2.4 Measuring gas connection

A special, short hose with ERMETO unions, included in the supplied items for this purpose, is used for the measuring gas connection. After mounting the dust removal filter, the hose is connected between the filter and the probe.

See the operating manual for the dust removal filter regarding mounting and alignment.

2.5 Covering flange

The covering flange seals the mounting flange to the inlet chamber or the precalcination chamber when the probe is inserted.

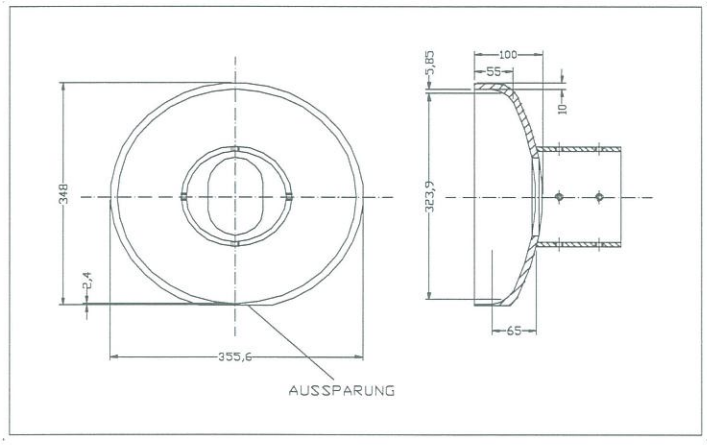
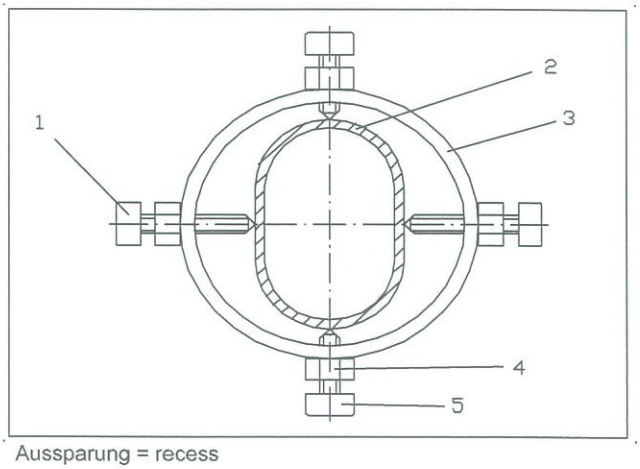


Fig. 5 Covering flange

flange



Aussparung = recess

Fig. 6 Mounting on the probe

Legend: 1 fixing screw 3 covering
2 gas sampling probe 4 lock nut

Push the covering flange over the probe up to the probe mounting. Insert the probe up to the measuring position until the traversing is switched off by the limit switch. Push the covering flange onto the inlet connecting piece and centre it. Here it should be ensured that the recess on the covering flange runs exactly parallel to the runner rail. This prevents the covering flange from touching the limit switch during retraction and insertion. Always tighten opposite fastening screws alternately. Briefly insert and withdraw the probe a few times and check that the flange is well seated. During retraction check the distance between the covering flange and the limit switch. It must be at least 6mm. Readjust the covering flange if required and tighten the fastening screws. Then tighten the lock nuts.

Note: When the furnace or precalcination chamber is heated up, slight offsets may arise between the installation flange and the traversing device due to expansion. It may be necessary to readjust the covering flange.

Caution ! If the probe is traversed with a covering flange that is not fastened down, then it is essential to ensure that the flange does not jam against the limit switch or runner rail.

Fill the space between the covering flange mounting and the cooling pipe with temperature resistant insulation material.

1.5 Technical data

Type:	F6534 -B12
Lengths of different versions depending on penetration depth:	3000 mm 2500 mm 2000 mm 1500 mm 1000 mm
Type of sampling opening depending on installation orientation: (Viewed from coolant connection.)	E1 Sampling opening left E2 Sampling opening right
Operating temperature:	max. 250°C
Coolant:	synthetic heat transfer liquid
Coolant flow rate:	max. 3200 l/h
Weight (filled with coolant):	approx. 150 kg depending on version

1.6 Technical data

Electrical supply data:	230V, 240V + 10%,-15% ; 50...60 Hz Power rating 400VA
Compressed air supply data:	6...8 bar Compressed air free from oil, dust and water
Compressed air connections:	Probe flushing: R 3/4" DIN Filter flushing: R 1/2" DIN
Measuring gas connections:	Measuring gas output: External thread M16x1.5 DIN Measuring gas input: External thread M24x1.5 DIN
Thermostatic auxiliary contact:	Temperature resistant -20 to +250 °Cel. Switching capacity max 40A at 250V, 50...60 Hz, cosφ =1,0
Operating temperature:	max 210 °Cel
Weight:	6 kg

SQ252 Electrically Heated Dedusting Filter

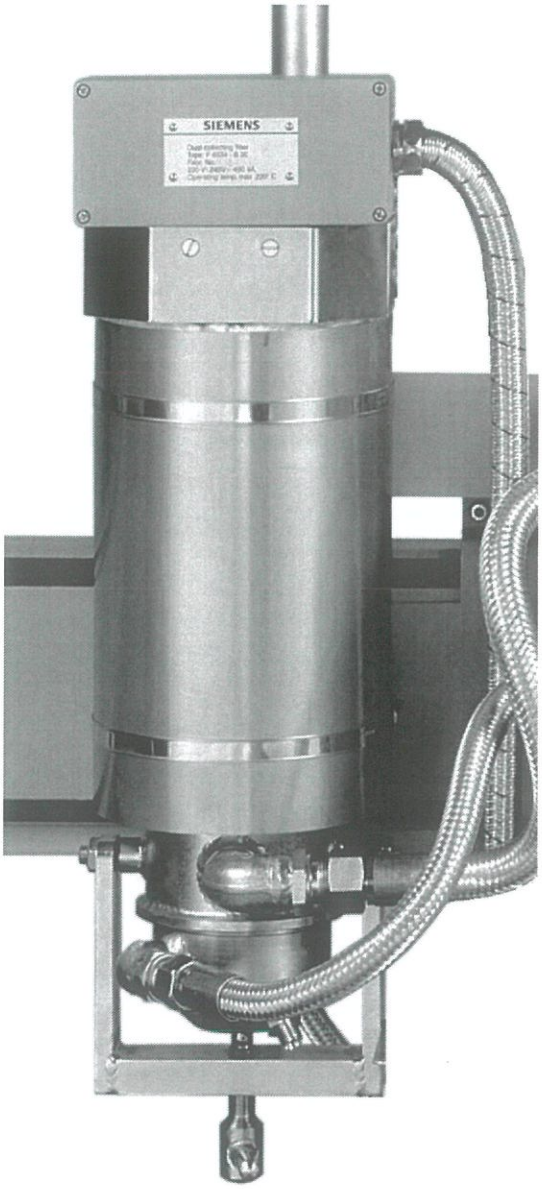


Fig. 1 Electrically heated dedusting filter

Contents Page

Page

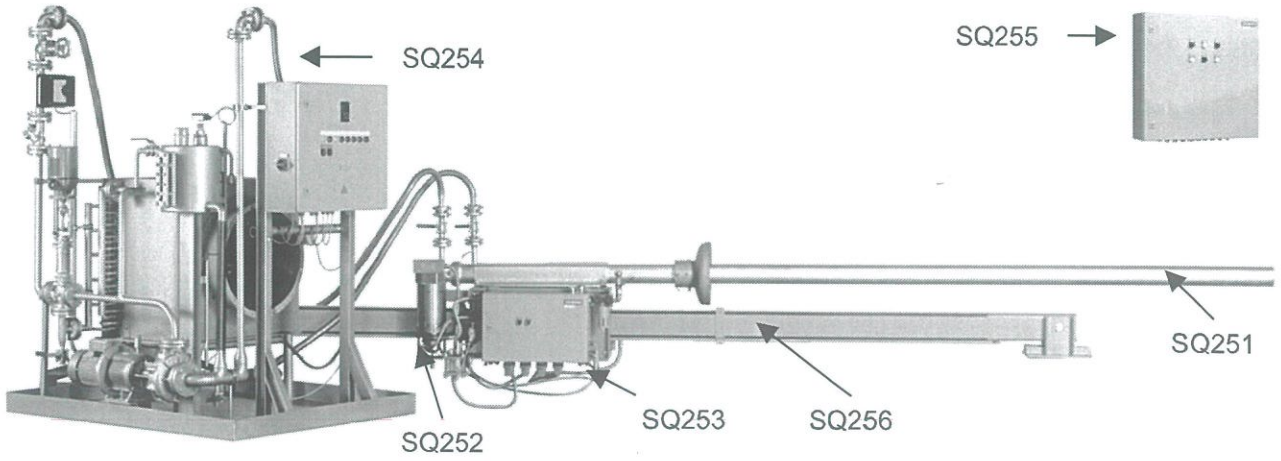
SIEMENS

FLK Gas Sampling System

Operating Manual

Preliminary Design **Order No. ----------**

Overview



Legend:

SQ251 FLK Gas Sampling Probe

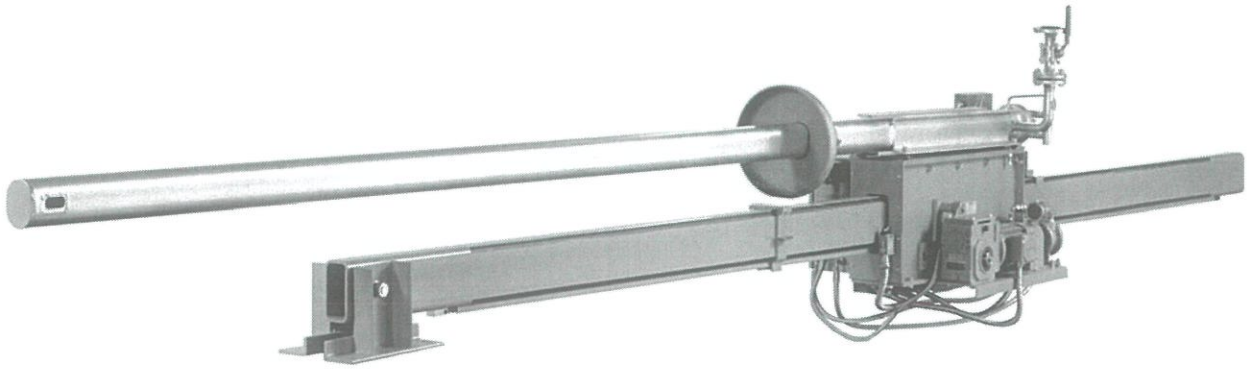
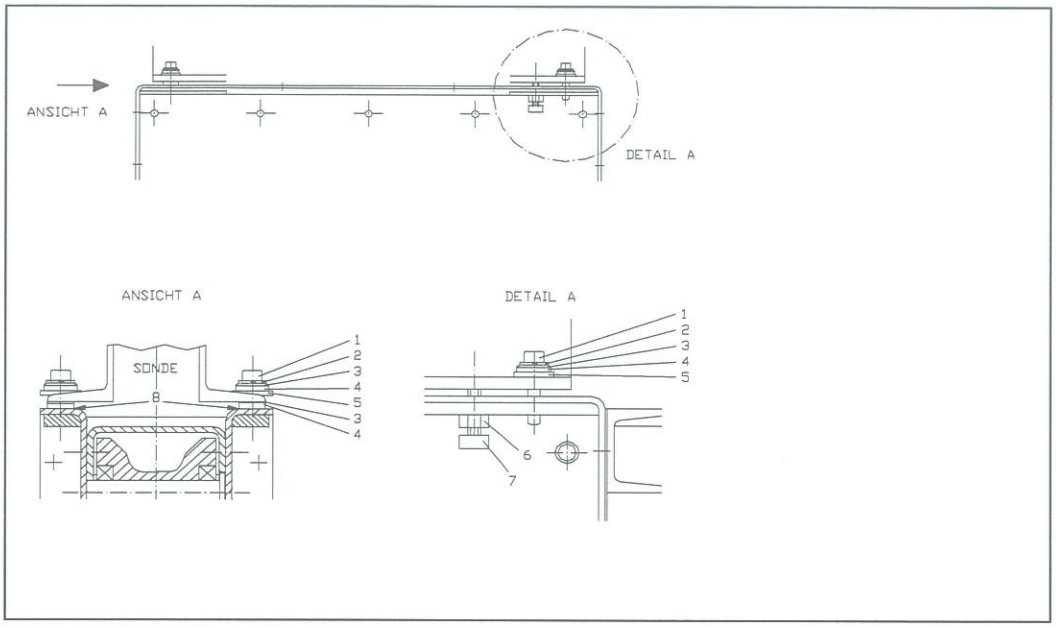


Fig. 1 FLK Gas Sampling Probe

Contents



Ansicht = View Sonde = Probe Detail = Detail

Legends:

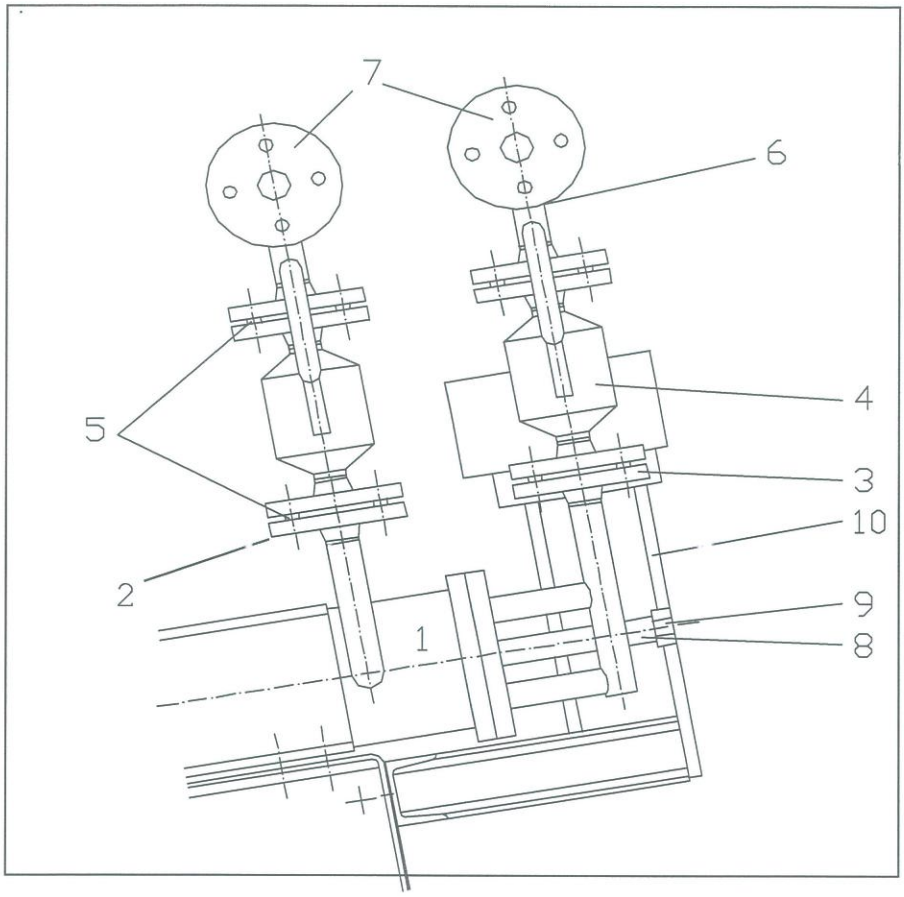
1 Cheese-head screw M12x60
2 Cup spring
3 Spherical disc
4 Ball socket D14.2
5 Shim
6 Hex. nut
7 Cheese-head screw M12x50
8 Washer ø24xø13x10

Fig. 3 Carriage and probe mounting (detail drawing)

The probe must be aligned such that the cooling pipe is positioned with its tip about 1 cm over the centre of the inlet connection piece. To do this, traverse the probe until the tip penetrates a little into the inlet connection piece. The fine vertical adjustment of the probe is made with the cheese-head screw (7) and lock nut (6). Here, it should be ensured that the rear screws (1....5 Detail B) are loosened. Once the probe has been aligned, tighten all screws, particularly the lock nut (6).

2.3 Coolant lines

As supplied, the probe is already filled with coolant and the connecting flanges closed off with blank flanges. All screw fasteners and sealing gaskets for the flange joints are contained in the supplied items.



Legends:

1 Probe cooling pipe
2 Return flange connection
3 Feed flange connection
4 Ball valve
5 Seals
6 Pipe bend 90°
7 Connection flange for cooling line
8 Gas output
9 Cleaning opening
10 Dust removal filter

Fig. 4 Connection of the coolant lines to the probe

After removing blank flanges on the feed and return, the shut-off valves must be joined using flanges. If the coolant hoses are connected at the side, it is advisable to fit the 90° pipe bends after the shut-off valves and before the coolant hoses.

Caution ! Only the supplied special gaskets should be used between all the flange joints.
The flanges must be tightened in a crosswise manner to obtain uniform compression of the gaskets.

The connections between the probe and the fixed-mounted venting containers is made using flexible corrugated hoses NW 25, 3m long.

The question of the mounting of the venting containers is dependent on the probe traverse distance. Normally, this mounting point is the centre of the traverse distance and at about 50cm distance from the connecting flanges. This should be the highest point of the coolant line. It should be accessible during traversing using a ladder or similar aid.

See the section on mounting the complete analysis equipment with the FLK Probe for determination of the mounting points and coolant line arrangement.