

VORT QUADRO EVO RANGE

Residential centrifugal extractor fans

Wall, ceiling and recess mounted centrifugal extractors for ventilation of residential and commercial premises whose pan view imposes ducting of the exhaust. Designed in compliance with the German DIN 18017-3 Standard, which imposes strict fire propagation resistance requirements., They are characterised by the excellent balance between performance and consumption and for the very low noise emissions.

Key features

- Very low noise emissions, guaranteeing comfortable use
- 1, 2 or 3-speed fan motors, depending on the model, designed to combine high performance and low power consumption
- Sophisticated electronic equipment to meet a particularly wide range of application needs.
- Closed front panels that confer a modern image to the product and facilitate cleaning.
- Reduced exhaust sleeve depth, compatible with installation immediately upstream of a 90° bend.
- Decentralised exhaust which, with the 360° adjustable front panels, amplify the range of possible installations
- Protection from dust and water jets exceeds the requirements of use in Zone 1 bathroom installations.
- Modular configuration to configure the product according to requirements.
- Dishwasher-safe filters.
- TUV certified sealed non-return valves that prevent unwanted inflows of air and bad odours when the device is switched off.
- TUM certified fire propagation resistance (K90 valves and K90 recessed boxes)

Version

23 models, different due to performance and supplies, also available in versions with timer, with advanced timer, with advanced timer coupled with the relative humidity sensor and with presence sensor. The modular design of this range also allows a very large amount of different product combinations to be achieved by suitably combining the 23 alternative fan motor groups and the 10 different containment casings offered separately, in a way to meet a particularly wide range of application requirements.



VENTILATION UNITS:

23 models different for electronic Suite (5) and level of performance (5)



CASINGS EXTERNAL/RECESSED MOUNTINGS:

10 casings, different for installation and fire protection grade

Technical features

Fan Motor units composed of:

- 1, 2 or 3 speed heat-protected motor, depending on the model, with shafts mounted on ball bearings to guarantee long lasting (at least 30,000 h) continuous service at the maximum plate temperature.
- Forward-curved centrifugal impeller, in plastic resin (PBT) which combines high rigidity and dimensional stability with great resistance to aggressive chemical agents. Its high efficiency, resulting from accurate aerodynamics studies, along with the scroll that encloses it, guarantees high pressure levels at a wide range of air flows supplied.
- Scroll, including the circuit board housing in self-extinguishing (VO)ABS.
- Aesthetic front panel in self-extinguishing (VO)ABS, which confers a modern image to the product and facilitates cleaning. The hinge that fastens it to the underlying motor-holder, allows a wide angle of rotation to facilitate the periodic cleaning interventions.
- Motor-holder in ABS.
- Filter support in ABS.
- Air filter, including a saturated filter warning device.
- Control electronics.

The wall and recess version boxes include outlet spigot with nominal diameter 80 mm, complete with sealed non-return valve (compliance with DIN 18017-3 Standard certified by TUV). Every recessed box is complete with relevant frame, which prevents the entry of dirt or plaster during installation. The VORT QUADRO EVO range envisions:

- Boxes for standard external (wall or ceiling) and recessed installation, without specific fire resistance requirements. The recessed boxes are set-up for connection to a vent that allows extraction from a second adjacent room.
- Boxes for external (wall or ceiling) and recessed installation equipped with class K90 fire shutter, certified by the German TUM body in compliance with reg. DIN 18017-3. These components, intended for installation outside the ventilation duct, are expressly designed to prevent the propagation of fire to other apartments in the building through the shared exhaust duct, if there is a fire in the serviced room.
- Recessed boxes, certified by the German TUM body in compliance with reg. DIN 18017-3, characterised by class K90 refractory, fire-proof casing and equipped with class K90 fire shutter. These components, intended for installation inside the ventilation duct, are expressly designed to prevent the propagation of fire to other apartments in the building through the shared exhaust duct, if there is a fire in the serviced room.
 - Safety certified by IMQ
 - Performance and sealing of the non-return valves tested by TUV
 - Fire resistance of the valves K90 and the casings K90 certified by TUM
 - Protection rating from dust and water: IP45
 - Class of electric isolation: II □ (earthing not required).



Excellent sealing of backdraught shutter (TÜV Certified), to prevent the risk of bad smells and cold air diffusion when the product is switched off.





ALTERNATIVE OPERATING MODES

The VORT QUADRO EVO range offers a wide range of functional alternatives, depending on the degree of sophistication of the electronics used; select the most suitable for the specific requirements, in particular:

Base versions

- Switch product on/off using an external switch, which may coincide with the light switch.
- The change in performance (in the case of multi-speed products), is made using the external switch.
- In the case of multi-speed devices, on installation, it is also possible to have continuous product operation at minimum speed (Continuous Ventilation of the serviced room), boosting it to a higher speed by the activation of the external switch (Boost function).

Timer versions

- The fan is started/stopped using the external switch coinciding with the light control of the serviced room; on installation, the control electronics allow programming of delayed fan start/stop with respect to switch-on/switch-off the light; they can be respectively set at 0 or 45 seconds and between 0 and 20 minutes.
- The change in performance (in the case of multi-speed products), is made using the external switch.
- In the case of multi-speed devices, on installation, it is also possible to have continuous product operation at minimum speed (Continuous Ventilation of the serviced room), boosting it to a higher speed by switch-on/off of the light switch (Boost function), without jeopardising the possibility to set, on installation, the delays described in the previous point.

Advanced timer version (TP)

- The fan is started/stopped using the external switch coinciding with the light control of the serviced room; on installation, the control electronics allow programming of a delayed appliance start/stop with respect to switch-on/switch-off the light; they can be respectively set at 0, 45, 90 or 120 seconds and between 6, 10, 15 or 21 minutes.
- In the case of multi-speed devices, on installation, it is also possible to have continuous product operation at minimum speed (Continuous Ventilation of the serviced room), boosting it to a higher speed by switch-on/off of the light switch (Boost function), without jeopardising the possibility to set, on installation, the delays described in the previous point.
- Alternatively, in multi-speed models, it is possible upon installation to set device start at min speed immediately after the light is switched-on (COMFORT function) and automatic switch-over at max speed when the light is switched-off and, finally, shut-down after 6, 10, 15 or 21 minutes.
- Finally, to ensure correct ventilation of the serviced room even in the event of prolonged periods of non-use (HOLIDAY function), it is possible to program periodic every 8, 12 or 24 h product start up cycles at durations that can be set at 6, 10, 15 or 21 minutes.

Advanced timer + Relative Humidity sensor versions (TP + HCS)

- Advanced timer mode: the fan is started/stopped using the external light switch of the environment; on installation, the control electronics allow programming of a delayed appliance start/stop with respect to switch-on/switch-off the light; they can be respectively set at 0, 45, 90 or 120 seconds and between 6, 10, 15 or 21 minutes.
- HCS mode: product start/stop depends on the degree of relative humidity (RH) detected by the HCS sensor (Humidity Control System) integrated into the control electronics, which operates according to two distinct criteria, to ensure the best environmental conditions in the premises:
 - Exceeding the threshold: the product starts automatically when the RH threshold is exceeded; it can be set on installation at 60%, 70%, 80% or 90%. It stops automatically when the RH drops 15% below the threshold pre-set or after 2 hours of uninterrupted operation.
 - Quick increase of the level of RH: the product starts automatically as a result of a sudden RH increase (> 20% in 10 minutes), stopping immediately when the RH falls below 15% of the initial value or after 2 hours of uninterrupted operation.

Connection to external control is also envisioned to make fan operation independent from the RH concentration (e.g. to prevent undesired switch-on in the presence of particularly high outdoor air RH levels).

In the case of multi-speed appliances, on installation, it is also possible to have continuous product operation at minimum speed (Continuous Ventilation of the serviced room), boosting it to a higher speed by the switch-on/off of the light switch, i.e. the readings of the RH sensor (Boost function), without jeopardising the setting alternatives described above.

Timer + presence sensor version (T + PIR)

- The fan starts immediately when the IR ray presence sensor (PIR - Passive Infra Red) detects occupants in the room. It stops with a delay between 0' and 20', which is set at switch-on, after the occupants have left the room.
- In the case of multi-speed appliances, on installation, it is also possible to have continuous product operation at minimum speed (continuous ventilation of the serviced room), boosting it to a higher speed by the activation of occupants presence detection (Boost function), without jeopardising the possibility to set the switch-off delay on installation, described in the previous point.



TECHNICAL DATA

Referred to Max, Mid, Min speed when available

MODELS	CODE	V~50HZ	W min/med/ max	A min/med/ max	RPM min/med/ max	MAX AIRFLOW		MAX PRESSURE		MAX °C*	KG
						m³/h min/med/max	l/s min/med/max	mmH ₂ O min/med/max	Pa min/med/max		
QE 60 LL	11521										
QE 60 LL T	11526										
QE 60 LL TP	11532	220 - 240	16	0.14	1170	60	16.7	35	343	50	2.33
QE 60 LL TP HCS	11537										
QE 60 LL T PIR	11544										
QE 60/35 LL	11523										
QE 60/35 LL T	11528										
QE 60/35 LL TP	11534	220 - 240	9 16	0.11 0.14	855 1170	35 60	9.7 16.7	10 35	98 343	50	2.33
QE 60/35 LL TP HCS	11541										
QE 60/35 LL T PIR	11546										
QE 100 LL	11522										
QE 100 LL T	11527										
QE 100 LL TP	11533	220 - 240	26	0.17	1570	100	27.8	36	353	50	2.33
QE 100 LL TP HCS	11538										
QE 100 LL T PIR	11545										
QE 100/60 LL	11524										
QE 100/60 LL T	11531										
QE 100/60 LL TP	11535	220 - 240	16 26	0.14 0.17	1170 1570	60 100	16.7 27.8	35 36	343 353	50	2.33
QE 100/60 LL TP HCS	11542										
QE 100/60 LL T PIR	11547										
QE 100/60/35 LL	11525										
QE 100/60/35 LL TP	11536	220 - 240	9 16 26 9	0.11 0.14 0.17	855 1170 1570	35 60 100	9.7 16.7 27.8	10 35 36	98 343 353	50	2.33
QE 100/60/35 LL TP HCS	11543										

SOUNDS LEVES

SOUND POWER
L_wA

Airflow m³/h	WALL MOUNTING			Airflow m³/h	RECESSED MOUNTING		
	100	60	35		100	60	35
dB(A)	50.5	43.7	33.7	dB(A)	50.2	42	32.7

SOUND PRESSURE*
L_p dB(A) 2m

Airflow m³/h	WAL MOUNTING			Airflow m³/h	INSTALLAZIONE A INCASSO		
	100	60	35		100	60	35
dB(A)	39.0	32.2	22.2	dB(A)	38.7	30.5	21.2



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CASING

Casings integrate a nominal 80 mm diameter spigot and a backdraught shutter. Casings are also provided with a frame to prevent entry of dirt and plaster.


BASIC FOR INSTALLATION ON WALLS AND CEILINGS

	CODE	MODEL	DESCRIPTION
	11561	QE - B M	Basic encasement for surface (wall/ceiling) installation, made of ABS plastic. Spigot made of ABS plastic, integrating the backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute.


BASIC FOR INSTALLATION ON WALLS AND CEILINGS WITH FIREPROOF (CLASS K90), BACKDRAUGHT SHUTTER

	CODE	MODEL	DESCRIPTION
	11563	QE - B M VK90	Basic encasement for surface (wall/ceiling) installation, made of ABS plastic. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute.

BASIC FOR RECESSED INSTALLATION







	CODE	MODEL	DESCRIPTION
	11560	QE - B I	Basic encasement for recessed installation, made of ABS plastic. Spigot made of ABS plastic, integrating the backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute. Square frame to prevent entry of dirt and plaster. Port to connect a spigot (QE-AD cod. 21118, available as accessory) to extract air from a second room. Possibility of drywall installation.

BASIC FOR RECESSED INSTALLATION WITH FIREPROOF CLASS K 90, BACKDRAUGHT SHUTTER

	CODE	MODEL	DESCRIPTION
	11562	QE - B I VK90	Basic encasement for recessed installation, made of ABS plastic. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute. Square frame to prevent entry of dirt and plaster. Port to connect a spigot (QE-AD cod. 21118, available as accessory) to extract air from a second room. Possibility of drywall installation.

RECESSED MOUNTINGS

RECESSED INSTALLATION FIREPROOF ENCASEMENT K 90, WITH FIREPROOF CLASS K 90 BACKDRAUGHT SHUTTER

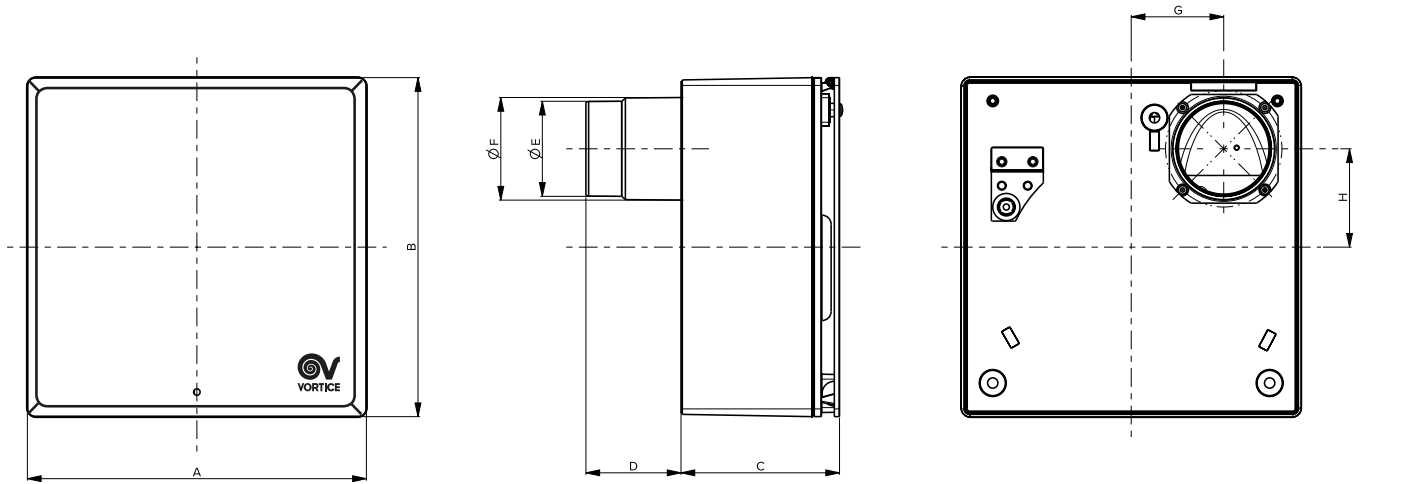
	CODE	MODELS	DESCRIPTION
	11564	QE - B I K90 R	Fireproof K90 casing for recessed installation and rear discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster.
	11565	QE - B I K90 S	Fireproof K90 casing for recessed installation and side discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster.
	11566	QE - B I K90 R 2R	Fireproof K90 casing for recessed installation and rear discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster. Stainless steel spigot, on the right side, able to extract air from a second room.
	11567	QE - B I K90 R 2L	Fireproof K90 casing for recessed installation and rear discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster. Stainless steel spigot, on the left side, able to extract air from a second room.
	11568	QE - B I K90 S 2R	Fireproof K90 casing for recessed installation and side discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster. Stainless steel spigot, on the right side, able to extract air from a second room.
	11569	QE - B I K90 S 2L	Fireproof K90 casing for recessed installation and side discharge. Stainless steel spigot, integrating the K90 fireproof valve, TUM certified according to DIN 18017-3. Backdraught shutter compliant with DIN 18017-3, as certified by TUV German Institute. Spigot nominal diameter: 80 mm. Square frame to prevent entry of dirt and plaster. Stainless steel spigot, on the left side, able to extract air from a second room.



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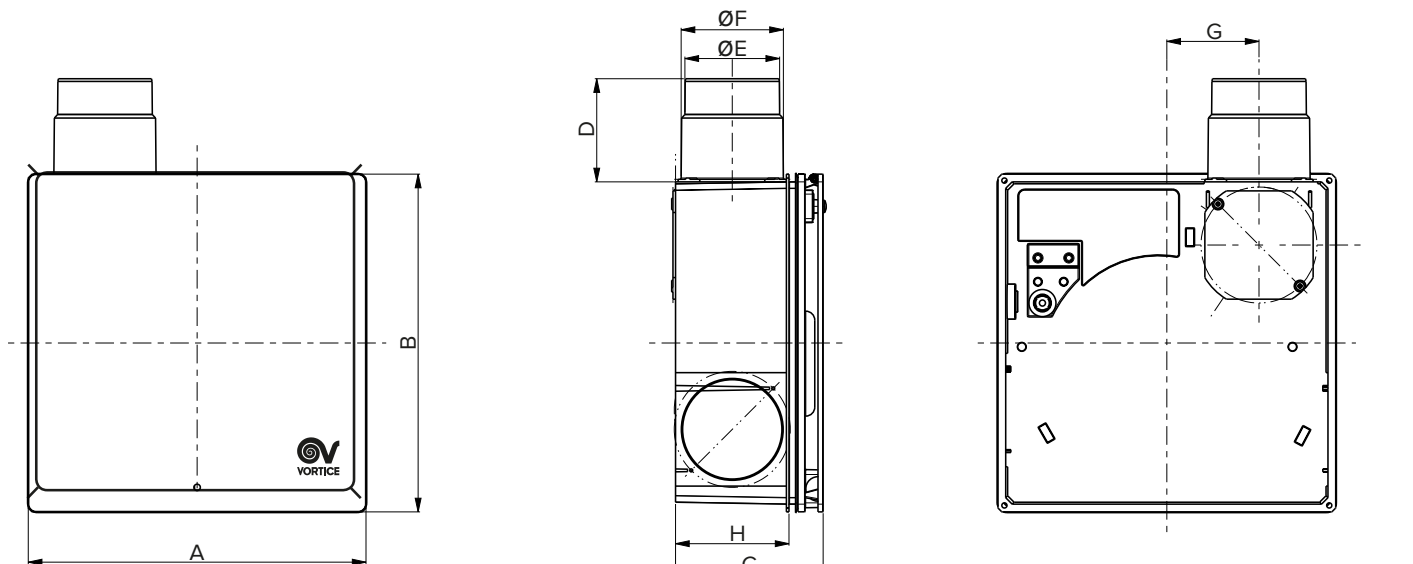
DIMENSIONS



SURFACE MOUNTED VERSION

A	B	C	D	ØE	ØF	G	H
262	262	111,5	80	73	79	71,5	90

Dimensions (mm)



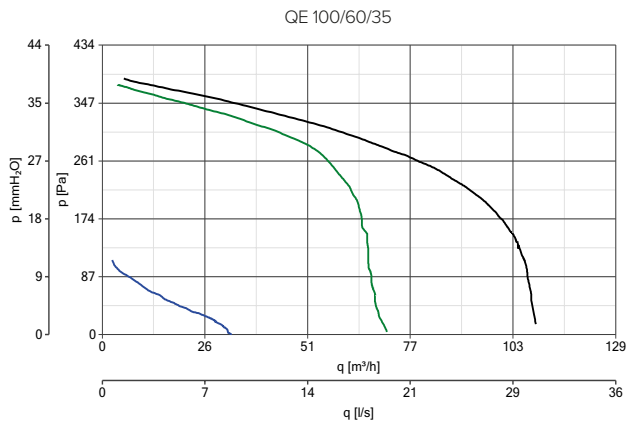
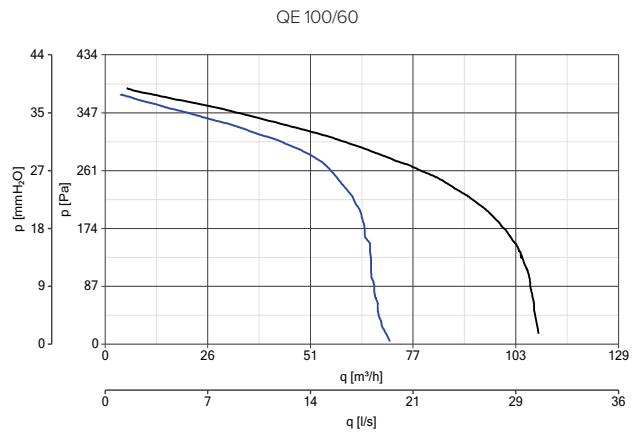
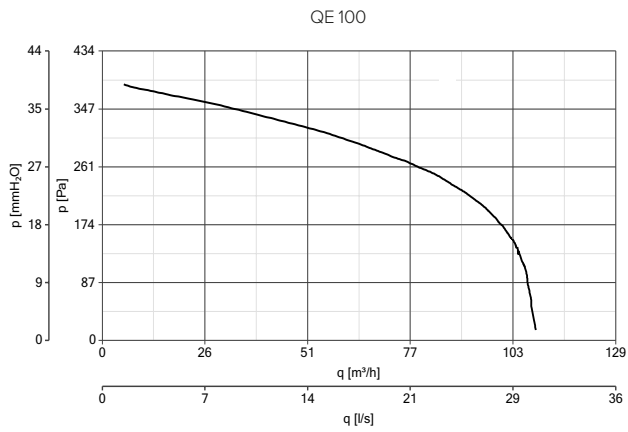
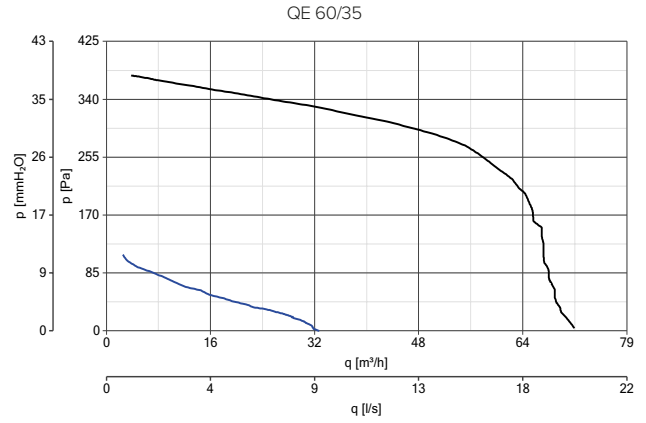
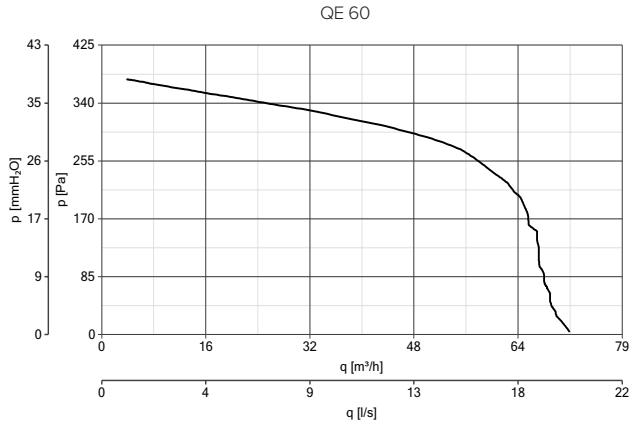
RECESSED VERSION

A	B	C	D	ØE	ØF	G	H
262	262	115,5	80	73	79	71,5	90

Dimensions (mm)



PERFORMANCE CURVES






— MAX speed
— MID speed
— MIN speed













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CONTROLLER

MODELS	DESCRIPTION	CODE	PRODUCT
	3SS - D - 2 - 3 speeds switch for flush mounted installation, in a DIN Standard box	21132	11560 - 11561 - 11562 - 11563
	2SS - I - 2 speeds switch for flush mounted installation, in a UNI 503 Standard box	21133	11560 - 11561 - 11562 - 11563
	3SS - I - 3 speeds switch for flush mounted installation, in a UNI 503 Standard box	21134	11560 - 11561 - 11562 - 11563

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT
	QE - MH - Mounting holder for flush mounting in plasterboard systems	24127	11560 - 11562
	QE - TEK - Toilet extraction kit for WC	24128	11560 - 11562
	QE - UMB - Universal bracket for flush mounting in duct systems and false ceilings also for fireproof K90 casings	24094	11560 - 11562
	QE - SRK - Second room kit (including second room spigot)	24129	11560 - 11562
	QE FBA - Plasterboard adapter	24183	11560 - 11562
	QE - AD - Second room spigot	21118	11560 - 11562
	QE - CFR - Plasterboard cover	24229	11560 - 11562
	QE - SPF - Space frame	21101	11560 - 11562
	SWAG - White door grille	21119	11560 - 11561 - 11562 - 11563
	SABG - Brown door grille	21120	11560 - 11561 - 11562 - 11563

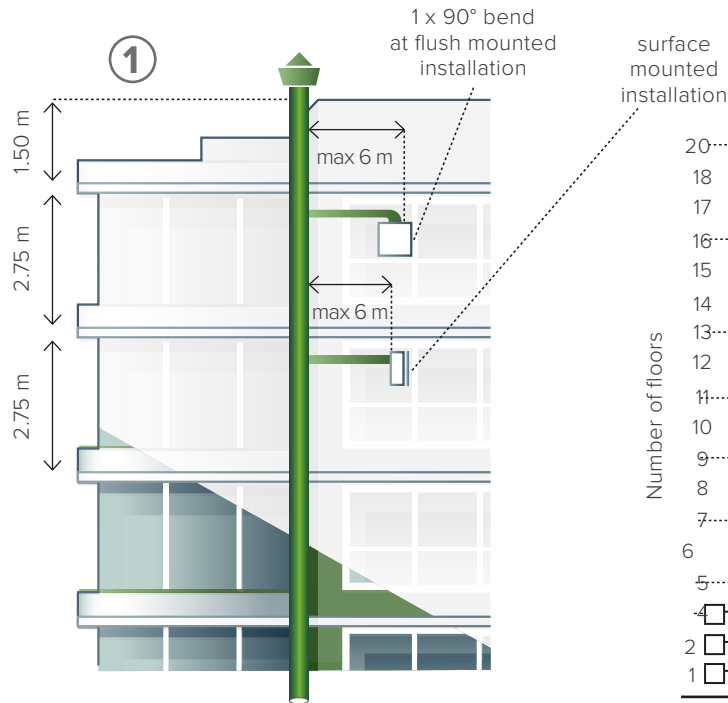
ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT	
	AVR - Fire dumper	AVR 100 mm	21121	11560 - 11561 - 11562 - 11563
		AVR 125 mm	21122	11560 - 11561 - 11562 - 11563
		AVR 140 mm	21123	11560 - 11561 - 11562 - 11563
		AVR 160 mm	21124	11560 - 11561 - 11562 - 11563
		AVR 180 mm	21125	11560 - 11561 - 11562 - 11563
		AVR 200 mm	21126	11560 - 11561 - 11562 - 11563
	MDV 100 - Manual air supply valve for 100 mm duct		21127	11560 - 11561 - 11562 - 11563
	ADV 100 - Automatic air supply valve for 100 mm duct		21128	11560 - 11561 - 11562 - 11563
	MSDV 100 - Manual air supply valve for 100 mm duct, with sound insulation		21129	11560 - 11561 - 11562 - 11563
	ASDV 100 - Automatic air supply valve for 100 mm duct, with sound insulation		21130	11560 - 11561 - 11562 - 11563

APPLICATIONS

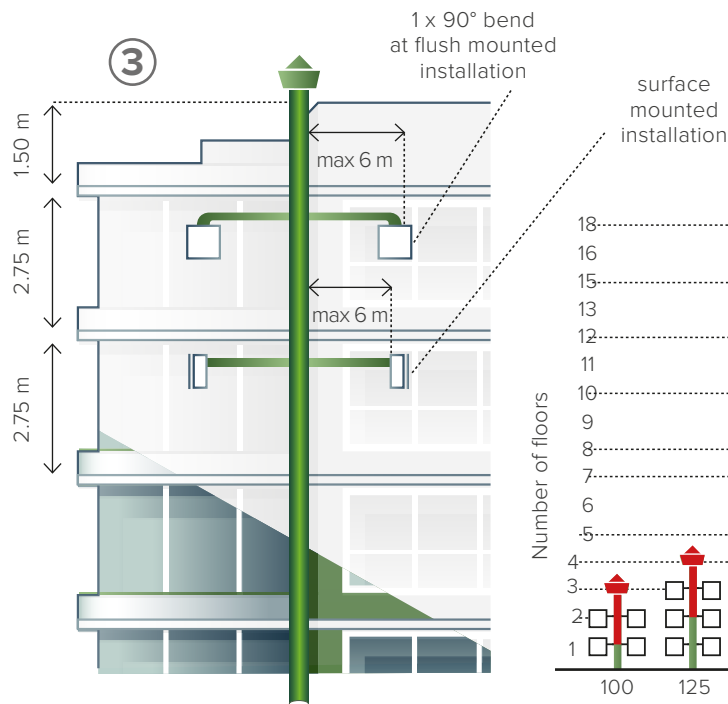
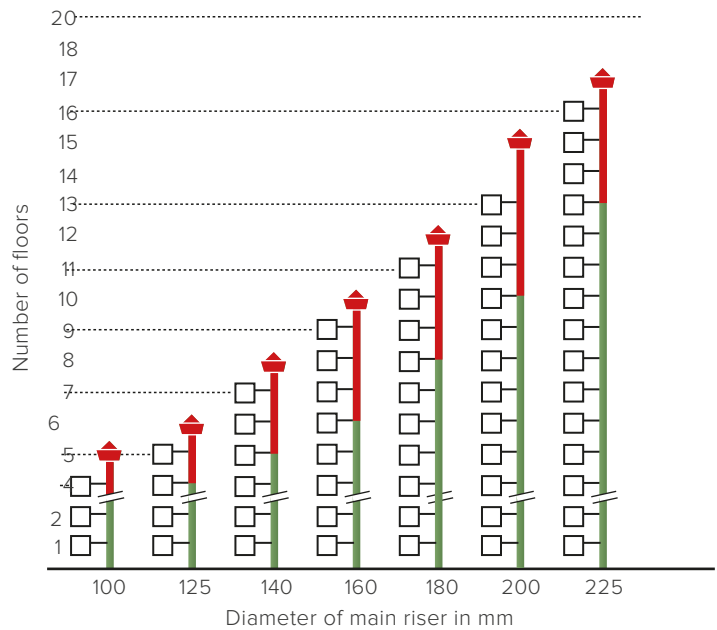


60 m³/h BATHROOM OR TOILETS



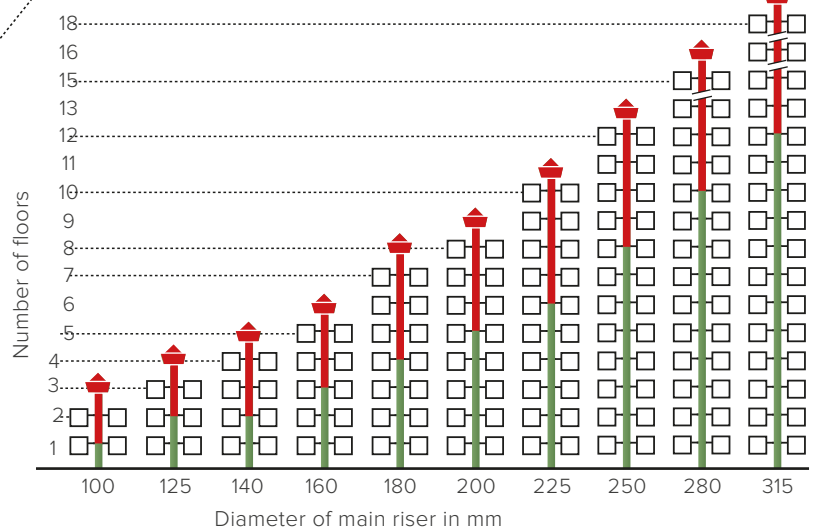
INSTALLATION OF 1 UNIT PER FLOOR

With 60 m³/h designed air flow volume and operation of all units at the same time.



INSTALLATION OF 2 UNITS PER FLOOR

With 60 m³/h designed air flow volume and operation of all units at the same time.



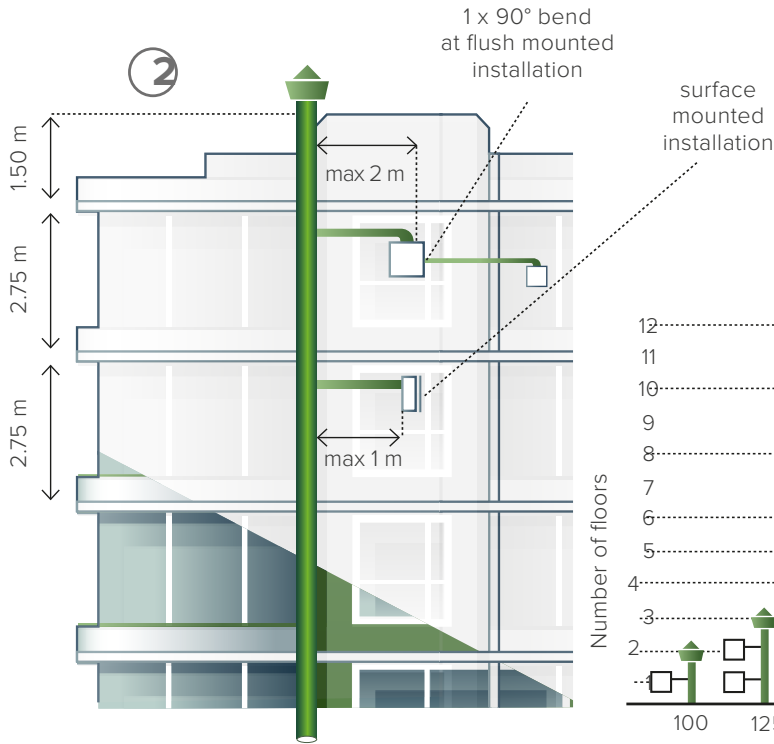
Reference room height 2.75 m; straight ducting without bends; ducting length max. 1.5 m from last unit to air extract above the roof max pressure loss between ventilated room and exhaust opening 60 Pa. The required main riser diameter can be read from above diagram. Data valid for operated at nominal air flow volumes of 60 or 100 m³/h per unit and all units operated at the same time. Copies of approvals are available on request.

▲ These number of floors are outside of comfort range, therefore non recommendable.

Example 1
Type of room: bathroom/toilet
V = 60 m³/h

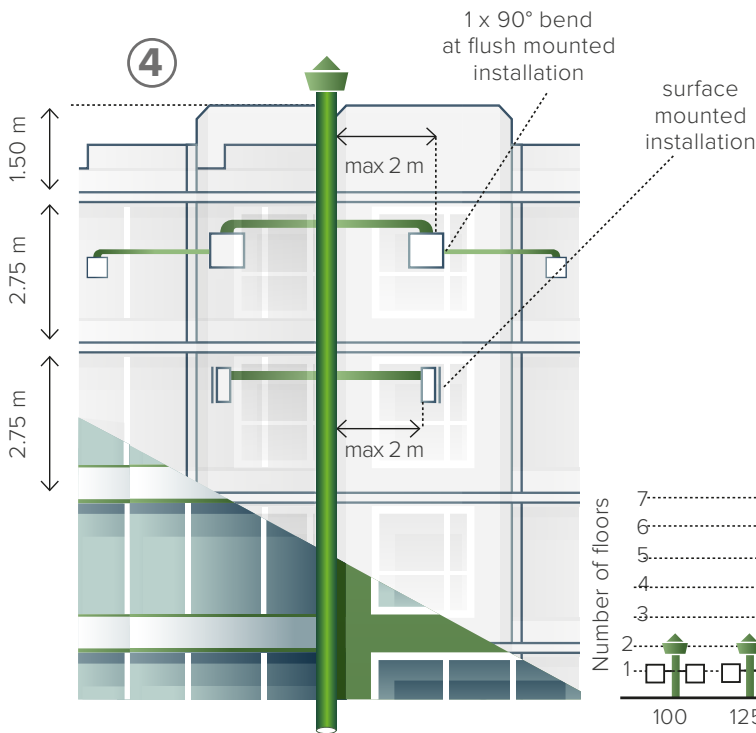
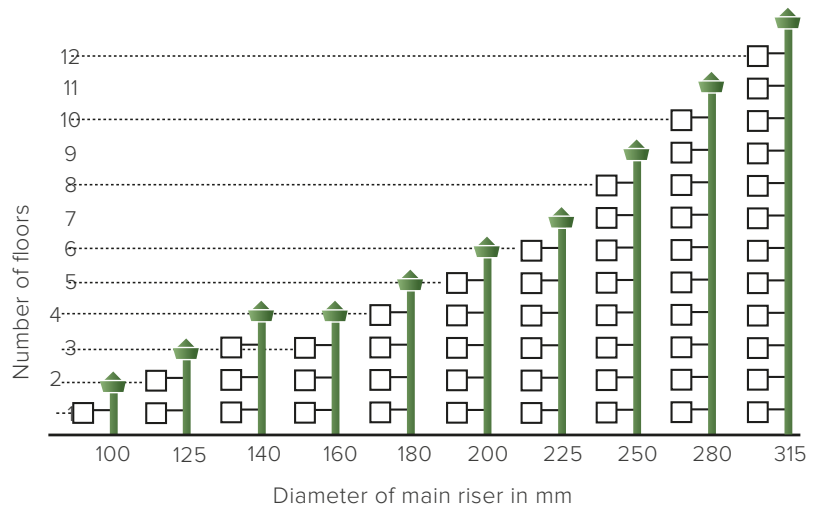
Units per floor: 1
Floor levels: 5
Main riser diameter: 125 mm

100 m³/h ONE AND TWO ROOM VENTILATION



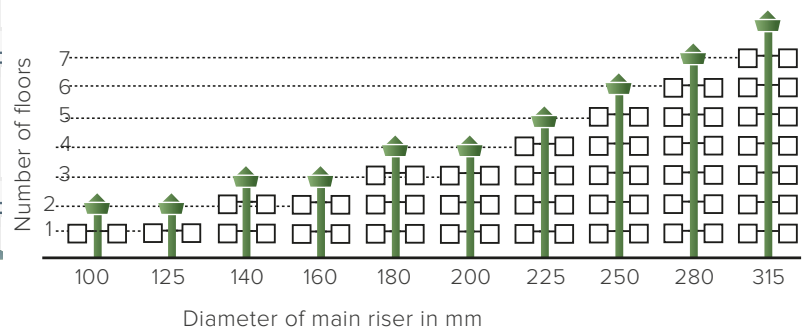
INSTALLATION OF 1 UNIT PER FLOOR

With 100 m³/h designed air flow volume and operation of all units at the same time. (Volume e.g. = 100 m³/h. Second room ventilation with one unit = bathroom 60 m³/h, toilet 35 m³/h)



INSTALLATION OF 2 UNITS PER FLOOR

With 100 m³/h designed air flow volume and operation of all units at the same time. (Volume e.g. = 100 m³/h. Second room ventilation with one unit = bathroom 60 m³/h, toilet 35 m³/h)



Example 2

Type of room: bathroom + toilet (2 rooms) or kitchen
 V = 100 m³/h (bathroom 60 m³/h and toilet 35 m³/h)

Units per floor: 2
 Floor levels: 3
 Main riser diameter: 180 mm