

Installation Instructions for the TBSA Damper without damper actuator COMPACT LP/GOLD LP

1. General

The TBSA damper without damper actuator, with hand lever, is used for achieving the correct air leakage direction across the heat exchanger. This prevents the extract air from being carried over to the supply air. To be mounted inside the extract air duct.

Galvanized sheet steel. Tightness Class 3 to EN 1751 Standard.

2. Maintenance

Inspect the damper for correct operation, inspect the seals and clean the damper if necessary at least twice a year.

3. Installation

For the installation of dampers in duct systems, see the individual instructions entitled: Installation Instructions for Duct Accessories.

4. Operation

There should be a certain degree of negative pressure in the extract air section so that the direction of air leakage through the heat exchanger and the function of the purging sector will be correct. This ensures that extract air will not be transferred to the supply air.

The pressure balance in the unit should be adjusted when the ventilation system has been fully installed and the airflows discharged from all the air diffusers and registers have been adjusted, and when the supply air and extract airflows are as they should be while the air handling unit is operating normally.

The pressure balance in the air handling unit can be adjusted by means of the TBSA damper (with hand lever) fitted to the extract air inlet across the TBRB adapter (accessory). The damper is supplied separately and should be fitted by the fitter when he or she connects the extract air duct to the unit.

Connect a pressure gauge to the pressure measurement tappings of the air handling unit. The unit has four pressure measurement tappings. The two tappings closest to the extract air duct should be used. The blue pressure measurement tapping is used for measuring the negative pressure in the extract air section and the white pressure measurement tapping is used for measuring the negative pressure in the supply air section.

The pressure measurement tappings are situated near the electric equipment cubicle. See illustration.

Note that both pressure measurement tappings are used for measuring negative pressure.

MEASURED VALUES

The negative pressure in the extract air section should be higher or the same as the negative pressure in the supply air section.

If the negative pressure in the extract air section is the same or up to 20 Pa greater than the negative pressure in the supply air section, then you've finished this adjustment.

Deviations

If the negative pressure in the extract air section is less than that in the supply air section, the damper setting must be adjusted as follows:

1. Stop the air handling unit.
Slightly close the damper in the extract air inlet.
3. Close the inspection door and restart the unit.
4. Measure the pressures.

Repeat this procedure until the negative pressure in the extract air section is just as high or up to 20 Pa higher than the negative pressure in the supply air section (0–20 Pa).

5. If the negative pressure in the extract air section is higher than 20 Pa compared with the supply air section, although the damper is completely open, the leakage and purging air flow will be more than anticipated. This means that the actual extract air flow will deviate from the preset extract airflow. The deviation increases as the difference in pressure increases.

Pressure measurement tappings – leakage direction (Unit shown in the right-hand version)

