



## Smoke Extractor SAFEK

The smoke extractor SAFEK is designed for heat and smoke venting in case of fire.

The SAFEK smoke extractor improves the security of people in case of fire by expelling smoke and reducing the temperature by means of compensation air. In case of fire the

extractor is actuated to operate at the maximum operating speed.

The SAFEK smoke extractor is available in four sizes. Air flow volume is 0.2 – 6.0 m<sup>3</sup>/s and the pressure range up to 700 Pa.

The casing of the SAFEK smoke extractor is compact, made of hot galvanized steel, equipped with a hinged base plate. The extractor has two outlets with grilles. The outlets are situated on the opposite sides of the casing. The blades of the impeller are made of steel sheet by welding, and surface treated. The blades of the impeller are backward curved and the impeller is dynamically balanced.

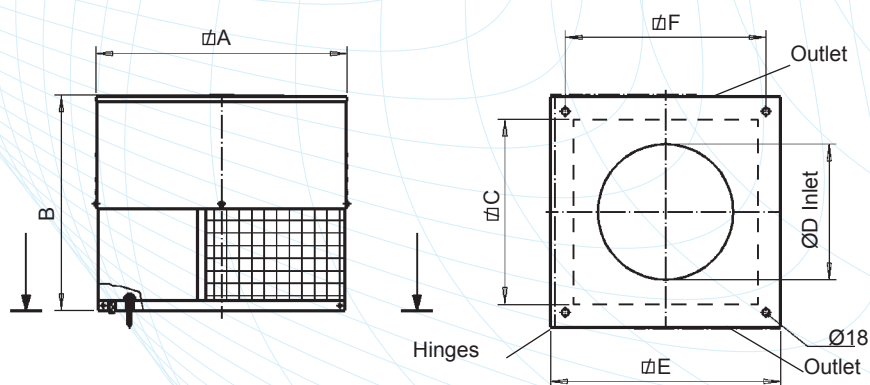
The smoke extractor can be turned aside by means of the hinges to facilitate the cleaning of impeller and duct. SAFEK smoke extractor conforms to the EU safety directive and is CE marked.

The operation of SAFEK is tested by Technical Research Centre of Finland and it conforms to the requirements of class F400 120 according to the standard EN 121015-3 Appendix C.



## Dimensions and Weights

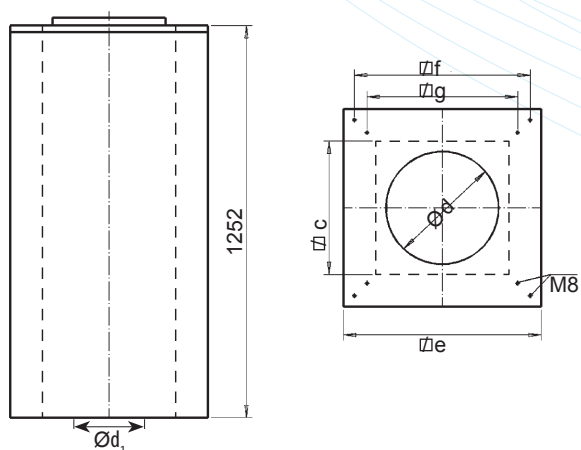
### Smoke Extractor SAFEK



SAFEK	A	B	C	E	F	D	Weight kg
35	600	530	442	550	480	324	50
40	680	550	502	630	480	359	60
50	850	640	672	800	710	455	120
63	1050	880	872	1000	910	574	210

Table 1

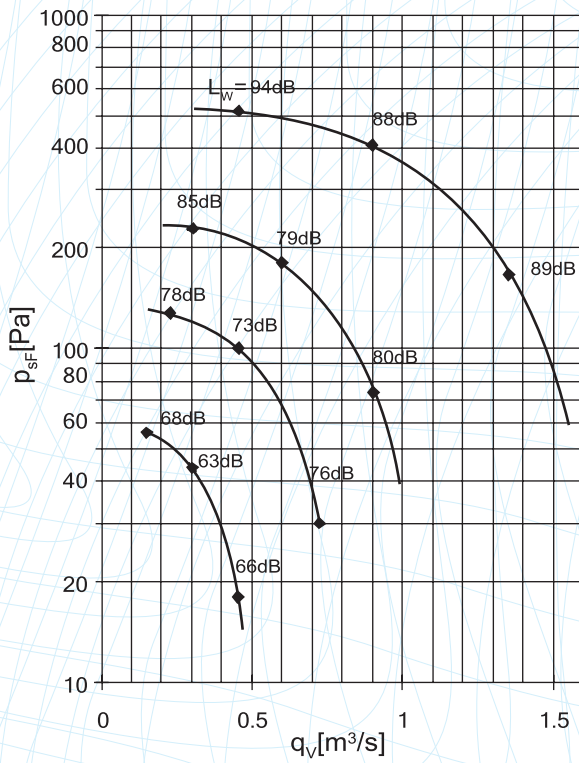
### Mounting Stack HIFEP



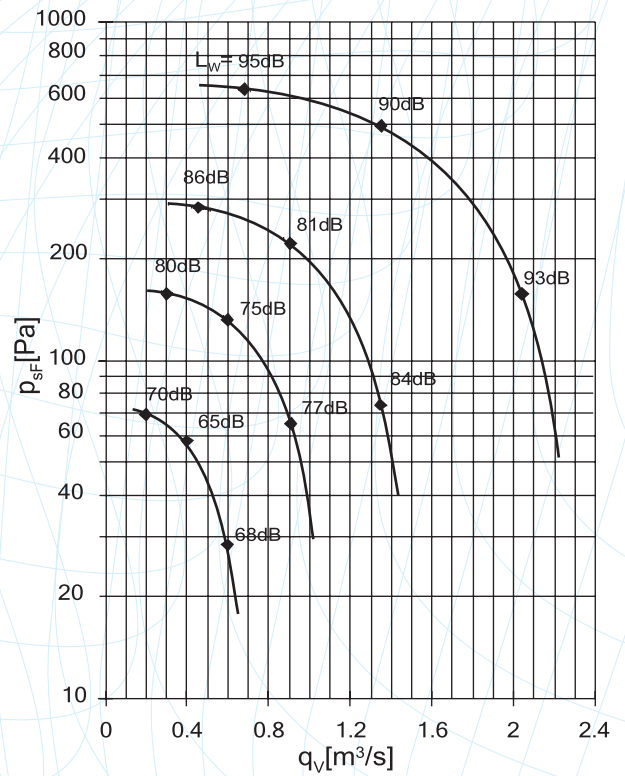
SAFEK	c	d	d <sub>1</sub>	e	f	g	HIFEP m kg	HIFEP + low pressure damper	Code
35/40	430	400	400	554		480	75	06/09/12 E120	7805105
50/63	900	630	630	1024	910	710	132	18/24/36 E120	7805107

Table 2

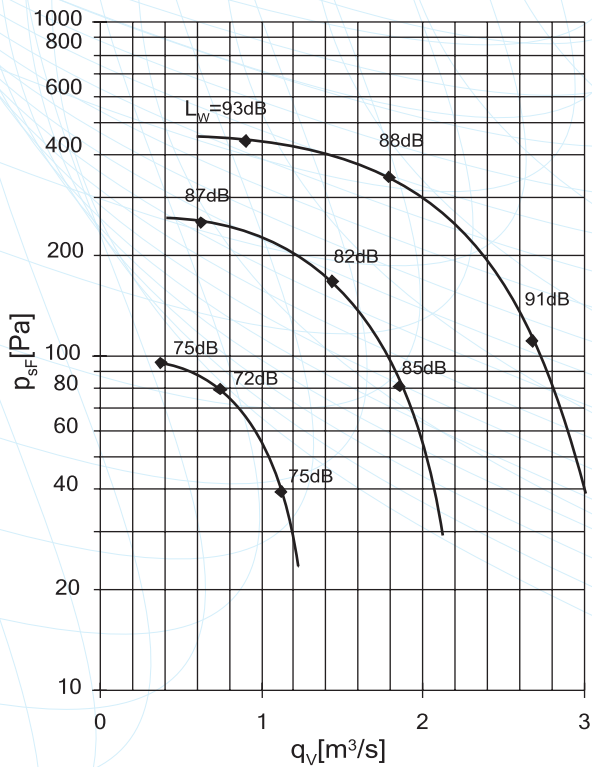
### SAFEK 35



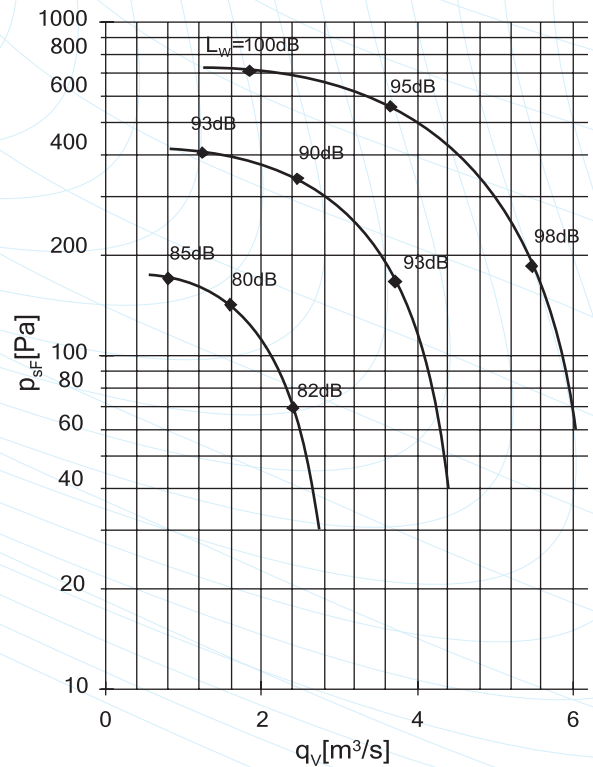
### SAFEK 40



### SAFEK 50



### SAFEK 63



The characteristics are valid for air with a density of 1.2 kg/m<sup>3</sup>.

- $q_v$  = air flow volume m<sup>3</sup>/s
- $p_{sf}$  = static pressure Pa
- $L_w$  = sound power level (re 10<sup>-12</sup> W) dB



## Specifications

Code	Safek	qv, m <sup>3</sup> /s						Motor data			Max flow rate IEC-60034-1	
		psF, Pa						n	P	1400 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		1400	0,85	2,2	2,2
7805007	40-2T (**)	2,30	2,15	1,95	1,80	1,60	1,80	0,90	1400	1,9	4,2	4,2
7805004	50-3T (**)	2,90	2,65	2,35	2,00	1,40			940	1,0	3,1	3,1
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 can be frequency-controlled.

NB: Control from 50 Hz downwards only.

NB: Starting current of the squirrel motor is substantially greater than the rated current.

## Sound Data

SAFEK Size	qv m <sup>3</sup> /s	Lw dB	LA dB	SAFEK Size	qv m <sup>3</sup> /s	Lw dB	LA dB
35-2	0,47	94	81	50-3	0,9	93	82
	0,92	88	80		1,79	88	80
	1,39	89	82		2,69	91	84
40-2	0,68	95	84	63-3	1,86	100	89
	1,35	90	82		3,7	95	87
	2,02	93	86		5,53	98	91

qv  
Lw  
LA

= air flow volume m<sup>3</sup>/s

= sound power level (re 10<sup>-12</sup> W) dB

= A-weighted sound pressure level dB

## Installation

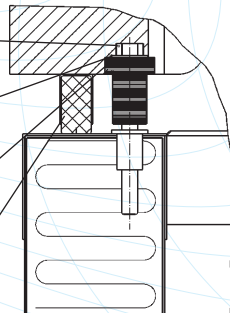
### Mounting stack HIFEP

Hexacon screw M8 x 80

Washer M8 SFS 2042

Sleeve

Seal 15 x 30



### Smoke stack made of incombustible material

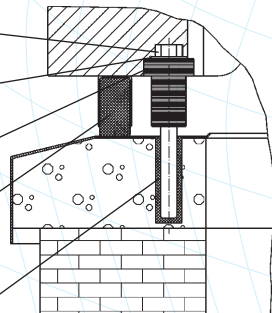
Hexacon screw M8 x 80

Washer M8 SFS 2042

Sleeve

Seal 15 x 30

Wedge anchor M8  
(not included in delivery)



## Order example

Smoke extractor SAFEK 35 - 2T  
Size See table 1

Mounting stack HIFEP 06/09/12 EI120  
See table 2