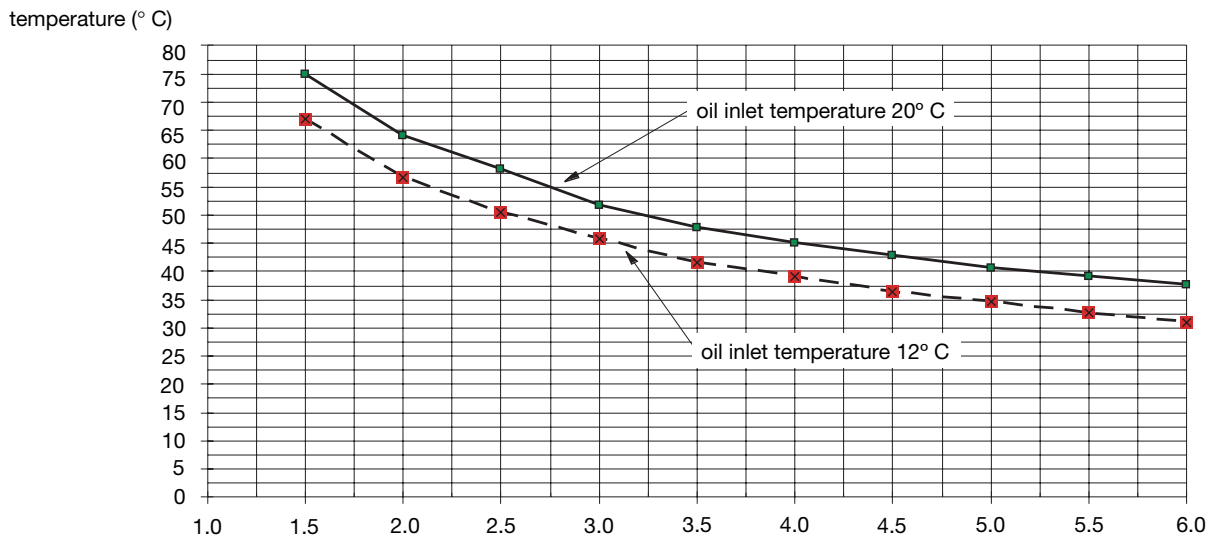
**STARTPROCESS SOVU 930 55 W AT A THROUGHPUT OF 2.5 KG/H**

Place of measurement: in the oil between shaft and nozzle filter – Test fluid: Shell Calibration fluid – Voltage: 230 V

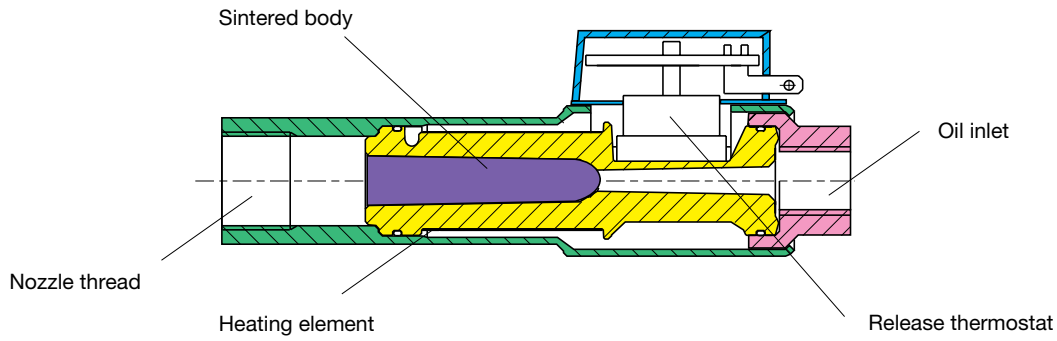


**SOVU 930 55 W, OIL OUTLET TEMPERATURE AS A FUNCTION OF THROUGHPUT AND POWER**

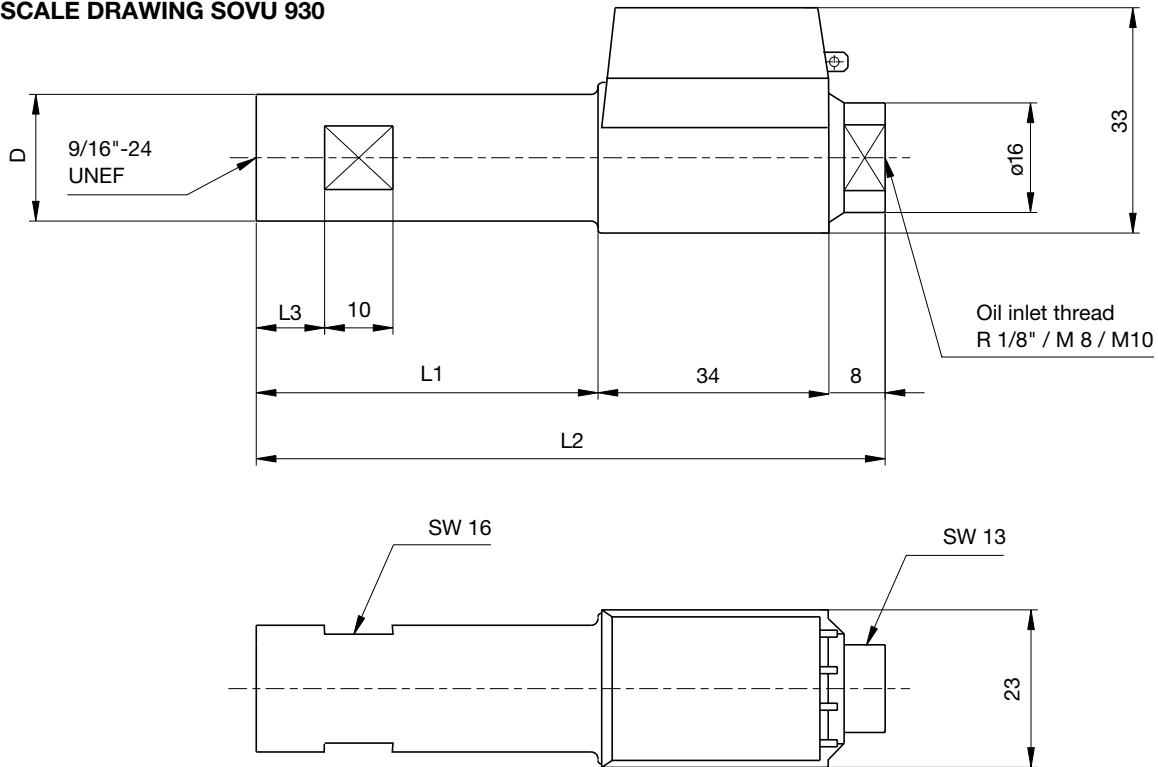
Place of measurement: in the oil between shaft and nozzle filter – Test fluid: Shell Calibration fluid – Voltage: 230 V



**SECTIONAL DRAWING SOVU 930 (1:1)**



**SCALE DRAWING SOVU 930**



**Dimensions**

L1	L2	L3	D	Versions
50	92	10	18.5	SOVU 930 standard
90	132	20	18.5	SOVU 930 L

The dimensions L1 and D can also be customized according to customers drawings.

**ORDERING INFORMATION**

ITEM	DESIGNATION	ITEM NO.
oil preheater	preheater SOVU 930 55 W standard	10200
oil preheater	preheater SOVU 930 35 W standard	10300
Supply cable	preheater supply-cable 4-pol., 400 mm	7244001

The above ordering information refers to the standard version. Special versions are also included in our product range.

Specifications subject to change without notice.

**SOVU 930**



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