

H A N S A

Operation instruction

H(V)S 5.3 (G)

Productivity area: 13,0 - 60,0 kW

Testet according to 1BimSchV, with a low
content of harmful substances

Operating Instructions

for H(V)S 5.3 (G) oil burner

Our burners are quality products. With an expect assembly, adjustment and maintance, the burner burner will work reliable and economically for many years.

Before the assambly of the burner, the following steps have to be carried out:

- Check weather the heat generator is impermeable on ist smokegas side.
- In case of second hand heat generators the heating surfaces have to be clean in order to achieve a good degree of effectivness.
- The oil pipes have to be laid professionally and must be absolutly impermeable.
- Older heating oil filters have to be cleaned or otherwise the filter pad changed

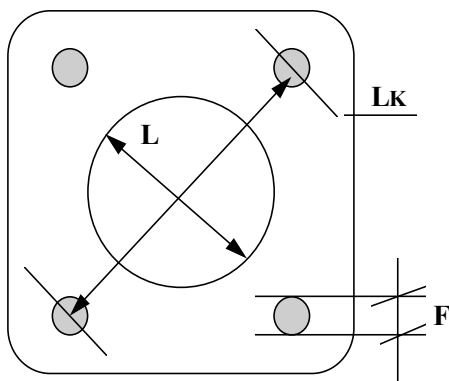
Contains of the cardboard box:

| | |
|----------------------------|---------------------------|
| 1 oil burner H(V)S 5.3 (G) | 2 fixing screws M8 |
| 1 Operating instructions | with 2 underlay discs |
| 1 flange seal | 2 oil tubes 850 mm |
| 1 plug with 7 poles | 1 conic case fixing screw |

Assembly:

First, you attach the boiler flange and the flange seal (picture1) to the boiler. Therefore you use the screws and the underlay discs. The boiler flange has to be screwed in the correct position (mark „OBEN“ to the boiler. The flange is constructed in a way that the burner slightly bends into the firebox.

According the firebox depth, the burner is pushed into the boiler flange and fixed. For further adjustments you loosen the 4 patent stopper screws hang the burner in assembly position. Take the corressponding value for the oil nozzle from the table. In order to screw the oil nozzle in, you have to withdraw the hold-up disc with its electrode. After attaching the oil nozzle, the hold-up disc is fixed again. The oil nozzle must be firmly screwed on. (Sw 16; don't use pincers.) When assembling the hold-up disc, take care that the distances corresspond to the picture 3. After the assembly of the oil pipes (pay attention to the flow direction) and the electric connection (picture 4), the burner is operational.



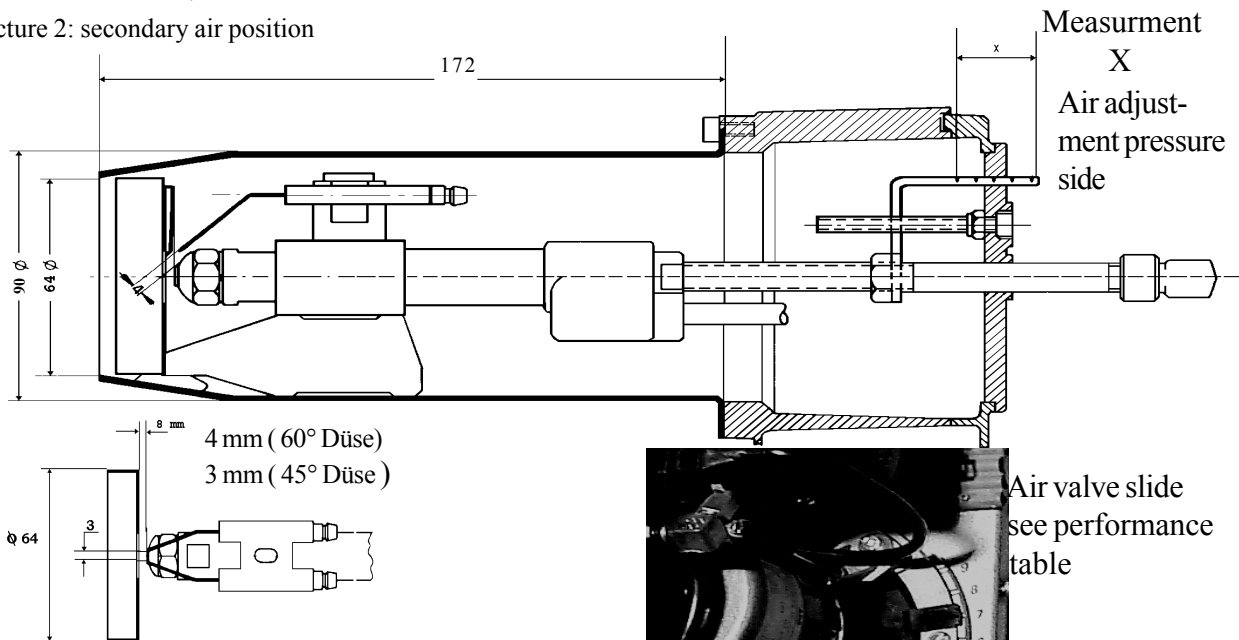
Picture 1: Flange seal
Lk=150mm
L=91mm
F=8,5mm

Performance table

| Type | Performance kW | Air valve | Measurement X X | Nozzle size Type Danfoss | Pump pressure bar | Distance nozzle- hold-up disc in mm |
|-------------|-------------------|--------------|--------------------|-----------------------------|----------------------|--|
| H(V)S 5.3 | 13 | 1 | 0,5 | 0,30 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 17 | 1 | 1 | 0,40 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 22 | 1,5 | 1,5 | 0,50 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 24 | 2 | 2,5 | 0,55 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 28 | 2,5 | 3 | 0,65 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 33 | 3 | 3 | 0,75 / 60° SR | 10 | 3 |
| H(V)S 5.3 | 37 | 3 | 3,5 | 0,85 / 60° SR | 10 | 3 |
| H(V)S 5.3 G | 44 | 3,5 | 3 | 1,00 / 45° SR | 10 | 3 |
| H(V)S 5.3 G | 48 | 4 | 3 | 1,10 / 60° SR | 10 | 3 |
| H(V)S 5.3 G | 55 | 5 | 3,5 | 1,25 / 60° SR | 10 | 3 |
| H(V)S 5.3 G | 60 | 5 | 4,5 | 1,25 / 60° SR | 12 | 3 |

The nozzle values are approximate and have to be adjusted corresponding to the exhaust gas temperature. You should use conic nozzles with a spray angle of 60°. the position of the air valve depends on the boiler resistance. If the boiler resistance is high, the air valve can be opened more; if the resistance is low; it has to be closed more.

Picture 2: secondary air position



Measurement X= air adjustment area on pressure side

H(V)S 5.3: 4 slots, 17,5 mm core hole

H(V)S 5.3 (G): 12 slots, 22 mm core hole

Picture 3: Position hold-up disc and nozzle

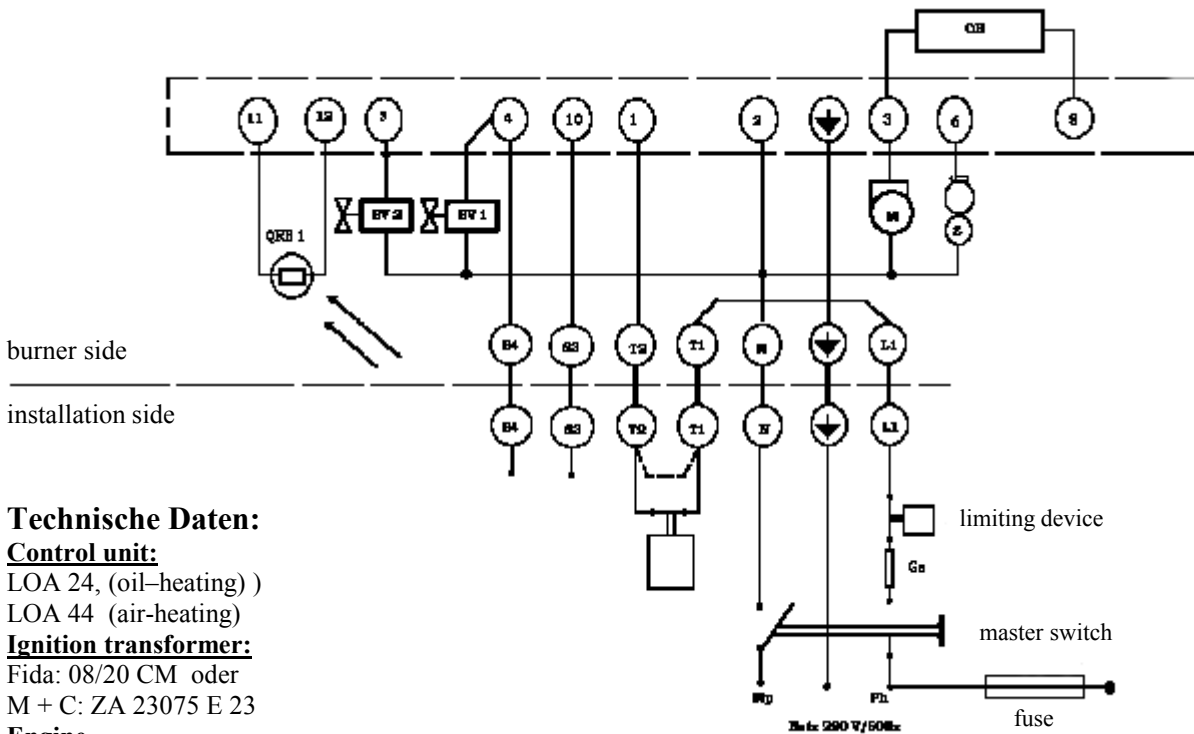
Setting into operation:

As soon as the oil preheater of the burner reaches the required temperature, the pre-ventilation and pre-ignition starts. After opening the magnetic valve the flame ignites. The flame watcher (photo-resistance) controls the program and stops it in case of faults. When the burner switches off, the economy valve closes. It avoids that the fire room cools down. The air adjustment slide (to the upper left of the burner case), regulates the basic air quantity. The fine adjustment of the air quantity is realised by means of the air adjustment on the pressure side (see picture 2). The adjustment according to the required burner performance (see performance table) can be taken from the measurement X mark. The best exhaust gas values are achieved when the measurement X for the required performance is near the limit indicated in the performance table. Then the combustion for this performance area receives less external air. Now the adjustment of the soot image from 0-1 carried out on the air valve adjustment slide. After finishing the air adjustment, attach the straight-knurled nut to the air adjustment screw.

Local EVU- and VDE-prescriptions have to be taken into account

The total performance of H(V)S 5.3 (G) during operation is approximately 253 W.

- | | | | | | |
|-----|----------------------|--------|-------------------|----|----------------------------|
| OH | oil heater | QRB 1 | Photo-resistance | S3 | interference connection |
| M | burner engine | L1 | Phase 230 V | B4 | counter of operating hours |
| Z | ignition transformer | T1 +T2 | boiler thermostat | ⊕ | earthing connection |
| BV1 | magnetic valve 1 | N | Mp | | |
| BV2 | magnetic valve 2 | | | | |



Technische Daten:

Control unit:

LOA 24, (oil-heating)

LOA 44 (air-heating)

Ignition transformer:

Fida: 08/20 CM oder

M + C: ZA 23075 E 23

Engine

AEG EB 95 C 35/2 V 8mm Welle oder

Coupling engine pumpwith one surface plate

Pump and oil-pre-heater:

Oil pre-heater FPHB-LE

Oil pump

Suntec ALE 35 C 9324

Magnetic valve:

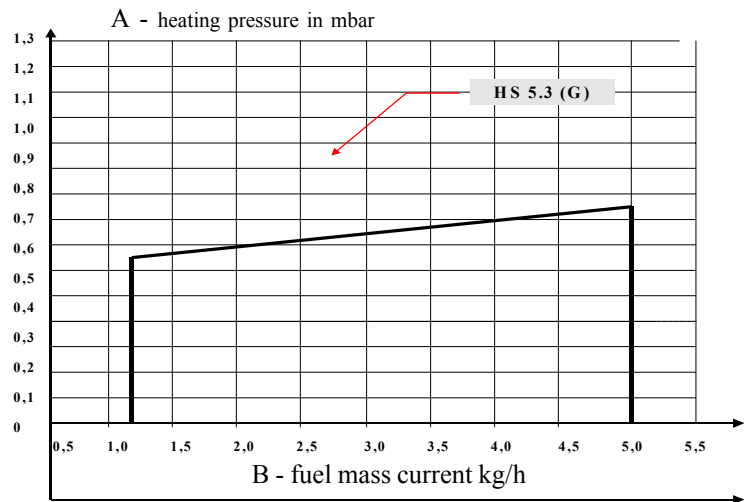
Suntec AL

Photo-resistance:

QRB 1C A050B040B

Fan wheel:

Ø 120 * 40 TLR OHE



6 12 18 24 30 36 42 48 54 60 66

C - burner performance in kW

Guarantee:

The type H(V)S 5.3 (G) is a trade mark fabricate. The guarantee for additional parts is 24 months. The burner has to be installed, assembly and measured professionally. In case of non compliance with the aformentioned conditions, faulty handling or wrong connection, the guarantee expires.

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