



SAFEK SMOKE EXTRACTOR

– extra fire protection

In the air. On land and at sea.

EFFECTIVE SMOKE EXTRACTION

The SAFEK smoke extractor is used to extract smoke from fires. The SAFEK smoke extractor keeps people safe in the event of a fire by effectively extracting the smoke and lowering the temperature with cool make-up air. If a fire is detected, the smoke extractor is set to maximum power. SAFEK extractors are available in two capacities. Their flow rates range from 0.2 to 6 m³/s, and they can produce up to 700 Pa of pressure.

The SAFEK smoke extractor features a solid shell of hot galvanized steel with a hinged bottom plate. It has two outlets protected by grilles located on opposite sides of the shell. The blower's impeller is welded steel plate and surface-treated. The impeller's blades are curved backward, and it is balanced dynamically. The extractor tilts back on its hinge for easy cleaning of the impeller and duct.

The SAFEK smoke extractor meets the requirements of the EU Machinery Directive and is CE-marked. Its functionality has been tested by VTT Technical Research Centre of Finland Ltd and meets the requirements for class F400 120, according to EN 12101-3, Annex C.

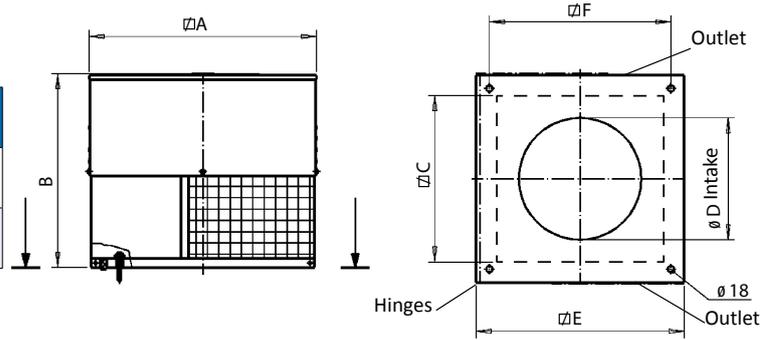


Mitat ja paino

SAFEK smoke extractor

| SAFEK | A | B | C | E | F | D | Weight, kg |
|-------|-------|-----|-----|-------|-----|-----|------------|
| 35 | 600 | 610 | 442 | 550 | 480 | 324 | 50 |
| 63 | 1,050 | 880 | 872 | 1,000 | 910 | 560 | 210 |

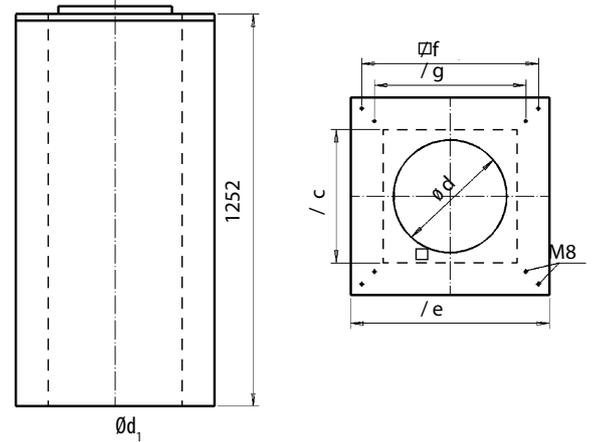
Table 1.



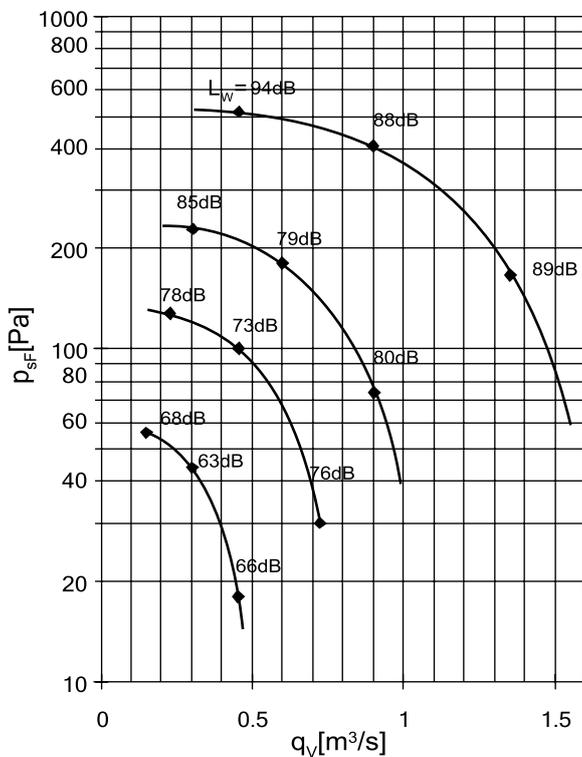
HIFEP insulated flue

| SAFEK | c | d | d1 | e | f | g | HIFEP m kg | HIFEP + vacuum damper | LVI number |
|-------|-----|-----|-----|-------|-----|-----|------------|------------------------|------------|
| 35 | 430 | 400 | 400 | 554 | | 480 | 75 | 06-20, SAFEK-35, EI120 | 7805105 |
| 63 | 900 | 550 | 630 | 1,024 | 910 | 710 | 132 | 30-40, SAFEK-63, EI120 | 7805107 |

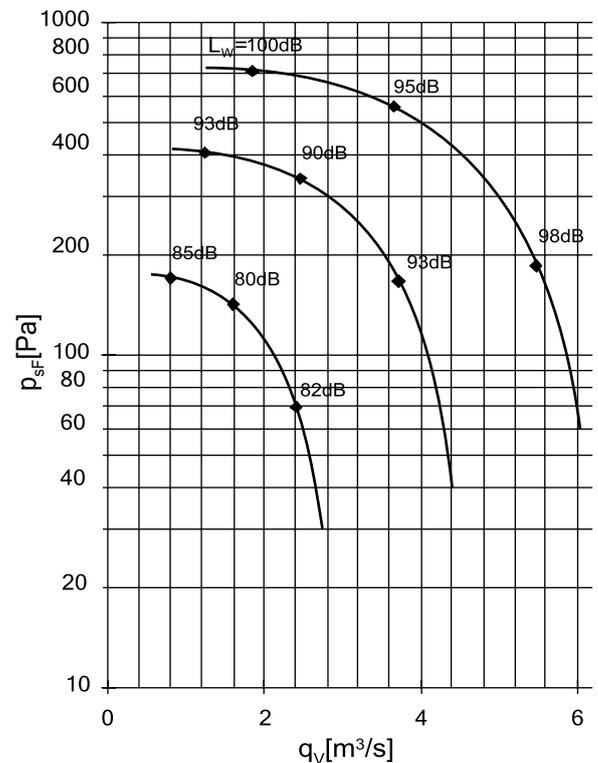
Table 2.



SAFEK 35-2



SAFEK 63-3



The graphs apply to air with a density of 1.2 kg/m³.

q_v = volume flow (m³/s), p_{sf} = static pressure (Pa), L_w = sound power (re 10⁻¹² W; dB)

Technical specifications

| LVI number | Safek | q_{v2} , m ³ /s | | | | | | | Motor specification | | | Max. current values IEC 60034-1 |
|------------|------------|------------------------------|------|------|------|------|------|------|---------------------|------|---------|---------------------------------|
| | | p_{sp} , Pa | | | | | | | n | P | I 400 V | |
| | | 50 | 100 | 200 | 300 | 400 | 500 | 600 | rpm | kW | A | |
| 7805006 | 35-2T (**) | 1.55 | 1.45 | 1.30 | 1.20 | 0.90 | 0.60 | | 1,400 | 0.85 | 2.2 | 2.2 |
| 7805005 | 63-3T (**) | 6.00 | 5.80 | 5.50 | 5.00 | 4.50 | 4.00 | 3.20 | 945 | 5.5 | 11.5 | 11.5 |

(**) Motor suitable for variable frequency drive.

Note! May only be adjusted down from 50 Hz.

Note! The starting current of cage induction motors is significantly higher than their rated current.

Sound values

| SAFEK model | q_v , m ³ /s | L_w , dB | L_A , dB |
|-------------|---------------------------|------------|------------|
| 35-2 | 0.47 | 94 | 81 |
| | 0.92 | 88 | 80 |
| | 1.39 | 89 | 82 |
| 63-3 | 1.86 | 100 | 89 |
| | 3.7 | 95 | 87 |
| | 5.53 | 98 | 91 |

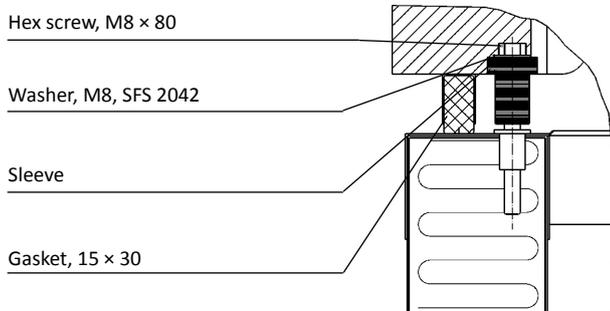
q_v = volume flow, m³/s

L_w = sound power (re 10⁻¹² W), dB

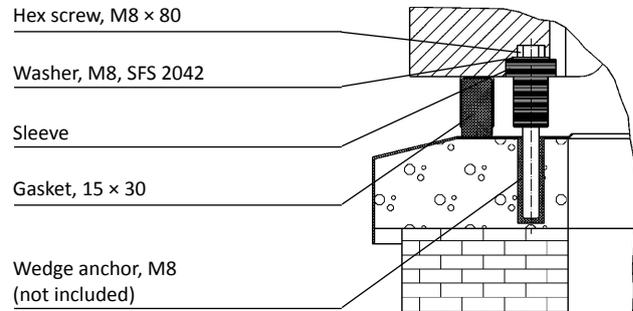
L_A = A-weighted sound pressure, dB

Installation

HIFEP insulated flue



Fire-resistant stack



Example order

SAFEK smoke extractor 35-2T

For dimensioning, see Table 1.

HIFEP insulated flue 06-20, SAFEP-35, EI120

See Table 2.



Our experts are available to help you with every step of your project and throughout the service life of our products. Contact us for more information and request a quote.



Additional information:

[Koja.materiaali.fi](http://koja.materiaali.fi)

