

# TECHNICAL DATA SHEET - G&G Bag HOUSE FILTER

|                     |                              |
|---------------------|------------------------------|
| <b>Filter type:</b> | G&G-Bag-HOUSE-12-13-152-45-A |
| <b>Producer:</b>    | G&G filtration CZ, s.r.o.    |

## Parameters of filtered gas

|    |                                  |                           |
|----|----------------------------------|---------------------------|
| A1 | Operating amount of filtered gas | 20 200 m <sup>3</sup> /h  |
| A2 | Operating temperature            | 20 °C                     |
| A3 | Amount of filtered gas (0°C)     | 18 830 Nm <sup>3</sup> /h |
| A4 | Inlet dust concentration         | 300 g/m <sup>3</sup>      |
| A5 | Operating pressure drop          | 1 200 Pa                  |
| A6 | Maximum pressure drop            | 2 200 Pa                  |

## Filter media parameters

|    |                                   |                      |
|----|-----------------------------------|----------------------|
| B1 | Shape of filter medium            | round hoses          |
| B2 | Type of filter medium             | m-Aramid             |
| B3 | Density of filter medium          | 530 g/m <sup>2</sup> |
| B4 | Breathability filter media        | 300 mm/s @ 200 Pa    |
| B5 | Continuous temperature resistance | 200 °C               |
| B6 | Momentary temperature resistance  | 220 °C               |

## Filter equipment parameters

|    |                          |  |
|----|--------------------------|--|
| C1 | Number of filter rods    | 156 ks                                   |
| C2 | Total filter area        | 335 m <sup>2</sup>                       |
| C3 | A/C parameter            | 1,00 m <sup>3</sup> /m <sup>2</sup> /min |
| C4 | Can velocity             | 1,16 m/s                                 |
| C5 | Flow from below the rods | 20 200 m <sup>3</sup> /h                 |
| C6 | Hose side flow           | - m <sup>3</sup> /h                      |
| C7 | Polluted gas input       | <i>into the filter hopper</i>            |

## Dimensions of the filter part

|    |   |          |
|----|---|----------|
| D1 | X-axis filter size                        | 2 764 mm |
| D2 | Y-axis filter size                        | 2 776 mm |
| D3 | The gap between the individual rods       | 55 mm    |
| D4 | Gap between filter rods with filter walls | 70 mm    |
| D5 | Gap between rods and hopper               | 100 mm   |

## Filter media arrangement

|    |                            |                 |
|----|----------------------------|-----------------|
| E1 | Orientation of filter rods | <i>vertical</i> |
| E2 | Diameter of filter rods    | 152 mm          |
| E3 | Length of filter rods      | 4 500 mm        |
| E4 | Rods attachment            | <i>snapping</i> |
| E5 | Inlet nozzle shape         | <i>venturi</i>  |

## Regeneration system

|    |                                  |                       |
|----|----------------------------------|-----------------------|
| F1 | Number of regeneration valves    | 12 pcs                |
| F2 | Size of regeneration valves      | 2"                    |
| F3 | Total compressed air consumption | 34 Nm <sup>3</sup> /h |
| F4 | Compressed air pressure          | 6 bar                 |

## Dimensions of the filtration device

|    |                                      |            |
|----|--------------------------------------|------------|
| G1 | Total width of the filter            | 2 952 mm   |
| G2 | Total filter depth                   | 2 964 mm   |
| G3 | Total filter height                  | 9 230 mm   |
| G4 | Weight of the filter device          | 7 714 kg   |
| G5 | Emergency weight 1/3 hopper          | 398 kg     |
| G6 | Total weight incl. emergency filling | 8 112 kg   |
| G7 | Foot load                            | 4x 2028 kg |

## Dimensions of connecting flanges

|    |                               |               |
|----|-------------------------------|---------------|
| H1 | Contaminated gas inlet flange | Ø800 mm       |
| H2 | Clean gas outlet flange       | 550 x 1000 mm |
| H3 | Hopper connecting flange      | 250 x 250 mm  |
| H4 | Filter foot size              | 250 x 250 mm  |

## Material design of the filter

|    |                                   |       |
|----|-----------------------------------|-------|
| I1 | Filter chamber material           | 11375 |
| I2 | Hopper material                   | 11375 |
| I3 | Filter housing material thickness | 4 mm  |
| I4 | Hopper material thickness         | 5 mm  |
| I5 | Thickness of stiffeners           | 7 mm  |
| I6 | Coating system                    | C4    |

## Material of thermal insulation

|    |                                      |                        |
|----|--------------------------------------|------------------------|
| J1 | Type of thermal insulation           | mineral wool           |
| J2 | Coefficient of thermal conductivity  | 0,038 W/m.K            |
| J3 | Insulation thickness                 | 100 mm                 |
| J4 | Insulation cover                     | galvanized sheet metal |
| J5 | Total insulation area of the cabinet | 71,8 m <sup>2</sup>    |
| J6 | Total insulation area of the hopper  | 15,6 m <sup>2</sup>    |

## Hopper heating

|    |                                    |                           |
|----|------------------------------------|---------------------------|
| K1 | Hopper heating system              | electric resistance cable |
| K2 | The total area of the heated part  | 14,25 m <sup>2</sup>      |
| K3 | Heating power per 1 m <sup>2</sup> | 200 W                     |
| K4 | Total heating power                | 2850 W                    |



