

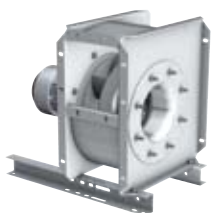
Smoke Extract Fans

Issue 3

motralec

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www.motralec.com

NICOTRA | Gebhardt



fan|tastic solutions

You have to understand fire to master **smoke extraction**



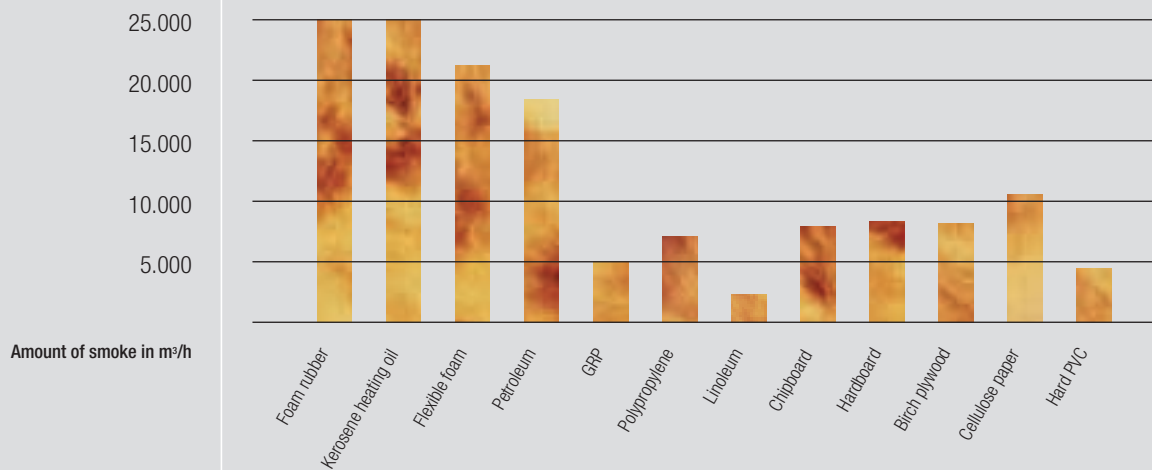
Perfect smoke extraction in the case of fire not only demands absolute understanding of the techniques used – it also calls for an understanding of the nature of fire and the flow of fumes. **Nicotra Gebhardt** sets standards in both aspects – by using CFD to simulate the flow of smoke, for example.

We can offer you the world's largest range of mechanical smoke extraction solutions – compiled in this brand new SafeAir catalogue. With our wall, roof, radial, axial and pulse fans,

we master every form of smoke extraction, whatever the application. We thereby ensure maximum safety throughout any building – from the underground car park to the roof – and comply with all the statutory norms for building fire protection.

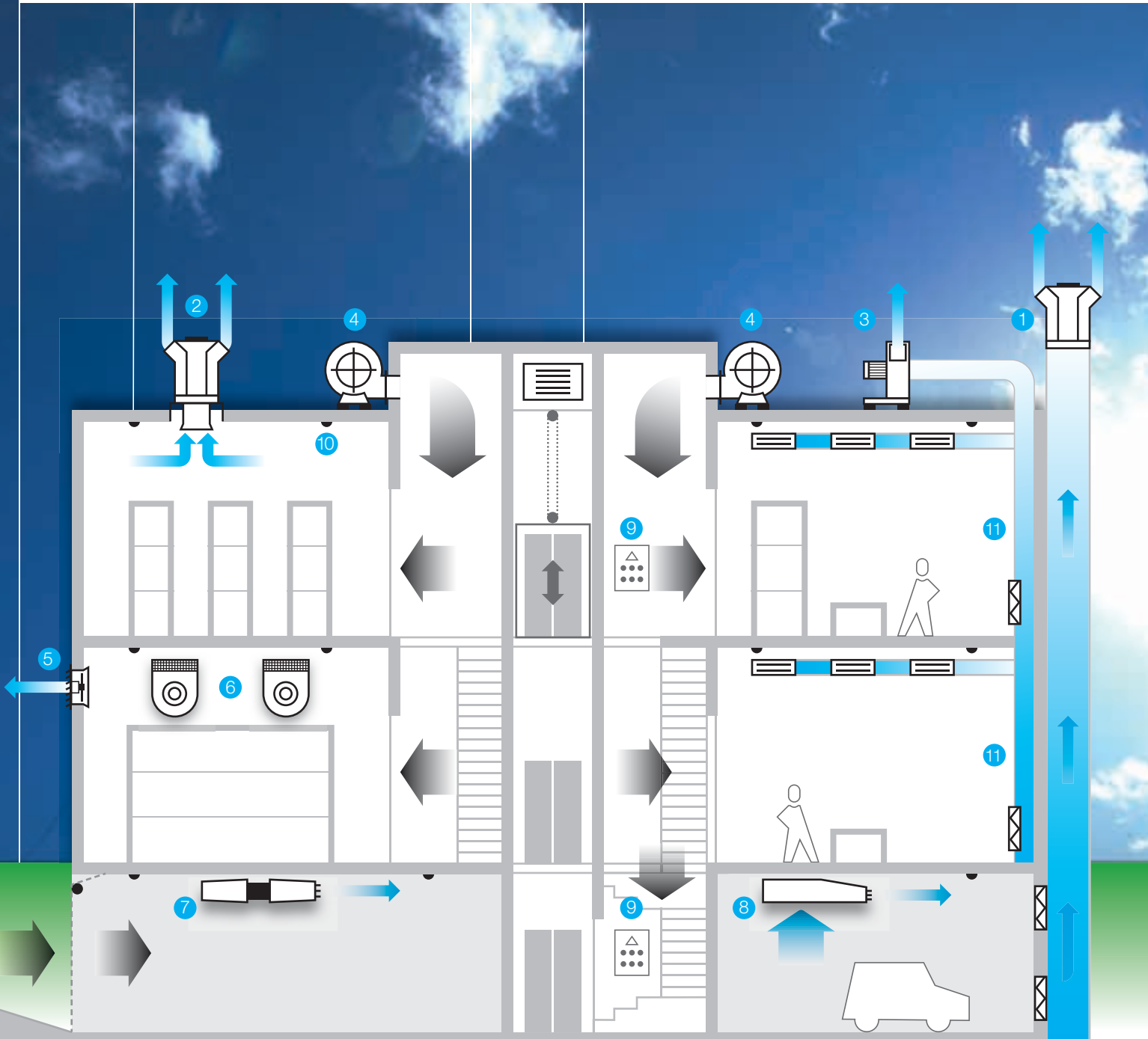
Find out about our range of modern smoke extraction systems in this catalogue and see for yourself what good value intelligent smoke extract fans from **Nicotra Gebhardt** are. And above all: act on it before it is too late! We would be happy to advise you.

Conflagration gases and fumes emitted by burning 10 kg of each material




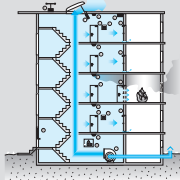


RDM 56 RDM 57		•	•	•	•					•	•	•	↑	•				•			
RWM 57		•	•	•						•	•	•	→	•				•			
REM BU REM BI		•	•							•	•	•	↕	•				•	•		
RER 13 RER 17		•	•	•	•	•	•			•	•		↕		•			•	•	•	
SLCS		•	•	•	•	•				•			↕	•				•			
AGM		Thrust up to 52 N									•			↔	•				•	•	
RGM		Thrust up to 75 N									•			↔	•				•	•	
PPSP-System		As necessary													•	•					
		14.000 m³/h	31.000 m³/h	37.000 m³/h	57.000 m³/h	65.000 m³/h	150.000 m³/h	300 °C – 120 min	400 °C – 120 min	600 °C – 120 min			Discharge	Direct drive	Belt drive	Aluminium	Galvanised steel	Coated steel	Insulating casing		
	Flow rate							Conveying medium					Drive type	Material							

Safe smoke extraction solutions from the cellar to the roof!



- | | | |
|---|---|-----------------------------|
| 1 <i>genovent</i> smoke extractor roof fans, RDM 57 | 5 SLCS axial smoke extractor fan | 9 Smoke detector switchgear |
| 2 <i>genovent</i> smoke extractor roof fan, RDM 56 | 6 RWM 57 smoke extractor wall fan | 10 Optical smoke detector |
| 3 Radial smoke extractor fan, REM BU/RER 13; 17 | 7 AGM Jetfan <i>prevent</i> smoke extractor pulse fan | 11 Duct – F 90 |
| 4 2 Radial fans for PPV system | 8 RGM Jetfan <i>prevent</i> smoke extractor pulse fan | |

<p>Smoke Extract Roof Fans RDM 56/57 <i>genovent</i>[®] Vertical discharge, motor separated from airflow, with outlet flaps, snow load class SL 1000</p>	4 – 29		RDM
<ul style="list-style-type: none"> ◦ Specifications ◦ Relative noise level ◦ Sample applications ◦ Accessories 	30 – 31 32 – 33 34 – 35 36 – 37		
<p>Smoke Extract Wall fans RWM 57 Horizontal discharge, for wall installation, motor separated from airflow</p>	38 – 57		RWM
<ul style="list-style-type: none"> ◦ Specifications ◦ Relative noise level ◦ Sample applications ◦ Accessories 	58 59 60 – 61 62 – 63		
<p>Smoke Extract Centrifugal Fans with direct drive REM REM BU without insulating casing REM BI with insulating casing</p>	64 – 83		REM
<ul style="list-style-type: none"> ◦ Specifications ◦ Sample applications ◦ Accessories 	84 – 85 86 87		
<p>Smoke Extract Centrifugal Fans with belt drive RER <i>rotavent</i>[®] RER 13 – welded, coated RER 17 – lock-seamed, galvanised</p>	88 – 127		RER
<ul style="list-style-type: none"> ◦ Specifications ◦ Technical specifications ◦ Accessories 	128 – 130 131 – 137 138 139 – 143		
<p>Axial Smoke Extract Fan Unit with direct drive with direct drive SLCS Axial fan based on the pulse fan principle, conflagration gas motor in airflow</p>	144 – 159		SLCS
<ul style="list-style-type: none"> ◦ Specifications ◦ Accessories 	162 163 – 165		
<p>Impulse Smoke Extraction Fans Jetfan AGM Axial fan based on the pulse fan principle, conflagration gas motor in airflow</p>	166 – 173		AGM
<ul style="list-style-type: none"> ◦ AGM 01/11, AGM 02/12, 300 °C – 120 min. ◦ Specifications AGM 01/11, AGM 02/12 ◦ AGM 06/16 for ventilation of CO-gases ◦ Specifications AGM 06/16 	174 – 177 178 – 181 182 183		
<p>Impulse Smoke Extraction Fans Retfan AGM Centrifugal fan based on the pulse fan principle, conflagration gas motor in airflow</p>	184 – 187		RGM
<ul style="list-style-type: none"> ◦ RGM 91, 300 °C – 120 min. ◦ Specifications RGM 91 ◦ RGM 96 for ventilation of CO-gases ◦ Specifications RGM 96 	184 185 186 187		
<p>Positive Pressure Smoke Protection – System For indoor stairwells, corridors and emergency tunnels</p>	188 – 191		PPSP-System
<p>Accessories Control technology and sensors</p>	192 – 203		Accessories
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Smoke extractor fans from the *genovent*[®] range

Data in accuracy class 2, according to DIN 24166!

Smoke extractor fans from the *genovent* range offer world-class safety and combine reliable functionality with attractive design and sophisticated technology. All this makes the price even more incredible. These smoke extractor fans have set quality standards on countless roofs the world over.



Cut costs without cutting corners on safety

RDM 56/57
RDM model with
an IEC norm-compliant engine
Flow rate up to 57,000 m³/h
RDM 56, 400 °C – 120 min.
RDM 57, 600 °C – 120 min.
No. 0036 CPD RG 01 01
No. 0036 CPD RG 01 02

The *genovent* saves money at all levels:

Acquisition costs less

- thanks to a superior quality basic model at no extra charge

Operation costs less

- thanks to little loss of heat
- thanks to integrated, maintenance-free flaps

Installation and maintenance costs less

- thanks to simple installation without the need for special tools
- thanks to the simple swing-out design of the casing

Top class – and a top investment for you



The *genovent* is a smoke extraction solution that offers a whole host of technical advantages over the competition along with maximum safety and incredible value for money:

- Both ranges have CE certification.
- During smoke extraction, the RDM 56 conveys media up to a maximum of 400 °C for 120 min. and the RDM 57 up to a maximum of 600 °C for 120 min. A maximum temperature of +80 °C is permitted for permanent ventilation.
- The attractively designed, self-enclosed casing made of non-corrosive aluminium is a striking addition to any roof.
- The powerful add-on motors are separated from the airflow and cooled by the outside air. The blades on the back of the impellers also support the motor cooling.
- The outlet flap which comes as standard stops rain and snow from getting in and prevents heat loss. **This protection from freezing means the fan can be mounted anywhere, even above unheated rooms. Normal fans without outlet flaps can only be fitted above heated rooms.**
- The smoke extract fans RDM are designed to respond to the snow load class requirements SL 1000 according to DIN EN 1201-3.
- Easily removable side pieces on the casing, the swing-out middle section and an easy-access base plate guarantee safe and easy installation, inspection and maintenance.
- A wide range of accessories and a specially designed system of electrical components round off the whole system.

RDM 56-2528, 400 °C – 120 min. RDM 57-2528, 600 °C – 120 min.

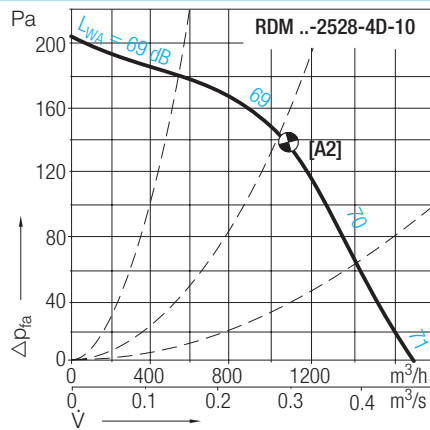
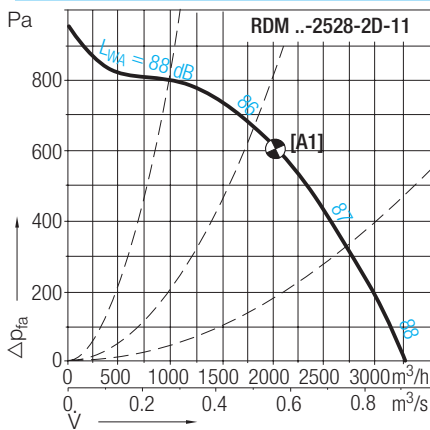
Technical Data in Class 2 acc. to DIN 24166

Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@}$ at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m^3/h	dB ⑩	kg
2528-2D-11 [A1]	2	230/400 Δ/Y	50	2845	1.10	4.15/2.4	6.1	80 b	3300	88	39
2528-4D-10 [A2]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 a	1670	71	30

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

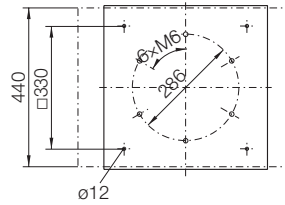
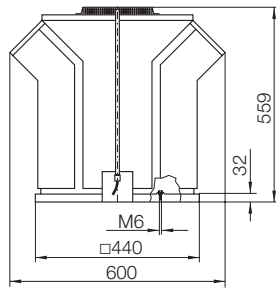
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
2528-2D-11	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
2528-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-2528, 400 °C – 120 min. RDM 57-2528, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-2528-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

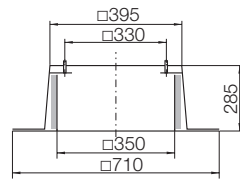
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

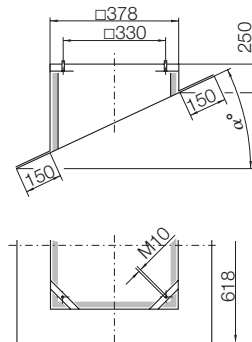
ZBS 03-0040 [Al/St - 600°C] 8 kg ⑥

Flat roof upstand



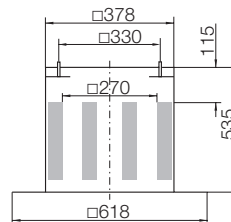
ZBS 04-0040-② [Al/St - 600°C] 5 kg ⑥

Inclined roof upstand



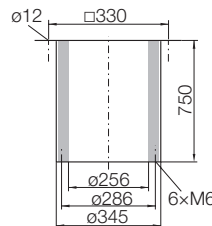
ZDS 32-0040 [St - 600°C] 18 kg

Upstand silencer



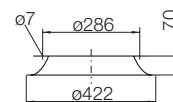
ZDR 30-0250 [600°C] 12 kg

Inlet silencer



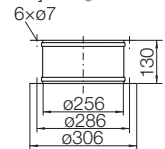
ZKD 01-0250 [600°C] 2 kg

Flanged inlet cone



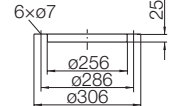
ZKE 30-0250 [600°C] 1.7 kg

Flexible inlet connection



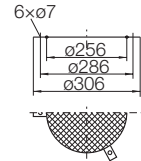
ZKF 11-0250 [600°C] 0.6 kg

Mating flange



ZSG 04-0250 [600°C] 0.4 kg

Mesh inlet guard



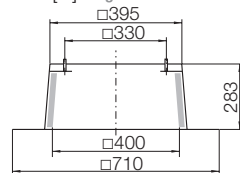
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0040 [Al] 4 kg

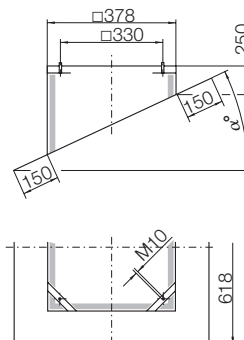
ZBS 20-0040 [St] 8 kg

Flat roof upstand



ZBS 09-0040-② [Al] 5 kg

Inclined roof upstand



RDM 56-2531, 400 °C – 120 min. RDM 57-2531, 600 °C – 120 min.

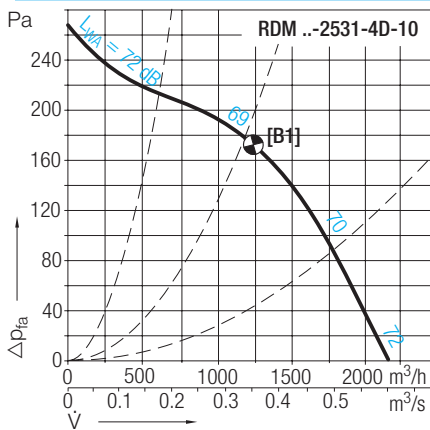
Technical Data in Class 2 acc. to DIN 24166

Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@}$ at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
2531-4D-10 [B1]	4	230/400 Δ/Y	50	1395	0.55	2.5/1.44	3.9	80 a	2200	72	35

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

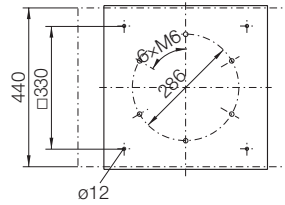
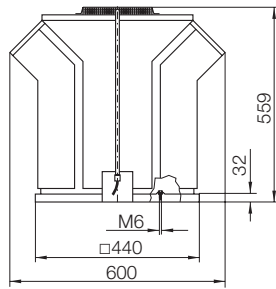
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
2531-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-2531, 400 °C – 120 min. RDM 57-2531, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-2531-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

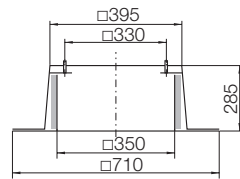
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

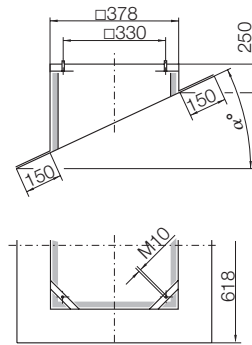
ZBS 03-0040 [Al/St - 600°C] 8 kg ⑥

Flat roof upstand



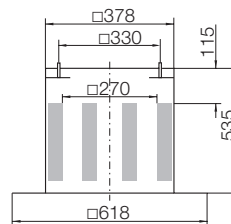
ZBS 04-0040-② [Al/St - 600°C] 5 kg ⑥

Inclined roof upstand



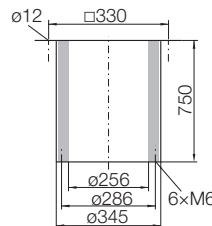
ZDS 32-0040 [St - 600°C] 18 kg

Upstand silencer



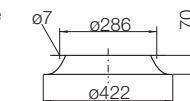
ZDR 30-0250 [600°C] 12 kg

Inlet silencer



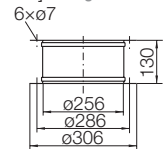
ZKD 01-0250 [600°C] 2 kg

Flanged inlet cone



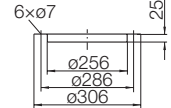
ZKE 30-0250 [600°C] 1.7 kg

Flexible inlet connection



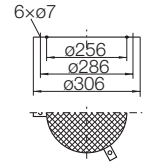
ZKF 11-0250 [600°C] 0.6 kg

Mating flange



ZSG 04-0250 [600°C] 0.4 kg

Mesh inlet guard



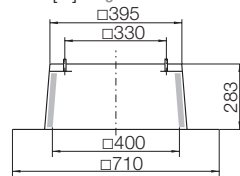
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0040 [Al] 4 kg

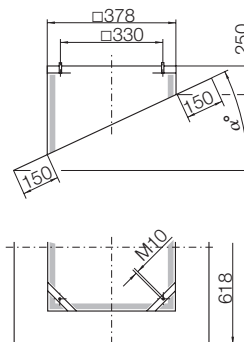
ZBS 20-0040 [St] 8 kg

Flat roof upstand



ZBS 09-0040-② [Al] 5 kg

Inclined roof upstand



RDM 56-3535, 400 °C – 120 min. RDM 57-3535, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

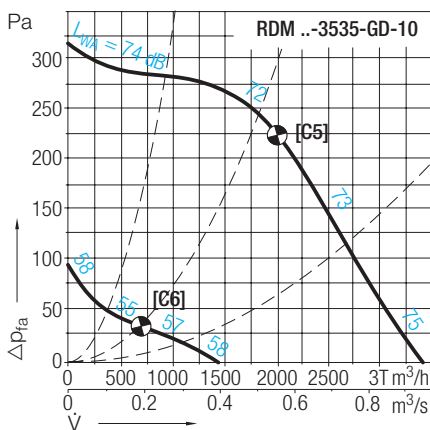
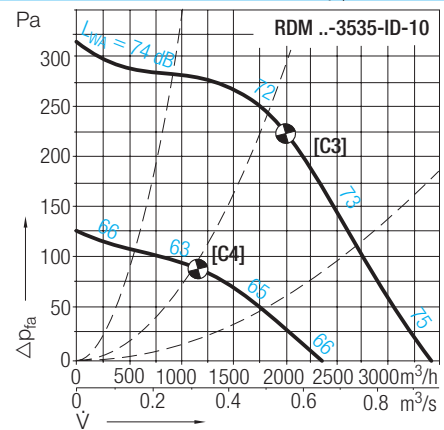
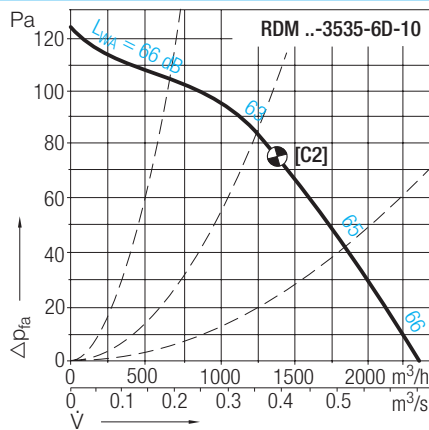
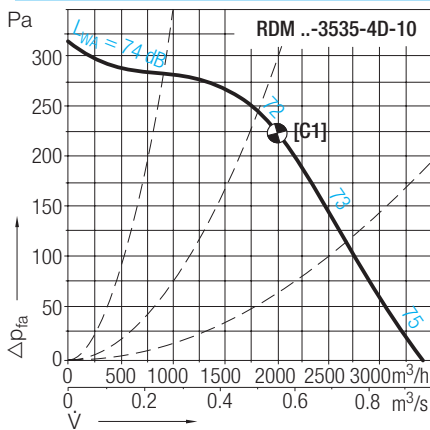
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
3535-4D-10 [C1]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 a	3370	75	44
3535-6D-10 [C2]	6	230/400 Δ/Y	50	920	0.37	2.10/1.2	3.1	80 a	2350	66	44
3535-ID-10 [C3/C4]	4/6	400 Y/Y	50	1430/940	0.40/0.12	1.38/0.51	4.0/2.8	80 a	3370/2340	75/66	49
3535-GD-10 [C5/C6]	4/8	400 YY/Y	50	1375/680	0.50/0.1	1.28/0.57	4.1/2.3	80 a	3370/1350	75/58	49

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1 = 1.15 \text{ kg/m}^3$



Schalleistungspegel bei den Oktavmittelfrequenzen siehe Seite 32 für Eintrittsseite und Seite 33 für Austrittsseite

Accessories

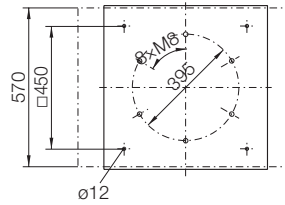
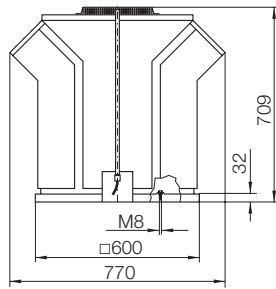
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
3535-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3535-6D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3535-ID-10	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3535-GD-10	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-3535, 400 °C – 120 min. RDM 57-3535, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-3535-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

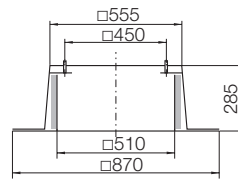
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

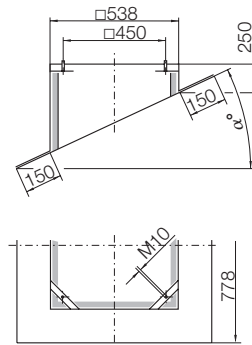
ZBS 03-0056 [Al/St - 600°C] 10 kg ⑥

Flat roof upstand



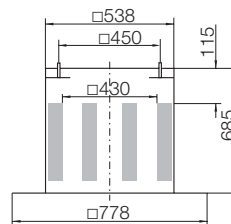
ZBS 04-0056-② [Al/St - 600°C] 6 kg ⑥

Inclined roof upstand



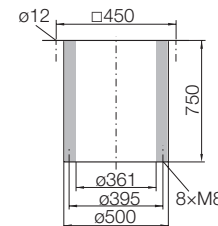
ZDS 32-0056 [St - 600°C] 40 kg

Upstand silencer



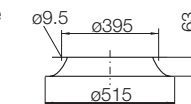
ZDR 30-0355 [600°C] 17 kg

Inlet silencer



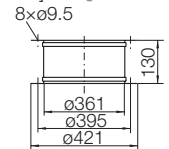
ZKD 01-0355 [600°C] 3.5 kg

Flanged inlet cone



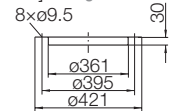
ZKE 30-0355 [600°C] 2.7 kg

Flexible inlet connection



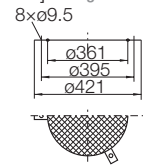
ZKF 11-0355 [600°C] 0.9 kg

Mating flange



ZSG 04-0355 [600°C] 0.6 kg

Mesh inlet guard



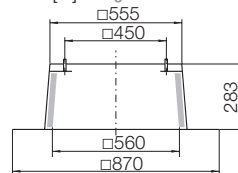
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0056 [Al] 5 kg

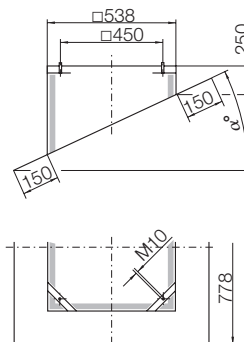
ZBS 20-0056 [St] 10 kg

Flat roof upstand



ZBS 09-0056-② [Al] 6 kg

Inclined roof upstand



RDM 56-3540, 400 °C – 120 min. RDM 57-3540, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

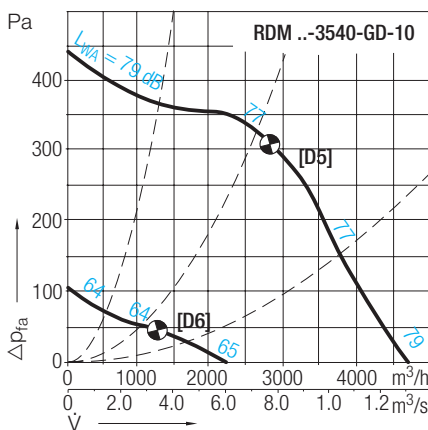
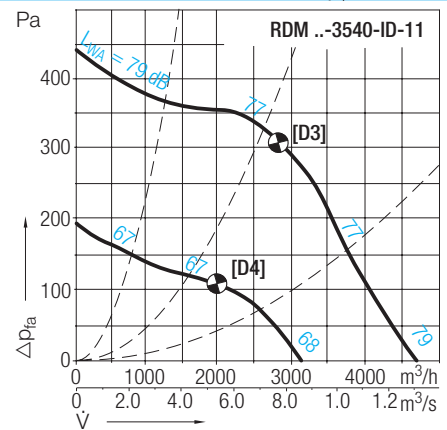
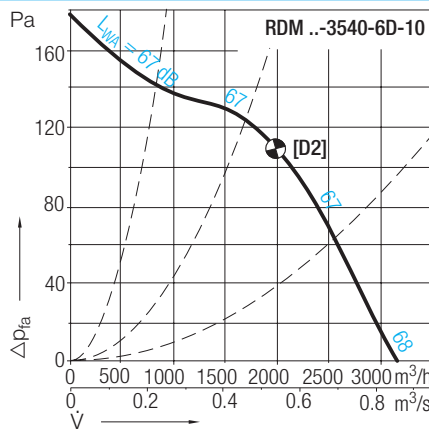
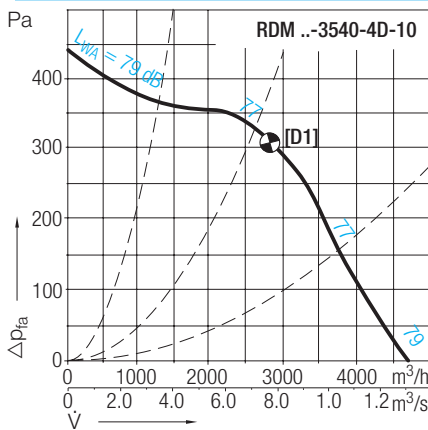
Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m^3/h	dB ⑩	kg
3540-4D-10 [D1]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 a	4700	79	50
3540-6D-10 [D2]	6	230/400 Δ/Y	50	920	0.37	2.10/1.20	3.1	80 a	3140	68	48
3540-ID-11 [D3 D4]	4/6	400 Y/Y	50	1420/930	0.55/0.18	1.62/0.73	4.0/2.5	80 b	4700/3160	79/68	50
3540-GD-10 [D5 D6]	4/8	400 YY/Y	50	1375/680	0.50/0.10	1.28/0.57	4.1/2.3	80 a	4700/2200	79/65	49

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Schalleistungspegel bei den Oktavmittenfrequenzen siehe Seite 32 für Eintrittsseite und Seite 33 für Austrittsseite

Accessories

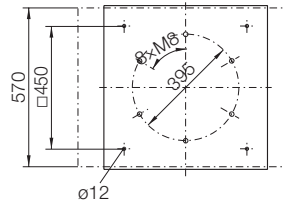
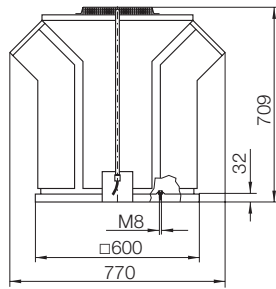
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
3540-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-6D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-ID-11	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-GD-10	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-3540, 400 °C – 120 min. RDM 57-3540, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-3540-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

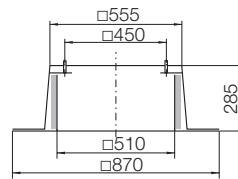
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

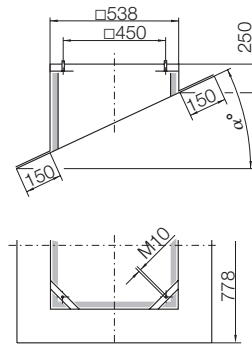
ZBS 03-0056 [Al/St - 600°C] 10 kg ⑥

Flat roof upstand



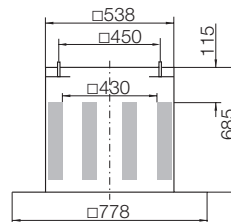
ZBS 04-0056-② [Al/St - 600°C] 6 kg ⑥

Inclined roof upstand



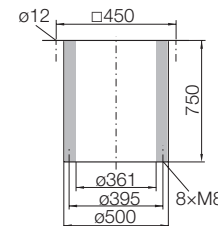
ZDS 32-0056 [St - 600°C] 40 kg

Upstand silencer



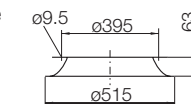
ZDR 30-0355 [600°C] 17 kg

Inlet silencer



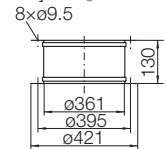
ZKD 01-0355 [600°C] 3.5 kg

Flanged inlet cone



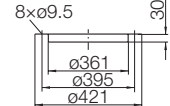
ZKE 30-0355 [600°C] 2.7 kg

Flexible inlet connection



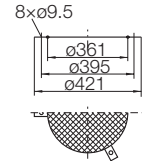
ZKF 11-0355 [600°C] 0.9 kg

Mating flange



ZSG 04-0355 [600°C] 0.6 kg

Mesh inlet guard



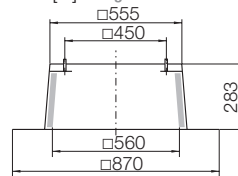
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0056 [Al] 5 kg

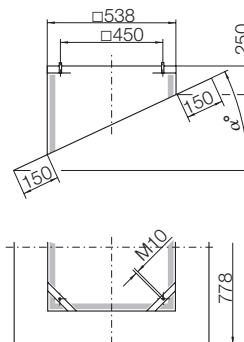
ZBS 20-0056 [St] 10 kg

Flat roof upstand



ZBS 09-0056-② [Al] 6 kg

Inclined roof upstand



RDM 56-3545, 400 °C – 120 min. RDM 57-3545, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

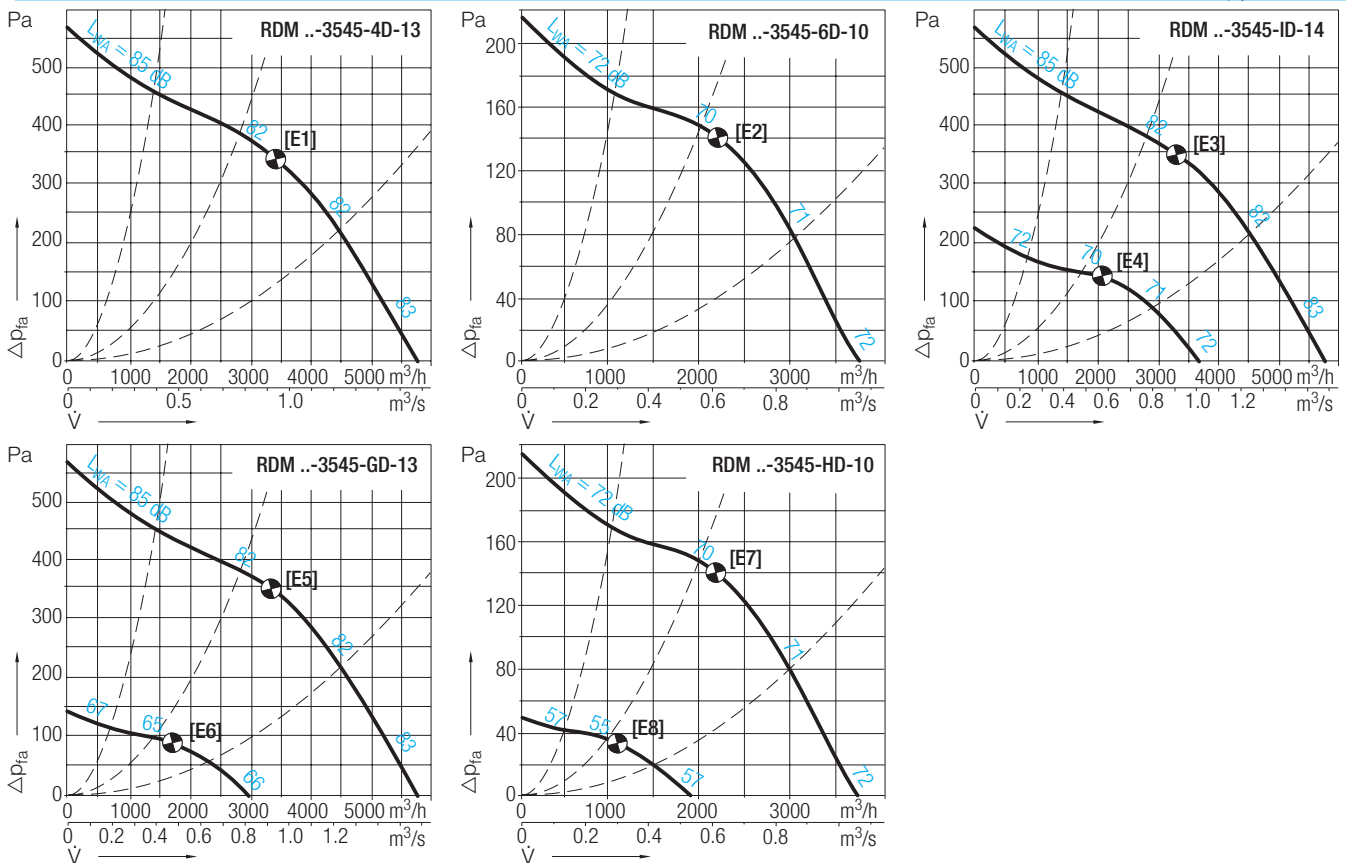
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
3545-4D-13 [E1]	4	230/400 Δ/Y	50	1415	1.10	4.40/2.55	4.6	90 S	5750	83	55
3545-6D-10 [E2]	6	230/400 Δ/Y	50	920	0.37	2.10/1.2	3.1	80 a	3700	72	50
3545-ID-14 [E3 E4]	4/6	400 Y/Y	50	1430/955	1.10/0.38	2.65/1.33	4.9/3.8	90 L	5750/3700	83/72	57
3545-GD-13 [E5 E6]	4/8	400 Y/Y	50	1370/695	1.00/0.22	2.40/1.25	3.7/2.4	90 S	5750/2980	83/66	55
3545-HD-10 [E7 E8]	6/12	400 Y/Y	50	935/425	0.30/0.075	1.00/0.44	3.5/1.9	80 a	3700/1900	72/57	55

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Schallleistungspegel bei den Oktavmittenfrequenzen siehe Seite 32 für Eintrittsseite und Seite 33 für Austrittsseite

Accessories

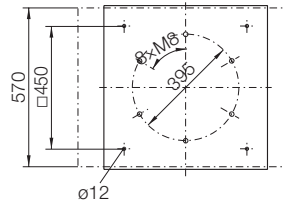
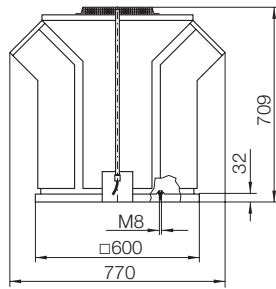
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
3545-4D-13	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3545-6D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3545-ID-14	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3545-GD-13	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3545-HD-10	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-3545, 400 °C – 120 min. RDM 57-3545, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-3545-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

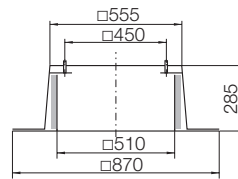
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

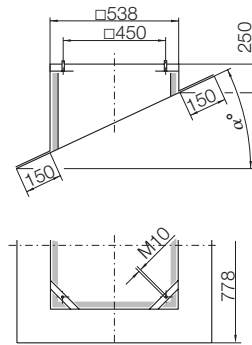
ZBS 03-0056 [Al/St - 600°C] 10 kg ⑥

Flat roof upstand



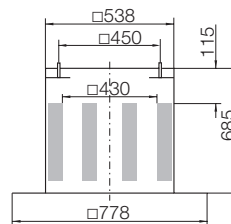
ZBS 04-0056-② [Al/St - 600°C] 6 kg ⑥

Inclined roof upstand



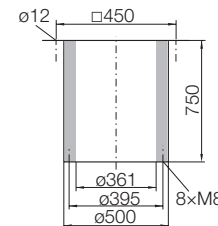
ZDS 32-0056 [St - 600°C] 40 kg

Upstand silencer



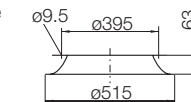
ZDR 30-0355 [600°C] 17 kg

Inlet silencer



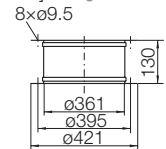
ZKD 01-0355 [600°C] 3.5 kg

Flanged inlet cone



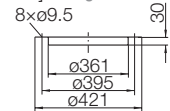
ZKE 30-0355 [600°C] 2.7 kg

Flexible inlet connection



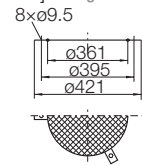
ZKF 11-0355 [600°C] 0.9 kg

Mating flange



ZSG 04-0355 [600°C] 0.6 kg

Mesh inlet guard



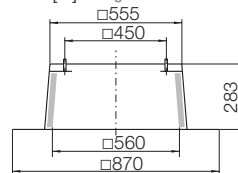
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0056 [Al] 5 kg

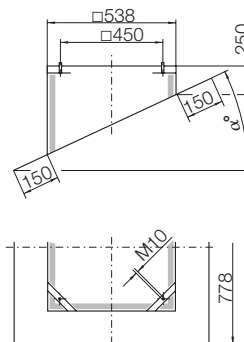
ZBS 20-0056 [St] 10 kg

Flat roof upstand



ZBS 09-0056-② [Al] 6 kg

Inclined roof upstand



RDM 56-4550, 400 °C – 120 min. RDM 57-4550, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

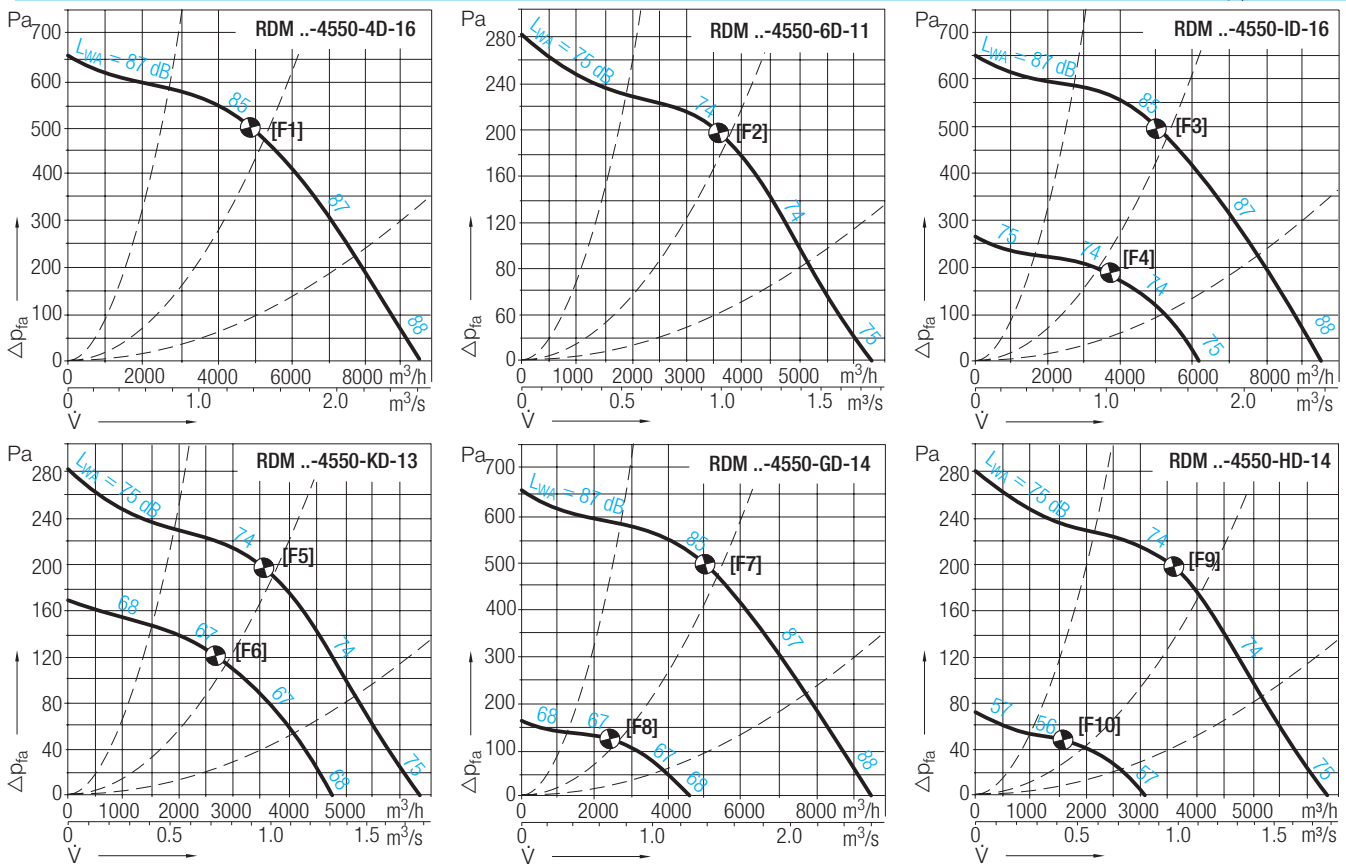
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA} at V _{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
4550-4D-16 [F1]	4	230/400 Δ/Y	50	1420	2.20	8.20/4.70	5.2	100 La	9450	88	87
4550-6D-11 [F2]	6	230/400 Δ/Y	50	910	0.55	2.77/1.60	3.4	80 b	6200	75	77
4550-ID-16 [F3 F4]	4/6	400 Y/Y	50	1410/950	1.70/0.6	3.80/1.75	5.2/4.2	100 La	9450/6200	88/75	89
4550-KD-13 [F5 F6]	6/8	400 Y/Y	50	950/710	0.48/0.24	1.60/1.05	3.0/2.4	90 S	6200/4700	75/68	85
4550-GD-14 [F7 F8]	4/8	400 Y/Y	50	1375/700	1.50/0.33	3.30/1.80	4.2/2.6	90 L	9450/4700	88/68	79
4550-HD-14 [F9 F10]	6/12	400 Y/Y	50	965/460	0.55/0.12	2.00/0.88	4.1/1.8	90 L	6200/3000	75/57	82

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

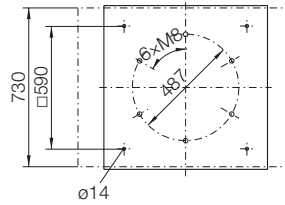
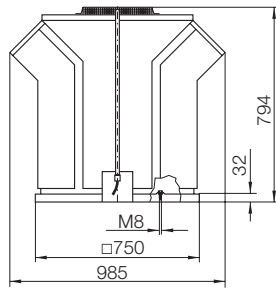
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
4550-4D-16	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-6D-11	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-ID-16	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-KD-13	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-GD-14	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-HD-14	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-4550, 400 °C – 120 min. RDM 57-4550, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-4550-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

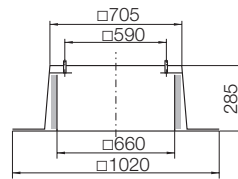
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

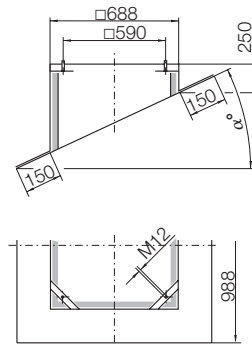
ZBS 03-0071 [Al/St - 600°C] 16 kg ⑥

Flat roof upstand



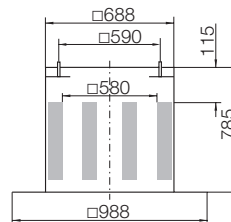
ZBS 04-0071-② [Al/St - 600°C] 9 kg ⑥

Inclined roof upstand



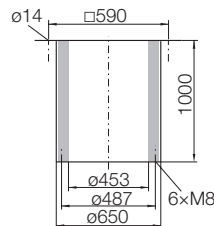
ZDS 32-0071 [St - 600°C] 79 kg

Upstand silencer



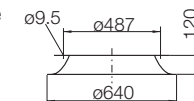
ZDR 30-0450 [600°C] 22 kg

Inlet silencer



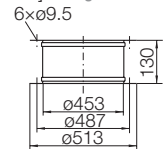
ZKD 01-0450 [600°C] 5 kg

Flanged inlet cone



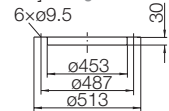
ZKE 30-0450 [600°C] 3.5 kg

Flexible inlet connection



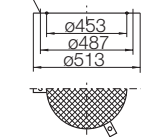
ZKF 11-0450 [600°C] 1.2 kg

Mating flange



ZSG 04-0450 [600°C] 0.7 kg

Mesh inlet guard



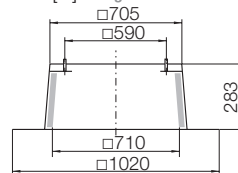
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0071 [Al] 8 kg

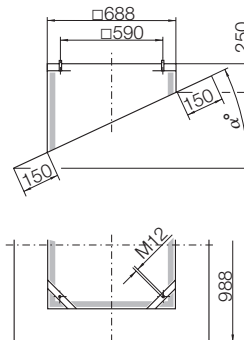
ZBS 20-0071 [St] 16 kg

Flat roof upstand



ZBS 09-0071-② [Al] 9 kg

Inclined roof upstand



RDM 56-4556, 400 °C – 120 min. RDM 57-4556, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

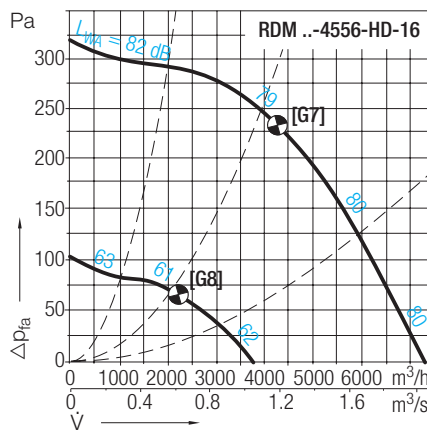
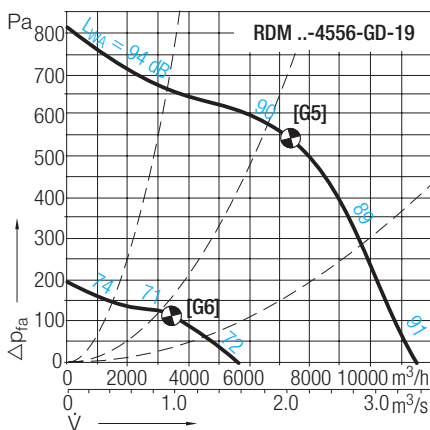
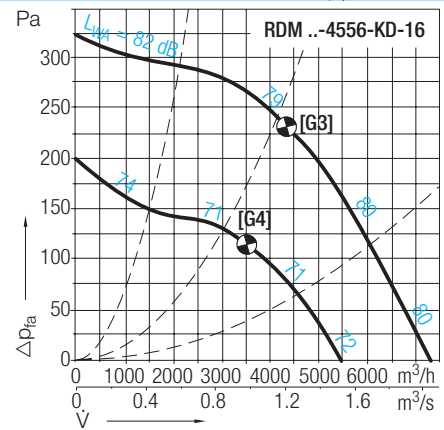
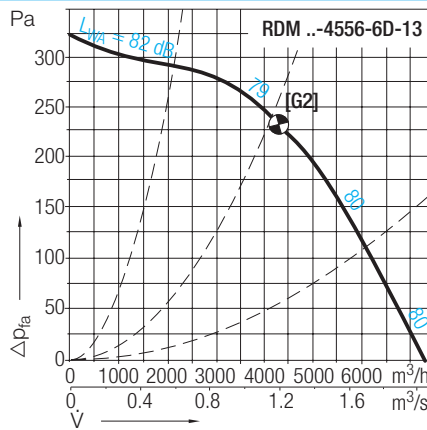
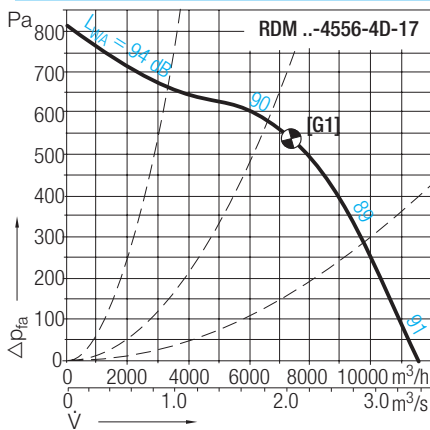
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA@} at V _{max}	Weight
			Hz	1/min	kW	A			m³/h	dB ⁽¹⁰⁾	kg
RDM 56-/57- ⑤		V (3~)									
4556-4D-17 [G2]	4	230/400 Δ/Y	50	1420	3.0	11.10/6.40	5.6	100 Lb	11400	91	100
4556-6D-13 [G3]	6	230/400 Δ/Y	50	915	0.75	3.60/2.05	3.7	90 S	7300	80	94
4556-KD-16 [G3 G4]	6/8	400 Y/Y	50	940/710	0.90/0.45	2.55/1.85	3.5/2.8	100 La	7300/5400	80/72	103
4556-GD-19 [G2 G4]	4/8	400 Y/Y	50	1440/720	3.60/0.90	8.0 /4.70	6.5/3.2	112 M	11400/5400	91/72	110
4556-HD-16 [G3 G5]	6/12	400 Y/Y	50	940/460	1.10/0.18	2.85/1.09	4.0/1.9	100 La	7300/3750	80/62	103

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

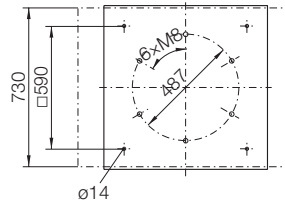
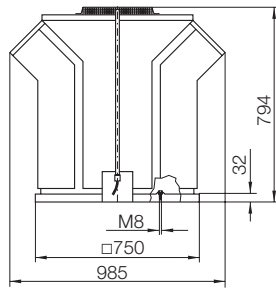
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
4556-4D-17	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4556-6D-13	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4556-KD-16	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4556-GD-19	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4556-HD-16	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-4556, 400 °C – 120 min. RDM 57-4556, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-4556-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

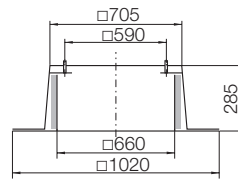
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

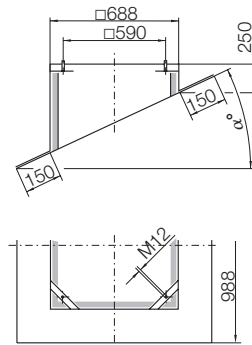
ZBS 03-0071 [Al/St - 600°C] 16 kg ⑥

Flat roof upstand



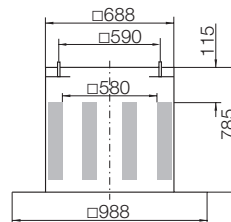
ZBS 04-0071-② [Al/St - 600°C] 9 kg ⑥

Inclined roof upstand



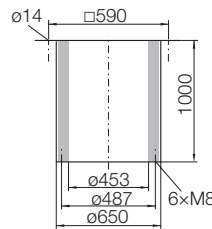
ZDS 32-0071 [St - 600°C] 79 kg

Upstand silencer



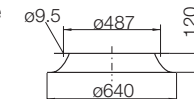
ZDR 30-0450 [600°C] 22 kg

Inlet silencer



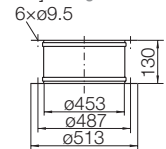
ZKD 01-0450 [600°C] 5 kg

Flanged inlet cone



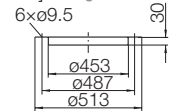
ZKE 30-0450 [600°C] 3.5 kg

Flexible inlet connection



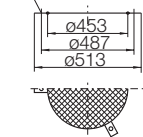
ZKF 11-0450 [600°C] 1.2 kg

Mating flange



ZSG 04-0450 [600°C] 0.7 kg

Mesh inlet guard



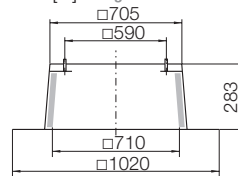
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0071 [Al] 8 kg

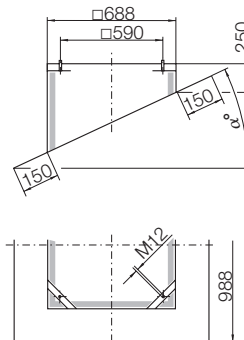
ZBS 20-0071 [St] 16 kg

Flat roof upstand



ZBS 09-0071-② [Al] 9 kg

Inclined roof upstand



RDM 56-5663, 400 °C – 120 min. RDM 57-5663, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

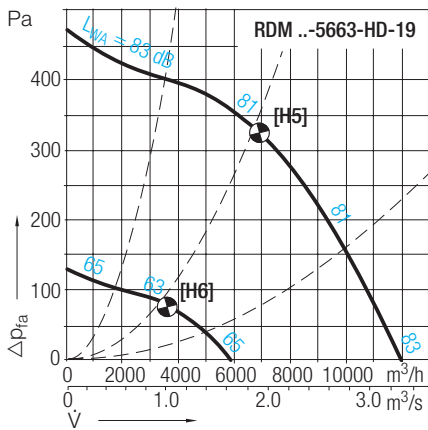
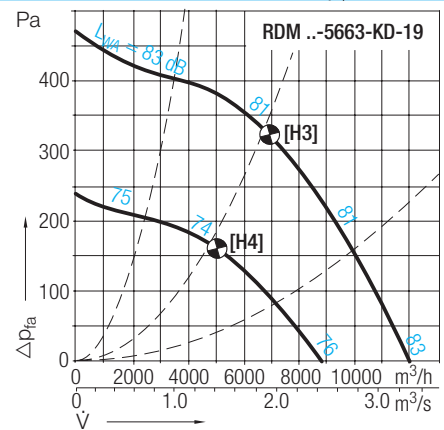
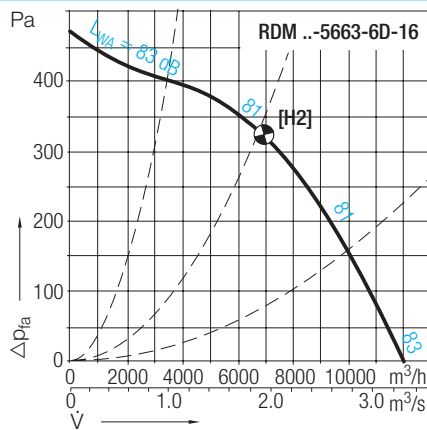
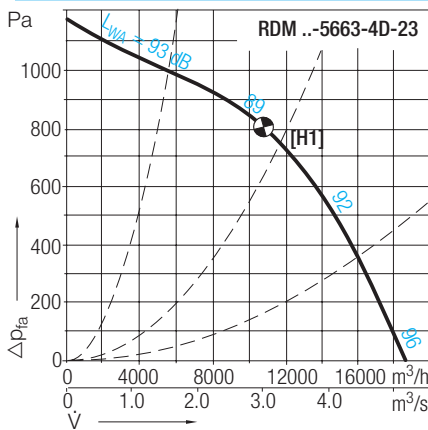
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m^3/h	dB ⑩	kg
5663-4D-23 [H1]	4	400 Δ	50	1455	7.5	15.20	6.7	132 Ma	18600	96	210
5663-6D-16 [H2]	6	230/400 Δ/Y	50	925	1.5	6.75/3.90	4.0	100 La	11900	83	181
5663-KD-19 [H3 H4]	6/8	400 Y/Y	50	940/700	2.2/1.0	5.45/3.05	4.4/3.2	112 M	11900/8700	83/76	211
5663-HD-19 [H5 H6]	6/12	400 Y/Y	50	955/450	1.8/0.45	5.10/2.00	4.5/2.9	112 M	11900/5900	83/65	199

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

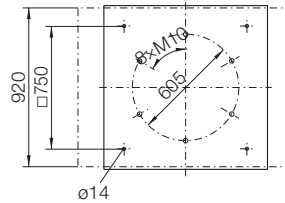
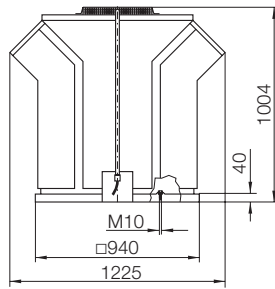
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
5663-4D-23	ESH 21-0075-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-6D-16	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-KD-19	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-HD-19	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-5663, 400 °C – 120 min. RDM 57-5663, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-5663-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

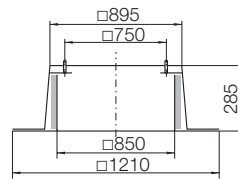
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

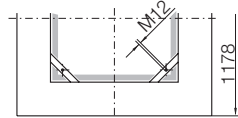
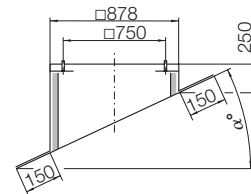
ZBS 03-0090 [Al/St - 600°C] 25 kg ⑥

Flat roof upstand



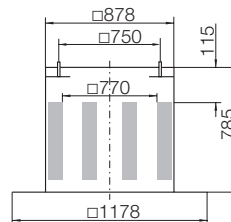
ZBS 04-0090-② [Al/St - 600°C] 13 kg ⑥

Inclined roof upstand



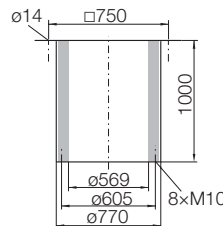
ZDS 32-0090 [St - 600°C] 105 kg

Upstand silencer



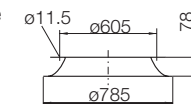
ZDR 30-0560 [600°C] 50 kg

Inlet silencer



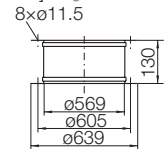
ZKD 01-0560 [600°C] 7.5 kg

Flanged inlet cone



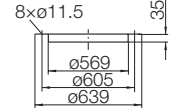
ZKE 30-0560 [600°C] 5 kg

Flexible inlet connection



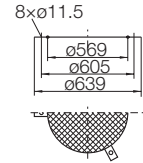
ZKF 11-0560 [600°C] 1.8 kg

Mating flange



ZSG 04-0560 [600°C] 0.8 kg

Mesh inlet guard



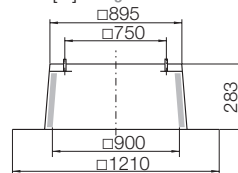
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0090 [Al] 13 kg

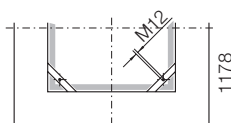
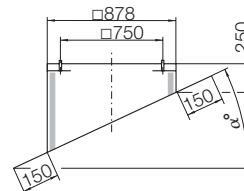
ZBS 20-0090 [St] 25 kg

Flat roof upstand



ZBS 09-0090-② [Al] 13 kg

Inclined roof upstand



RDM 56-5671, 400 °C – 120 min. RDM 57-5671, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

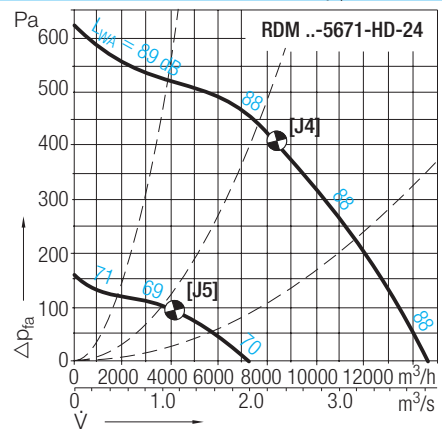
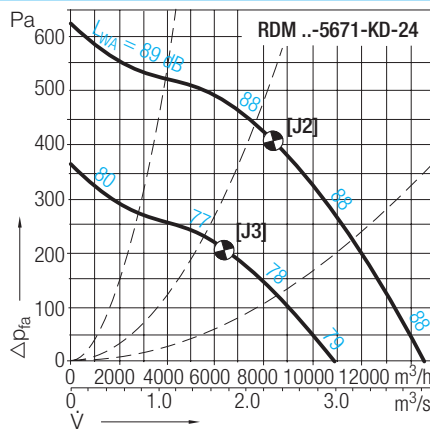
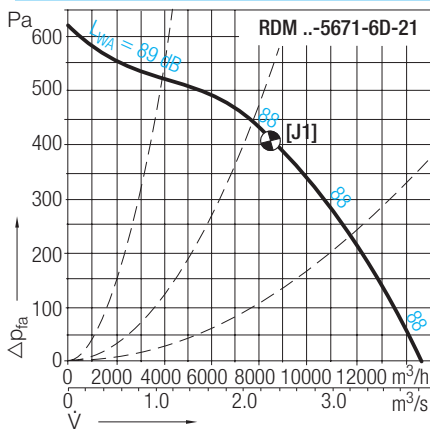
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
5671-6D-21 [J1]	6	230/400 Δ/Y	50	950	3.0	12.5/7.2	4.2	132 Sa	14500	88	190
5671-KD-24 [J2 J3]	6/8	400 Y/Y	50	950/715	3.5/1.7	8.5/5.4	4.5/4.5	132 Mb	14500/10800	88/79	199
5671-HD-24 [J4 J5]	6/12	400 YY/Y	50	965/480	3.3/0.7	6.8/2.5	4.7/2.5	132 Mb	14500/ 7400	88/70	216

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

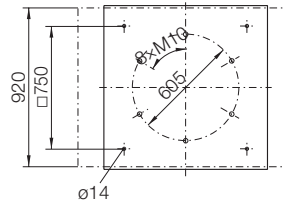
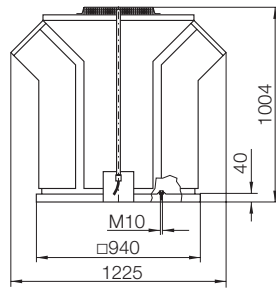
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
5671-6D-21	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5671-KD-24	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5671-HD-24	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-5671, 400 °C – 120 min. RDM 57-5671, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-5671-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

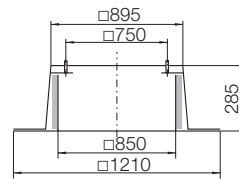
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

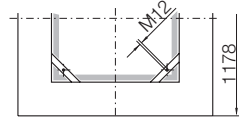
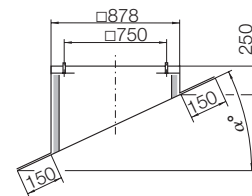
ZBS 03-0090 [Al/St - 600°C] 25 kg ⑥

Flat roof upstand



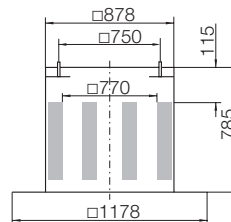
ZBS 04-0090-② [Al/St - 600°C] 13 kg ⑥

Inclined roof upstand



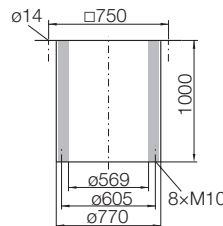
ZDS 32-0090 [St - 600°C] 105 kg

Upstand silencer



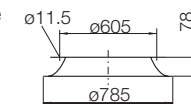
ZDR 30-0560 [600°C] 50 kg

Inlet silencer



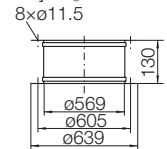
ZKD 01-0560 [600°C] 7.5 kg

Flanged inlet cone



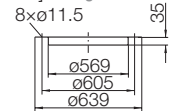
ZKE 30-0560 [600°C] 5 kg

Flexible inlet connection



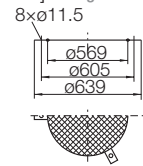
ZKF 11-0560 [600°C] 1.8 kg

Mating flange



ZSG 04-0560 [600°C] 0.8 kg

Mesh inlet guard



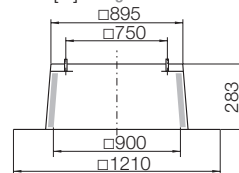
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0090 [Al] 13 kg

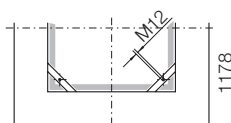
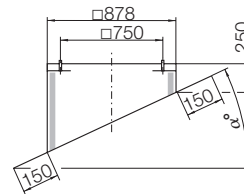
ZBS 20-0090 [St] 25 kg

Flat roof upstand



ZBS 09-0090-② [Al] 13 kg

Inclined roof upstand



RDM 56-7180, 400 °C – 120 min. RDM 57-7180, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

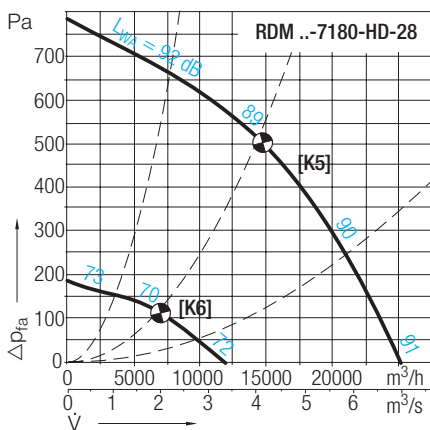
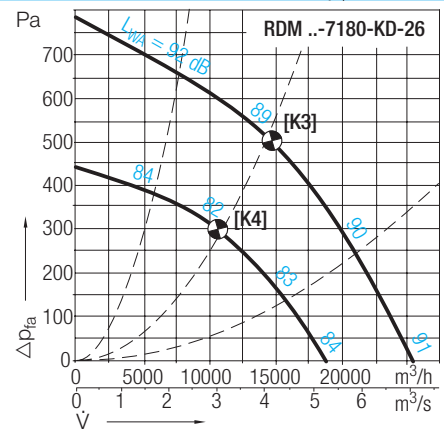
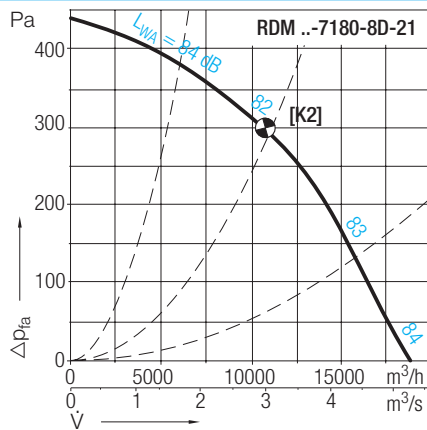
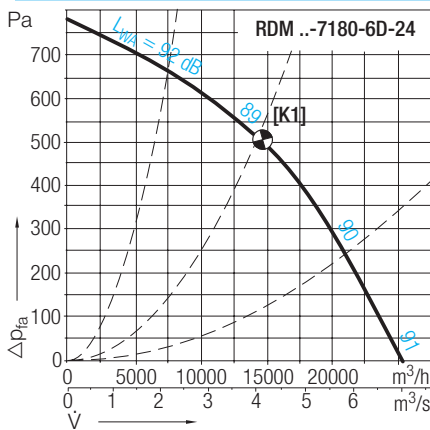
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
7180-6D-24 [K1]	6	400 Δ	50	950	5.5	12.6	5.0	132 Mb	25000	91	288
7180-8D-21 [K2]	8	230/400 Δ/Y	50	700	2.2	9.9/5.7	3.9	132 Sa	18800	84	300
7180-KD-26 [K3 K4]	6/8	400 Y/Y	50	965/730	5.5/2.5	12.0/6.7	5.1/4.5	160 Ma	25000/18800	91/84	320
7180-HD-28 [K5 K6]	6/12	400 Y/Y	50	975/485	6.2/1.3	12.5/4.1	5.0/2.6	160 L	25000/12000	91/72	348

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

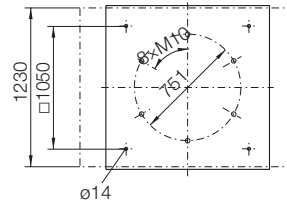
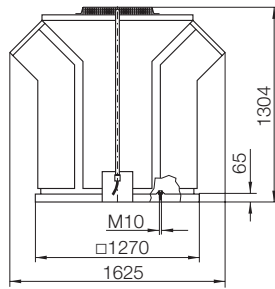
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
7180-6D-24	ESH 21-0075-32	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-8D-21	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-KD-26	ESH 21-0075-62	EBG 20-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-HD-28	ESH 21-0075-62	EBG 30-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-7180, 400 °C – 120 min. RDM 57-7180, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-7180..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

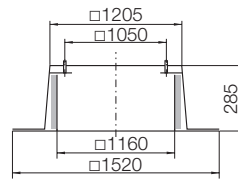
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

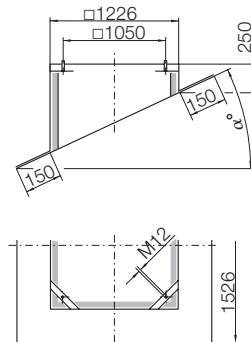
ZBS 03-0125 [Al/St - 600°C] 34 kg ⑥

Flat roof upstand



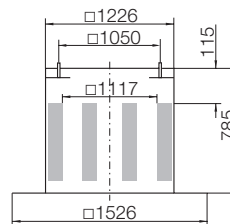
ZBS 04-0125-② [Al/St - 600°C] 18 kg ⑥

Inclined roof upstand



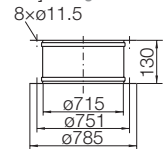
ZDS 32-0125 [St - 600°C] 180 kg

Upstand silencer



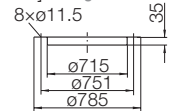
ZKE 30-0710 [600°C] 7.3 kg

Flexible inlet connection



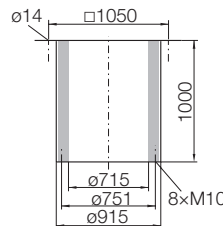
ZKF 11-0710 [600°C] 2.8 kg

Mating flange



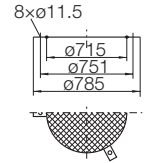
ZDR 30-0710 [600°C] 75 kg

Inlet silencer



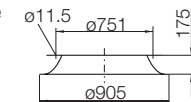
ZSG 04-0710 [600°C] 1.1 kg

Mesh inlet guard



ZKD 01-0710 [600°C] 10 kg

Flanged inlet cone



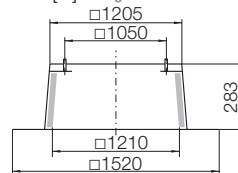
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0125 [Al] 17 kg

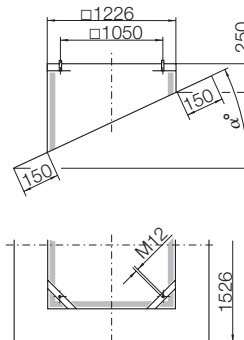
ZBS 20-0125 [St] 34 kg

Flat roof upstand



ZBS 09-0125-② [Al] 18 kg

Inclined roof upstand



RDM 56-7190, 400 °C – 120 min. RDM 57-7190, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

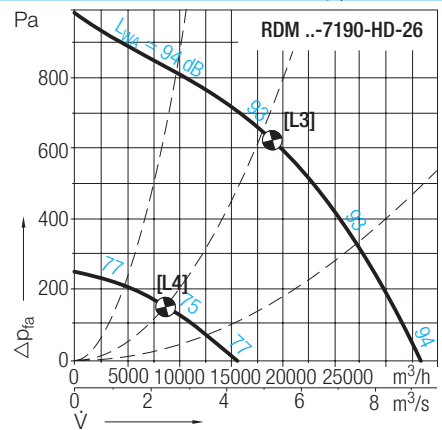
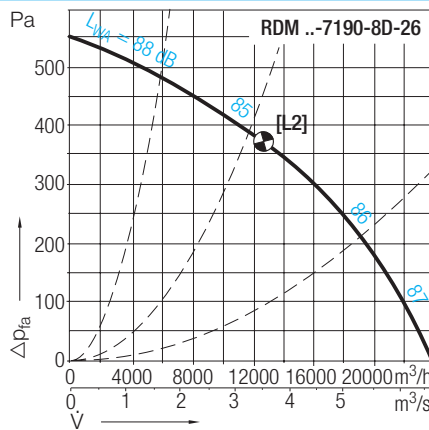
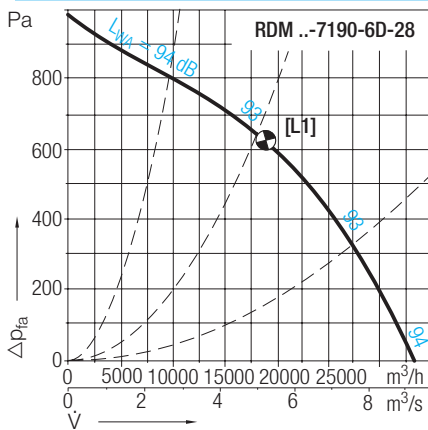
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
7190-6D-28 [L1]	6	400 Δ	50	960	9.0	19.4	4.8	160 L	33500	94	297
7190-8D-26 [L2]	8	400 Δ	50	715	4.0	10.0	4.5	160 Ma	24000	87	320
7190-HD-26 [L3 L4]	6/12	400 YY/Y	50	975/485	9.0/2.0	18.5/6.2	6.2/3.1	160 Ma	33500/15800	94/77	390

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

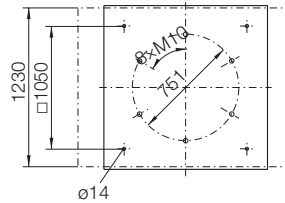
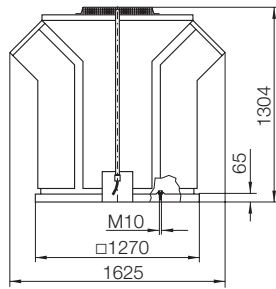
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
7190-6D-28	ESH 21-0110-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
7190-8D-26	ESH 21-0075-62	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
7190-HD-26	ESH 21-0110-62	EBG 30-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-7190, 400 °C – 120 min. RDM 57-7190, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-7190..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, centre structure can be swivelled, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

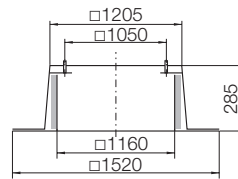
Accessories / Index

- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

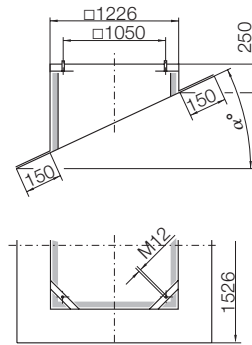
ZBS 03-0125 [Al/St - 600°C] 34 kg ⑥

Flat roof upstand



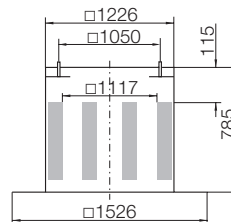
ZBS 04-0125-② [Al/St - 600°C] 18 kg ⑥

Inclined roof upstand



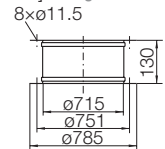
ZDS 32-0125 [St - 600°C] 180 kg

Upstand silencer



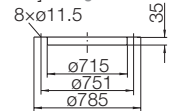
ZKE 30-0710 [600°C] 7.3 kg

Flexible inlet connection



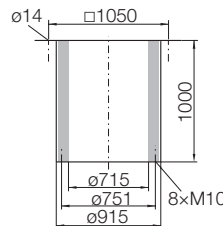
ZKF 11-0710 [600°C] 2.8 kg

Mating flange



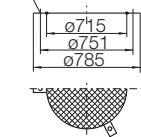
ZDR 30-0710 [600°C] 75 kg

Inlet silencer



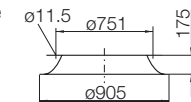
ZSG 04-0710 [600°C] 1.1 kg

Mesh inlet guard



ZKD 01-0710 [600°C] 10 kg

Flanged inlet cone



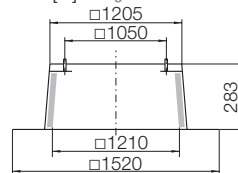
Accessories

for RDM 56 (400°C) with connected duct

ZBS 01-0125 [Al] 17 kg

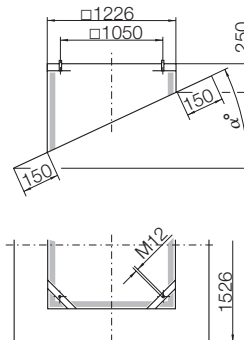
ZBS 20-0125 [St] 34 kg

Flat roof upstand



ZBS 09-0125-② [Al] 18 kg

Inclined roof upstand



RDM 56-9090, 400 °C – 120 min. RDM 57-9090, 600 °C – 120 min.

Technical Data in Class 2 acc. to DIN 24166

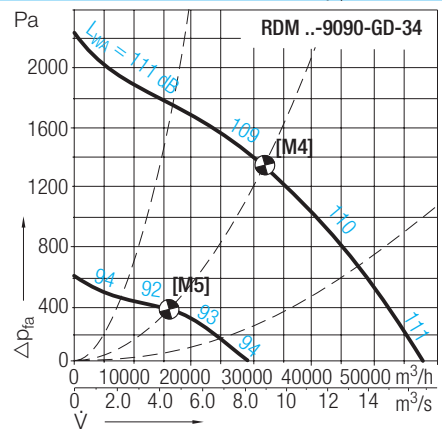
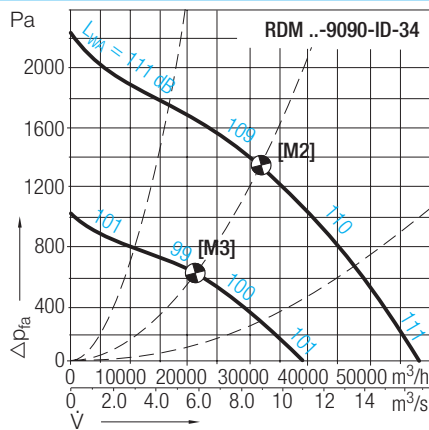
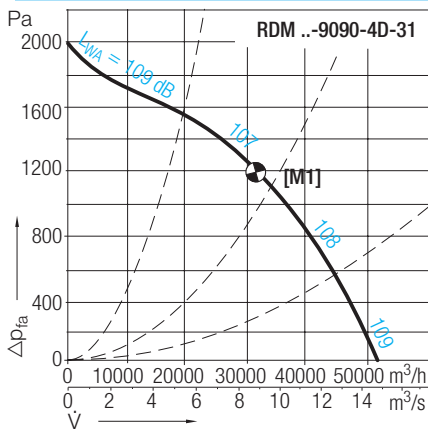
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RDM 56-/57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
9090-4D-31 [M1]	4	400 Δ	50	1460	22	41.5	7.5	180 L	51900	109	600
9090-ID-34 [M2 M3]	4/6	400 Y/Y	50	1470/980	26/9.5	49.0/20.0	5.5/5.3	200 L	57200/38200	111/101	640
9090-GD-34 [M4 M5]	4/8	400 YY/Y	50	1470/732	28/7.5	52.0/20.5	7.1/4.3	200 L	57200/28800	111/94	640

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels, the sound of the integrated discharge dampers are considered. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on side 207.

Curves in Class 2 acc. to DIN 24166

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake page 32 and discharge see page 33.

Accessories

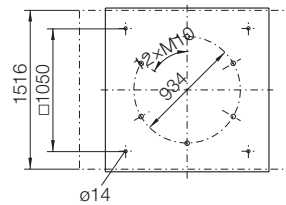
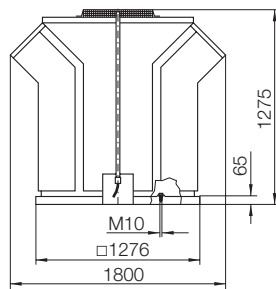
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
RDM 56-/57- ⑤	ESH ④	EBG	SSD	USB	HE ①
9090-4D-31	ESH 21-220-62	EBG 10-0220-8D	SSD 521	USB 501-1	HE 075 / HE 076
9090-ID-34	ESH 21-300-62	EBG 20-0260-8D	SSD 521	USB 501-1	HE 075 / HE 076
9090-GD-34	ESH 21-300-62	EBG 30-0280-8D	SSD 521	USB 501-1	HE 075 / HE 076

RDM 56-9090, 400 °C – 120 min. RDM 57-9090, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RDM 56-/57-9090-..



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 01 (RDM 56)
0036 CPD RG01 02 (RDM 57)

Smoke Extract Roof Fan *genovent*

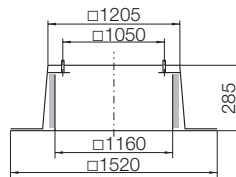
Vertical discharge, casing made of aluminium, integrated discharge back draught damper, side panel can be removed, motor fully out of main air stream, motor lead cable protected by a cable duct, loose mounting plate for isolator provided

Accessories / Index

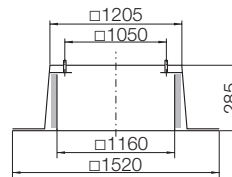
- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ② inclination possible up to 45° within steps of 5°
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑥ Upstand made of aluminium with thermal cladding and internal steel sheet structure

Accessories

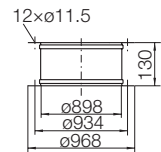
ZBS 31-0125 [Al/St - 400°C] 66 kg ⑥
Flat roof upstand for RDM 56



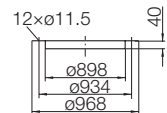
ZBS 33-0125 [Al/St - 600°C] 66 kg ⑥
Flat roof upstand for RDM 57



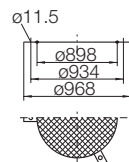
ZKE 33-0900 [600°C] 9 kg
Flexible inlet connection



ZKF 11-0900 [600°C] 3.4 kg
Mating flange



ZSG 04-0900 [600°C] 1.6 kg
Mesh inlet guard



Accessories

RDM 56-2528/-9090, 400 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 01

Smoke Extract Roof Fan *genovent*

ensuring a turbulence free discharge and suitable for smoke extraction in the case of fire up to

+400 °C - 120 minutes.

tested to DIN EN 12101-3, snow load class requirements SL 1000 assigned and CE-certified. Assigned for mounting over heated and unheated rooms.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

Fully enclosed stylish casing made of aluminium. Base frame made of galvanised steel for being fitted to an upstand providing extra space for integration of a thermal insulation, intake can be connected to ductwork by flange acc. DIN 24 155-2.

Discharge openings are weather protected at stand still by automatic back draught dampers.

Structure and motor-impeller unit can be swivelled out for easy service and maintenance (Sizes 2528 to 7190).

High performance centrifugal impeller with backward curved blades made of steel sheet, welded, coated, statically and dynamically balanced to DIN ISO 1940, fitted to an IEC motor, B5, protection IP 55.

The motor is located out of the main air stream; its additional cooling by outside air and a thermal protection is provided.

Feed cable protected by a cable duct and ready for direct connection. Loose mounting plate for isolator or connection box provided.

Data in Class 2 according to DIN 24 166.

Options (at choice)

- single speed (3~)
- two speed (3~)
- speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type *genovent* RDM 56-

Volume	$V =$	m ³ /h
Pressure increase	$\Delta p_{fa} =$	
Media temperature	$t =$	°C
Speed	$n =$	1/min
Nominal power	$P_N =$	kW
Nominal current	$I_N =$	A
Voltage/Frequency	$U/f =$	V/Hz
A-Sound power level	$L_{WA8} =$	dB
Weight	$m =$	kg

Special fittings (at extra cost)

Increased corrosion protection type S or K

Accessories (at extra cost)

Flat roof upstand –for high temperature (up to 9090)

Inclined roof upstand –for high temperature (up to 7190)

Flat roof upstand –standard (up to 7190),

can be used up to 400 °C when duct connected (ZBS 01 / ZBS 20)

Inclined roof upstand –standard (up to 7190),

can be used up to 400 °C when duct connected (ZBS 09)

Upstand silencer –for high temperature (up to 7190)

Inlet silencer –for high temperature (up to 7190)

Flanged inlet cone (up to 7190)

Flexible inlet connection –for high temperature (up to 9090)

Mating flange (up to 9090)

Mesh inlet guard (up to 9090)

Switches / Regulators / Controllers

Assignment see technical data

Specification see Accessories

Wiring diagrams see online at www.nicotra-gebhardt.com

RDM 57-2528/-9090, 600 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 02

Smoke Extract Roof Fan *genovent*

ensuring a turbulence free discharge and suitable for smoke extraction in the case of fire up to

+600 °C – 120 minutes.

tested to DIN EN 12101-3, snow load class requirements SL 1000 assigned and CE-certified. Assigned for mounting over heated and unheated rooms.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

Fully enclosed stylish casing made of aluminium. Base frame made of galvanised steel for being fitted to an upstand providing extra space for integration of a thermal insulation, intake can be connected to ductwork by flange acc. DIN 24 155-2.

Discharge openings are weather protected at stand still by automatic back draught dampers.

Structure and motor-impeller unit can be swivelled out for easy service and maintenance (Sizes 2528 to 7190). High performance centrifugal impeller with backward curved blades made of steel sheet, welded, coated, statically and dynamically balanced to DIN ISO 1940, fitted to an IEC motor, B5, protection IP 55.

The motor is located out of the main air stream; its additional cooling by outside air and a thermal protection is provided.

Feed cable protected by a cable duct and ready for direct connection.

Loose mounting plate for isolator or connection box provided.

Data in Class 2 according to DIN 24 166.

Options (at choice)

- single speed (3~)
- two speed (3~)
- speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type *genovent* RDM 57-

Volume	$\dot{V} =$	m ³ /h
Pressure increase	$\Delta p_{fa} =$	
Media temperature	$t =$	°C
Speed	$n =$	1/min
Nominal power	$P_N =$	kW
Nominal current	$I_N =$	A
Voltage/Frequency	$U/f =$	V/Hz
A-Sound power level	$L_{WA8} =$	dB
Weight	$m =$	kg

Special fittings (at extra cost)

higher corrosion protection S or K

Accessories (at extra cost)

- Flat roof upstand –for high temperature (up to 9090)
- Inclined roof upstand –for high temperature (up to 7190)
- Upstand silencer –for high temperature (up to 7190)
- Inlet silencer –for high temperature (up to 7190)
- Flanged inlet cone (up to 7190)
- Flexible inlet connection –for high temperature (up to 9090)
- Mating flange (up to 9090)
- Mesh inlet guard (up to 9090)

Switches / Regulators / Controllers

Assignment see technical data

Specification see Accessories

Wiring diagrams see online at www.nicotra-gebhardt.com

RDM 56-2528/-9090, 400 °C – 120 min. RDM 57-2528/-9090, 600 °C – 120 min.

Determination of the Octave level

For more exact calculations when determining the required attenuation, the sound power level in the octave bands is important.

Intake: $L_{W_{okt\ 3}} = L_{WA} + L_{W_{rel\ 3}}$

The relative sound power levels for the inlet side, at various duty points, can be read from the following table.

Inlet side

Relative sound power level for inlet side $L_{W_{rel\ 3}}$
at octave centre frequencies f_m [$L_{W_{rel\ 3}} = L_{W_{okt\ 3}} - L_{WA3}$]

RDM 56-/57- Poles	Operation Point	63	125	250	500	1000	2000	4000	8000	Hz
2528/-2531 2	0.5 \dot{V}_{opt}	16	12	3	-4	-13	-17	-20	-27	dB
	\dot{V}_{opt}	1	1	6	-3	-12	-14	-15	-24	dB
	\dot{V}_{max}	-2	-4	5	-3	-12	-16	-15	-19	dB
2528/-2531 4	0.5 \dot{V}_{opt}	13	12	2	-2	-10	-14	-19	-27	dB
	\dot{V}_{opt}	9	12	1	-3	-10	-13	-18	-27	dB
	\dot{V}_{max}	4	10	1	-2	-10	-13	-15	-23	dB
3535/-3545 4	0.5 \dot{V}_{opt}	13	11	2	-2	-11	-16	-21	-27	dB
	\dot{V}_{opt}	9	11	1	-2	-11	-16	-20	-24	dB
	\dot{V}_{max}	6	9	2	-1	-12	-17	-19	-21	dB
3535/-3545 6	0.5 \dot{V}_{opt}	16	10	1	-1	-10	-16	-22	-27	dB
	\dot{V}_{opt}	14	11	2	-2	-11	-17	-22	-29	dB
	\dot{V}_{max}	11	13	3	-1	-12	-17	-21	-29	dB
3535/-3545 8	0.5 \dot{V}_{opt}	19	4	1	-1	-7	-15	-24	-29	dB
	\dot{V}_{opt}	20	2	2	-2	-6	-15	-22	-30	dB
	\dot{V}_{max}	22	2	2	-3	-13	-19	-22	-32	dB
4550/-4556 4	0.5 \dot{V}_{opt}	14	10	1	-2	-11	-14	-15	-22	dB
	\dot{V}_{opt}	9	12	0	-3	-11	-15	-15	-21	dB
	\dot{V}_{max}	3	9	1	-2	-12	-16	-16	-12	dB
4550/-4556 6	0.5 \dot{V}_{opt}	15	11	1	-2	-11	-15	-16	-23	dB
	\dot{V}_{opt}	11	13	-1	-4	-12	-16	-17	-25	dB
	\dot{V}_{max}	7	15	3	-1	-10	-14	-12	-21	dB
4550/-4556 8	0.5 \dot{V}_{opt}	19	5	1	-2	-8	-14	-18	-25	dB
	\dot{V}_{opt}	20	4	0	-3	-7	-14	-17	-26	dB
	\dot{V}_{max}	19	4	2	-3	-11	-16	-13	-28	dB
5663/-5671 4	0.5 \dot{V}_{opt}	10	9	3	-4	-9	-14	-16	-23	dB
	\dot{V}_{opt}	5	9	1	-6	-8	-13	-12	-17	dB
	\dot{V}_{max}	-3	5	-2	-3	-6	-10	-11	-12	dB
5663/-5671 6	0.5 \dot{V}_{opt}	14	11	1	-2	-9	-14	-16	-23	dB
	\dot{V}_{opt}	11	12	-1	-4	-10	-15	-16	-22	dB
	\dot{V}_{max}	7	13	1	-2	-9	-13	-10	-15	dB
5663/-5671 8	0.5 \dot{V}_{opt}	15	5	1	-1	-8	-13	-16	-23	dB
	\dot{V}_{opt}	15	3	0	-2	-7	-11	-15	-22	dB
	\dot{V}_{max}	15	3	1	-3	-9	-13	-11	-23	dB
5663/-5671 12	0.5 \dot{V}_{opt}	16	4	1	-1	-7	-13	-16	-23	dB
	\dot{V}_{opt}	17	3	0	-1	-7	-10	-18	-23	dB
	\dot{V}_{max}	18	7	1	-3	-9	-12	-15	-27	dB
7180/-9090 6	0.5 \dot{V}_{opt}	15	11	1	-2	-10	-14	-16	-23	dB
	\dot{V}_{opt}	11	13	-1	-4	-11	-15	-17	-23	dB
	\dot{V}_{max}	7	14	3	-1	-10	-13	-12	-19	dB
7180/-9090 8	0.5 \dot{V}_{opt}	15	5	1	-2	-8	-14	-17	-24	dB
	\dot{V}_{opt}	15	4	0	-3	-7	-13	-15	-24	dB
	\dot{V}_{max}	15	3	1	-3	-9	-14	-13	-25	dB
7180/-9090 12	0.5 \dot{V}_{opt}	16	4	1	-2	-7	-14	-17	-24	dB
	\dot{V}_{opt}	17	4	0	-2	-7	-12	-18	-25	dB
	\dot{V}_{max}	18	7	1	-3	-10	-13	-15	-29	dB

$L_{WA} = L_{WA8} = L_{WA3}$

In some cases the octave sound power figures may be higher than the indicated table values due to the blade passing frequency.

RDM 56-2528/-9090, 400 °C – 120 min. RDM 57-2528/-9090, 600 °C – 120 min.

Determination of the Octave level

For more exact calculations when determining the required attenuation, the sound power level in the octave bands is important.

Discharge: $L_{Wokt\ 8} = L_{WA} + L_{Wrel\ 8}$

The relative sound power levels for the discharge side, at various duty points, can be read from the following table.

Discharge side

Relative sound power level for discharge side $L_{Wrel\ 8}$
at octave centre frequencies f_m [$L_{Wrel\ 8} = L_{Wokt\ 8} - L_{WA\ 8}$]

RDM 56-/57- Poles	Operation Point	63	125	250	500	1000	2000	4000	8000	Hz
2528/-2531 2	0.5 \dot{V}_{opt}	-5	0	0	-2	-5	-8	-12	-19	dB
	\dot{V}_{opt}	-8	-6	-1	-3	-6	-8	-9	-17	dB
	\dot{V}_{max}	-9	-8	-3	-2	-6	-8	-8	-15	dB
2528/-2531 4	0.5 \dot{V}_{opt}	-2	0	-2	-3	-5	-8	-13	-21	dB
	\dot{V}_{opt}	-5	0	-2	-3	-5	-7	-13	-21	dB
	\dot{V}_{max}	-10	-1	-4	-3	-5	-6	-12	-19	dB
3535/-3545 4	0.5 \dot{V}_{opt}	-3	4	-1	-4	-6	-7	-12	-20	dB
	\dot{V}_{opt}	-6	4	-1	-4	-6	-7	-12	-19	dB
	\dot{V}_{max}	-10	4	-1	-3	-6	-7	-13	-17	dB
3535/-3545 6	0.5 \dot{V}_{opt}	1	6	0	-3	-6	-9	-16	-25	dB
	\dot{V}_{opt}	-1	6	0	-4	-6	-9	-15	-25	dB
	\dot{V}_{max}	-1	6	1	-3	-6	-8	-13	-25	dB
3535/-3545 8	0.5 \dot{V}_{opt}	6	6	-2	-3	-4	-11	-19	-28	dB
	\dot{V}_{opt}	6	5	-2	-4	-4	-9	-17	-28	dB
	\dot{V}_{max}	10	3	-1	-4	-4	-9	-15	-27	dB
4550/-4556 4	0.5 \dot{V}_{opt}	1	5	0	-4	-5	-9	-12	-20	dB
	\dot{V}_{opt}	-4	8	-1	-5	-6	-9	-12	-19	dB
	\dot{V}_{max}	-8	8	-2	-4	-6	-9	-15	-12	dB
4550/-4556 6	0.5 \dot{V}_{opt}	2	4	1	-4	-5	-7	-13	-22	dB
	\dot{V}_{opt}	0	4	0	-4	-6	-8	-13	-22	dB
	\dot{V}_{max}	-4	6	1	-3	-6	-8	-12	-22	dB
4550/-4556 8	0.5 \dot{V}_{opt}	7	4	-1	-4	-4	-9	-16	-25	dB
	\dot{V}_{opt}	7	3	-2	-4	-4	-8	-15	-25	dB
	\dot{V}_{max}	7	3	-1	-5	-4	-9	-14	-24	dB
5663/-5671 4	0.5 \dot{V}_{opt}	2	5	2	-3	-6	-9	-15	-20	dB
	\dot{V}_{opt}	-3	5	0	-4	-6	-9	-11	-14	dB
	\dot{V}_{max}	-10	2	-4	-4	-4	-8	-12	-15	dB
5663/-5671 6	0.5 \dot{V}_{opt}	2	3	0	-3	-5	-8	-13	-21	dB
	\dot{V}_{opt}	1	3	-1	-4	-5	-8	-12	-19	dB
	\dot{V}_{max}	-3	4	-1	-4	-6	-8	-11	-16	dB
5663/-5671 8	0.5 \dot{V}_{opt}	4	1	-1	-3	-5	-8	-15	-22	dB
	\dot{V}_{opt}	4	0	-2	-3	-5	-8	-14	-23	dB
	\dot{V}_{max}	3	2	0	-2	-8	-9	-8	-23	dB
5663/-5671 12	0.5 \dot{V}_{opt}	8	3	-1	-3	-5	-9	-16	-25	dB
	\dot{V}_{opt}	7	2	-1	-3	-5	-9	-15	-26	dB
	\dot{V}_{max}	6	2	-1	-2	-6	-9	-13	-26	dB
7180/-9090 6	0.5 \dot{V}_{opt}	2	4	1	-4	-5	-8	-13	-21	dB
	\dot{V}_{opt}	1	4	0	-4	-6	-8	-13	-21	dB
	\dot{V}_{max}	-3	4	0	-3	-6	-8	-12	-20	dB
7180/-9090 8	0.5 \dot{V}_{opt}	3	1	-1	-3	-6	-8	-15	-23	dB
	\dot{V}_{opt}	3	0	-2	-3	-5	-8	-14	-23	dB
	\dot{V}_{max}	3	2	0	-3	-6	-9	-10	-23	dB
7180/-9090 12	0.5 \dot{V}_{opt}	7	3	-1	-3	-6	-9	-16	-26	dB
	\dot{V}_{opt}	6	1	-1	-3	-5	-9	-15	-26	dB
	\dot{V}_{max}	6	1	-1	-3	-5	-9	-15	-26	dB

$L_{WA} = L_{WA8} = L_{WA3}$

In some cases the octave sound power figures may be higher than the indicated table values due to the blade passing frequency.

RDM 56, 400 °C – 120 min.
RDM 57, 600 °C – 120 min.

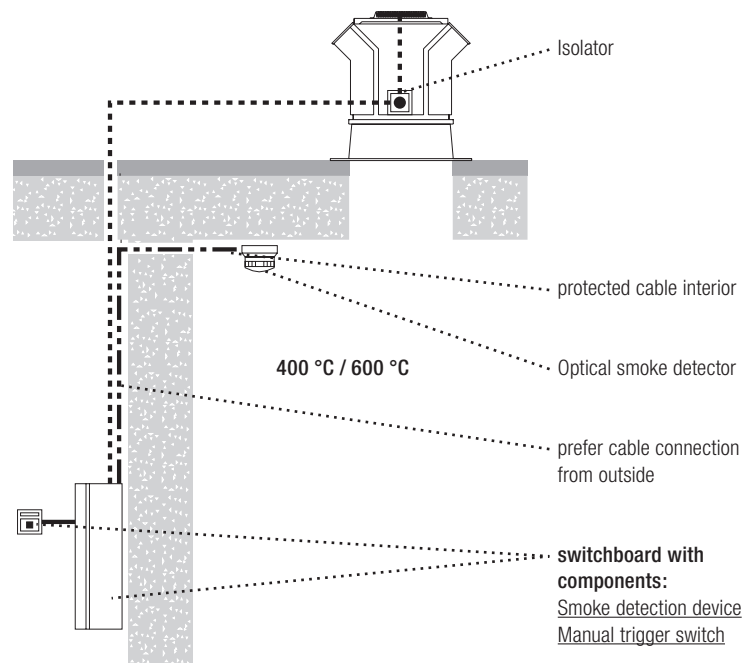
Notes

The smoke extract roof fans are supplied ready for installation. They are provided with a feed cable leading out of the fan through a protecting metal tube serving as a cable duct and ending at the base frame or mounting plate for the isolator.

In the case of fire the tube will prevent the cable to be overheated by the fan surface. A lockable isolator can be supplied as an accessory. The isolator will be used when service or maintenance works need a safe disconnection from the mains. It can be fitted to the mounting plate which is a standard part of the supply.

Please take special care for a fire safe installation of the feed cable for smoke extract fans!

The installation over the roof through areas with less fire hazard may be preferred. The electrical connection has to be made according to the certification specification and to local regulations. Every fan is supplied with a wiring diagram explaining the correct connection.



Mounting instructions



Smoke extract roof fans are designed for being fitted on an upstand. They must be fitted without an inclination. A compensation of a roof slope may be realised with an upstand made for inclined roof.

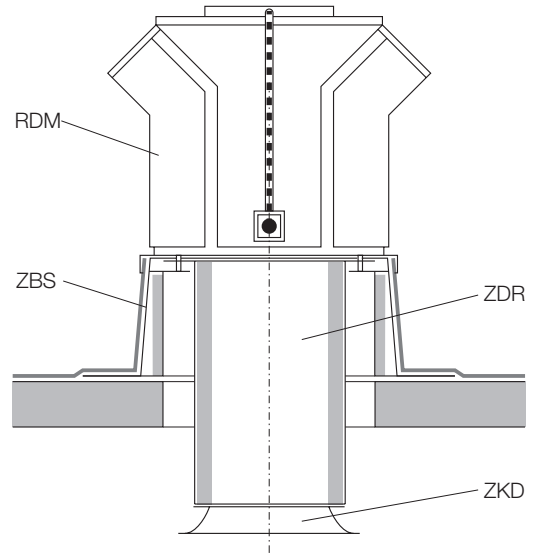
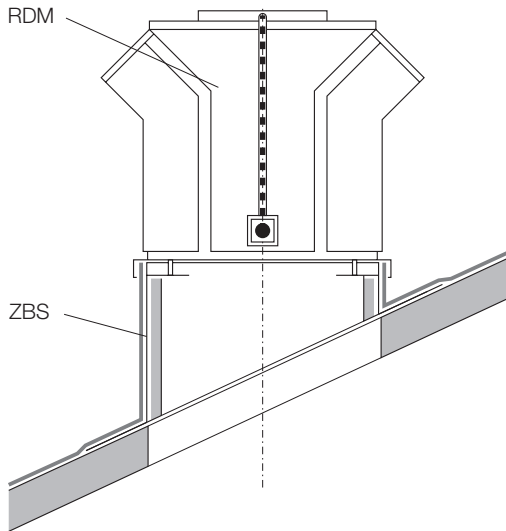
RDM 56, 400 °C – 120 min.

RDM 57, 600 °C – 120 min.

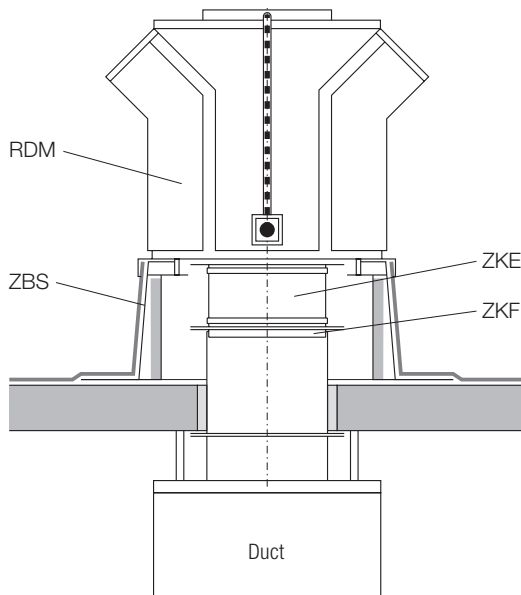
Notes

Inclined roof upstand and free inlet

Inlet silencer with flanged inlet cone



Ducted tube



Special fittings

Corrosion protection

All fans in standard execution are made of corrosion resistant material or they are provided with a basic corrosion protection.

This corrosion protection satisfies to the usual corrosion resistance requirements in most cases.

If there are higher corrosion loads during ventilation operation, Nicotra Gebhardt can provide extra corrosion protection to the fan by applying a special powder coating (RAL 7039) on all fan parts.

Detailed specification see www.nicotra-gebhardt.com

Special paint

Painting of the fan with special colours (RAL) on request.

RDM 56, 400 °C – 120 min. RDM 57, 600 °C – 120 min.

Flat roof upstand

ZBS 03-0040/-0125 [Al/St - 600°C]
ZBS 31-0125 [Al/St - 400°C]
ZBS 33-0125 [Al/St - 600°C]

Flat roof upstand for smoke extract roof fans made of aluminium equipped with thermal insulation and an internal supporting structure made of painted steel sheet. ZBS 03 and ZBS 33 for 600 °C, ZBS 31 for 400 °C.



The standard upstand **ZBS 01** made of aluminium and **ZBS 20** made of steel sheet may only be used for smoke extract roof fans **RDM 56** when having a duct fitted at intake.

Inclined roof upstand

ZBS 04-0040/-0125-** [Al/St - 600°C]

Inclined roof upstand for smoke extract roof fans made of aluminium equipped with thermal insulation and an internal supporting structure made of painted steel sheet. Available up to a roof slope of 45° and inclination adaptable by 5° steps.



Specification example:

ZBS 04-0040-30 inclined roof upstand for RDM 56-2528-4D-10 and a roof slope of 30°.

The standard upstand **ZBS 09** made of aluminium may only be used for smoke extract roof fans RDM 56 when having a duct fitted at intake.

Upstand silencer

ZDS 32-0040/-0125 [Al/St - 600°C]

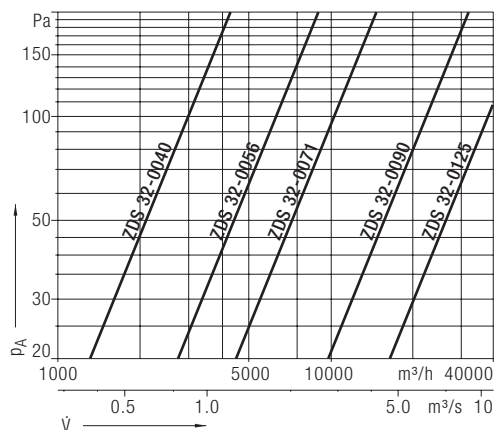
Upstand silencer made of coated steel sheet.

All baffles are clad with perforated galvanised steel sheet filled with acoustically effective and fire resistant lining.

ZDS ..-0040 and ZDS ..-0056 are equipped with removable baffles.



Pressure drop



Noise reduction values

ZDS 32-	average noise reduction dB	Noise reduction in dB at centre frequencies in Hz							
		63	125	250	500	1000	2000	4000	8000
0040	16	3	5	8	13	19	23	21	15
0056	16	3	5	8	12	18	21	20	15
0071	17	3	5	9	13	20	25	22	17
0090	15	2	5	8	11	17	21	19	13
0125	16	3	6	8	14	20	25	23	11

RDM 56, 400 °C – 120 min.

RDM 57, 600 °C – 120 min.

Inlet silencer

ZDR 30-0250/-0710 [600°C]



The intake tube silencer is provided with a square flange at discharge suitable for direct fitting to the roof fan upstand. The silencer is part wise going inside the upstand. At intake a connecting duct or an intake cone can be fitted.

The casing is made of galvanised steel sheet, the internal cladding made of fire resistant, acoustically effective attenuation lining hold by perforated galvanised steel tube.

As there is no internal centre baffle the pressure loss can be neglected.

Noise reduction values

ZDR 30-	average noise reduction dB	Noise reduction in dB at centre frequencies in Hz							
		63	125	250	500	1000	2000	4000	8000
0250	7	0	3	5	10	14	13	8	7
0355	8	2	4	6	12	16	14	10	8
0450	12	2	4	8.5	17	20	15	12	10
0560	13	3	5	9	17	21	15	12	10
0710	13	3	5	10	18	22	16	12	10

Flanged inlet cone

ZKD 01-0250/-0710 [600°C]



The flanged inlet cone is for mounting under the inlet silencer, farthest from the unit, if no additional ducting is planned.

This improves the intake flow environment and reduces losses.

Flexible inlet connection

ZKE 30-0250/-0710 [600°C]

ZKE 33-0900 [600°C]



The intake cone with flange has to be fitted to the intake silencer if no further duct connection is provided. This will reduce pressure losses by improving the intake air flow.

Mating flange

ZKF 11-0250/-0900 [600°C]



Flexible connectors for Smoke Extract Roof Fans will avoid transmission of noise and vibrations to further installation components. The flange dimensions correspond to DIN 24 155-2.

Mesh inlet guard

ZSG 04-0250/-0900 [600°C]



Connecting flange to ductwork at the suction side of the roof fan.

The flange dimensions correspond to DIN 24 155-2.

The integrated wall-mounted smoke extraction solution:

The days when unsightly smoke extractors marred the whole façade of a building are over.

With its flexible smoke extractor wall fan, Nicotra Gebhardt shows how unobtrusively fans can be integrated into walls.



RWM 57

RWM range with an IEC-compliant motor
low rate up to 37,000 m³/h
600 °C – 120 min.
No. 0036 CPD RG 01 03

Designed to maintain an attractive façade.

The RWM is specially designed for integration into façades. It eliminates the need to invest in a complex system of ducts, and its tailor-made accessories make it very easy to install.

The RWM offers a range of architectural design options and is streets ahead of its competitors.



The technical details are the secret behind its perfection

- The whole range has CE certification.
- During smoke extraction, the RWM 57 conveys media up to 600 °C for 120 min.
- Temperatures up to +80 °C are approved for permanent ventilation.
- Conveys flow rates of up to 37,000 m³/h at pressure of up to 1,000 Pa.
- The air output is horizontal.
- The casing and all components subject to strain are made of galvanised or coated sheet steel.
- A variable range of motors offers flexible drive options.
- The add-on motor is completely separate from the airflow.
- The output opening is fitted with a protective grille.
- A pipe connection in line with DIN 24 155-2 is fitted on the suction side.
- The connecting cable comes without a plug for ease of installation.
- The RWM 57 is supplied with tested accessories for integration into the façade and connection to the duct system.
- A specially designed system of electrical components including smoke detector switchgear, an optical smoke detector and a manual trigger button rounds off the range of accessories.

RWM 57-2528, 600 °C – 120 min.

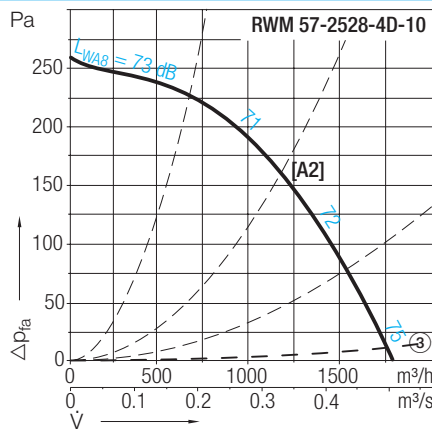
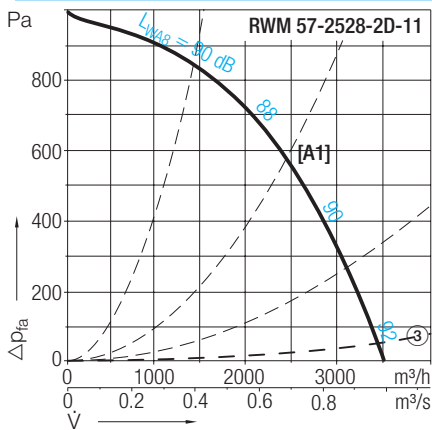
Technical Data

Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@}$ at V_{max}	Weight
RWM 57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
2528-2D-11 [A1]	2	230/400 Δ/Y	50	2845	1.10	4.17/2.4	6.1	80 b	3500	92	42
2528-4D-10 [A2]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 a	1800	75	40

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
2528-2D-11	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
2528-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-2528, 600 °C – 120 min.

Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

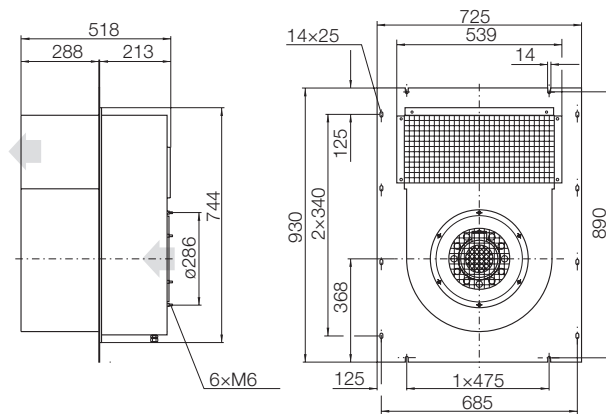
Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories / Index

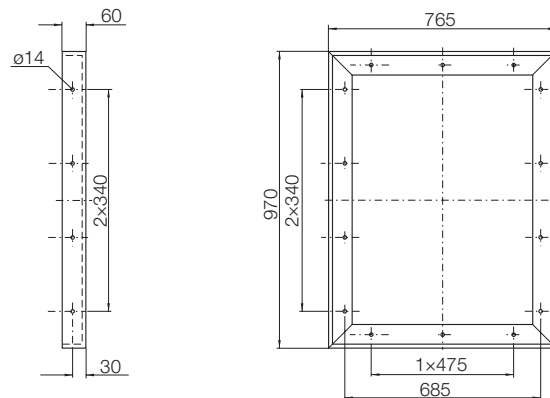
- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

RWM 57-2528-..



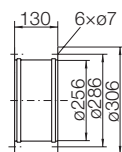
Accessories

EBR 01-2528 [St] 16 kg
 Mounting frame

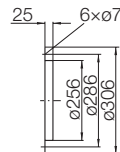


Accessories (Inlet)

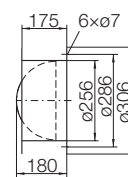
ZKE 30-0250 [600°C] 1.7 kg
 Flexible inlet connection



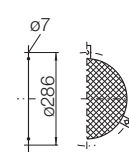
ZKF 11-0250 [600°C] 0.6 kg
 Mating flange



ZLK 50-0250 [600°C] 2 kg
 Automatic shutter



ZSG 04-0250 [600°C] 0.4 kg
 Mesh inlet guard



RWM 57-3540, 600 °C – 120 min.

Technical Data

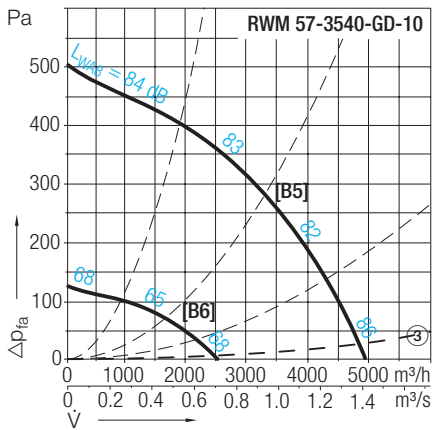
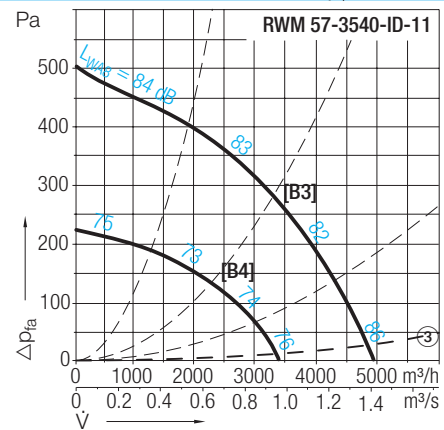
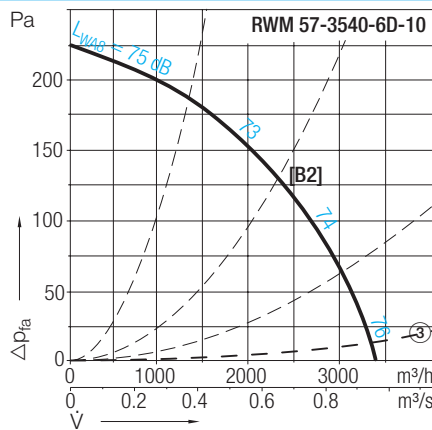
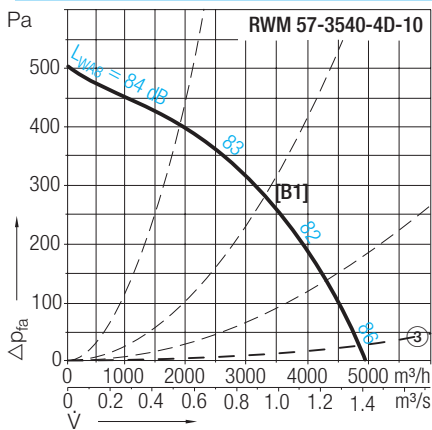
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@V_{max}}$	Weight
RWM 57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
3540-4D-10 [B1]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 a	5000	86	62
3540-6D-10 [B2]	6	230/400 Δ/Y	50	920	0.37	2.09/1.2	3.1	80 a	3400	76	61
3540-ID-11 [B3 B4]	4/6	400 Y/Y	50	1420/930	0.55/0.18	1.62/0.73	4.0/2.5	80 b	5000/3400	86/76	63
3540-GD-10 [B5 B6]	4/8	400 Y/Y	50	1375/680	0.50/0.1	1.28/0.57	4.1/2.3	80 a	5000/2500	86/68	62

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

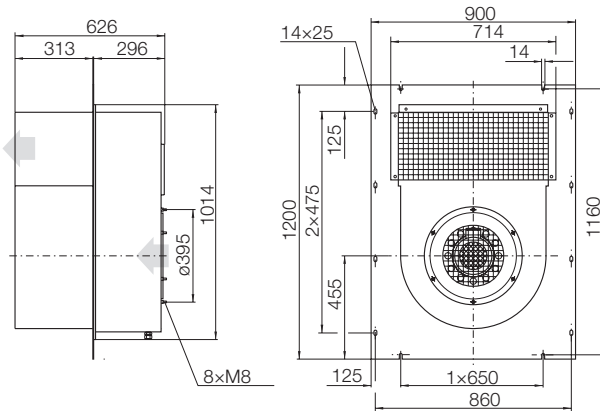
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
3540-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-6D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-ID-11	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3540-GD-10	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-3540, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-3540-..



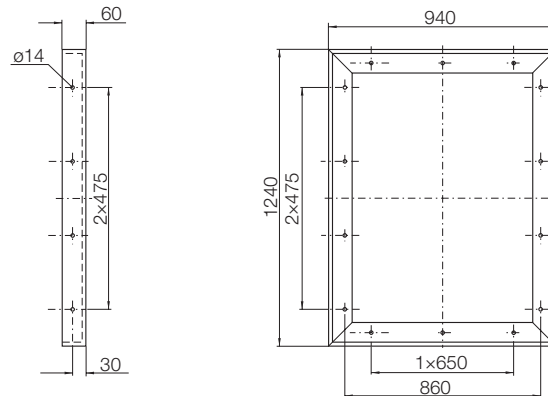
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-3540 [St] 20 kg
 Mounting frame

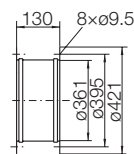


Accessories / Index

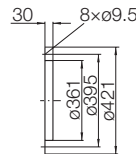
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

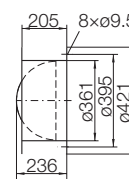
ZKE 30-0355 [600°C] 2.1 kg
 Flexible inlet connection



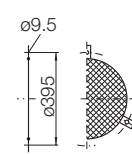
ZKF 11-0355 [600°C] 0.9 kg
 Mating flange



ZLK 50-0355 [600°C] 7 kg
 Automatic shutter



ZSG 04-0355 [600°C] 0.6 kg
 Mesh inlet guard



RWM 57-4045, 600 °C – 120 min.

Technical Data

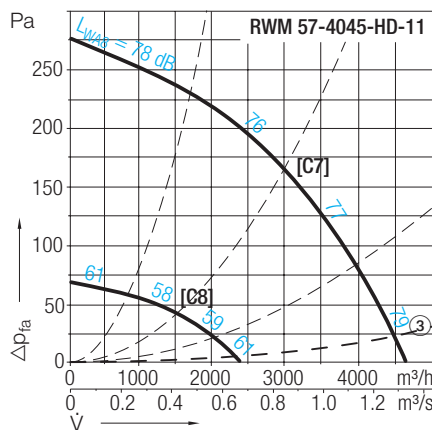
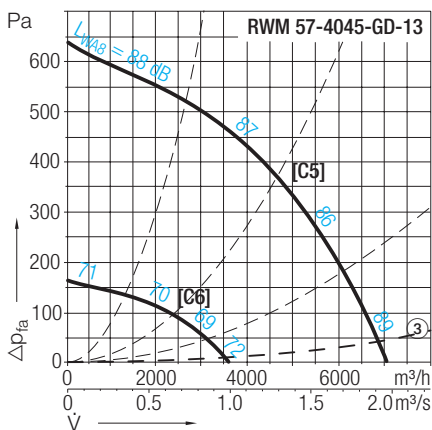
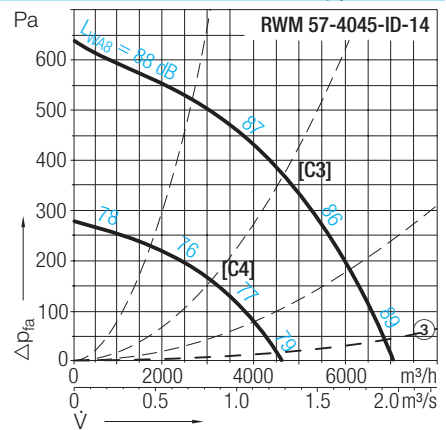
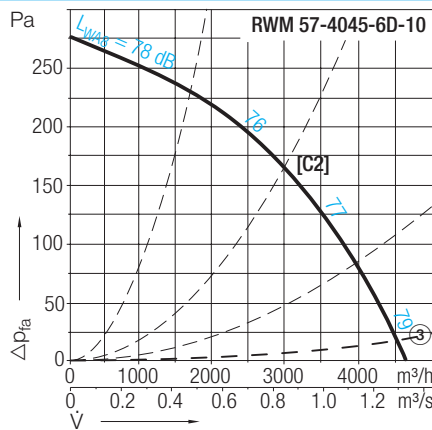
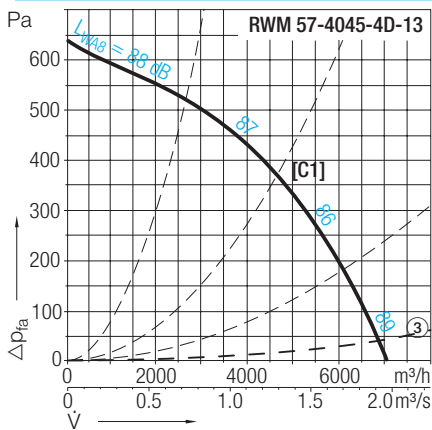
	Curves	Poles	Voltage/Connection	Fre-quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA9} at V _{max}	Weight
RWM 57- ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
4045-4D-13	[C1]	4	230/400 Δ/Y	50	1415	1.1	4.40/2.55	4.6	90 S	7000	89	83
4045-6D-10	[C2]	6	230/400 Δ/Y	50	920	0.37	2.09/1.2	3.1	80 a	4700	79	78
4045-ID-14	[C3 C4]	4/6	400 Y/Y	50	1430/955	1.10/0.38	2.65/1.33	4.9/3.8	90 L	7000/4600	89/79	85
4045-GD-13	[C5 C6]	4/8	400 Y/Y	50	1370/695	1.00/0.22	2.40/1.25	3.7/2.4	90 S	7000/3600	89/72	83
4045-HD-11	[C7 C8]	6/12	400 Y/Y	50	935/425	0.30/0.075	1.00/0.44	3.5/1.9	80 b	4700/2300	79/61	82

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

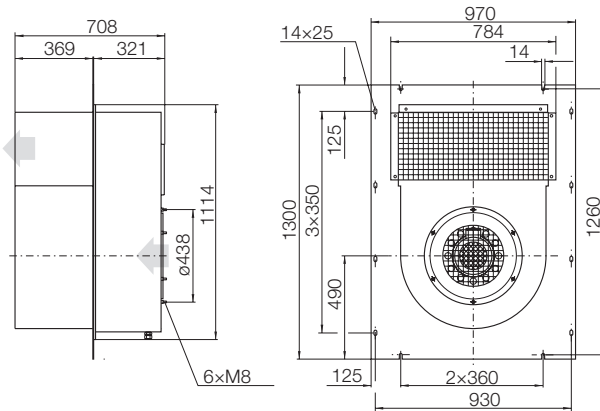
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
4045-4D-13	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-6D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-ID-14	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-GD-13	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-HD-10	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-4045, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-4045-..



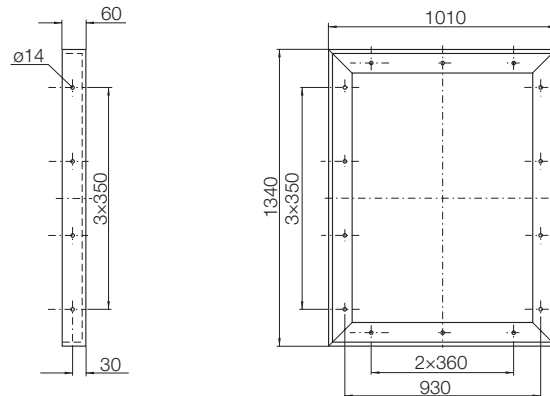
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-4045 [St] 22 kg
 Mounting frame

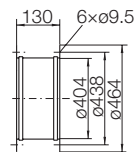


Accessories / Index

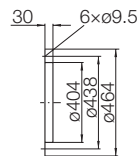
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

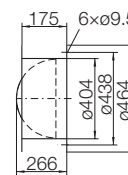
ZKE 30-0400 [600°C] 2.4 kg
 Flexible inlet connection



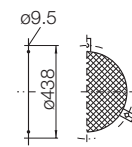
ZKF 11-0400 [600°C] 1.0 kg
 Mating flange



ZLK 50-0400 [600°C] 8.5 kg
 Automatic shutter



ZSG 04-0400 [600°C] 0.6 kg
 Mesh inlet guard



RWM 57-4550, 600 °C – 120 min.

Technical Data

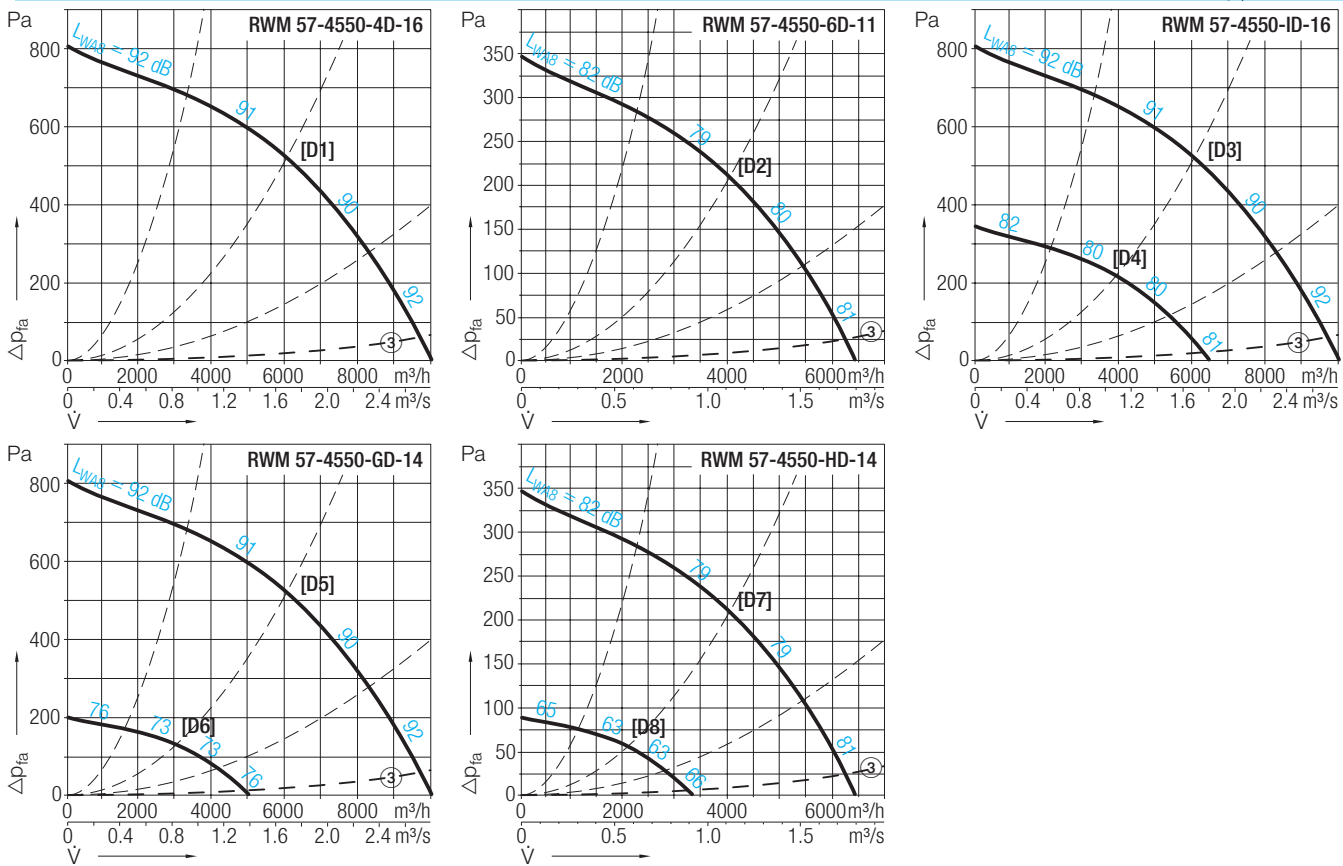
	Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@}$ at V_{max}	Weight
RWM 57- ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
4550-4D-16	[D1]	4	230/400 Δ/Y	50	1420	2.2	8.20/4.70	5.6	100 La	10000	93	107
4550-6D-11	[D2]	6	230/400 Δ/Y	50	910	0.55	2.78/1.60	3.4	80 b	6500	82	93
4550-ID-16	[D3 D4]	4/6	400 Y/Y	50	1410/950	1.70/0.6	3.80/1.75	5.2/4.2	100 La	10000/6500	93/82	107
4550-GD-14	[D5 D6]	4/8	400 Y/Y	50	1375/700	1.50/0.33	3.30/1.80	4.2/2.6	90 L	10000/5000	93/76	97
4550-HD-14	[D7 D8]	6/12	400 Y/Y	50	965/460	0.55/0.12	2.00/0.88	4.1/1.8	90 L	6500/3300	82/66	97

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

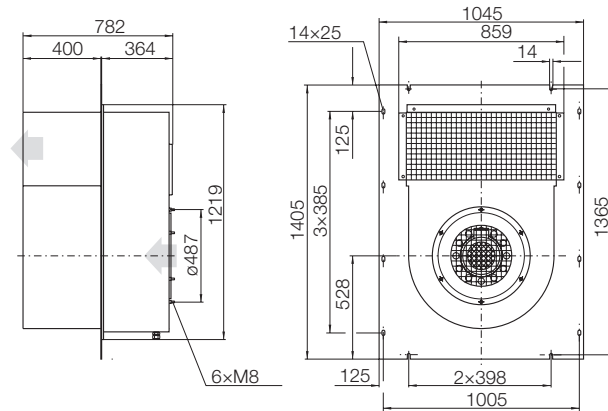
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
4550-4D-16	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-6D-11	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-ID-16	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-GD-14	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-HD-14	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-4550, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-4550-..



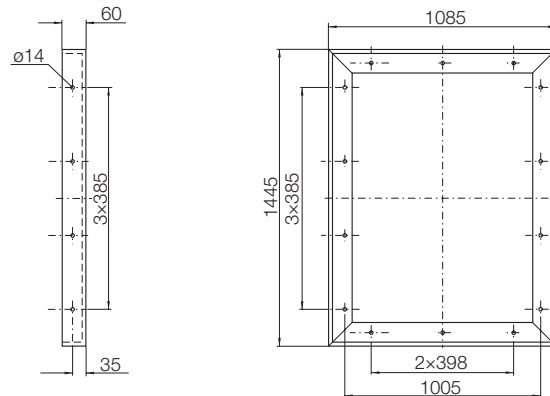
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-4550 [St] 27 kg
 Mounting frame

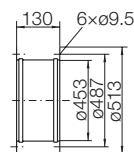


Accessories / Index

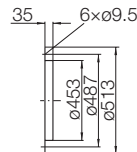
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

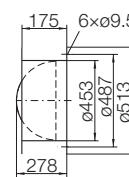
ZKE 30-0450 [600°C] 2.7 kg
 Flexible inlet connection



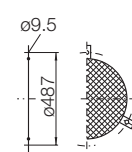
ZKF 11-0450 [600°C] 1.2 kg
 Mating flange



ZLK 50-0450 [600°C] 10 kg
 Automatic shutter



ZSG 04-0450 [600°C] 0.7 kg
 Mesh inlet guard



RWM 57-5056, 600 °C – 120 min.

Technical Data

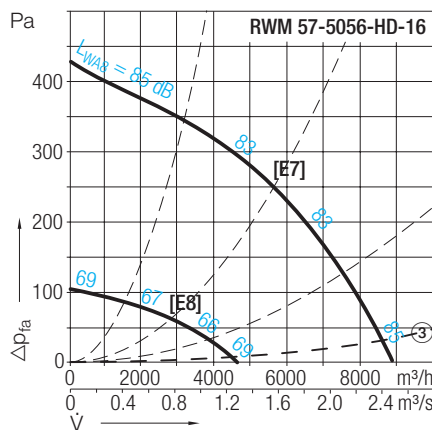
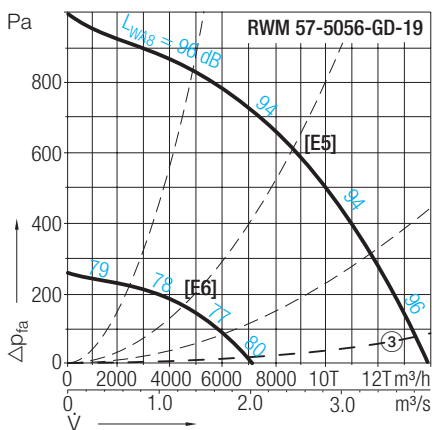
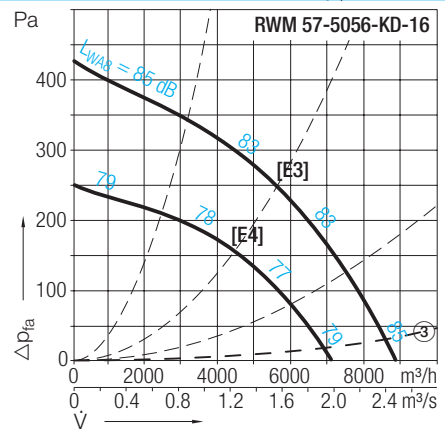
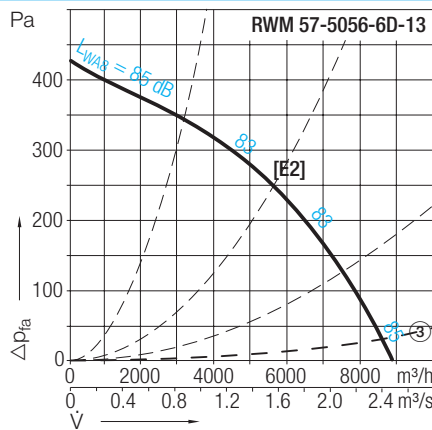
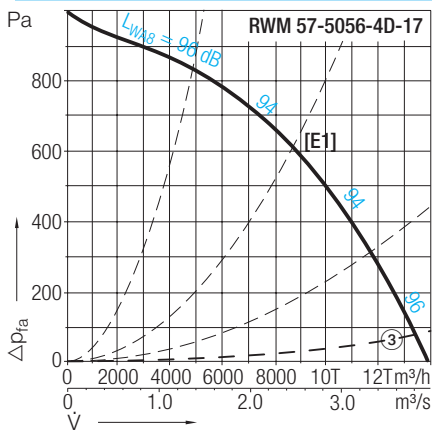
	Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA8} at V _{max}	Weight
RWM 57- ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
5056-4D-17	[E1]	4	230/400 Δ/Y	50	1420	3.0	11.1 /6.4	5.6	100 Lb	13900	97	133
5056-6D-13	[E2]	6	230/400 Δ/Y	50	915	0.75	3.6 /2.05	3.7	90 S	9000	86	129
5056-KD-16	[E3 E4]	6/8	400 Y/Y	50	940/710	0.9 /0.45	2.55/1.85	3.5/2.8	100 La	9000/7100	86/80	132
5056-GD-19	[E5 E6]	4/8	400 Y/Y	50	1440/760	3.6 /0.9	8.0 /4.7	6.5/3.2	112 M	13900/7100	97/80	138
5056-HD-16	[E7 E8]	6/12	400 Y/Y	50	940/460	1.1 /0.18	2.85/1.09	4.0/1.9	100 La	9000/4600	86/69	132

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

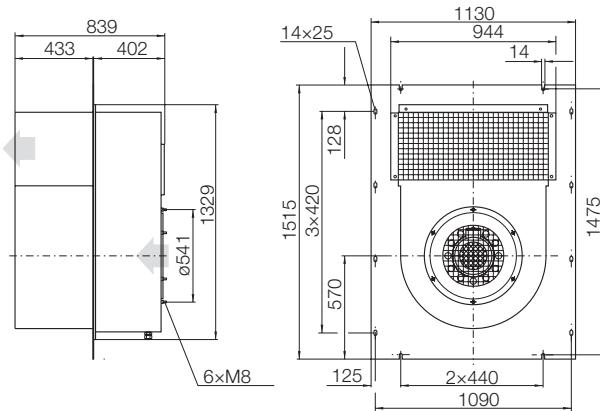
RWM 57- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
5056-4D-17	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-6D-13	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-KD-16	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-GD-19	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-HD-16	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-5056, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-5056-..



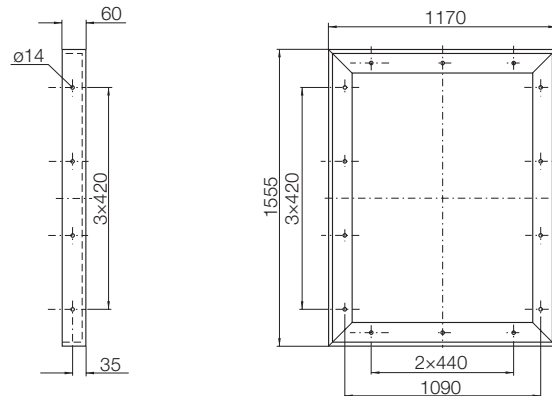
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-5056 [St] 29 kg
 Mounting frame

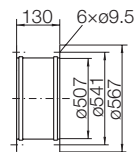


Accessories / Index

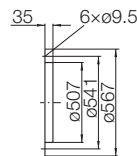
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

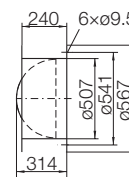
ZKE 30-0500 [600°C] 3.0 kg
 Flexible inlet connection



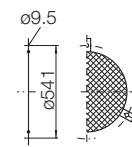
ZKF 11-0500 [600°C] 1.3 kg
 Mating flange



ZLK 50-0500 [600°C] 11.5 kg
 Automatic shutter



ZSG 04-0500 [600°C] 0.7 kg
 Mesh inlet guard



RWM 57-5663, 600 °C – 120 min.

Technical Data

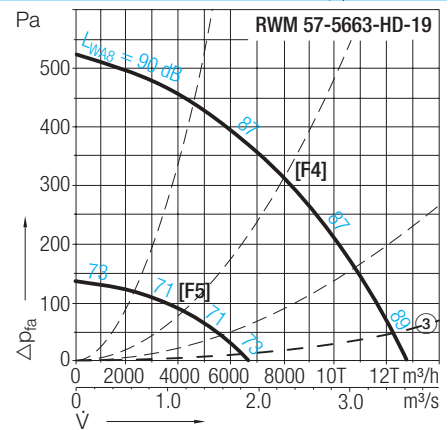
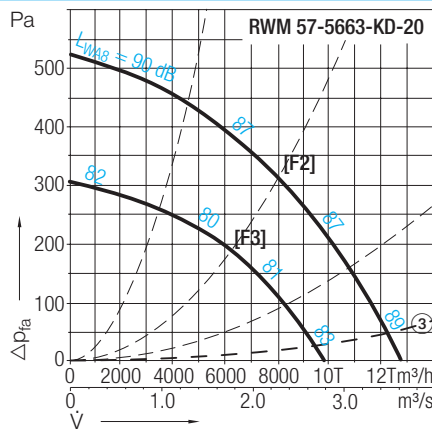
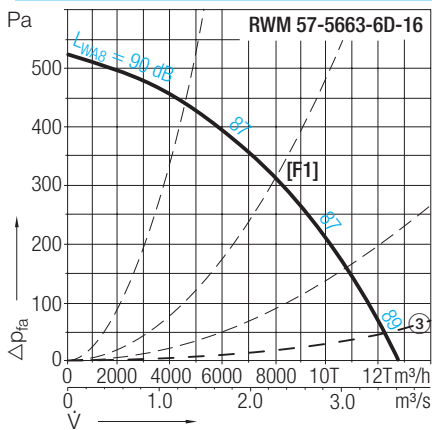
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA8} at V_{max}	Weight
RWM 57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
5663-6D-16 [F1]	6	230/400 Δ/Y	50	925	1.5	6.8 /3.9	4.0	100 La	12900	90	188
5663-KD-20 [F2 F3]	6/8	400 Y/Y	50	940/700	2.2/1.0	5.45/3.05	4.4/3.2	112 Mb	12900/9900	90/83	199
5663-HD-19 [F4 F5]	6/12	400 Y/Y	50	955/450	1.8/0.45	5.1 /2.0	4.5/2.9	112 Ma	12900/6600	90/73	200

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

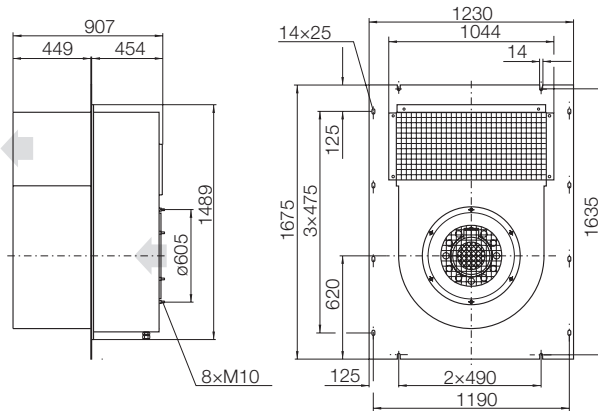
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
5663-6D-16	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-KD-20	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-HD-19	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-5663, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-5663-..



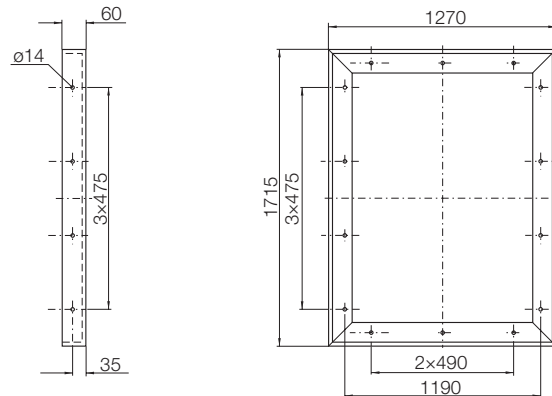
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-5663 [St] 32 kg
 Mounting frame

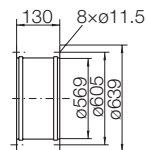


Accessories / Index

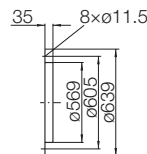
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

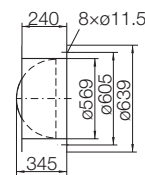
ZKE 30-0560 [600°C] 3.6 kg
 Flexible inlet connection



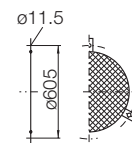
ZKF 11-0560 [600°C] 1.5 kg
 Mating flange



ZLK 50-0560 [600°C] 13 kg
 Automatic shutter



ZSG 04-0560 [600°C] 0.8 kg
 Mesh inlet guard



RWM 57-6371, 600 °C – 120 min.

Technical Data

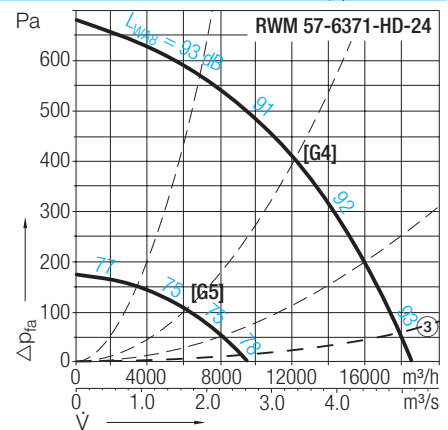
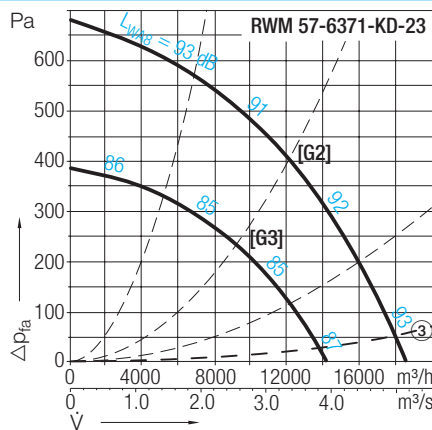
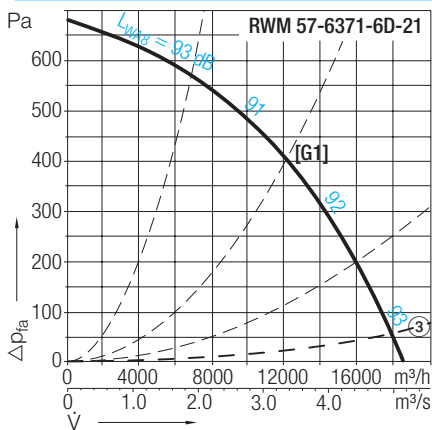
	Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA8} at V _{max}	Weight
RWM 57- ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
6371-6D-21	[G1]	6	230/400 Δ/Y	50	950	3.0	12.5/7.2	4.2	132 Sa	18600	94	265
6371-KD-23	[G2 G3]	6/8	400 Y/Y	50	950/715	3.5/1.7	8.5/5.4	4.5/4.5	132 Ma	18600/14100	94/87	297
6371-HD-24	[G4 G5]	6/12	400 Y/Y	50	965/480	3.3/0.7	6.8/2.5	4.7/2.5	132 Mb	18600/ 9500	94/78	299

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

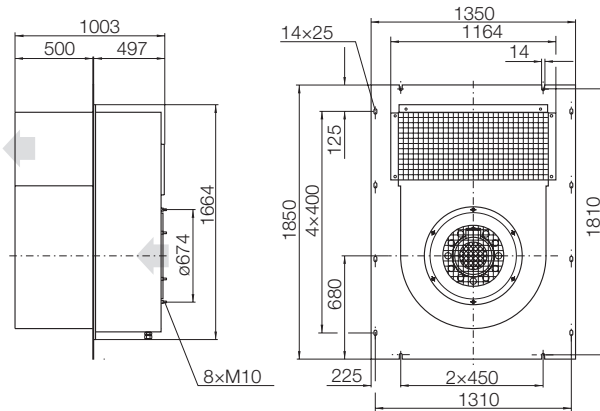
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
6371-6D-21	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
6371-KD-23	ESH 21-0075-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
6371-HD-24	ESH 21-0075-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-6371, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-6371-..



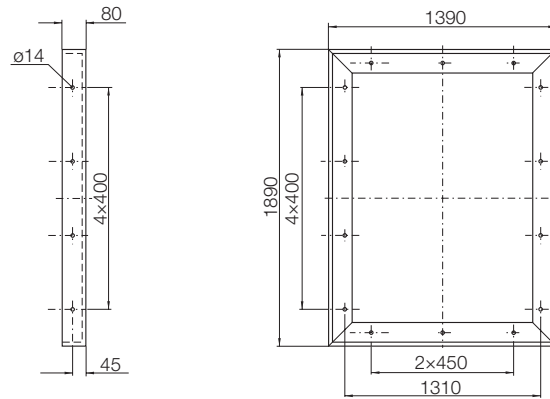
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-6371 [St] 39 kg
 Mounting frame

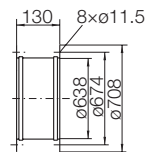


Accessories / Index

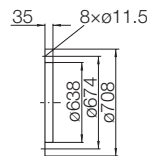
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

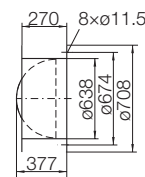
ZKE 30-0630 [600°C] 4.3 kg
 Flexible inlet connection



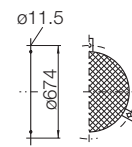
ZKF 11-0630 [600°C] 2.0 kg
 Mating flange



ZLK 50-0630 [600°C] 16 kg
 Automatic shutter



ZSG 04-0630 [600°C] 0.9 kg
 Mesh inlet guard



RWM 57-7180, 600 °C – 120 min.

Technical Data

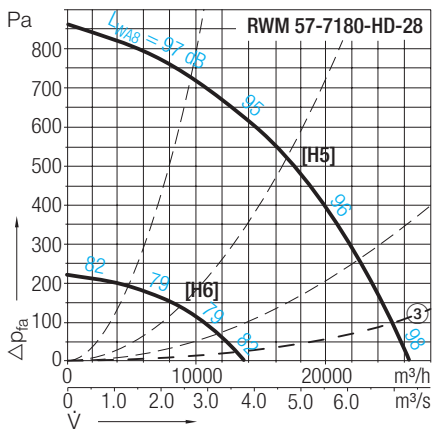
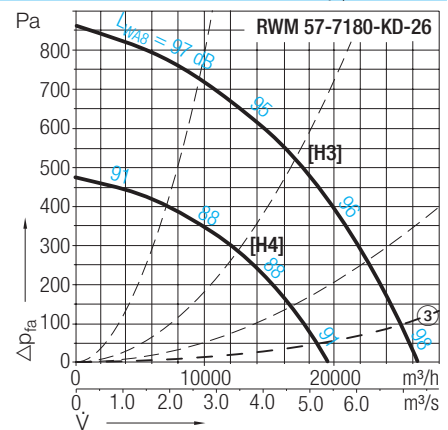
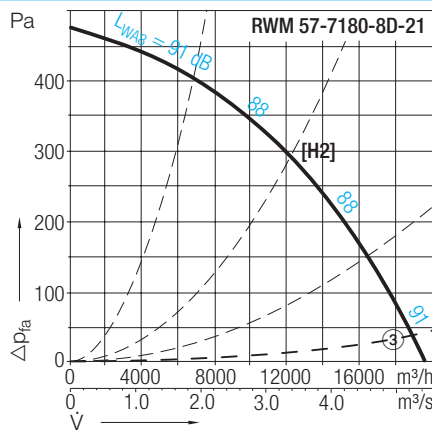
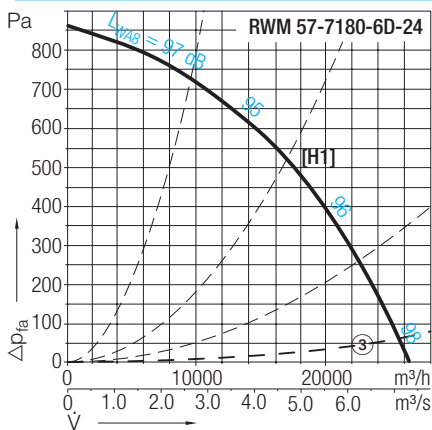
	Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA8} at V _{max}	Weight
RWM 57- ⑤			V (3~)	Hz	1/min	kW	A			m ³ /h	dB ⑩	kg
7180-6D-24	[H1]	6	400 Δ	50	950	5.5	12.6	5.0	132 Mb	26500	98	393
7180-8D-21	[H2]	8	230/400 Δ/Y	50	700	2.2	9.9/5.7	3.9	132 Sa	19600	91	380
7180-KD-26	[H3 H4]	6/8	400 Y/Y	50	965/730	5.5/2.5	12.0/6.7	5.1/4.5	160 Ma	26500/19600	98/91	406
7180-HD-28	[H5 H6]	6/12	400 Y/Y	50	975/485	6.2/1.3	12.5/4.1	6.0/2.6	160 L	26500/13600	98/82	409

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.15 kg/m³



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

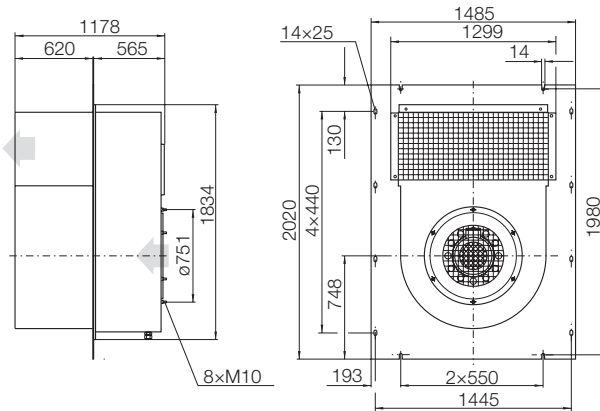
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
7180-6D-24	ESH 21-0075-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-8D-21	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-KD-26	ESH 21-0075-62	EBG 20-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
7180-HD-28	ESH 21-0075-62	EBG 30-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-7180, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-7180..



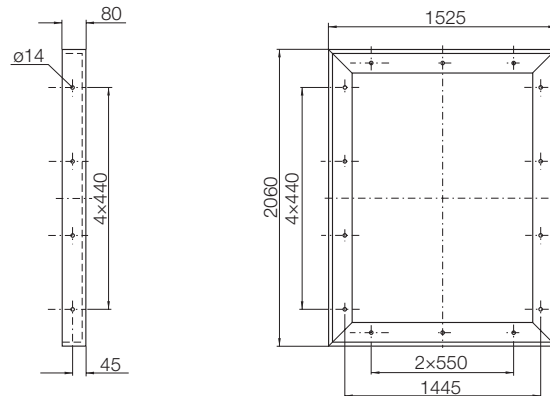
Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-7180 [St] 00 kg
 Mounting frame

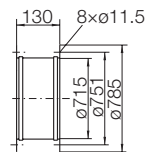


Accessories / Index

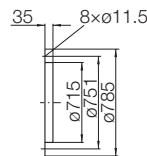
- ① HE 075 = Main switch station
 HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

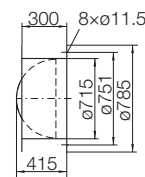
ZKE 30-0710 [600°C] 5 kg
 Flexible inlet connection



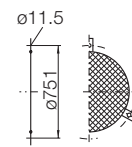
ZKF 11-0710 [600°C] 2.5 kg
 Mating flange



ZLK 50-0710 [600°C] 19 kg
 Automatic shutter



ZSG 04-0710 [600°C] 1.1 kg
 Mesh inlet guard



RWM 57-8090, 600 °C – 120 min.

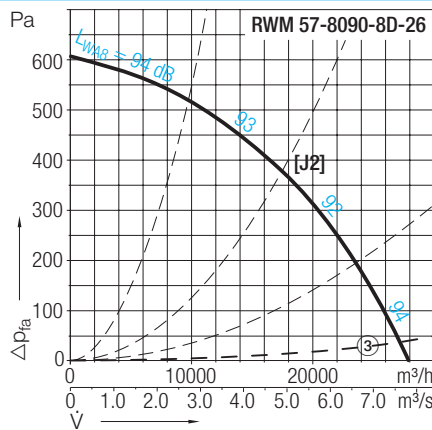
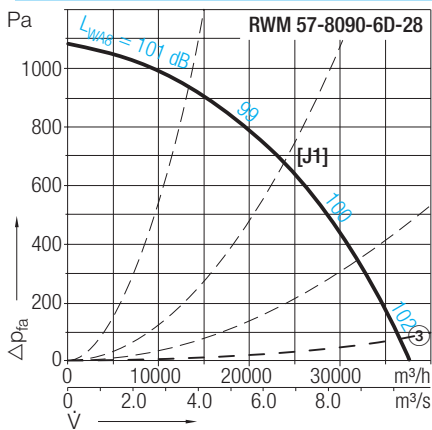
Technical Data

Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA@}$ at V_{max}	Weight
RWM 57- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
8090-6D-28 [J1]	6	400 Δ	50	960	11.0	24.5	4.8	160 L	37600	102	467
8090-8D-26 [J2]	8	400 Δ	50	715	4.0	10.0	4.5	160 Ma	28000	95	437

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.15 \text{ kg/m}^3$



Sound power level data at octave mid frequencies for intake and discharge see page 59.

Accessories

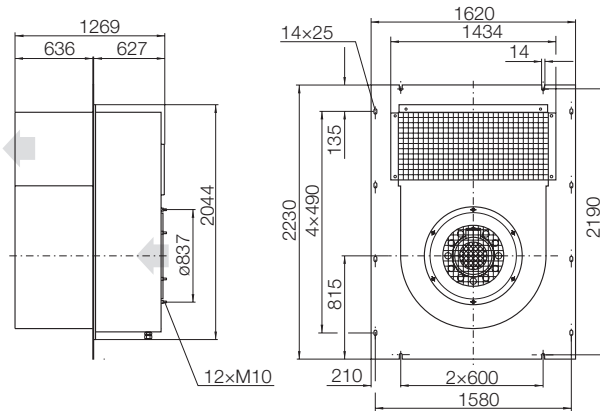
RWM 57- ⑤	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
	ESH ④	EBG	SSD	USB	HE ①
8090-6D-28	ESH 21-0110-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
8090-8D-26	ESH 21-0075-62	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

RWM 57-8090, 600 °C – 120 min.

Dimensions in mm, Subject to change.



RWM 57-8090-..



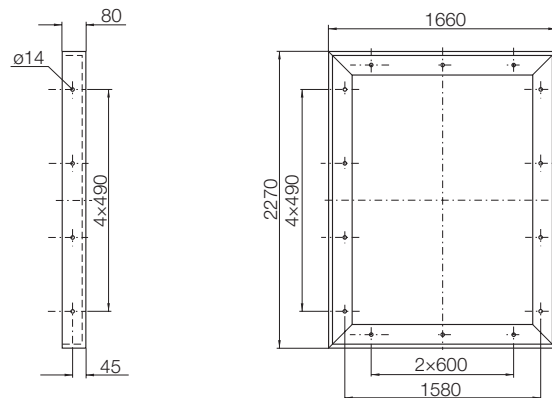
Fan and accessories tested to EN 12101-3
Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan RWM

Horizontal air discharge, casing made of galvanised sheet steel, motor out of main air stream, motor lead cable loose. Mounting frame (accessory) available for easy installation into building front.

Accessories

EBR 01-8090 [St] 47 kg
Mounting frame

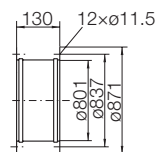


Accessories / Index

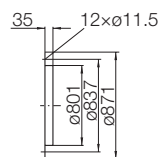
- ① HE 075 = Main switch station
HE 076 = Sec. switch station
- ③ Pressure loss of back draught damper
- ④ Isolator switch supplied loose
- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

Accessories (Inlet)

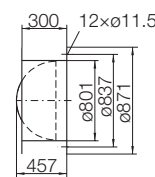
ZKE 30-0800 [600°C] 8.0 kg
Flexible inlet connection



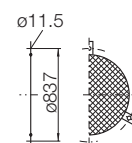
ZKF 11-0800 [600°C] 3.2 kg
Mating flange



ZLK 50-0800 [600°C] 17.2 kg
Automatic shutter



ZSG 04-0800 [600°C] 1.4 kg
Mesh inlet guard



RWM 57-2528/-8090, 600 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 03

Smoke Extract Wall Fan Nicotra Gebhardt

Horizontal air discharge, suitable for smoke extraction in the case of fire up to **+600 °C – 120 minutes**,

tested to DIN EN 12101-3, and CE- certified.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

rugged casing made of galvanised sheet steel intake cone made of galvanised sheet steel and prepared to flange connection acc. to DIN 24 155-2, guard at air discharge.

Centrifugal impeller with backward curved blades made of steel sheet, welded, coated, statically and dynamically balanced to DIN ISO 1940, fitted to an IEC motor which is located out of the main air stream.

motor lead cable loose and ready for further connection from outside.

Options (at choice)

- single speed (3~)
- two speed (3~)
- speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type	RWM 56-
Volume	$V = \dots\dots\dots$ m ³ /h
Pressure increase	$\Delta p_{fa} = \dots\dots\dots$ Pa
Media temperature	$t = \dots\dots\dots$ °C
Speed	$n = \dots\dots\dots$ 1/min
Nominal power	$P_N = \dots\dots\dots$ kW
Nominal current	$I_N = \dots\dots\dots$ A
Voltage/Frequency	$U/f = \dots\dots\dots$ V/Hz
A-Sound power level	$L_{WA8} = \dots\dots\dots$ dB
Weight	$m = \dots\dots\dots$ kg

Special fittings (at extra cost)

Increased corrosion protection type S or K

Accessories (at extra cost)

- Mounting frame (EBR 01)
- Flexible intake connection –for high temperature (ZKE 30)
- Intake flange (ZKF)
- Automatic back draught damper (ZLK 50)
- Intake guard (ZSG 04)

Switches / Regulators / Controllers

Dedication of units see technical data
 Specification see accessories
 Connection diagrams to be found online at www.nicotra-gebhardt.com

RWM 57-2528/-8090, 600 °C – 120 min.

Determination of the Octave level

The data indicated at the fan curves are sound power level figures (L_{WA8}) at fan discharge. The related sound power figure at intake can be calculated by using the following formula:

Sound power at intake: $L_{WA3} = L_{WA8} - 5 \text{ dB}$

For more refined evaluation of sound data, e.g. for possible sound attenuation, sound power data in the octave bands may be used.

Inlet side: $L_{Wokt 3} = L_{WA} + L_{Wrel 3}$

Discharge side: $L_{Wokt 8} = L_{WA} + L_{Wrel 8}$

The relative sound power data for intake (L_{Wrel3}) and discharge (L_{Wrel8}) at various duty points are available with the table below.

Discharge side

Relative sound power level for discharge side L_{Wrel8} at octave centre frequencies f_m

RWM 57-	Operation Point	63	125	250	500	1000	2000	4000	8000	Hz
	0.4 \dot{V}_{max}	-11	0	-2	-4	-5	-7	-12	-18	dB
2528/-8090	0.6 \dot{V}_{max}	-13	-2	-3	-4	-5	-7	-12	-19	dB
	0.8 \dot{V}_{max}	-11	-2	-4	-6	-5	-6	-11	-17	dB

Inlet side

Relative sound power level for inlet side L_{Wrel3} at octave centre frequencies f_m

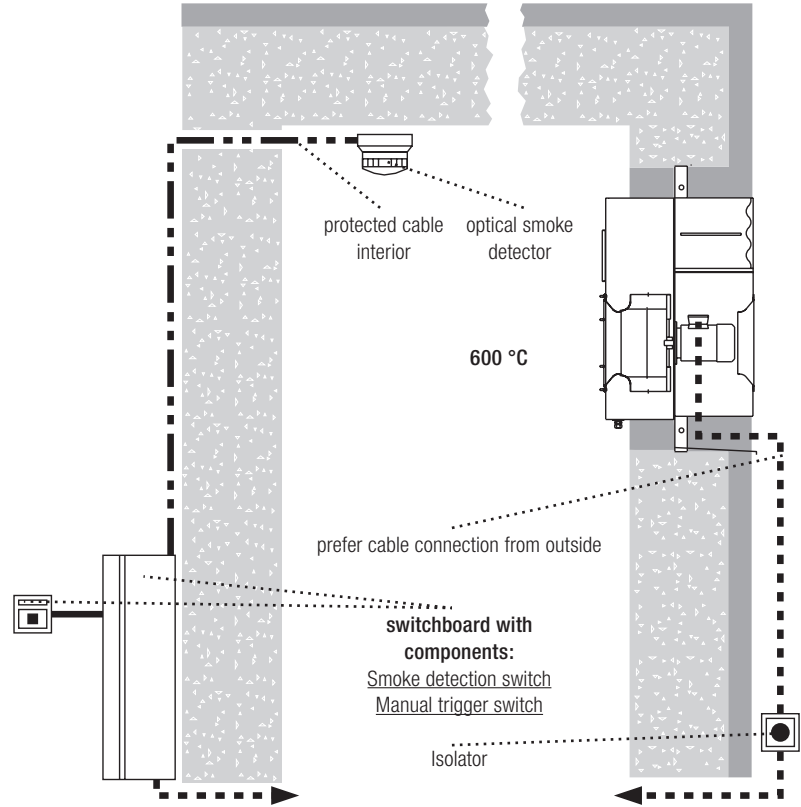
RWM 57-	Operation Point	63	125	250	500	1000	2000	4000	8000	Hz
	0.4 \dot{V}_{max}	10	8	2	-3	-6	-13	-15	-25	dB
2528/-8090	0.6 \dot{V}_{max}	7	6	2	-3	-6	-12	-13	-21	dB
	0.8 \dot{V}_{max}	4	5	1	-3	-6	-11	-10	-17	dB

In some cases the octave sound power figures may be higher than the indicated table values due to the blade passing frequency.

RWM 57-2528/-8090, 600 °C – 120 min.

Notes

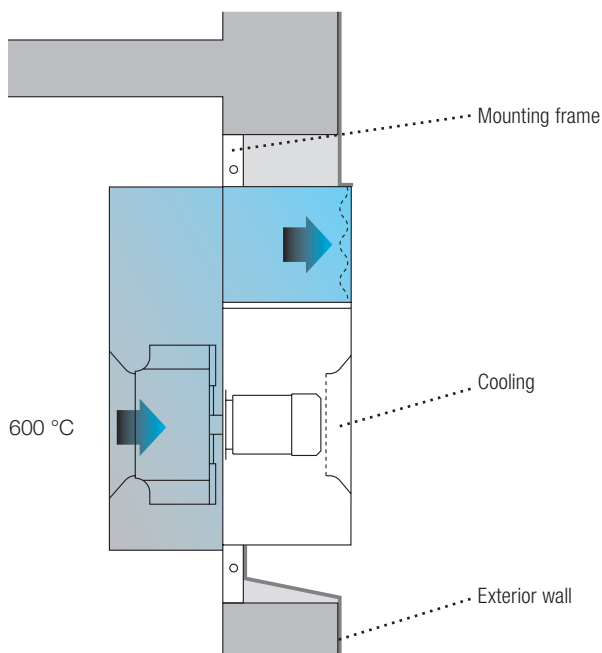
The Smoke Extract Wall Fan is supplied ready for connection.
 A main connection lead is fitted and available at the fan casing.
 The electrical connection has to be made according to the certification specification and to local regulations. Every fan is supplied with a wiring diagram explaining the correct connection.



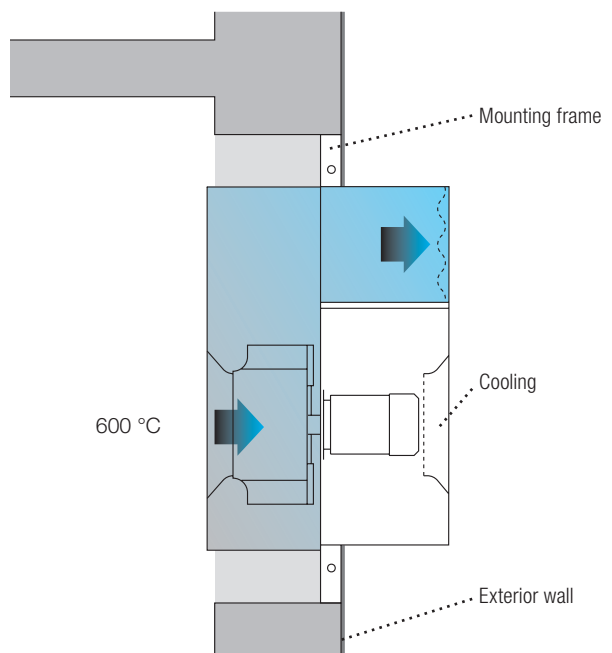
When connecting smoke extraction fans it is particularly important to watch the cabling!

Notes

Mounting inside



Mounting outside



RWM 57-2528/-8090, 600 °C – 120 min.

Special fittings

Corrosion protection

All fans in standard execution are made of corrosion resistant material or they are provided with a basic corrosion protection.

This corrosion protection satisfies to the usual corrosion resistance requirements in most cases.

If there are higher corrosion loads during ventilation operation, Nicotra Gebhardt can provide extra corrosion protection to the fan by applying a special powder coating (RAL 7039) on all fan parts.

Detailed specification see www.nicotra-gebhardt.com

Special coating

Painting of the fan with special colours (RAL) on request.

Flanged inlet cone

ZKD 01-0250/-0800 [600°C]



The intake cone with flange has to be fitted to the intake silencer if no further duct connection is provided. This will reduce pressure losses by improving the intake air flow.

Flexible inlet connection

ZKE 30-0250/-0800 [600°C]



Flexible connectors for Smoke Extract Roof Fans will avoid transmission of noise and vibrations to further installation components. The flange dimensions correspond to DIN 24 155-2.

Mating flange

ZKF 11-0250/-0800 [600°C]



Connecting flange to ductwork at the suction side of the roof fan. The flange dimensions correspond to DIN 24 155-2.

Mesh inlet guard

ZSG 04-0250/-0800 [600°C]



Intake guard acc. to DIN 24 167.

Automatic shutter

ZLK 50-0250/-0800



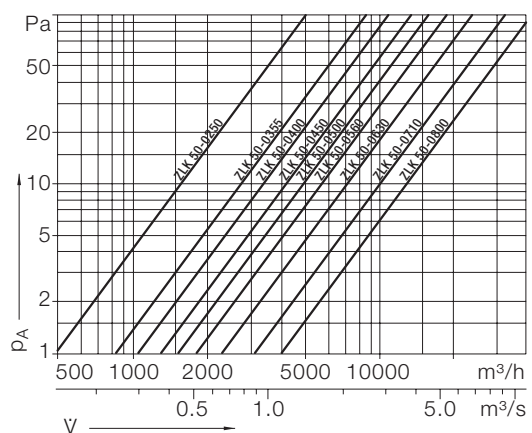
Automatic back draught dampers for smoke extract roof fans are isolating the duct or room below the fan at stand still and thus avoiding unexpected back flow of cold.

A spring mechanism ensures a safe closing of the damper at the fan's stand still.

The back draught dampers line ZLK 50 can be fitted at vertical axis position.

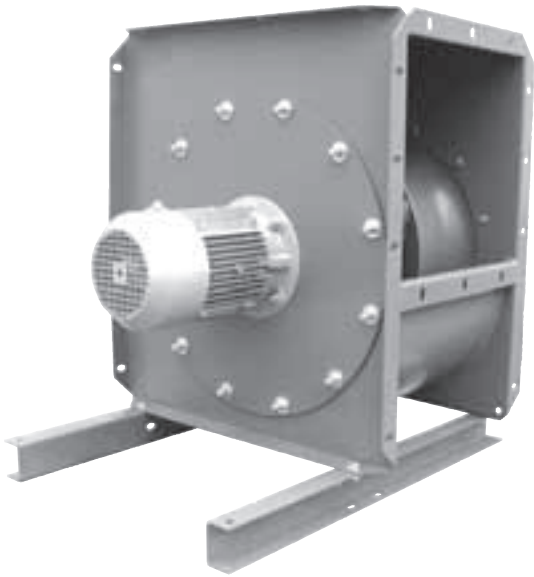
Due to turbulences at the flaps the fan sound figures at intake and discharge are increasing of 3 db when a ZLK is fitted.

Pressure drop



It is recommended to provide a duct trunk between fan and damper. For this arrangement the pressure losses indicated are established. If the damper is fitted directly to the fan higher losses may be expected.

The compact smoke extractor:

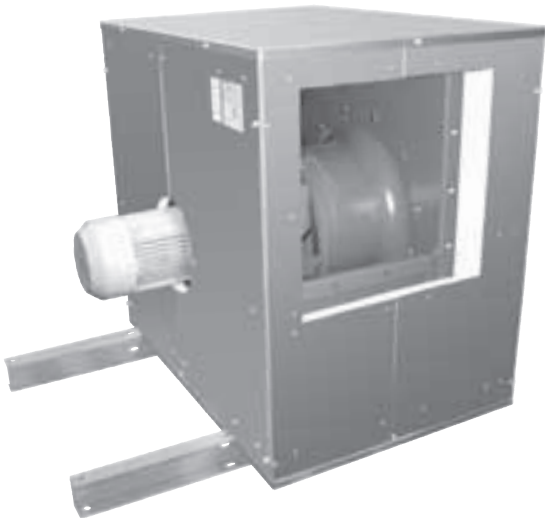


REM BU

REM BU range with direct drive
Flow rates of up to 31,000 m³/h
600 °C – 120 min.
No. 0036 CPD RG 01 05

The REM BU is a compact single-intake radial smoke extractor fan with direct drive. It is fitted with flanges on both suction and output sides and is ideal for installation in smoke extraction duct systems. The fan (with a horizontal axis) can be fitted in casing at angles of 0°, 90°, 180° and 270°. It is only certified for installation outside buildings. The REM BI, encapsulated in additional insulation casing, is also certified for installation inside buildings, provided it is not used in the room where the fire breaks out.

Small but powerful – the compact powerhouse for added safety



REM BI

REM BI range with direct drive
Flow rates of up to 31,000 m³/h
600 °C – 120 min.
No. 0036 CPD RG 01 04

Its design and construction make the REM BU/BI space-saving and low-maintenance. It is the straightforward compact solution for flow rates of up to 31,000 m³/h.



Small but perfectly formed – perfect technology down to the last detail

It may be small, but the REM BU/BI is brimming with technical details which make it incredibly powerful.

- Both models have CE certification.
- During smoke extraction, it conveys +600 °C for 120 min. Suitable for permanent ventilation at temperatures of up to +100 °C.
- The REM is available in 2 versions (BU – insulated/BI – non-insulated) for flow rates of up to 31,000 m³/h and pressure of up to 1,500 Pa.
- The insulated REM BI model comes with self-contained insulating casing in segments which are easy to install and dismantle.
- The REM BU can be fitted in casing at angles of 0°, 90°, 180° and 270°.
- For easy maintenance, the motor impeller unit can be removed on the drive side without detaching from the duct.
- A wide range of certified accessories is available for the REM BU/BI smoke extractor fans.
- A specially designed system of electrical components including smoke detector switchgear, an optical smoke detector and a manual trigger button rounds off the range of accessories.

REM ..-2528, 600 °C – 120 min.

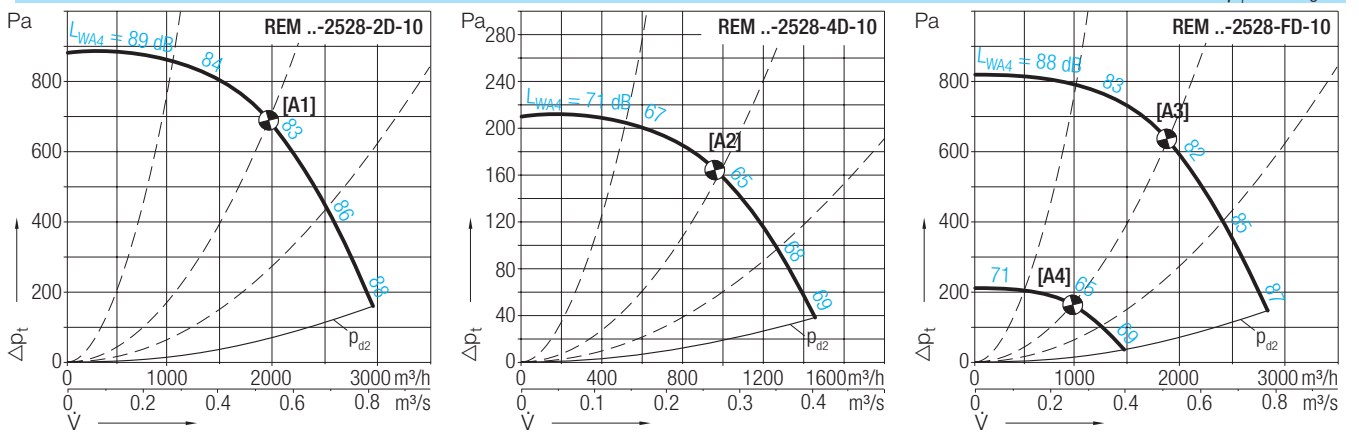
Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA4} at V_{opt}	Weight REM BU/BI
REM BU-/BI- ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
2528-2D-10	[A1]	2	230/400 Δ/Y	50	2855	0.75	3.00/1.73	5.6	80 Ma	2950	83	36/90
2528-4D-10	[A2]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 Ma	1450	65	36/90
2528-FD-10	[A3 A4]	2/4	400 YY/Y	50	2745/1400	0.70/0.15	1.76/0.39	4.0/3.8	80 Ma	2840/1450	82/65	36/90

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
2528-2D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
2528-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
2528-FD-10	ESH 21-0055-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

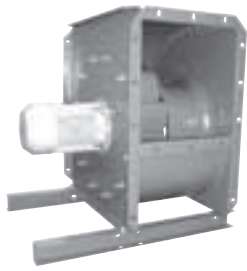
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

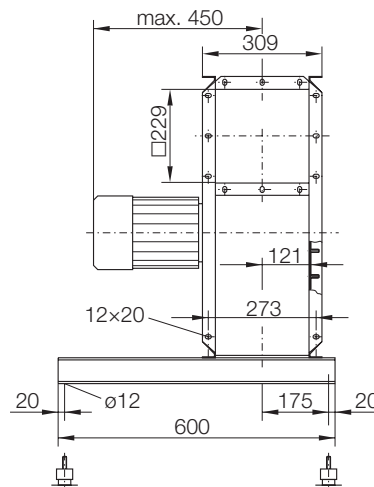
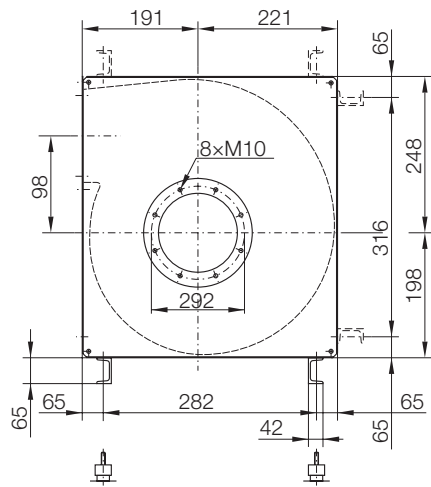
REM ..-2528, 600 °C – 120 min.

Dimensions in mm, Subject to change.

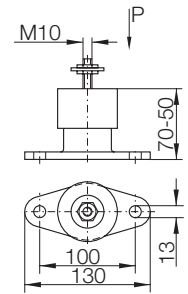


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-2528-..



ZBD 60
 A/V mounts

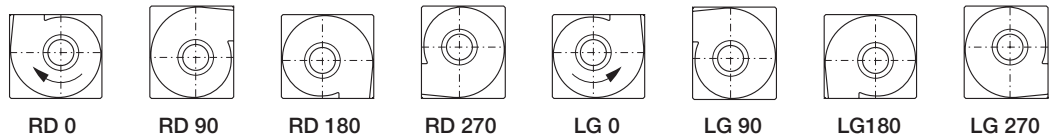


Direction

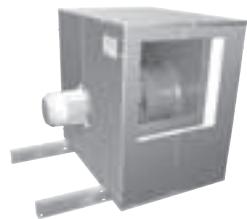
The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



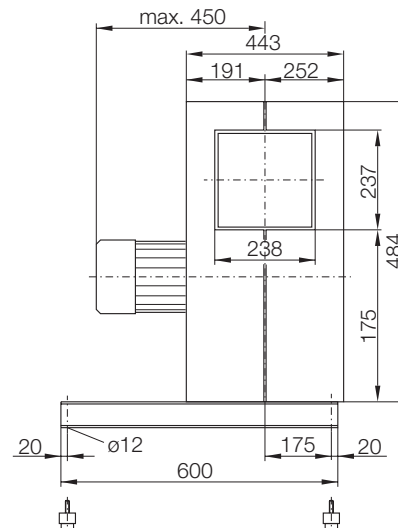
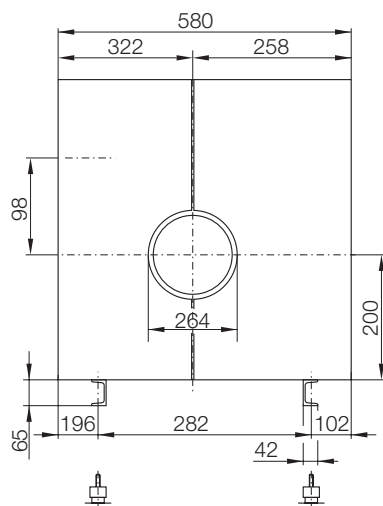
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-2528-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

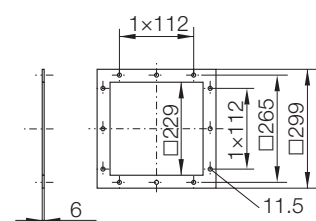
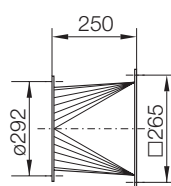
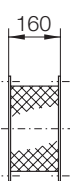
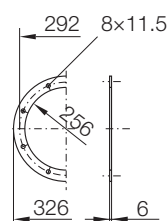
ZKF 4B-0250 [600°C]
 Mating flange

ZKE DH-0250 [600°C]
 Connection flex

ZKU 4B-1515 [600°C]
 Transition piece

ZKE DH-1515 [600°C]
 Discharge flex

ZKF DB-1515 [600°C]
 Counter frame



REM ..-3135, 600 °C – 120 min.

Technical Data

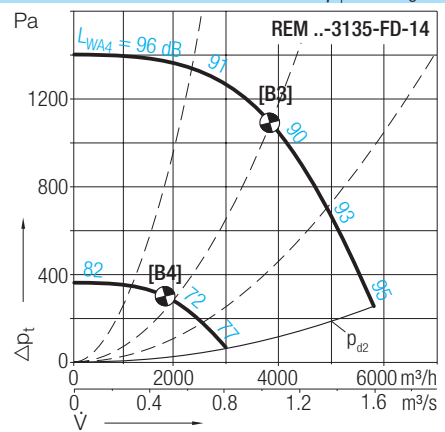
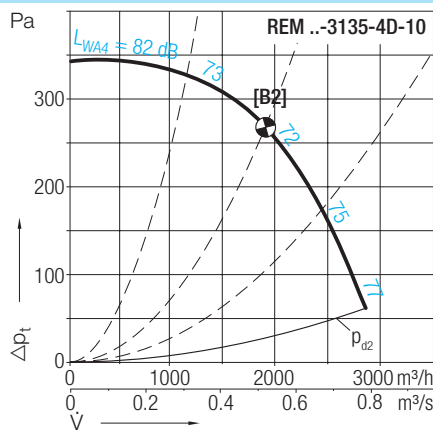
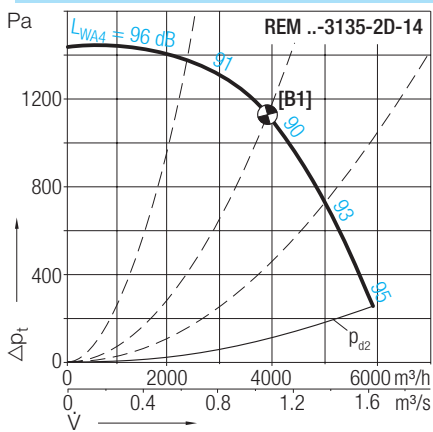
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA4} at V_{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
3135-2D-14 [B1]	2	230/400 Δ/Y	50	2880	2.20	7.90/4.55	6.3	90 L	5920	90	55/129
3135-4D-10 [B2]	4	230/400 Δ/Y	50	1395	0.55	2.50/1.44	3.9	80 Ma	2900	72	47/121
3135-FD-14 [B3 B4]	2/4	400 YY/Y	50	2835/1420	2.00/0.5	4.80/1.08	5.0/5.1	90 L	5830/2950	90/72	55/129

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.20 \text{ kg/m}^3$



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
3135-2D-14	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3135-4D-10	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
3135-FD-14	ESH 21-0055-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

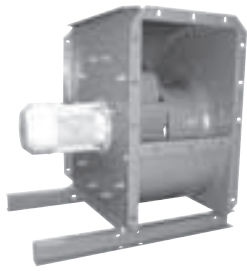
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

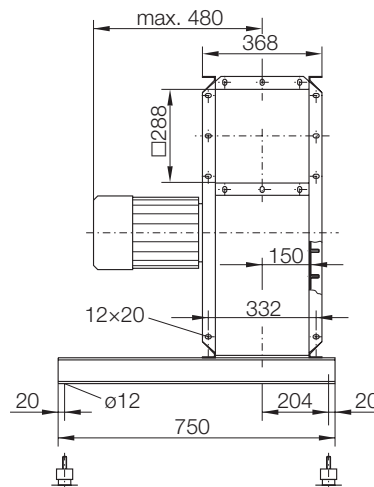
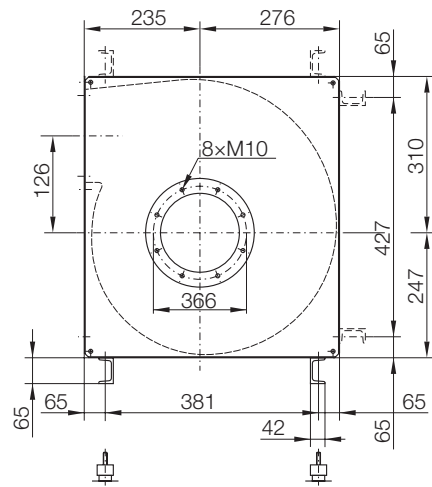
REM ..-3135, 600 °C – 120 min.

Dimensions in mm, Subject to change.

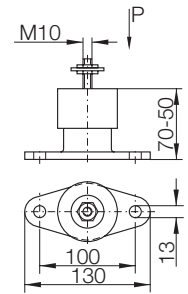


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-3135-..



ZBD 60
 A/V mounts

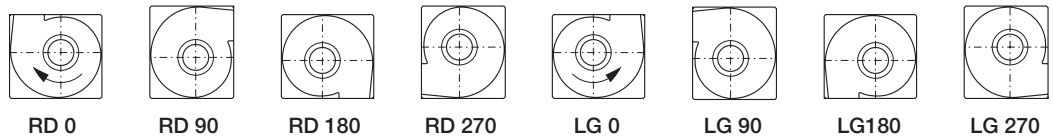


Direction

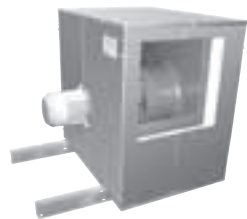
The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



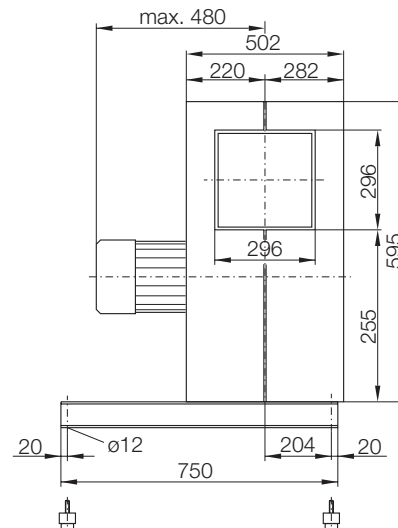
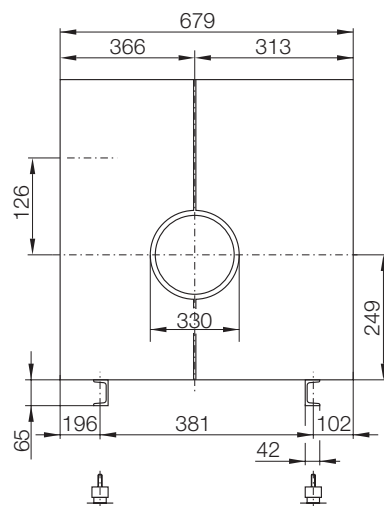
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-3535-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

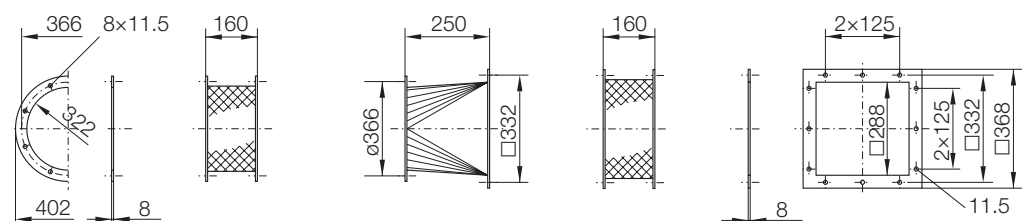
ZKF 4B-0315 [600°C]
 Mating flange

ZKE DH-0315 [600°C]
 Connection flex

ZKU 4B-1717 [600°C]
 Transition piece

ZKE DH-1717 [600°C]
 Discharge flex

ZKF DB-1717 [600°C]
 Counter frame



REM ..-4045, 600 °C – 120 min.

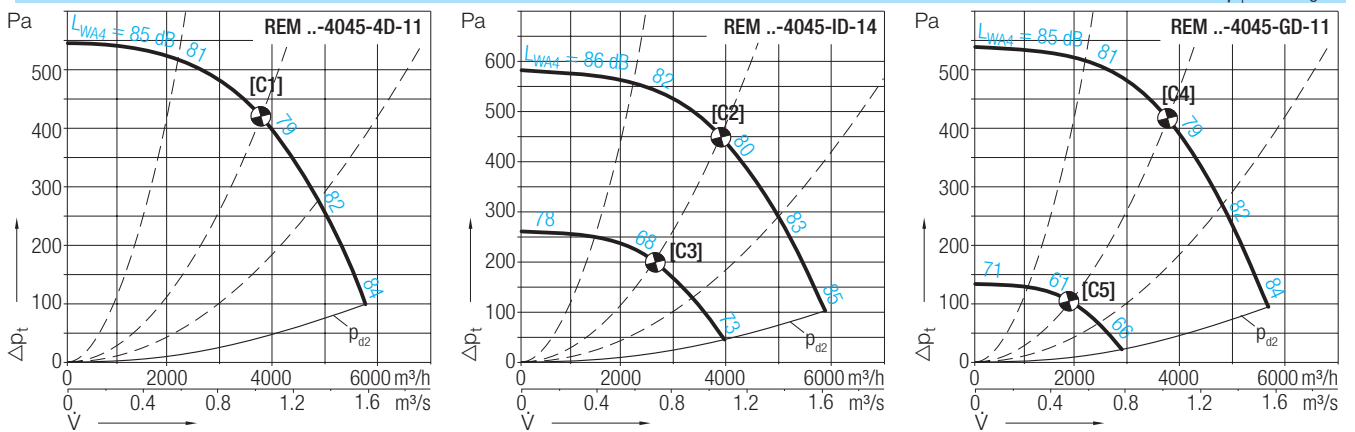
Technical Data

Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4} at V _{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
4045-4D-11 [C1]	4	230/400 Δ/Y	50	1395	0.75	3.20/1.86	4.2	80 Mb	5760	79	66/168
4045-ID-14 [C2 C3]	4/6	400 Y/Y	50	1430/955	1.10/0.38	2.65/1.33	4.9/3.8	90 L	5900/3940	80/68	66/168
4045-GD-11 [C4 C5]	4/8	400 Y/Y	50	1380/685	0.70/0.15	1.76/0.77	4.2/2.4	80 Mb	5700/2830	79/61	72/174

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
4045-4D-11	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-ID-14	ESH 21-0055-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4045-GD-11	ESH 21-0055-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

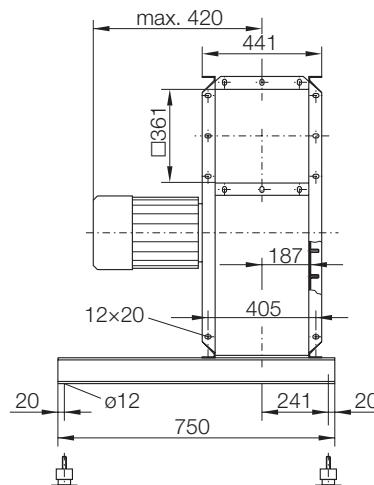
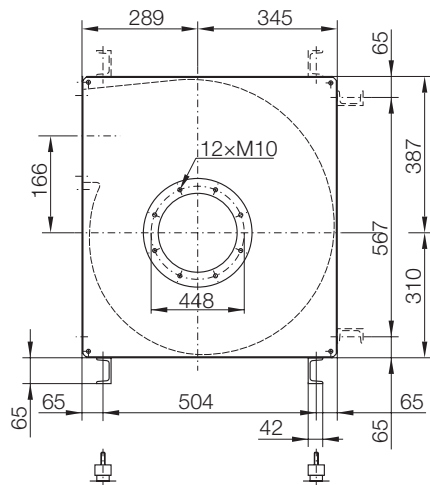
REM ..-4045, 600 °C – 120 min.

Dimensions in mm, Subject to change.

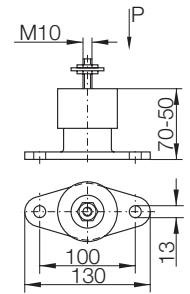


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-4045-..



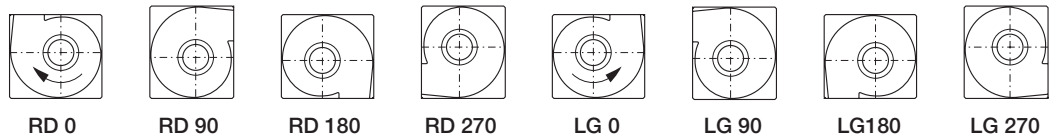
ZBD 60
 A/V mounts



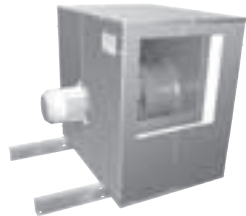
Direction

The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation
 Symbol **LG** – Anti-clockwise rotation



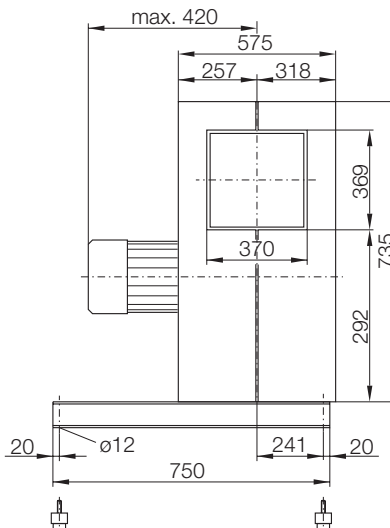
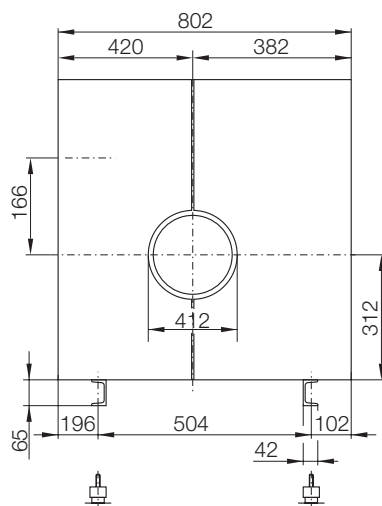
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

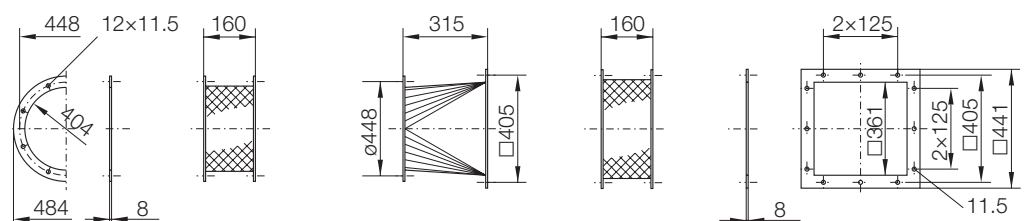
REM BI-4045-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

- ZKF 4B-0400 [600°C]
Mating flange
- ZKE DH-0400 [600°C]
Connection flex
- ZKU 4B-1919 [600°C]
Transition piece
- ZKE DH-1919 [600°C]
Discharge flex
- ZKF DB-1919 [600°C]
Counter frame



REM ..-4550, 600 °C – 120 min.

Technical Data

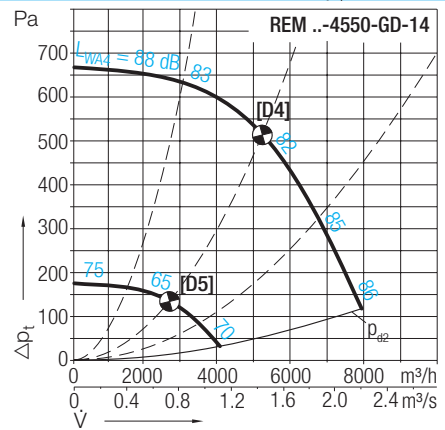
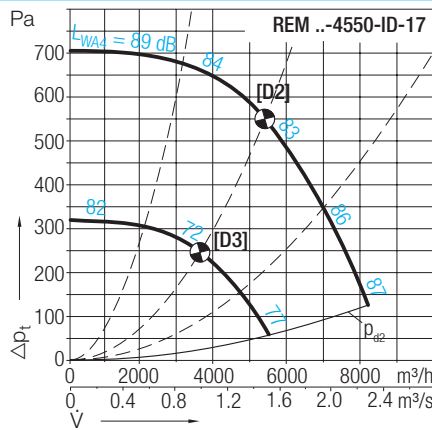
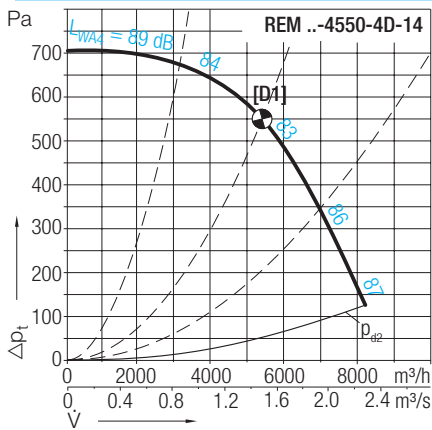
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4} at V _{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
4550-4D-14 [D1]	4	230/400 Δ/Y	50	1420	1.50	5.90/3.40	5.3	90 L	8200	83	90/215
4550-ID-17 [D2 D3]	4/6	400 Y/Y	50	1420/950	2.10/0.75	4.55/2.30	5.2/3.9	100 Lb	8200/5500	83/72	90/215
4550-GD-14 [D4 D5]	4/8	400 Y/Y	50	1375/700	1.50/0.33	3.30/1.80	4.2/2.6	90 L	7950/4050	82/65	90/215

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.20 kg/m³



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
4550-4D-14	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-ID-17	ESH 21-0055-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
4550-GD-14	ESH 21-0055-62	EBG 30-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

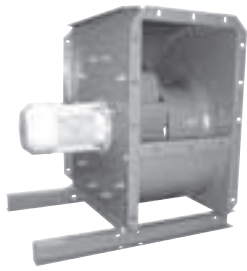
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

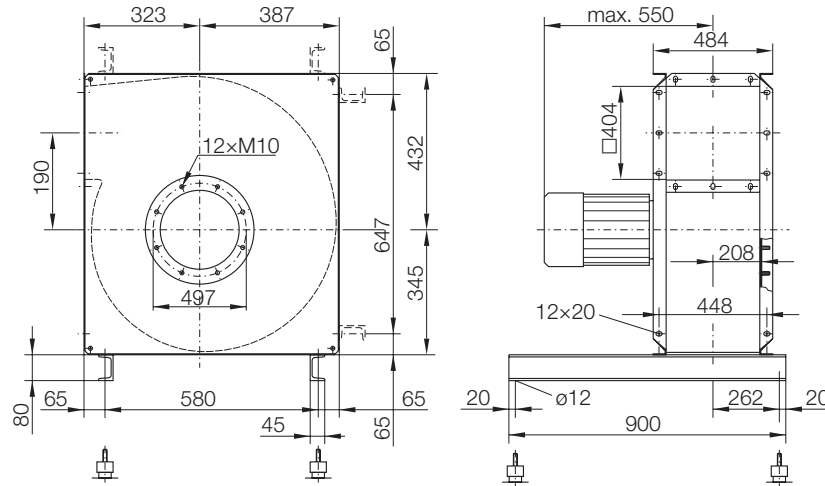
REM ..-4550, 600 °C – 120 min.

Dimensions in mm, Subject to change.

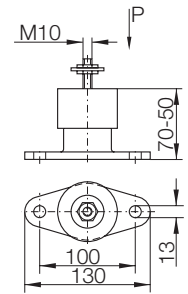


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-4550-..



ZBD 60
 A/V mounts

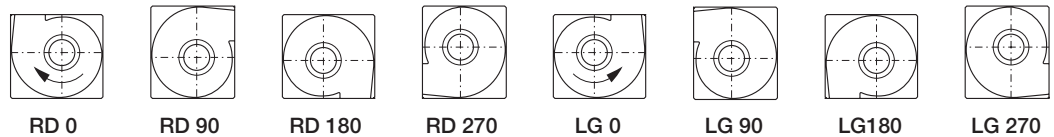


Direction

The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



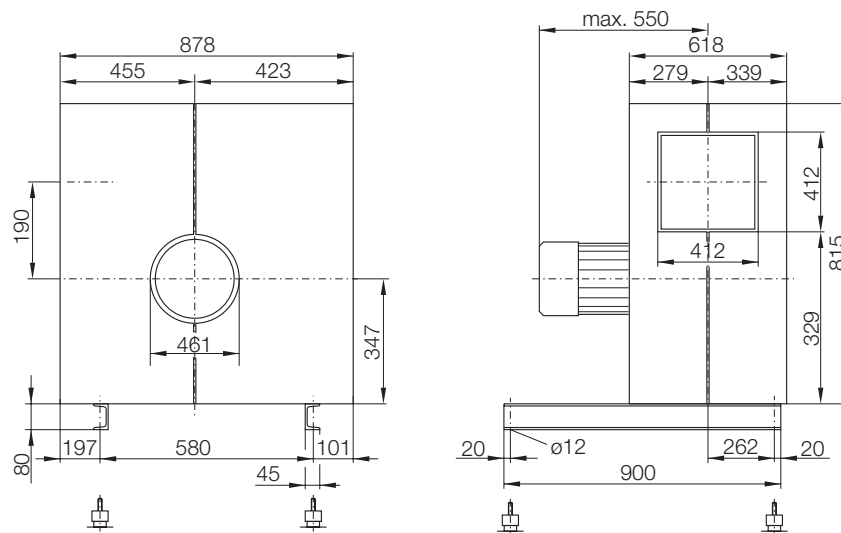
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-4550-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

ZKF 4B-0450 [600°C]

Mating flange

ZKE DH-0450 [600°C]

Connection flex

ZKU 4B-2020 [600°C]

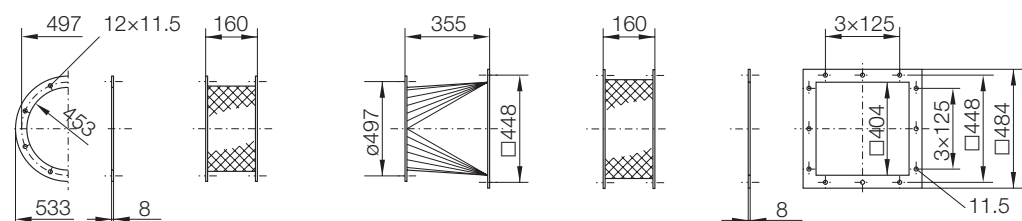
Transition piece

ZKE DH-2020 [600°C]

Discharge flex

ZKF DB-2020 [600°C]

Counter frame



REM ..-5056, 600 °C – 120 min.

Technical Data

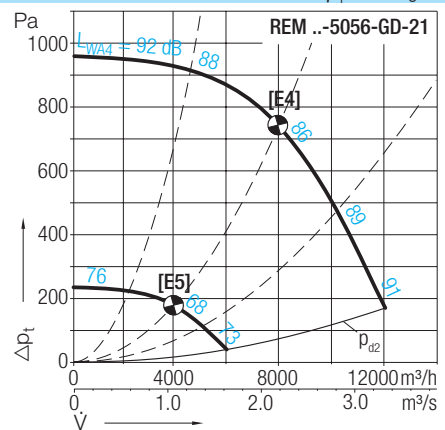
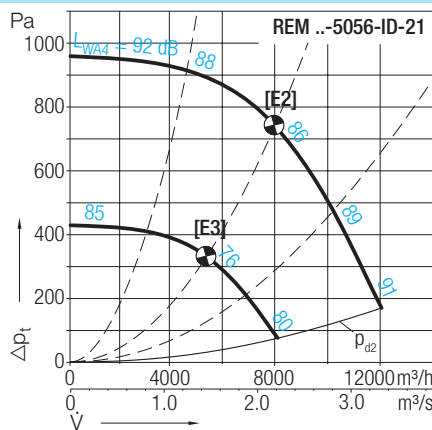
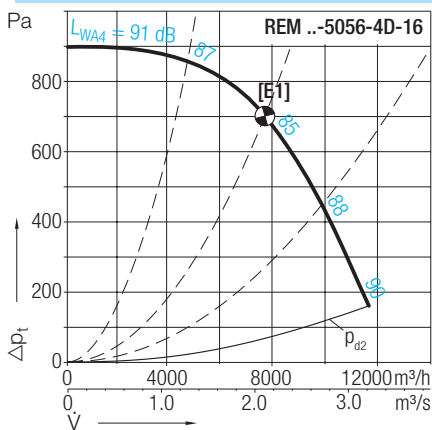
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA4} at V_{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
5056-4D-16 [E1]	4	230/400 Δ/Y	50	1420	2.2	8.2/4.7	5.6	100 La	11650	85	130/273
5056-ID-21 [E2 E3]	4/6	400 Y/Y	50	1460/975	3.9/1.2	8.4/3.5	6.1/5.1	132 S	12000/8000	86/76	130/273
5056-GD-21 [E4 E5]	4/8	400 YY/Y	50	1455/720	4.7/1.1	10.3/3.3	6.4/4.3	132 S	12000/5900	86/68	130/273

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.20 \text{ kg/m}^3$



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
5056-4D-16	ESH 21-0055-32	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-ID-21	ESH 21-0055-62	EBG 20-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5056-GD-21	ESH 21-0055-62	EBG 30-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

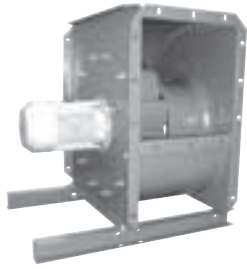
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

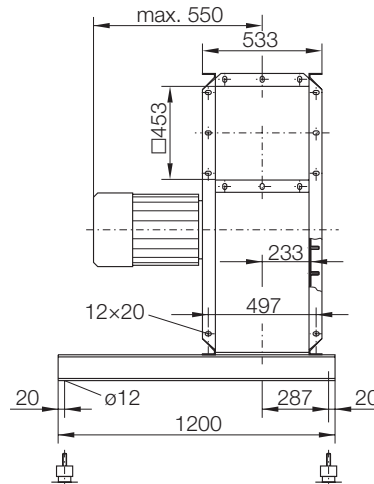
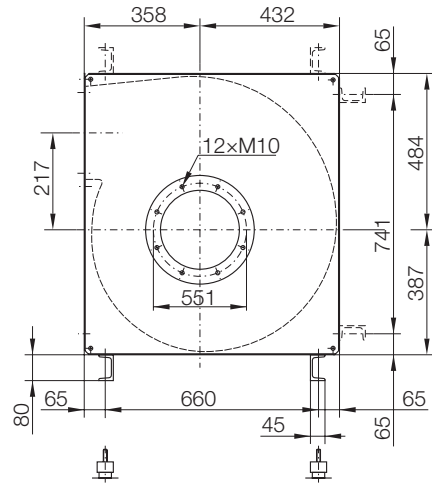
REM ..-5056, 600 °C – 120 min.

Dimensions in mm, Subject to change.

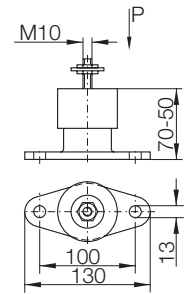


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-5056-..



ZBD 60
 A/V mounts

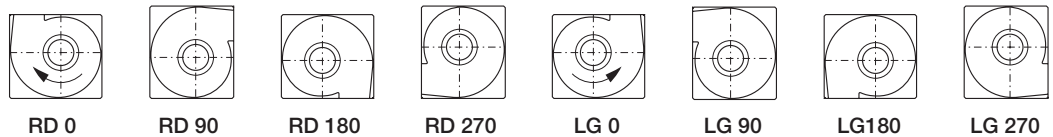


Direction

The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



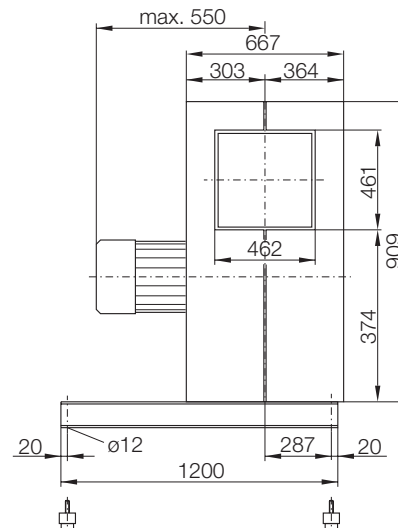
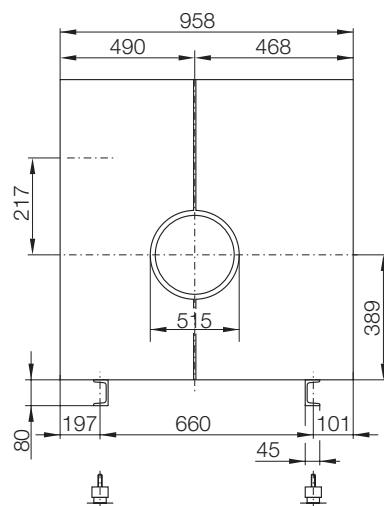
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-5056-..

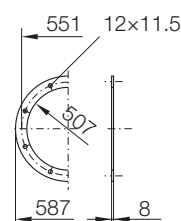
RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

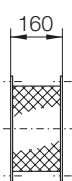
ZKF 4B-0500 [600°C]

Mating flange



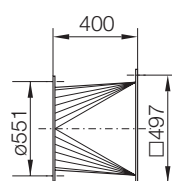
ZKE DH-0500 [600°C]

Connection flex



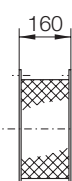
ZKU 4B-2121 [600°C]

Transition piece



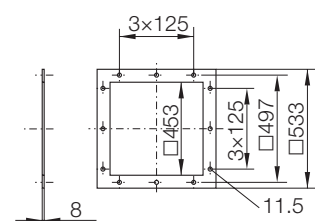
ZKE DH-2121 [600°C]

Discharge flex



ZKF DB-2121 [600°C]

Counter frame



REM ..-5663, 600 °C – 120 min.

Technical Data

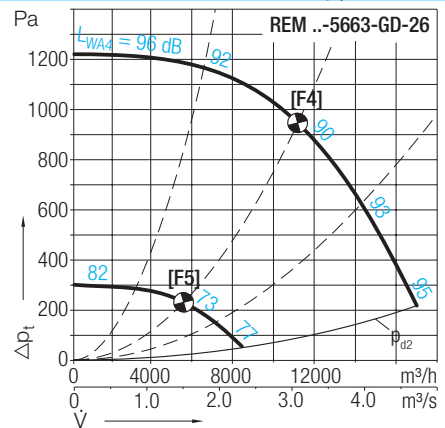
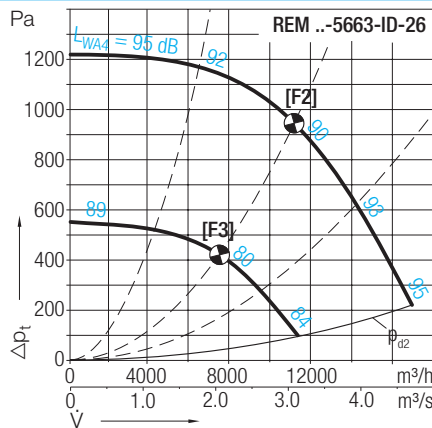
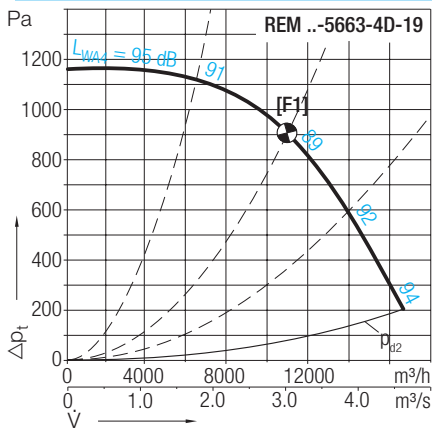
Curves	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA4} at V_{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
5663-4D-19 [F1]	4	400/690 Δ/Y	50	1440	4.0	8.2/4.8	6.0	112 M	16700	89	165/336
5663-ID-26 [F2 F3]	4/6	400 Y/Y	50	1470/980	7.2/2.5	14.4/6.4	7.3/5.6	160 M	17050/11350	90/80	165/336
5663-GD-26 [F4 F5]	4/8	400 Y/Y	50	1465/725	9.5/2.2	19.7/6.5	7.0/4.1	160 M	17050/8400	90/73	165/336

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.20 \text{ kg/m}^3$



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
5663-4D-19	ESH 21-0075-62	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-ID-26	ESH 21-0075-62	EBG 20-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
5663-GD-26	ESH 21-0110-62	EBG 30-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

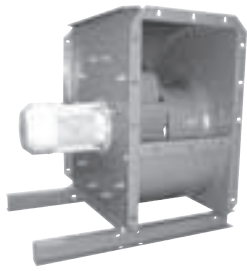
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

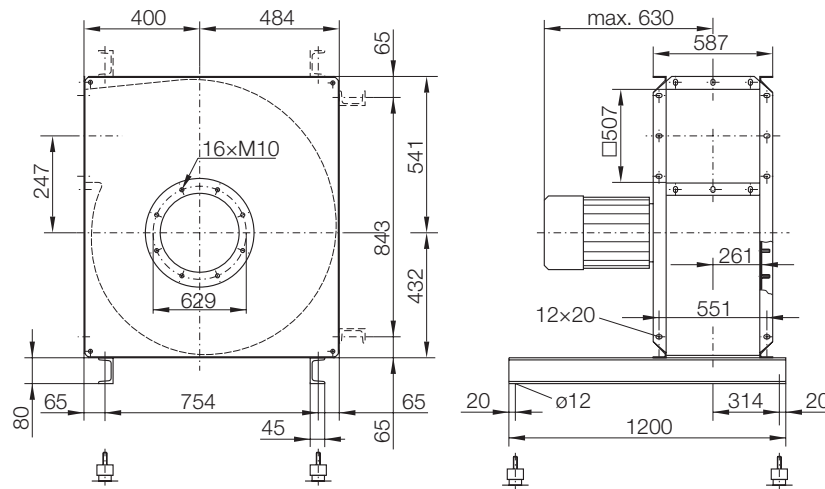
REM ..-5663, 600 °C – 120 min.

Dimensions in mm, Subject to change.

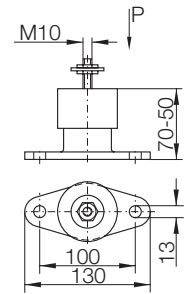


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-5663-..



ZBD 60
 A/V mounts

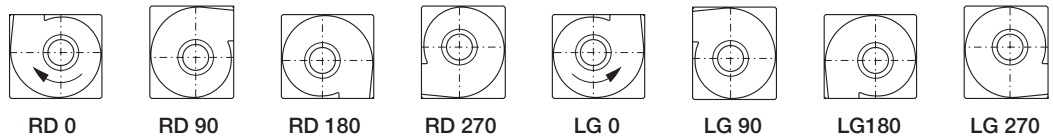


Direction

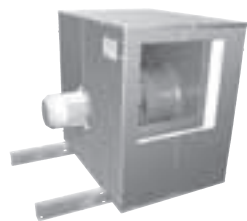
The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



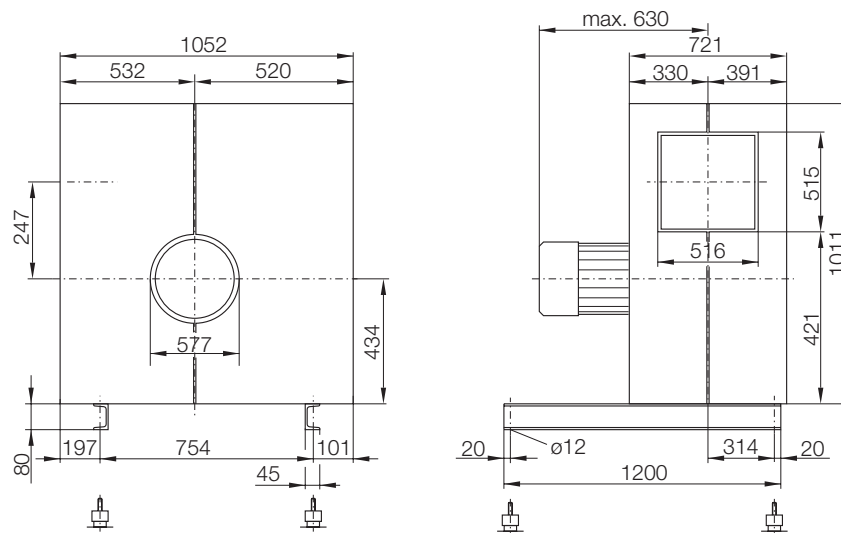
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-5663-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

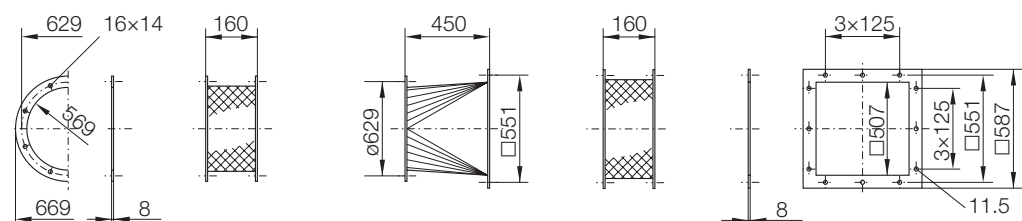
ZKF 4B-0560 [600°C]
 Mating flange

ZKE DH-0560 [600°C]
 Connection flex

ZKU 4B-2323 [600°C]
 Transition piece

ZKE DH-2323 [600°C]
 Discharge flex

ZKF DB-2323 [600°C]
 Counter frame



REM ..-6371, 600 °C – 120 min.

Technical Data

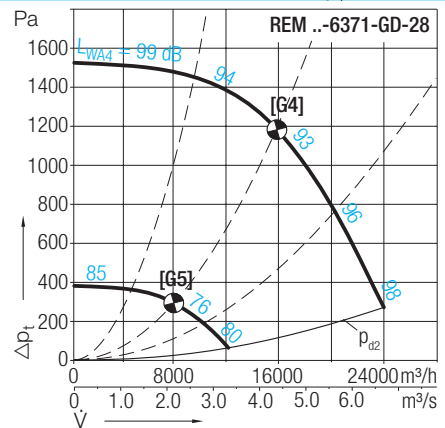
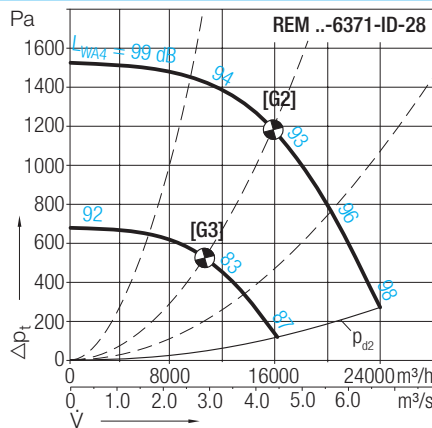
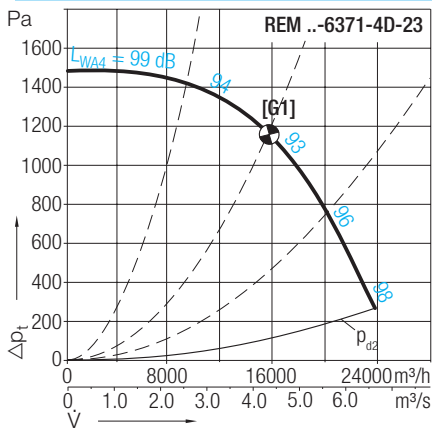
Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4} at V _{opt}	Weight REM BU/BI
REM BU-/BI- ⑤		V (3~)	Hz	1/min	kW	A			m³/h	dB ⑩	kg
6371-4D-23 [G1]	4	400/690 Δ/Y	50	1455	7.5	15.2/8.8	6.7	132 M	23800	93	227/435
6371-ID-28 [G2 G3]	4/6	400 Y/Y	50	1470/980	12.0/3.7	23.3/9.3	8.1/5.7	160 L	24000/16000	93/83	227/435
6371-GD-28 [G4 G5]	4/8	400 YY/Y	50	1470/730	14.0/3.3	28.6/9.3	8.1/4.7	160 L	24000/11900	93/76	227/435

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

ρ₁=1.20 kg/m³



Accessories

REM BU-/BI- ⑤	Isolator ESH ④	Smoke detection switch EBG	Optical smoke detector SSD	Mounting base USB	Manual trigger switch HE ①
6371-4D-23	ESH 21-0075-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076
6371-ID-28	ESH 21-0150-62	On request	SSD 521	USB 501-1	HE 075 / HE 076
6371-GD-28	ESH 21-0150-62	On request	SSD 521	USB 501-1	HE 075 / HE 076

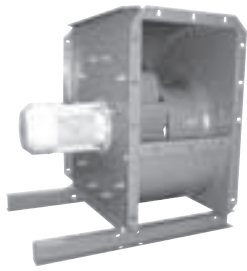
① HE 075 = Main switch station
HE 076 = Secondary switch station

④ Isolator switch supplied loose

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

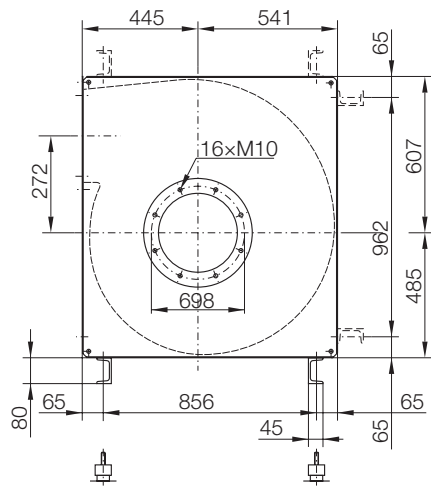
REM ..-6371, 600 °C – 120 min.

Dimensions in mm, Subject to change.

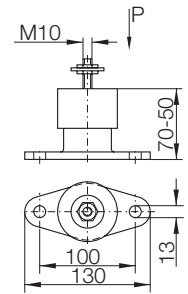


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-6371-..



ZBD 60
 A/V mounts

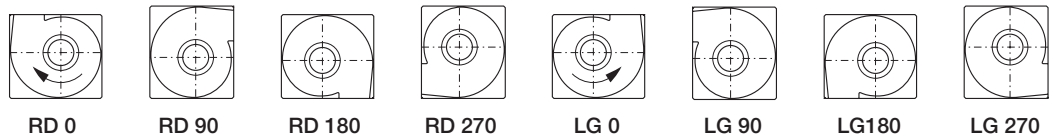


Direction

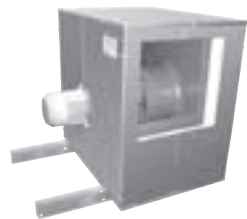
The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



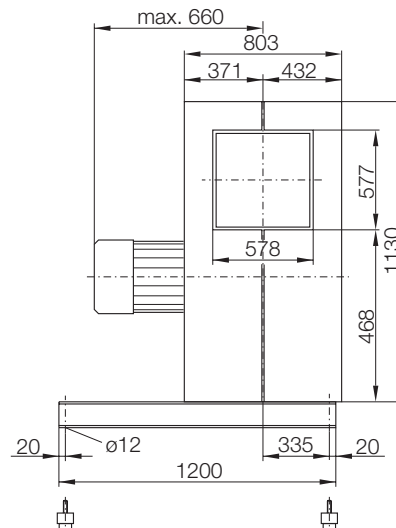
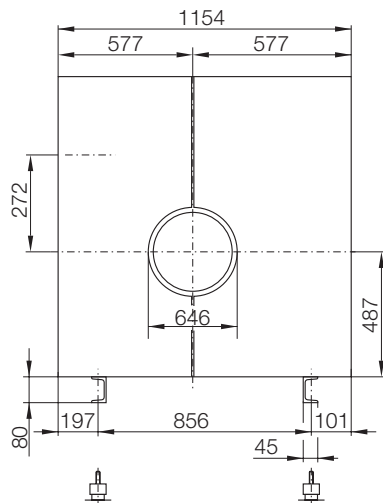
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-6371-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

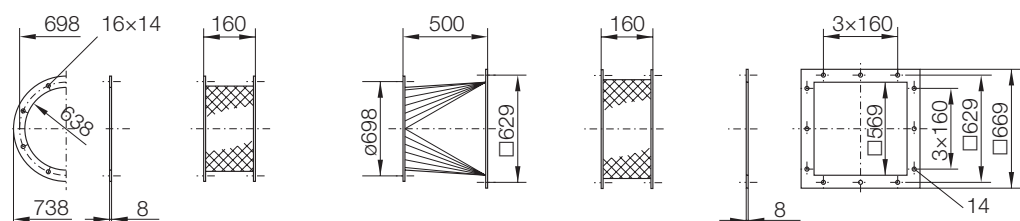
ZKF 4B-0630 [600°C]
 Mating flange

ZKE DH-0630 [600°C]
 Connection flex

ZKU 4B-2424 [600°C]
 Transition piece

ZKE DH-2424 [600°C]
 Discharge flex

ZKF DB-2424 [600°C]
 Counter frame

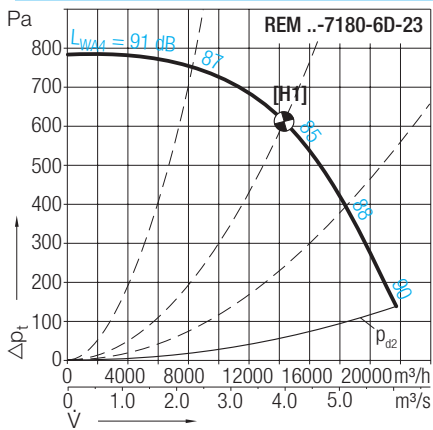


REM ..-7180, 600 °C – 120 min.

Technical Data												
	Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	$L_{WA,4}$ at V_{opt}	Weight REM BU/BI
			V (3~)	Hz	1/min	kW	A			m ³ /h	dB ^⑩	kg
REM BU-/BI- ^⑤			V (3~)	Hz	1/min	kW	A			m ³ /h	dB ^⑩	kg
7180-6D-23 [H1]		6	400/690 Δ/Y	50	950	4.0	9.4/5.5	4.5	132 Ma	21800	85	276/528

^⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves $\rho_1=1.20 \text{ kg/m}^3$

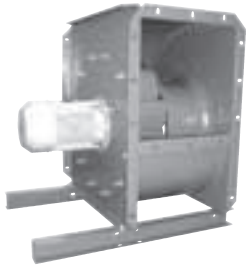


Accessories					
	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
REM BU-/BI- ^⑤	ESH ^④	EBG	SSD	USB	HE ^①
7180-6D-23	ESH 21-0075-62	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076

- ^① HE 075 = Main switch station
HE 076 = Secondary switch station
- ^④ Isolator switch supplied loose
- ^⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

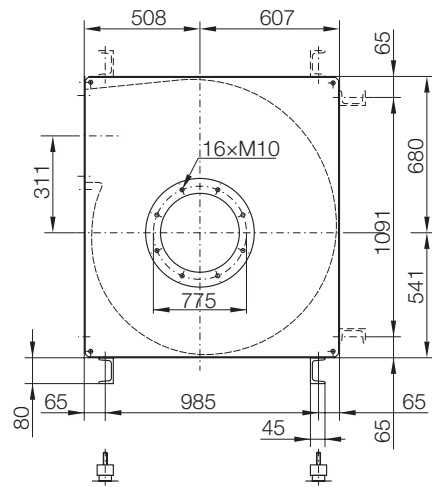
REM ..-7180, 600 °C – 120 min.

Dimensions in mm, Subject to change.

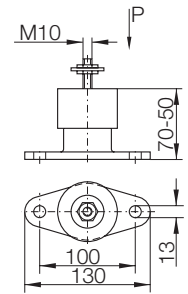


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-7180-..



ZBD 60
 A/V mounts

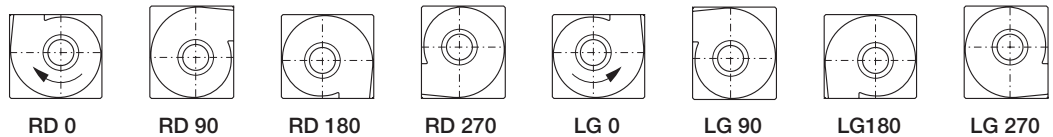


Direction

The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation

Symbol **LG** – Anti-clockwise rotation



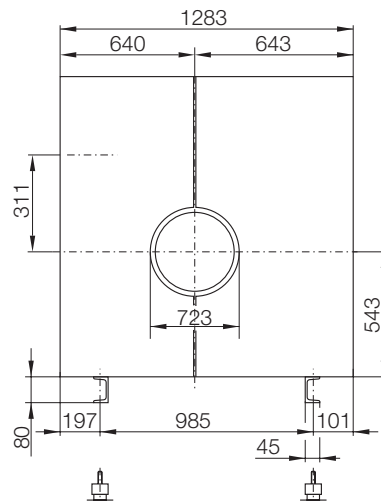
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

REM BI-7180-..

RD 90 (LG 90 mirror-image, further housing positions on request)



Accessories (Discharge)

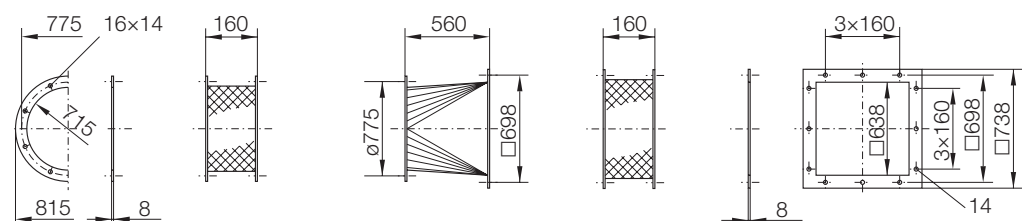
ZKF 4B-0710 [600°C]
 Mating flange

ZKE DH-0710 [600°C]
 Connection flex

ZKU 4B-2525 [600°C]
 Transition piece

ZKE DH-2525 [600°C]
 Discharge flex

ZKF DB-2525 [600°C]
 Counter frame



REM ..-8090, 600 °C – 120 min.

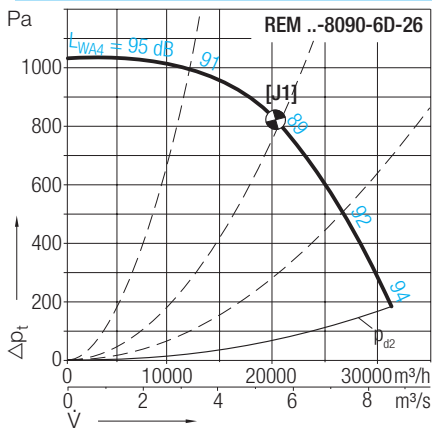
Technical Data

Curves	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V_{max}	L_{WA4} at V_{opt}	Weight REM BU/BI
		V (3~)	Hz	1/min	kW	A			m ³ /h	dB ⁽¹⁰⁾	kg
REM BU-/BI- ⁽⁵⁾		V (3~)	Hz	1/min	kW	A			m ³ /h	dB ⁽¹⁰⁾	kg
8090-6D-26 [J1]	6	400/690 Δ/Y	50	960	7.5	17.0/9.9	4.6	160 M	31400	89	360/663

⁽¹⁰⁾ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Curves

$\rho_1=1.20 \text{ kg/m}^3$



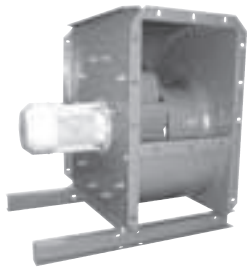
Accessories

	Isolator	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch
REM BU-/BI- ⁽⁵⁾	ESH ⁽⁴⁾	EBG	SSD	USB	HE ⁽¹⁾
8090-6D-26	ESH 21-0110-62	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076

- ⁽¹⁾ HE 075 = Main switch station
HE 076 = Secondary switch station
- ⁽⁴⁾ Isolator switch supplied loose
- ⁽⁵⁾ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

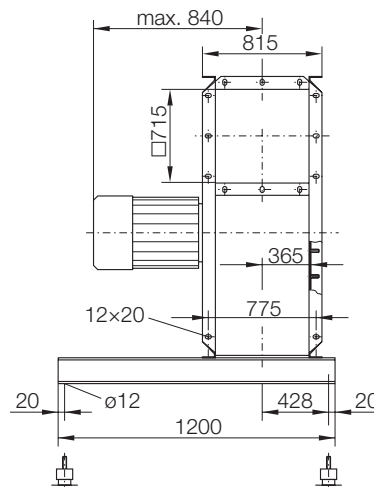
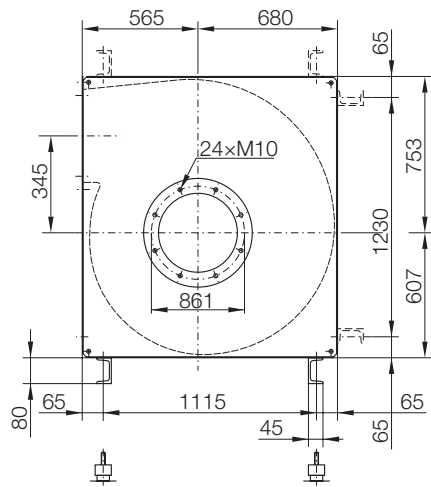
REM ..-8090, 600 °C – 120 min.

Dimensions in mm, Subject to change.

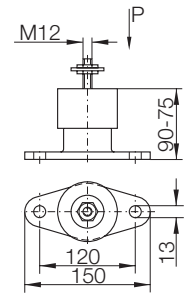


Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 05 (REM BU)
Centrifugal Smoke Extract Fan with direct drive
 Casing and impeller welded and coated.
 IEC motor out of the main air stream.

REM BU-8090-..



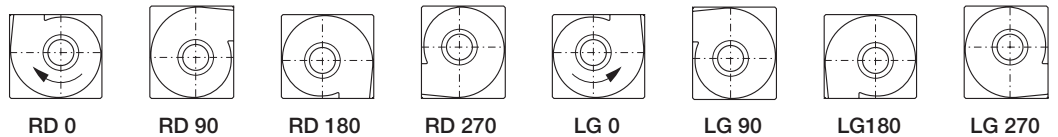
ZBD 60
A/V mounts



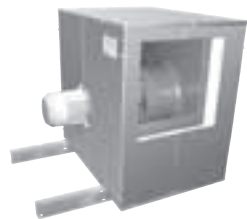
Direction

The direction of rotation is determined looking from the drive side:

Symbol **RD** – Clockwise rotation
 Symbol **LG** – Anti-clockwise rotation



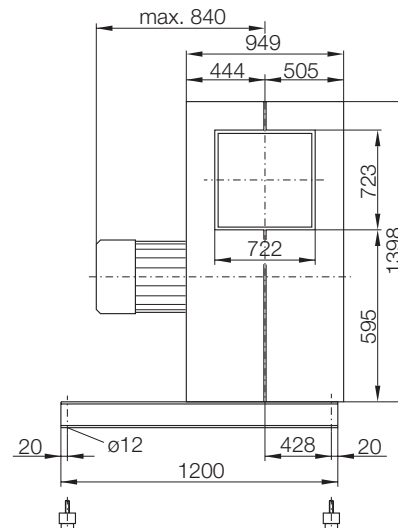
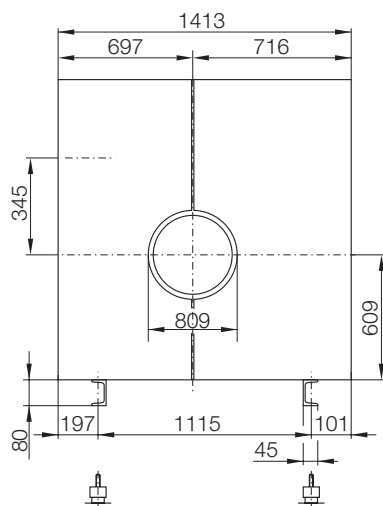
Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3
 Certificate of EC conformity: 0036 CPD RG01 04 (REM BI)
Centrifugal Smoke Extract Fan with direct drive
 Execution identical to REM BU, but additionally equipped with rugged insulation enclosure.

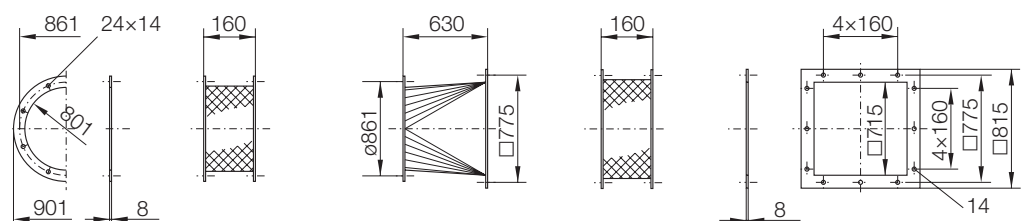
REM BI-8090-..

RD 90 (LG 90 mirror-image, further housing positions on request)



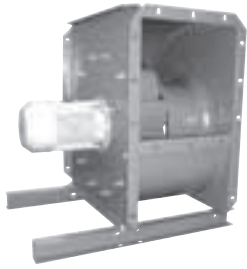
Accessories (Discharge)

- ZKF 4B-0800 [600°C]
Mating flange
- ZKE DH-0800 [600°C]
Connection flex
- ZKU 4B-2727 [600°C]
Transition piece
- ZKE DH-2727 [600°C]
Discharge flex
- ZKF DB-2727 [600°C]
Counter frame



REM BU-2528/-8090, 600 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 05

Centrifugal Smoke Extract Fan REM BU

Single inlet, with direct drive, suitable for smoke extraction in the case of fire for temperatures up to

+600 °C - 120 minutes,

Certified for installation outside of buildings, tested to DIN EN 12101-3, and CE certified.

Can be used for as a standard ventilation fan up to an air temperature of +100 °C.

Installation of the fan authorised for horizontal shaft position only.

Casing made of steel sheet, welded and coated, equipped with mounting channels, suitable for handling

RD / LG 0°, 90°, 180° and 270°.

Connecting dimensions

- intake side according to DIN 24154, range 4,

- discharge side according to DIN 24158, range 4.

Centrifugal impeller with backward curved laminar blades, welded and coated, fitted to motor shaft of a flanged IEC motor, placed out of the main air stream, statically and dynamically balanced to DIN 1940. Impeller and motor can be removed as a unit (without duct dismantling)

Motor B5, IP 55, ISO F, 400V, 3 phase, 50 Hz.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type *compact* REM BU-

Volume	$\dot{V} = \dots\dots\dots$ m ³ /h
Pressure increase	$\Delta p_t = \dots\dots\dots$
Media temperature	t = $\dots\dots\dots$ °C
Speed	n = $\dots\dots\dots$ 1/min
Nominal power	P _N = $\dots\dots\dots$ kW
Nominal current	I _N = $\dots\dots\dots$ A
Voltage/Frequency	U/f = $\dots\dots\dots$ V/Hz
A-Sound power level	L _{WA4} = $\dots\dots\dots$ dB
Weight	m = $\dots\dots\dots$ kg

Accessories (at extra cost)

Flexible connection (circular) ZKE DH

Matching flange (circular) ZKF 4B

Flexible connection (rectangular) ZKE DH

Matching flange (rectangular) ZKF DB

Transformation piece (rectangular/circular) ZKU 4B

Spring type AVM ZBD

Switches / Regulators / Controllers

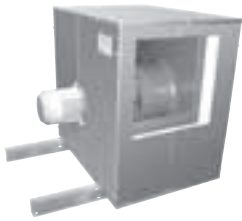
Dedication of units see technical data

Specification see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

REM BI-2528/-8090, 600 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 04

Centrifugal Smoke Extract Fan REM BI

Single inlet, with direct drive, suitable for smoke extraction in the case of fire for temperatures up to

+600 °C - 120 minutes,

Certified for installation inside of buildings – outside room with fire risk, tested to DIN EN 12101-3, and CE certified.

Can be used for as a standard ventilation fan up to an air temperature of +100 °C.

Installation of the fan authorised for horizontal shaft position only.

Casing made of steel sheet, welded and coated, equipped with mounting channels, suitable for handing RD 90°/ LG 90°. Connecting dimensions

- intake side according to DIN 24154, range 4,

- discharge side according to DIN 24158, range 4.

Centrifugal impeller with backward curved laminar blades, welded and coated, fitted to motor shaft of a flanged IEC motor, placed out of the main air stream, statically and dynamically balanced to DIN 1940. Impeller and motor can be removed as a unit (without duct dismantling)

Motor B5, IP 55, ISO F, 400V, 3 phase, 50 Hz.

Insulating enclosure

A supporting frame structure made of square channels, welded and coated. The elements are made for easy assembly and disassembly. The insulation panels are calcium silicate plates (Monolux) clad outside with galvanised steel sheet. The whole enclosure together with a rugged base plate is bolted to the fan base frame.

The material is delivered in parts on a palette.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type *compact* REM BI-

Volume	$\dot{V} = \dots\dots\dots$ m ³ /h
Pressure increase	$\Delta p_t = \dots\dots\dots$
Media temperature	t = $\dots\dots\dots$ °C
Speed	n = $\dots\dots\dots$ 1/min
Nominal power	P _N = $\dots\dots\dots$ kW
Nominal current	I _N = $\dots\dots\dots$ A
Voltage/Frequency	U/f = $\dots\dots\dots$ V/Hz
A-Sound power level	L _{WA4} = $\dots\dots\dots$ dB
Weight	m = $\dots\dots\dots$ kg

Accessories (at extra cost)

Flexible connection (circular) ZKE DH

Matching flange (circular) ZKF 4B

Flexible connection (rectangular) ZKE DH

Matching flange (rectangular) ZKF DB

Transformation piece (rectangular/circular) ZKU 4B

Spring type AVM ZBD

Switches / Regulators / Controllers

Dedication of units see technical data

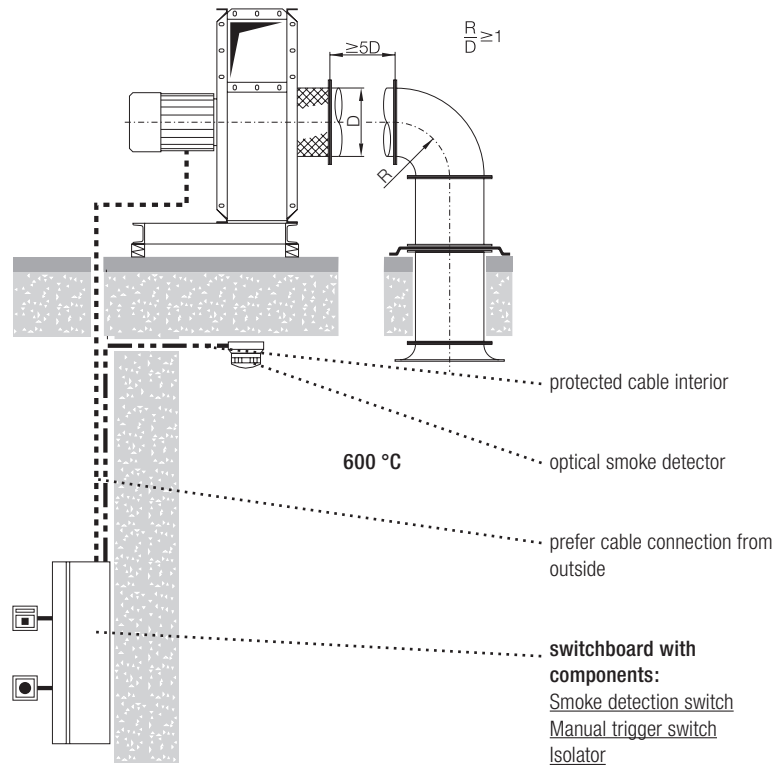
Specification see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

REM BU-2528/-8090, 600 °C – 120 min.
REM BI-2528/-8090, 600 °C – 120 min.

Notes

The smoke extract fans are supplied ready for installation.
 The installation has to be made according to the certification specification and to local regulations. Every fan is supplied with a wiring diagram explaining the correct connection.

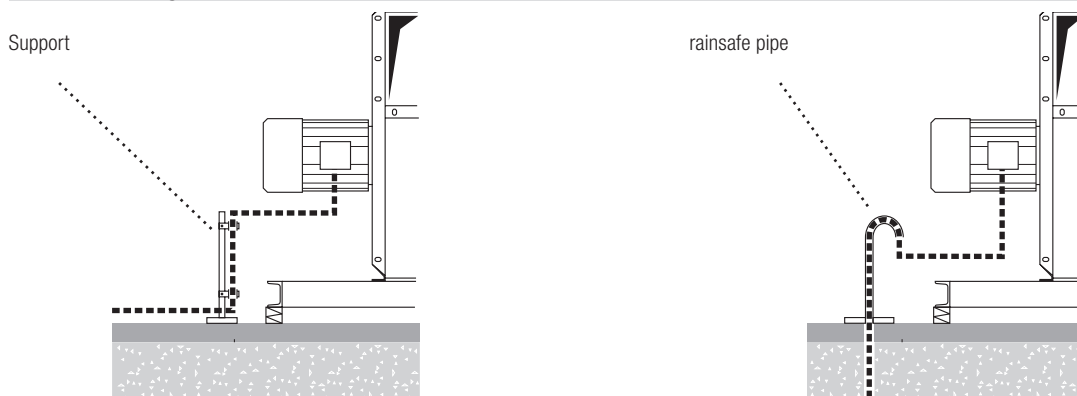


Attention!

The installation has to be accepted by the concerned authorities or by a certified expert in order to get the certificate confirming that everything has been executed acc. to the existing regulations and rules.

The electrical wiring has to be placed outside of the room to protect against fire and has to be made according to the certification specification and to the most actual local regulations, specially following to "Regulations about fire protection requirements concerning electrical wiring".

Potential cabling



When connecting the fan electrically take care of the cable installation.

REM BU-2528/-8090, 600 °C – 120 min.

REM BI-2528/-8090, 600 °C – 120 min.

Connection / Flange

ZKE DH-0250/-0800 [600°C]
ZKE DH-1515/-2727 [600°C]



For intake and discharge there are flanges and flexible connectors available. They are made of steel sheet and coated. The whole accessories are certified for 600 °C - 120 min. The flange dimensions correspond to
- suction side (circular) DIN 24 154-4,
- discharge side (rectangular) DIN 24 158-4.

ZKF 4B-0250/-0800 [600°C]
ZKF DB-1515/-2727 [600°C]



Flange

ZKU 4B-1515/-2727 [600°C]



Transformation piece (rectangular/circular) for adapting to different duct sections, made of steel sheet, welded and coated, Certified for 600 °C - 120min.

Anti vibration mounts

ZBD 60-0101/-0150



Spring type AVM –adjustable in height– for efficient vibration isolation. Anti vibration mounts (AVM) are provided for preventing transmission of vibrations and noise to the foundation and installation. They are supplied with the necessary fixing material to fit them to the base frame.

The smoke extraction all-rounder:

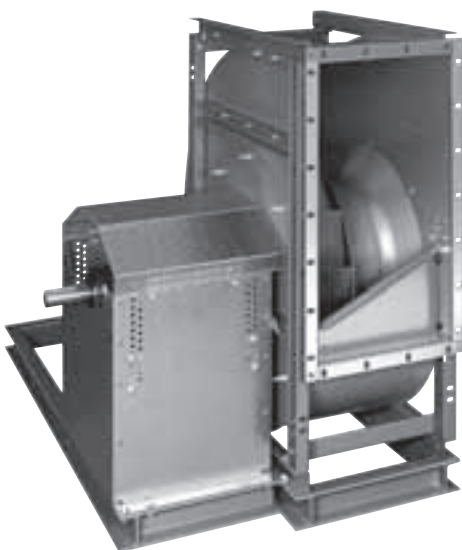


RER 13

Belt drive with an IEC-compliant motor
Flow rate of up to 150,000 m³/h
400 °C – 120 min.
No. 0036 CPD RG 01 06

The fans from the RER 13 and RER 17 (non-insulated) ranges are single-intake radial smoke extractor fans with a belt drive. They are ready for installation into smoke extraction duct systems on both the suction and outlet sides. The fans (with a horizontal axis) can be fitted in casing at angles of 0°, 90°, 180° and 270°. They are approved for installation outside buildings in this non-insulated version.

If these fans are also encapsulated in insulating casing, they are also suitable for installation inside the building as long as they are not used in the room where the fire breaks out.



RER 17

Belt drive with an IEC-compliant motor
Flow rate of up to 150,000 m³/h
400 °C – 120 min.
No. 0036 CPD RG 01 07

A small price to pay for maximum safety and versatility

The affordable, quiet RER with its huge range of outputs is probably one of the most versatile smoke extraction solutions around. The non-insulated standard version and the model with protective insulating casing are both available in 19 sizes for flow rates of approx. 300 m³/h to 150,000 m³/h.



Synonymous with versatility: RER *rotavent*®

The RER 13 and RER 17 ranges of fans are supplied in the quality you expect from Nicotra Gebhardt and are packed with technical details for maximum power.

- Both ranges have CE certification.
- The RER fans are each available in 19 different sizes for flow rates of up to 150,000 m³/h and pressure of up to 3,000 Pa.
- During smoke extraction, the RER conveys fumes up to +400 °C for 120 min. It can be used for permanent ventilation at temperatures of up to +80 °C.
- The high-performance impeller with hollow curved blades ensures quiet ventilation.
- The fans with a horizontal axis can be fitted in casing at angles of 0°, 90°, 180° and 270°.
- The insulated versions of the RER 13 and the RER 17 come with self-contained insulating casing (90°) in segments which are easy to install and dismantle.
- The intake and output are ready for fitting standard flanges for integration into a duct network.
- The spiral-shaped casing is made of galvanised (RER 17) or welded and coated sheet steel (RER 13).
- A wide range of approved accessories is available for the fans.
- A specially designed system of electrical components including smoke detector switchgear, an optical smoke detector and a manual trigger button rounds off the range of accessories.

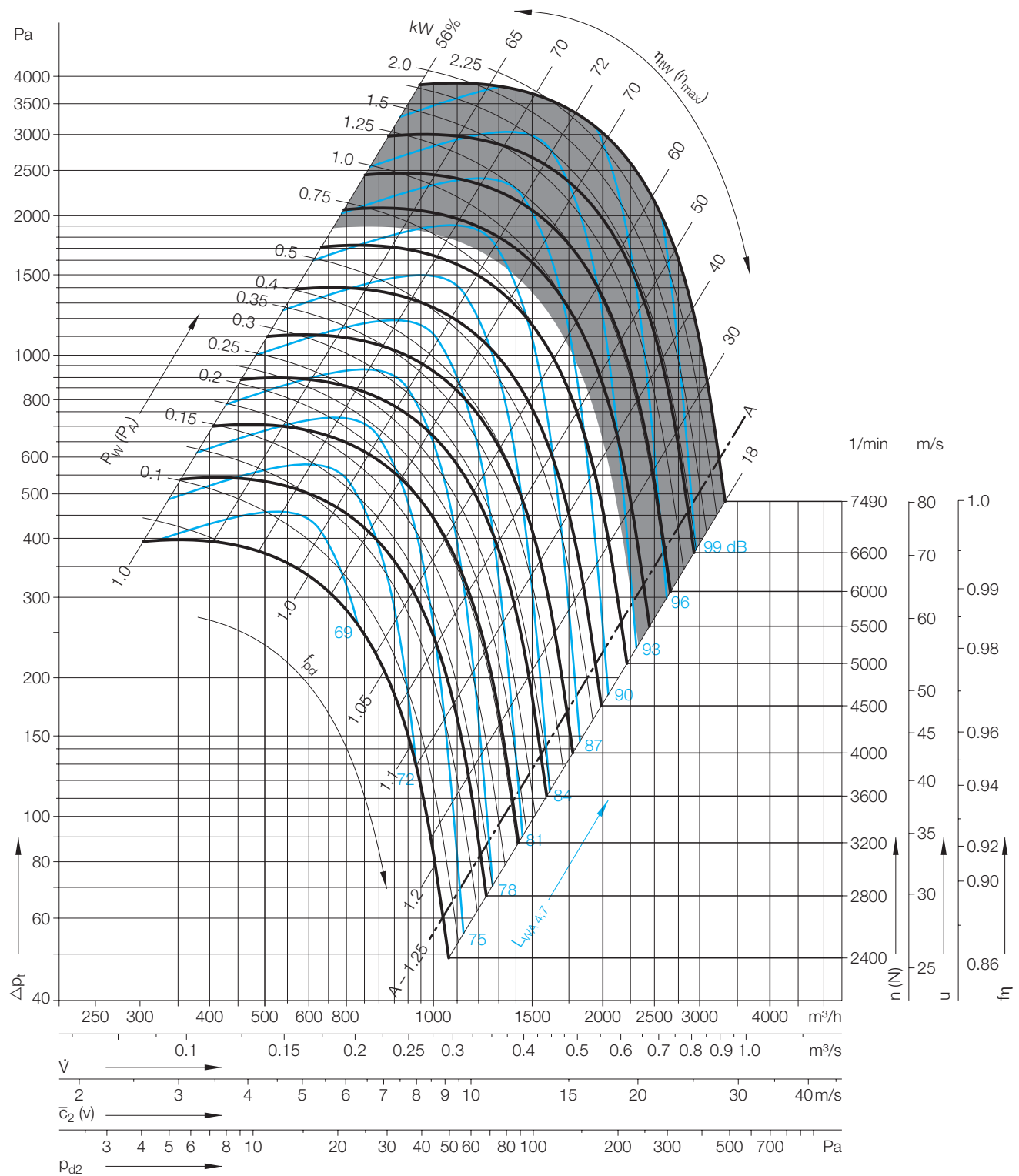
RER 13-0200, 400 °C – 120 min. RER 17-0200, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 2

- all types suitable
- prohibited area

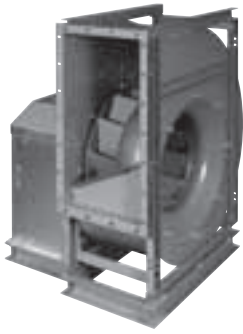


Formulae | Units see Description

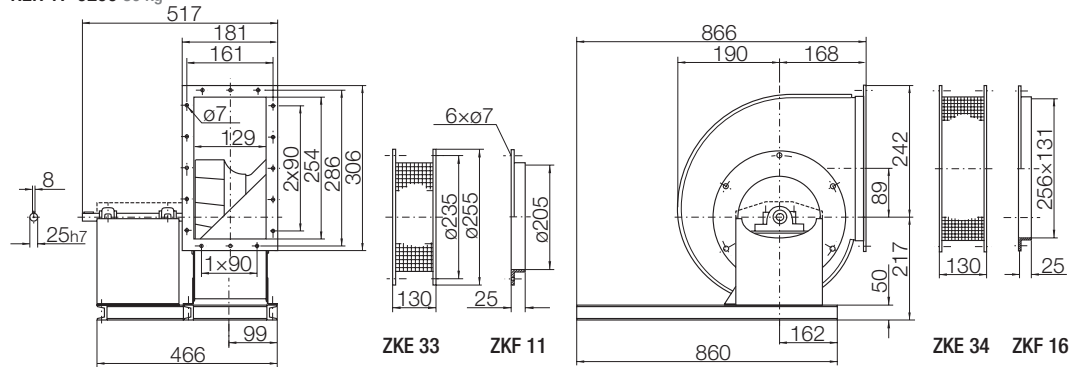
D	= 204 mm	Impeller diameter
z	= 11	Number of blades
J	= 0.010 kgm^2	Moment of inertia
Δp_{fa}	= $\Delta p_t - p_{d2}$	Static pressure - ducted
Δp_{fa}	= $\Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0200, 400 °C – 120 min.
RER 17-0200, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0200 32 kg
 RER 17-0200 30 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06 (RER 13) 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

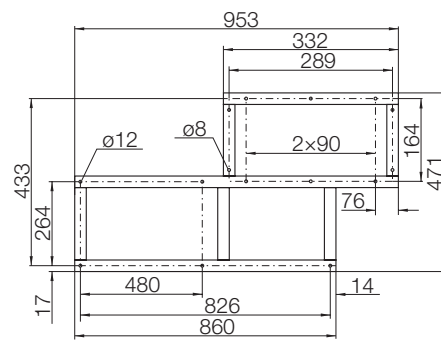
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel

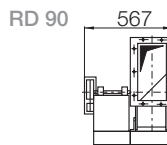
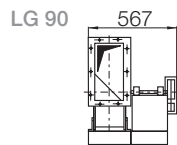
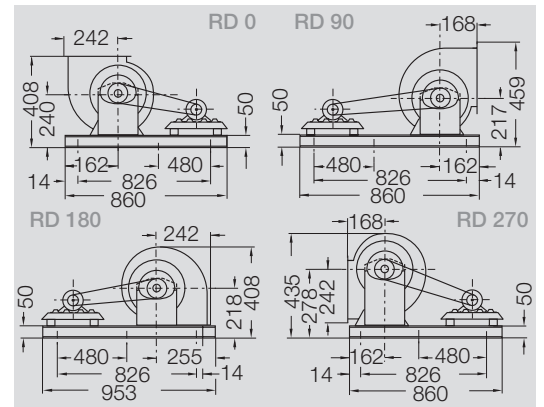
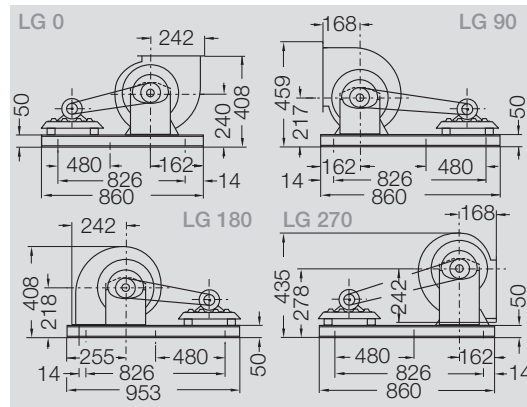
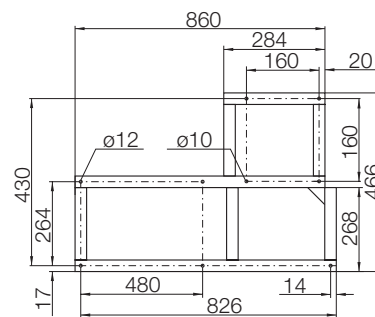
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

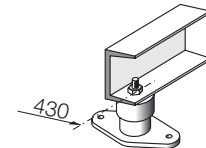
RD 180
 LG 180 mirror-image



RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



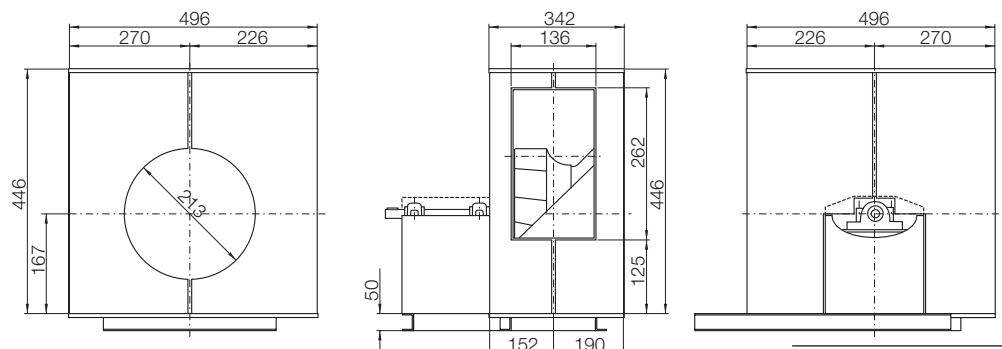
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0200 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



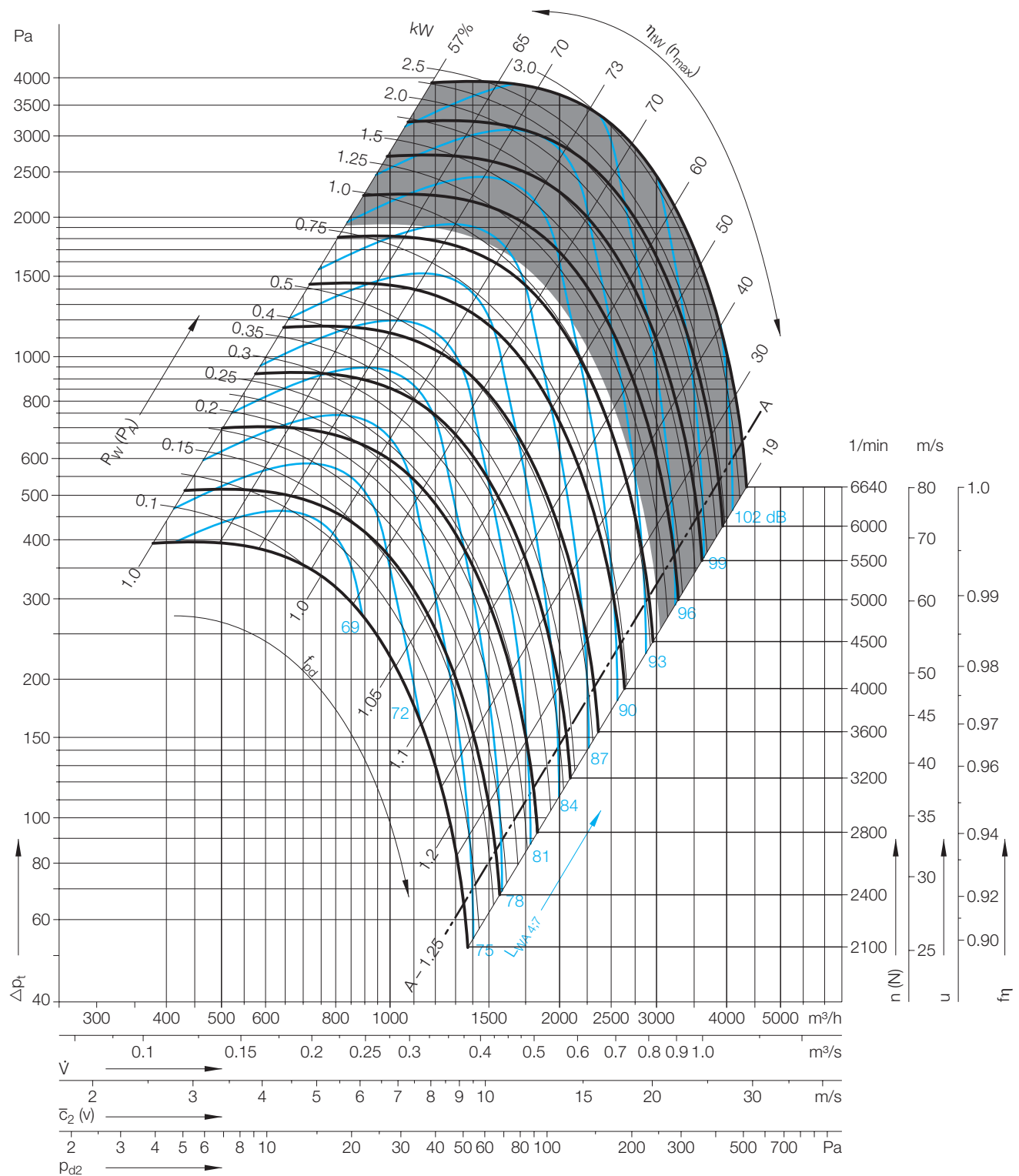
RER 13-0225, 400 °C – 120 min. RER 17-0225, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 2

- all types suitable
- prohibited area

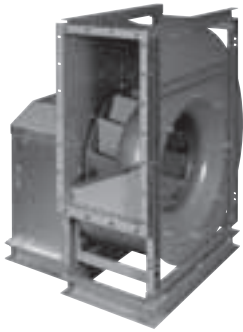


Formulae | Units see Description

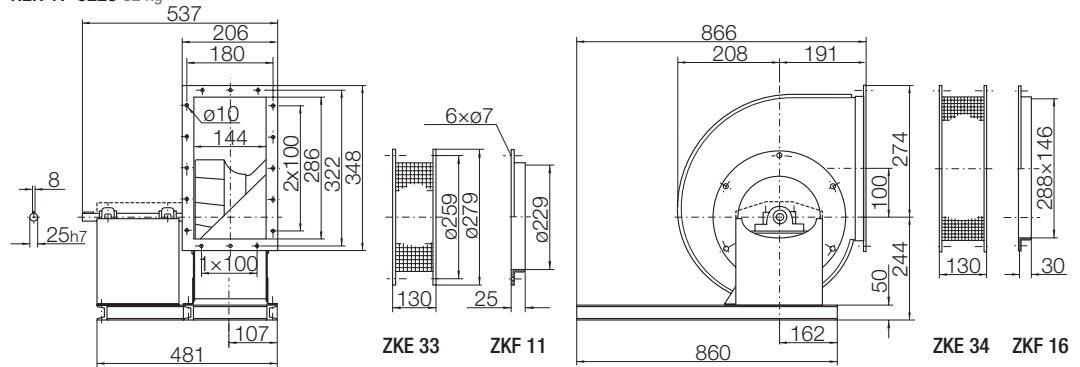
D = 230 mm	Impeller diameter
z = 11	Number of blades
J = 0.015 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0225, 400 °C – 120 min. RER 17-0225, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0225 34 kg
RER 17-0225 32 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 06 (RER 13)
0036 CPD RG01 07 (RER 17)

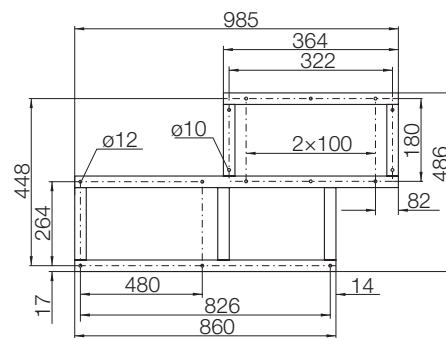
Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13
Casing made of sheet steel welded and coated

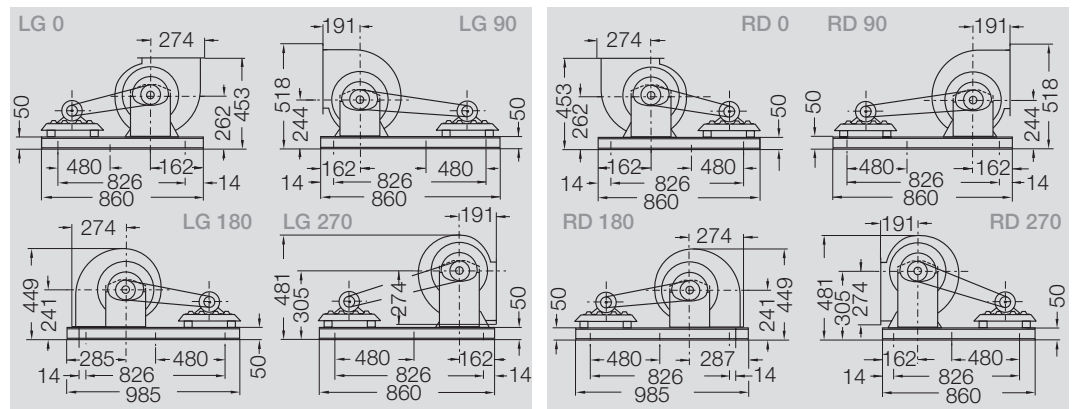
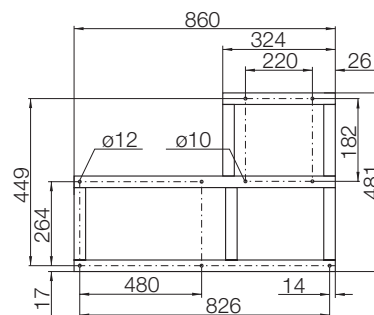
RER 17
Lock formed casing made of galvanised sheet steel
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

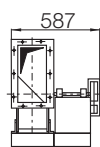
RD 180
LG 180 mirror-image



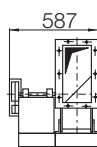
RD 90, LG 0, LG 270
LG 90, RD 0, RD 270 mirror-image



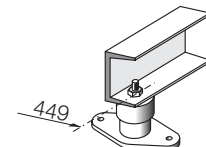
LG 90



RD 90



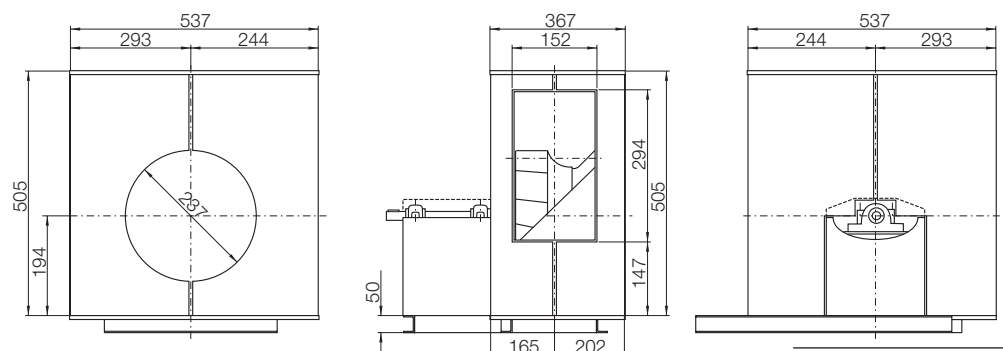
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0225 with insulated casing (special fitting)
RD 90 (LG 90 mirror-image, further handings on request)



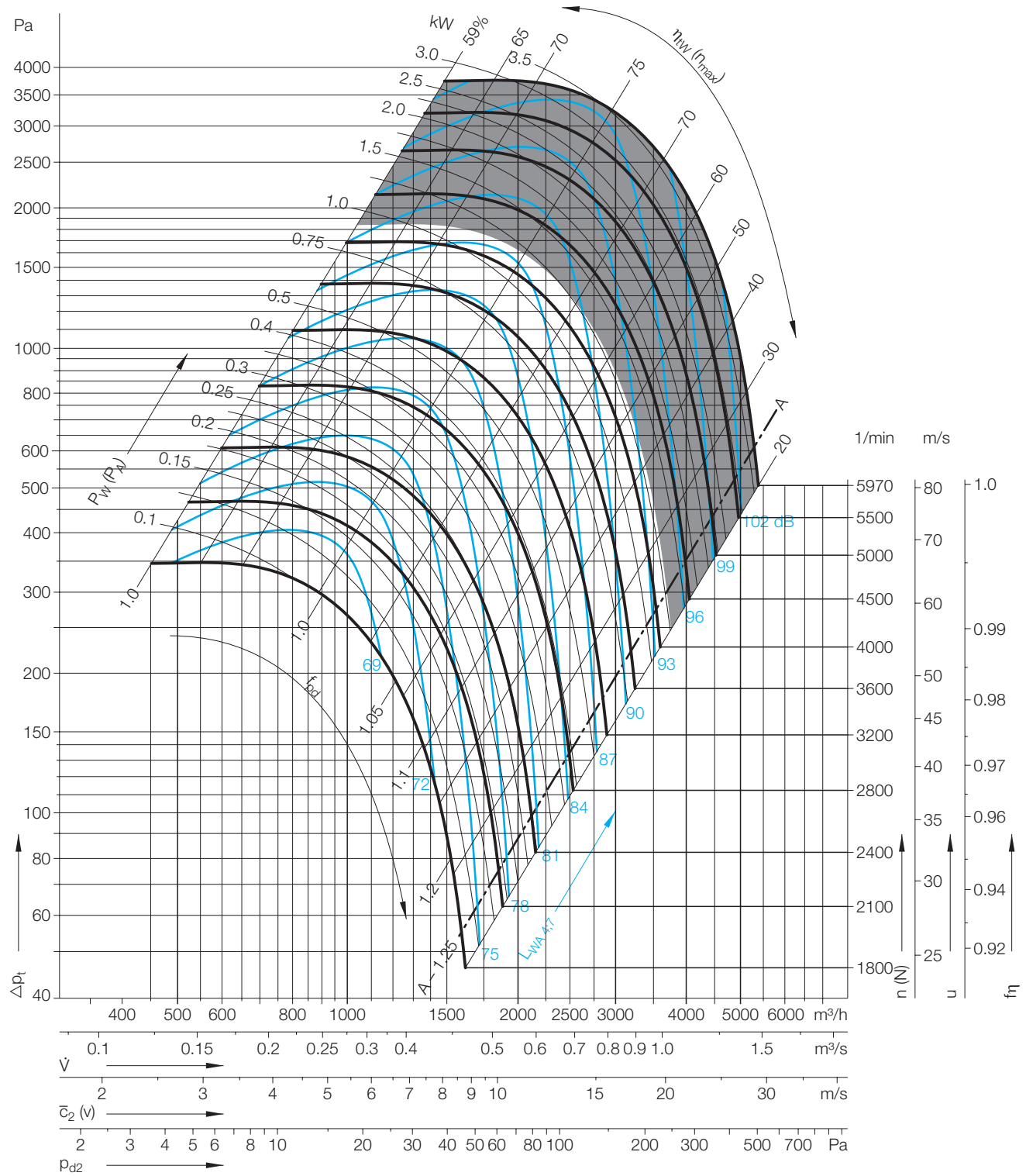
RER 13-0250, 400 °C – 120 min. RER 17-0250, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 2

- all types suitable
- prohibited area

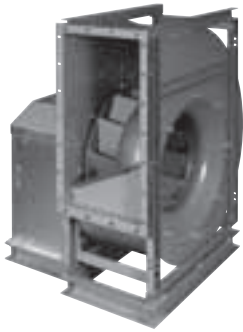


Formulae | Units see Description

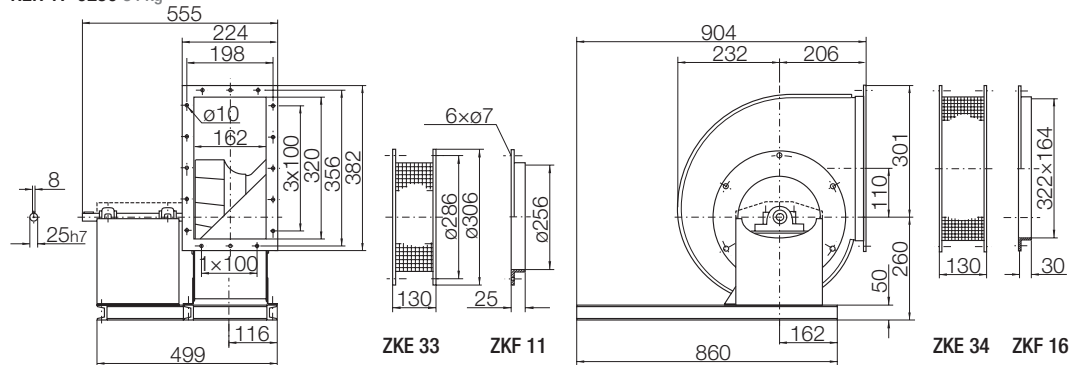
$D = 256 \text{ mm}$	Impeller diameter
$z = 11$	Number of blades
$J = 0.026 \text{ kgm}^2$	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0250, 400 °C – 120 min. RER 17-0250, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0250 37 kg
RER 17-0250 34 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 06 (RER 13)
0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

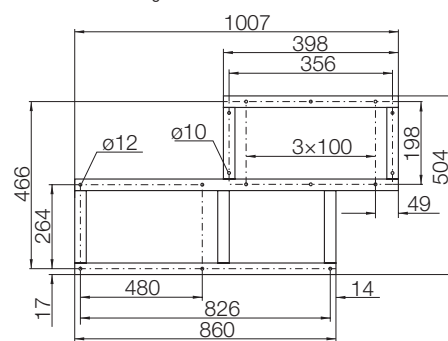
RER 13
Casing made of sheet steel welded and coated

RER 17
Lock formed casing made of galvanised sheet steel

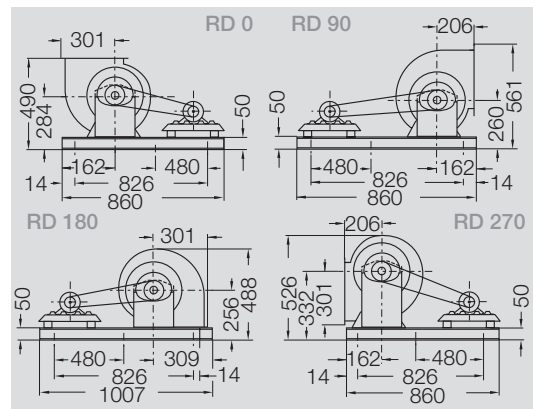
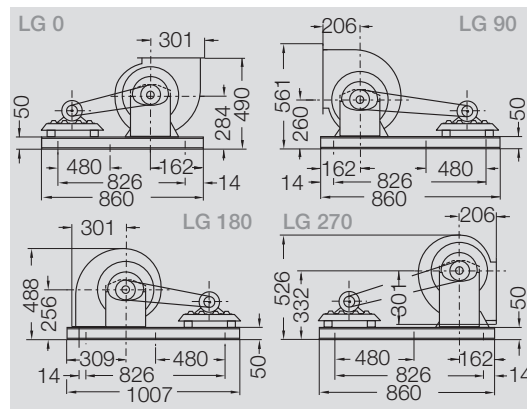
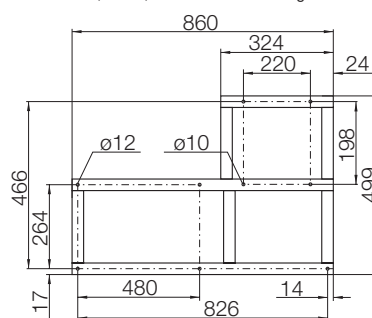
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

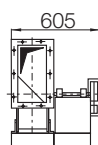
RD 180
LG 180 mirror-image



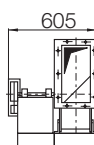
RD 90, LG 0, LG 270
LG 90, RD 0, RD 270 mirror-image



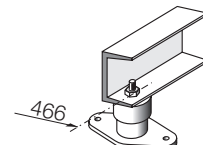
LG 90



RD 90



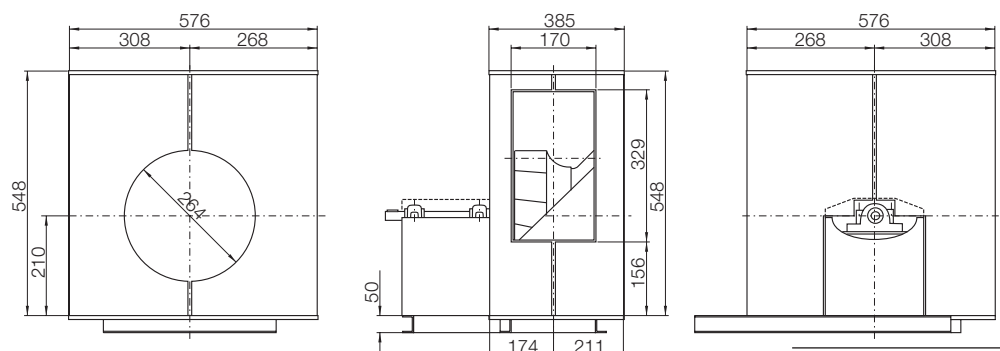
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0250 with insulated casing (special fitting)
RD 90 (LG 90 mirror-image, further handings on request)



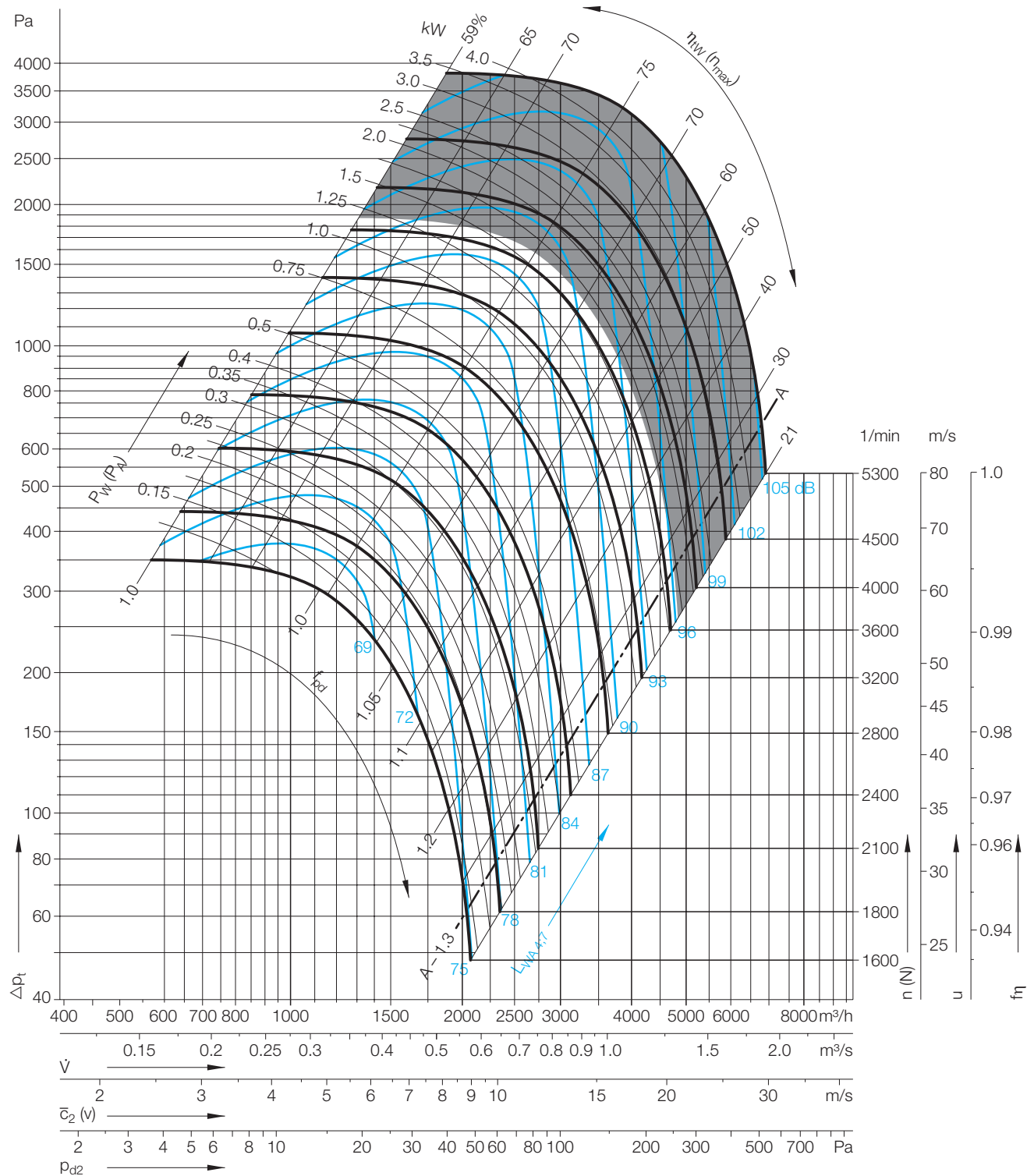
RER 13-0280, 400 °C – 120 min. RER 17-0280, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 2

- all types suitable
- prohibited area



Formulae | Units see Description

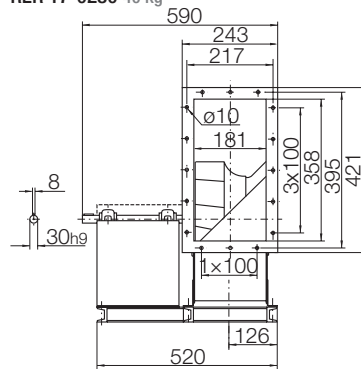
D = 288 mm	Impeller diameter
z = 11	Number of blades
J = 0.041 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0280, 400 °C – 120 min. RER 17-0280, 400 °C – 120 min.

Dimensions in mm, Subject to change.

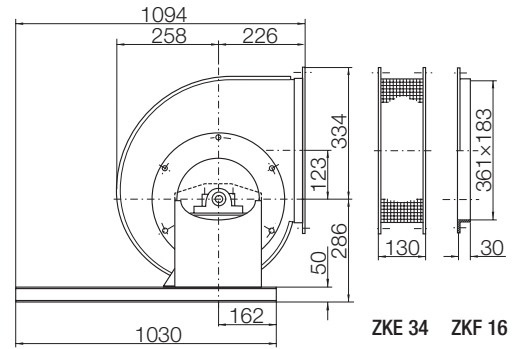


RER 13-0280 43 kg
RER 17-0280 40 kg



ZKE 33

ZKF 11



ZKE 34

ZKF 16

Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 06 (RER 13)
0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

Casing made of sheet steel welded and coated

RER 17

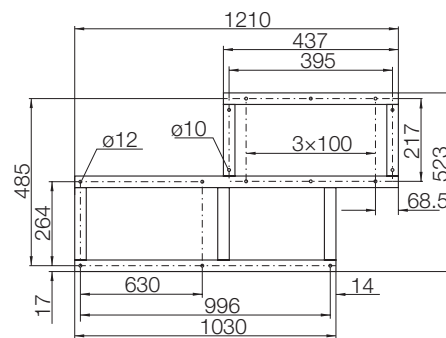
Lock formed casing made of galvanised sheet steel

Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

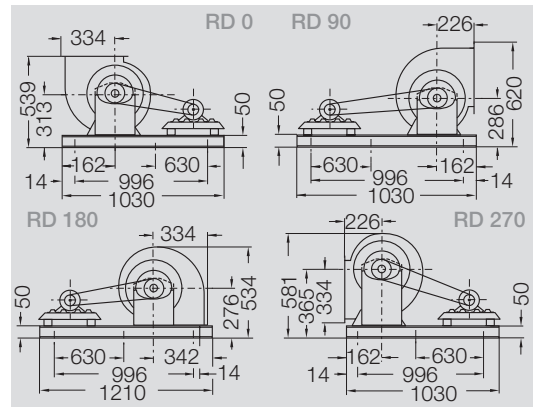
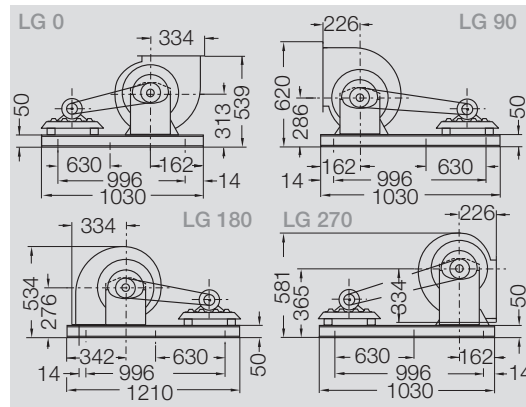
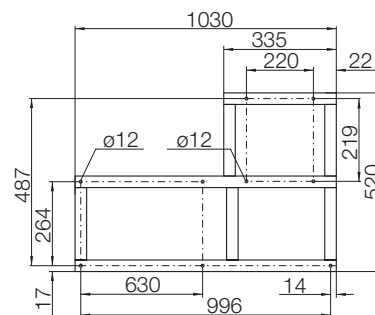
RD 180

LG 180 mirror-image

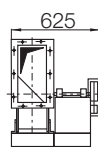


RD 90, LG 0, LG 270

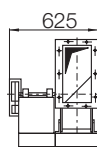
LG 90, RD 0, RD 270 mirror-image



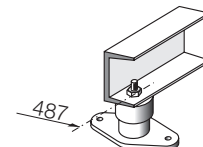
LG 90



RD 90



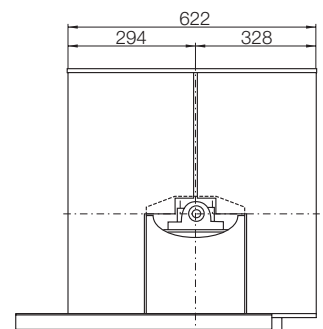
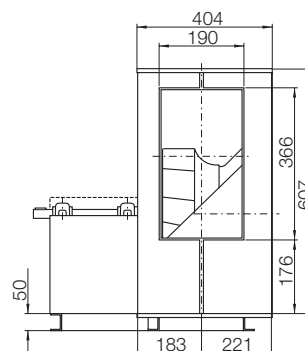
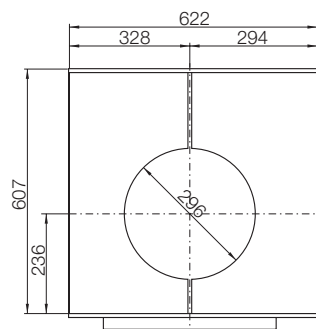
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0280 with insulated casing (special fitting)
RD 90 (LG 90 mirror-image, further handings on request)



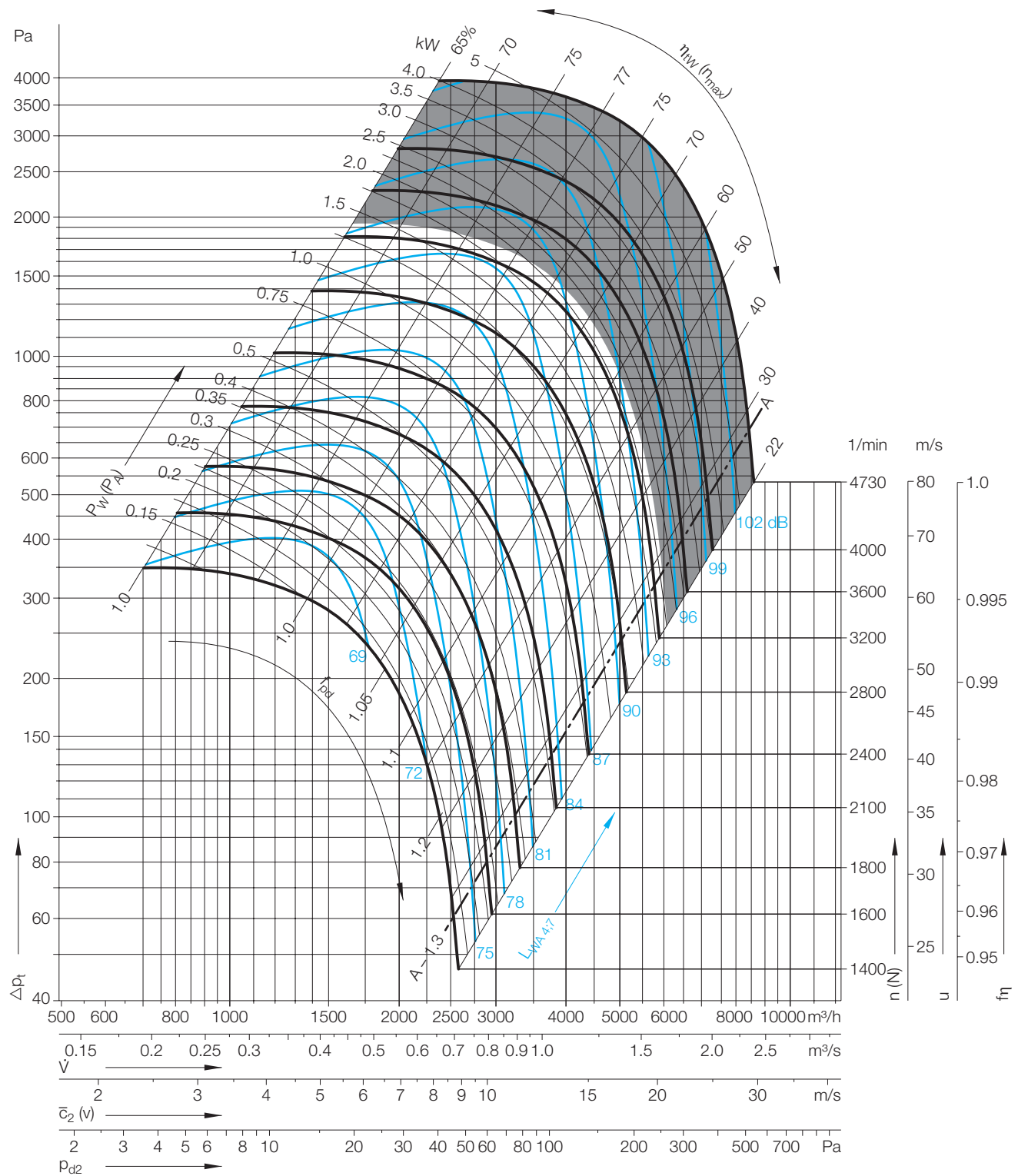
RER 13-0315, 400 °C – 120 min. RER 17-0315, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

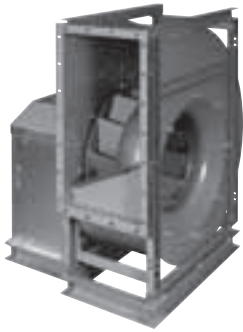


Formulae | Units see Description

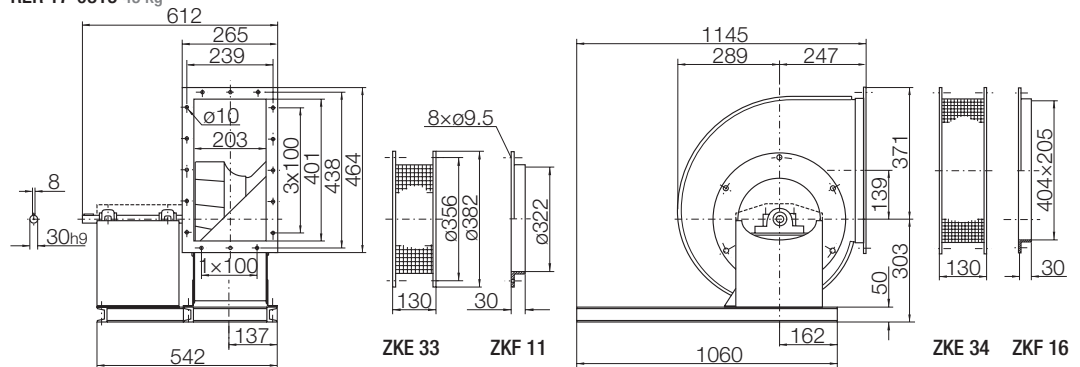
D	= 323 mm	Impeller diameter
z	= 12	Number of blades
J	= 0.063 kgm^2	Moment of inertia
Δp_{fa}	= $\Delta p_t - p_{d2}$	Static pressure - ducted
Δp_{fa}	= $\Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0315, 400 °C – 120 min. RER 17-0315, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0315 48 kg
RER 17-0315 45 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 06 (RER 13)
0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

Casing made of sheet steel welded and coated

RER 17

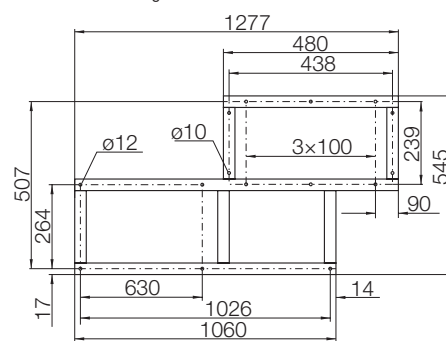
Lock formed casing made of galvanised sheet steel

Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

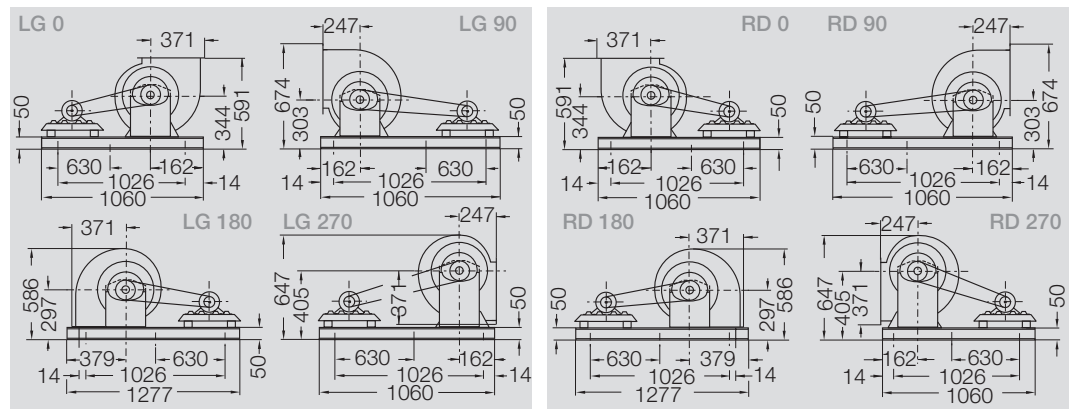
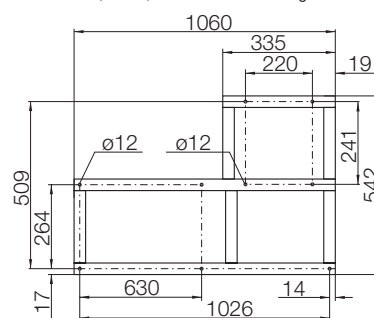
RD 180

LG 180 mirror-image

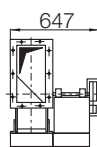


RD 90, LG 0, LG 270

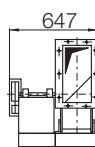
LG 90, RD 0, RD 270 mirror-image



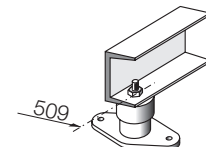
LG 90



RD 90



U-Profil

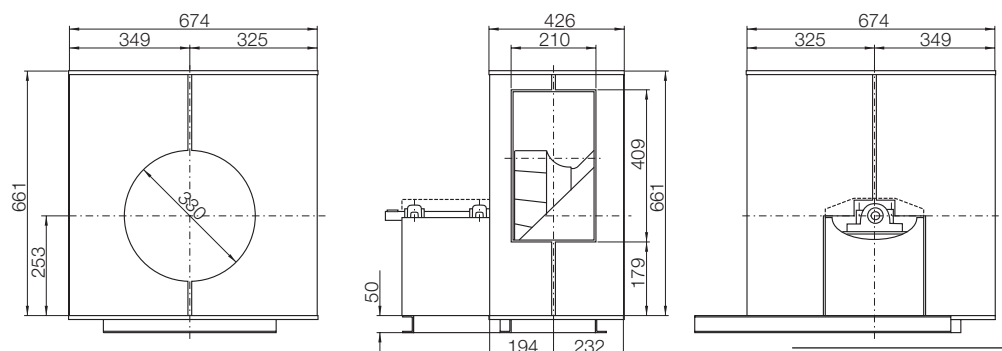


Dimensions in mm, Subject to change.



RER 13/17-0315 with insulated casing (special fitting)

RD 90 (LG 90 mirror-image, further handings on request)



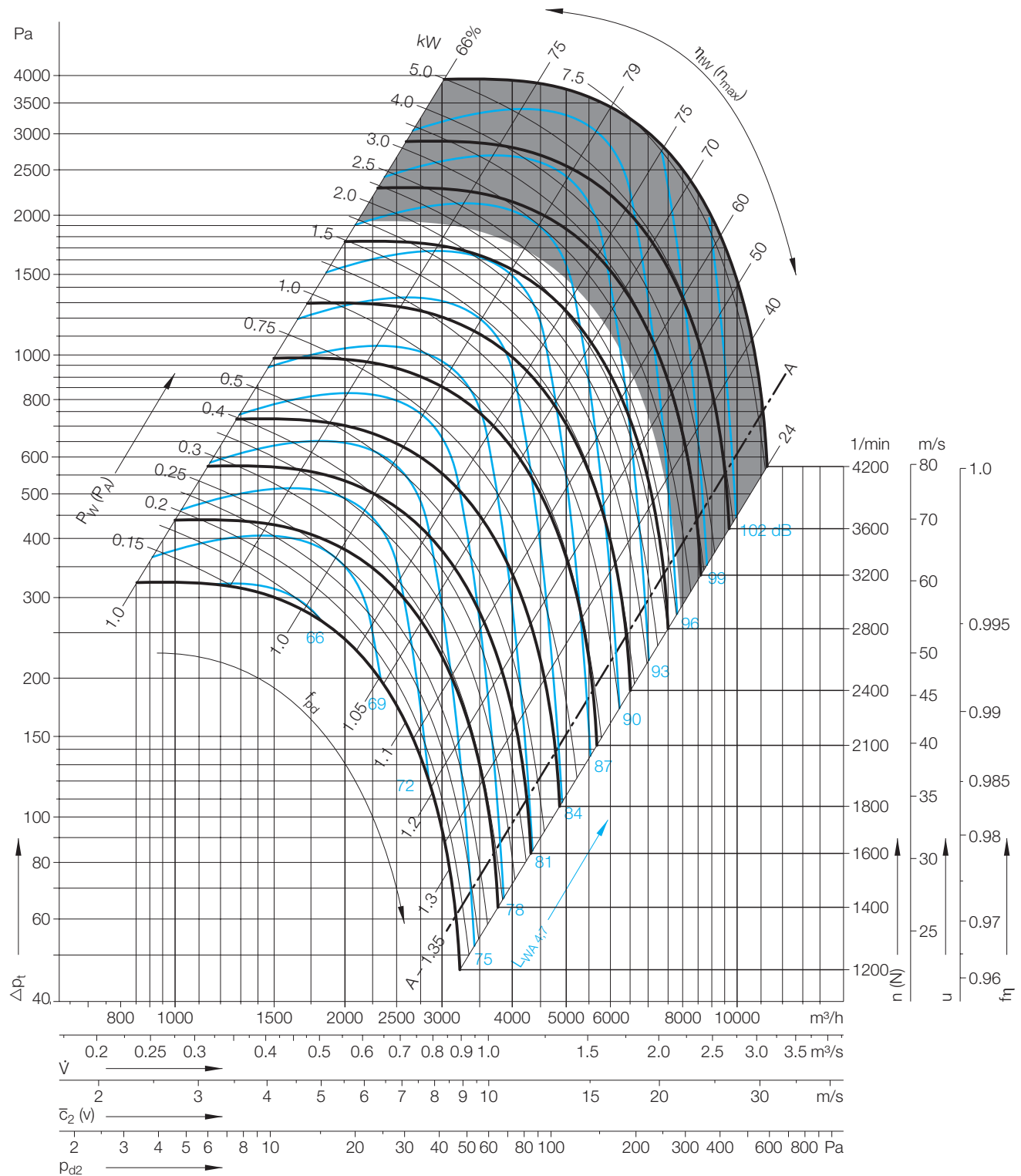
RER 13-0355, 400 °C – 120 min. RER 17-0355, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area



Formulae | Units see Description

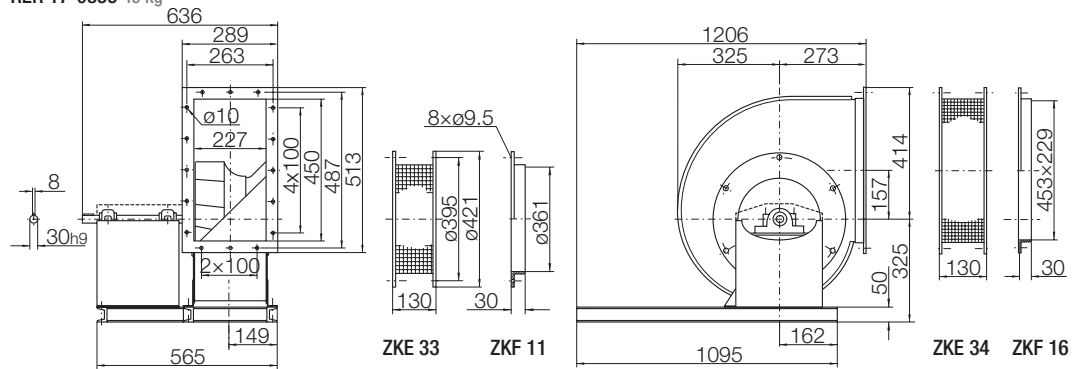
D = 363 mm	Impeller diameter
z = 12	Number of blades
J = 0.11 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0355, 400 °C – 120 min. RER 17-0355, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0355 53 kg
RER 17-0355 49 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
0036 CPD RG01 06 (RER 13)
0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

Casing made of sheet steel welded and coated

RER 17

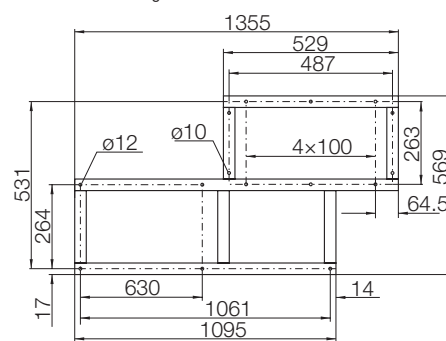
Lock formed casing made of galvanised sheet steel

Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

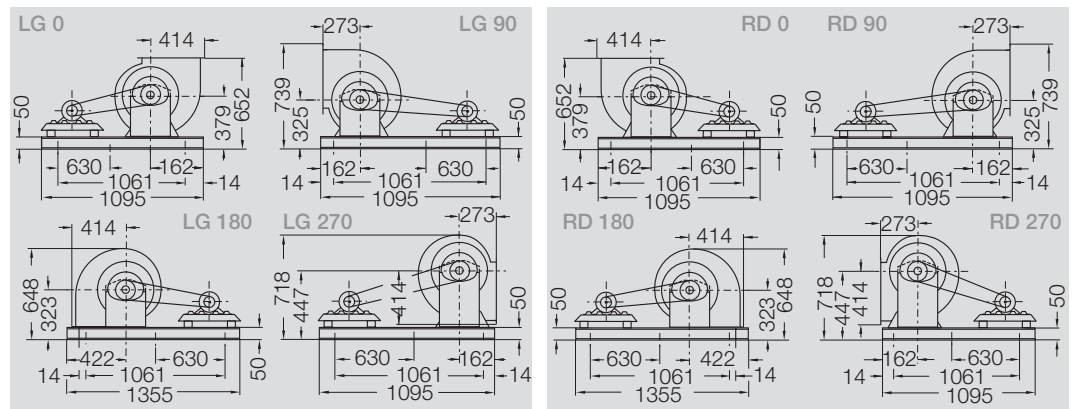
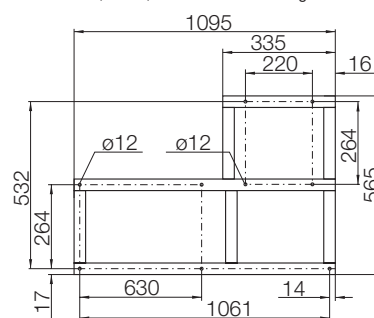
RD 180

LG 180 mirror-image



RD 90, LG 0, LG 270

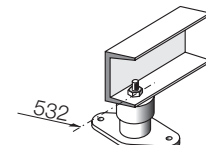
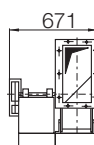
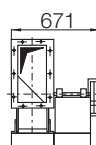
LG 90, RD 0, RD 270 mirror-image



LG 90

RD 90

U-Profil

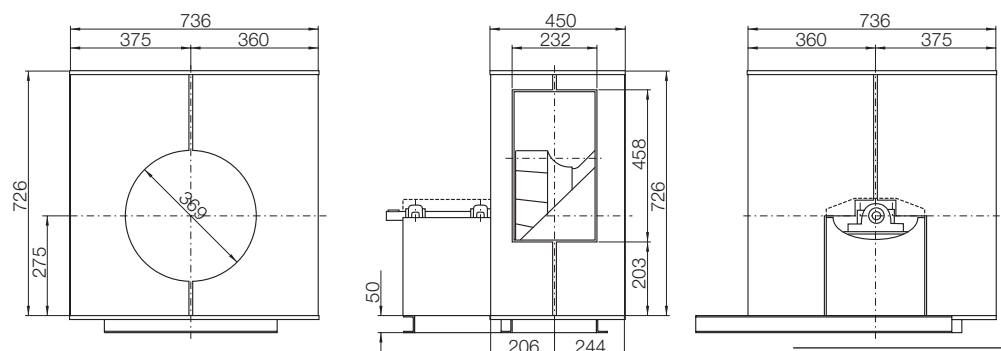


Dimensions in mm, Subject to change.



RER 13/17-0355 with insulated casing (special fitting)

RD 90 (LG 90 mirror-image, further handings on request)



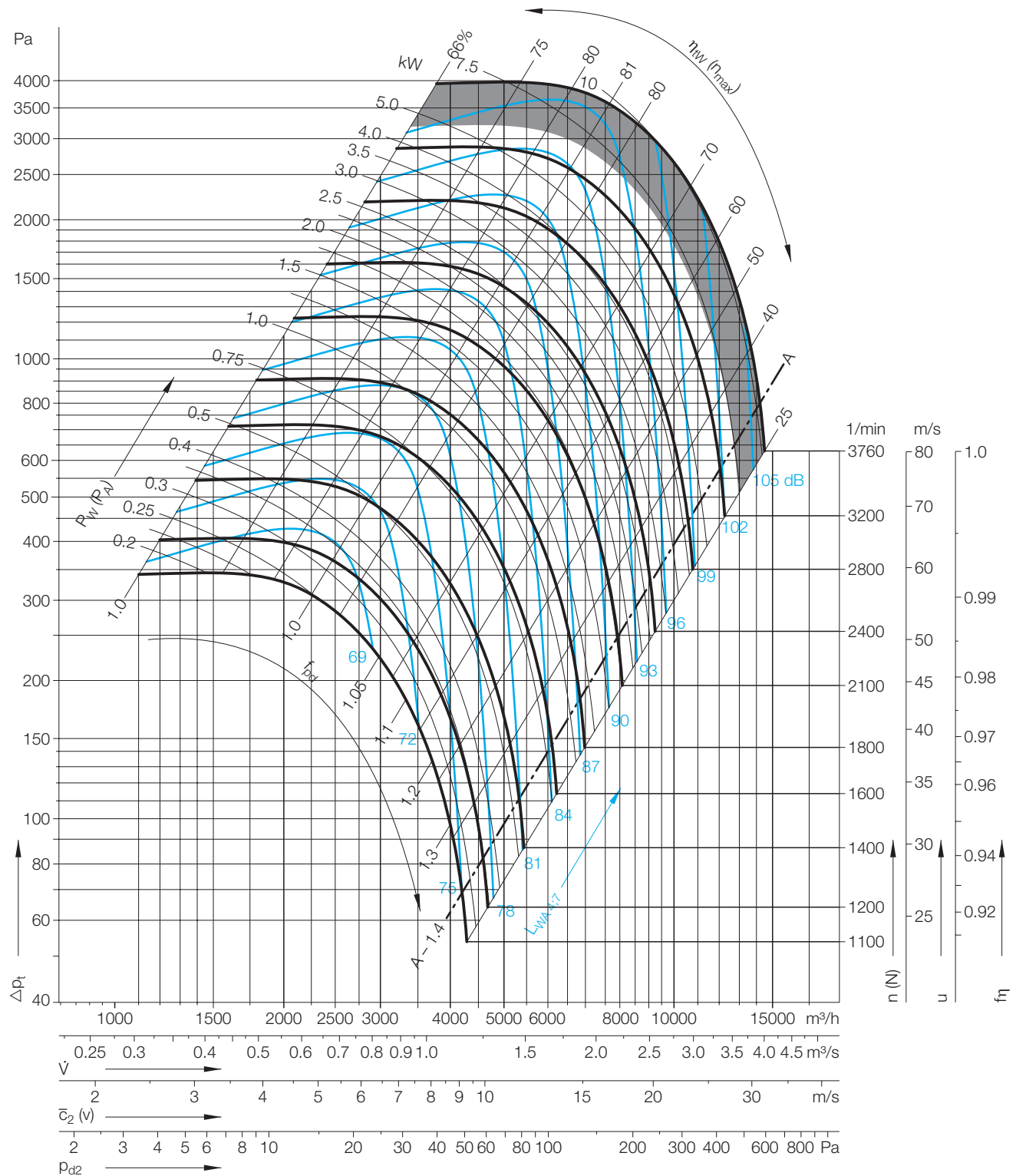
RER 13-0400, 400 °C – 120 min. RER 17-0400, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

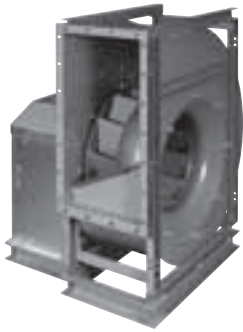


Formulae | Units see Description

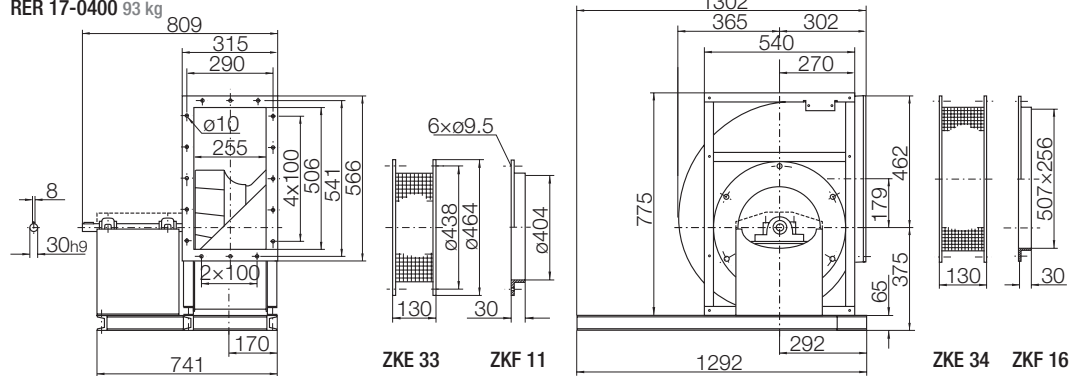
D = 406 mm	Impeller diameter
z = 12	Number of blades
J = 0.165 kgm²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0400, 400 °C – 120 min.
RER 17-0400, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0400 99 kg
 RER 17-0400 93 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

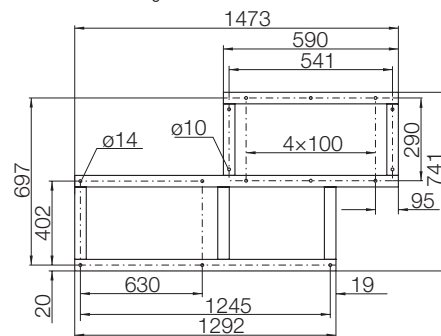
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel

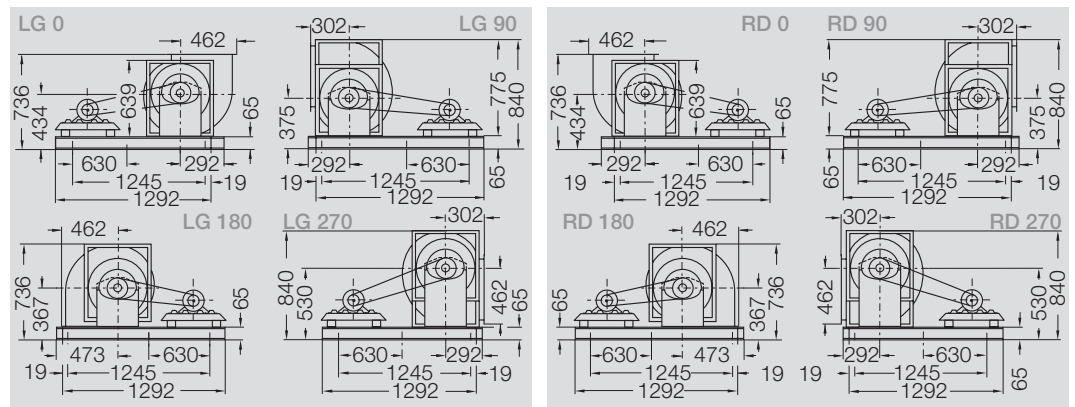
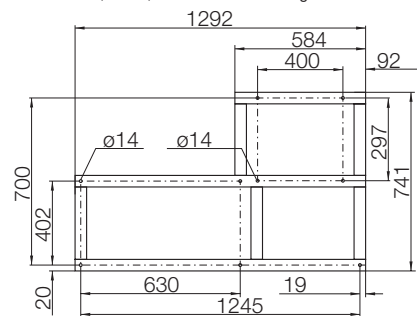
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

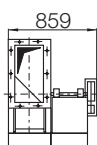
RD 180
 LG 180 mirror-image



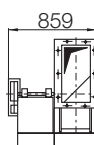
RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



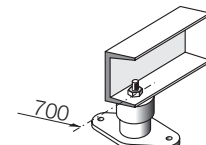
LG 90



RD 90



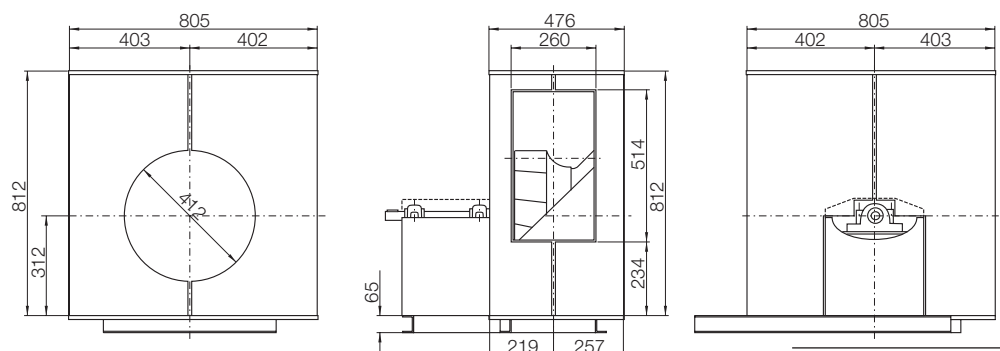
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0400 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



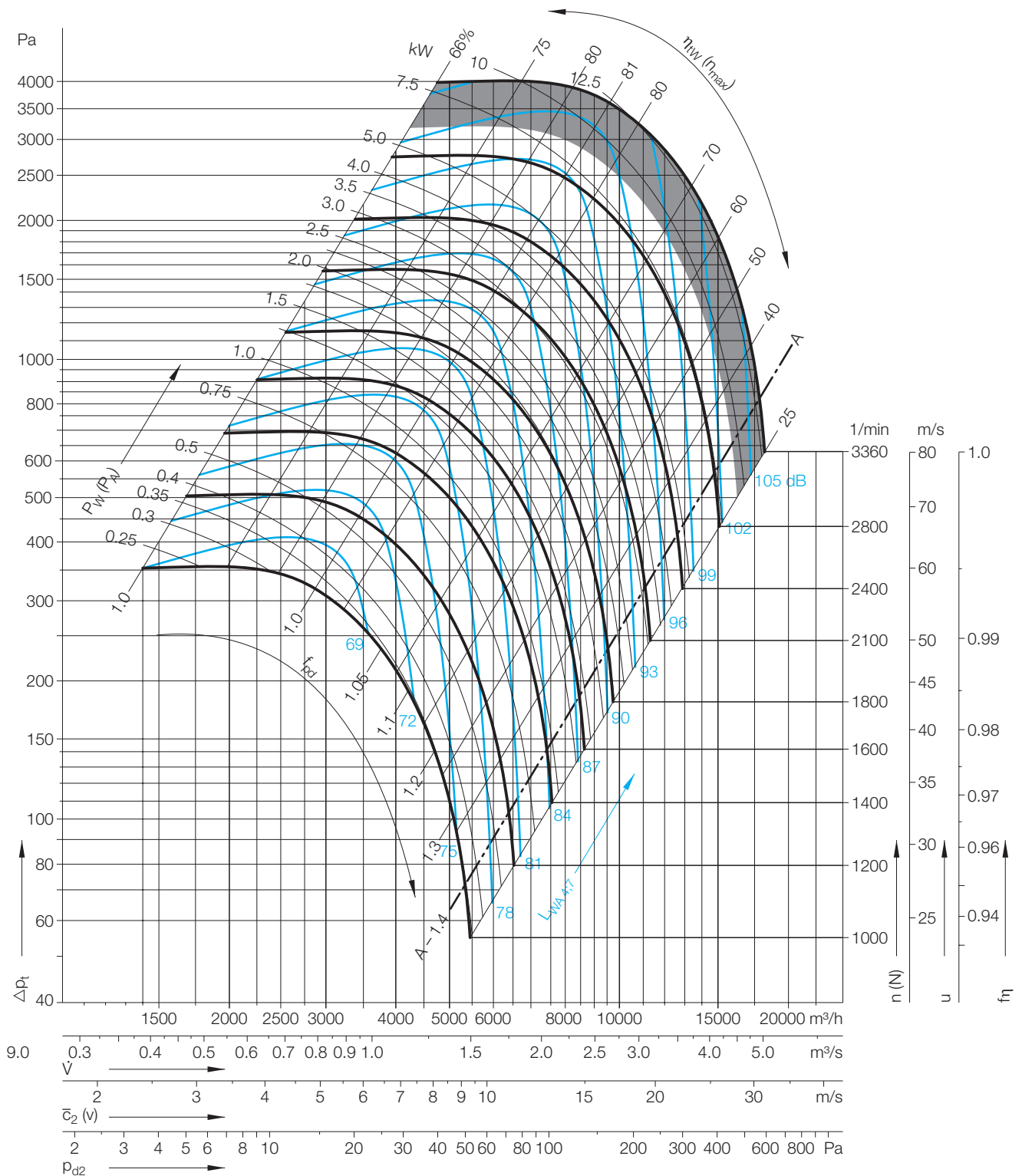
RER 13-0450, 400 °C – 120 min. RER 17-0450, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

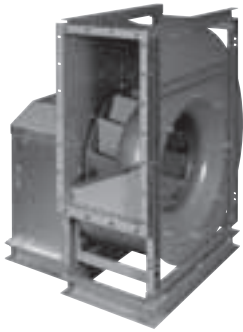


Formulae | Units see Description

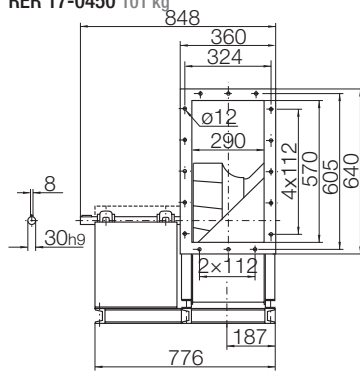
D = 455 mm	Impeller diameter
z = 12	Number of blades
J = 0.30 kgm²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0450, 400 °C – 120 min.
RER 17-0450, 400 °C – 120 min.

Dimensions in mm, Subject to change.

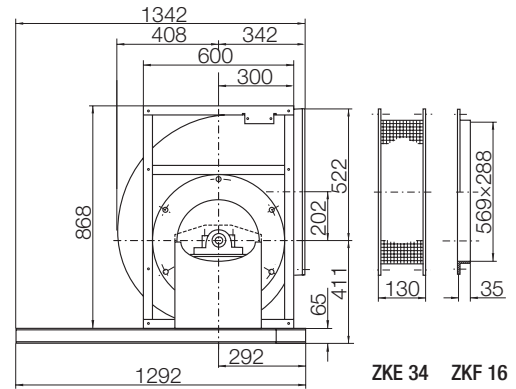


RER 13-0450 115 kg
 RER 17-0450 101 kg



ZKE 33

ZKF 11



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

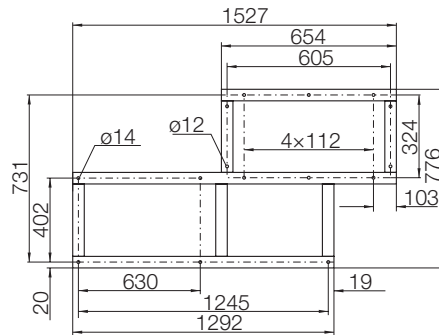
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel
 Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

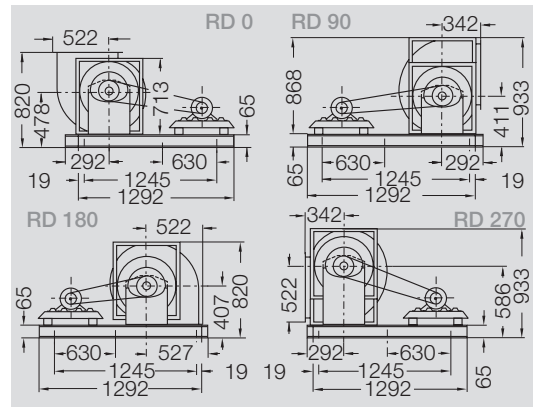
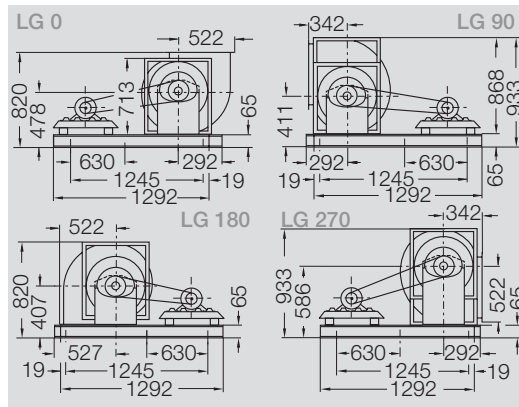
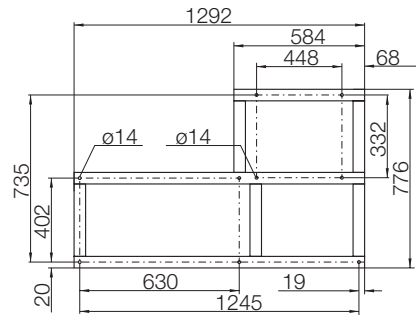
RD 180

LG 180 mirror-image

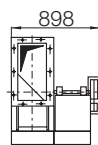


RD 90, LG 0, LG 270

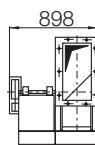
LG 90, RD 0, RD 270 mirror-image



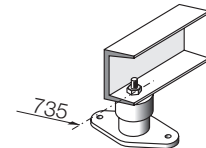
LG 90



RD 90



U-Profil

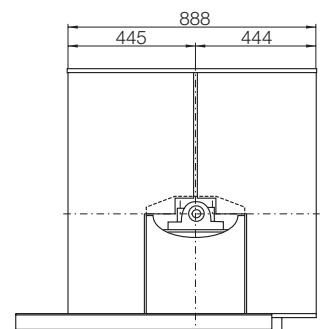
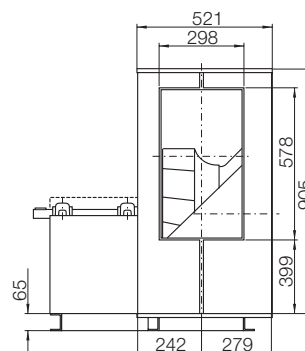
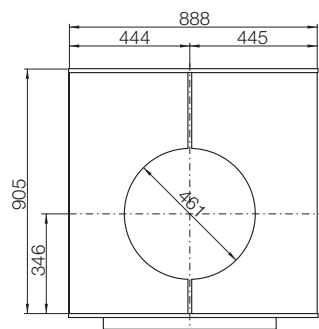


Dimensions in mm, Subject to change.



RER 13/17-0450 with insulated casing (special fitting)

RD 90 (LG 90 mirror-image, further handings on request)



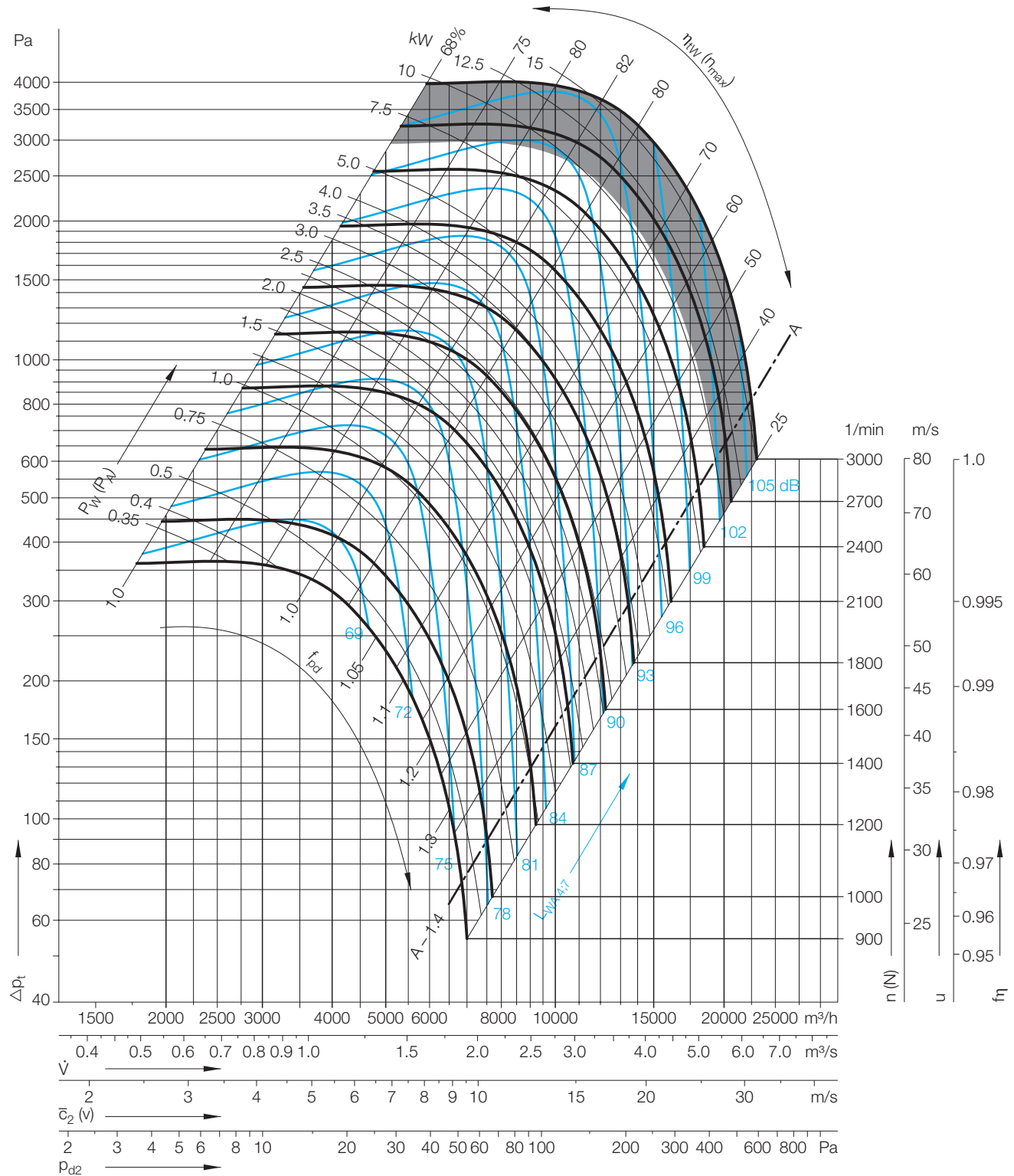
RER 13-0500, 400 °C – 120 min. RER 17-0500, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area



Formulae | Units see Description

D = 510 mm	Impeller diameter
z = 12	Number of blades
J = 0.45 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

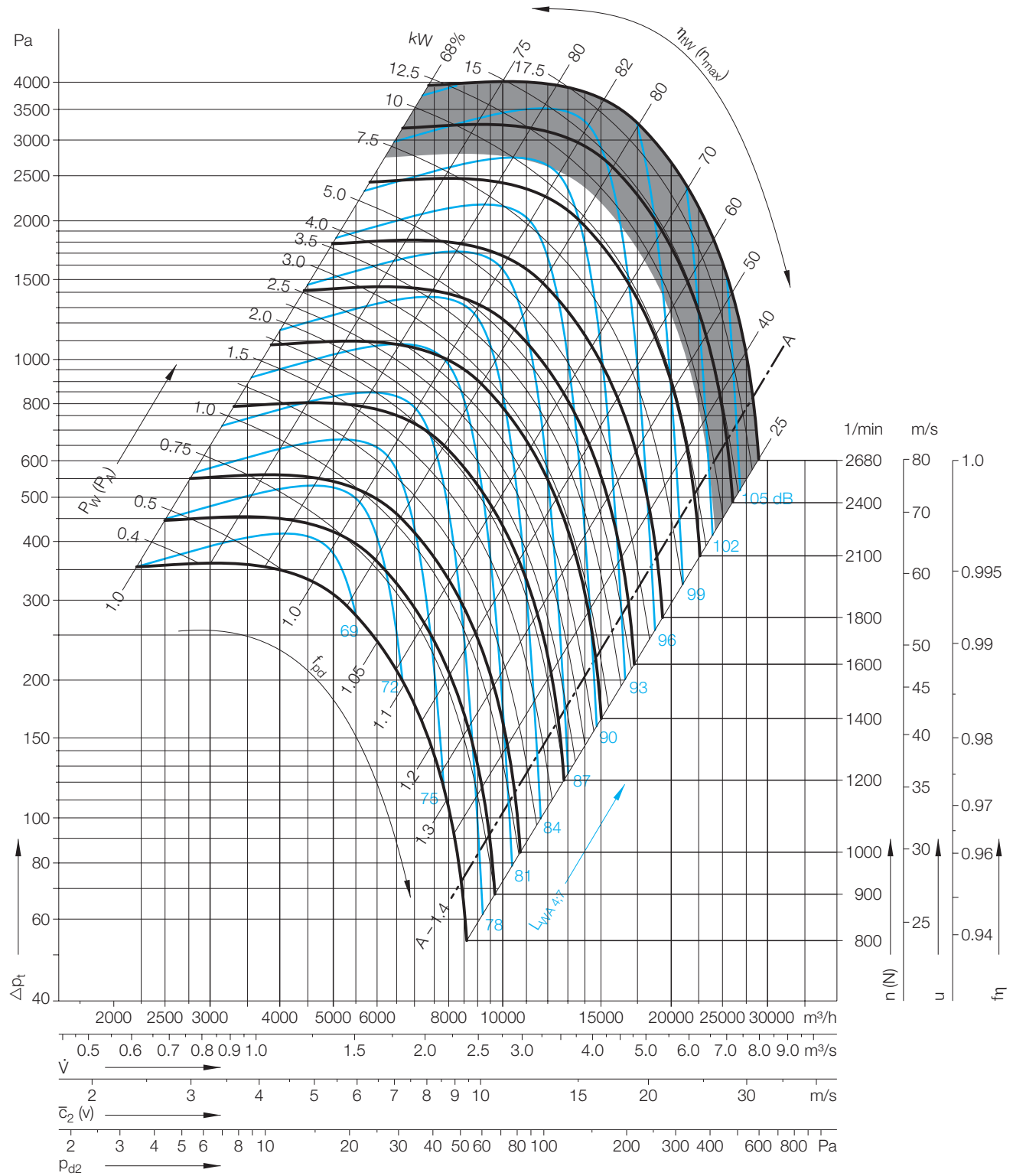
RER 13-0560, 400 °C – 120 min. RER 17-0560, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

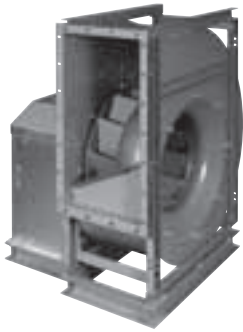


Formulae | Units see Description

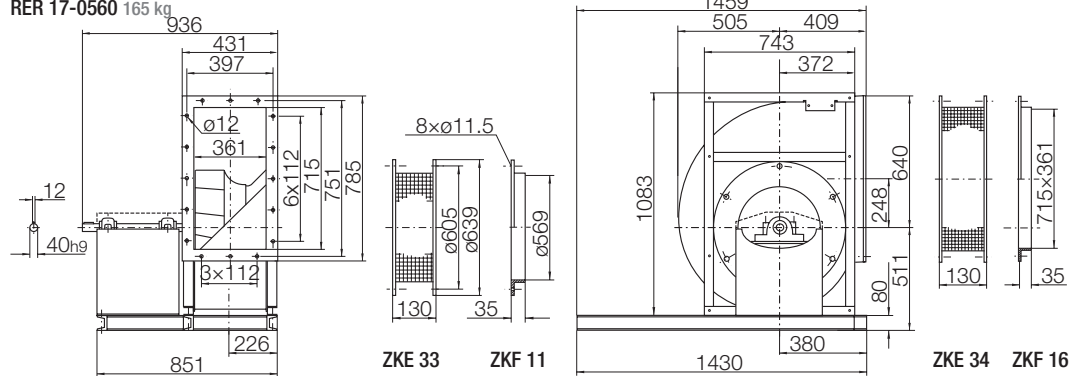
$D = 570 \text{ mm}$	Impeller diameter
$z = 12$	Number of blades
$J = 0.85 \text{ kgm}^2$	Moment of inertia
$\Delta p_{tA} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{tA} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0560, 400 °C – 120 min.
RER 17-0560, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0560 187 kg
 RER 17-0560 165 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

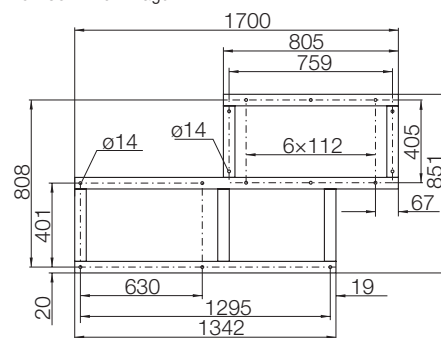
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel

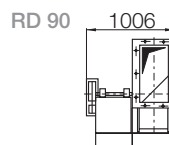
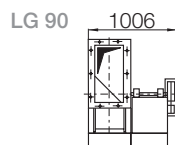
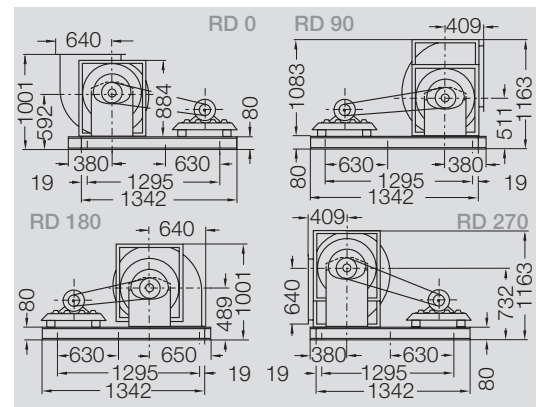
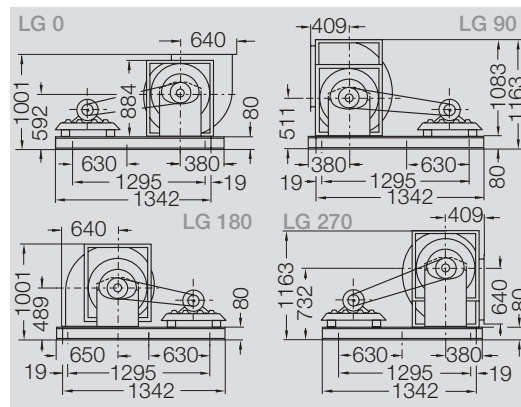
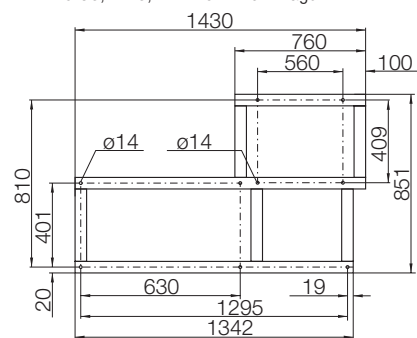
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

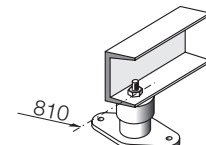
RD 180
 LG 180 mirror-image



RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



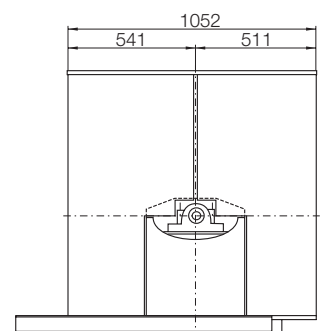
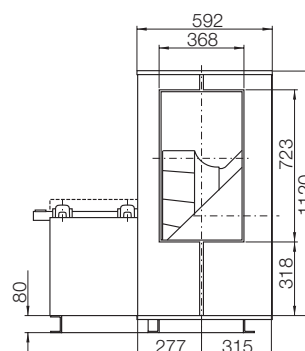
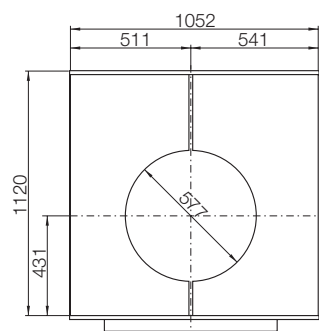
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0560 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



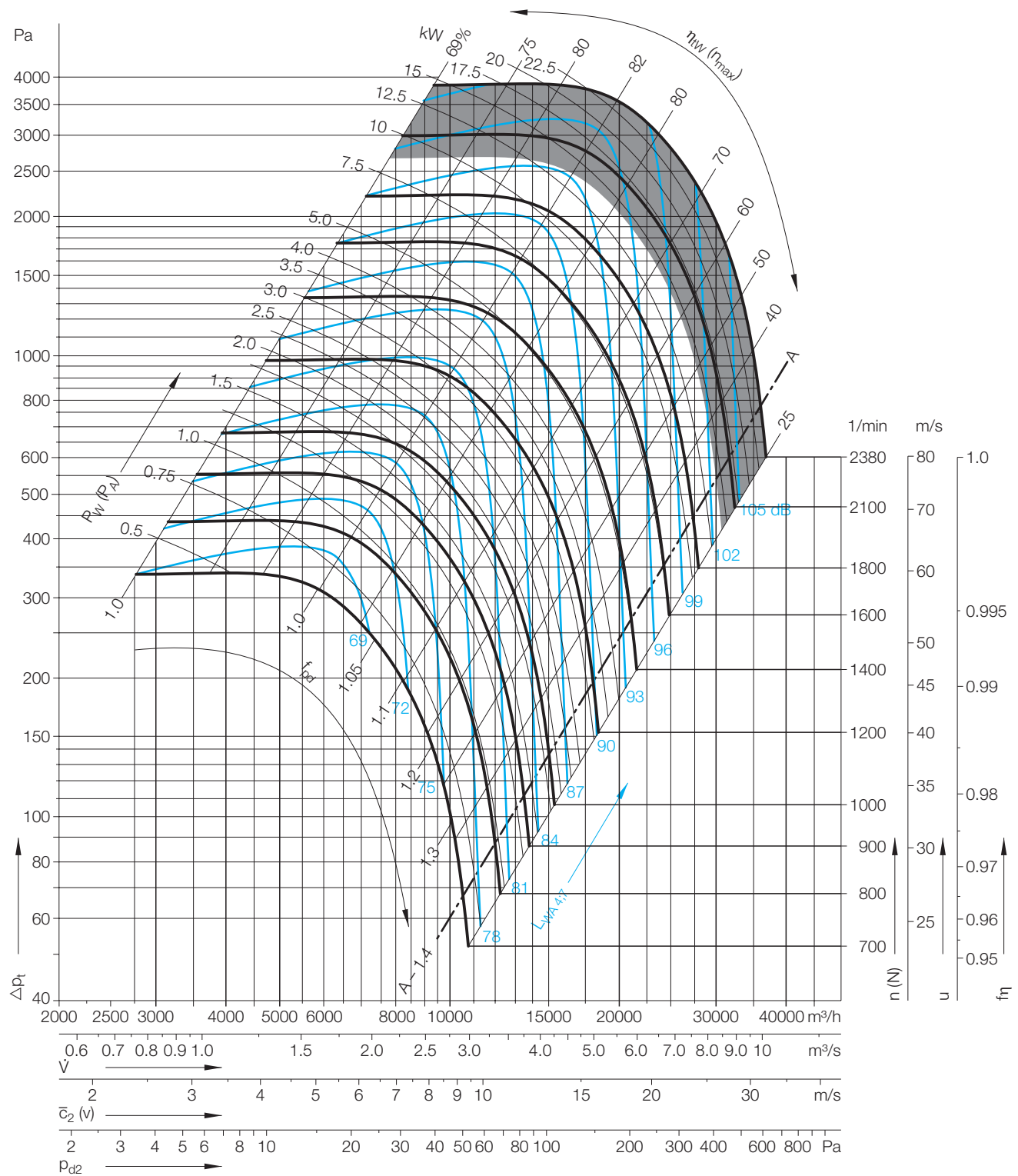
RER 13-0630, 400 °C – 120 min. RER 17-0630, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

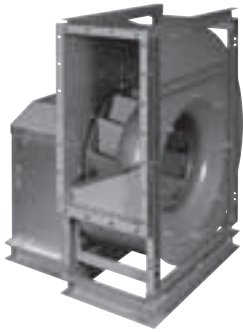


Formulae | Units see Description

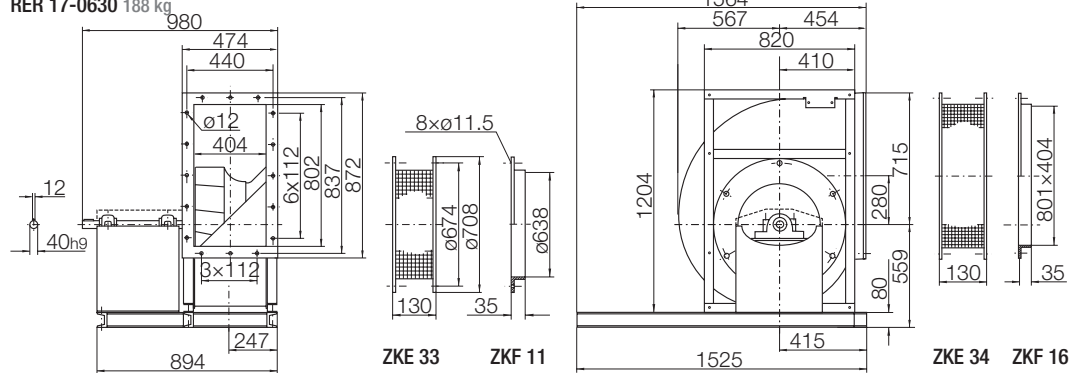
D = 640 mm	Impeller diameter
z = 12	Number of blades
J = 1.2 kgm ²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0630, 400 °C – 120 min.
RER 17-0630, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0630 212 kg
 RER 17-0630 188 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

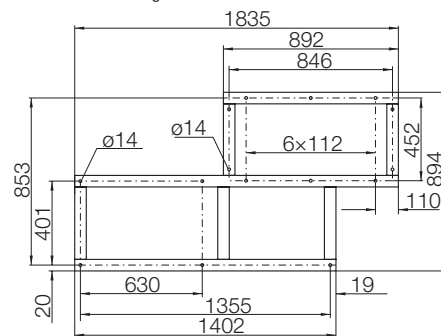
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel

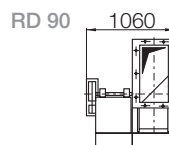
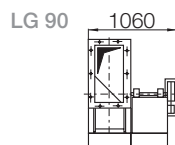
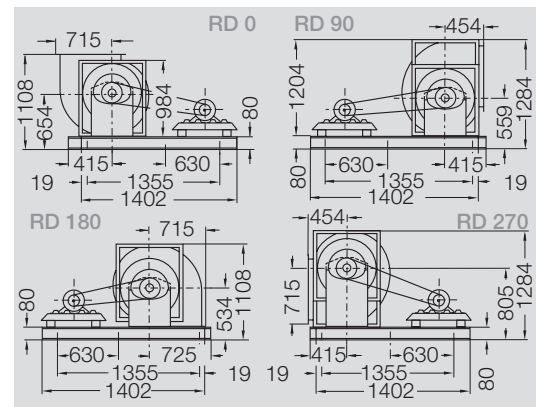
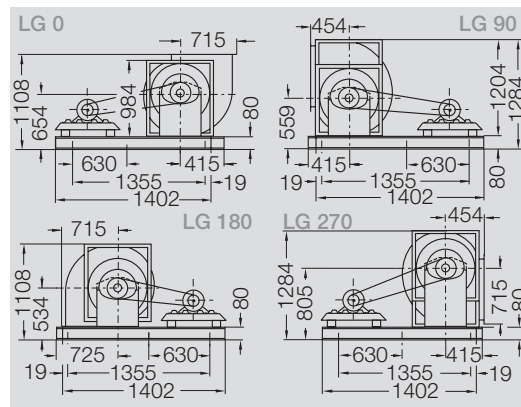
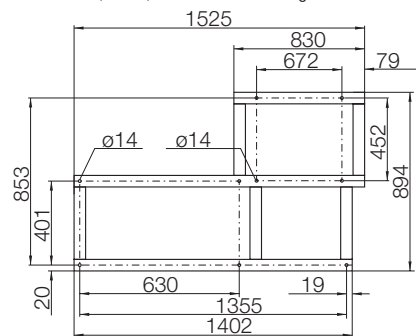
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

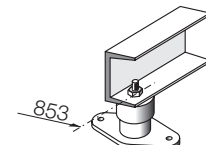
RD 180
 LG 180 mirror-image



RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



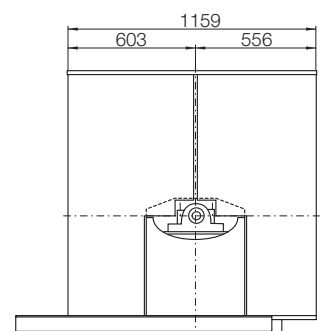
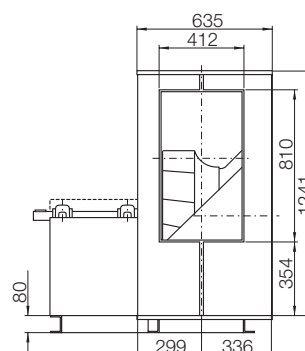
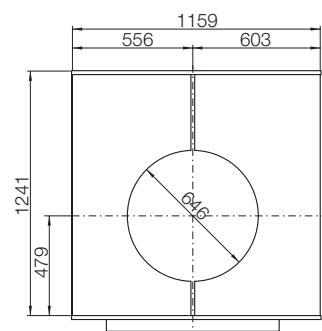
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-0630 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



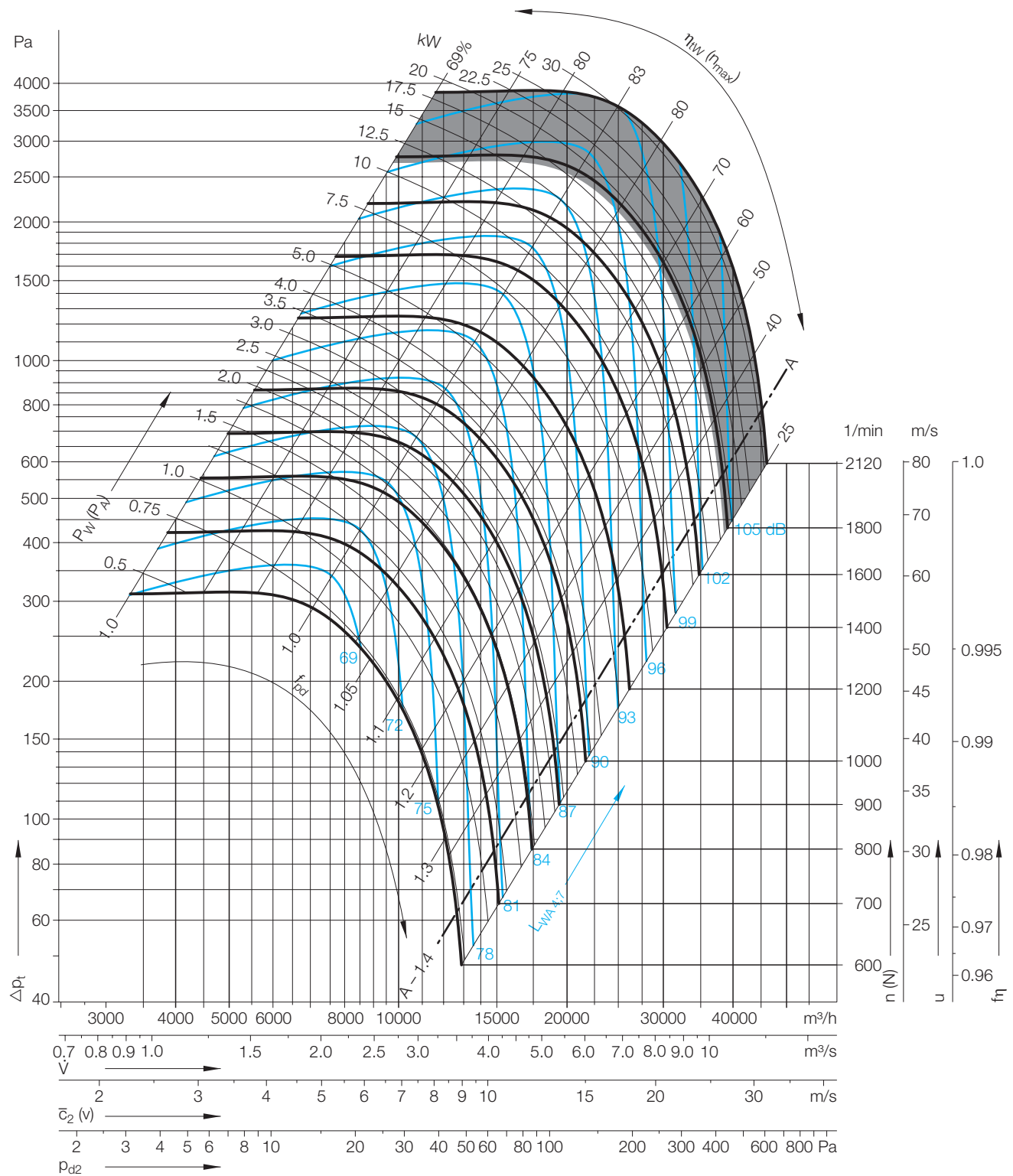
RER 13-0710, 400 °C – 120 min. RER 17-0710, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

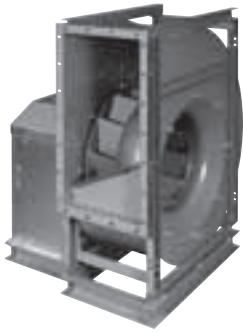


Formulae | Units see Description

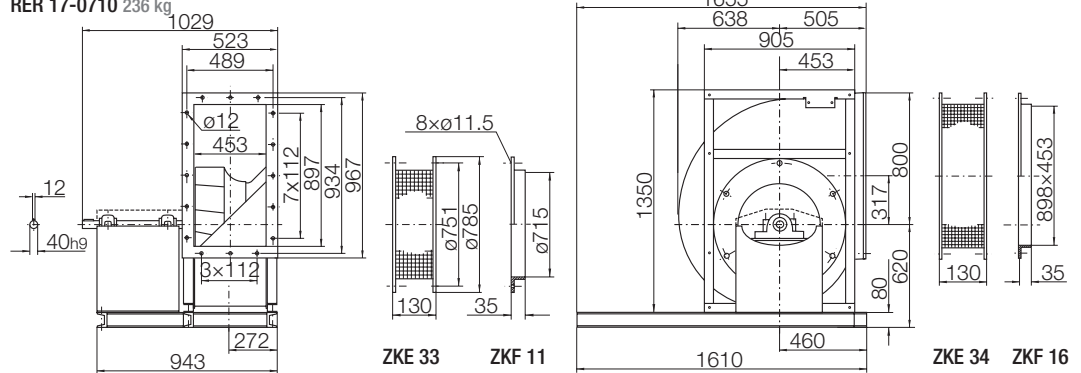
D = 718 mm	Impeller diameter
z = 12	Number of blades
J = 2.40 kgm²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0710, 400 °C – 120 min.
RER 17-0710, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0710 265 kg
 RER 17-0710 236 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

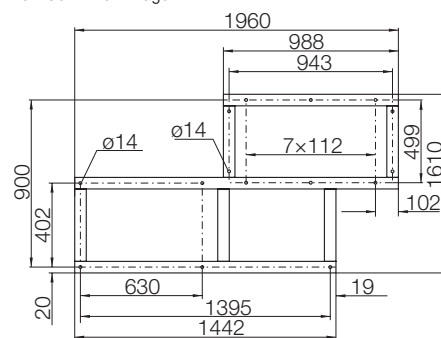
Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13
 Casing made of sheet steel welded and coated

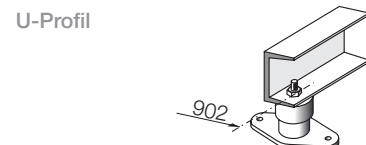
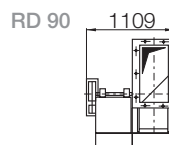
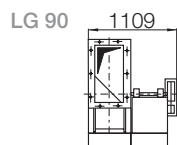
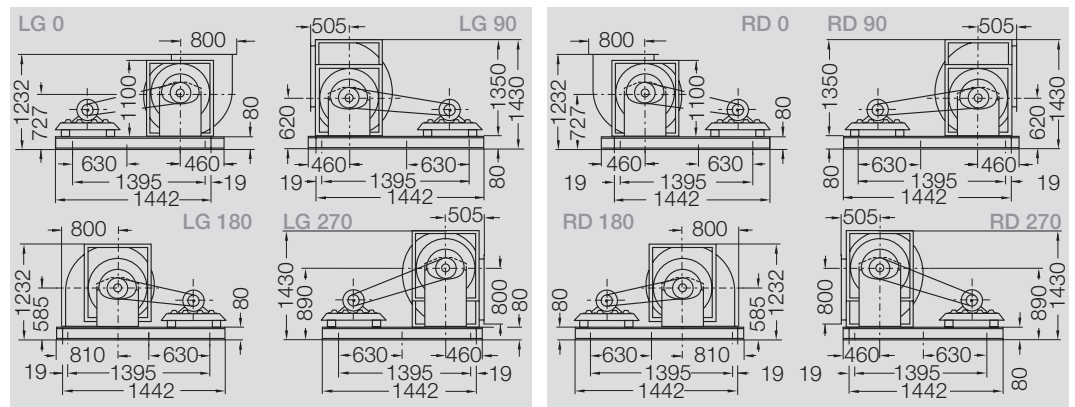
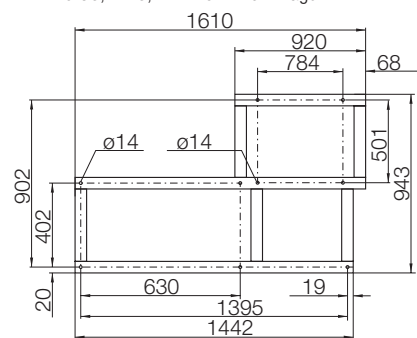
RER 17
 Lock formed casing made of galvanised sheet steel
 Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

RD 180
 LG 180 mirror-image



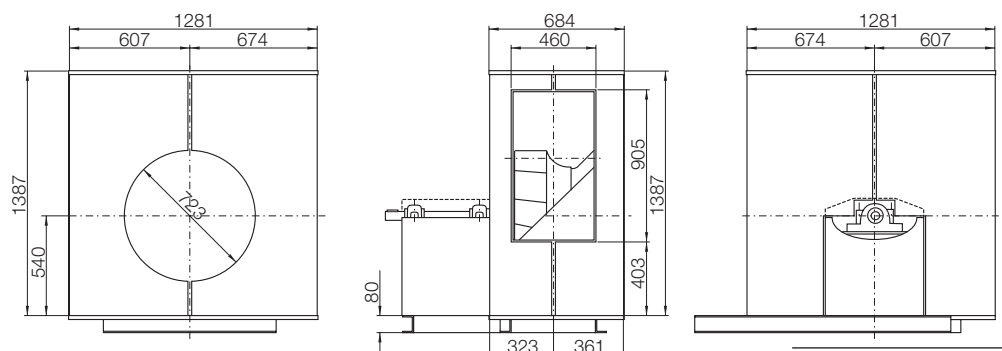
RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



Dimensions in mm, Subject to change.



RER 13/17-0710 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



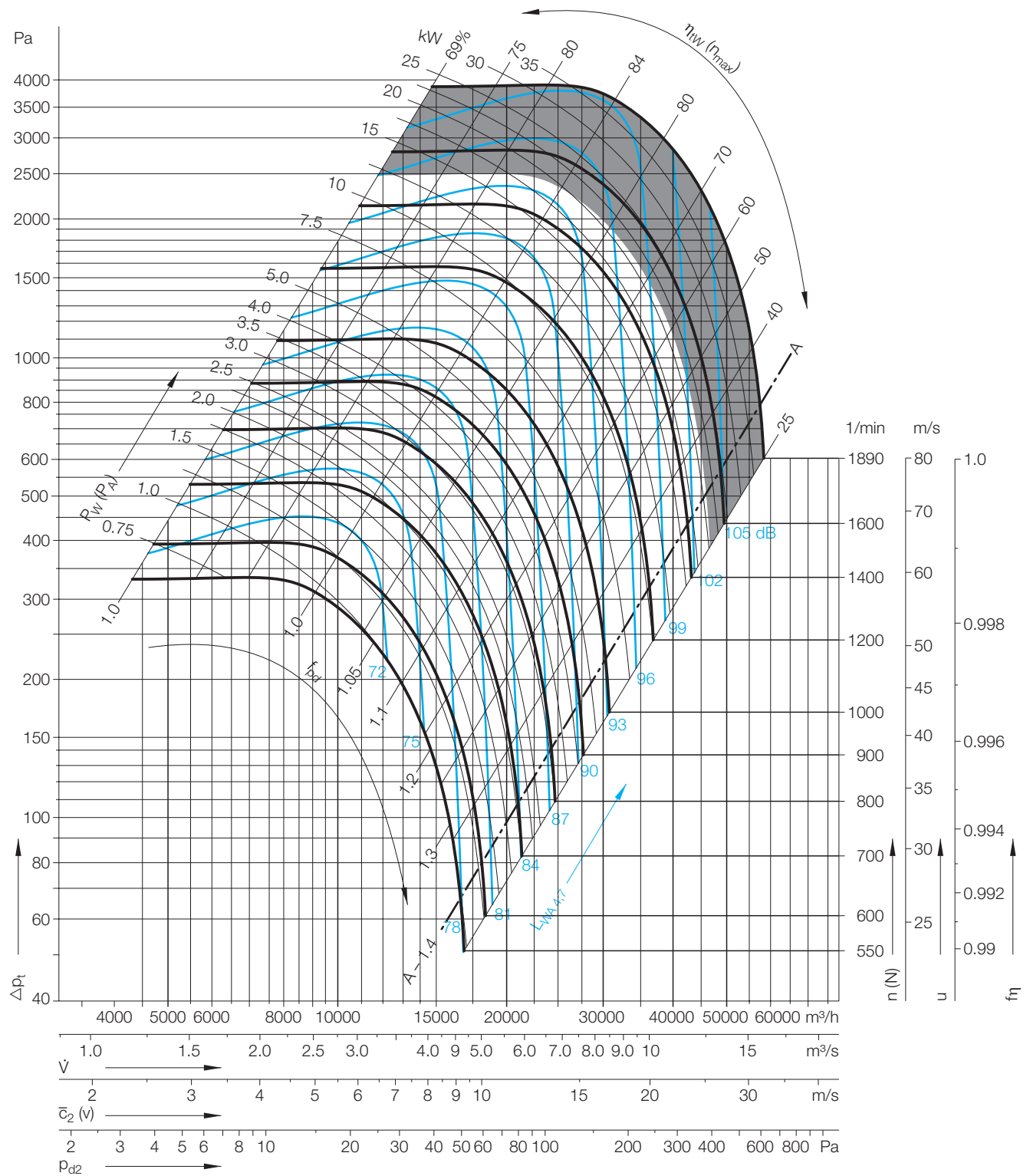
RER 13-0800, 400 °C – 120 min. RER 17-0800, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

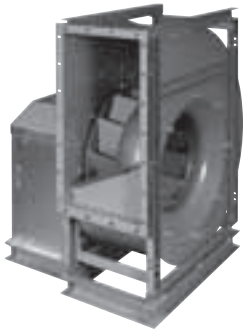


Formulae | Units see Description

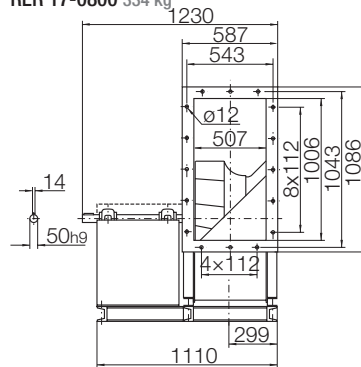
D = 808 mm	Impeller diameter
z = 12	Number of blades
J = 3.425 kgm ²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0800, 400 °C – 120 min.
RER 17-0800, 400 °C – 120 min.

Dimensions in mm, Subject to change.

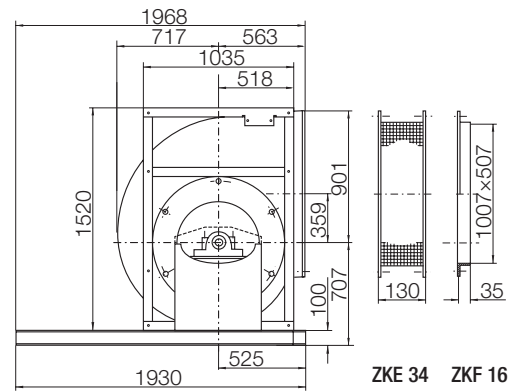


RER 13-0800 369 kg
 RER 17-0800 334 kg



ZKE 33

ZKF 11



ZKE 34

ZKF 16

Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

Casing made of sheet steel welded and coated

RER 17

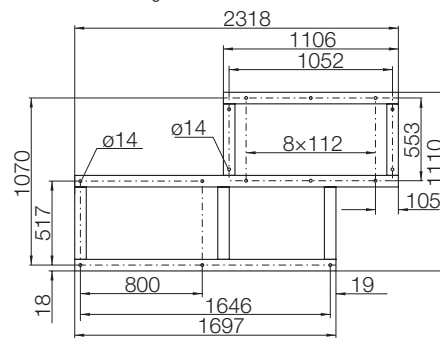
Lock formed casing made of galvanised sheet steel

Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

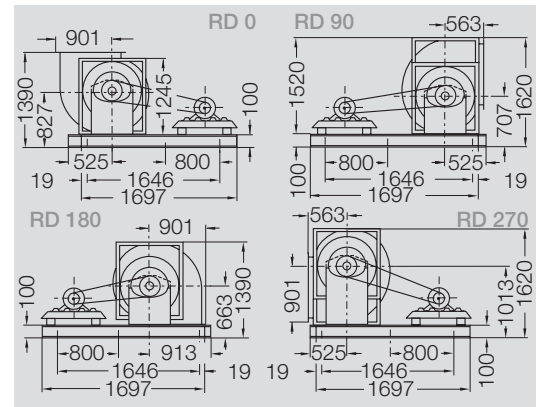
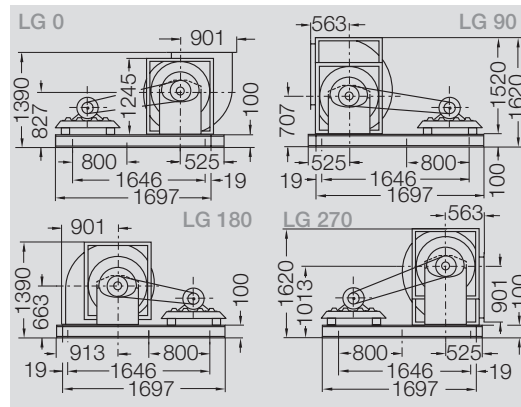
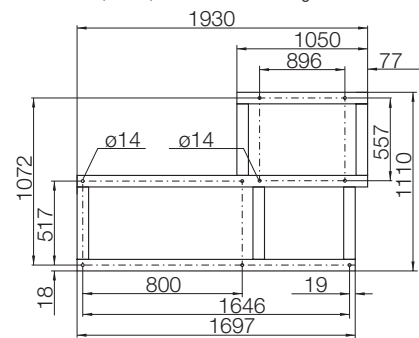
RD 180

LG 180 mirror-image

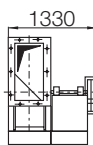


RD 90, LG 0, LG 270

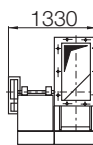
LG 90, RD 0, RD 270 mirror-image



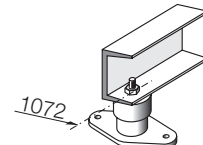
LG 90



RD 90



U-Profil

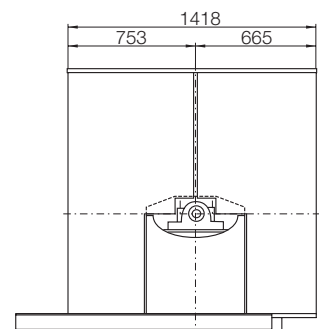
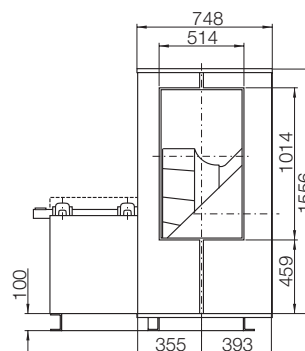
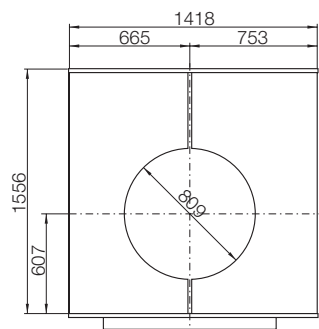


Dimensions in mm, Subject to change.



RER 13/17-0800 with insulated casing (special fitting)

RD 90 (LG 90 mirror-image, further handings on request)



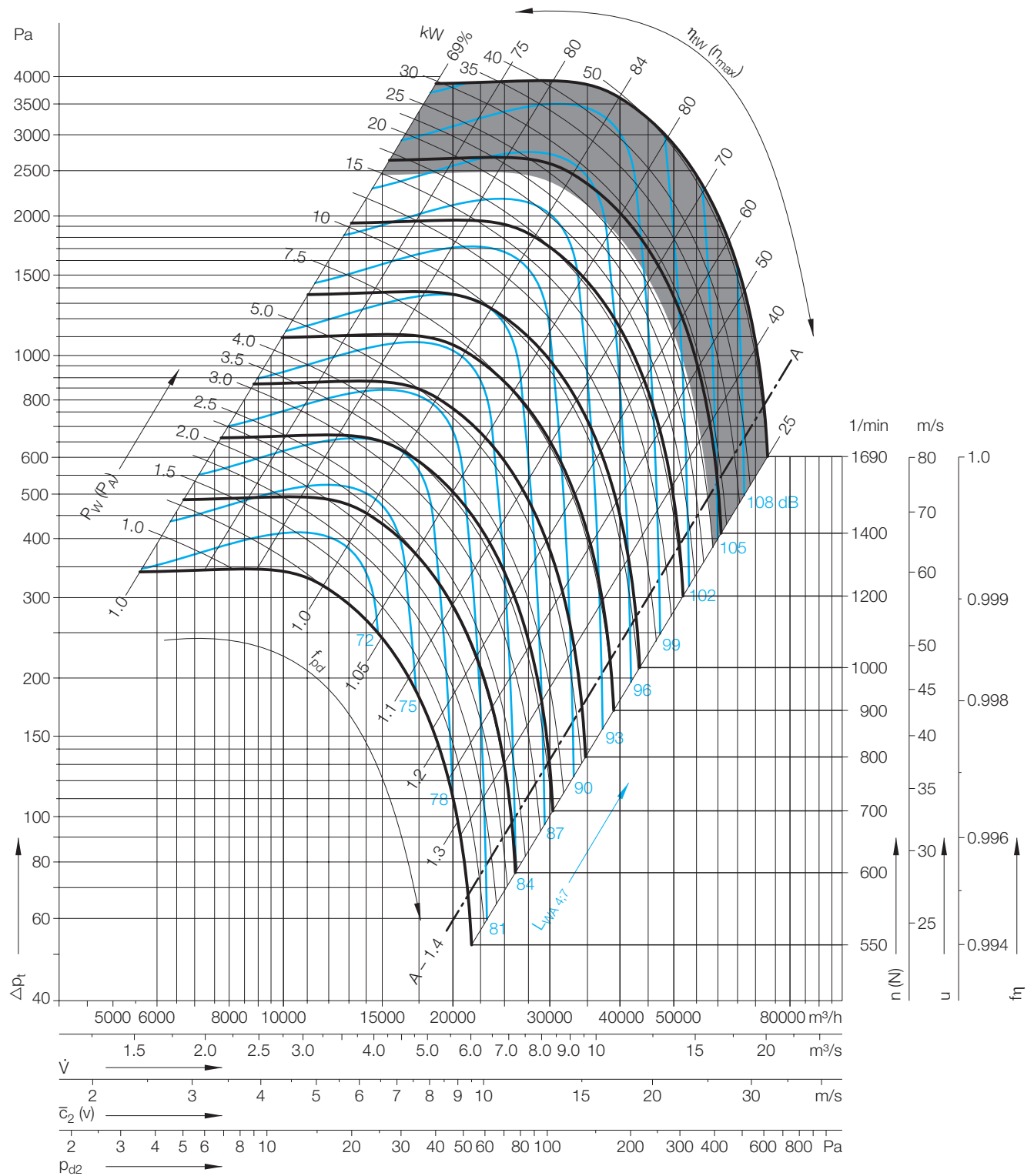
RER 13-0900, 400 °C – 120 min. RER 17-0900, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

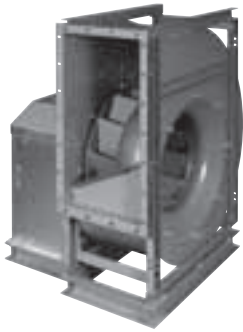


Formulae | Units see Description

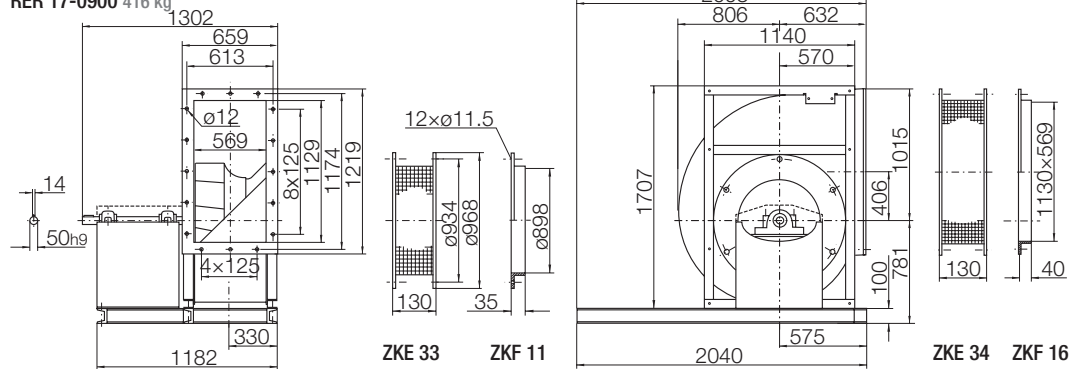
D = 905 mm	Impeller diameter
z = 12	Number of blades
J = 7.75 kgm²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-0900, 400 °C – 120 min.
RER 17-0900, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-0900 460 kg
 RER 17-0900 416 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

Casing made of sheet steel welded and coated

RER 17

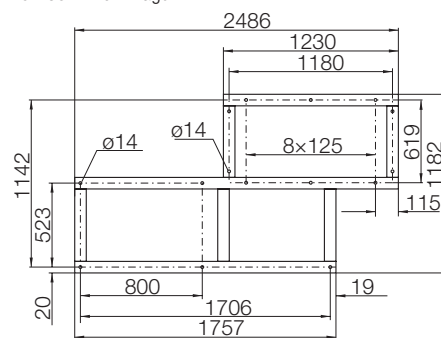
Lock formed casing made of galvanised sheet steel

Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

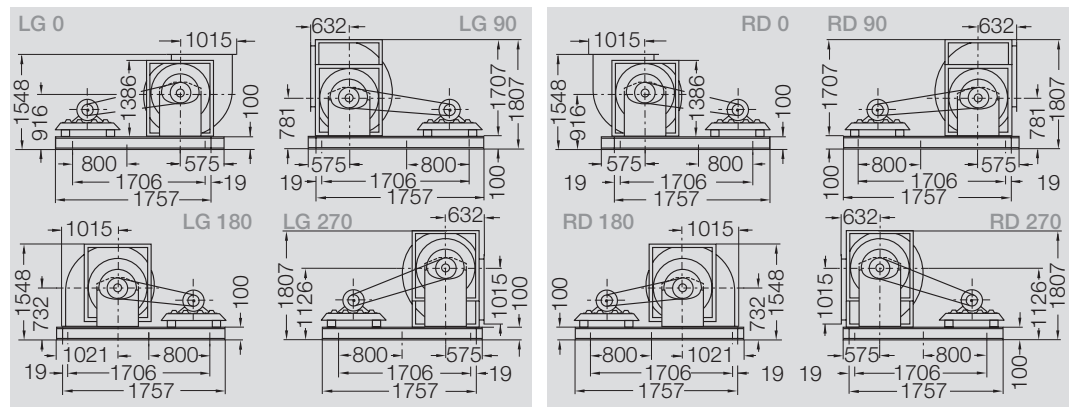
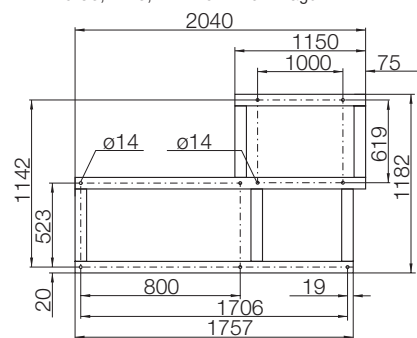
RD 180

LG 180 mirror-image

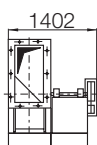


RD 90, LG 0, LG 270

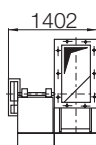
LG 90, RD 0, RD 270 mirror-image



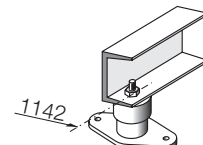
LG 90



RD 90



U-Profil

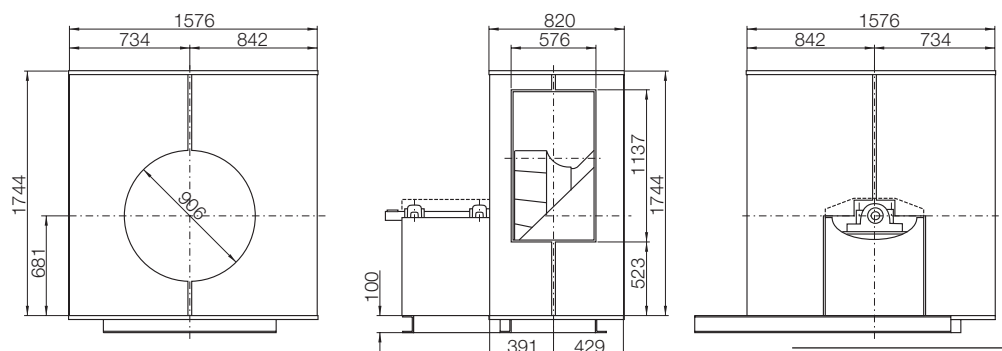


Dimensions in mm, Subject to change.



RER 13/17-0900 with insulated casing (special fitting)

RD 90 (LG 90 mirror-image, further handings on request)



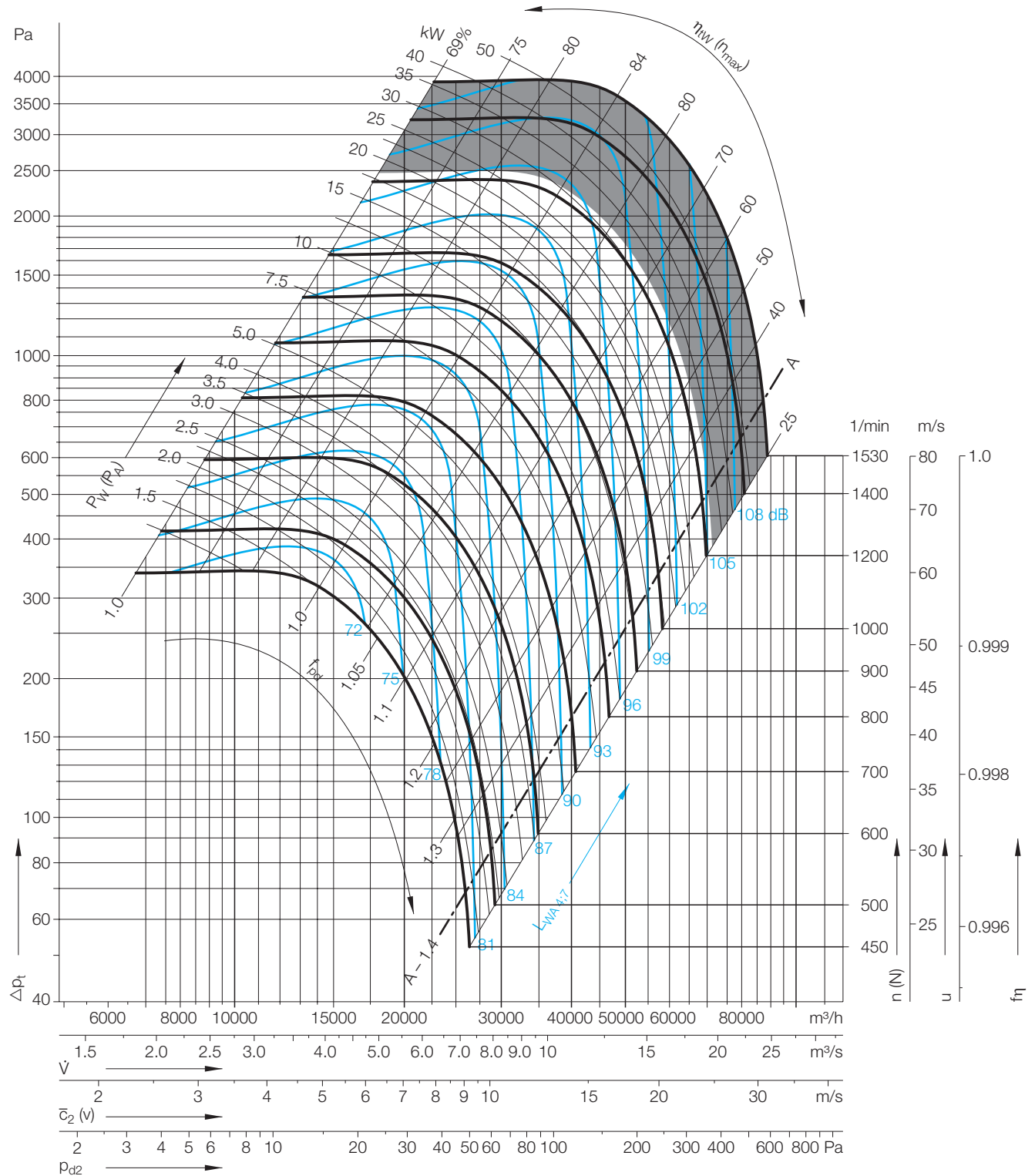
RER 13-1000, 400 °C – 120 min. RER 17-1000, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

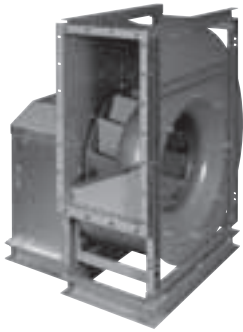


Formulae | Units see Description

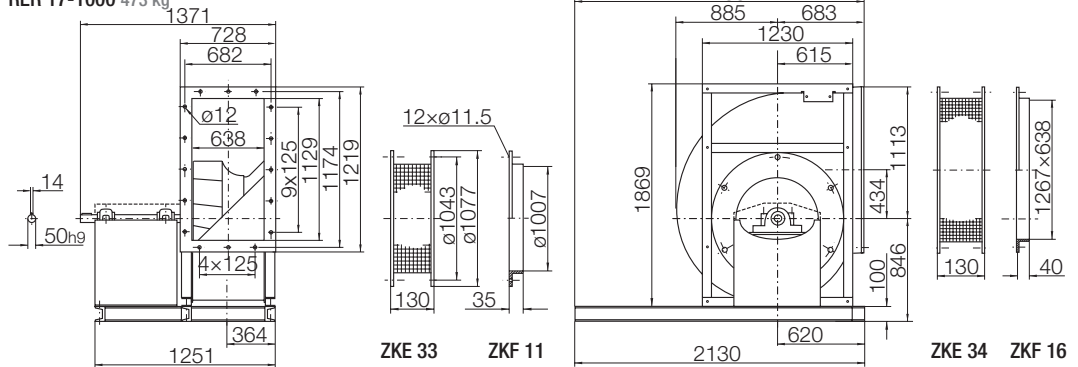
D = 1000 mm	Impeller diameter
z = 12	Number of blades
J = 11.0 kgm ²	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted
$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$	Available pressure - free discharge

RER 13-1000, 400 °C – 120 min.
RER 17-1000, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-1000 521 kg
 RER 17-1000 473 kg



Fan and accessories tested to EN 12101-3

Certificate of EC conformity:
 0036 CPD RG01 06 (RER 13)
 0036 CPD RG01 07 (RER 17)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

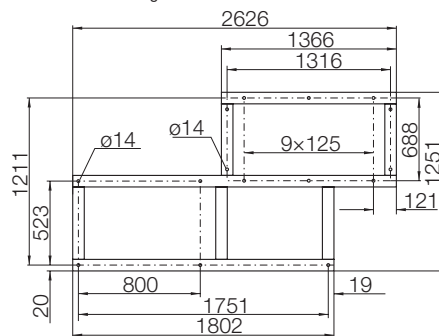
RER 13
 Casing made of sheet steel welded and coated

RER 17
 Lock formed casing made of galvanised sheet steel

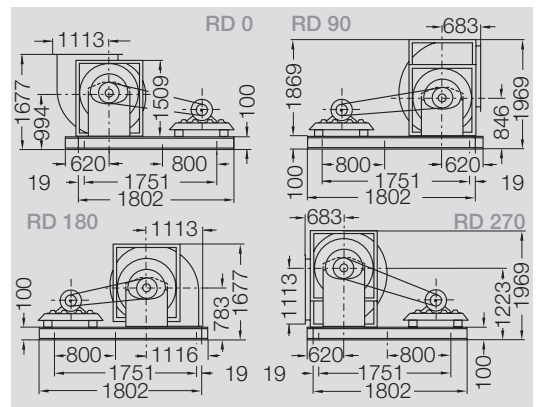
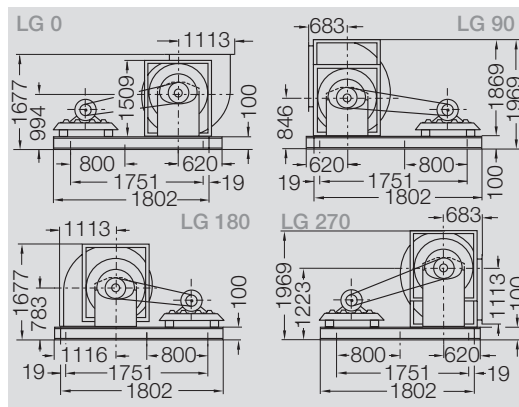
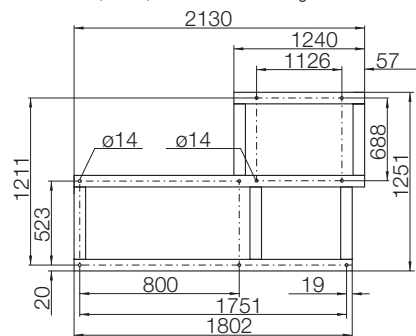
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

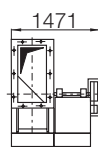
RD 180
 LG 180 mirror-image



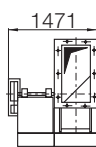
RD 90, LG 0, LG 270
 LG 90, RD 0, RD 270 mirror-image



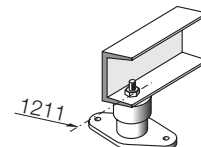
LG 90



RD 90



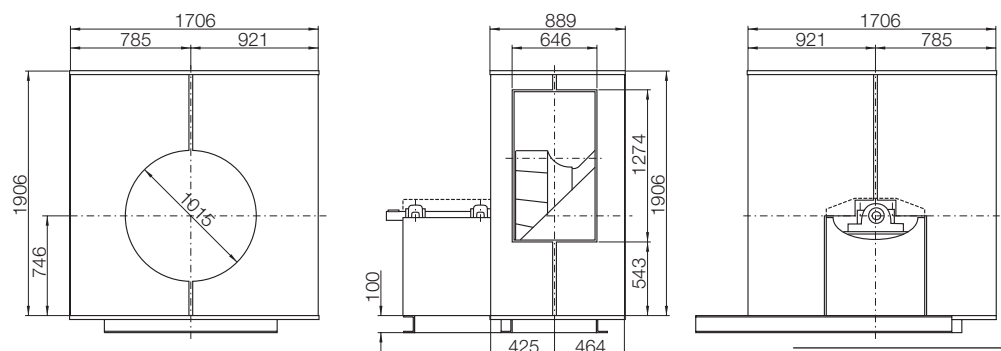
U-Profil



Dimensions in mm, Subject to change.



RER 13/17-1000 with insulated casing (special fitting)
 RD 90 (LG 90 mirror-image, further handings on request)



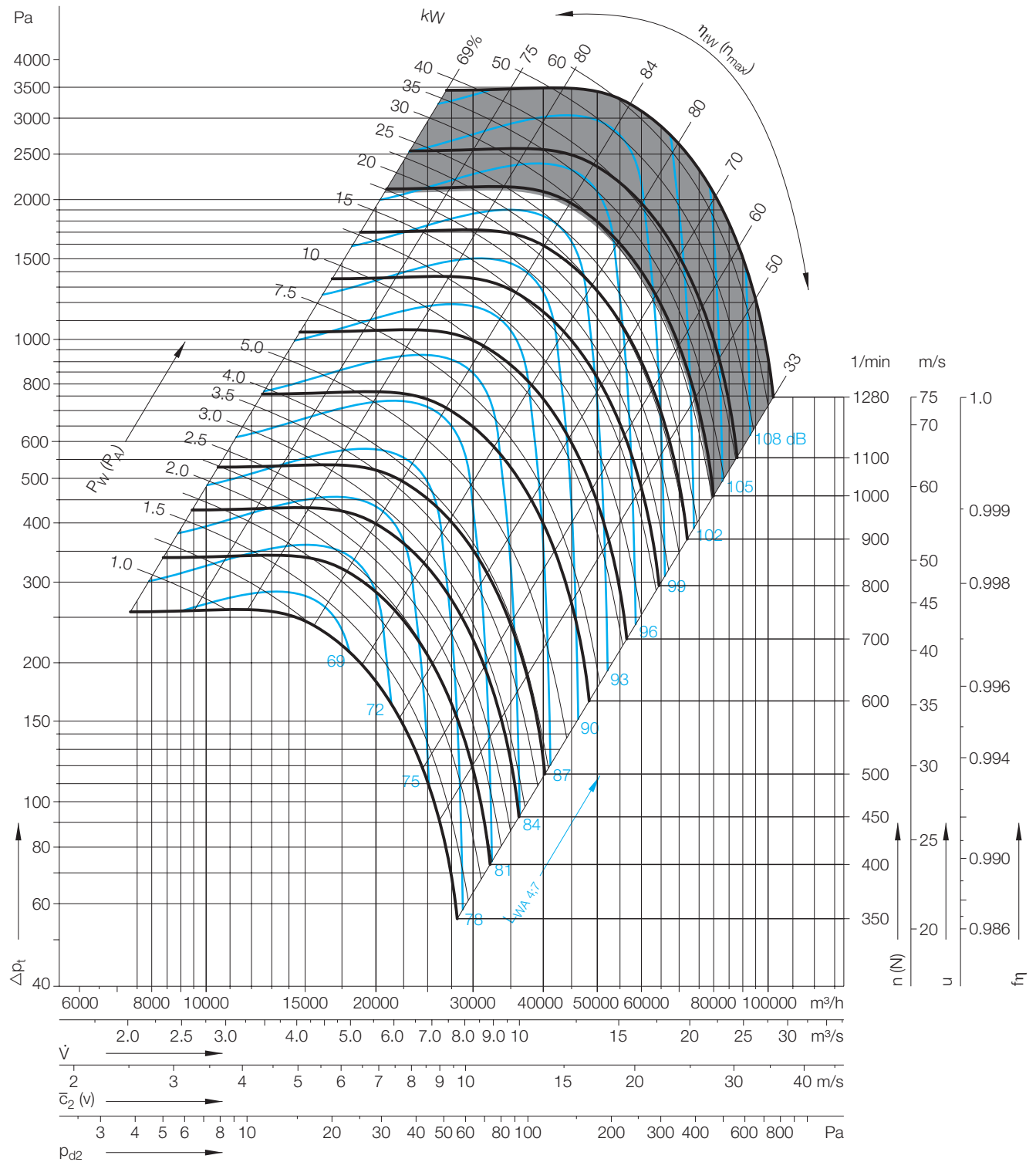
RER 13-1120, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

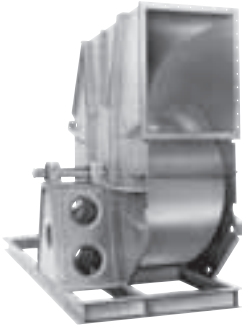


Formulae | Units see Description

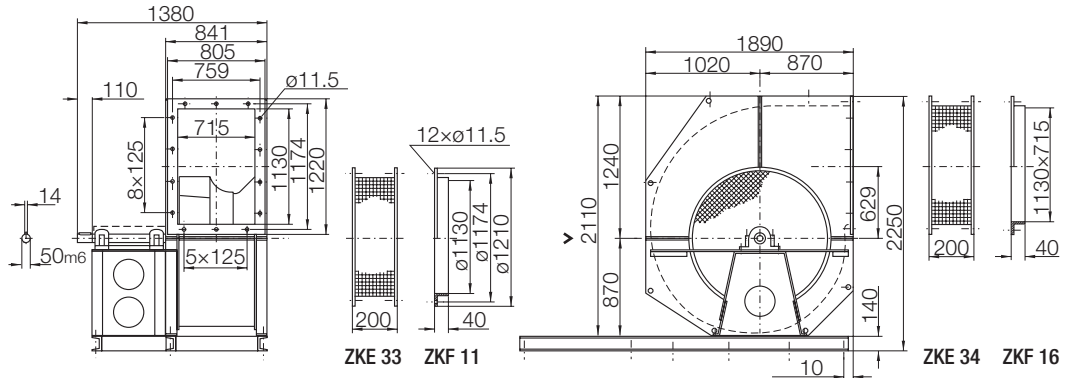
D = 1120 mm	Impeller diameter
z = 12	Number of blades
J = 16 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted

RER 13-1120, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-1120



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06 (RER 13)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

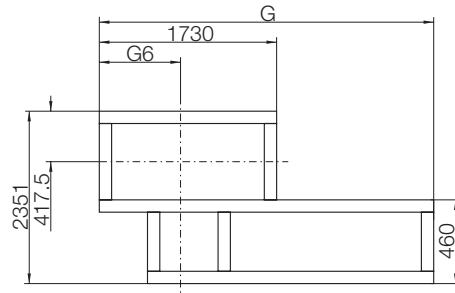
RER 13

Casing made of sheet steel welded and coated

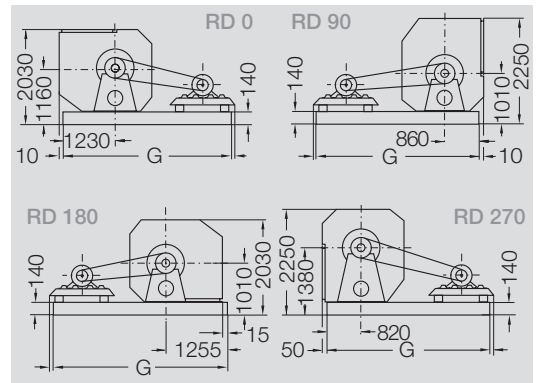
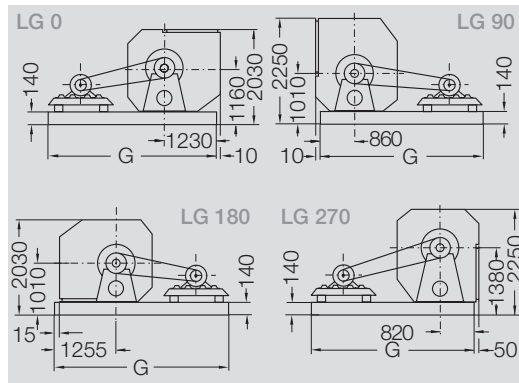
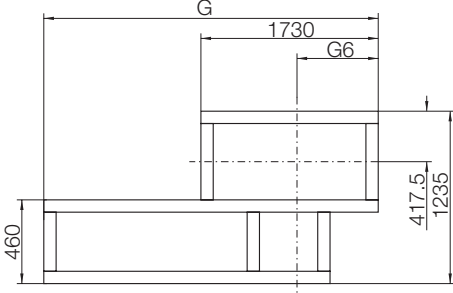
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

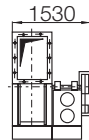
RD



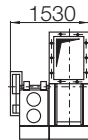
LG



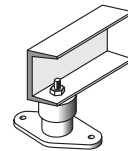
LG 90



RD 90



U-Profil



Dimensions in mm, Subject to change.

RER 13-	Base frame	Motor size	Dimensions for handing LG 0 / RD 0			Dimensions for handing LG 90 / RD 90			Dimensions for handing LG 180 / RD 180			Dimensions for handing LG 270 / RD 270		
			G	G6	~kg	G	G6	~kg	G	G6	~kg	G	G6	~kg
1120	1	160/180	2700	1230	824	2700	860	824	2700	1255	824	2700	820	824
1120	2	200/280	3100	1230	837	3100	860	837	3100	1255	837	3100	820	837

insulation housing on request (special fitting)

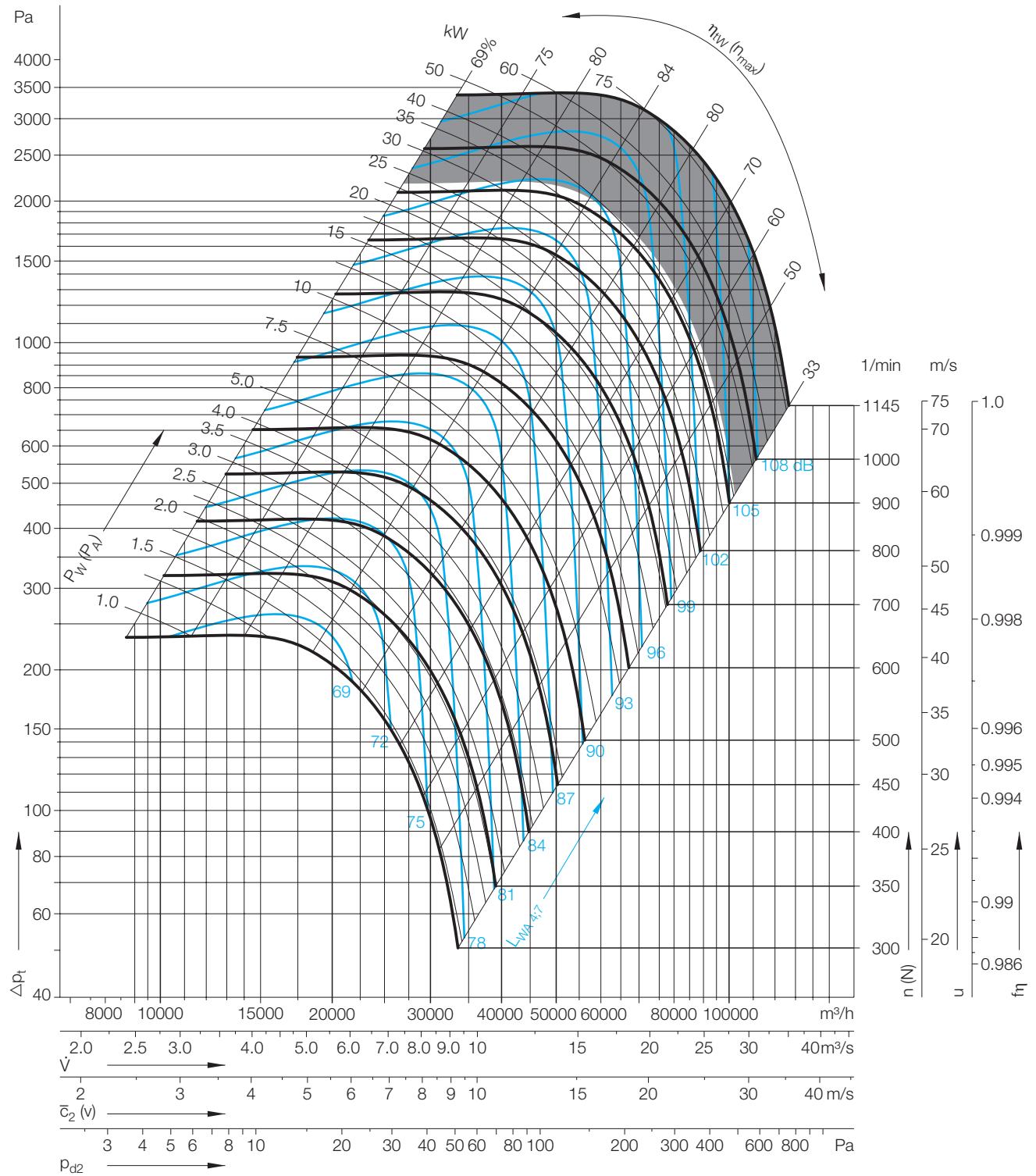
RER 13-1250, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area



Formulae | Units see Description

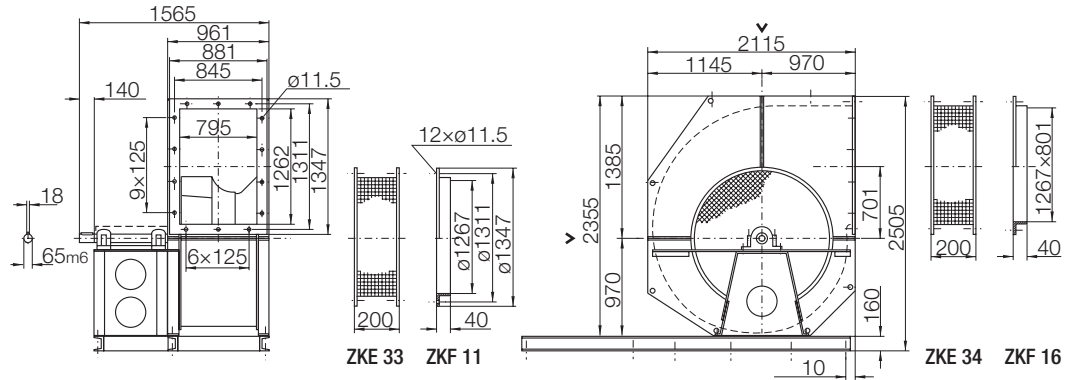
D = 1250 mm	Impeller diameter
z = 12	Number of blades
J = 31.25 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted

RER 13-1250, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-1250



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06 (RER 13)

Centrifugal Smoke Extract Fan *rotavent* with belt drive

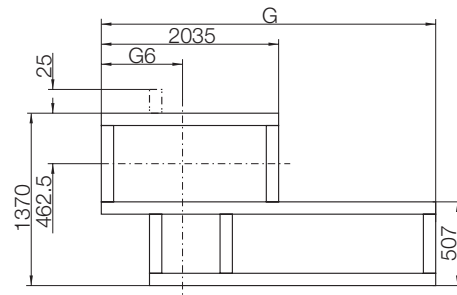
RER 13

Casing made of sheet steel welded and coated

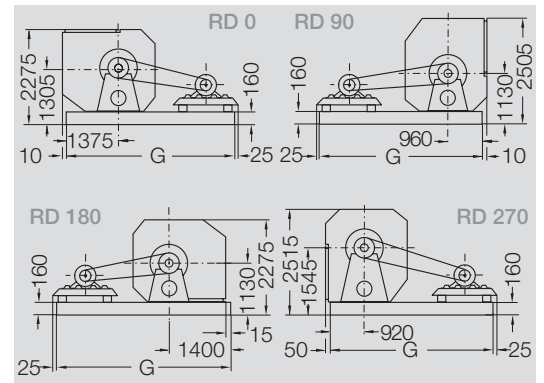
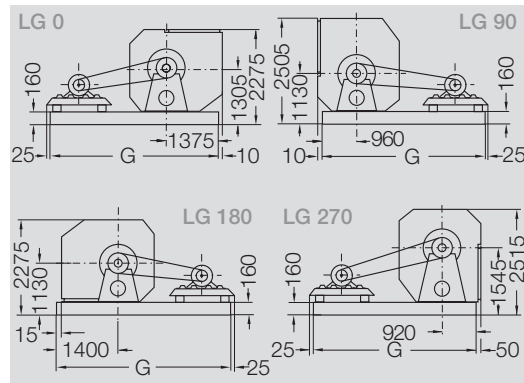
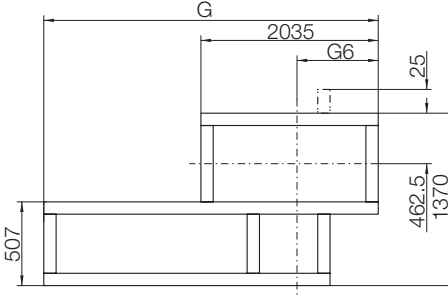
Base frame, belt drive and motor are an integral part of the supply.

For calculations of the A-sound pressure level see chapter „sounds“ on page 207.

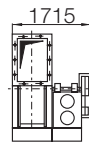
RD



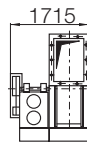
LG



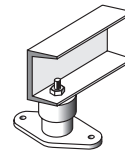
LG 90



RD 90



U-Profil



Dimensions in mm, Subject to change.

RER 13-	Base frame	Motor size	Dimensions for handing LG 0 / RD 0			Dimensions for handing LG 90 / RD 90			Dimensions for handing LG 180 / RD 180			Dimensions for handing LG 270 / RD 270		
			G	G6	~kg	G	G6	~kg	G	G6	~kg	G	G6	~kg
1250	1	250/280	3175	1375	1036	3175	960	1036	3175	1400	1036	3175	920	1036
1250	2	315/355	3540	1375	1050	3540	960	1050	3540	1400	1050	3540	920	1050

insulation housing on request (special fitting)

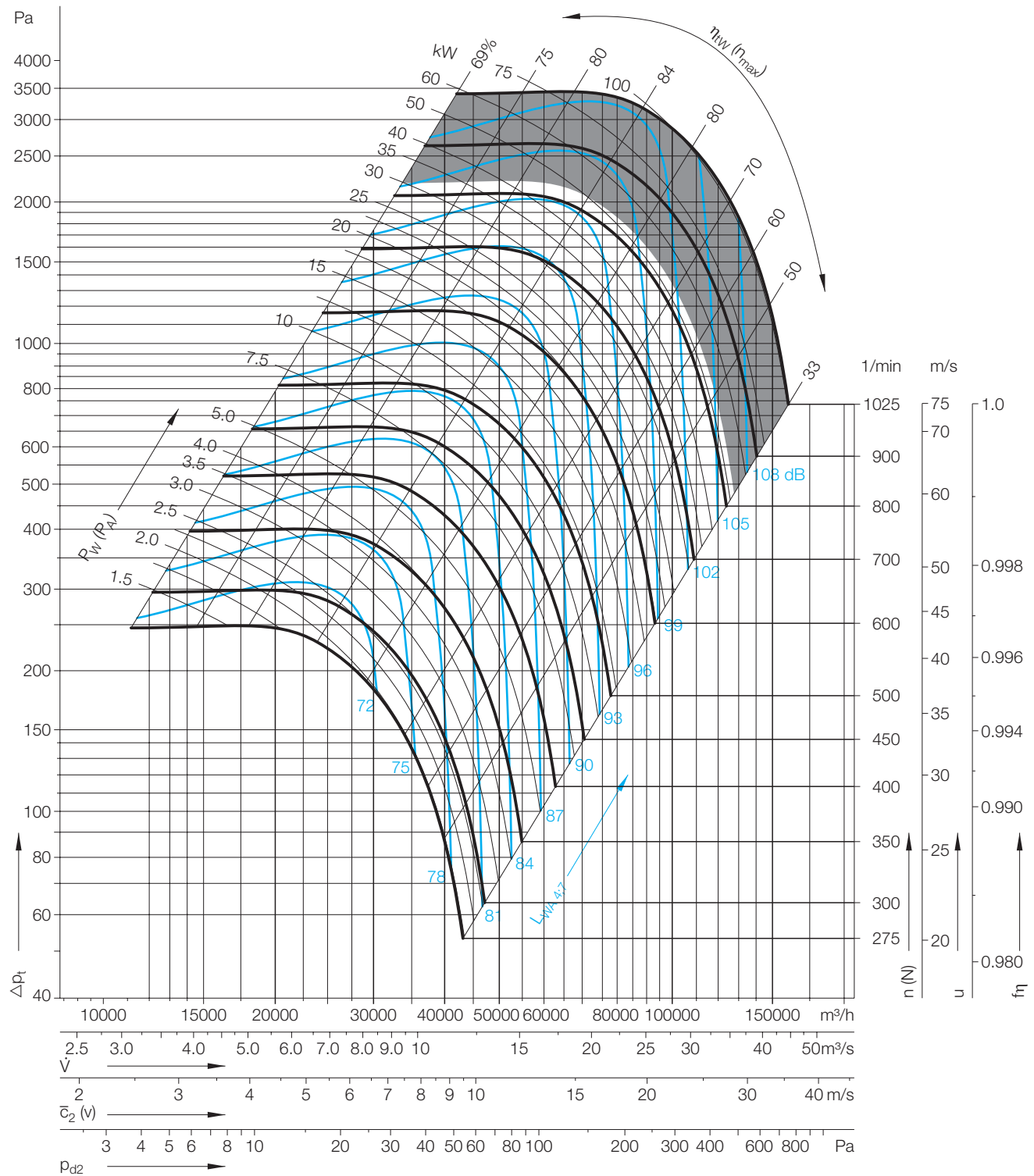
RER 13-1400, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

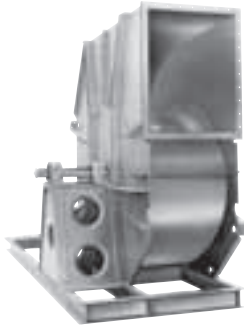


Formulae | Units see Description

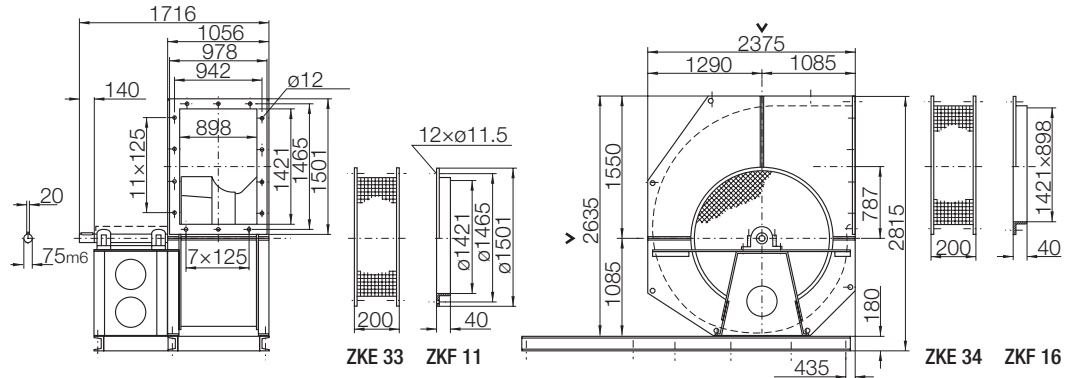
D = 1400 mm	Impeller diameter
z = 12	Number of blades
J = 60 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted

RER 13-1400, 400 °C – 120 min.

Dimensions in mm, Subject to change.



RER 13-1400



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06 (RER 13)

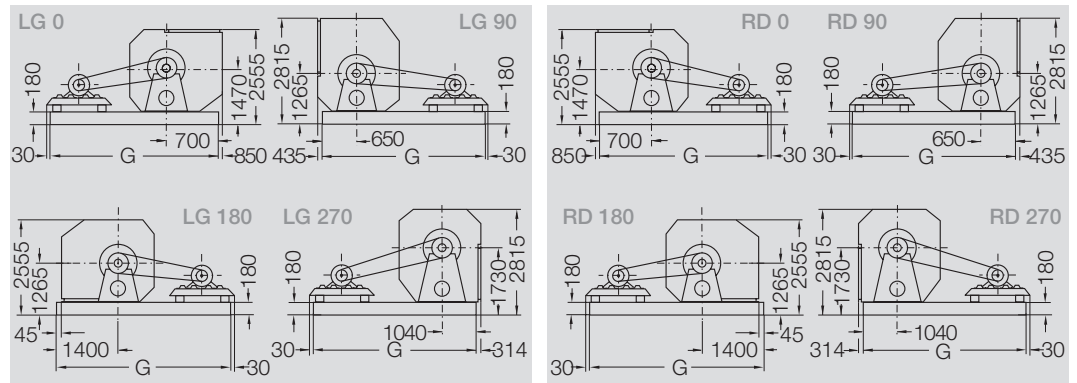
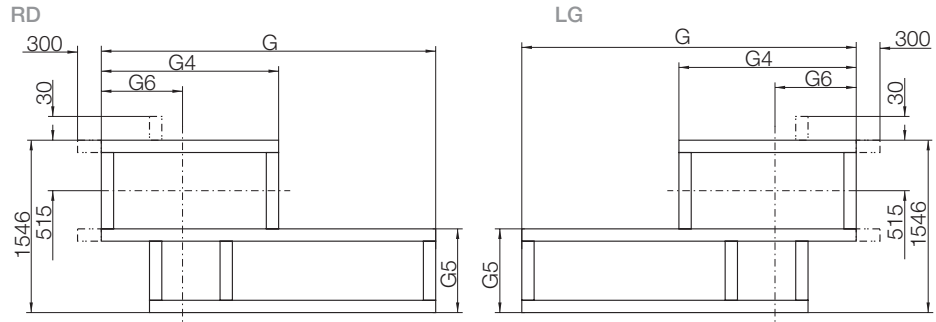
Centrifugal Smoke Extract Fan *rotavent* with belt drive

RER 13

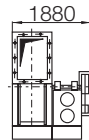
Casing made of sheet steel welded and coated

Base frame, belt drive and motor are an integral part of the supply.

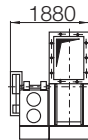
For calculations of the A-sound pressure level see chapter „sounds“ on page 207.



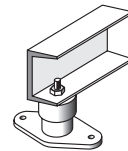
LG 90



RD 90



U-Profil



RER 13-	Base frame	Motor size	Dimensions for handing LG 0 / RD 0					Dimensions for handing LG 90 / RD 90					Dimensions for handing LG 180 / RD 180					Dimensions for handing LG 270 / RD 270				
			G	G4	G5	G6	~kg	G	G4	G5	G6	~kg	G	G4	G5	G6	~kg	G	G4	G5	G6	~kg
1400	1	160/180	2250	1400	586	700	1275	2520	1300	586	650	1285	3590	2534	586	1864	1360	2670	1800	586	1040	1295
1400	2	200/225	2500	1400	586	700	1285	2705	1300	586	650	1295	3720	2534	586	1864	1365	2950	1800	586	1040	1310
1400	3	250/280	2780	1400	1102	700	1340	2960	1300	1102	650	1355	3980	2534	1102	1864	1420	3220	1800	1102	1040	1360
1400	4	315/355	3100	1400	1102	700	1360	3230	1300	1102	650	1370	4300	2534	1102	1864	1440	3520	1800	1102	1040	1370

insulation housing on request (special fitting)

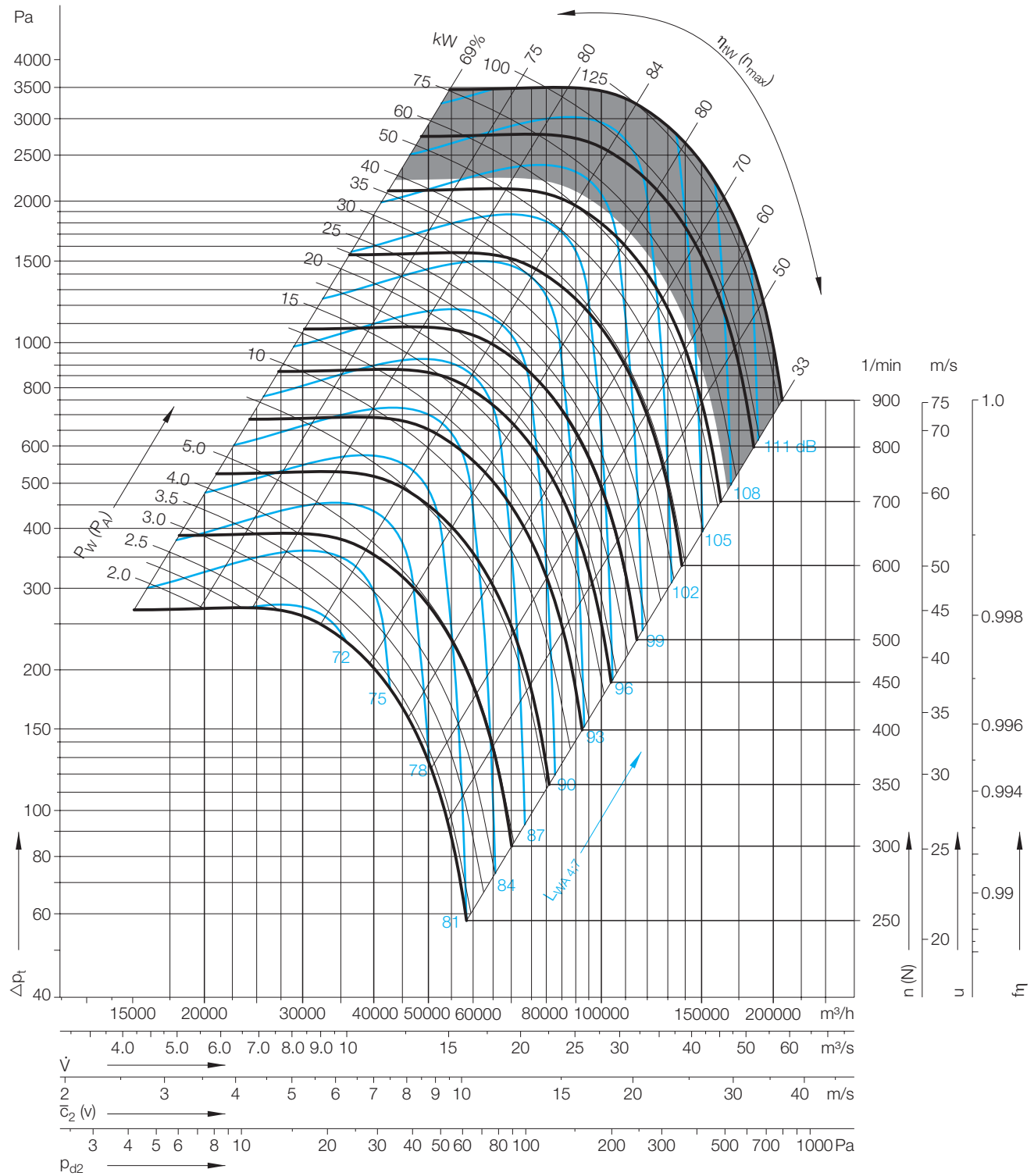
RER 13-1600, 400 °C – 120 min.

Curves

$\rho_1=1.20 \text{ kg/m}^3$

Performance data to DIN 24166 Class 1

- all types suitable
- prohibited area

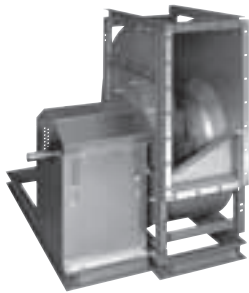


Formulae | Units see Description

D = 1600 mm	Impeller diameter
z = 12	Number of blades
J = 93 kgm^2	Moment of inertia
$\Delta p_{fa} = \Delta p_t - p_{d2}$	Static pressure - ducted

RER 13-0200/-1000, 400 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 07

High performance centrifugal fan *rotavent*

Single intake belt drive, suitable for smoke extraction in the case of fire for temperatures up to

+400 °C - 120 minutes,

Certified for installation outside of buildings, tested to DIN EN 12101-3, and CE certified.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

Installation of the fan authorised for horizontal shaft position only.

Lap jointed scroll of galvanised sheet steel, with heavy reinforced side frames (size 0400 to 1000) fan scroll and bearing support pedestal assembled on a common base frame, intake and discharge flange in according to DIN.

High performance impeller with 12 hollow section true aerofoil blades (Size 0315 to 1000) or 11 backward curved laminar blades (Size 0200 to 0280) inclined obliquely to the shaft axis, welded in position and epoxy coated. Throat plate inclined obliquely in opposition to blade inclination. Impeller and shaft statically and dynamically balanced as an assembly in according to DIN ISO 1940.

Intake cones matched to the impeller reduce entry losses to a minimum.

Self aligning double row ball bearings within standard plummer blocks, mounted on robust pedestal, packed with long life high performance grease.

Can be relubricated when not in service.

The fan is supplied as a full set with base frame, belt drive and motor included.

Performance data to DIN 24 166 Class 1 (Size 0315 to 710) or Class 2 (Size 0200 to 280).

Type *rotavent* RER 17-

Volume	$V = \dots\dots\dots$	m^3/h
Total Pressure increase	$\Delta p_t = \dots\dots\dots$	
Pressure increase (free discharge)	$\Delta p_{fa} = \dots\dots\dots$	
Density at Inlet	$\rho_1 = \dots\dots\dots$	$^{\circ}C$
Temperature of Gas Medium	$t = \dots\dots\dots$	$^{\circ}C$
Shaft Power	$P_W = \dots\dots\dots$	kW
Efficiency	$(\eta_1/\eta_{fa}) = \dots\dots\dots$	A
A-Sound Power Level	$L_{WA} = \dots\dots\dots$	dB
Speed	$n = \dots\dots\dots$	$1/min$
Weight	$m = \dots\dots\dots$	kg

Special fittings (at extra cost)

Insulation housing (for installation inside of buildings – outside room with fire risk)

Motor protection hood for outside installation

Belt guard

Volumeter IMV 11 (K10)

Relubrication in operation

- IWN 01 - Shell Alvania R grease

Special coating Class K or H

Accessories (at extra cost)

Inlet Flange

Inlet Connection (flexible) up to +600 °C (ZKE 33)

Discharge Flange

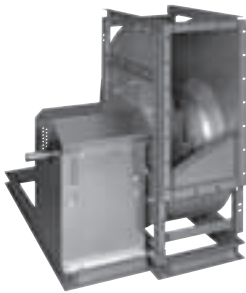
Discharge Connection (flexible) up to +600 °C (ZKE 34)

Discharge Guard

Spring diffusers

RER 17-0200/-1000, 400 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06

High performance centrifugal fan *rotavent*

Single intake belt drive, suitable for smoke extraction in the case of fire for temperatures up to

+400 °C - 120 minutes,

Certified for installation outside of buildings, tested to DIN EN 12101-3, and CE certified.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

Installation of the fan authorised for horizontal shaft position only.

Scroll casing stitch welded and epoxy coated, with heavy reinforced side frames (size 0400 to 1000) fan scroll and bearing support pedestal assembled on a common base frame, intake and discharge flange in according to DIN.

High performance impeller with 12 hollow section true aerofoil blades (Size 0315 to 1000) or 11 backward curved laminar blades (Size 0200 to 0280) inclined obliquely to the shaft axis, welded in position and epoxy coated. Throat plate inclined obliquely in opposition to blade inclination. Impeller and shaft statically and dynamically balanced as an assembly in according to DIN ISO 1940.

Intake cones matched to the impeller reduce entry losses to a minimum.

Self aligning double row ball bearings within standard plummer blocks, mounted on robust pedestal, packed with long life high performance grease.

Can be relubricated when not in service.

The fan is supplied as a full set with base frame, belt drive and motor included.

Performance data to DIN 24 166 Class 1 (Size 0315 to 710) or Class 2 (Size 0200 to 280).

Type *rotavent RER 13-*

Volume	$\dot{V} = \dots\dots\dots$	m ³ /h
Total Pressure increase	$\Delta p_t = \dots\dots\dots$	
Pressure increase (free discharge)	$\Delta p_{fa} = \dots\dots\dots$	
Density at Inlet	$\rho_1 = \dots\dots\dots$	°C
Temperature of Gas Medium	$t = \dots\dots\dots$	°C
Shaft Power	$P_w = \dots\dots\dots$	kW
Efficiency	$(\eta_1/\eta_{fa}) = \dots\dots\dots$	A
A-Sound Power Level	$L_{WA} = \dots\dots\dots$	dB
Speed	$n = \dots\dots\dots$	1/min
Weight	$m = \dots\dots\dots$	kg

Special fittings (at extra cost)

Insulation housing (for installation inside of buildings – outside room with fire risk)

Motor protection hood for outside installation

Belt guard

Volumeter IMV 11 (K10)

Relubrication in operation

- IWN 01 - Shell Alvania R grease

Special coating Class S or K

Accessories (at extra cost)

Inlet Flange

Inlet Connection (flexible) up to +600 °C (ZKE 33)

Discharge Flange

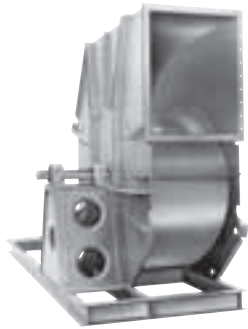
Discharge Connection (flexible) up to +600 °C (ZKE 34)

Discharge Guard

Spring diffusers

RER 13-1120/-1600, 400 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 06

High performance centrifugal fan *rotavent*

Single intake belt drive, suitable for smoke extraction in the case of fire for temperatures up to

+400 °C - 120 minutes,

Certified for installation outside of buildings, tested to DIN EN 12101-3, and CE certified.

Can be used for as a standard ventilation fan up to an air temperature of +80 °C.

Installation of the fan authorised for horizontal shaft position only.

Scroll casing stitch welded and epoxy coated, intake and discharge flange in accordance to DIN. Split on one axis (2 segments) Size 1120, or split in two axis (4 segments) Sizes 1250, 1400, 1600.

High performance impeller with 12 hollow section true aerofoil blades inclined obliquely to the shaft axis, welded in position and epoxy coated. Impeller and shaft statically and dynamically balanced as an assembly in accordance to DIN ISO 1940.

Intake cones matched to the impeller reduce entry losses to a minimum.

Self aligning double row ball bearings within standard plummer blocks, out of the main airstream, mounted on robust pedestal, packed with long life high performance grease.

Can be relubricated when not in service. Cooling disk on the shaft for protection of the bearings against heat transmissions from the shaft.

The fan is supplied as a full set with base frame, belt drive and motor included.

Performance data to DIN 24 166 Class 1.

Type	<i>rotavent</i> RER 13-	
Volume	$V =$	m ³ /h
Total Pressure increase	$\Delta p_t =$	
Pressure increase (free discharge)	$\Delta p_{fa} =$	
Density at Inlet	$\rho_1 =$	°C
Temperature of Gas Medium	$t =$	°C
Shaft Power	$P_w =$	kW
Efficiency	$(\eta_1/\eta_{fa}) =$	A
A-Sound Power Level	$L_{WA} =$	dB
Speed	$n =$	1/min
Weight	$m =$	kg

Special fittings (at extra cost)

Insulation housing (for installation inside of buildings – outside room with fire risk)

Motor protection hood for outside installation

Belt guard

Volumeter IMV 11 (K10)

Relubrication in operation

- IWN 01 - Shell Alvania R grease

Special coating Class K

Accessories (at extra cost)

Inlet Flange

Inlet Connection (flexible) up to +600 °C (ZKE 33)

Discharge Flange

Discharge Connection (flexible) up to +600 °C (ZKE 34)

Discharge Guard

Spring diffusers

RER ..-0200/-1600, 400 °C – 120 min.

Performance data

The curves show the total pressure rise Δp_t as a function of the volume flow rate V plotted logarithmically.

System resistance efficiency curves are then represented by straight lines.

The degree of efficiency marked on the constant system lines is only valid at the maximum permitted rotational speed of fan n_{max} ; it decreases with diminishing rotational speed indicated by the factor f_η . This factor can be read off the vertical scale given on the far right of the curves.

The actual degrees of efficiency for speeds lower n_{max} are calculated by multiplying the efficiency at n_{max} by the factor f_η for the appropriate speed.

The curves are represented with a reference density of:

The pressure and impeller input power are directly proportional to density ρ_1 .

They can be converted as follows:

I = Catalogue

II = Other Density

p_a = air pressure or barometer reading in Pa

Δp = difference of the static pressure between fan inlet and test site

R_F = Gas specific constant [$\approx 288 \text{ J/kg}\times\text{K}$]

T_1 = Thermodynamic temperature at fan inlet [$T_1=273+t_1$] in K

t_1 = air temp. in °C

$$\rho_1 = \frac{p_a - \Delta p}{R_F \times T_1} = 1.2 \text{ kg/m}^3$$

$$\Delta p_{II} = \Delta p_I \frac{\rho_{II}}{1.2}$$

$$P_{II} = P_I \frac{\rho_{II}}{1.2}$$

Outlet velocity \bar{c}_2 and the dynamic pressure p_{d2} refer to the flanged cross section area at the fan outlet.

RER ..-0200/-1000

$$\Delta p_{fa} = \Delta p_t - f_{pd} \times p_{d2}$$

RER 13-1120/-1600

$$\Delta p_{fa} = \Delta p_t - p_{d2}$$

The increase in static pressure Δp_{fa} when a duct is attached to the discharge can be calculated from the equation:

Where no duct is fitted there is no static regain.

The increase in pressure Δp_{fa} can be calculated from Δp_t formula:

The correction factor f_{pd} for the dynamic pressure can be obtained from the curve of the respective size.

$$P_N = P_W \times f_p$$

$$P_W \leq 1.1 \text{ kW} \quad f_p = 1.30$$

$$P_W > 1.1 \leq 2.2 \text{ kW} \quad f_p = 1.25$$

$$P_W > 2.2 \leq 5.5 \text{ kW} \quad f_p = 1.20$$

$$P_W > 5.5 \leq 11 \text{ kW} \quad f_p = 1.15$$

$$P_W > 11 \leq 45 \text{ kW} \quad f_p = 1.125$$

$$P_W > 45 \text{ kW} \quad f_p = 1.10$$

To determine the motor rating P_N , the fan absorbed shaft power P_W must be increased by a factor f_p to accommodate belt drive losses etc.

The factor f_p is an estimated value. As an approximate value, the figures at the side are suggested.

When selecting the motor, the start up time must be within permitted limits. The start up time can be worked

$$t_A = 8 \frac{J \times n^2}{P_N} \times 10^{-6}$$

Out approximately according to the following formula, where:

t_A = acceleration time in seconds

J = moment of inertia in kgm^2

n = fan speed in rpm

P_N = motor rating in kW

If t_A exceeds the motor manufacturer's recommendation, a larger motor or high-torque machine must be used. If t_A exceeds the trip time of the starting gear, a longer delay must be used.

RER ..-0200/-1600, 400 °C – 120 min.

Sounds

$$L_{WA} = L_{WA4} = L_{WA7}$$

For more accurate calculations to determine noise prevention measures, the sound power level in each octave band is important.

Inlet side: $L_{Wokt\ 7} = L_{WA} + L_{Wrel\ 7}$

Discharge side: $L_{Wokt\ 4} = L_{WA} + L_{Wrel\ 4}$

The relative noise corrections L_{Wrel7} or L_{Wrel4} may be obtained from the following tables.

In some cases the noise level may be higher than expected at the blade passing frequency.

$$f_s = \frac{n \times z}{60}$$

f_s = Blade passing frequency in Hz

n = Fan speed in rpm

z = No of blades (11 for sizes 0200/-0280)

(12 for sizes 0315/-1600)

The octave noise levels L_{Wokt4} should be corrected as follows when the fan is to be used with a free discharge (unducted).

Correction with free discharge

Oktave band mid frequency f_m Hz	L_{Wkorr} for RER ..-0200/-0280 dB	L_{Wkorr} for RER ..-0315/-1000 dB
63	-15	-11
125	- 9	- 6
250	- 6	- 3

RER ..-0200/-1600, 400 °C – 120 min.

Determination of the Octave level

Inlet side	Duty Point V_{opt}	Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m [$L_{Wrel7} = L_{Wok7} - L_{WA7}$]								
		63	125	250	500	1000	2000	4000	8000	Hz
RER 13-/17-0200/-0280		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	-4	2	0	-2	-5	-10	-14	-21	dB
	$> 0.8-1.2 V_{opt}$	-7	0	-2	-2	-5	-9	-14	-22	dB
	$> 1.2-1.6 V_{opt}$	-10	-4	-4	-2	-4	-8	-15	-24	dB
	$> 1.6 V_{opt}$	-12	-7	-6	-2	-4	-8	-13	-24	dB
RER 13-/17-0200/-0280		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	-7	-1	-2	-2	-4	-10	-16	-23	dB
	$> 0.8-1.2 V_{opt}$	-12	-4	-5	-3	-4	-10	-15	-23	dB
	$> 1.2-1.6 V_{opt}$	-14	-7	-8	-4	-4	-9	-12	-21	dB
	$> 1.6 V_{opt}$	-15	-10	-11	-4	-4	-9	-12	-19	dB
RER 13-/17-0315/-1000		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	0	2	0	-3	-6	-9	-12	-19	dB
	$> 0.8-1.2 V_{opt}$	-2	1	-2	-3	-6	-8	-14	-20	dB
	$> 1.2-1.6 V_{opt}$	-3	0	-1	-3	-6	-8	-14	-21	dB
	$> 1.6 V_{opt}$	-5	-3	-3	-3	-6	-7	-13	-21	dB
RER 13-/17-0315/-1000		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	-2	-1	-3	-1	-6	-10	-15	-21	dB
	$> 0.8-1.2 V_{opt}$	-7	-4	-5	-1	-6	-9	-14	-21	dB
	$> 1.2-1.6 V_{opt}$	-10	-7	-8	-1	-5	-8	-13	-21	dB
	$> 1.6 V_{opt}$	-10	-8	-8	-2	-6	-8	-11	-18	dB
RER 13-1120/-1600		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	0	3	1	-2	-6	-9	-13	-20	dB
	$> 0.8-1.2 V_{opt}$	-1	2	1	-2	-6	-9	-14	-21	dB
	$> 1.2-1.6 V_{opt}$	-2	1	1	-3	-5	-8	-15	-21	dB
	$> 1.6 V_{opt}$	-5	-3	-2	-3	-5	-7	-14	-21	dB
RER 13-1120/-1600		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	-1	-1	-3	-2	-7	-11	-16	-21	dB
	$> 0.8-1.2 V_{opt}$	-6	-4	-6	-2	-7	-10	-15	-21	dB
	$> 1.2-1.6 V_{opt}$	-10	-7	-8	-3	-6	-9	-14	-21	dB
	$> 1.6 V_{opt}$	-10	-7	-8	-3	-6	-8	-11	-20	dB

Determination of the Octave level

Discharge	Duty Point V_{opt}	Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_m [$L_{Wrel4} = L_{Wok4} - L_{WA4}$]								
		63	125	250	500	1000	2000	4000	8000	Hz
RER 13-/17-0200/-0280		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	11	8	3	-2	-8	-13	-19	-29	dB
	$> 0.8-1.2 V_{opt}$	7	5	1	-1	-7	-11	-18	-29	dB
	$> 1.2-1.6 V_{opt}$	5	3	-1	-1	-6	-9	-17	-30	dB
	$> 1.6 V_{opt}$	6	1	-2	-2	-6	-8	-14	-29	dB
RER 13-/17-0200/-0280		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	8	7	2	-2	-6	-11	-19	-28	dB
	$> 0.8-1.2 V_{opt}$	4	3	-2	-4	-6	-8	-15	-26	dB
	$> 1.2-1.6 V_{opt}$	2	0	-4	-5	-6	-8	-13	-24	dB
	$> 1.6 V_{opt}$	4	0	-4	-6	-6	-8	-12	-21	dB
RER 13-/17-0315/-1000		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	13	7	4	-3	-8	-14	-17	-25	dB
	$> 0.8-1.2 V_{opt}$	10	5	3	-2	-7	-13	-17	-25	dB
	$> 1.2-1.6 V_{opt}$	7	2	2	-2	-6	-12	-18	-27	dB
	$> 1.6 V_{opt}$	5	1	1	-2	-6	-10	-17	-27	dB
RER 13-/17-0315/-1000		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	11	4	2	0	-7	-12	-17	-24	dB
	$> 0.8-1.2 V_{opt}$	7	1	-2	-3	-6	-10	-15	-23	dB
	$> 1.2-1.6 V_{opt}$	3	-2	-4	-3	-5	-9	-14	-23	dB
	$> 1.6 V_{opt}$	2	-3	-5	-3	-5	-9	-12	-21	dB
RER 13-1120/-1600		Impeller Tip Speed $u \leq 40$ m/s								
	$\leq 0.8 V_{opt}$	12	7	4	-3	-8	-14	-18	-26	dB
	$> 0.8-1.2 V_{opt}$	10	5	3	-3	-8	-14	-19	-28	dB
	$> 1.2-1.6 V_{opt}$	7	2	3	-3	-6	-13	-20	-28	dB
	$> 1.6 V_{opt}$	4	1	2	-3	-6	-12	-19	-28	dB
RER 13-1120/-1600		Impeller Tip Speed $u > 40$ m/s								
	$\leq 0.8 V_{opt}$	10	4	1	-1	-7	-13	-18	-25	dB
	$> 0.8-1.2 V_{opt}$	6	2	-2	-3	-6	-12	-15	-25	dB
	$> 1.2-1.6 V_{opt}$	2	-3	-3	-3	-6	-11	-15	-25	dB
	$> 1.6 V_{opt}$	1	-3	-5	-3	-6	-11	-13	-22	dB

u = Impeller Tip Speed (see Fan Curve)

V_{opt} = Flow Rate at Optimum Efficiency (see Fan Curve)

RER ..-0200/-1600, 400 °C – 120 min.

Bearings

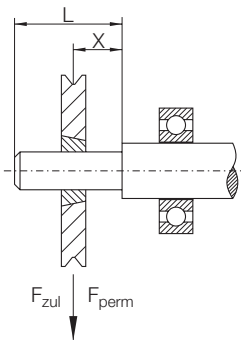


Self aligning double row bearing within heavy duty plummer blocks, mounted on robust pedestal.
From size 1120 with cooling disk on the shaft for protection of the bearings against heat transmissions from the shaft.

Life Expectancy of Bearings / Dynamic Drive Load

Precision, anti friction noise tested bearings are provided which are designed to give a nominal live expectancy (L10h DIN ISO 281-1) of 20,000 or 40,000 operating hours. To achieve these values, the permitted loads on the bearings must not be exceeded. The graphs on the following pages show for each size of fan the maximum permitted dynamic drive loads, dependant upon point of application .X. and the rotational speed of the fan.
By using the Gebhardt selection programme the operational range will be automatically be respected.

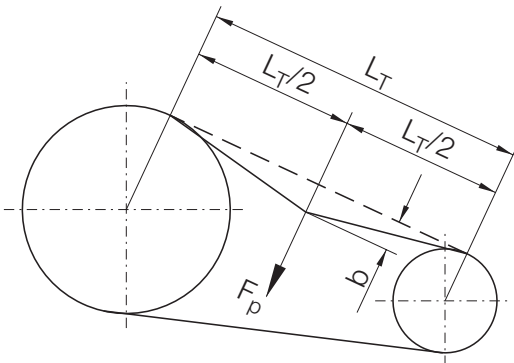
Dynamic Drive Load - V-Belts



L = Shaft Extension
X = Point of Application
F_{perm} = Permitted Load in N

The point of application of force „X“ varies. The limits for X = 0 and X = L are shown together with the mean X = L/2.

Belt Tensioning



The correct tension is achieved when the test force F_p results in a deflection of 16 mm per 1000 mm of centre distance.

L_T = Shaft Centre Distance
b = Delection of belt in mm under test force F_p
F_p = Test force N as prescribed by Nicotra Gebhardt Document

Detailed instruction on tensioning are included within the operating and maintenance manuals.

RER ..-0200/-1600, 400 °C – 120 min.

Dynamic Drive Load

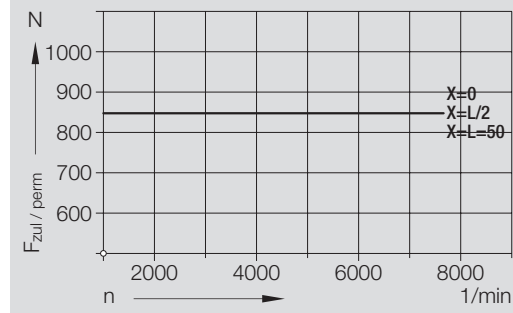
F_{perm} for $L_{10h} \geq 40.000$ h

Maximum permitted drive load F_{perm} at application point X plotted against fan speed.

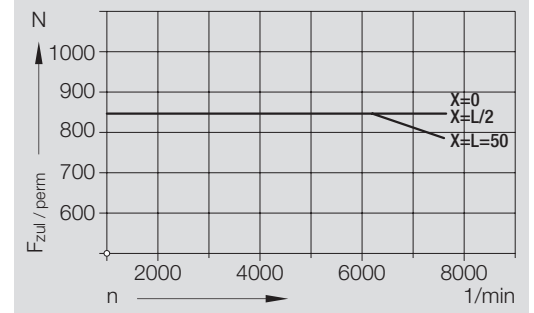
X = 0 X = L/2 X = L

RER 13-/17-0200/-0250

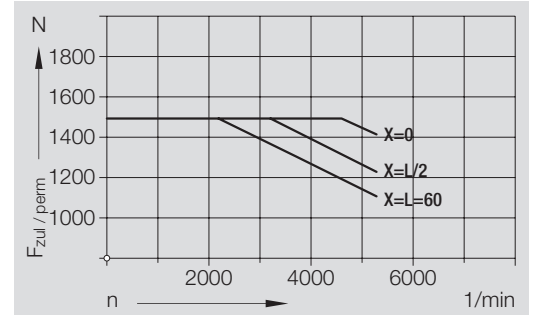
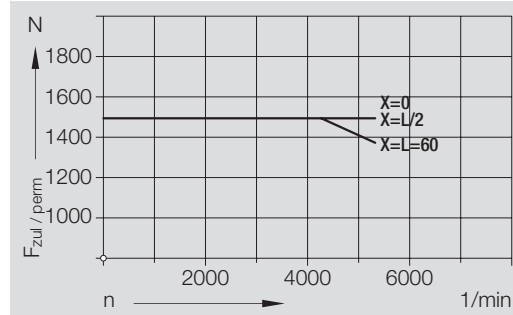
20 000 operating hours



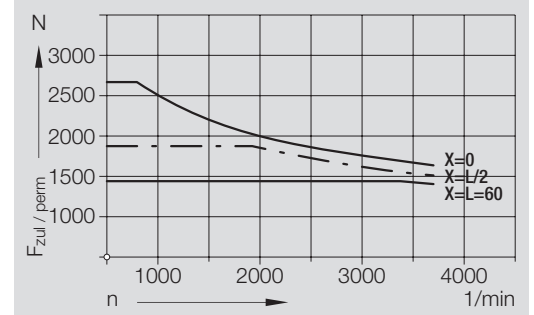
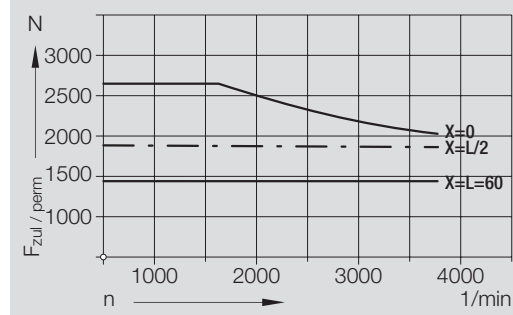
40 000 operating hours



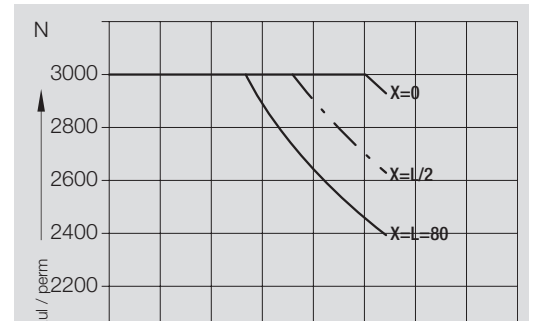
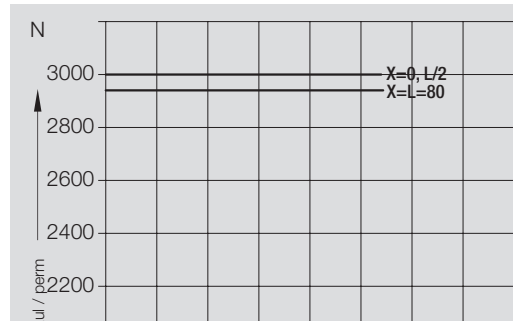
RER 13-/17-0280/-0355



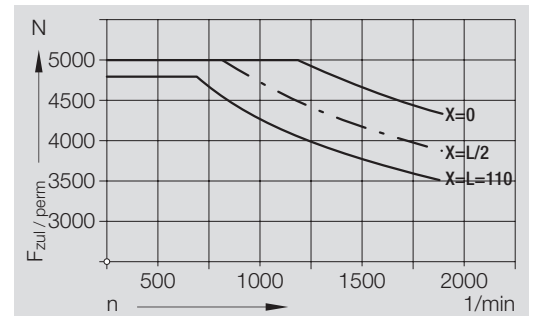
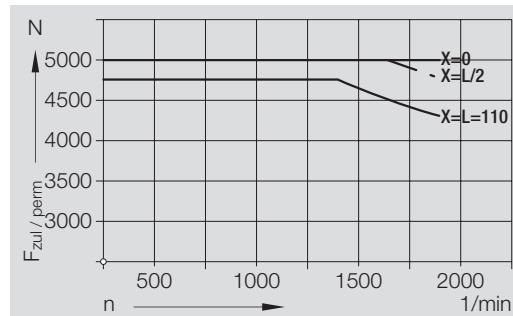
RER 13-/17-0400/-0500



RER 13-/17-0560/-0710



RER 13-/17-0800/-1000



RER 13-1120/-1600

Fan	RER 13-1120	RER 13-1250	RER 13-1400	RER 13-1600
F_{perm}	8000 N	9000 N	11000 N	12000 N

RER ..-0200/-1600, 400 °C – 120 min.**Base frame**

Base frame made of U-profiles, welded and coated. For placing the AVM correctly on the frame holes are provided.
The base frame is part of the standard fan supply and must not be ordered additionally.

Motor rails

The motor rails are made for easy sliding of the motor forth and back and for a step less adjustment of the belt tension.

Belt drive

Narrow V-belt drives

Nicotra Gebhardt is using as a standard high performance belts acc. to DIN 7753. These belts are resistant against temperatures up to +80 °C, resistant against mineral oils and electro statically conductive.

The pulleys are made of high quality cast iron and in function of tip speed and the number of grooves they are balanced statically (G16) or dynamically (G6.3). They are fitted to the motor or fan shaft by means of Taperlock bushes.

Note**Attention!**

The fans are supplied as a complete set including base frame, motor, slides, and belt drive.

Installation**RER not insulated**

The centrifugal smoke extract fans - in non insulated execution - are certified for installation outside of buildings only.
It has to be provided that no precipitation will penetrate into the fan.

RER insulated

The centrifugal smoke extract fans with insulating casing are certified for installation inside of the building, outside of the room where the fire occurs.
It has to be guaranteed that the surrounding temperature at the motor will not exceed +40°C, if not sufficient fresh air has to be introduced to ensure an effective motor cooling (see chapter "Motor cooling for inside installation").
Care has to be made that no flammable or burnable materials are placed close to the fan or to the smoke extract ducts.

Attention!

The motors selected for every fan by Nicotra Gebhardt (manufacturer, size, execution) may not be changed.

With changes the certificate becomes invalid.

Motor cooling installing the fan inside building

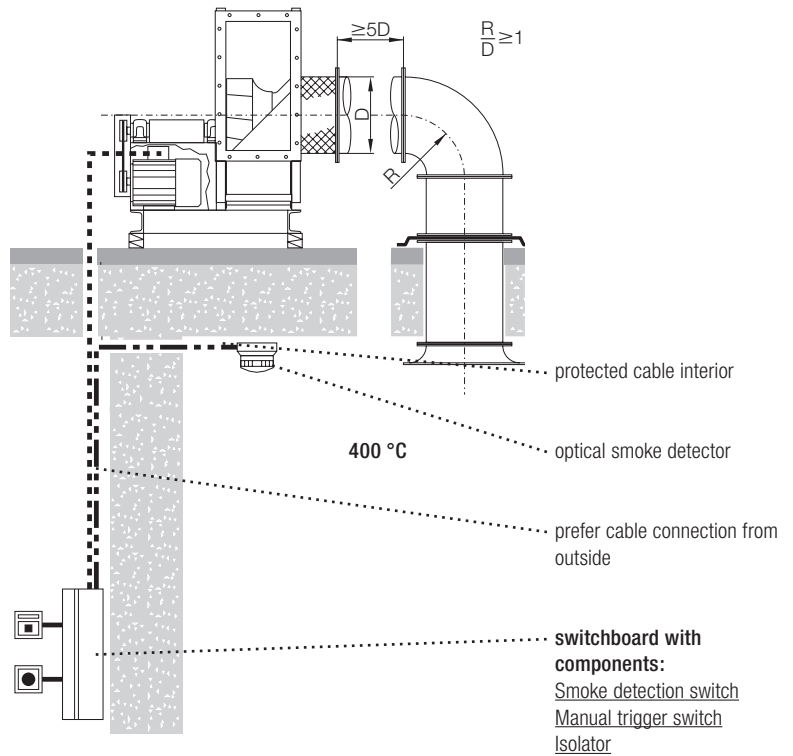
The motors are equipped with their own ventilation, which are sufficient under normal installation conditions. When installing the fan inside building or when providing a further enclosure it has to be observed that sufficient cooling of the motor is provided in order to not exceeding +40 °C.

More information about cooling air volumes for motors in function of the size see chapter "Technical Description".

RER ..-0200/-1600, 400 °C – 120 min.

Samples

The smoke extract fans are supplied ready for installation.
 The installation has to be made according to the certification specification and to local regulations. Every fan is supplied with a wiring diagram explaining the correct connection.

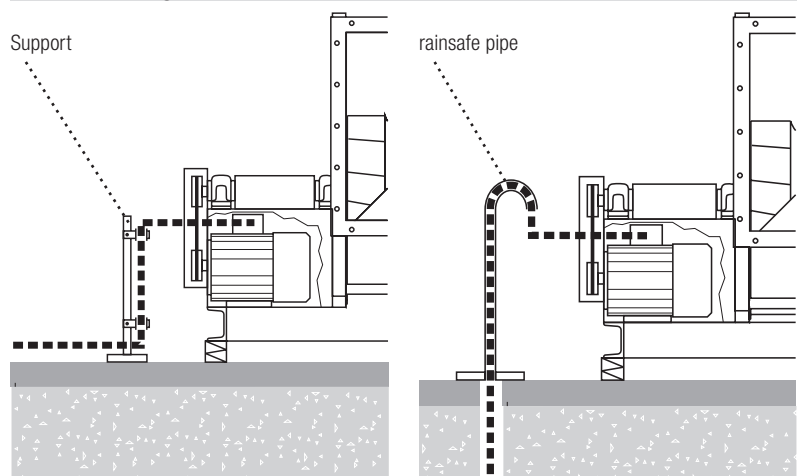


Attention!

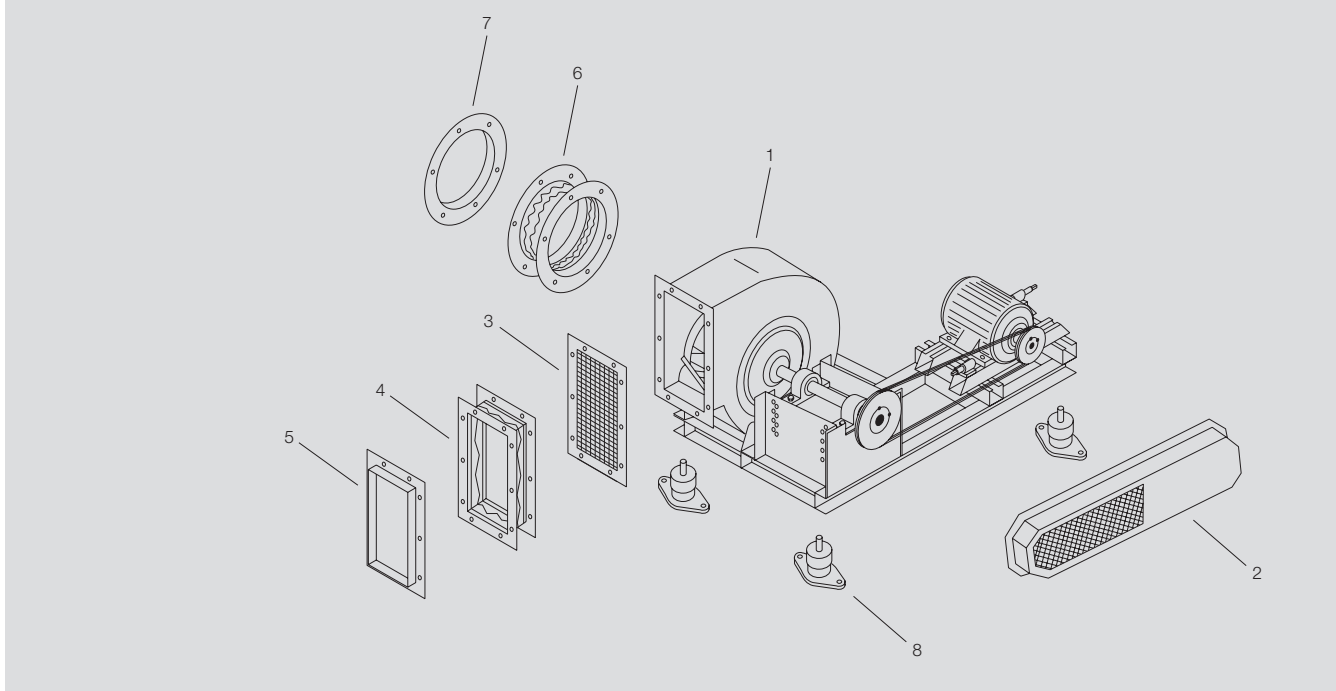
The installation has to be accepted by the concerned authorities or by a certified expert in order to get the certificate confirming that everything has been executed acc. to the existing regulations and rules.

The electrical wiring has to be placed outside of the room to protect against fire and has to be made according to the certification specification and to the most actual local regulations, specially following to "Regulations about fire protection requirements concerning electrical wiring".

Possible cabling solution



When connecting the fan electrically take care of the cable installation.

RER ..-0200/-1600, 400 °C – 120 min.**Accessories**

1 Fan with base frame, belt drive and motor

2 Drive guard

3 Discharge guard

4 Discharge flange

5 Discharge Connection (flexible)

6 Inlet flange

7 Inlet Connection (flexible)

8 Anti-vibration mounts (AVM)

Further accessories and equipment - not figuring on this page - see following pages or see price list.

Isoliergehäuse

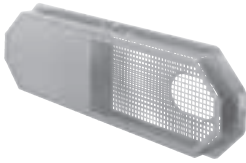
A supporting frame structure made of square channels, welded and coated. The elements are made for easy assembly and disassembly. The insulation panels are calcium silicate plates (Monolux) cladged outside with galvanised steel sheet. The whole enclosure together with a rugged base plate is bolted to the fan base frame. The material is delivered in parts on a palette.

Motor protection hood

When installing the fan outside it has to be protected against weather influence.

RER ..-0200/-1600, 400 °C – 120 min.

Belt guards



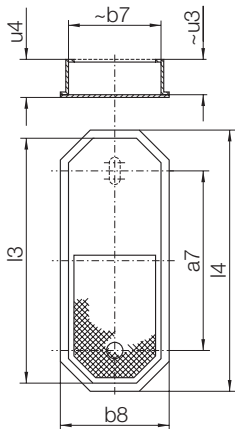
The belt guard is – as a standard – made of galvanised sheet steel and fully enclosed (acc. to DIN EN 294 -1). The front can be unscrewed and removed for inspection or maintenance purpose.

If for a selected belt drive there is no standard guard available (see table) a matching unit will be made in welded and coated design.

Options / special execution

- Inspection cover on belt guard
- guard opening for taking fan speed at the shaft
- belt guard split horizontally

Dimensions in mm, Subject to change

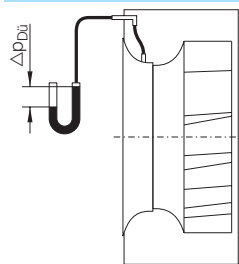


Type	a7 _{max}	DW _{max}	b8	b7	s5	u4	u3	l4	l3
R 01	250	90	194	159	97	72	69	444	404
R 02	300	90	194	159	97	72	69	494	454
R 03	350	160	264	229	132	72	69	614	574
R 04	400	160	264	229	132	72	69	664	624
R 05	450	160	264	229	132	72	69	714	674
R 06	500	160	264	229	132	72	69	764	724
R 07	600	160	264	229	132	72	69	864	824
R 08	700	125	264	229	132	72	69	964	924
R 09	800	125	264	229	132	72	69	1064	1024
R 10	900	125	264	229	132	72	69	1164	1124
R 11	450	250	344	304	172	122	119	794	754
R 12	500	250	344	304	172	122	119	844	804
R 13	600	250	344	304	172	122	119	944	904
R 14	700	315	484	444	242	122	119	1184	1144
R 15	800	315	484	444	242	122	119	1284	1244
R 16	900	315	484	444	242	122	119	1384	1344
R 17	1000	315	484	444	242	122	119	1484	1444
R 18	1100	315	484	444	242	122	119	1584	1544
R 19	1200	315	484	444	242	122	119	1684	1644

DW_{max} = diameter of the larger pulley

a7_{max} = maximum centre distance

Volumetre



$$V = K \times \sqrt{\frac{2}{\rho} \times \Delta p_{Dü}}$$

- Measuring connector in inlet cone
- Hose pipe to connecting piece in the side wall
- Connecting piece (external diameter of 6 mm) for pressure measurement.

With the Volumetre it is possible to easily measure / monitor the flow rate after the fan is installed.

A pressure tapping at a predetermined position on the inlet cone is provided whereby the differential pressure in relation to the static pressure is measured in front of the inlet cone in static atmosphere.

This differential pressure indicates a direct relation to the flow rate.

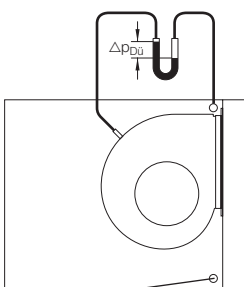
Admitted max. conveying medium temperature +80 °C

- V = Flow rate m³/h
- K = Calibrating factor
- ρ = Gas density kg/m³
- Δp_{Dü} = Differential pressure at cone Pa

In order to calculate the flow rate. A calibrating factor K is required. This factor is determined by comparative measurements on a test rig.

Maximum permitted deviations

K factor	Deviation
Standard K10	<10 %



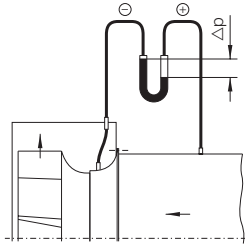
Ring of points

RER ..-0200/-1600, 400 °C – 120 min.

Volumetre



Connection piece



Where fans are built into a plenum, the pressure difference between the static pressure in the inlet side plenum and the pressure on the inlet cone is to be measured. It must be ensured that the static pressure to be measured in front of the inlet cone is not tampered by dynamic pressure fractions. It is often recommended to arrange a ring of points on the wall facing the outlet side as illustrated in the opposite sketch. When using the k-factor specified below a minimum clearance of 0.5 x D between the inlet cone of the fan and the side wall of the plenum must be maintained. Indentations that obstruct the flow to the cone can lead to faults when measuring the flow rate. In the event that the differential pressure is fed via a pressure sensor, the signal can also be used when ducted purpose.

Calibrating factor

Type	K10	Type	K10	Type	K10
IMV 11-0200	50	IMV 11-0500	230	IMV 11-1120	1200
IMV 11-0225	58	IMV 11-0560	280	IMV 11-1250	1500
IMV 11-0250	70	IMV 11-0630	365	IMV 11-1400	1900
IMV 11-0280	83	IMV 11-0710	480	IMV 11-1600	2350
IMV 11-0315	95	IMV 11-0800	590		
IMV 11-0355	118	IMV 11-0900	725		
IMV 11-0400	145	IMV 11-1000	925		
IMV 11-0450	180				

In the event of having the fan connected to a duct at suction side the measurement is made with a tapping installed on the duct wall. The K10-factors of the table are established for an flow from a static atmosphere. Because of the dynamic pressure in the duct at the tapping level the above mentioned K10-factors have to be corrected using the following formula:

$$K10, s = 1.07 \times K10$$

Relubrication Bearing Greasing



The bearings are packed with long life high performance grease. Relubrication through nipples and an integrated tube system is possible.

For comprehensive description see maintenance instructions.

IWN 01- _ _ _ _ (Shell Alvania R grease)

Special Coatings

More details see www.nicotra-gebhardt.com

Special Coatings Class S

RER 17

- degreasing, ironphosphating
- powder coating min. 40 µm, or
- 1x primer and 1x finish min. 40 µm (1 component resin lacquer)
- RAL 7039

Special Coatings Class K

RER 13 / RER 17

- degreasing, ironphosphating
- powder coating min. 90 µm, or
- 1x primer and 1x finish 90 µm (2 component resin lacquer, poly acrylate / poly urethane)
- RAL 7039

RER ..-0200/-1600, 400 °C – 120 min.

Flanges and connections



For intake and discharge there flanges and flexibles connectors available.

Temperature ranges for flexible connections

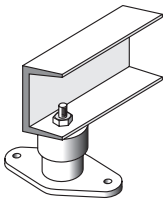
ZKE 33 400 °C - 120 min
 ZKE 34 400 °C - 120 min

Discharge guards



If the intake our discharge of the fan are freely accessible corresponding guards acc. to DIN EN 294 have to be provided.

Anti vibration mounts



Anti vibration mounts (AVM) are provided for preventing transmission of vibrations and noise to the foundation.

Anti vibration mounts (AVM) are to be placed under the fan base frame in order to obtain an even load and an even flexion subsequently. It is not sufficient to observe the forces at fan's rest. The reaction forces resulting of the pressure rise of the fan have to be taken into account as well.

For this reason a selection of AVM in the works may be difficult and may not be precise enough.

It is necessary to ensure that ducts and installation components are connected to the fan by flexibles in order to allow a free oscillation of the fan and to avoid any "bridging" and transmission of vibrations to the surrounding through adjacent the structure.

Spring diffusers

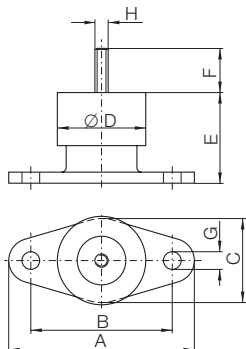


Spring type AVM – adjustable in height – for rpm above 400 for efficient vibration isolation.

Dedication of AVM to every fan type see price list.

The anti vibration mounts (AVM) are supplied with the necessary fixing material to fit them to the base frame.

Dimensions in mm, Subject to change



*= A - for U-Profile

Only dedicated anti vibration mounts (AVM) can be used! (see price list)

ZBD	A	B	C	D	ca. E	ca. F	G	H
60-0101*	130	100	70	72	70-50	35	13	M 10
60-0103*	130	100	70	72	70-50	35	13	M 10
60-0105*	130	100	70	72	70-50	35	13	M 10
60-0108*	130	100	70	72	70-50	35	13	M 10
60-0112*	150	120	82	92	90-75	35	13	M 12
60-0120*	150	120	82	92	90-75	35	13	M 12
60-0130*	150	120	82	92	90-75	35	13	M 12
60-0150*	150	120	82	92	190-85	35	13	M 12

The ideal axial smoke extractor, whichever way you look at it:



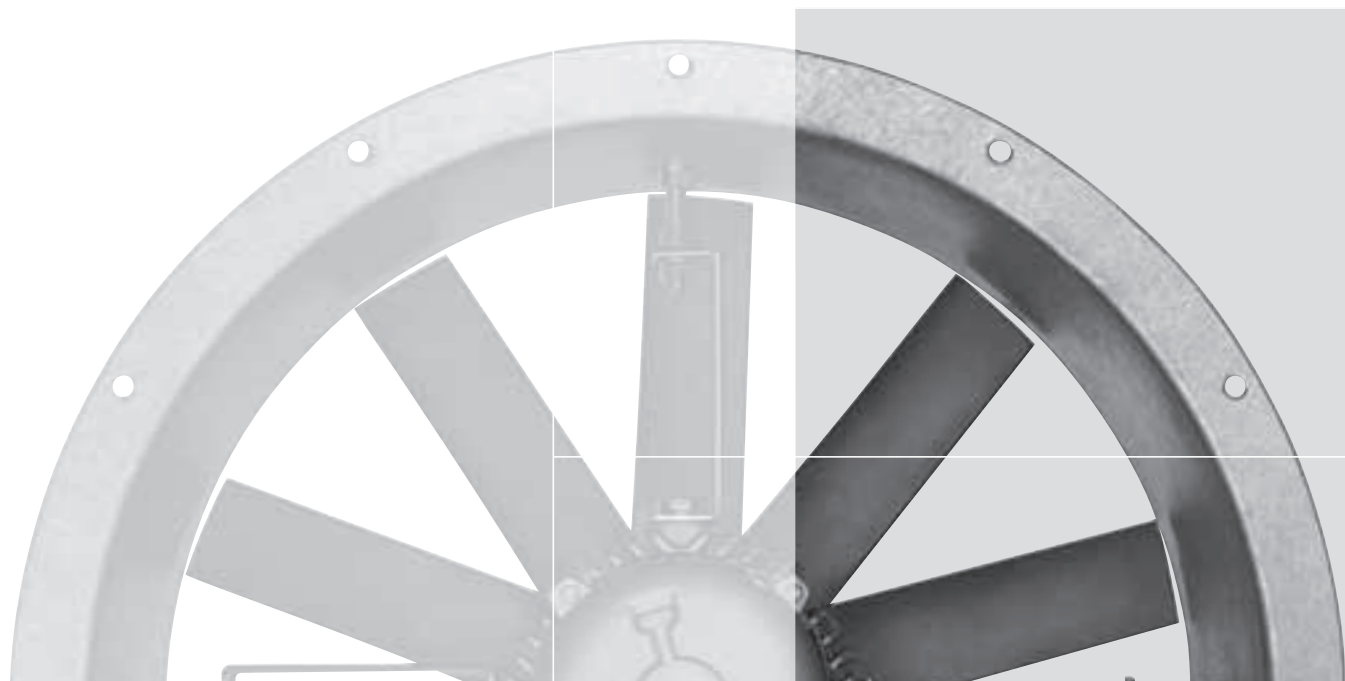
SLCS

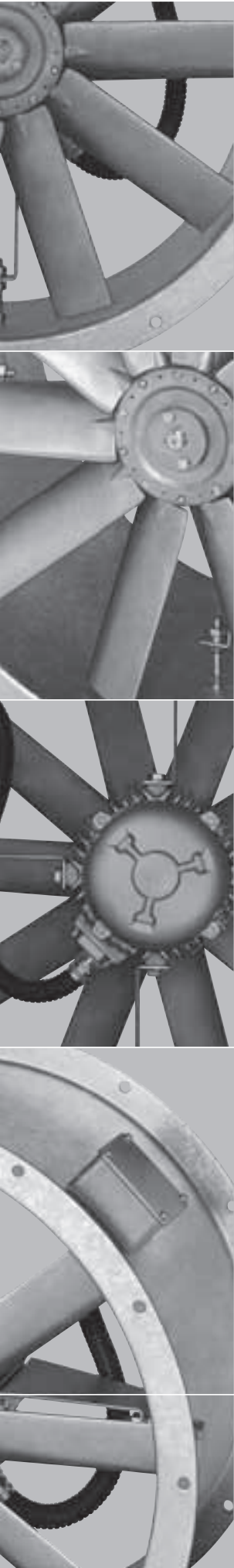
SLCS range with a tested conflagration gas motor
Flow rates of about 75,000 m³/h

SLCS 300 °C – 120 min.
SLCS 400 °C – 120 min.
No. 0086 CPD 493001

The SLCS is equally suitable for horizontal and vertical installation. Its special construction means it can be used both inside and outside the room where the fire breaks out.

It is fitted with connection flanges on both sides, making it ideal for integration into networks of smoke extraction ducts.





Reliable and robust rotator

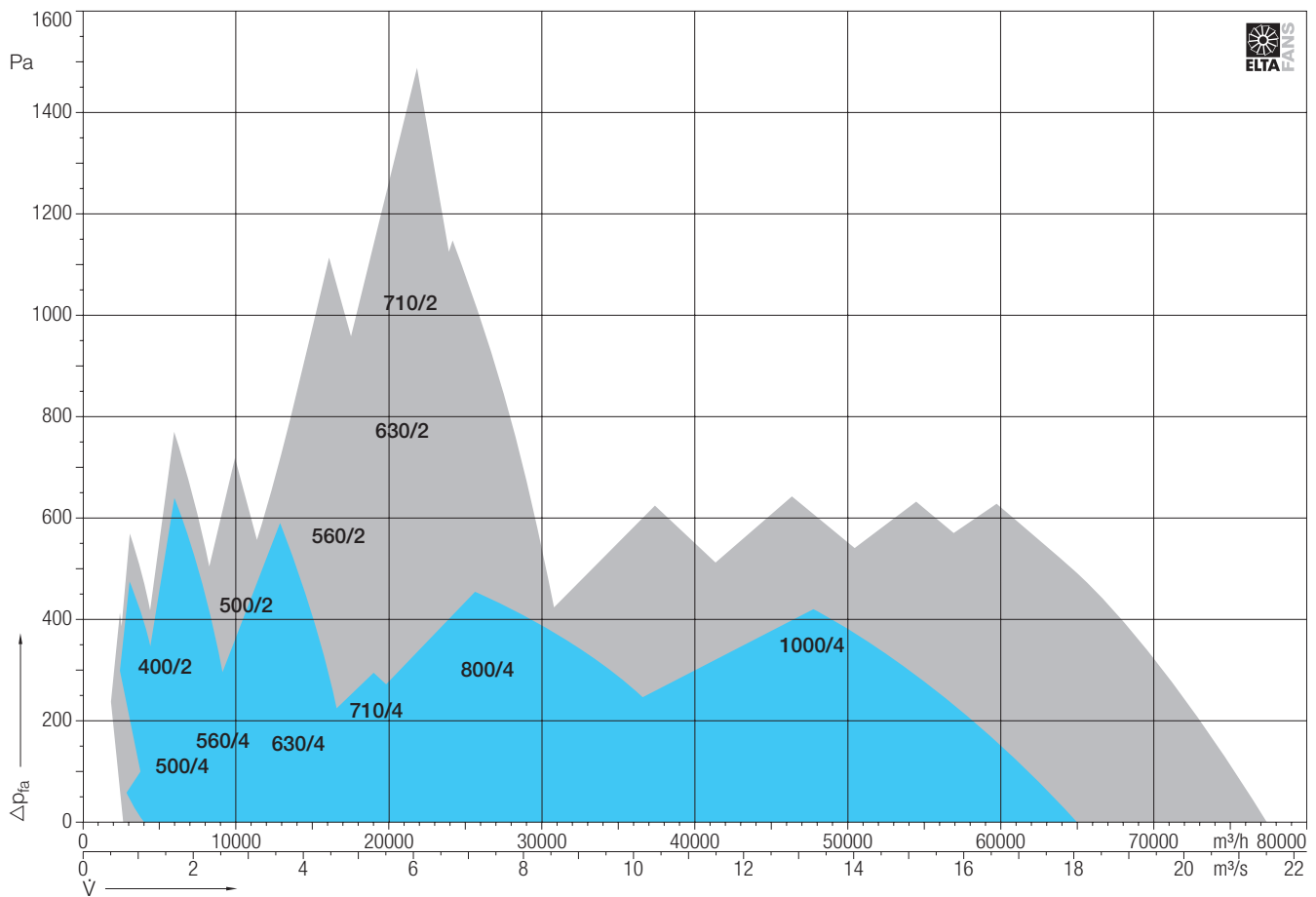
In addition to its versatility, the SLCS boasts robust technology.

- The whole range has CE certification.
- The SLCS is available in 7 standard sizes for flow rates of about 75,000 m³/h.
A range of other sizes and versions are available on request.
The next page shows the expanded performance area and fans for +400 °C – 120 min.
- During smoke extraction, the SLCS conveys fumes up to +300 °C or +400 °C for 120 min.
It can be used at temperatures of up to +40 °C for permanent ventilation.
- The SLCS is suitable for both horizontal and vertical installation.
- Its casing made of sheet steel with connecting flanges is manufactured using a sturdy welding process and hot-dip galvanised.
- Electrical connection is simple using the external easy-access terminal box with heat-resistant connectors.
- The axial impeller is made of die-cast aluminium and balanced in line with ISO 1940, G 6.3.
- The intake and output are fitted with connecting flanges for integration into a network of ducts.
- A wide range of certified accessories is available for the SLCS.
- A specially designed system of electrical components including smoke detector switchgear, an optical smoke detector and a manual trigger button rounds off the range of accessories.

SLCS +300 °C – 120 min.

SLCS – +300 °C – 120 min.

■ = „Select Range“ see following pages
 ■ = on request



SLCS – +300 °C – 120 min.

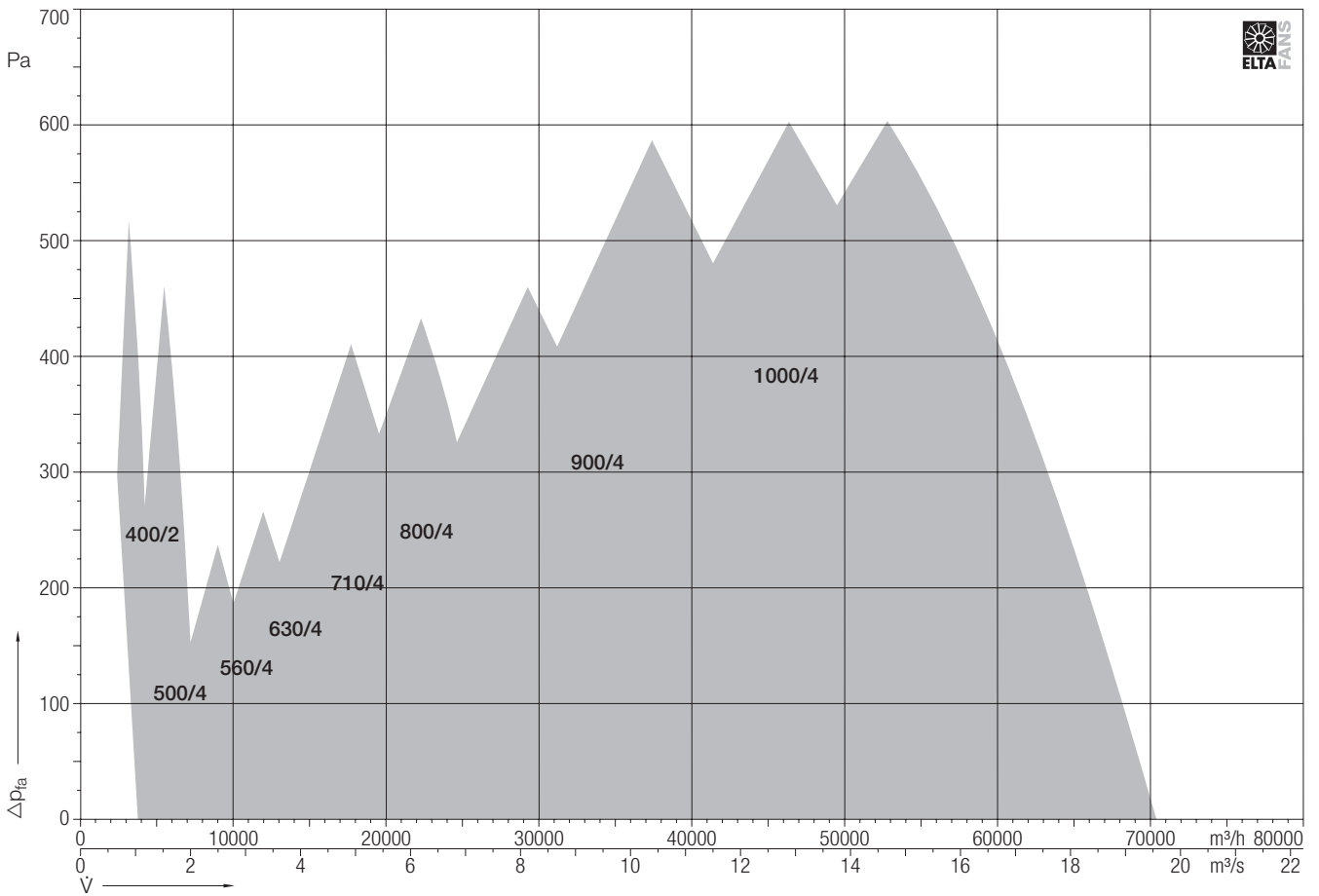
The read area in the fan curves stands for units of the standard select range, which are available under short delivery. All technical data and dimensions as well as the corresponding accessories may be found on the following pages.

More detailed technical data for the fans of the gray fan curve area may be found with the electronic selection programme *proSELECTA II*.

SLCS +400 °C – 120 min.

SLCS – +400 °C – 120 min.

■ = on request



SLCS – +400 °C – 120 min.



More detailed technical data for the fans of the gray fan curve area may be found with the electrical selection programme *proSELECTA II*.

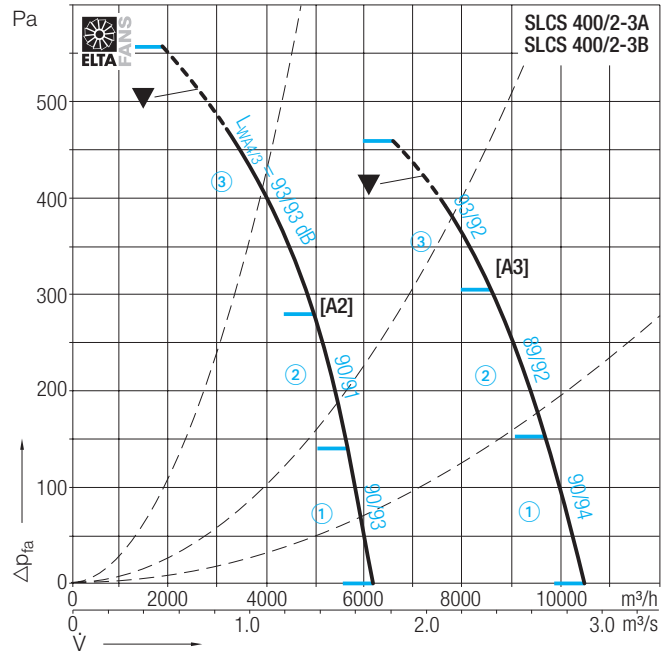
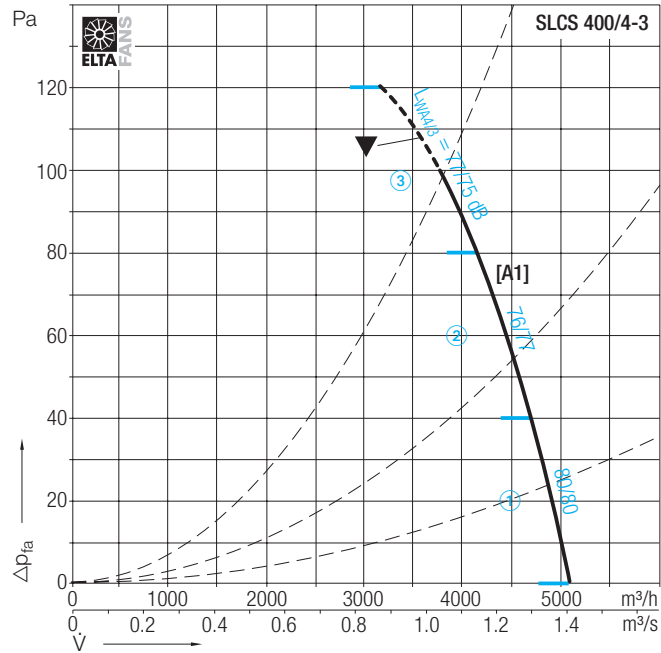
SLCS 400, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB (1)	kg
400/4-3	[A1]	4	400 Y	50	1430	0.55	1.36	6.0	80	5040	80/80	35
400/2-3A	[A2]	2	400 Y	50	2760	1.32	2.78	5.0	80	6120	90/93	37
400/2-3B	[A3]	2	400 Y	50	2810	3.30	7.27	5.8	90 L	10400	90/94	42

Curves ▼ = not recommended for general use

ρ₁=1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 400/4-3 [A1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	77	74	76	72	76	74	68	57	dB
②	L _{Wokt4}	73	72	76	73	70	69	66	59	dB
③	L _{Wokt4}	74	73	76	71	72	71	68	61	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	73	74	76	71	76	74	69	57	dB
②	L _{Wokt3}	72	71	72	71	73	71	65	57	dB
③	L _{Wokt3}	69	75	74	72	69	68	64	58	dB

SLCS 400/2-3A [A2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	87	87	87	89	85	82	78	73	dB
②	L _{Wokt4}	88	86	85	89	83	82	79	72	dB
③	L _{Wokt4}	89	88	90	91	88	86	82	78	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	88	86	83	89	90	85	80	72	dB
②	L _{Wokt3}	87	84	84	88	86	85	80	71	dB
③	L _{Wokt3}	87	82	88	89	89	85	82	75	dB

SLCS 400/4-3B [A3]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	90	90	86	88	83	82	79	75	dB
②	L _{Wokt4}	87	89	86	87	83	82	79	74	dB
③	L _{Wokt4}	92	91	88	90	87	85	82	79	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	90	87	81	88	91	86	82	75	dB
②	L _{Wokt3}	86	83	84	88	87	86	82	74	dB
③	L _{Wokt3}	87	83	88	89	87	85	82	76	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
400/4-3	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/20B
400/2-3A	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/20B
400/2-3B	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/20B

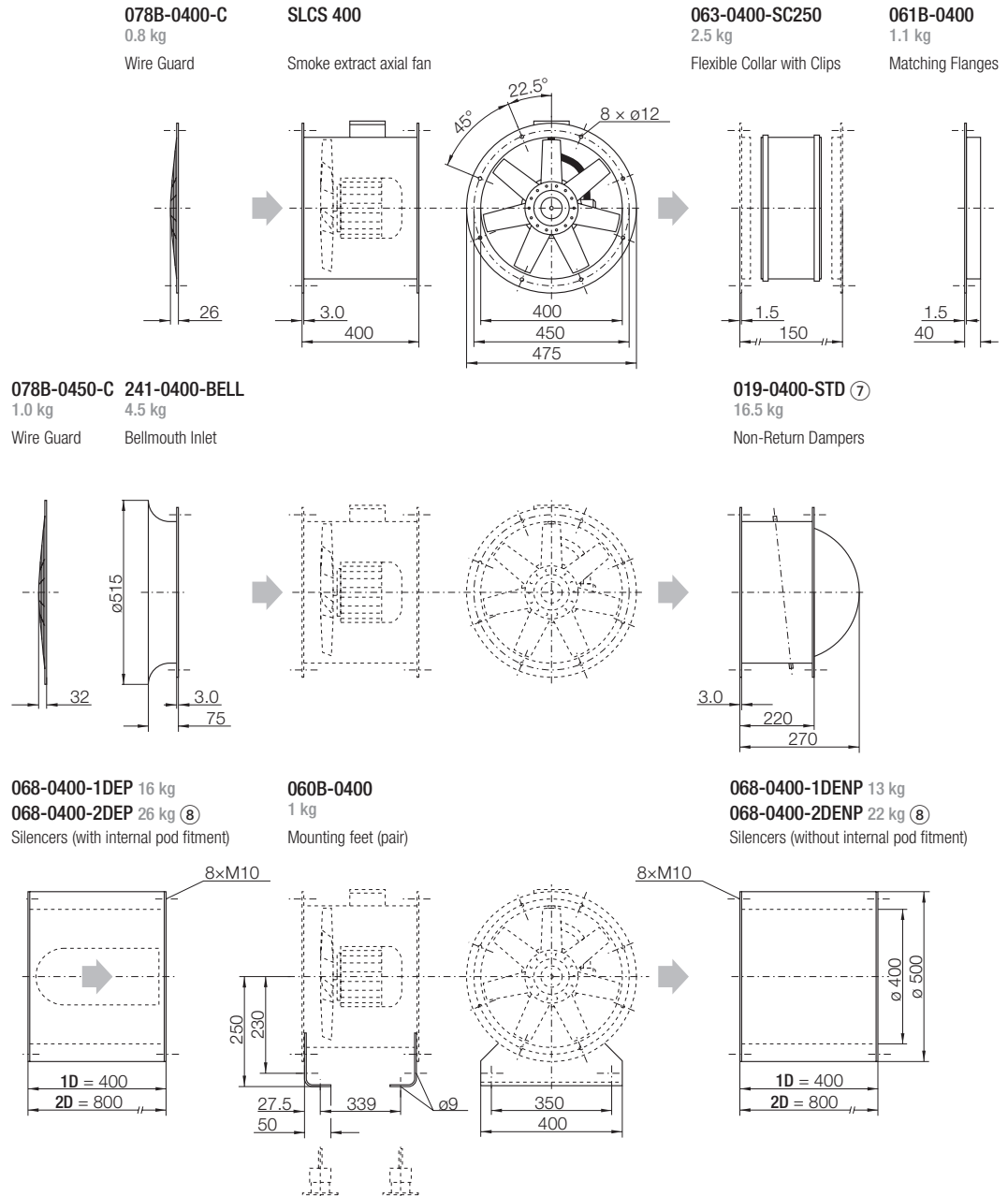
SLCS 400, 300 °C – 120 min.

Dimensions in mm, Subject to change.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
 - ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
 - ⑦ Non-Return Dampers use
019-STD - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
 - ⑧ Silencer available in 4 executions with internal pod fitment
- 068-....-1DEP
- 068-....-2DEP
without internal pod fitment
- 068-....-1DENP
- 068-....-2DENP
- Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!
- ⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

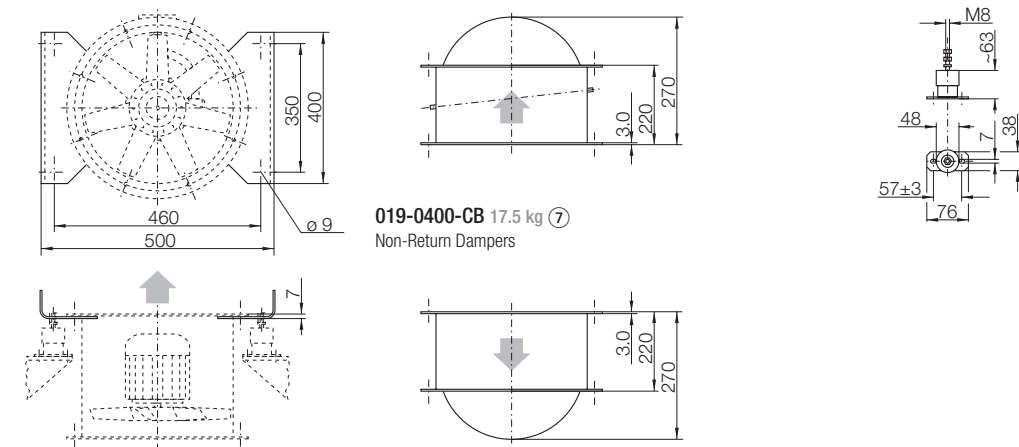


Vertical mounting

SLCS 400 ⑨
Smoke extract axial fan - vertical mounted

019-0400-STD 16.5 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



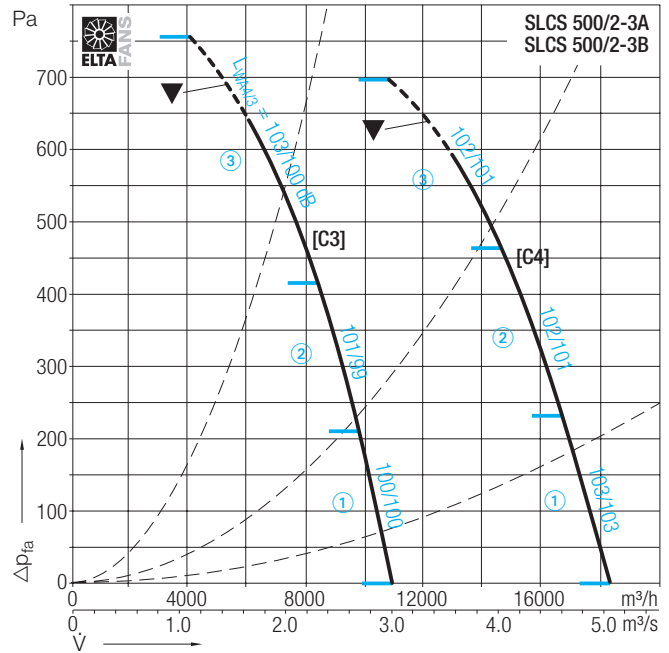
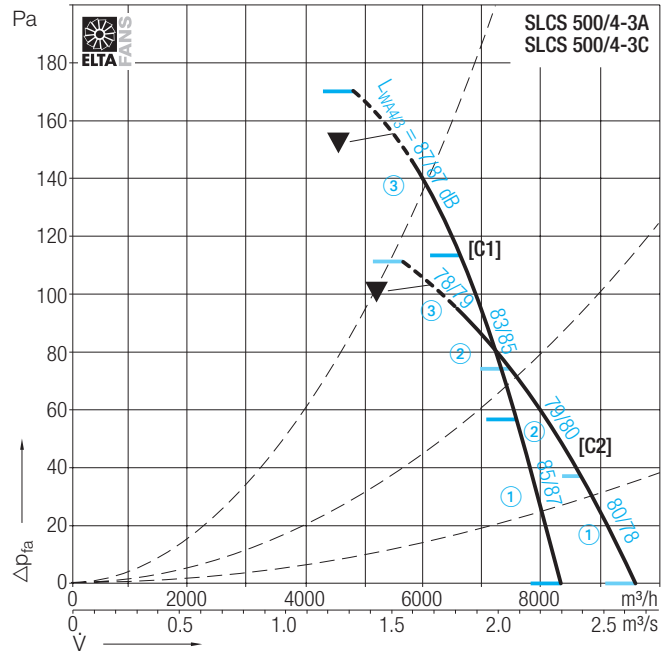
SLCS 500, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB (10)	kg
500/4-3A	[C1]	4	400 Y	50	1410	0.66	1.56	5.2	80	8280	85/ 87	41
500/4-3C	[C2]	4	400 Y	50	1430	0.55	1.36	6.0	80	9540	80/ 78	41
500/2-3A	[C3]	2	400 Y	50	2800	2.64	5.36	5.5	90 L	10800	100/100	47
500/2-3B	[C4]	2	400 Δ	50	2845	6.33	11.70	6.6	112 M	18180	103/103	68

Curves ▼ = not recommended for general use

ρ₁=1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 500/4-3A [C1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	79	77	80	80	80	80	76	64	dB
②	L _{Wokt4}	75	76	78	77	79	76	73	66	dB
③	L _{Wokt4}	78	80	84	83	82	80	76	66	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	77	77	78	81	83	80	76	62	dB
②	L _{Wokt3}	75	76	76	78	81	78	76	64	dB
③	L _{Wokt3}	78	80	82	83	84	80	76	62	dB

SLCS 500/4-3C [C2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	78	82	77	75	76	73	68	60	dB
②	L _{Wokt4}	79	79	75	76	75	72	66	61	dB
③	L _{Wokt4}	79	77	77	75	73	71	68	63	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	79	81	76	75	72	70	69	62	dB
②	L _{Wokt3}	78	77	76	76	75	73	68	60	dB
③	L _{Wokt3}	77	78	73	75	75	72	69	61	dB

SLCS 500/2-3A [C3]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	90	90	92	97	95	93	91	88	dB
②	L _{Wokt4}	92	90	94	97	96	95	92	78	dB
③	L _{Wokt4}	92	91	96	98	97	97	94	90	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	87	85	86	96	96	92	90	86	dB
②	L _{Wokt3}	86	84	92	97	96	90	86	84	dB
③	L _{Wokt3}	84	88	96	97	97	91	84	81	dB

SLCS 500/2-3B [C4]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	92	91	94	98	99	96	94	91	dB
②	L _{Wokt4}	93	89	91	96	97	96	93	89	dB
③	L _{Wokt4}	94	91	95	97	98	96	93	89	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	93	89	87	96	99	96	94	93	dB
②	L _{Wokt3}	89	85	89	96	97	93	93	90	dB
③	L _{Wokt3}	92	88	92	96	97	94	92	87	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
500/4-3A	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/20B
500/4-3C	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/20B
500/2-3A	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B
500/2-3B	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B

SLCS 500, 300 °C – 120 min.

Dimensions in mm, Subject to change.

Fan dimensions dependent on motor size

Fan	L	L1
SLCS 500/4-3A	400	339
SLCS 500/4-3C	400	339
SLCS 500/2-3A	400	339
SLCS 500/2-3B	450	389

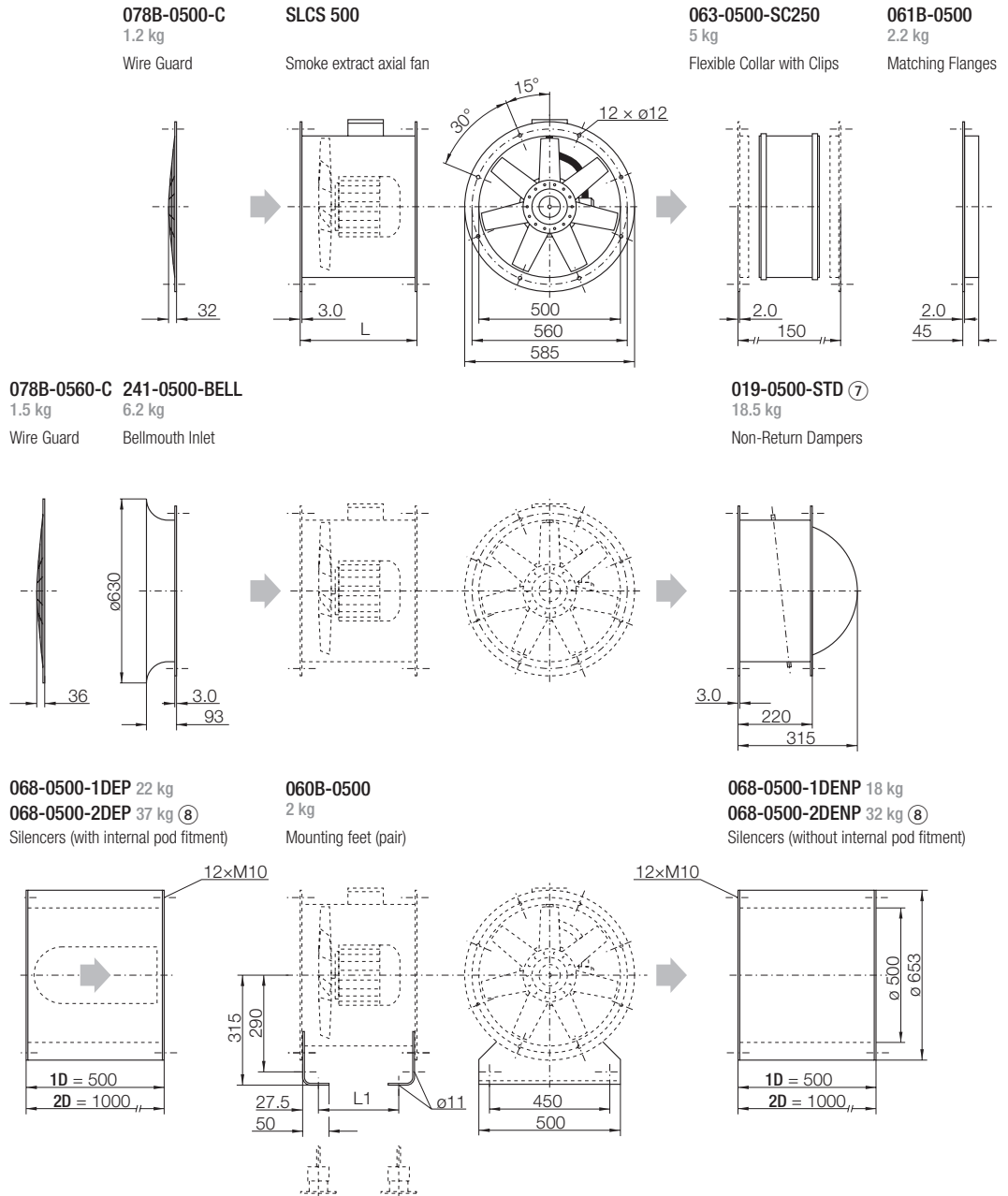
⑩ See page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
- ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
- ⑦ Non-Return Dampers use
019-STD - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
- ⑧ Silencer available in 4 executions with internal pod fitment
- 068-....-1DEP
- 068-....-2DEP
without internal pod fitment
- 068-....-1DENP
- 068-....-2DENP

Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!

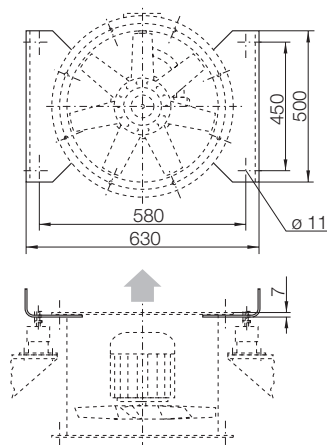
- ⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.



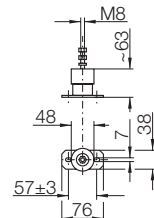
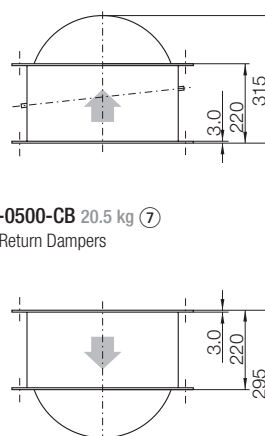
SLCS 500 ⑨
Smoke extract axial fan - vertical mounted

019-0500-STD 18.5 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



019-0500-CB 20.5 kg ⑦
Non-Return Dampers

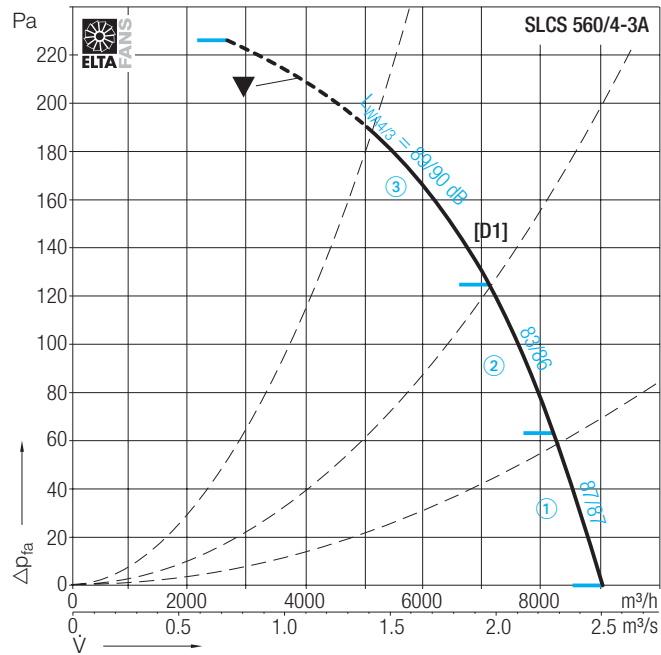


SLCS 560, 300 °C – 120 min.

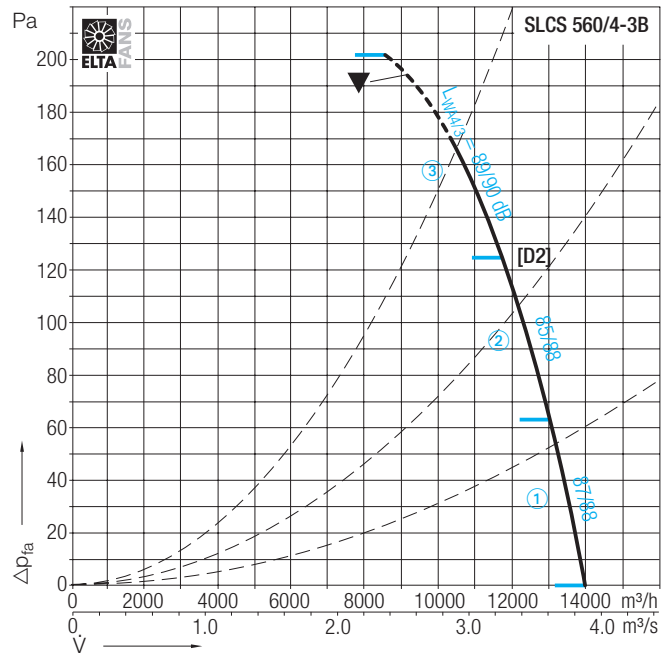
Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB (1)	kg
560/4-3A	[D1]	4	400 Y	50	1410	0.66	1.56	5.2	80	9000	87/87	43
560/4-3B	[D2]	4	400 Y	50	1420	1.50	3.19	6.2	90 L	14070	87/88	49

Curves ▼ = not recommended for general use



ρ₁ = 1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 560/4-3A [D1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	83	78	82	82	81	82	78	69	dB
②	L _{Wokt4}	80	80	79	78	78	77	74	69	dB
③	L _{Wokt4}	78	77	84	85	84	82	78	71	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	80	77	80	82	83	80	77	65	dB
②	L _{Wokt3}	78	76	79	80	82	79	77	68	dB
③	L _{Wokt3}	78	77	84	87	86	82	78	65	dB

SLCS 560/4-3B [D2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	85	79	83	82	81	80	78	65	dB
②	L _{Wokt4}	82	80	83	81	79	78	76	70	dB
③	L _{Wokt4}	86	83	86	84	83	82	80	73	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	81	78	80	83	84	81	79	67	dB
②	L _{Wokt3}	79	77	82	82	84	81	80	72	dB
③	L _{Wokt3}	78	78	84	86	84	83	81	72	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
560/4-3A	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B
560/4-3B	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B

SLCS 560, 300 °C – 120 min.

Dimensions in mm, Subject to change.

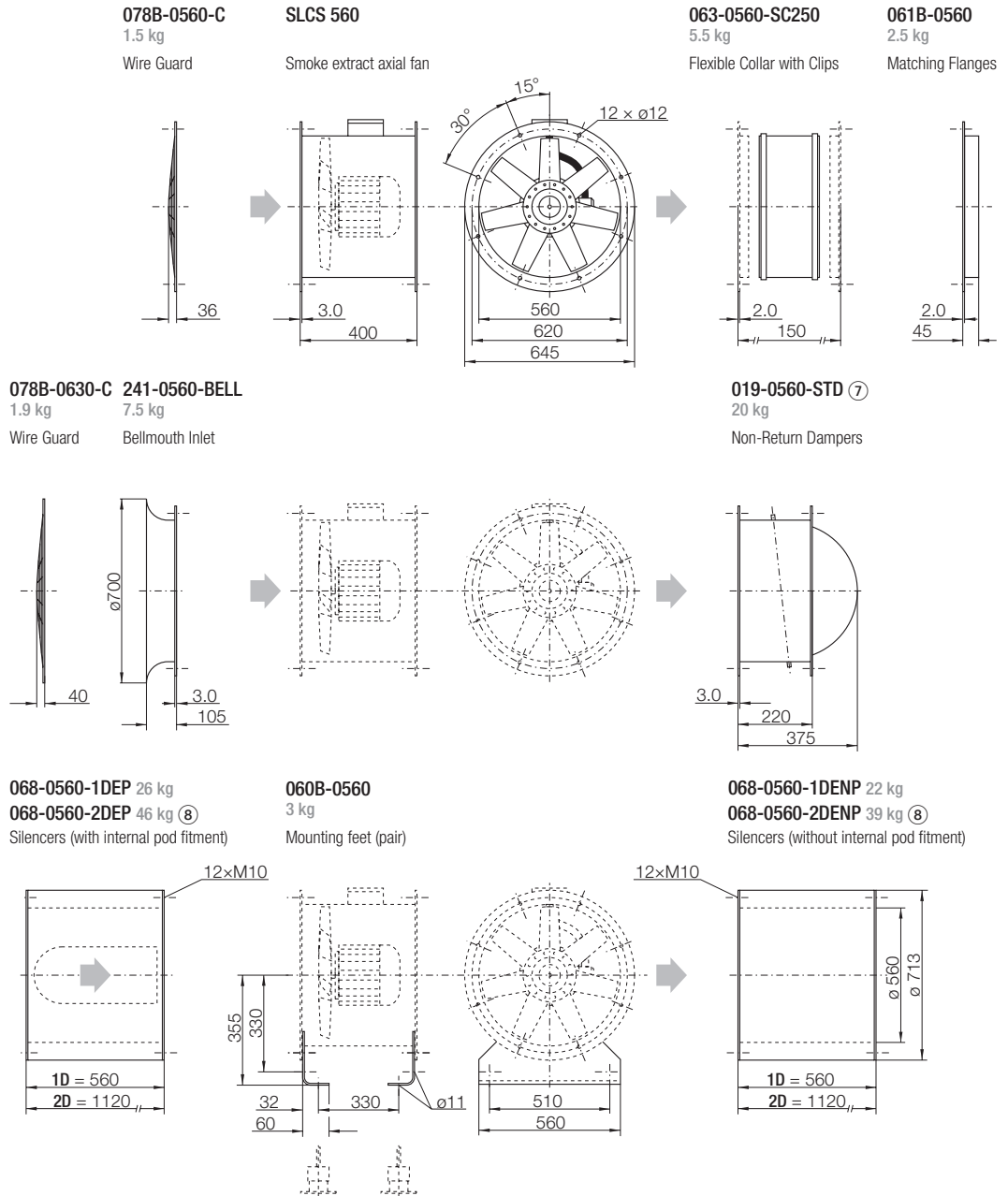
⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
- ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
- ⑦ Non-Return Dampers use **019-STD** - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
- ⑧ Silencer available in 4 executions with internal pod fitment
- 068-....-1DEP
- 068-....-2DEP
without internal pod fitment
- 068-....-1DENP
- 068-....-2DENP

Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!

⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

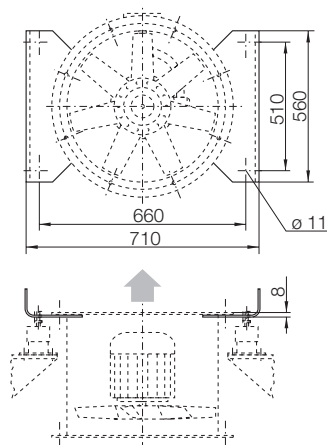


Vertical mounting

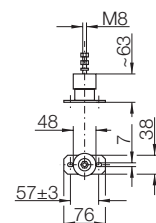
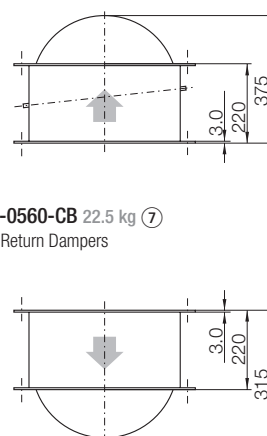
SLCS 560 ⑨
Smoke extract axial fan - vertical mounted

019-0560-STD 20 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



019-0560-CB 22.5 kg ⑦
Non-Return Dampers



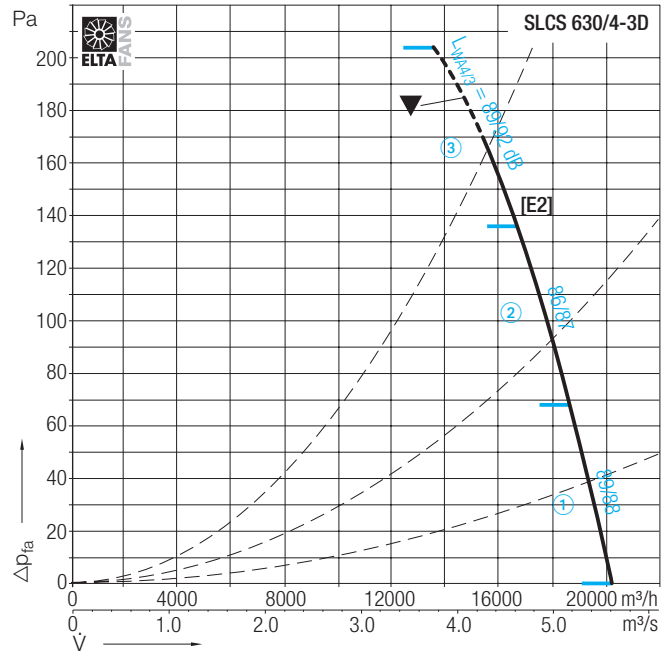
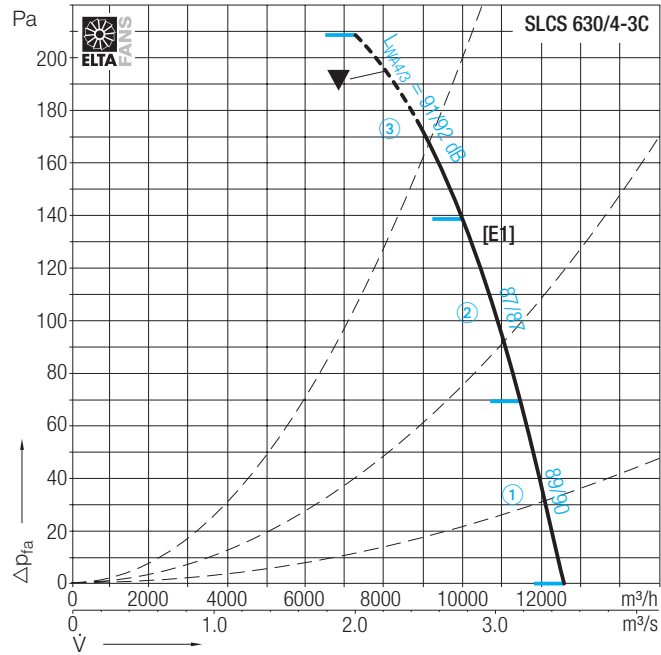
SLCS 630, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m ³ /h	dB (1)	kg
630/4-3C	[E1]	4	400 Y	50	1390	0.90	2.00	4.7	80	12450	89/90	48
630/4-3D	[E2]	4	400 Y	50	1390	2.53	5.80	5.2	90 L	20260	89/88	55

Curves ▼ = not recommended for general use

ρ₁=1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 630/4-3C [E1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	87	78	83	84	83	84	80	74	dB
②	L _{Wokt4}	84	76	84	82	83	80	78	74	dB
③	L _{Wokt4}	78	75	83	87	86	85	81	75	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	85	80	84	85	86	83	81	72	dB
②	L _{Wokt3}	84	75	82	81	83	80	79	71	dB
③	L _{Wokt3}	77	74	85	90	88	84	80	68	dB

SLCS 630/4-3D [E2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	88	80	84	85	83	82	79	73	dB
②	L _{Wokt4}	82	81	84	82	81	79	78	71	dB
③	L _{Wokt4}	86	82	85	84	84	83	80	73	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	83	78	82	83	84	81	79	71	dB
②	L _{Wokt3}	81	74	82	81	83	80	80	73	dB
③	L _{Wokt3}	75	74	86	89	87	85	83	73	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
630/4-3C	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B
630/4-3D	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B

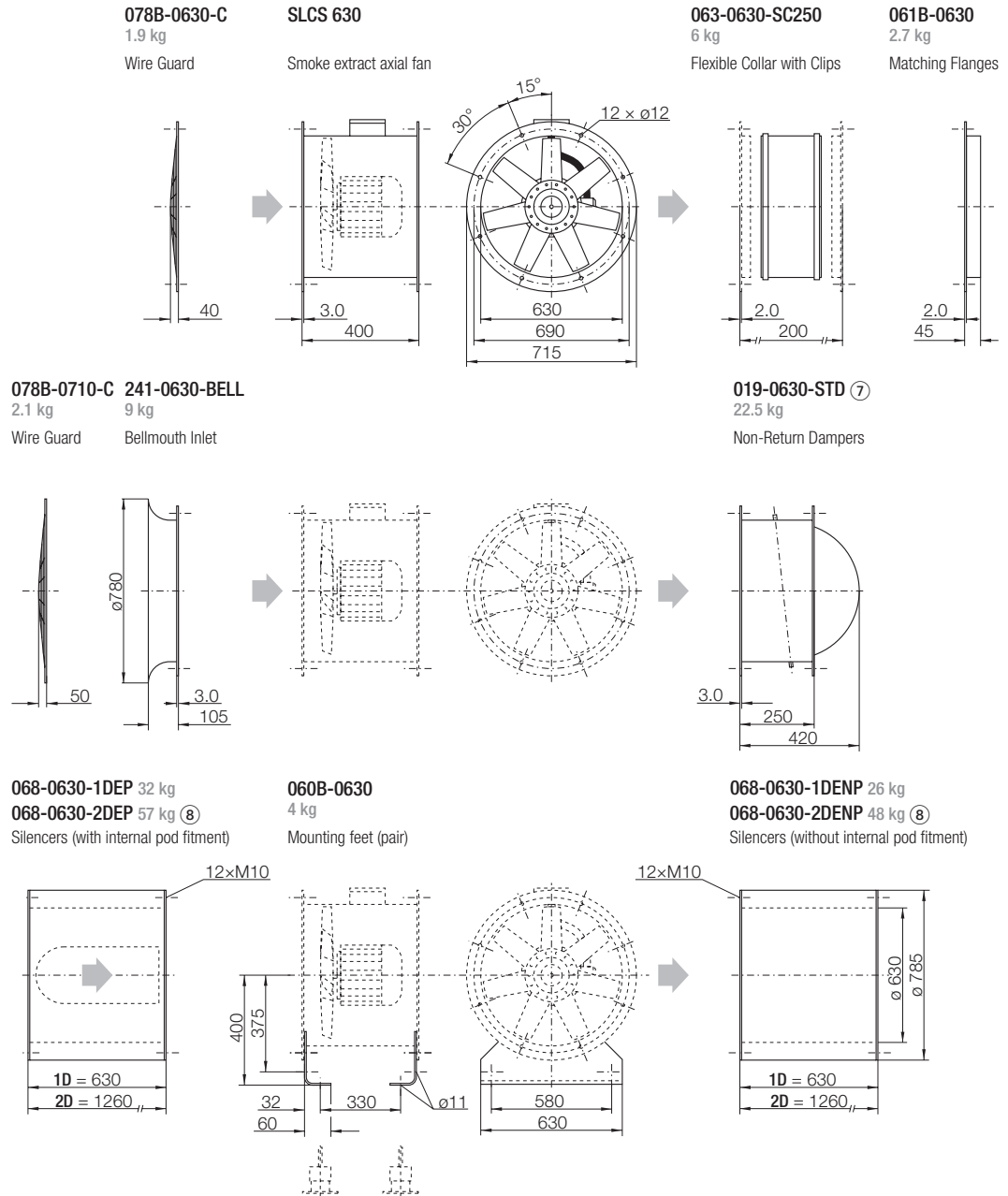
SLCS 630, 300 °C – 120 min.

Dimensions in mm, Subject to change.

⑩ All indicated sound values are sound power levels. For more calculations when determining the A-sound pressure level at any distances read the statements in chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
 - ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
 - ⑦ Non-Return Dampers use **019-STD** - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
 - ⑧ Silencer available in 4 executions with internal pod fitment
- 068-.....-1DEP
- 068-.....-2DEP
without internal pod fitment
- 068-.....-1DENP
- 068-.....-2DENP
- Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!
- ⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

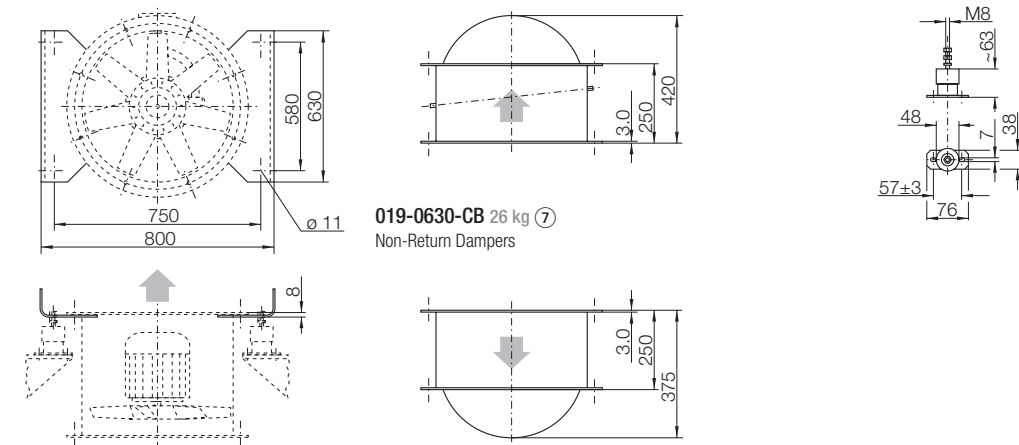


Vertical mounting

SLCS 630 ⑨
Smoke extract axial fan - vertical mounted

019-0630-STD 22.5 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



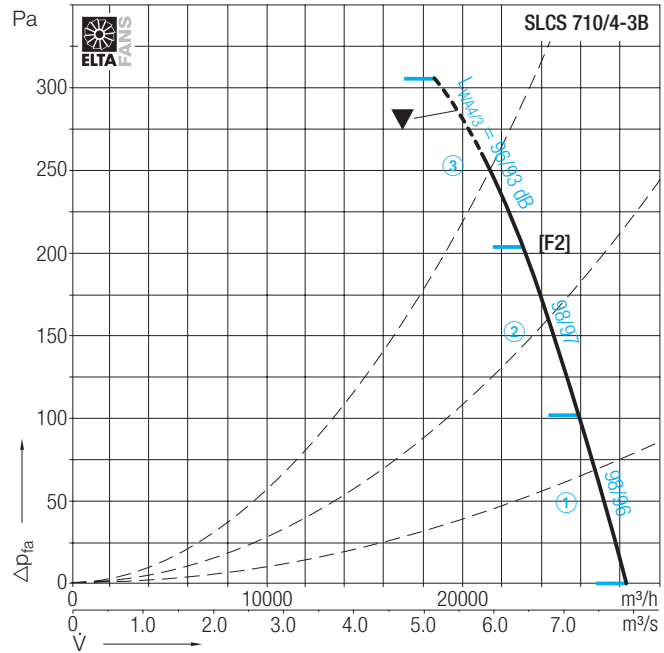
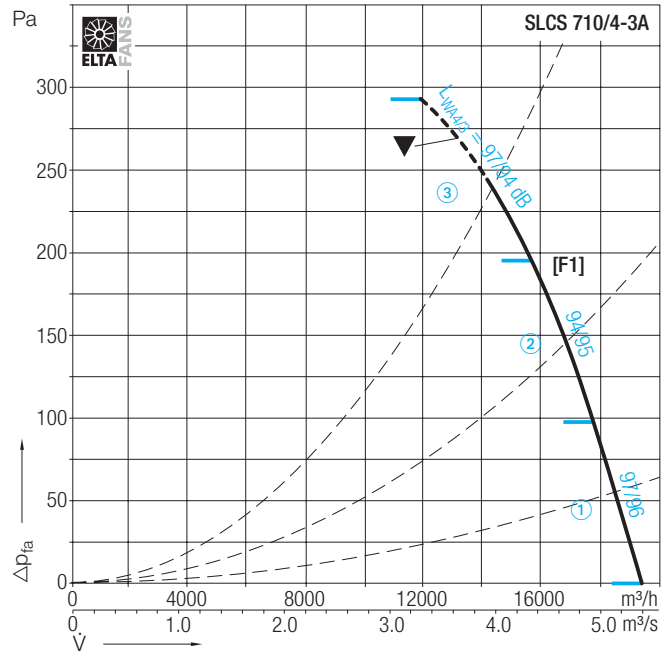
SLCS 710, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m³/h	dB (10)	kg
710/4-3A	[F1]	4	400 Y	50	1390	2.53	5.80	5.2	90 L	19400	97/96	67
710/4-3B	[F2]	4	400 Δ	50	1410	4.80	9.18	6.2	112 M	28260	98/96	111

Curves ▼ = not recommended for general use

ρ₁=1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 710/4-3A [F1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	90	85	92	92	91	90	88	81	dB
②	L _{Wokt4}	89	81	88	88	89	88	85	79	dB
③	L _{Wokt4}	90	81	86	91	94	89	85	79	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	89	83	92	92	91	88	86	76	dB
②	L _{Wokt3}	89	81	89	90	90	88	85	77	dB
③	L _{Wokt3}	89	78	88	92	90	86	82	71	dB

SLCS 710/4-3B [F2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	99	93	94	94	93	91	89	81	dB
②	L _{Wokt4}	98	93	94	94	93	90	87	80	dB
③	L _{Wokt4}	93	92	95	93	89	88	85	79	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	90	86	93	94	91	87	85	74	dB
②	L _{Wokt3}	96	90	96	96	91	87	85	75	dB
③	L _{Wokt3}	93	86	92	93	87	84	81	71	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
710/4-3A	EBG 10-0040-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/40B
710/4-3B	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/70B

SLCS 710, 300 °C – 120 min.

Dimensions in mm, Subject to change.

Fan dimensions dependent on motor size

Fan	L	L1
SLCS 710/4-3A	450	380
SLCS 710/4-3B	470	400

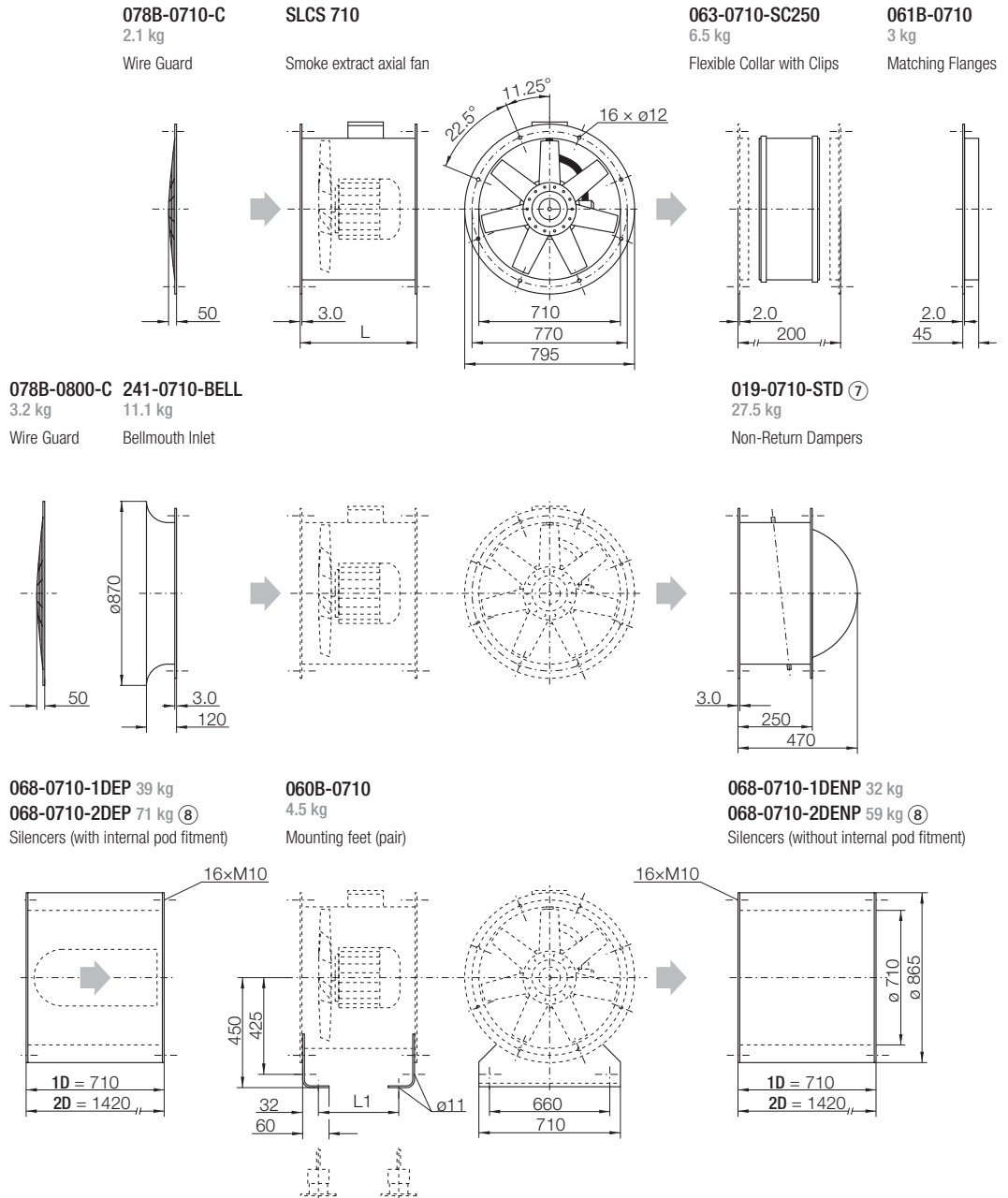
⑩ See chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
- ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
- ⑦ Non-Return Dampers use
019-STD - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
- ⑧ Silencer available in 4 executions
with internal pod fitment
- 068-....-1DEP
- 068-....-2DEP
without internal pod fitment
- 068-....-1DENP
- 068-....-2DENP

Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!

⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

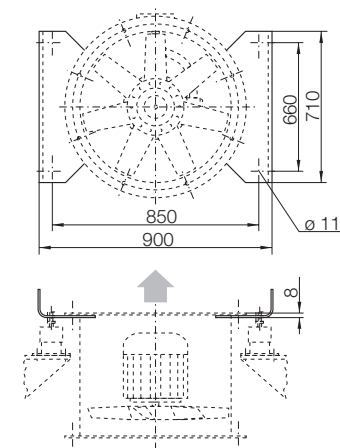


Vertical mounting

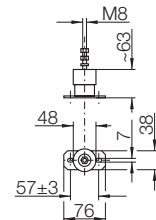
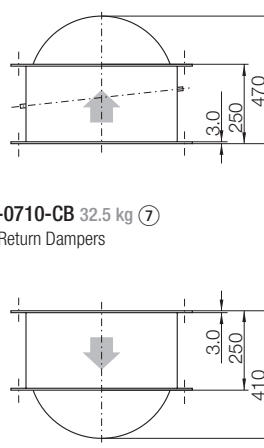
SLCS 710 ⑨
Smoke extract axial fan - vertical mounted

019-0710-STD 27.5 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



019-0710-CB 32.5 kg ⑦
Non-Return Dampers



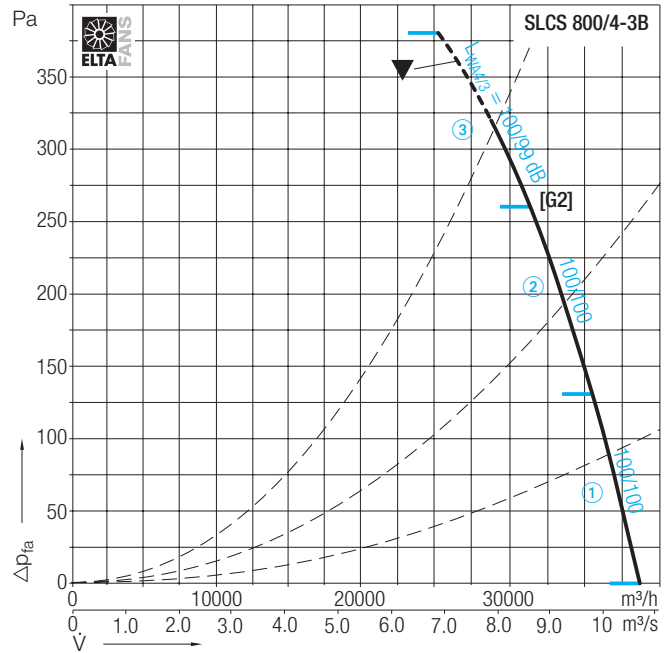
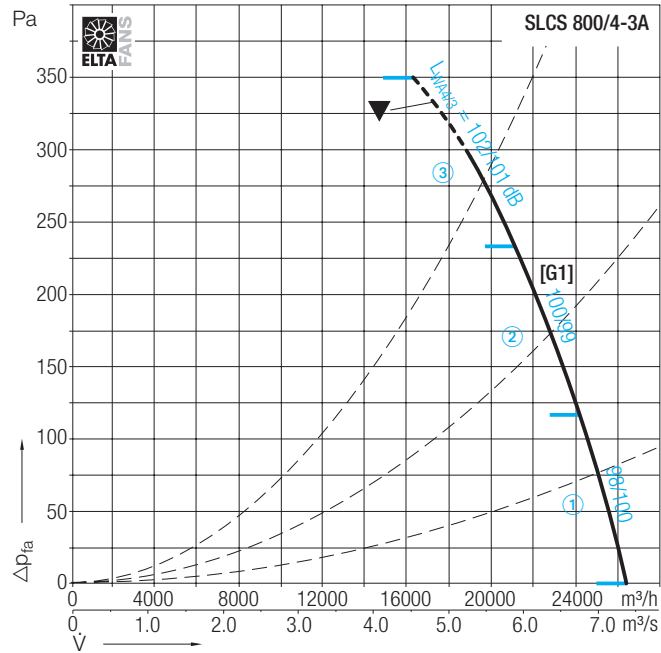
SLCS 800, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m ³ /h	dB (10)	kg
800/4-3A	[G1]	4	400 △	50	1430	4.0	7.62	7.5	112 M	26570	98/100	90
800/4-3B	[G2]	4	400 △	50	1470	7.5	14.20	8.0	132 S	38520	100/100	122

Curves ▼ = not recommended for general use

ρ₁ = 1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 800/4-3A [G1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	91	87	90	95	92	91	87	79	dB
②	L _{Wokt4}	91	84	90	93	96	94	89	82	dB
③	L _{Wokt4}	91	84	91	100	98	94	89	81	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	93	87	95	96	95	92	90	81	dB
②	L _{Wokt3}	90	83	91	95	95	93	89	81	dB
③	L _{Wokt3}	92	92	91	100	96	92	86	75	dB

SLCS 800/4-3B [G2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	97	94	95	97	95	93	89	84	dB
②	L _{Wokt4}	97	94	95	96	95	94	90	83	dB
③	L _{Wokt4}	96	94	98	95	96	94	89	83	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	94	89	96	97	95	91	89	80	dB
②	L _{Wokt3}	95	89	95	97	95	92	89	80	dB
③	L _{Wokt3}	94	84	91	99	93	89	84	80	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
800/4-3A	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/70B
800/4-3B	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/70B

SLCS 800, 300 °C – 120 min.

Fan dimensions dependent on motor size

Fan	L	L1
SLCS 800/4-3A	450	380
SLCS 800/4-3B	570	500

⑩ See chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
- ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
- ⑦ Non-Return Dampers use
019-STD - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
- ⑧ Silencer available in 4 executions
with internal pod fitment
- 068-.....-1DEP
- 068-.....-2DEP
without internal pod fitment
- 068-.....-1DENP
- 068-.....-2DENP

Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!

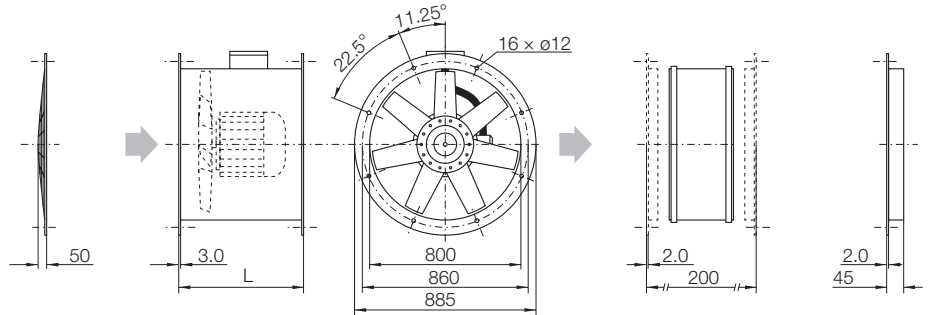
⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

078B-0800-C
3.2 kg
Wire Guard

SLCS 800
Smoke extract axial fan

063-0800-SC250
10.5 kg
Flexible Collar with Clips

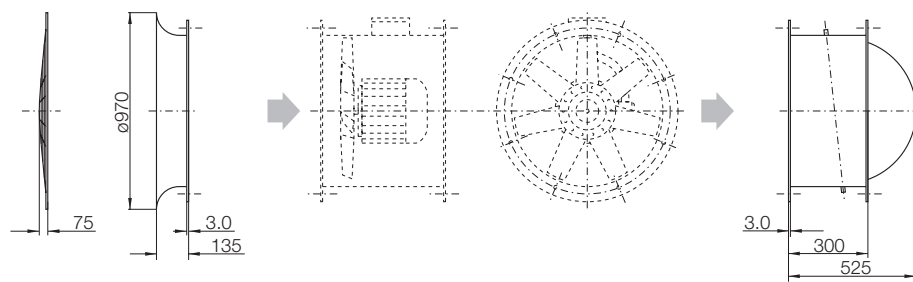
061B-0800
5 kg
Matching Flanges



078B-0900-C 4.1 kg
Wire Guard

241-0800-BELL 13.5 kg
Bellmouth Inlet

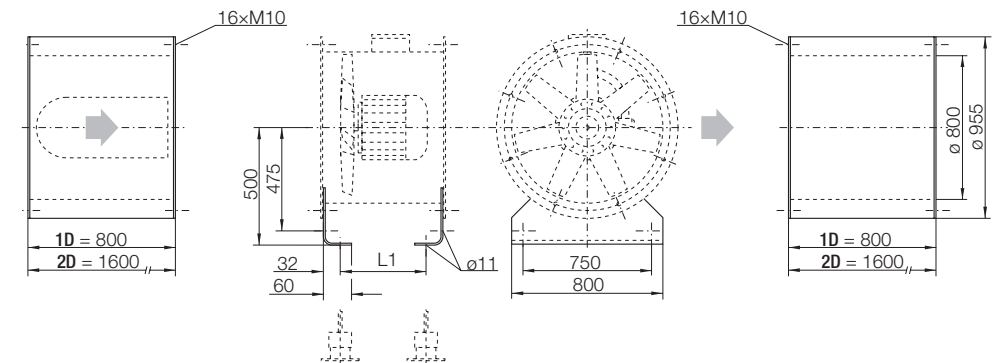
019-0800-STD ⑦
35 kg
Non-Return Dampers



068-0800-1DEP 49 kg
068-0800-2DEP 90 kg ⑧
Silencers (with internal pod fitment)

060B-0800 5 kg
Mounting feet (pair)

068-0800-1DENP 40 kg
068-0800-2DENP 74 kg ⑧
Silencers (without internal pod fitment)

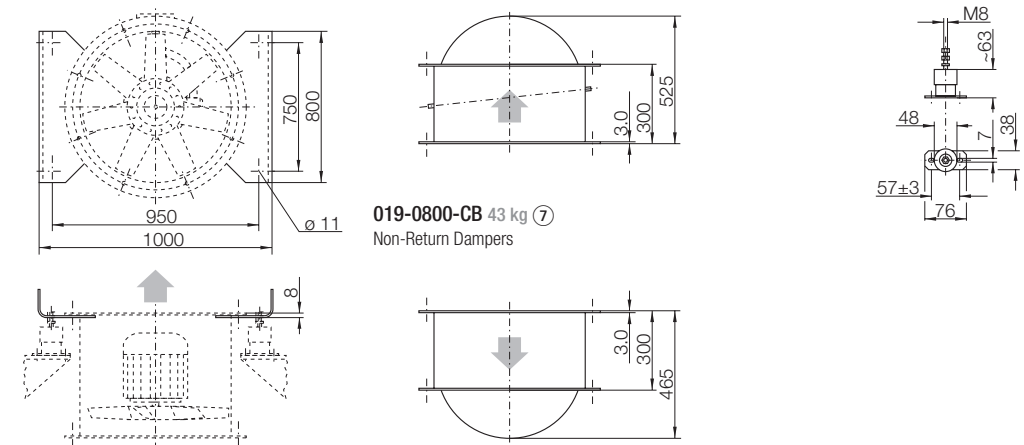


Vertical mounting

SLCS 800 ⑨
Smoke extract axial fan - vertical mounted

019-0800-STD 35 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



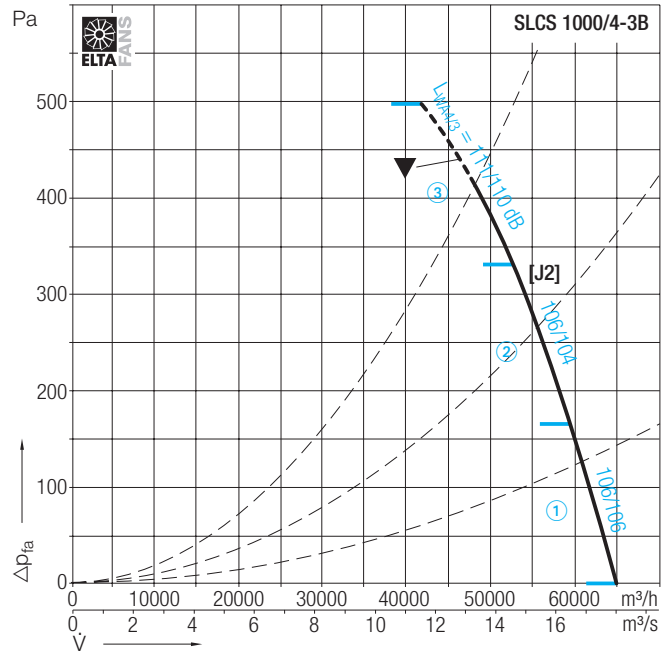
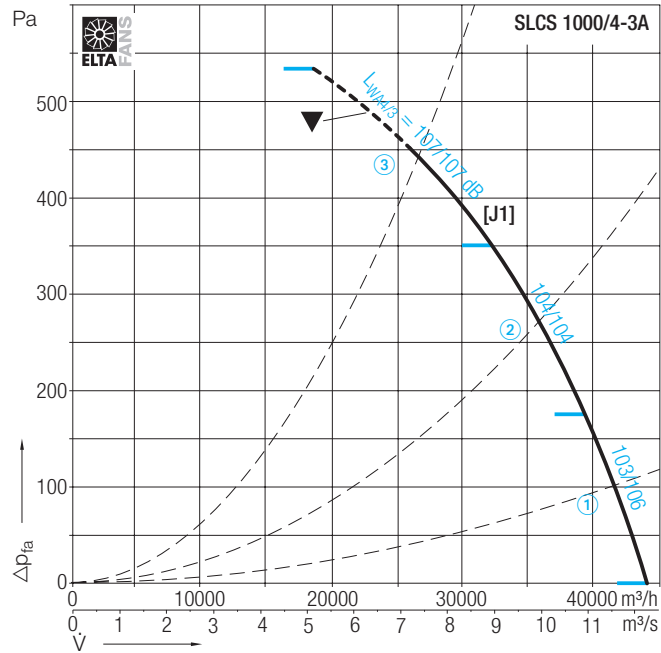
SLCS 1000, 300 °C – 120 min.

Technical Data

	Curves	Poles	Voltage/ Connection	Fre- quency	Nominal speed	Nominal power	Nominal current	Starting/Full load current	Motor size	V _{max}	L _{WA4/3} at V _{max}	Weight
SLCS ⑤			V (3~)	Hz	1/min	kW	A			m ³ /h	dB (1)	kg
1000/4-3A	[J1]	4	400 △	50	1470	7.5	14.2	8.0	132 S	43920	103/106	161
1000/4-3B	[J2]	4	400 △	50	1455	15.0	28.4	6.0	160 L	65000	106/106	302

Curves ▼ = not recommended for general use

ρ₁=1.20 kg/m³



Determination of the unweighted Octave sound power level

SLCS 1000/4-3A [J1]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	92	90	96	97	98	97	93	89	dB
②	L _{Wokt4}	97	89	91	96	99	99	95	88	dB
③	L _{Wokt4}	92	94	100	104	103	99	92	85	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	95	95	101	101	102	99	96	90	dB
②	L _{Wokt3}	98	101	95	97	100	99	93	90	dB
③	L _{Wokt3}	94	87	97	103	105	99	93	83	dB

SLCS 1000/4-3B [J2]

Discharge Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt4}	102	99	101	104	102	99	91	86	dB
②	L _{Wokt4}	99	94	97	100	102	101	94	86	dB
③	L _{Wokt4}	100	94	100	109	107	102	97	89	dB

Inlet Side

Area	f _m	63	125	250	500	1000	2000	4000	8000	Hz
①	L _{Wokt3}	101	98	101	103	101	98	96	88	dB
②	L _{Wokt3}	98	89	95	98	100	98	93	85	dB
③	L _{Wokt3}	95	88	99	110	106	100	93	83	dB

Accessories

SLCS ⑤	Smoke detection switch	Optical smoke detector	Mounting base	Manual trigger switch	Spring AV mounts
	EBG	SSD	USB	HE ④	z × ES20
1000/4-3A	EBG 10-0110-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/70B
1000/4-3B	EBG 10-0220-8D	SSD 521	USB 501-1	HE 075 / HE 076	4 × ES20/70B

SLCS 1000, 300 °C – 120 min.

Dimensions in mm, Subject to change.

Fan dimensions dependent on motor size

Fan L L1 M

SLCS 1000/4-3A 570 490 4.0

SLCS 1000/4-3B 710 628 5.0

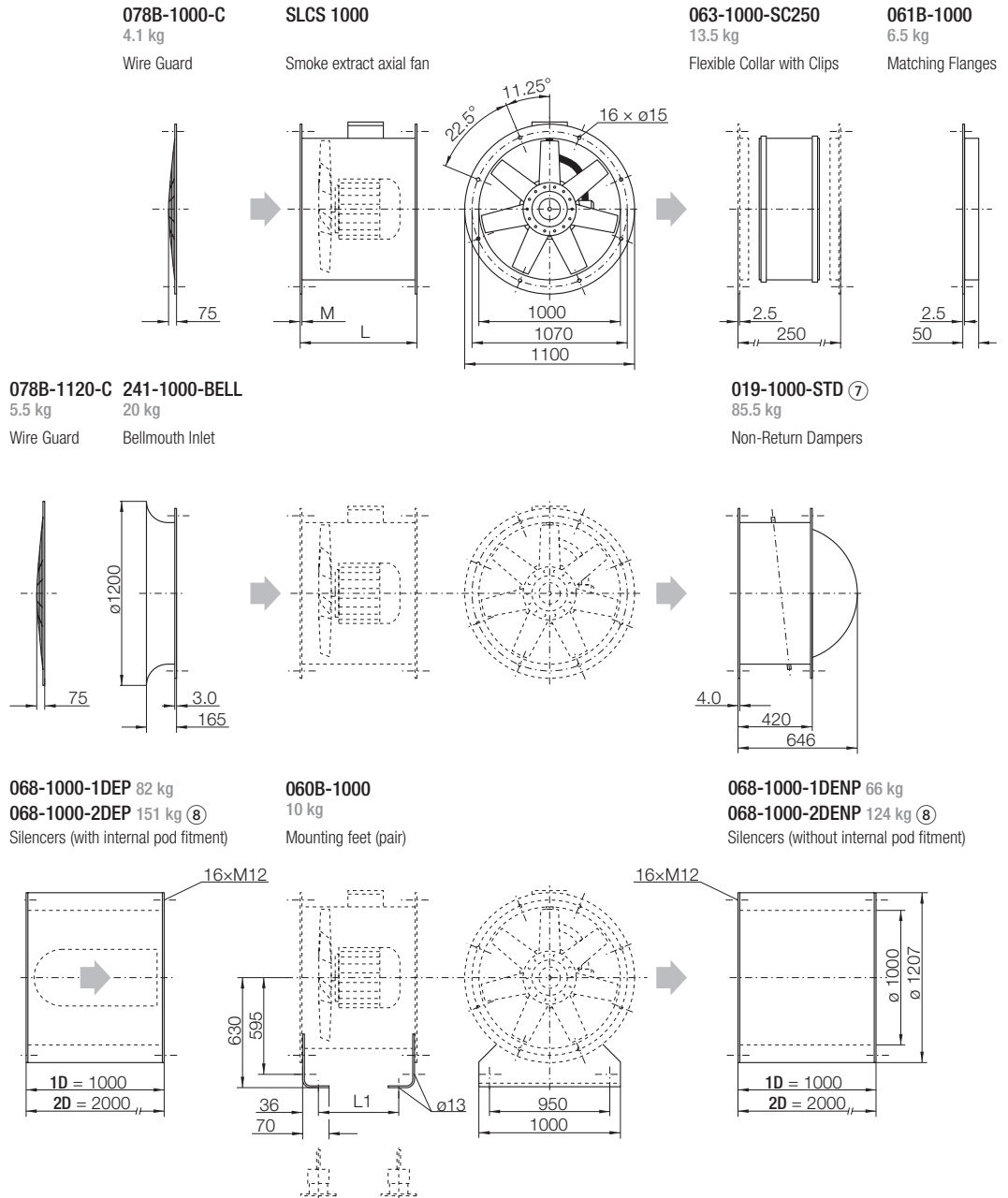
⑩ See chapter „sounds“ on page 207.

Accessories/ index

- ④ HE 075 = Main switch station
HE 076 = Sec. switch station
- ⑤ Connection diagrams for fan online at www.nicotra-gebhardt.com
- ⑦ Non-Return Dampers use
019-STD - horizontal
019-STD - vertical blowing, blades opening upwards
019-CB - vertical blowing, blades opening downwards
- ⑧ Silencer available in 4 executions with internal pod fitment
- 068-....-1DEP
- 068-....-2DEP
without internal pod fitment
- 068-....-1DENP
- 068-....-2DENP

Attenuation performance and pressure losses see accessories. When using silencers possibly additional feet and AV mounts have to be provided!

⑨ When fitting in the vertical position, fit 2 feet in the horizontal plane opposite each other. Any necessary support structure should be provided by the customer.

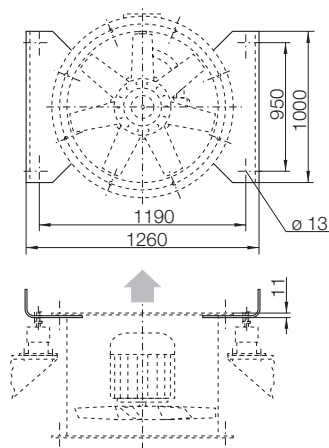


Vertical mounting

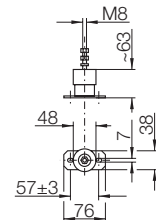
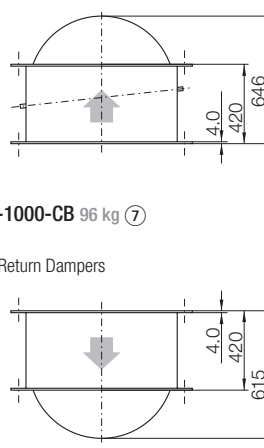
SLCS 1000 ⑨
Smoke extract axial fan - vertical mounted

019-1000-STD 85.5 kg ⑦
Non-Return Dampers

ES20 0.25 kg
Set of 4 Spring A/V Mounts



019-1000-CB 96 kg ⑦
Non-Return Dampers



SLCS 400/-1000, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0086 CPD 4930 01

Axial smoke extract fan unit SLCS

suitable for use at ±300 °C for 120 min. in the case of fire.

They have been certified to the EN 12101-3 : 2002.

Product CE mark: 0086-CPD-493001.

Suitable for normal ventilation duties prior to smoke use for a medium temperature up to +40 °C.

As supplied, the fans may be installed for both 'Reservoir' and 'Non-Reservoir' applications, in both horizontal and vertical installations.

Motor downstream of impeller.

The characteristics refer to ducted in / ducted out arrangement.

Casings - Manufactured from steel sheet, suitably welded and having spun flanges with punched holes. The complete assembly being hot dipped galvanised finish. Casing mounted terminal boxes are also fully welded to the casing exterior surface.

Impellers - Aluminium aerofoil profiled blades together with aluminium hubs balanced to ISO 1940, G 6.3. Hubs use tapered bushes and a positively located retaining plate.

Motors - Pad-mounted electric motors, certified at 300 degs.C for 120 mins, IP 55 enclosure, Class H Insulation and Temperature Classification not exceeding Class F as standard - at current operation and at normal ambient temperature. They are wired to the casing mounted terminal box.

Fan type	SLCS
Volume	$V = \dots\dots\dots$ m ³ /h
fan static pressure	$\Delta p_{fa} = \dots\dots\dots$ Pa
Density at Inlet	$\rho_1 = \dots\dots\dots$ °C
Media temperature	$t = \dots\dots\dots$ °C
Nominal speed	$n = \dots\dots\dots$ 1/min
Nominal motor power	$P_w = \dots\dots\dots$ kW
Nominal motor current	$I_N = \dots\dots\dots$ A
Voltage/Frequency	$U/f = \dots\dots\dots$ V/Hz
A-Sound power level - Discharge	$L_{WA4} = \dots\dots\dots$ dB
- Inlet	$L_{WA3} = \dots\dots\dots$ dB
Weight	$m = \dots\dots\dots$ kg

Accessories (at extra cost)

Set of 2 feet, possibly more than 2 may be required if silencers are used

Matching flanges

Flexible collar & clips

Wire guards

Bell-mouth entry

Wire guard for Bell-mouth entry

Tube silencer with internal pod fitment (..EP)

Tube silencer without internal pod fitment (..ENP)

Automatic back draught damper

for horizontal or vertical (upward airflow) installation (019-STD)

Automatic back draught damper with counter weights

for vertical (downward airflow) installation (019-CB)

Set of 4 spring type A/V mounts, possibly more than 4 may be required if silencers are used

Switches / Regulators / Controllers

Assignment see technical data

Specification see Accessories

Wiring diagrams see online at www.nicotra-gebhardt.com

SLCS 400/-1000, 300 °C – 120 min.

Accessories / Fittings

Furthermore a comprehensive range of accessories is available to be fitted to our Axial Smoke Extract Fans according to the various applications. The full range of accessories has been tested within the EN 12101-3 programme.

Set of 2 feet



The feet are made of steel sheet, hot dipped galvanized after manufacture; and are provided for mounting the fan to either horizontal or vertical position (exact position see dimensional drawing).

060B-0400/-1000

Matching flange



These are mating flanges formed from steel sheet/section, which are hot dipped galvanized after manufacture.

061B-0400/-1000

Flexible collars



Flexible collar made of high temperature resistant material to be fixed with 2 clips. This item assures a tension free connection reducing vibration and noise transmission to the air ways.

0630-0400/-1000-SC250

Wire guards



Wire Guards are made of spirally wound steel wire, suitably treated by plating or by hot dipped galvanising.

078B-0400/1120-C

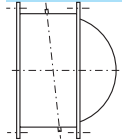
Bell-mouth entry



The bell-mouth is made of steel sheet suitable formed and hot dipped galvanized, fitted to the fan intake if no other connection tube is provided. This will improve intake air flow and reduce possible pressure losses.

241-0400/-1000-BELL

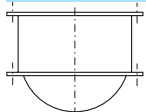
Non-return damper



Non-return damper (Horizontal installation). Gravity closure upon fan or flow stoppage. Manufactured with hot dipped galvanized casing and pre-galvanized sheet blades. This item does not result in total shut-off.

019-0400/-1000-STD

Non-return damper



Non-return damper (Vertical installation) - For BU installation the damper as shown above may be used. For BD installation then a counterbalanced design of damper is required, so that the blades return to the horizontal plane upon fan or flow stoppage.

019-0400/-1000-CB

SLCS 400/-1000, 300 °C – 120 min.

Spring A/V mounts



ES20-20B/-70B

Spring A/V mounts prevents the surrounding building from receiving vibrations and noise of the fan unit.

Vibration and noise insulation can also be improved by ensuring that the fan is connected to its external environment by a flexible collar.

Silencer

Tube Silencers – may be fitted to either/or both intake or discharge sides of the axial fan unit. They are available for all fan sizes with lengths of 1 and 2 fan diameters; and with (EP) or without (ENP) internal pod fitment.

Execution with internal pod fitment



DEP

**068-0400/-1000-1DEP, or
068-0400/-1000-2DEP**

Pressure drop see following diagram.

Execution without internal pod fitment



DENP

**068-0400/-1000-1DENP, or
068-0400/-1000-2DENP**

Possible pressure drop being neglectable for this type.

SLCS 400/-1000, 300 °C – 120 min.

Silencer

Noise reduction values

068-1DEP Silencer (short execution with internal pod fitment)

Fan	63	125	250	500	1000	2000	4000	8000	Hz
SLCS 400/4-3	4	6	8	11	14	16	11	10	dB
SLCS 400/2-3A	4	6	8	11	18	19	17	14	dB
SLCS 400/2-3B	4	6	8	11	14	16	11	10	dB
SLCS 500/4-3A	4	6	8	11	14	16	11	10	dB
SLCS 500/4-3C	4	6	8	11	14	16	11	10	dB
SLCS 500/2-3A	4	6	8	11	18	19	17	14	dB
SLCS 500/2-3B	4	6	8	11	14	16	11	10	dB
SLCS 560/4-3A	4	6	8	11	18	19	17	14	dB
SLCS 560/4-3B	4	6	8	11	14	16	11	10	dB
SLCS 630/4-3C	4	6	8	17	23	20	18	10	dB
SLCS 630/4-3D	4	6	8	16	18	16	13	10	dB
SLCS 710/4-3A	4	6	8	17	23	20	18	10	dB
SLCS 710/4-3B	4	6	8	16	18	16	13	10	dB
SLCS 800/4-3A	4	6	8	17	23	20	18	10	dB
SLCS 800/4-3B	4	6	8	16	18	16	13	10	dB
SLCS 1000/4-3A	4	6	11	20	18	15	13	11	dB
SLCS 1000/4-3B	4	6	11	17	16	14	12	10	dB

068-2DEP Silencer (long execution with internal pod fitment)

Fan	63	125	250	500	1000	2000	4000	8000	Hz
SLCS 400/4-3	7	10	15	16	15	17	13	13	dB
SLCS 400/2-3A	7	10	12	21	26	26	24	22	dB
SLCS 400/2-3B	7	10	15	16	15	17	13	13	dB
SLCS 500/4-3A	7	10	15	16	15	17	13	13	dB
SLCS 500/4-3C	7	10	15	16	15	17	13	13	dB
SLCS 500/2-3A	7	10	12	21	26	26	24	22	dB
SLCS 500/2-3B	7	10	15	16	15	17	13	13	dB
SLCS 560/4-3A	7	10	12	21	26	26	24	22	dB
SLCS 560/4-3B	7	10	15	16	15	17	13	13	dB
SLCS 630/4-3C	8	11	16	27	32	31	29	19	dB
SLCS 630/4-3D	8	11	16	24	23	22	21	17	dB
SLCS 710/4-3A	8	11	16	27	32	31	29	19	dB
SLCS 710/4-3B	8	11	16	24	23	22	21	17	dB
SLCS 800/4-3A	8	11	16	27	32	31	29	19	dB
SLCS 800/4-3B	8	11	16	24	23	22	21	17	dB
SLCS 1000/4-3A	8	11	18	26	27	26	22	16	dB
SLCS 1000/4-3B	8	11	18	21	20	22	20	16	dB

Silencer

Noise reduction values

068-1DENP Silencer (short execution without internal pod fitment)

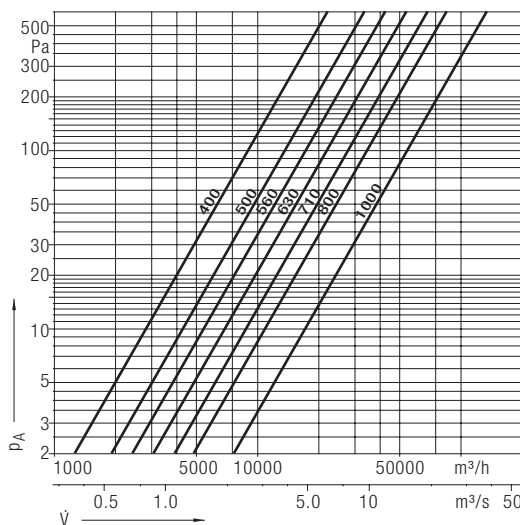
Fan	63	125	250	500	1000	2000	4000	8000	Hz
SLCS 400/4-3	2	5	6	9	13	11	6	6	dB
SLCS 400/2-3A	2	5	6	9	13	11	6	6	dB
SLCS 400/2-3B	2	5	6	9	13	11	6	6	dB
SLCS 500/4-3A	2	5	6	9	13	11	6	6	dB
SLCS 500/4-3C	2	5	6	9	13	11	6	6	dB
SLCS 500/2-3A	2	5	6	9	13	11	6	6	dB
SLCS 500/2-3B	2	5	6	9	13	11	6	6	dB
SLCS 560/4-3A	2	5	6	9	13	11	6	6	dB
SLCS 560/4-3B	2	5	6	9	13	11	6	6	dB
SLCS 630/4-3C	3	4	9	15	15	8	7	6	dB
SLCS 630/4-3D	3	4	9	15	15	8	7	6	dB
SLCS 710/4-3A	3	4	9	15	15	8	7	6	dB
SLCS 710/4-3B	3	4	9	15	15	8	7	6	dB
SLCS 800/4-3A	3	4	9	15	15	8	7	6	dB
SLCS 800/4-3B	3	4	9	15	15	8	7	6	dB
SLCS 1000/4-3A	3	4	9	14	13	7	7	6	dB
SLCS 1000/4-3B	3	4	9	14	13	7	7	6	dB

068-2DENP Silencer (long execution without internal pod fitment)

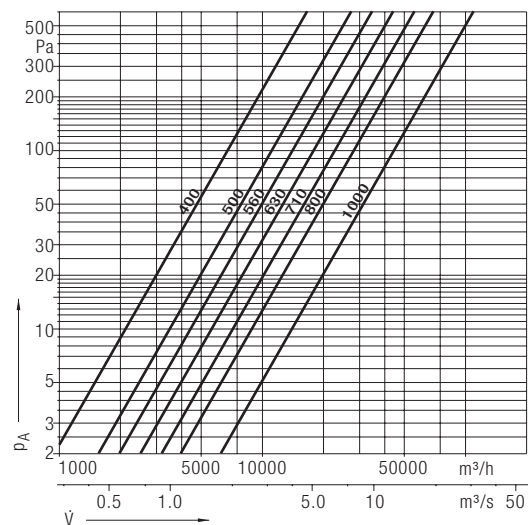
Fan	63	125	250	500	1000	2000	4000	8000	Hz
SLCS 400/4-3	4	7	10	15	19	16	12	9	dB
SLCS 400/2-3A	4	8	12	17	23	17	12	10	dB
SLCS 400/2-3B	4	7	10	15	19	16	12	9	dB
SLCS 500/4-3A	4	7	10	15	19	16	12	9	dB
SLCS 500/4-3C	4	7	10	15	19	16	12	9	dB
SLCS 500/2-3A	4	8	12	17	23	17	12	10	dB
SLCS 500/2-3B	4	7	10	15	19	16	12	9	dB
SLCS 560/4-3A	4	8	12	17	23	17	12	10	dB
SLCS 560/4-3B	4	7	10	15	19	16	12	9	dB
SLCS 630/4-3C	6	8	13	22	22	13	12	9	dB
SLCS 630/4-3D	6	8	12	20	18	13	11	9	dB
SLCS 710/4-3A	6	8	13	22	22	13	12	9	dB
SLCS 710/4-3B	6	8	12	20	18	13	11	9	dB
SLCS 800/4-3A	6	8	13	22	22	13	12	9	dB
SLCS 800/4-3B	6	8	12	20	18	13	11	9	dB
SLCS 1000/4-3A	6	8	13	21	18	12	11	9	dB
SLCS 1000/4-3B	6	8	12	19	16	11	10	7	dB

Pressure losses

068-0400/-1000-1DEP



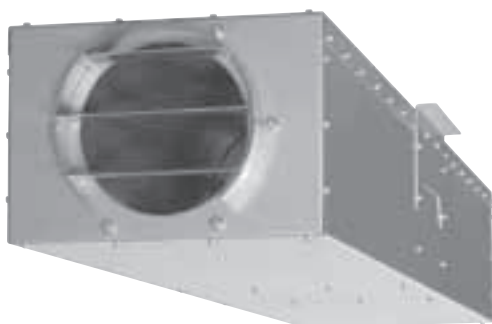
068-0400/-1000-2DEP



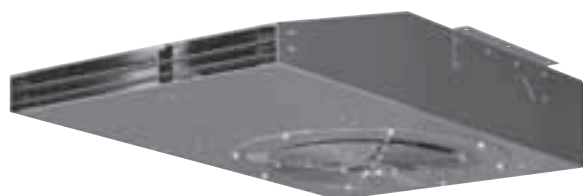
Cleaner air for underground car parks:



Jetfan AGM premium
Pulse fan systems
Thrust up to 52 N
300 °C – 120 min.
No. 0036 CPD RG 01 09



Jetfan AGM
Pulse fan systems
Thrust up to 52 N
300 °C – 120 min.
No. 0036 CPD RG 01 09



Jetfan RGM
Pulse centrifugal fan systems
Thrust up to 75 N
300 °C – 120 min.
No. 0036 CPD RG01 11

What should the perfect smoke extraction system for underground car parks offer? This was the question on our minds when we came up with our new pulse fan system. The result is the Jetfan, a solution which boasts impressive technology, functionality and a striking design.

Interested in rock-bottom prices?

With the Jetfan, you save on investments across the board. Thanks to the pulse fan system, there is no need to invest in expensive, large-scale duct systems and high-maintenance smoke extraction flaps. The bigger the garage or ventilation system, the more money you save with the jet system. What's more, you will benefit from our computer-aided smoke flow simulation during the planning stage. Discover low, low prices for underground car park smoke extraction: with the Jetfan.

The ultimate system for ultimate safety



The Jetfan is the ideal solution for heightened safety in underground car parks and underpasses. Choose the ultimate system for safer and more aesthetic underground constructions.

- Both models have CE certification.
- The Jetfan can be used for partial smoke extraction or ventilation.
- The flexible positioning of the Jetfan makes sure there are no areas where air does not circulate.
- The Jetfan makes expensive, large-scale duct systems unnecessary.
- Fresh air fans can become superfluous if there is a free flow of new air.
- The flexible fans can be adapted to cater for a change in the use of space.
- The Jetfan is available as an affordable standard version or as the Jetfan premium with a high-end design.
- Then Jetfan is available in two sizes and as a reversible fan.
- Pole-changing motors offer greater ventilation flexibility.
- Non-corrosive materials guarantee a long life.
- Integrated silencers for quieter permanent ventilation (approved for up to +40 °C)
- **Nicotra Gebhardt** offers the complete system solution:
 - Jetfan pulse fans
 - Jetfan premium AGM 06/16 for ventilation of CO-gases up to +40 °C
 - axial or radial shaft fans and roof fans
 - switchgear cabinets with or without CO warning systems or SPS control
 - complete system sensors
 - right the way through to commissioning and official approval



The system.
The safety.
The service.

The Jetfan – more safety for underground car parks and passages

The architects of today are designing buildings on a larger scale than ever before. Giant buildings are being erected, often with labyrinthine underground car parks and passages.

The result: people often can't find their way back to ground level in a fire. Those trapped are placed in serious danger. It is therefore crucial that effective smoke extraction systems are installed in underground public spaces. The new Jetfan concept from Nicotra Gebhardt is pioneering a new generation of smoke extraction solutions to meet this need.

Ductless ventilation and safe smoke ex- traction – the Jetfan provides both

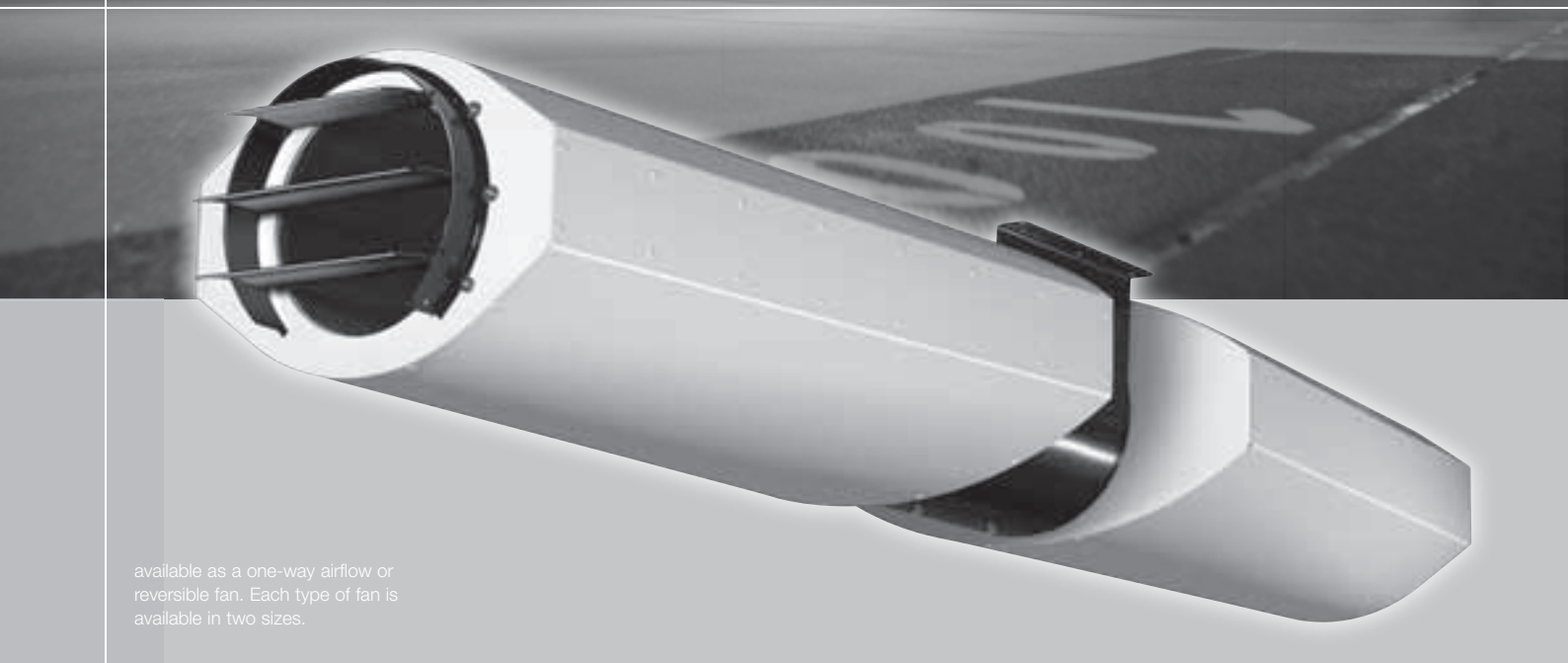
Jetfan serves to provide both normal ventilation and smoke extraction in equal measure. In doing so, it has a twofold function: it improves the air quality during normal operation and guarantees a higher level of safety in a fire. And all this at a fraction of the price of conventional systems.



Cost, safety, design – the benefits of Jetfan

Jetfan has many advantages over classic duct systems:

- The Jetfan can partially ventilate or extract smoke
- The dynamic airflow means that all layers of air throughout the entire car park are intermingled; the concentration of toxic substances is much lower than in the case of conventional units with ventilation ducts.
- The flexible positioning of Jetfans means that “dead spots” (where there is no airflow) are prevented.
- Jetfans are flexible and can be adapted to suit changes in the use of space.
- Expensive large-scale ducts are not required. Such ducts are not effective if air inlet and outlet ducts are more than a certain distance apart.
- The car park becomes lighter and more pleasing for clients, as no bulky ventilation ducts impinge upon the environment. This means an enormous saving of space, along with increased efficiency in comparison with conventional systems.
- Air outlet fans operate at significantly lower thrust levels, as no duct network is required (energy saving).
- Air inlet fans are not required at all if free slipstreaming is in place.



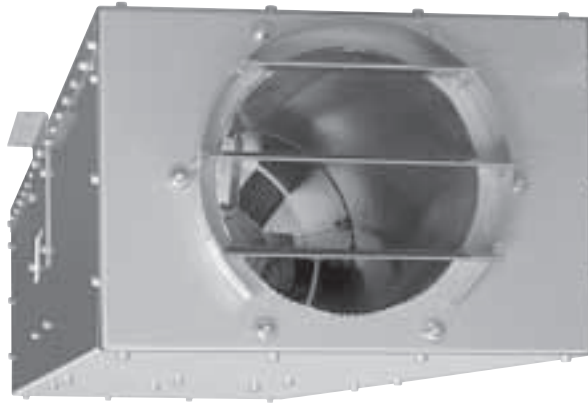
available as a one-way airflow or reversible fan. Each type of fan is available in two sizes.

The principle behind Jetfan air extraction systems: construction and positioning

As with tunnel ventilation, Jetfans are mounted on the ceiling and achieve their effect by means of the thrust (impulse) of the air outflow. A high induction of the surrounding air is produced here, and after a short time the volume of air in the entire space begins to circulate. This effect results in the transferred volume of air being several times greater than the actual flow volume of the fan. This central airflow is then drawn into the low-pressure area of the centrally aligned outlet air channel. The advantage: duct systems are not required.

Both the alignment of fans and the positioning and dimensions of the slipstream air vents are of decisive importance for the effectiveness of such a system. The formation of a continuous airflow in the direction of the outlet air channel is significant here.

available as a one-way airflow or reversible fan. Each type of fan is available in two sizes.



Technology and material: Jetfan AGM 01/11 and Jetfan premium AGM 02/12, AGM 06/16

Jetfan is available in the form of a reasonably priced standard version and an elaborately designed premium version.

All three of these models are available in two versions (AGM 01, AGM 02 and AGM 06 or AGM 11, AGM 12 and AGM 16), which are in turn available in two sizes (0315 and 0400). The casing for all of these products is made of galvanised sheet steel and features noise suppressors integrated on both sides.

The axial fan built into the AGM 01 transports the air by exerting pressure from the motor as standard. The AGM 11, on the other hand, is designed for reversible operation. It can exert both pressure, via the motor, and suction on the flow medium.

In all models, the impeller wheel is made of pressure die-cast aluminium and is wheel-balanced according to DIN ISO 1940. It adopts a “flying” position on the shaft of the drive motor located within the flow of air.

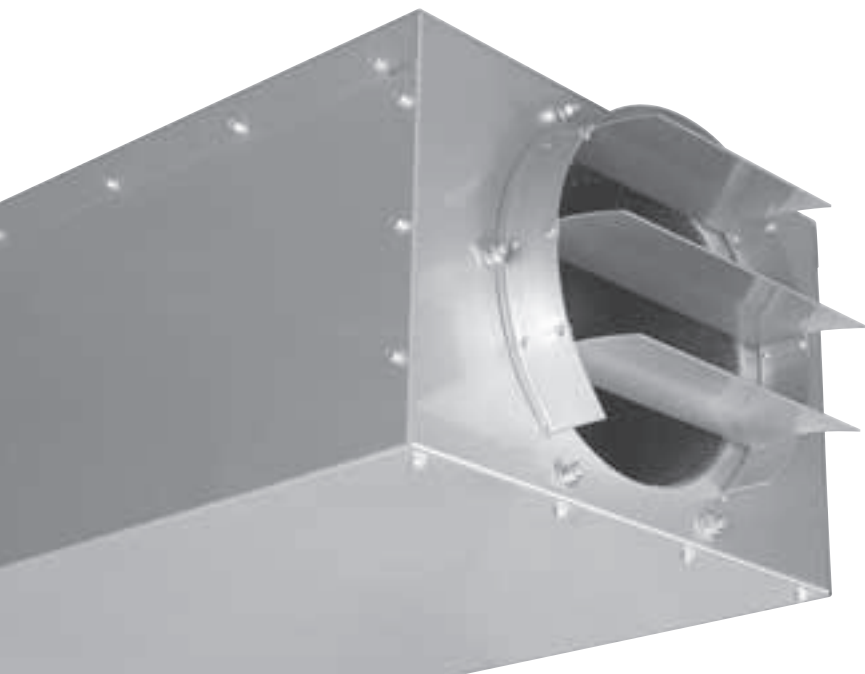
The thermally resistant connecting cable is protected against mechanical damage.

A temperature-resistant, metal connection box is located on the side of the casing. An air-conveyance unit made of sheet steel slats is mounted on the pressure side (AGM 01) or on the pressure and suction side (AGM 11). This serves to draw the airflow in the direction required. On the suction side of the AGM 01 there is protective grating made of steel.

Jetfan **AGM 01/11** and Jetfan **premium AGM 02/12** have been tested according to EN 12101-3 at 300 °C/120 min in a testing laboratory at TUM (Munich Technical University) and exceed the legally required standards.

Jetfan **premium AGM 06/16** is suited for the ventilation of dangerous CO-gases up to +40 °C.





Our service: smoke flow simulation for perfect planning

We will assist you in the detailed planning and dimensioning of car park ventilation equipment, by means of a smoke flow simulation using computational fluid dynamics (CFD).

With the help of CFD, the ideal smoke extraction and ventilation system – including the number and positioning of Jetfans required – can be determined for each construction project, based on the legal requirements (GarVO).

We recommend the use of an airflow-simulation for large garages with difficult geometries. It offers maximum planning security and is an invaluable tool for assessing the entire system.

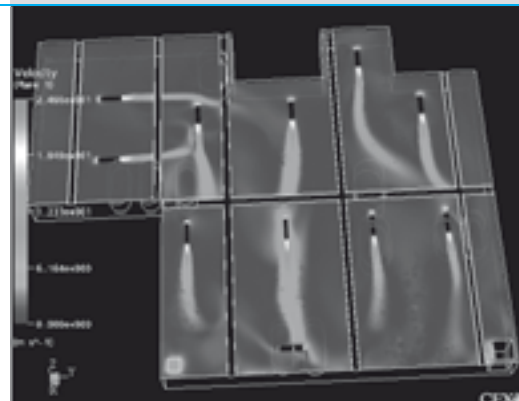
Ventilation – the Jetfan air outlet system

In normal day-to-day operation, the Jetfans are controlled by the CO system – in accordance with the concentration threshold setting. In this way, carbon monoxide-contaminated air is extracted from the car park. This takes place with either just a few Jetfans operating at a low speed, or with all system components operating at a higher output level, depending on the concentration in the air.

Smoke extraction – the Jetfan smoke extraction system

In the event of smoke needing to be extracted, the Jetfans are immediately activated at maximum speed by smoke detectors, regardless of the CO system setting, in order to extract smoke from the area of the fire. The central ventilation shafts are switched to full power at the same time.

A significant advantage of the Jetfan smoke extraction system lies in the fact that smoke can be partially extracted from the immediate area of the fire. In other words, the Jetfans can be used to control smoke levels as well. This avoids the costly process of dividing a car park up into separate sections to reduce the spread of fire.





**In short:
more safety, less costs**

The largest financial benefit of Jetfans lies in the savings made in investment costs. Depending on the results of the smoke flow simulation, experience shows that lower investment costs are involved in installing the respective number of Jetfans, compared with the complete installation of a duct system with a central air outlet unit.

No penetration of the ceiling is required for the installation of Jetfans either, meaning that the structural concept of the underground car park is simplified significantly as well, therefore contributing further to the reduction of investment costs. Jetfans can also be expected to generate very low operating costs on the whole because partial ventilation is also possible.

And in addition to all of this: Jetfan systems offer maximum safety in a fire and meet all statutory requirements.

Your contact at Nicotra Gebhardt will be happy to provide you with further information. Alternatively, you can contact us by telephone on +49 (0) 7942 101-0.



AGM 01-/11-0315, 300 °C – 120 min.

AGM 02-/12-0315, 300 °C – 120 min.

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	Sound pressure level L _{pA} at 1m distance	Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 01-						not reversible						
0315-2D-10	30	21	2	230/400 Δ/Y	50	2830	0.75	3.70/2.10	5.6	80	64	92
0315-FD-11	30/7.5	21/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	64/46	92
AGM 11-						reversed operation - data indicating flow direction over motor						
0315-2D-10	18	16	2	230/400 Δ/Y	50	2830	0.75	3.70/2.10	5.6	80	62	93
0315-FD-11	18/4.5	16/ 8	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	62/46	93

Accessories (on request)

- Smoke detecting switch unit
- Optical smoke detector with mounting base
- Manual switch
- CO-measuring unit

Accessories / Index

- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑩ Sound pressure measurement measured at the centre line below the fan

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	Sound pressure level L _{pA} at 1m distance	Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 02-						not reversible						
0315-2D-10	30	21	2	230/400 Δ/Y	50	2830	0.75	3.70/2.10	5.6	80	64	92
0315-FD-11	30/7.5	21/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	64/46	92
AGM 12-						reversed operation - data indicating flow direction over motor						
0315-2D-10	18	16	2	230/400 Δ/Y	50	2830	0.75	3.70/2.10	5.6	80	62	93
0315-FD-11	18/4.5	16/ 8	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	62/46	93

Accessories (on request)

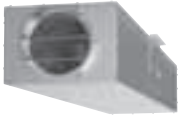
- Smoke detecting switch unit
- Optical smoke detector with mounting base
- Manual switch
- CO-measuring unit

Accessories / Index

- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑩ Sound pressure measurement measured at the centre line below the fan

AGM 01-/11-0315, 300 °C – 120 min.
AGM 02-/12-0315, 300 °C – 120 min.

Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 09

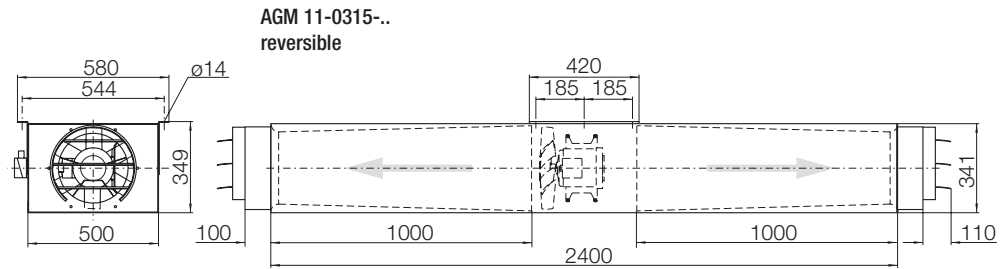
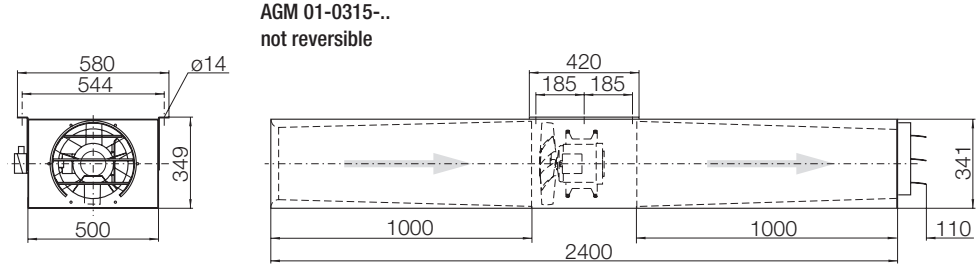
Impulse smoke extraction fan

AGM 01

Air flow in direction of motor (pressure) - not reversible

AGM 11

Air flow in direction of motor (pressure/suction) - reversible



Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 10

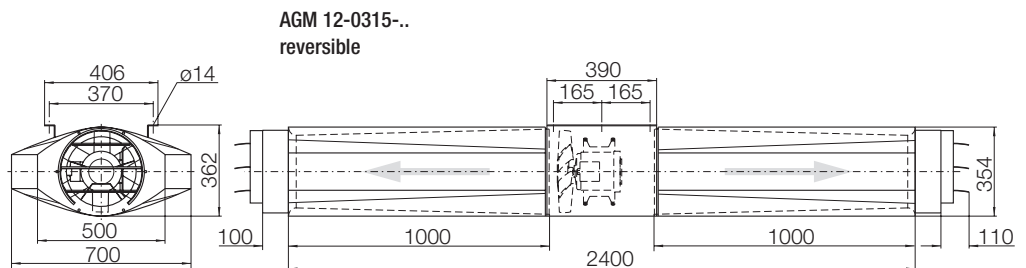
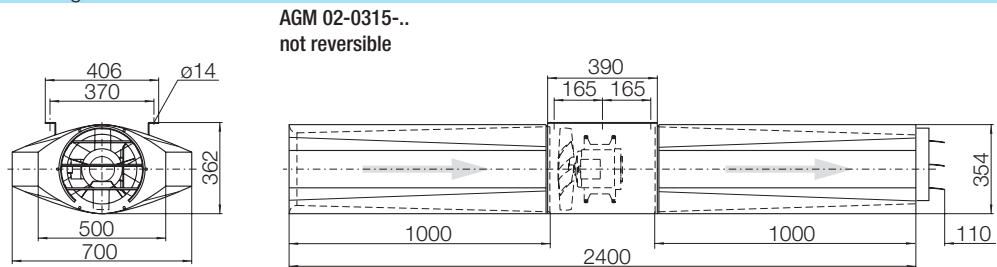
Impulse smoke extraction fan premium

AGM 02

Air flow in direction of motor (pressure) - not reversible

AGM 12

Air flow in direction of motor (pressure/suction) - reversible



AGM 01-/11-0400, 300 °C – 120 min.

AGM 02-/12-0400, 300 °C – 120 min.

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	Sound pressure level L _{pA} at 1m distance	Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 01-						not reversible						
0400-2D-11	52	21	2	230/400 Δ/Y	50	2845	1.10	4.70/2.70	6.1	80	65	114
0400-FD-11	52/13	21/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	65/48	114
AGM 11-						reversed operation - data indicating flow direction over motor						
0400-2D-11	45	20	2	230/400 Δ/Y	50	2845	1.10	4.70/2.70	6.1	80	68	115
0400-FD-11	45/11	20/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	68/51	115

Accessories (on request)

- Smoke detecting switch unit
- Optical smoke detector with mounting base
- Manual switch
- CO-measuring unit

Accessories / Index

- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑩ Sound pressure measurement measured at the centre line below the fan

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	Sound pressure level L _{pA} at 1m distance	Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 02-						not reversible						
0400-2D-11	52	21	2	230/400 Δ/Y	50	2845	1.10	4.70/2.70	6.1	80	65	114
0400-FD-11	52/13	21/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	65/48	114
AGM 12-						reversed operation - data indicating flow direction over motor						
0400-2D-11	45	20	2	230/400 Δ/Y	50	2845	1.10	4.70/2.70	6.1	80	68	115
0400-FD-11	45/11	20/10	2/4	400 YY/Y	50	2820/1385	0.95/0.25	2.35/0.63	4.2/3.8	80	68/51	115

Accessories (on request)

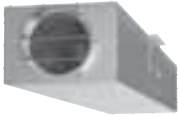
- Smoke detecting switch unit
- Optical smoke detector with mounting base
- Manual switch
- CO-measuring unit

Accessories / Index

- ⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com
- ⑩ Sound pressure measurement measured at the centre line below the fan

AGM 01-/11-0400, 300 °C – 120 min.
AGM 02-/12-0400, 300 °C – 120 min.

Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 09

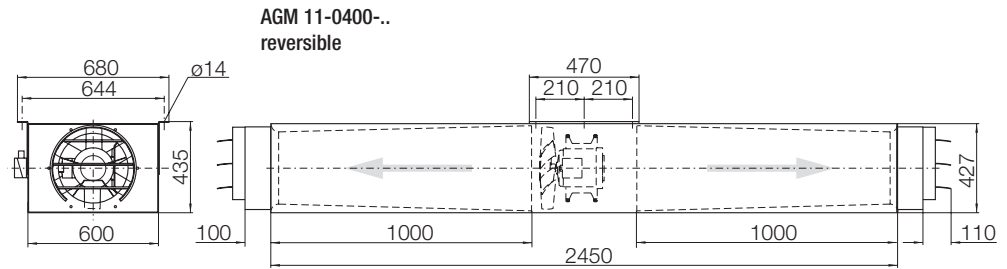
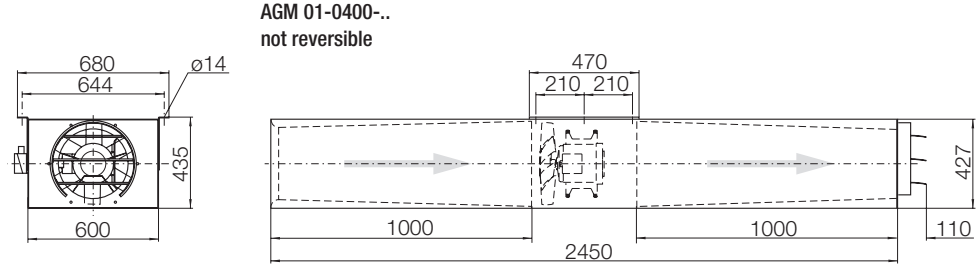
Impulse smoke extraction fan

AGM 01

Air flow in direction of motor (pressure) - not reversible

AGM 11

Air flow in direction of motor (pressure/suction) - reversible



Dimensions in mm, Subject to change.



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 10

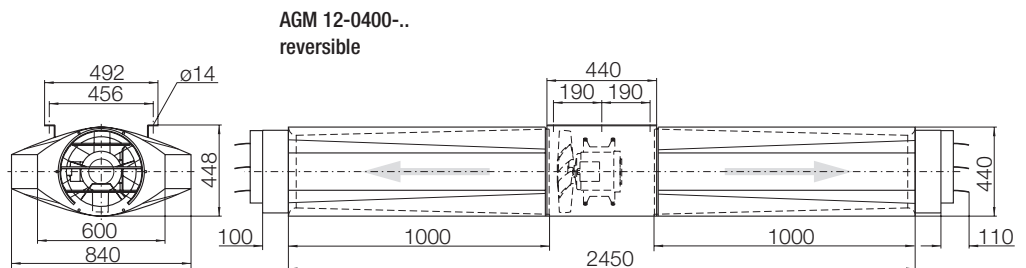
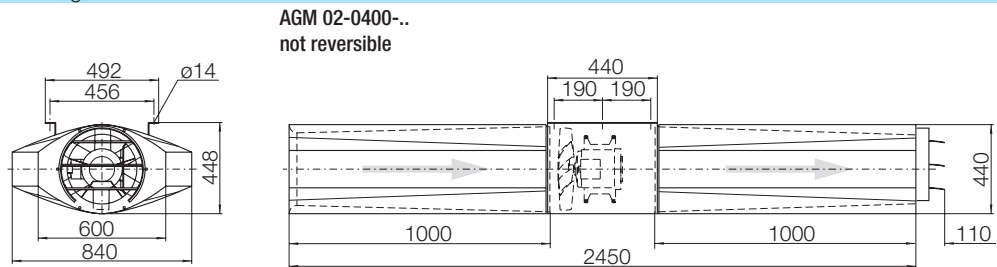
Impulse smoke extraction fan premium

AGM 02

Air flow in direction of motor (pressure) - not reversible

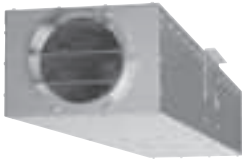
AGM 12

Air flow in direction of motor (pressure/suction) - reversible



AGM 01-0315/-0400, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 09

General technical approval; Approval number: Z-78.11-153

Smoke extract jetfan AGM 01

Suitable for smoke extraction in the case of fire up to 300 °C – 120 min,

tested to DIN EN 12101-3 and CE certified.

Certificate of EC conformity: 0036 CPD RG01 09

DIBt approval number: Z-78.11-153

Suitable as fan for continuous standard ventilation up to 40°C.

Certified for horizontal installation inside of a room where fire may occur.

Conveying direction blowing over motor (pressure).

Casing made of galvanised sheet steel and equipped with silencer at both ends.

Integrated air flow straightener for achieving a turbulence free air stream.

Adjustable guide vanes made of galvanised steel sheet at discharge, intake guard at suction side.

Axial fan impeller with aerofoil blades made of corrosion resistant cast aluminium, balanced to DIN ISO 1940 Class G 6,3.

Certified motor for smoke gases, protection IP 55, ISO H, maximum operation allowed to ISO F.

Protected, heat resistant electrical feed cable,

leading to metal connection box fixed on fan casing,

Tappings provided for high temperature resistance.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type	AGM 01-
Thrust	F = N
Discharge velocity	v = m/s
Reference density	ρ_1 = kg/m ³
max. smoke extract temp.	t/T = °C/min
max. ventilation temperature	t = °C
Rated speed	n = 1/min
Nominal power	P _N = kW
Nominal current	I _N = A
Voltage/Frequency	U/f = V/Hz
A-Sound pressure level	L _{PA} = dB
Dimensions (L×W×H)	= mm
Weight	m = kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

Accessories (on request)

Switch and control cabinet – with or w/o CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Optical smoke detector

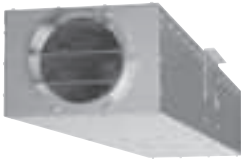
Manual trigger switch

Description see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

AGM 11-0315/-0400, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 09

General technical approval; Approval number: Z-78.11-153

Smoke extract jetfan AGM 11

Suitable for smoke extraction in the case of fire

up to 300°C – 120 min,

tested to DIN EN 12101-3 and CE certified.

Certificate of EC conformity: 0036 CPD RG01 09

DIBt approval number: Z-78.11-153

Suitable as fan for continuous standard ventilation up to 40°C.

Certified for horizontal installation inside of a room where fire may occur.

Reversible - Conveying direction blowing over motor or inverse (pressure or suction)

Casing made of galvanised sheet steel and equipped with silencer at both ends.

Two integrated air flow straighteners for achieving a turbulence free air stream. Adjustable guide vanes made of galvanised steel sheet at discharge and intake.

Axial fan impeller with aerofoil blades made of corrosion resistant cast aluminium, balanced to DIN ISO 1940 Class G 6,3.

Certified motor for smoke gases, protection IP 55, ISO H, maximum operation allowed to ISO F.

Protected, heat resistant electrical feed cable, leading to metal connection box fixed on fan casing, Tappings provided for high temperature resistance.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type	AGM 11-
Thrust	F = N
Discharge velocity	v = m/s
Reference density	ρ_1 = kg/m ³
max. smoke extract temp.	t/T = °C/min
max. ventilation temperature	t = °C
Rated speed	n = 1/min
Nominal power	P _N = kW
Nominal current	I _N = A
Voltage/Frequency	U/f = V/Hz
A-Sound pressure level	L _{PA} = dB
Dimensions (L×W×H)	= mm
Weight	m = kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

Accessories (on request)

Switch and control cabinet – with or w/o CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Optical smoke detector

Manual trigger switch

Description see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

AGM 02-0315/-0400, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 10

General technical approval; Approval number: Z-78.11-153

Smoke extract jetfan premium AGM 02

Suitable for smoke extraction in the case of fire up to 300°C – 120 min,

tested to DIN EN 12101-3 and CE certified.

Certificate of EC conformity: 0036 CPD RG01 10

DIBt approval number: Z-78.11-153

Suitable as fan for continuous standard ventilation up to 40°C.

Certified for horizontal installation inside of a room where fire may occur.

Conveying direction blowing over motor (pressure)

Stylish, elliptical design and equipped with silencer made of galvanised sheet steel at both ends. Centre part with fixing brackets coated black.

Integrated air flow straightener for achieving a turbulence free air stream.

Adjustable guide vanes made of galvanised steel sheet at discharge, intake guard at suction side.

Axial fan impeller with aerofoil blades made of corrosion resistant cast aluminium, balanced to DIN ISO 1940 Class G 6.3.

Certified motor for smoke gases, protection IP 55, ISO H, maximum operation allowed to ISO F.

Protected, heat resistant electrical feed cable,

leading to metal connection box fixed on fan casing,

Tappings provided for high temperature resistance.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type premium AGM 02-

Thrust	F =	N
Discharge velocity	v =	m/s
Reference density	ρ_1 =	kg/m ³
max. smoke extract temp.	t/T =	°C/min
max. ventilation temperature	t =	°C
Rated speed	n =	1/min
Nominal power	P _N =	kW
Nominal current	I _N =	A
Voltage/Frequency	U/f =	V/Hz
A-Sound pressure level	L _{PA} =	dB
Dimensions (L×W×H)	=	mm
Weight	m =	kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

Accessories (on request)

Switch and control cabinet – with or w/o CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Optical smoke detector

Manual trigger switch

Description see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

AGM 12-0315/-0400, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 10

General technical approval; Approval number: Z-78.11-153

Smoke extract jetfan premium AGM 12

Suitable for smoke extraction in the case of fire

up to 300 °C – 120 min,

tested to DIN EN 12101-3 and CE certified.

Certificate of EC conformity: 0036 CPD RG01 10

DIBt approval number: Z-78.11-153

Suitable as fan for continuous standard ventilation up to 40°C.

Certified for horizontal installation inside of a room where fire may occur.

Reversible - Conveying direction blowing over motor or inverse (pressure or suction)

Stylish, elliptical design and equipped with silencer made of galvanised sheet steel at both ends. Centre part with fixing brackets coated black.

Two integrated air flow straighteners for achieving a turbulence free air stream.

Adjustable guide vanes made of galvanised steel sheet at discharge and intake.

Axial fan impeller with aerofoil blades made of corrosion resistant cast aluminium, balanced to DIN ISO 1940 Class G 6,3.

Certified motor for smoke gases, protection IP 55, ISO H, maximum operation allowed to ISO F.

Protected, heat resistant electrical feed cable,

leading to metal connection box fixed on fan casing,

Tappings provided for high temperature resistance.

Options (at choice)

single speed (3~)

two speed (3~)

speed controlled by inverter during standard ventilation operation (max. working frequency admitted 50 Hz)

Fan type premium AGM 12-

Thrust	F =	N
Discharge velocity	v =	m/s
Reference density	ρ_1 =	kg/m ³
max. smoke extract temp.	t/T =	°C/min
max. ventilation temperature	t =	°C
Rated speed	n =	1/min
Nominal power	P _N =	kW
Nominal current	I _N =	A
Voltage/Frequency	U/f =	V/Hz
A-Sound pressure level	L _{PA} =	dB
Dimensions (L×W×H)	=	mm
Weight	m =	kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

Accessories (on request)

Switch and control cabinet – with or w/o CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Optical smoke detector

Manual trigger switch

Description see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

AGM 06-0315/-0400, 40 °C – CO

AGM 16-0315/-0400, 40 °C – CO

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	Sound pressure level L _{pA} at 1m distance	Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 06-												
not reversible												
0315-2D-10	30	21	2	230/400 Δ/Y	50	2855	0.75	3.00/1.73	5.6	80	64	92
0315-FD-11	30/7.5	21/10	2/4	400 YY/Y	50	2780/1385	0.95/0.25	2.40/0.61	4.2/3.8	80	64/46	92
0400-2D-11	52	21	2	230/400 Δ/Y	50	2845	1.10	4.20/2.40	6.1	80	65	114
0400-FD-11	52/13	21/10	2/4	400 YY/Y	50	2780/1385	0.95/0.25	2.40/0.61	4.2/3.8	80	65/48	114
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			dB ⑩	kg
AGM 16-												
reversed operation - data indicating flow direction over motor												
0315-2D-10	18	16	2	230/400 Δ/Y	50	2855	0.75	3.00/1.73	5.6	80	62	93
0315-FD-11	18/4.5	16/8	2/4	400 YY/Y	50	2780/1385	0.95/0.25	2.40/0.61	4.2/3.8	80	62/46	93
0400-2D-11	45	20	2	230/400 Δ/Y	50	2845	1.10	4.20/2.40	6.1	80	68	115
0400-FD-11	45/11	20/10	2/4	400 YY/Y	50	2780/1385	0.95/0.25	2.40/0.61	4.2/3.8	80	68/51	115

Accessories (on request)

- CO-measuring unit

Accessories / Index

⑤ Connection diagrams for fan and isolator to be found online at www.nicotra-gebhardt.com

⑩ Sound pressure measurement measured at the centre line below the fan

Dimensions in mm, Subject to change.



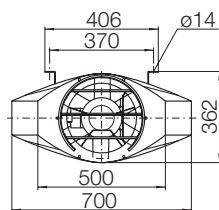
Impulse Jetfan premium

AGM 06

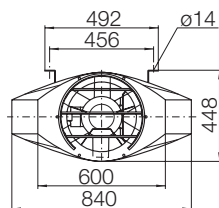
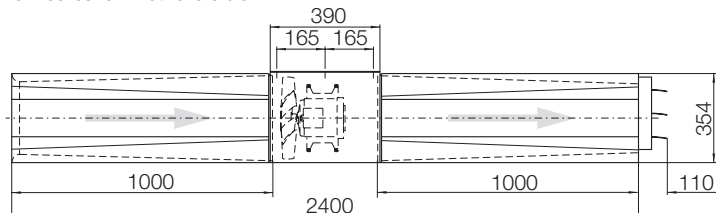
Air flow in direction of motor (pressure) - not reversible

AGM 16

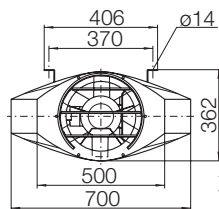
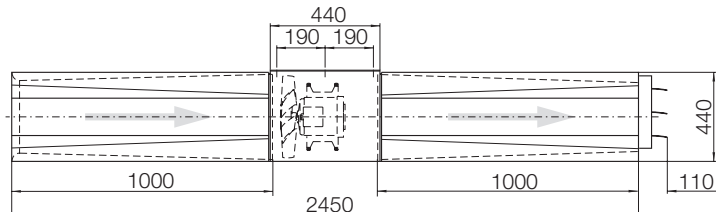
Air flow in direction of motor (pressure/suction) - reversible



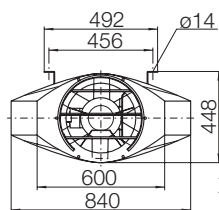
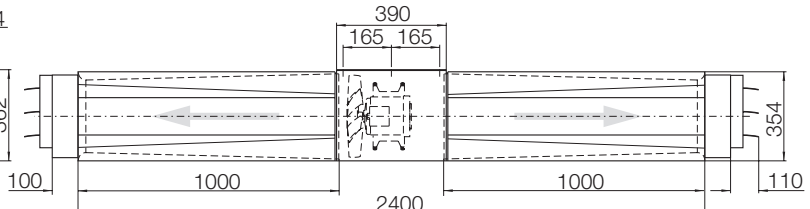
AGM 06-0315.. not reversible



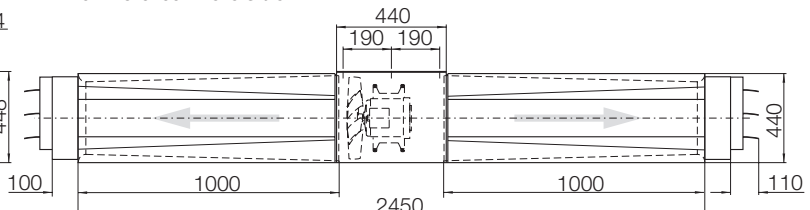
AGM 06-0400.. not reversible



AGM 16-0315.. reversible



AGM 16-0400.. reversible



AGM 06-0315/-0400, 40 °C – CO

AGM 16-0315/-0400, 40 °C – CO

Specification



Jetfan premium AGM 06/16 for ventilation of CO-gases

Suitable for continuous standard ventilation up to 40°C.
 Certified for horizontal installation.

Conveying direction blowing over motor (pressure)

Stylish, elliptical design and equipped with silencer made of galvanised sheet steel at both ends. Centre part with fixing brackets coated black.

Integrated air flow straightener for achieving a turbulence free air stream.

Adjustable guide vanes made of galvanised steel sheet at discharge, intake guard at suction side.

Axial fan impeller with aerofoil blades made of corrosion resistant cast aluminium, balanced to DIN ISO 1940 Class G 6.3.

Electrical feed cable leading to connection box fixed on fan casing.

Options (at choice)

- single speed (3~)
- two speed (3~)
- speed controlled by external frequency inverter (max. working frequency admitted 50 Hz)

Fan type	AGM 06-/16-
Thrust	F = N
Discharge velocity	v = m/s
Reference density	ρ_1 = kg/m ³
max. ventilation temperature	t = °C
Rated speed	n = 1/min
Nominal power	P _N = kW
Nominal current	I _N = A
Voltage/Frequency	U/f = V/Hz
A-Sound pressure level	L _{PA} = dB
Dimensions (L×W×H)	= mm
Weight	m = kg

Special fittings (at extra cost)

- Special paint on request
- Simulation on request

Accessories (on request)

Switch and control cabinet – with CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Description see accessories

Wiring diagrams to be found online at www.nicotra-gebhardt.com

RGM 91-0600, 300 °C – 120 min. RGM 91-0610, 300 °C – 120 min.

Technical Data

	Thrust	Discharge speed	Poles	Voltage/Connection	Frequency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	appr. weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			kg
RGM 91-0600, 300 °C – 120 min.											
0600-4D-15	50	25.0	4	230/400 Δ/Y	50	1435	1.5	5.80/3.30	5.8	90 L	130
0600-ID-15	50/23	25.0/17.0	4/6	400 YY/Y	50	1425/955	1.5/0.55	3.60/1.80	7.4/3.9	90 L	130
0600-GD-15	50/13	25.0/13.0	4/8	400 YY/Y	50	1420/720	1.3/0.22	3.00/1.15	5.4/3.4	90 L	130
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			kg
RGM 91-0610, 300 °C – 120 min.											
0610-4D-16	75	23.5	4	230/400 Δ/Y	50	1435	2.2	8.60/5.00	6.4	100 L	180
0610-ID-16	75/34	23.5/16.0	4/6	400 YY/Y	50	1425/955	2.2/0.75	5.00/2.60	7.1/4.0	100 L	180
0610-GD-16	75/19	23.5/12.0	4/8	400 YY/Y	50	1430/715	2.2/0.37	5.10/1.60	6.3/3.8	100 L	180

Attention! In the case of fire fans with 2-speed motors must only be operated at high speed.

Accessories (on request)

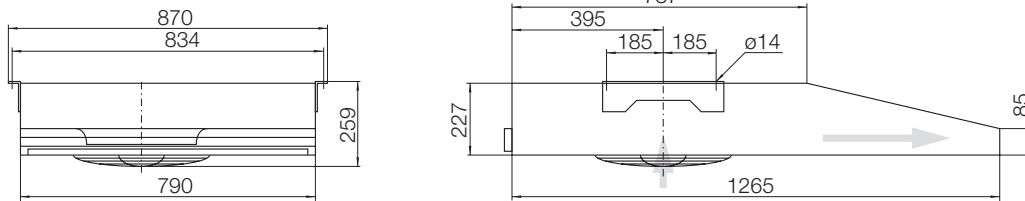
- Smoke detecting switch unit
- Optical smoke detector with mounting base
- Manual switch
- CO-measuring unit

Accessories / Index

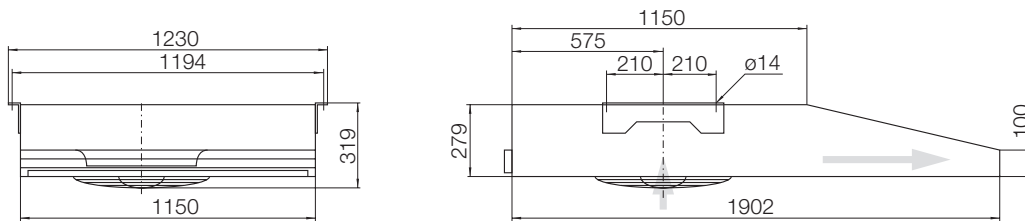
⑤ Connection diagrams for fan and isolator to be found online at www.gebhardt.de

Dimensions in mm, Subject to change.

RGM 91-0600, 300 °C – 120 min.



RGM 91-0610, 300 °C – 120 min.



Sounds

Fan type	Poles	L _{pA, 1m} dB	L _{p okt, 1m at f_m}								
			63	125	250	500	1000	2000	4000	8000	Hz
RGM 91-0600-..	4	77	64	79	75	75	71	69	66	60	dB
	6	66	66	70	65	64	61	57	54	48	dB
	8	59	68	62	58	57	54	49	46	39	dB
RGM 91-0610-..	4	83	74	87	81	80	77	75	68	63	dB
	6	71	72	79	71	68	66	62	55	50	dB
	8	63	74	68	61	61	58	52	45	40	dB

RGM 91-0600, 300 °C – 120 min. RGM 91-0610, 300 °C – 120 min.

Specification



Fan and accessories tested to EN 12101-3

Certificate of EC conformity: 0036 CPD RG01 11

General technical approval; Approval number: Z-78.11-163

Smoke extract jetfan RGM 91

Suitable for smoke extraction in the case of fire

up to 300°C – 120 min,

tested to DIN EN 12101-3 and CE certified.

Certificate of EC conformity: 0036 CPD RG01 11

DIBt approval number: Z-78.11-163

Suitable as fan for continuous standard ventilation up to 40°C.

Certified for horizontal installation inside of a room where fire may occur.

Especially slim casing construction made of galvanised sheet steel, equipped with mounting bracket at both ends.

Protection guard at inlet side and integrated guide vanes made of galvanised steel sheet at discharge.

Centrifugal impeller with backward curved blades made of sheet steel, welded and coated, balanced in according to ISO 1940.

Certified motor for smoke gases, protection IP 55 with protected, heat resistant electrical feed cable, leading to metal connection box fixed on fan casing, Tappings provided for high temperature resistance.

Options (at choice)

single speed (3~)

two speed (3~)

(High speed for smoke extraction, low speed for continuous standard ventilation)

Fan type	RGM 91-
Thrust	F = N
Discharge velocity	v = m/s
Reference density	ρ_1 = kg/m ³
max. smoke extract temp.	t/T = °C/min
max. ventilation temperature	t = °C
Rated speed	n = 1/min
Nominal power	P _N = kW
Nominal current	I _N = A
Voltage/Frequency	U/f = V/Hz
A-Sound pressure level	L _{PA} = dB
Dimensions (L×W×H)	= mm
Weight	m = kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

Accessories (on request)

Switch and control cabinet – with or w/o CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Optical smoke detector

Manual trigger switch

Description see accessories

Wiring diagrams to be found online at www.gebhardt.de

RGM 96-0600, 40 °C – CO

RGM 96-0610, 40 °C – CO

Technical Data

	Thrust	Discharge speed	Poles	Voltage/ Connection	Fre- quency	Speed	Nominal power	Nominal current	Starting/Full load current	Motor size	appr. Weight
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			kg
RGM 96-0600, 40 °C – CO											
0600-4D-15	50	25.0	4	230/400 Δ/Y	50	1426	1.5	5.80/3.40	5.3	90 L	130
0600-ID-15	50/23	25.0/17.0	4/6	400 YY/Y	50	1425/940	1.5/0.55	3.60/2.20	6.1/3.3	90 L	130
0600-GD-15	50/13	25.0/13.0	4/8	400 YY/Y	50	1459/732	1.5/0.25	4.20/1.60	5.5/3.1	90 L	130
⑤	N	m/s		V (3~)	Hz	1/min	kW	A			kg
RGM 96-0610, 40 °C – CO											
0610-4D-16	75	23.5	4	230/400 Δ/Y	50	1436	2.2	8.30/4.80	5.9	100 L	180
0610-ID-16	75/34	23.5/16.0	4/6	400 YY/Y	50	1400/940	2.2/0.75	4.80/2.30	6.8/4.2	100 L	180
0610-GD-16	75/19	23.5/12.0	4/8	400 YY/Y	50	1446/726	2.2/0.37	5.50/2.00	5.2/3.2	100 L	180

Accessories (on request)

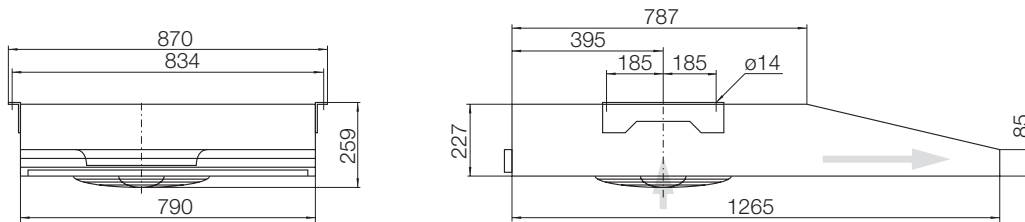
- CO-measuring unit

Accessories / Index

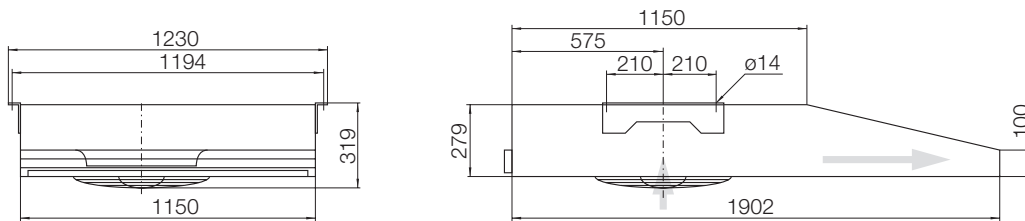
⑤ Connection diagrams for fan and isolator to be found online at www.gebhardt.de

Dimensions in mm, Subject to change.

RGM 96-0600, 40 °C – CO



RGM 96-0610, 40 °C – CO



Sounds

The sound pressure level was measured in a distance of 1 m in two positions. The average values are shown in the table.

Fan type	Poles	L _{pA, 1m} dB	L _{p okt, 1m at f_m}								Hz
			63	125	250	500	1000	2000	4000	8000	
RGM 91-0600-..	4	77	64	79	75	75	71	69	66	60	dB
	6	66	66	70	65	64	61	57	54	48	dB
	8	59	68	62	58	57	54	49	46	39	dB
RGM 91-0610-..	4	83	74	87	81	80	77	75	68	63	dB
	6	71	72	79	71	68	66	62	55	50	dB
	8	63	74	68	61	61	58	52	45	40	dB

RGM 96-0600, 40 °C – CO

RGM 96-0610, 40 °C – CO

Specification



Jetfan premium RGM 96 for ventilation of CO-gases

Suitable for continuous standard ventilation up to 40°C.

Certified for horizontal installation.

Especially slim casing construction made of galvanised sheet steel, equipped with mounting bracket at both ends.

Protection guard at inlet side and integrated guide vanes made of galvanised steel sheet at discharge.

Centrifugal impeller with backward curved blades made of sheet steel, welded and coated, balanced in according to ISO 1940.

Electrical feed cable leading to connection box fixed on fan casing.

Options (at choice)

- single speed (3~)
- two speed (3~)
- speed controlled by external frequency inverter (max. working frequency admitted 50 Hz)

Fan type premium RGM 96-

Thrust	F = N
Discharge velocity	v = m/s
Reference density	ρ_1 = kg/m ³
max. ventilation temperature	t = °C
Rated speed	n = 1/min
Nominal power	P _N = kW
Nominal current	I _N = A
Voltage/Frequency	U/f = V/Hz
A-Sound pressure level	L _{PA} = dB
Dimensions (L×W×H)	= mm
Weight	m = kg

Special fittings (at extra cost)

Special paint on request

Simulation on request

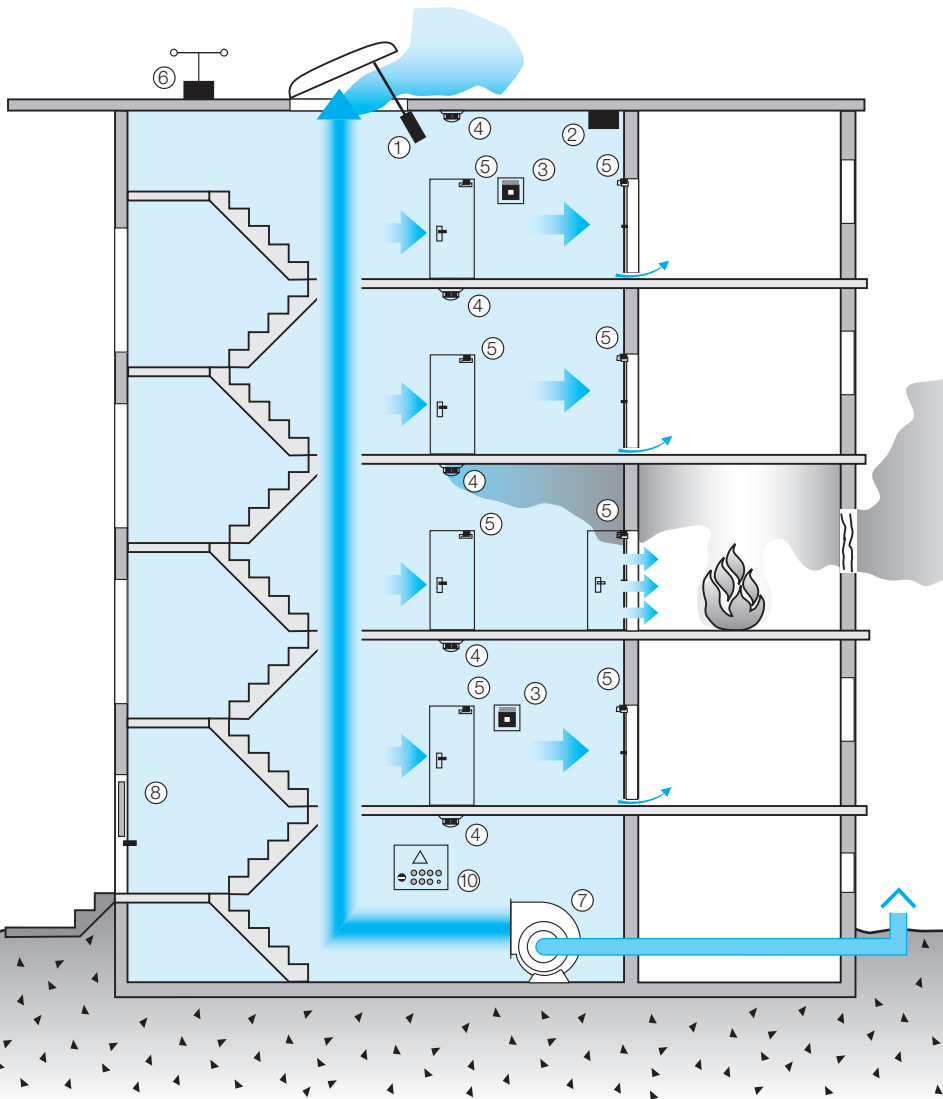
Accessories (on request)

Switch and control cabinet – with CO-warning system including all necessary equipment (CO-sensors, signal horn, blinking lamp, warning panels, etc.)

Description see accessories

Wiring diagrams to be found online at www.gebhardt.de

Positive Pressure Smoke Protection - System



An important element within the whole **Nico-tra Gebhardt SafeAir** concept is the pressure ventilation system for stair cases and floors. This system does neither prevent a fire nor is it a fire extinguisher. But its good function is nevertheless important for saving human lives in the case of fire.

Components

- ① Pressure relief damper
- ② Differential pressure measurement
- ③ Manual switch
- ④ Smoke detector
- ⑤ Door lock
- ⑥ Wind/Rain sensor
- ⑦ Fan
- ⑧ Manual switch for summer mode
- ⑨ Outside air
- ⑩ Switch and control board



Positive Pressure Smoke Protection - System Principles of operation

- The automatic triggering is made by a smoke or fire detector.
- A manual triggering is activated by a smoke switch.
- Possible penetrating smoke will be conveyed to the above overflow and thus exhausted by the air stream. By this way the rescue way are rinsed with fresh air. The change to maintaining overpressure will prevent further penetration of smoke into the stair case.
- A manual switch is available for changing to summer operation mode i.e. a constant ventilation of the stair case is assured. In the case of fire alarm this mode will reset automatically.
- The installation of a rain sensor may avoid that during summer mode (ventilation) rain can enter when the damper is open.

PPSP-System

Positive Pressure Smoke Protection - System

An important element within the whole **Nicotra Gebhardt SafeAir** concept is the pressure ventilation system for stair cases and floors. This system does neither prevent a fire nor is it a fire extinguisher. But its good function is nevertheless important for saving human lives in the case of fire. The principle is simple and proven. A pressure difference between living or working rooms and the connecting floors or stairs is maintained. Any generation of smoke in one room will be limited to its generation place giving the opportunity to all other people in the building to escape over the smoke free floors and stairs and for the fire brigade to have better access to the fire source.

Two different systems are usually considered:

Positive Pressure Smoke Protection - System

for necessary inside stair cases:

- If no larger flow rates are required by the authorities or experts, the minimum overflow volume must be 10.000 m³/h. The certification test has to be made at open overflow damper.
- If an automatic pressure control is installed the overflow has to be at least 3000m³/h
- The pressure on closed doors in the stair case must not exceed 100N/m². This corresponds to a maximum pressure of 50 Pa in the stair case. The minimum pressure must not be below 15 Pa.

These conditions have to be achieved when doors are closed. Leakages and other losses have to be taken into account additionally.

Positive Pressure Smoke Protection - System

for inside rescue stair cases:

The high building guide line and the regulations of the provinces are to be respected. Following to the high building guide line the flow rate has to be calculated:

$$\dot{V} = k \times b \times h^{1.5} \quad [\text{in m}^3/\text{s}] \quad (\text{or } \times 3600 \quad [\text{m}^3/\text{h}])$$

k = Temperature difference factor

k = 1.5 for adjacent floor

k = 1.8 for adjacent room

b = door width [in m]

h = door height [in m]

General indication

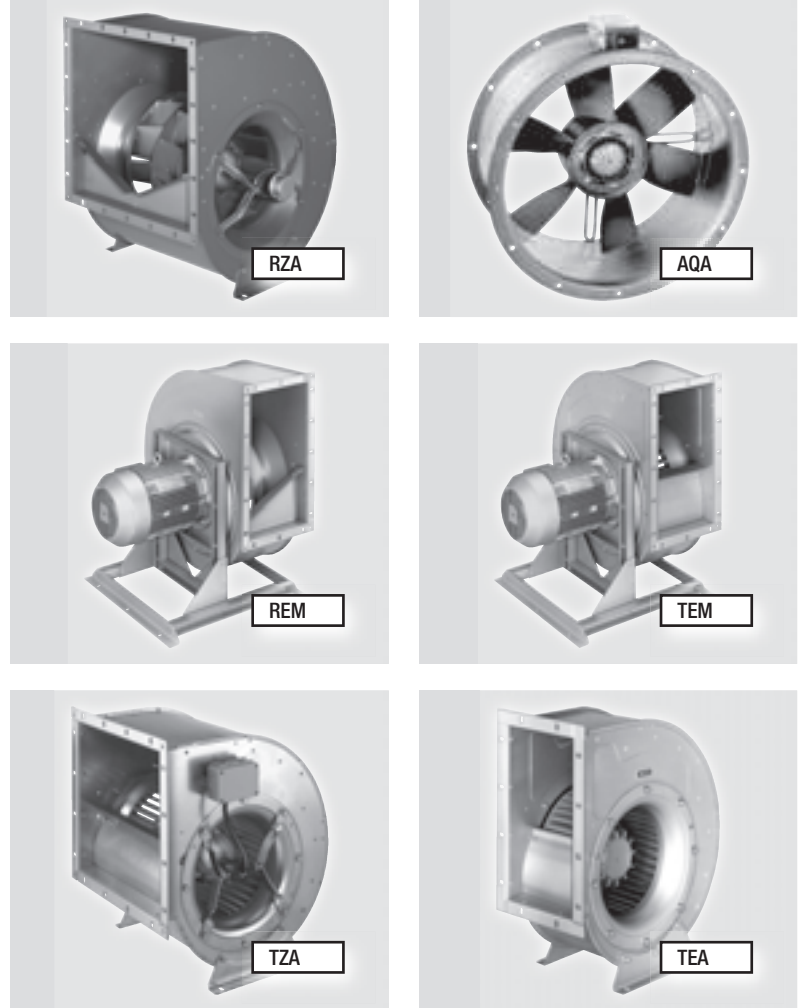
- It is recommended to consult an expert during the design phase in order to achieve a commissioning without problems.
- The regulations for technical tests prescribe a test of effective and safe operation.
- The user has to be instructed about the function of the installation. He has to maintain a logbook about regular maintenance and functional checks.
- For the case of shut down a catalogue of possible measures has to be prepared.

PPSP-System

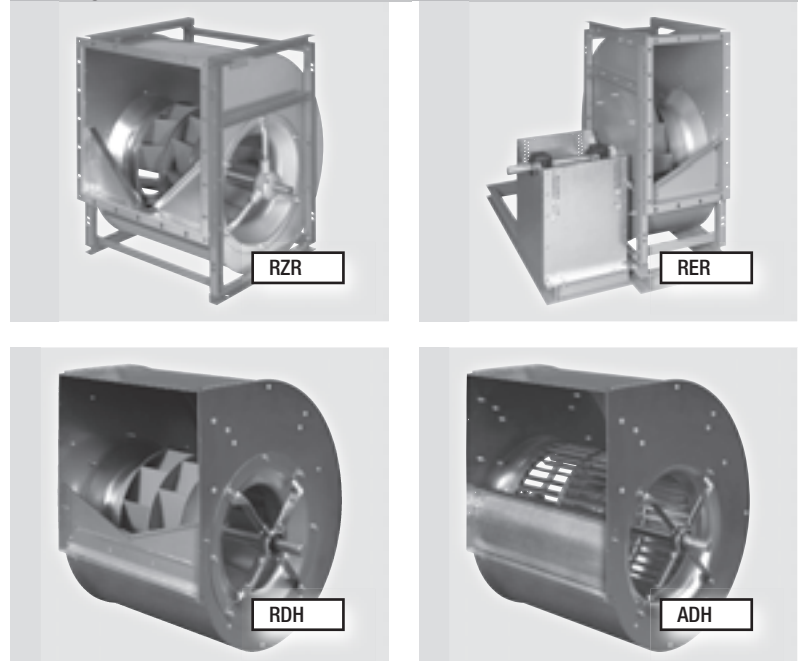
Positive Pressure Smoke Protection - System

Centrifugal fans
for use in Smoke Protection Pressure-Systems

Centrifugal and axial fans with direct drive



Centrifugal fans with belt drive



Accessories

Isolator

ESH 21 \geq 5.5 kW

Execution

Stylish, shockproof plastic casing, protection class IP 44/65, markings 0 and I. The isolator switch is equipped with easy-connect tapings and wiring diagram.

The switch **ESH 21 up to 3 kW** protection class IP 44 and equipped with an integrated lock.

The switch **ESH 21 from 5.5 kW** protection class IP 65. It is equipped with a cover coupling and an integrated lock. The turning switch can be key locked in position "On" and "Off".

Function

The isolator switch is provided for isolating the fan safely from the mains during any cleaning, inspection or maintenance work, thus avoiding uncontrolled hazards by thirds who could switch the fan on. This switch is not to be considered as a main or an emergency switch.

Attention!

Combination with inverter!

Special radio noise suppression measures could be necessary; never keep the switch under current, arising current peaks harm the switch and the windings.

All dedicated isolator switches are equipped with auxiliary contacts (1 open and 1 close).

The isolator switches for motors with inbuilt PTC thermistor are equipped with 3 auxiliary contacts in order to not trouble the preceding trigger unit by a appearing motor fault.

Technical Data / Dimensions

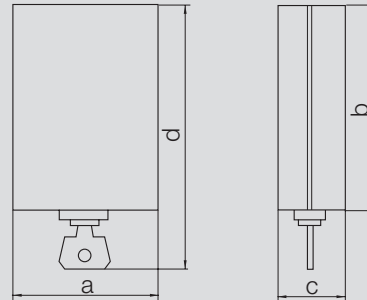
ESH 21-	max. motor power kW	Dimensions in mm, Subject to change			
		a	b	c	d
0030-22	3.0	73	108	45	143
0030-32	3.0	73	108	45	143
0055-32	5.5	85	120	80	58
0075-32	7.5	85	120	80	58
0110-32	11.0	85	160	78	58
0150-32	15.0	100	190	91	58
0220-32	22.0	100	190	91	58
0300-32	30.0	145	250	107	58
0370-32	37.0	145	250	107	58
0450-32	45.0	200	300	172	73
0550-32	55.0	200	300	172	73
0900-32	90.0	280	400	180	73
0030-62	3.0	73	108	45	143
0055-62	5.5	85	120	90	58
0075-62	7.5	100	190	91	58
0110-62	11.0	100	190	91	58
0150-62	15.0	145	250	100	58
0220-62	22.0	145	250	100	58
0300-62	30.0	200	300	172	73
0370-62	37.0	200	300	172	73
0450-62	45.0	300	300	172	73
0750-62	75.0	280	280	230	73
0030-25	3.0	73	108	45	143
0030-35	3.0	73	108	45	143
0075-35	7.5	85	120	106	58
0030-65	3.0	73	108	45	143
0075-65	7.5	110	66	110	51
0075-95	7.5	110	66	110	51

Accessories

Isolator

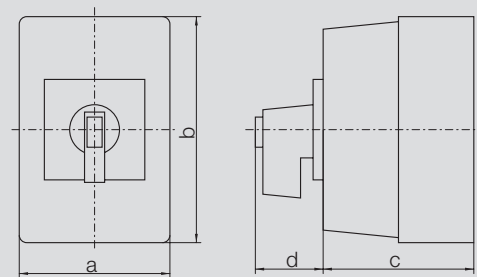
Dimensions

ESH 21 ≤ 3 kW



Dimensions

ESH 21 > 3 kW



The isolator switches are classified following to the motor rating. The type designation indicates the main data.

Example: ESH 21-0030-65 = 3 kW-switch
 6 main contacts
 5 auxiliary contacts

Accessories

Optical smoke detector



USB 501-1



Mounting base

Mounting base for easy surface installation of the optical smoke detector SSD 521.

Function

The SSD 521 (Scattered Light Smoke Detector) recognises early smoldering and open fire with smoke generation. The SSD 521 is to be installed at places where smoke generating fire has to be detected. For instance in areas of administration buildings, hospitals or hotels. Light emitter and sensor are placed in way that light beam does not directly hit the sensor. It is the light scattering effect of the smoke (Tyndall-Effect) which will initiate the sensor to produce an electrical signal. If this signal is increasing to the alarm level it will automatically be transmitted to the central alarm unit.

Display

The inbuilt display will show the alarm at the site and can be seen from any viewing angle, independently from the installation place. Additionally a second display can be connected e.g. for being fitted outside the room.

Connection

The Scattered Light Smoke Detector SSD 521 is connected to central units as a conventional fire detector supplying a current increase in the event of smoke. A two wire line connecting the SSD in line ensures the connection to the central switchboard.

Attention!

The 270 kΩ resistance to unfit from the tapings of the central switchboard (unit EBG) and to fit on the last SSD 521.

The SSD 521 may only be connected to the electronic unit of the EBG.

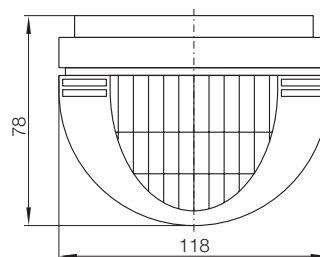
Limits of application:

The Smoke detector cannot be used if disturbances like dust, smoke or vapour are likely to appear under normal conditions.

Technical Data

	Temperature	Operating	max. current supply		relative		Protection-	Weight
	°C	voltage (=)	at rest	during alarm	humidity	short time perm.	class	without
		V	µA	µA	%	%		base
								g
SSD 521	-20...+60	18...30	120	22	95	70	IP 44	132

Dimensions in mm, Subject to change.



Accessories

Manual trigger switch



HE 075



HE 076

Function

In smoke and heat extract installations the manual control device is used as main control unit (Type HE 075) or as auxiliary control unit (Type HE 076) in accordance with the VdS-regulations 2592.

Their purpose is – in the event of fire – to activate manually the electrical control unit and thus to start the smoke extraction.

The main control unit (Type HE 075) – as a manual control – is installed in building entry areas (ground floor or stair case). The LED – display “RWA open”, “Disturbance”, and “Ready” supply an instant information about the situation.

The auxiliary control unit (Type HE 076) is an additional manual control in connection with the main control.

Execution

Electrical manual control unit (Type HE 075) as a main control unit in electrical smoke extract installations with exchangeable plate including “Open”-knob (Changeover), “Close”-knob (shutter) 24 V, 0,01 A, 3 LED – displays, plastic casing, complete with thin glass window and key.

Electrical manual control unit (Type HE 075) as a main control unit in electrical smoke extract installations with exchangeable plate including “Open”-knob (Changeover), 24 V, 0,01 A, 3 LED – displays, plastic casing, complete with thin glass window and key, “Close”-knob (shutter).

Attention!

The 270 kΩ resistance to unfit from the tapings of the central switchboard (unit EBG) and to fit on the last manual control switch HE 076 or HE 075.

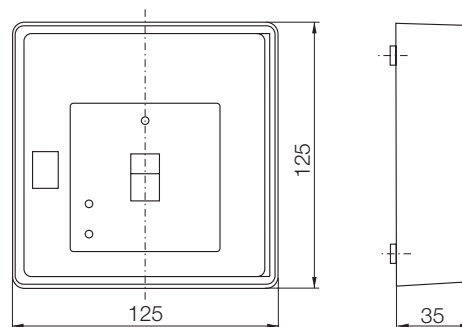
Technical Data

	Voltage V DC	max. switch power A	LED display		
			red	yellow	green
HE 075	24	0.01	Release	Error	Ready
HE 076	24	0.01	Release		

Switch type: „OPEN“ changeover / „CLOSE“ shutter

Plastic casing to DIN 14655 in orange and yellow

Dimensions in mm, Subject to change.



Accessories

Smoke detection switch



Design

Robust design, coated sheet steel casing of protection class IP 54.
For ambient temperature up to +40 °C.
Operating and display elements clearly located on the front door.

Function

In case of fire the smoke detection switch will be working as follows:

- switching the fans on and switching two-step fans to high speed
- in the case of using an inverter this will be by-passed and the motor fed directly from the mains
- urgency current for control to be hold 72h (observe lifetime of batteries)

The switch reacts to fire alarm sensors such as the optical smoke detector EBS 02. Manual triggering via the fire alarm button or operation via the function keys on the front door is possible as well. The electronic switch gears are certified by TÜV.

Allocation

EBG 10 - for single-speed fans

EBG 20 - for multi speed fans with separated windings

EBG 30 - for multi speed fans with Dahlander windings

EBG 40 - for fans with inverter drive. In the case of smoke extraction the inverter will automatically be by-passed and the fan will be driven directly from mains.

Connections (control unit EBG)

- 1 outgoing connection to fan. The fan motor rating must not exceed the max. trigger rating of the switches.
- 3 ingoing tappings for connecting up to 8 units:
 - Tapping 1 - 8 smoke detectors SSD521
 - Tapping 2 - 8 manual switches
(one main HE 075 – 7 auxiliary HE 076)
 - Tapping 3 - Connection to central fire board

It would be possible to connect all 3 tappings with 8 manual switches each.

Attention! A later modification of the switch board EBG will not be possible. In the case of a required extension for serving more trigger units please revert to supplier.

The number and location of the smoke sections have to selected acc. to the regulations in force (e.g. VDE 0833-1).

The selection of the corresponding smoke control switching units has to be made according to the fan motor ratings.

The motor rating has to be lower or equal to the switching range of the control unit. For multi speed motor the switching units has to be matched to the highest given motor rating.

Attention!

Remove the final 270 kΩ resistances from the tappings (EBG casing) and connect them to the last smoke detector, last manual switch, or automatic central unit according to diagramme.

Manual switch HE and optical smoke detector SSD can exclusively be operated with smoke detection unit EBG.

Accessories

Smoke detection switch



Technical Data

for single speed fans

EBG 10	Nominal power	a	b	c
	kW			
EBG 10-0040-8D	4.00	500	500	300
EBG 10-0110-8D	11.00	500	700	250
EBG 10-0220-8D	22.00	500	700	250

for two speed fans

EBG 20	Nominal power	a	b	c
	kW			
EBG 20-0040-8D	4.00	500	700	250
EBG 20-0110-8D	11.00	500	700	250
EBG 20-0260-8D	26.00	600	800	250

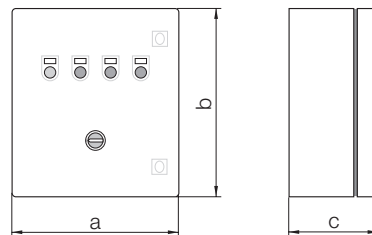
for two speed fans DAHLANDER type tapping

EBG 30	Nominal power	a	b	c
	kW			
EBG 30-0040-8D	4.00	500	700	250
EBG 30-0110-8D	11.00	500	700	250
EBG 30-0280-8D	28.00	500	700	250

for fans with frequency inverter

EBG 40	Nominal power	a	b	c
	kW			
EBG 40-0003-8D	0.37	760	760	300
EBG 40-0005-8D	0.55	760	760	300
EBG 40-0007-8D	0.75	760	760	300
EBG 40-0011-8D	1.10	760	760	300
EBG 40-0015-8D	1.50	760	760	300
EBG 40-0022-8D	2.20	760	760	300
EBG 40-0030-8D	3.00	760	760	300
EBG 40-0040-8D	4.00	760	760	300
EBG 40-0055-8D	5.50	760	760	300
EBG 40-0075-8D	7.50	760	760	300
EBG 40-0110-8D	11.00	760	760	300

Dimensions



Accessories

Switch board for positive pressure ventilation



Execution

Rugged steel sheet casing coated protection class IP 54.
Admitted ambient temperature up to +40 °C.
Service and display elements clearly arranged on the front door.

Function

For special requirements in relation to rescue ways (e.g. stair cases in high buildings or inner stairs) it may be required to install a positive pressure ventilation system. With this system air is blown into the areas to be protected and to establish a positive pressure level in relation to the adjacent rooms. This will avoid that smoke will penetrate from the room into the rescue ways. This positive pressure must not exceed a difference of 50 Pa to the other rooms. For this reason a continuous pressure control is installed enabling to limit the pressure by means of a pressure relief damper. This opening is also used for rinsing the rescue ways if smoke would have penetrated into this area.

Emergency current hold for control 72h
(observe battery life time)

Selection

- EBG 50** - for single speed fans with damper control
- EBG 60** - for fans controlled by inverter (Inverter included)

Be aware of combining the switch units EBG 50 or 60 with the correctly dimensioned fan and a pressure sensor DDS 10/50 (for EBG 50) or EIP 20 (EBG 60)

Technical Data

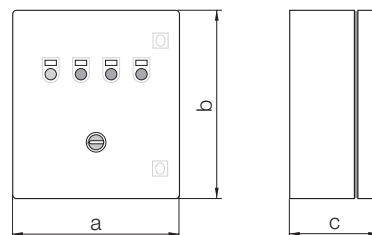
for single speed fans with damper control

EBG 50	Nominal power	a	b	c
	kW			
EBG 50-0040-8D	4.00	600	600	210
EBG 50-0110-8D	11.00	600	600	210

for fans with frequency inverter

EBG 60	Nominal power	a	b	c
	kW			
EBG 60-0003-8D	0.37	760	760	300
EBG 60-0005-8D	0.55	760	760	300
EBG 60-0007-8D	0.75	760	760	300
EBG 60-0011-8D	1.10	760	760	300
EBG 60-0015-8D	1.50	760	760	300
EBG 60-0022-8D	2.20	760	760	300
EBG 60-0030-8D	3.00	760	760	300
EBG 60-0040-8D	4.00	760	760	300
EBG 60-0055-8D	5.50	760	760	300
EBG 60-0075-8D	7.50	760	760	300
EBG 60-0110-8D	11.00	760	760	300

Dimensions



Accessories

Switch board for ventilation and smoke extraction



Execution

Rugged steel sheet casing coated protection class IP 54.
Admitted ambient temperature up to +40 °C.
Service and display elements clearly arranged on the front door.

Function

In order to cope to the special requirements of smoke extract and ventilation installations it is of a great advantage to install Jetfan ventilation systems. These systems offer the enormous advantage of better controlling smoke propagation and the exhaust of the hazardous gases.
In addition there is the option of using them for a controlled ventilation in function of occurring hazardous gases.

The control board is conceived for operating a series of Jetfans independently – speed and rotational sense – in order to direct smoke and gases in a way that the level of harmful gas concentration is minimised. In addition and to the actual needs, depending of the entire system, exhaust fans and/or dampers can be actuated.

Combination

The switch board EBG 70 is made for operating with fans and accessories exclusively supplied by GebhardtVentilatoren.

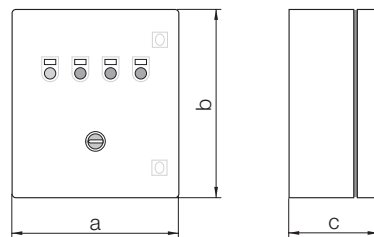
Equipment

SPS control, power switches of the fans, service and display elements optional:
CO dependant ventilation, time controlled ventilation, damper control.

Technical Data

EBG 70	Nominal power kW	a	b	c
EBG 70-0000-8D	on request	on request		

Dimensions



Accessories

Gas warning system

Enabling to switch an alarm on in the case of harmful carbon monoxide concentration in car parks

Tested and certified by TÜV acc. to VDI-Regulation 2053, latest issue (Certificate 09-92-0121)

The system and its function

The CO warning system is made of 2 functional groups

- Central warning unit CO-ALARM 2000
- CO-Measuring unit DF-9200 (max. 16 off)

The measuring units are fed with 24V from the central unit. Their continuous measuring of the CO content supplies a signal of 4...20 mA to the central unit. There the signal is processed in order to get

- Average half hour concentration value
- measured concentration against a CO concentration limit -> alarm

In the standard mode the alarm is set on only if the average half hour concentration value at one measuring point is higher than the fixed limit value.

1. CO-ALARM 2000

Central unit, Wall casing
(480 x 520 x 128 mm WxHxD)

consisting of:

Control module, processor controlled digital display for:

- Number of measuring point (control section)
- Actual CO concentration
- Unit parameters

LED display for:

- Alarm for every alarm group
- Excess of setting limits
- operation failures (buffered)
- Alarm group of the measuring point
- Operational data

Technical data

Measuring area: 0...300 ppm CO

Number of measuring points from 1...16

4 adjustable alarm thresholds

Works-Settings

1. Alarm: 40 ppm
 2. Alarm: 60 ppm
 3. Alarm: 100 ppm
 4. Alarm: 100 ppm (all together)
- Number of alarm groups: max. 4

Manual and automatic alarm confirmation (after 2 minutes). Manual activation of system functions and threshold values for testing the fans and alarms without test gas.

RS232-intersection for documentation of alarm-, status-, and measured data.

Switching contacts: Per every alarm threshold and group 2 switching contacts, potential free. Switching rating of the relay contacts 2000 VA / 8 A / 250 V
Voltage: 230 V * 10 %, 50 Hz

Accessories

Gas warning system

to warn about dangerous CO concentration in car parks

2. CO-Measuring unit DF-9200

Inside wall fitted casing made of stainless steel,

Protection class IP 42

Cable entry from above

Dimensions: 102 x 145 x 85 mm (WxHxD)

Connection to central unit by 2-wire signal cable

Cable type to be used: IY (ST)Y.

Grouped connection of measuring units possible.

Supply: 24 V (from central unit)

Signal current: 4...20 mA

4. Echem-Sensor CO 300 ppm

Electro chemical measuring CO

5. Central emergency power supply USV 2000

for uninterrupted power supply of CO-ALARM 2000 and the warning panel in the case of power supply failure according to the national prescriptions. Wall casing with key lock.

Period of power supply: 1 hour

Power: 230 V/50 Hz, 1000 VA

Dimensions app. 600 x 400 x 210 mm (LxWxD)

Weight: ca. 50 kg

Protection class: IP 54

6. Warning panel

Yellow body with black writing, blinking in the case of alarm, execution acc. to car park regulations

Dimensions: 1200 x 250 x 150 mm (WxHxD)

Supply: 230 V/50 Hz/60 VA

Accessories

Gas warning system

for emergency warning because of dangerous CO concentration in car parks
Alternative for item 5. and 6.

7. Warning panel

Yellow body with black writing – 3 lines, blinking light in the case of alarm
Power supply failure compensation for 1 hour by NiCd-Batteries, loading automatically acc. to VDI 2053.

Dimensions: 1200 x 250 x 150 mm (WxHxD)

Supply: 230 V/50 Hz / 60 VA

8. Flash light WBL

Optical warning signal for inside or outside installation.

Thermo plastic/Aluminium casing with yellow spherical cap.

Protection class IP 54

Flashing sequence 60/min

Flash energy 5 Joule

Dimensions: 235 x 54 x 66 mm

Supply: 230 V / 50 Hz

9. Signal panel for flash light

Dimensions: ca. 250 x 100 mm

Black letters on white panel and red border

10. Signal horn

Protection class: IP 55

Sound level: ca. 110 dB (A) / 1 m

Dimensions: 345 x 135 x 140 mm

Supply: 230 V / 50 Hz / 25 VA

11. Connecting cables

to connect the measuring unit DF-9200 J-Y(ST)Y,

3 x 2 x 0.8 mm² supply and wiring either on existing cable ways or with copper tubes with distance holder clips.

12. Supply and Control line

for connection of the warning panels with integrated uninterrupted power supply

NYM-J 5 x 1.5 mm² supply and wiring either on existing cable ways or with copper tubes.

13. Supply and Control line

NYM-J 3 x 1.5 mm² for connection of the warning panels without integrated uninterrupted power supply or other means.

14. Traffic light

Two lights signal red/green : 200 mm incl. two sets of fixing material.

15. Signal panel

for installation in the office of the manager equipped with 3 signal lamps.

Dimensions: 200 x 100 x 80 mm

16. Commissioning of the gas warning and control central unit

including the demonstration of alarm- and switching functions by using test gases.

Instruction of the personnel, support of the expert for certification.

Accessories

Pressure sensor



Function

For special requirements in relation to rescue ways (e.g. stair cases in high buildings or inner stairs) it may be required to install a positive pressure ventilation system. With this system air is blown into the areas to be protected and to establish a positive pressure level in relation to the adjacent rooms. This will avoid that smoke will penetrate from the room into the rescue ways. This positive pressure must not exceed a difference of 50 Pa to the other rooms. For this reason a continuous pressure control is installed enabling to limit the pressure by means of a pressure relief damper. This opening is also used for rinsing the rescue ways if smoke would have penetrated into this area.

Connection

One contact changeover

Attention!

The DDS 10/50 may exclusively be connected to the electrical unit EBG 50-....-8D.

Technical Data

Contact:	potential free
Pressure range:	up to 200 Pa
Control range setting:	10 - 50 Pa
Dimensions (WxHxD):	103 x 88 x 90 mm

Description

Symbol / Unit / Description

A-A	-	Operational range (free discharge)
b	mm	Deflection of belt under test force
\bar{c}_2 (V)	m/s	Outlet velocity
D	mm	Impeller diameter / nominal diameter
f	Hz	Frequency
f_m	Hz	Octave band mid frequency
f_p	Hz	Motor sizing correction factor
f_{pd}	Hz	Dynamic pressure correction factor, free discharge
f_s	Hz	Blade passing frequency
f_η	Hz	Correction at actual efficiency
F_p	Hz	Test force
F_{perm}	Hz	Permitted dynamic drive load
I_A/I_N	-	Starting current / Full load current
I_N	A	Nominal motor current
L	mm	Length of shaft extension
L_{Mg}	mm	Measuring marks after tensioning (flat belts)
L_{Mu}	mm	Measuring marks before tensioning (flat belts)
L_T	mm	Centre distance
L_{pA}	dB	A-weighted sound pressure level
L_{pA4}	dB	A-weighted discharge - duct sound pressure level (outlet side)
L_{pA7}	dB	A-weighted casing and free inlet sound pressure level (inlet side)
L_{WA}	dB	A-weighted sound power level
L_{WA2}	dB	A-weighted casing sound power level
L_{WA3}	dB	A-weighted inlet sound power level
L_{WA4}	dB	A-weighted discharge - duct sound power level (outlet side)
L_{WA7}	dB	A-weighted casing and free inlet sound power level (inlet side)
L_{WA8}	dB	A-weighted casing and free discharge sound power level (outlet side)
L_{Wokt}	dB	Sound power level at the octave bands
L_{Wokt2}	dB	Casing sound power level at the octave bands
L_{Wokt3}	dB	Inlet and duct sound power level at the octave bands (inlet side)
L_{Wokt4}	dB	Discharge - duct sound power level at the octave bands (outlet side)
L_{Wokt7}	dB	Casing and free inlet sound power level at the octave bands (inlet side)
L_{Wokt8}	dB	Casing and free discharge sound power level at the octave bands (outlet side)
L_{Wrel}	dB	Relative sound power level
L_{Wrel2}	dB	Relative casing sound power level
L_{Wrel3}	dB	Relative inlet and duct sound power level (inlet side)
L_{Wrel4}	dB	Relative discharge - duct sound power level (outlet side)
L_{Wrel7}	dB	Relative casing and free inlet sound power level (inlet side)
L_{Wrel8}	dB	Relative casing and free discharge sound power level (outlet side)
L_{10h}	h	Nominal bearing life
m	kg	Weight
n (N)	1/min	Fan speed

Description

Symbol / Unit / Description

p_a	Pa	Atmosphere pressure
p_{d2}	Pa	Velocity pressure at discharge
P_e	kW	Power consumption
P_N	kW	Nominal motor power
$P_W (P_A)$	kW	Absorbed fan power on shaft
R_F	mm	Radius
R_F	J/kg*K	Specific gas constant
t	°C	Temperature of gas medium
t_a	°C	Ambient air temperature around
t_A	°C	Acceleration time
t_1	°C	Air temperature
T_1	°C	Thermodynamic temperature at fan inlet
u	m/s	Impeller tip speed
U	V	Voltage
$V(q_v)$	m³/h	Volume flow
V_N	m³/h	Nominal volume flow
V_{max}	m³/h	Maximal volume flow
V_{opt}	m³/h	Volume flow at optimum efficiency
X	mm	Pulley position on shaft extension relative to bearing
z	-	No. of blades
Δp	Pa	Differential pressure
Δp_{fa}	Pa	Effective pressure free discharge (static pressure)
Δp_t	Pa	Total pressure
Δp_0	Pa	Pressure difference at the inlet measuring device
ε^*	mm	Stretching value of flat belt
η_{fa}	%	Efficiency of freely out blowing fan at n_{max}
η_{tw}	%	Total efficiency at n_{max}
ρ_1	kg/m³	Density of gas medium at inlet

Important instructions

Nicotra Gebhardt smoke extract fans and components are tested to DIN EN 12 101-3.
 For every fan range a CE certificate is available with its corresponding registration number. The certificate can be read or downloaded online at www.nicotra-gebhardt.com.
 The contractor or user of smoke extraction systems has to respect the relating regulations and prescriptions specified.
 The erection, commissioning, operation, and maintenance are to be realised according to the rules specified with the manual being part of every product supply. Further more all rules and regulations corresponding to the actual "State of the art" have to become part of the action.
The certificates are exclusively valid for the fans made and completed with accessories by Nicotra Gebhardt.



Description

Gas media

Smoke extract fans are made for exhausting smoke and heat especially during the phase generation of a fire and to keep smoke free rescue ways. Further more they may reduce material damages and specially help fire fighting teams to operate under easier conditions.

Smoke extract fans also can be used for continuous ventilation. The related temperatures to every task are to be found with the table below.

Flow rates for motor cooling

Fan type	Smoke extract temperature / time °C / min.	temperature during standard ventilation °C
RDM 56-	+400 / 120	+ 80
RDM 57-	+600 / 120	+ 80
RFM 56-	+400 / 120	+ 80
RWM 57-	+600 / 120	+ 80
REM BU-	+600 / 120	+100
REM BI-	+600 / 120	+100
RER 13-	+400 / 120	+ 80
RER 17-	+400 / 120	+ 80
SLCS	+300 / 120	+ 40
AGM	+300 / 120	+ 40

Protection

If due to the manner of fan installation there are rotating parts as impeller, fan shaft, belt drive, and motor shaft freely reachable, corresponding guards acc. to DIN EN 294 have to be provided.

Guards for fan intake or discharge are available as standard accessory for every fan type.

The fan may only be put into operation if all protective parts are connected and/or installed. The protection elements have to be conforming with EN 12100-1.



RDM / RFM / RWM

These smoke extract roof and wall fans are equipped as a standard with guards at the discharge acc. to DIN EN 294. The intake is usually without guard because of ductwork to be connected.

REM / RER / SLCS

The centrifugal and axial smoke extract fans are normally supplied without a guard at intake and discharge because they usually are connected to ductwork at both ends.

Installation / Mounting



Please observe the regulations and instructions given with the operation and maintenance manual for smoke extract fans. Only by this way a conforming operation can be guaranteed.

RDM / RFM

Smoke extract roof fans are designed for being fitted to a roof upstand.

They have to be fitted horizontally, i.e. w/o inclination.

A compensation of a roof slope can be realised by using an upstand for inclined roofs. **The Nicotra Gebhardt roof extract fans are by their special design certified for heated and for unheated rooms.**

They are classified for snow load SL 1000.

RWM

Smoke extract wall fans are certified for integration into vertical external building walls.

Together with the mounting frame (accessory) the unit can easily be fitted to outside of the wall or be integrated from inside.

The classification for snow loads is SL 1000.

Description

Installation / Mounting

REM / RER

For enabling an easy installation of the fans they are equipped as a standard with either a base frame (RER) or mounting channels (REM).
The fans may only be installed in a position with horizontal motor shaft. The following handings are admitted: 0°, 90°, 180°, and 270°.

REM BU, RER non insulated

The centrifugal smoke extract fans - in non insulated execution - are certified for installation **outside of buildings** only.
It has to be provided that no precipitation will penetrate into the fan.

REM BI, RER insulated

The centrifugal smoke extract fans with insulating casing are certified for installation **inside of the building, outside of the room where the fire occurs**.
It has to be guaranteed that the surrounding temperature at the motor will not exceed +40 °C, if not sufficient fresh air has to be introduced to ensure an effective motor cooling (see chapter "Motor cooling for inside installation").
Care has to be made that no flammable or burnable materials are placed close to the fan or to the smoke extract ducts.

Please respect all regulations and instructions made with the operation and maintenance manual. Only this will guarantee a trouble free operation.

SLCS

Axial smoke extract fans are suitable for installation in horizontal or vertical shaft position.

They are certified for installation outside and inside buildings, outside and inside the room where the fire occurs.

When installing inside building but outside the fire room the fan has to be provided with an insulation.

The execution has to correspond to the insulation of fire resistant ventilation ducts class L120 to DIN 4102-44.

The fan casing must neither be modified nor provided with holes.

AGM

The jet fans are certified for horizontal installation under ceiling, inside of the room, where fire occurs.

They are provided with brackets for easy fitting.

Motors

RDM / RFM / RWM / REM / RER

The Nicotra Gebhardt smoke extract fans are equipped with IEC motors – IP55, ISO F - made by re-known manufacturers.

The motors of the RER range are equipped additionally with PTC thermistors.

For commissioning and maintenance please observe the instructions made by the motor manufacturers as well as the content of the fan manual.

SLCS / AGM

The axial smoke extract fans SLCS and the jet fan impuls fans AGM are provided with motors placed in the main air flow.

For this reason they are provided with special smoke gas motors.

Motor protection IP55, isolation class H, limited to class F for continuous ventilation operation.



Attention!

Nicotra Gebhardt smoke extract fans are tested and certified as supplied. Any modification even of the motor may not be allowed and will make the certification invalid.

Description

Motor start up

Motors of a rating of 4 kW may generally be directly started, as far as the local conditions are adapted to this.

A star/delta start or soft start of electrical motors is suitable if:

- the local energy provider is making prescriptions in this respect.
- the motor has a rating > 4 kW.

Two speed motors and frequency inverter

Smoke extract fans – being also used for continuous ventilation – are often equipped with 2-speed motors or they are speed controlled by inverter.

The lower speed is not admitted for smoke extract operation.

In the case of smoke extraction the fan have to be switch to the high speed automatically or to be connected to the mains by by-passing the inverter.

Be careful to not loose the certificate by switching to an unauthorised operational mode.



Motor protection

All installed motor protection units and/or over current or temperature limiting switches have to be by-passed in the event of smoke extraction.

In this case the fan has to connected directly to the mains without any motor protection.

Be careful to not loose the certificate by switching to an unauthorised operational mode.



Motorkühlung bei Innenaufstellung

The motors are equipped with their own ventilation, which is sufficient under normal installation conditions. When installing the fan inside building or when providing a further enclosure it has to be observed that sufficient cooling of the motor is provided in order to not exceeding +40 °C.

Flow rates for motor cooling

2-poles		4-poles		6-poles		8-poles	
Motor	Cooling flow rate m³/s	Motor	Cooling flow rate m³/s	Motor	Cooling flow rate m³/s	Motor	Cooling flow rate m³/s
80	0.029	80	0.015	80	0.010	80	0.007
90	0.052	90	0.026	90	0.018	90	0.013
100	0.066	100	0.031	100	0.021	100	0.016
112	0.083	112	0.050	112	0.033	112	0.025
132	0.134	132	0.084	132	0.056	132	0.042
		160	0.159	160	0.106	160	0.080
		180	0.180	180	0.130	180	0.090
		200	0.200	200	0.150	200	0.110
		225	0.270	225	0.210	225	0.150
		250	0.320	250	0.240	250	0.180
		280	0.390	280	0.310	280	0.230
		315	0.580	315	0.450	315	0.340

elektrischer Anschluss

Please put special attention to the cable way when connecting the fan electrically! Select the corresponding temperature class for the cable quality and its support material as the temperature class of the fan. Prefer always to conduct the cables through areas with the lowest fire hazard.

Observe the local regulations.

Every fan supply is provided with its specific wiring diagram giving you the information for a correct connection.

Connection diagrams for the fan also to be found online at www.nicotra-gebhardt.com

Please observe the corresponding instructions of the catalogue and the operation manual.

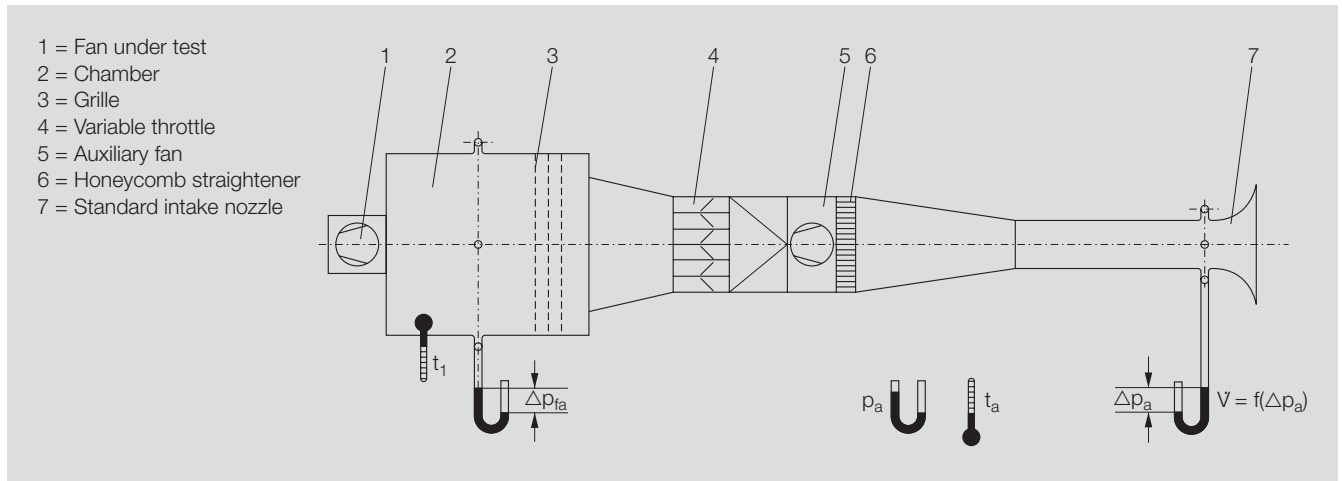
Description

Performance data

The fan curves of the Nicotra Gebhardt fans are produced with a test rig which corresponds to DIN 24 163-2 „Ventilatoren, Leistungsmessung, Normprüfstände“ and ISO 5801 „Industrial fans – Performance testing using standardised airways“.

The performance diagram for every fan shows the pressure rise in function of the flow rate. For fans being connected to a pressure duct also the dynamic pressure at discharge is indicated.

The data are established for the reference density indicated in the diagram.



- 1 = Fan under test
- 2 = Chamber
- 3 = Grille
- 4 = Variable throttle
- 5 = Auxiliary fan
- 6 = Honeycomb straightener
- 7 = Standard intake nozzle

Precision of data

Due to tolerances there is the possibility that deviations from the indicated fan curve data occur. Nicotra Gebhardt fans are classified according to DIN 24166 "Fans, Technical delivery conditions". The tolerance class for every fan range is given with the fan data.

The following deviations from catalogue data are admitted acc. to DIN 24166 for the different tolerance classes:

Operational data	Signs	Deviation in the tolerance class		
		1	2	3
Volume flow	\dot{V}	±2.5 %	±5 %	±10 %
Pressure increase	Δp	±2.5 %	±5 %	±10 %
Drive power	P	+3 %	+8 %	+16 %
Sound power level	L_{WA}	+3 dB	+4 dB	+ 6 dB

Sounds

Noise measurements and evaluation are undertaken in accordance with DIN 45635-38 "Noise Measurement of Machines".

Induct Method

The induct method is described with DIN EN ISO 5136. The sound power emitted from the fan is evaluated.

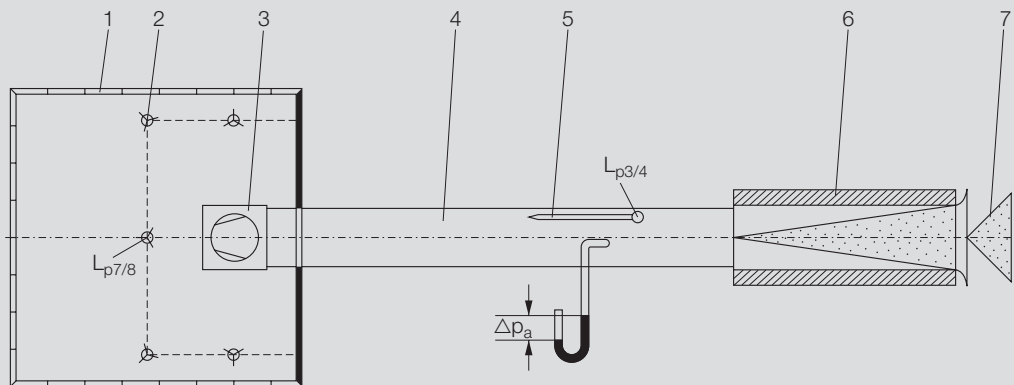
Envelope Method

The envelope method is specified with DIN 45635-1 and -38. At a fixed distance around the fan a cubic measuring level is determined on which the measuring points are placed.

Description

Sounds

- 1 = Soundabsorbing room
- 2 = Microphones for envelope-measurement
- 3 = Fan under test
- 4 = Measuring duct
- 5 = Microphone with attachment for duct measurement
- 6 = Soundabsorbing end cover
- 7 = Variable throttle

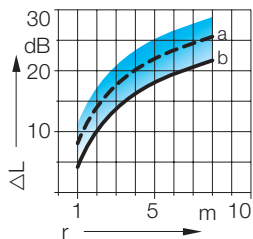
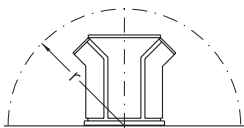


The curves and diagrams of every fan range show the A-weighted sound power levels as an emission value. (exception: Jet fan AGM).

For more refined evaluation of sound data, e.g. for possible sound attenuation, sound power data in the octave bands may be used.

The relative sound power data for intake and discharge at various duty points are available with the data tables for every fan range.

The sound power level is the specific and objective noise parameter for every machine. Only with these data sound comparisons between machines can be made. For this reason only sound power level data are shown.



Determination of the sound pressure level at the discharge of roof fans

Often the sound pressure value at a determined distance from a fan is required. In fact this value depends from surrounding conditions (reflections, absorption, sound propagation possibilities).

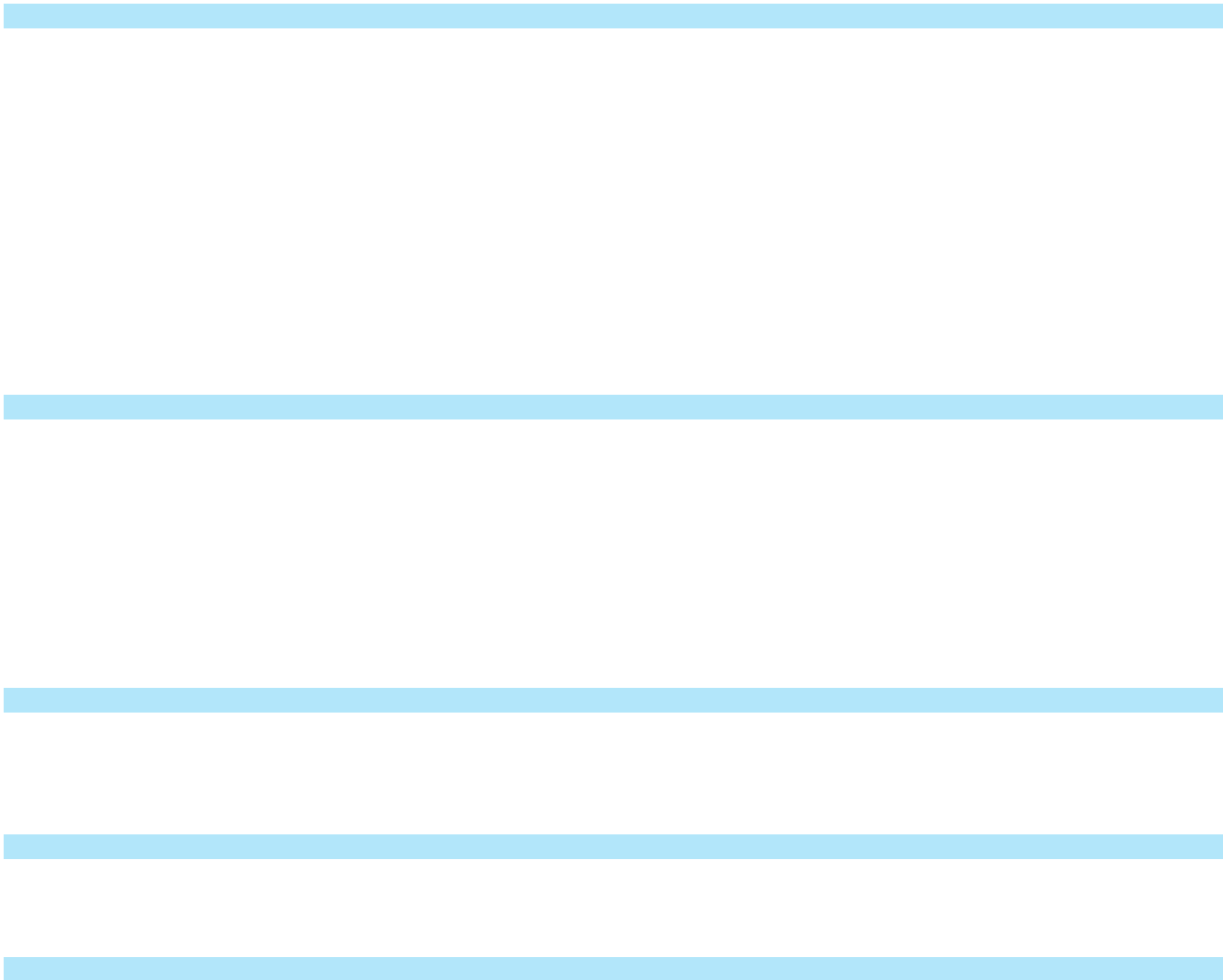
The sound pressure level at a distance of 4 meters can for instance be lower of 16 to 23 dB to the corresponding sound power level.

The A-weighted sound pressure value L_{pA} to be expected at a certain distance from the fan can be evaluated approximately with the adjacent diagram.

The diagram shows 2 curves covering the field where the relative sound power level data at various distances usually is situated. For a sound propagation in a hemisphere shape and without reflections the curve "a" can be used. For more uncertain conditions – usual in practice – the use of the curve "b" is recommended.

$$L_{pA} = L_{WA} - \Delta_L$$

The determination of the sound pressure at fan intake can only be made if the local acoustic properties are known. (see z.B. VDI-Richtlinie 2081).



motralec

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