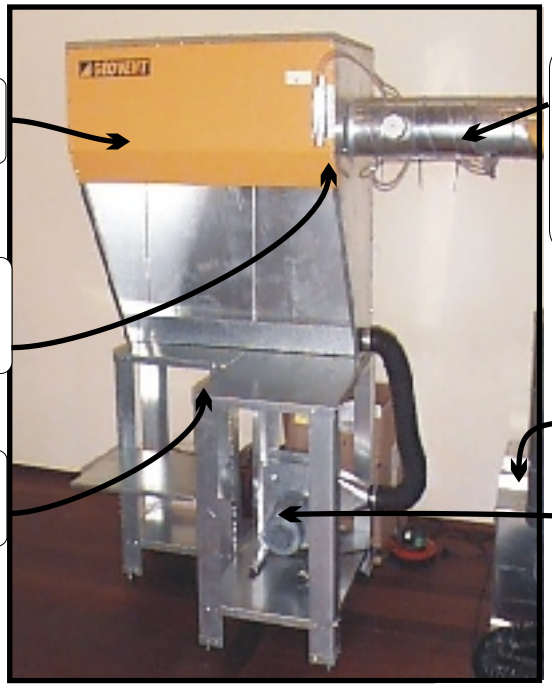
Tornado GT-900

Ordering No. 01-900

At the request of "Søfartens Arbejdsmiljøråd" (The Danish Maritime Occupational Health Service) a standardised local extraction for use in Danish ships has been developed in the form of a so-called Tornado Hood. The Hood has been designed for erection in paintshops, workshops or in other rooms, where work involving the development of vapours, injurious to health, is carried out. The Hood, which has been presented to The Danish Maritime Authority, meets the requirements, placed on local extraction onboard Danish ships.

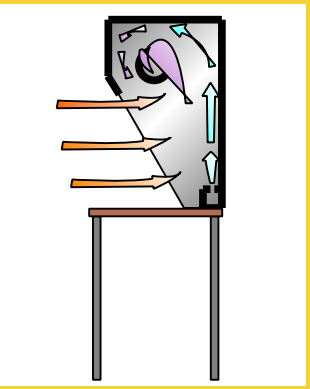
Effective spot extraction

Tornado shown with mixing table and fans

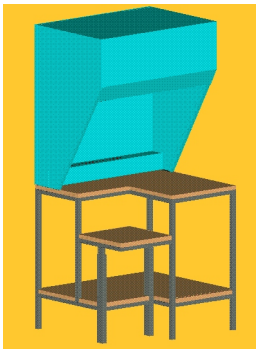


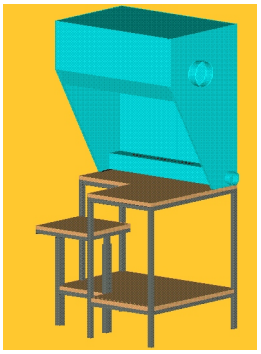
The Tornado Hood works with both injection (pilot air) and extraction of air. At the bottom of the Tornado Hood the pilot air is injected as a vertical airflow via some nozzles on the rear edge of the Hood. This airflow results in the production of a whirling movement in the Hood, which then draws air into the full width of the Hood in horizontal direction, away from the operator's breathing zone. At the top of the Hood the air is extracted and it should be channelled out into the open.

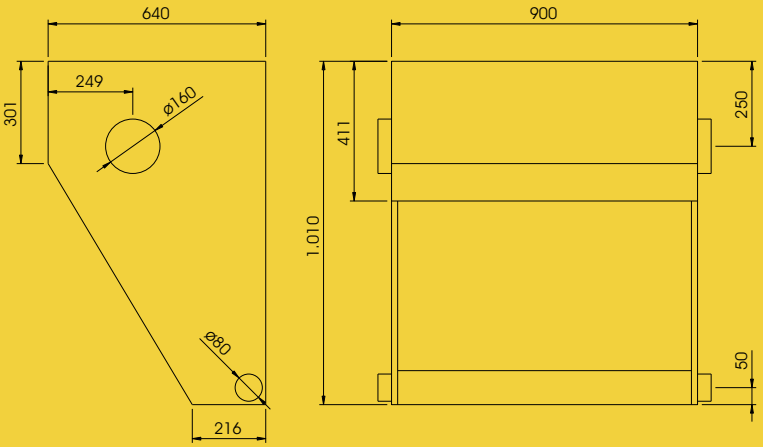
In order to gain optimum effect and sound working positions, a working & mixing table has also been developed. Half the table is height adjustable. The table is sold as accessory to the Tornado Hood.



Simplified sketch of the whirling effect inside the Tornado Hood.....







Tornado Hood: Executed in hot-galvanised plate. Supplied unassembled, with "pre-drilled" pilot holes for easy and simple assembly with self-tapping or galvanised screws with 1/4" width across flats.

Easy-to-follow assembly instructions are supplied with the Hood.

As standard, two explosion-proof fans are supplied with the Hood:

Extraction fan: GMSFG 180, 0.55 kW, 3 x 400 VAC, 50/60 Hz, 1.3 A, EEX-e T3 explosion-proof.

Pilot air fan: GLSFG 146, 0.25 kW, 3 x 400 VAC, 50/60 Hz, 0.81 A, EEX-e T3 explosion-proof.

Noise level: Noise level for two fans and the Hood is 78 dB(A).

Mixing table (accessory): The table, which is supplied unassembled, is executed in hot-galvanised steel plate with "pre-drilled" holes for easy assembly. The table is supplied with height adjustable mixing section. Order No 01-901.

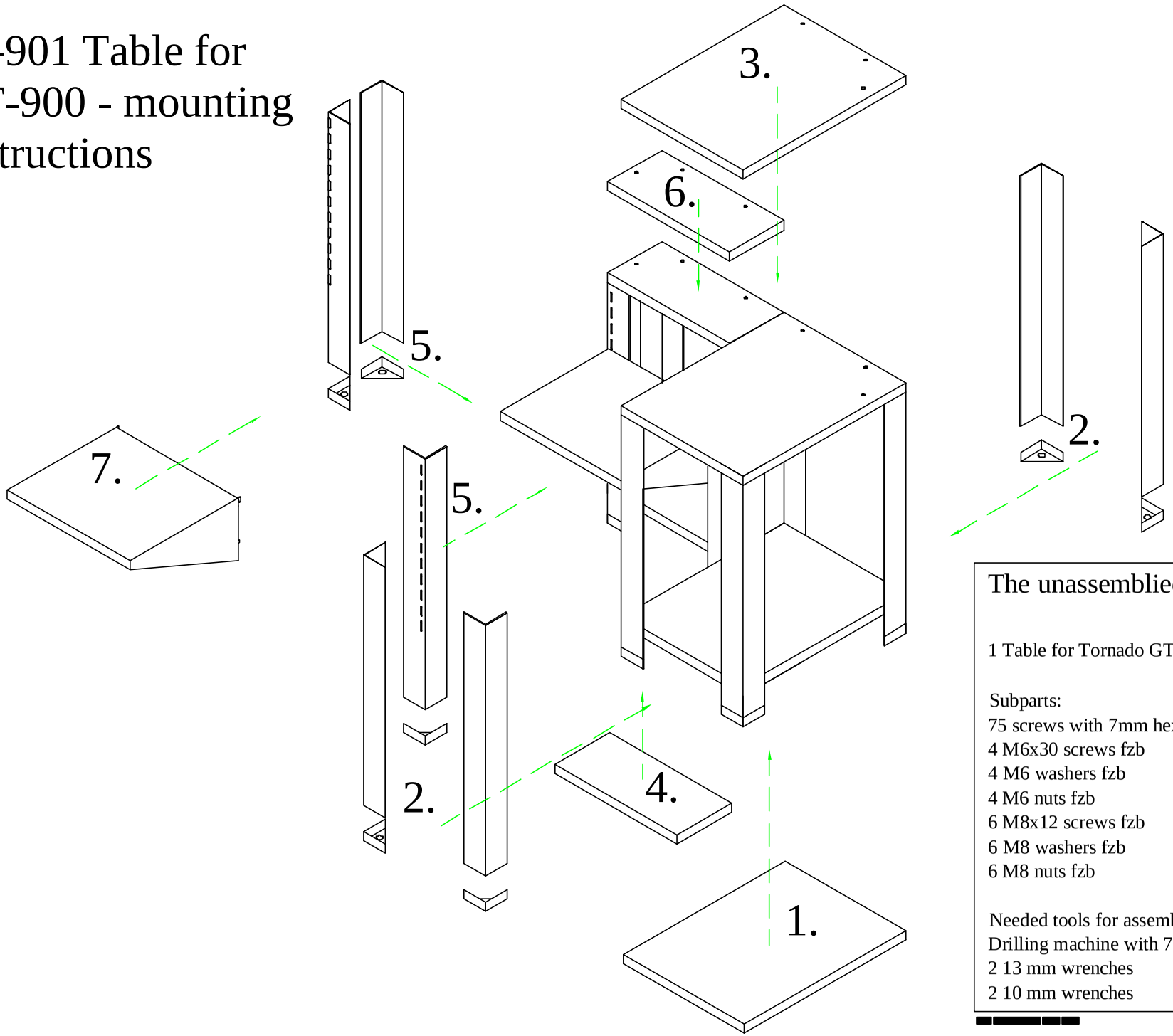
"Søfartens Arbejdsmiljøråd" (The Danish Maritime Occupational Health Service) recommends a combined solution of Tornado and table, so that the system appears as one unit, ensuring optimum working conditions in connection with performing the work.

GEOVENT

Hovedgaden 86
DK-8831 Løgstrup
Phone: (+45) 86 64 22 11
Telefax: (+45) 86 64 30 75
email: salg@geovent.dk
www.geovent.com

March 2001

01-901 Table for GT-900 - mounting instructions



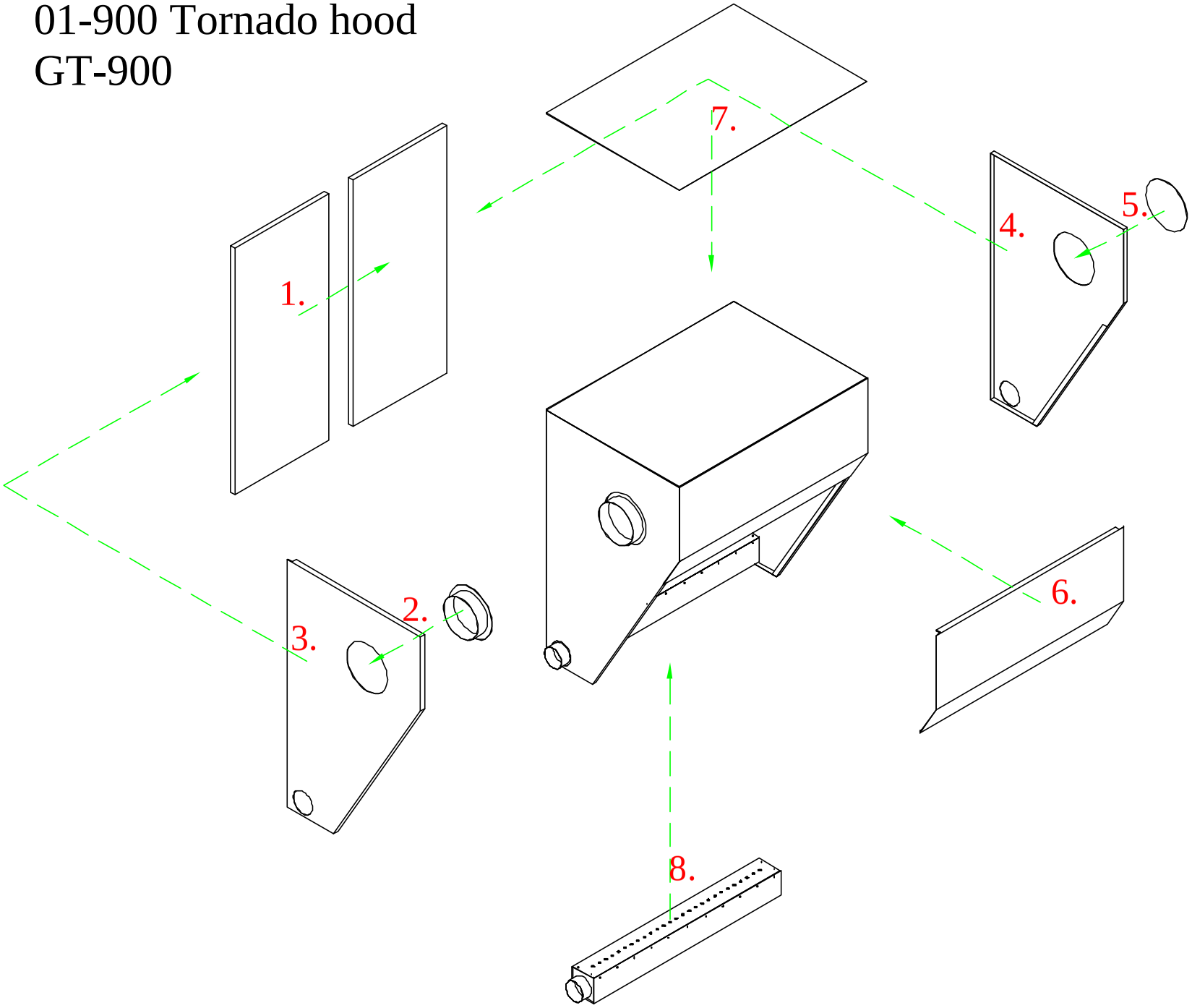
The unassemblied table consists of:

1 Table for Tornado GT-900 unassemblied

Subparts:
75 screws with 7mm hex
4 M6x30 screws fzb
4 M6 washers fzb
4 M6 nuts fzb
6 M8x12 screws fzb
6 M8 washers fzb
6 M8 nuts fzb

Needed tools for assembling (not included):
Drilling machine with 7mm toolbit
2 13 mm wrenches
2 10 mm wrenches

01-900 Tornado hood
GT-900

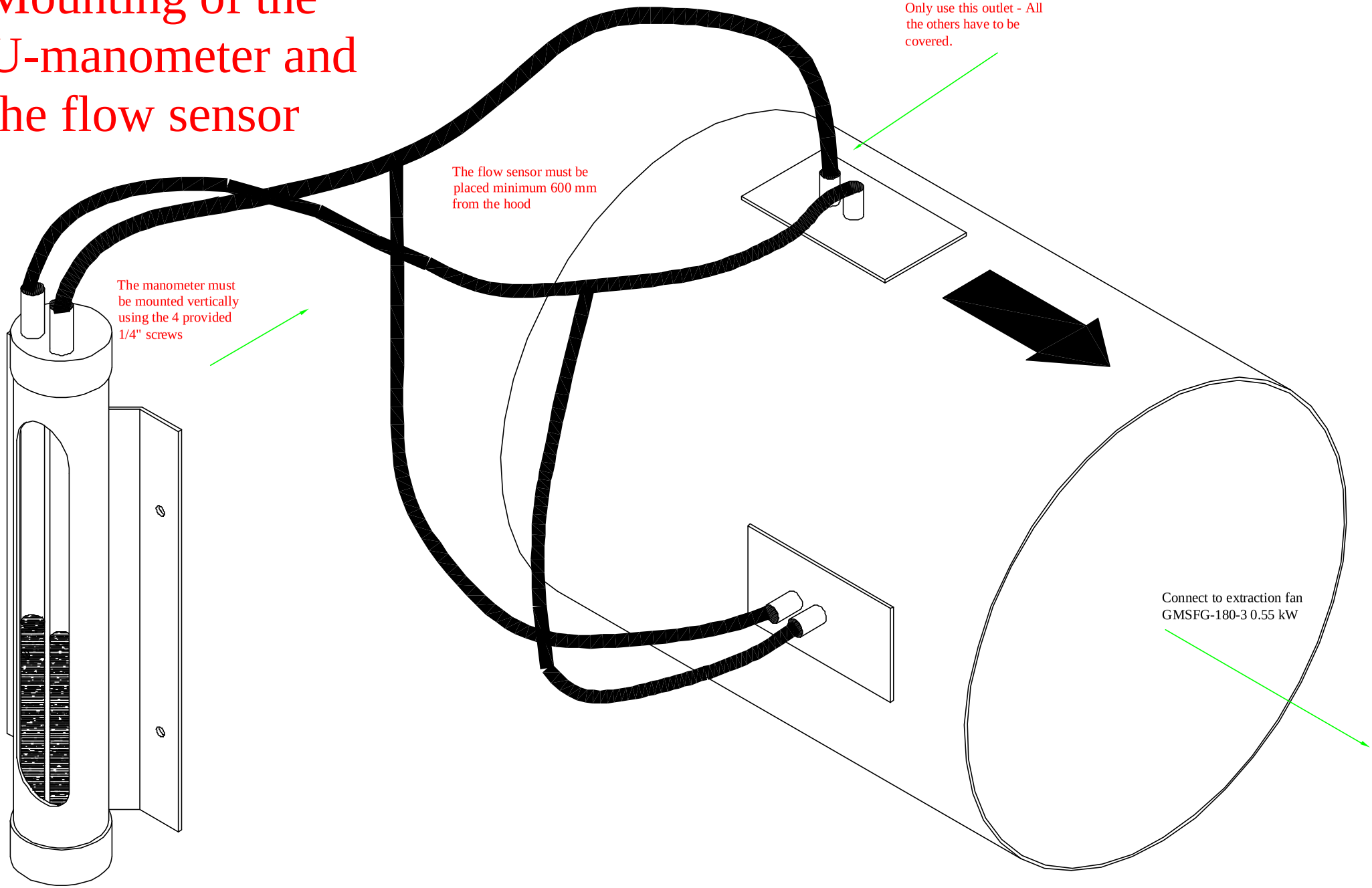


Needed tools for assembly:
1 pcs. drilling machine
1 stk. Toolbit with 7mm hexagon

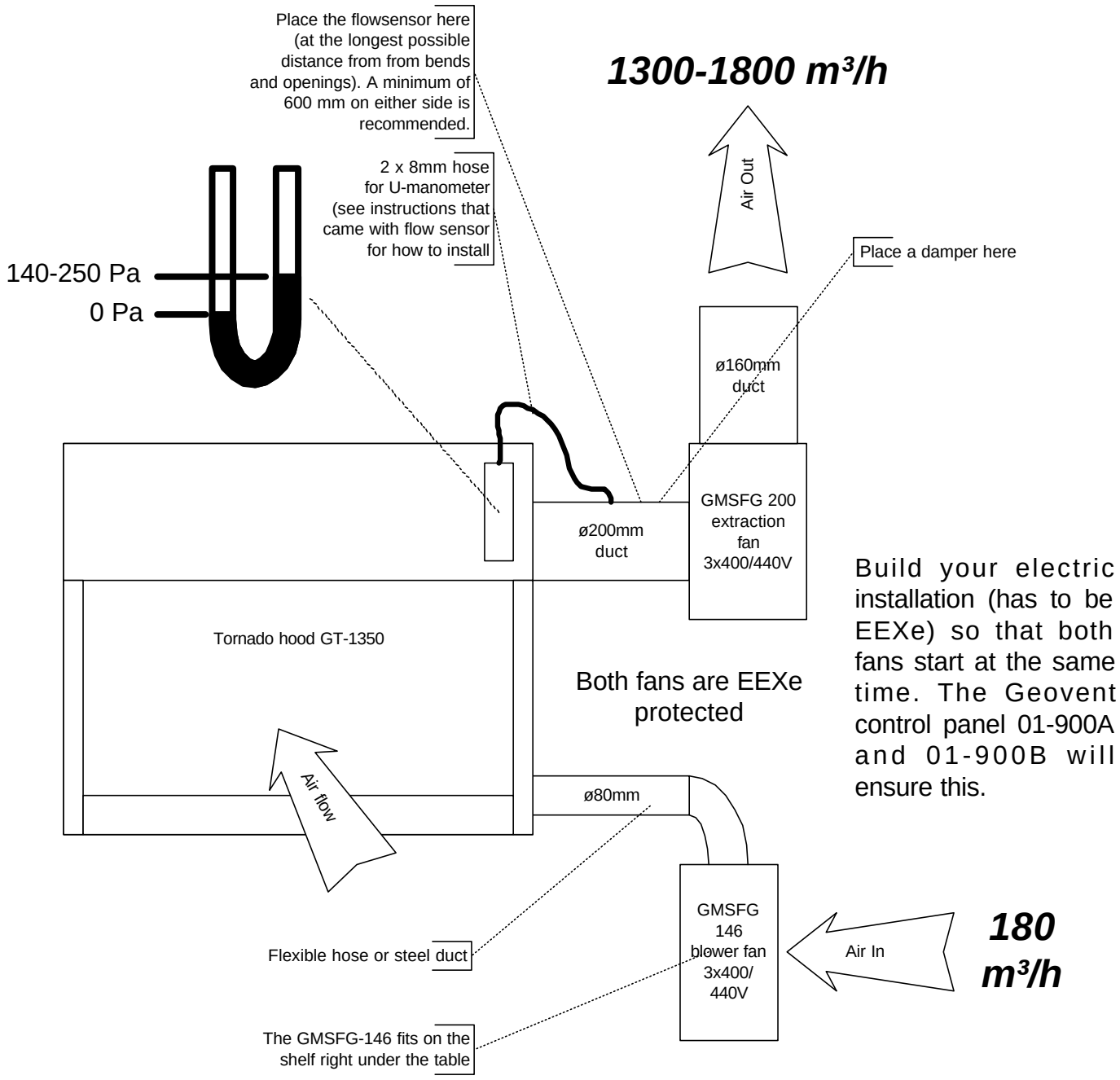
The Tornado-kit consists of:
1 pcs. Unassemblied Tornado hood
75 pcs. 7mm screws
1 pcs. Inlet fan GLSK 146 0,25 kW 3x400 V 50/60 Hz
1 pcs. Inlet flange 146/ø80
1 stk. Extraction fan GMSF 180 0,55 kW 3x400 V 50/60 Hz
1 pcs. Outlet flange 180/ø160
1 pcs. Flow sensor
1 pcs. U-manometer 0-1000 Pa for mounting on the front panel of the Tornado hood

Mounting instructions:
1. Assembly the two back panels using the enclosed 1/4" screws.
2. Mount the inlet on either the right or left side panel, depending on where the fans are situated.
3. Fasten the sidepanel to the assemblied back panel.
4. Fasten the sidepanel to the assemblied backpanel + sidepanel.
5. Fasten the end cover.
6. Mount the frontpanel.
7. Mount the top panel.
8. Mount the inlet box depending on where the fans are situated.

Mounting of the U-manometer and the flow sensor



Montageskitse af urørs-manometer & måleblænde til Tornado GT-900 05.05.00



Recommendations

In some 60 Hz installations a damper has to be fitted between the GMSFG-200 extraction fan and the ø200 mm suction duct in order to minimize the air flow to a maximum of 1800 m³/h. If this is not done the GMSFG-200 will be overloaded (max. 2.6 Amps).

Do not make any modifications of the Tornado hood (holes in the top etc.). The optimized air flow will be ruined and the hood will **not** work as intended.

To lower the sound level we recommend installing a ø200 mm silencer between the GMSFG-200 and the Tornado hood.

Geovent A/S
Hovedgaden 86
DK-8831 Løgstrup
Tel. +45 86 64 22 11

Mounting instructions for
Tornado hood with fans

GT-1350