Drift- och underhållsinstruktion

Spärrluftssystem

2017-06-20

**SWEDSPJÄLL**®

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Projekt:Boden



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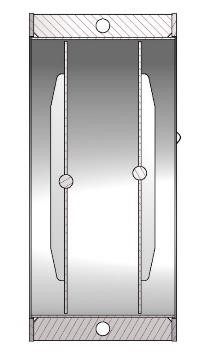
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# Fuktionsbeskrivning

Spärrlufts systemet är för **SWEDSPJÄLL** Series 150-D/200-D

Spärrluftsfuktionen bygger på att ett högre tryck skapas mellan spjällskivorna med hjälp av spärrluftsfläkten.



Fläkten är så dimensionerad att den alltid ger ett högre tryck mellan bladen än I själva kanalsystemet.

På detta sätt bildas en luftsluss som hindrar rökgaser (eller annan gas) att flöda genom huvudspjället.

Då inga rökgaser kommer att läcka nedströms huvudspjället, utan endast spärrluft, kan arbete utföras under drift I kanalen.

Vid undertryck i kanalen krävs normalt ingen fläkt, frisluft kan strömma genom spärrlufts spjället och skapa en luftbarriär. Dock måste beräkning göras på spärrluftsystement dimension. Även risk för korrosion måste beaktas.

**Uppstart och intrimmning av systemet**

The main dampers are equipped with a manually operated trim valve to reduce the air flow (which can save energy).

The main damper also have measurement points for measuring the pressure before, between and after.

To trim the system:

* start the fan and close the main damper (don´t start the heater yet)
* measure the pressure on the tree points, see above.
* Close the trim valve so that the pressure is balance, so no gases from the inlet side can pass the damper to the outlet side.
* Set 120 deg C on the temperature sensor – **NOT** the sensor on the heating ( this sensor are safety sensor and sets to 200 deg C. If this sensor have trigged you must manual reset the sensor)
* Connect the group 41.3kw (59,6A)
* Start the heater – **after power switch of the fan must run 4-5 mints to cooling the heater**
* The temperature sensor must be connected so the power to the heater is shut off if the temperature gets higher than 120 deg C.
* If the temperature gets higher and power is switched off, disconnect the 41,3kw and instead connect the 20,6kw (29.8A) group.
* If the system needs more heat, connect the next group.

## Fan

The air seal fan is single stage with 3-phase motor

Fan type: VPMR 500 with close coupled standard ABB motor type M3BP 132-S ME 2-IE3, 7,5kw



## Heater

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## Temperature sensor

For safety – do not regulating the temp against this sensor

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The heater is fitted between the fan and the main damper.

The heater is designed to heat up the air seal so that a cooling down of the flue gases is avoided, which can cause corrosion problems.

The heater is designed to be run continuously and with thermostat the temperature can be set.

Max set temperature 1200C

**The sensor on the heating are safety sensor and sets to 200 deg C. If this sensor have trigged you must manual reset the sensor**

**Temperature sensor**

Manufacturer: Jumo GmbH

Type: ATH 603021-ATH70

Instruction: see separate datasheet

## Insulation of heater

The heater can be insulated with mineral wool or other non-combustible material.

The thermostat and connection box shall not be isolated

**Maintenance**

The heater must have an air flow when is in operation (power on), it has no regular service interval.

If the temperature after the heater drops, the reason for this can be:

* heater is clogged and must be cleaned
* check the power to the heate

## Electrical connection of the heater

The heater must be connected to the electricity by a qualified electrician.



Temperature sensor



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