

Variable Volume System with FISCHBACH AUTOMATIC SPEED CONTROL

With this method of control balanced volumes will be achieved even though the fans may have different performance characteristics, i.e. plant characteristics are different for supply & extract air.

Application:

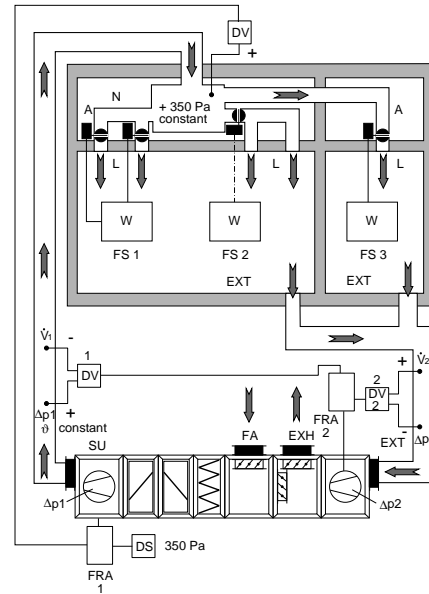
Multi room buildings where individual rooms are independently controlled.

FRA 1

DV/DS – Wiring diagram No. 2.00
 DV – Tube connection (+) & (-)

FRA 2

DV1/DV2 – Wiring diagram No. 2.20
 – Tube connection (+) & (-)



ILL. 12

Constant Room Pressure

13. Room Pressure Control

13.1 Controlling Room Pressure via the Extract System.

The extract system incorporating a **Fischbach Compact Fan** is controlled by an **Automatic Controller**, Pressure Sensor and Pre Set.

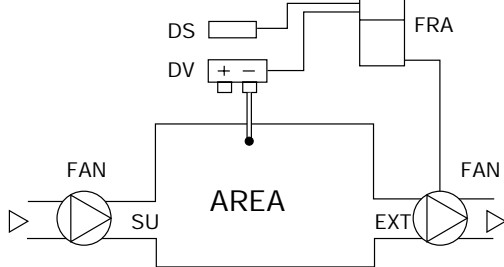
The supply system is controlled separately, manually or possibly automatically on constant volume.

The capacity of the extract fan must be sized in excess of the supply fan to allow for air leakage in the room. Pressure Control via extract fans is usually used when predetermined supply quantities are necessary.

13.1.1 Constant Negative Pressure via Extract System

DV/DS – Wiring diagram 2.02
 DV – Tube connection (-)

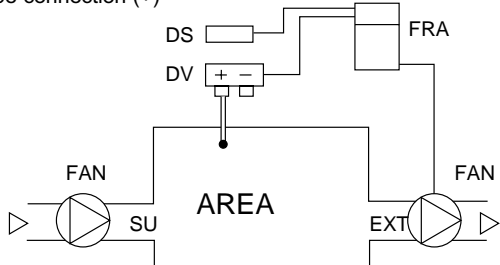
ILL. 13.1.1.



This system can be operated without a supply fan. The air will then enter the room via defined supply openings.

13.1.2 Constant Positive Pressure via the Extract System

DV/DS – Wiring diagram 2.00
 DV – Tube connection (+)



ILL. 13.1.2

13.2 Controlling room pressure via the Supply System

This supply system incorporating a **Fischbach Compact Fan** is controlled by an **Automatic Controller**, Pressure Sensor and Pre Set.

The **Supply Fan** must be sized in excess of the extract fan to allow for loss through leakage.

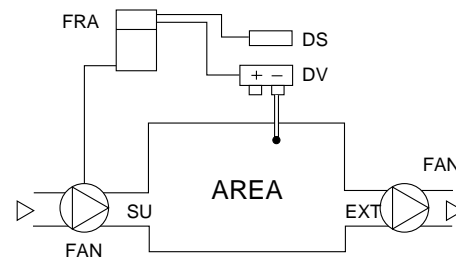
The extract system is controlled manually or automatically but separate from the supply.

Pressure Control via the supply system is usually used when individual extract systems are installed in a room or area.

13.2.1 Constant Negative Pressure via the Supply System

DV/DS – Wiring diagram 2.00
 DV – Tube connection (-)

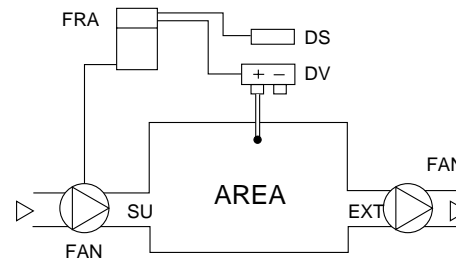
ILL. 13.2.1



13.2.2 Constant Positive Pressure via the Supply System

DV/DS – Wiring diagram 2.02
 DV – Tube connection (+)

ILL. 13.2.2



DV/DS – Wiring diagram 2.02
 DV – Tube connection (+)

Application Negative Pressure (-)

In laboratories etc. where internal pressure is kept below external pressure to prevent leakage of contaminants to the atmosphere.

Application Positive Pressure (+)

In laboratories, operating theatres etc. where internal pressure is kept above external pressure to prevent leakage of contaminated, germ laden air into the room.