





VORTICE S.p.A. is now part of a multinational group, the VORTICE GROUP, which operates through its own companies or local distributors in over 90 countries worldwide and has a rich product portfolio that guarantees air quality and climate comfort. The headquarters of VORTICE S.p.A are in Tribiano (Milan).

[3]

The VORTICE GROUP also includes:

[4]

#### 1]

VORTICE LIMITED, English branch of VORTICE S.p.A established in 1977 and based in Burton on

#### [2]

VORTICE INDUSTRIAL, born from the acquisition ir 2010 of Loran srl, based in Isola della Scala (VR).

#### [3]

VORTICE Ventilation System, a company inaugurated in 2013 with headquarters in Changzhou, China.

[1]

[5]

[2]

#### [4]

**VORTICE Latam**, based in Alajuela in Costa Rica, established in 2012.

#### 5]

CASALS VENTILACIÓN AIR INDUSTRIAL S.L, a historic Spanish brand, based in Sant Joan de les Abadesses, Girona, acquired in 2019.



# INDEX

# 04 **VORT QUADRO EVO RANGE** Residential centrifugal extractor fans

- 06 PRODUCT SPECIFICATIONS
- 08 RANGE
- 09 VENTILATION UNITS
- 11 CASING

- 12 RECESSED MOUNTINGS
- 15 TECHNICAL DATA
- 16 DIMENSIONS
- 17 PERFORMANCE CURVES
- 18 ACCESSORIES
- 20 APPLICATIONS



Residential centrifugal extractor fans

Suitable for wall/ceiling mounting or recessed installation; performance and fire resistance according to DIN 18017-3 standard. Ultra low noise levels perfectly compatible with night operation. High degree of protection (IP45), allowing safe installation in Zone 1 of bathrooms. Modular design: basic units can be combined to match a wide range of installation needs. High aeraulic efficiency, granting full compliance with Erp Reg. n° 1253/2014, 2<sup>nd</sup> Tier.









Residential centrifugal extractor fans

# **PRODUCT SPECIFICATION**

- AC motor, shaft on ball bearings, granting continuous operation at least than 40.000 hours at max rated temperature.
- Forward curved centrifugal impeller, PBT made, granting high rigidity, dimensional stability and great resistance to aggressive chemical agents. Its high efficiency, resulting from accurate aerodynamics studies, grant high pressure levels at nominal airflows.
- Scroll, comprehending the electronic cardboard housing, made of self-extinguishing (V0) ABS.
- Aesthetic front panel, made of self-extinguishing (V0) ABS; peri meter extraction two A hinges allow a wide rotati on angle for easy filter maintenance.
- Motor housing and filter frame made of ABS plastic.
- Safety certified by IMQ
- Perfomance and backdraught shutter compliant with DIN 18017-3, as certified by TÜV German Institute
- K90 fireproof casings and K90 fireproof valves, certified by TUM according to DIN 18017-3
- G2 filter, with clogged filter alarm, according to Erp. Reg. N° 1253/2014/Eu , 2nd Tier.





#### **PRODUCT SPECIFICATION**

### CASINGS

- 10 alternative casings, different for installation and fire protection.
- Integrated spigot (nominal diameters 80 mm) and a backdraught shutter.
- Frame to prevent entry of dirt and plaster at installation supplied with the product.





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Residential centrifugal extractor fans

#### RANGE

Modular concept allows to freely complete ventilation units and casing to match different needs. Vort Quadro Evo Range consists of 23 ventilation units, different for performances and features, and 10 casing, suitable for wall ceiling and flush mounting. Alternative levels of fire protection available.



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

#### **VENTILATION UNITS**

Consisting of motorfan, scroll, filter, filter frame, electronics and front panel.

#### **BASIC VERSION**

- On/off switching through a dedicated remote switch or light switch off.
- Different (60 m³/h or 100 m³/h) levels of max performance.
- Multi-Speed versions available; desired speed selectable through a remote switch. Possibility to operate 24/7 the unit of minimum speed (Continuous Ventilation), boosting it to maximum speed through remote switch.

	CODE	MODELS	DESCRIPTION	
	11521	QE 60 LL	1 speed air volume 60 m³/h	
	11523	QE 60/35 LL	2 speeds air volumes 60/35 m³/h	
C.	11522	QE 100 LL	1 speed air volume 100 m³/h	
	11524	QE 100/60 LL	2 speeds air volumes 100/60 m³/h	
	11525	QE 100/60/35 LL	3 speeds air volumes 100/60/35 m³/h	



#### **VENTILATION UNITS**

#### **TIMER VERSION (T)**

Same as Basic Verions, but with a Timer for delayed switch on/off. Switch or delay can be set at installation between 0-45". Switch off delay between 0-20'.

CODE	MODELS	DESCRIPTION
11526	QE 60 LL T	1 speed air volume 60 m³/h and timer
11528	QE 60/35 LL T	2 speeds air volumes $60/35 \text{ m}^3/\text{h}$ and timer
 11527	QE 100 LL T	1 speed air volumes 100 m³/h and timer
11531	QE 100/60 LL T	2 speeds air volumes 100/60 m³/h and timer

#### **TIMER PRO VERSION (TP)**

Same as Timer Version, but:

- Switch-on delay can be set at installation 0, 45", 90" or 120", switch-off delay at 6', 10', 15' or 21'.
- In multiple speed models, it is possible at installation (Comfort Mode) to set their start at max speed when the light is switched-on, their switch at max speed when the light is switched-off and finally their stop after 6', 10', 15' or 21'.
- To ensure a proper ventilation of the room, even for extended inactivity periods, is possible to set (Holiday Mode), every 8, 12 or 24 hours, a periodic operation cycle (duration settable to 6', 10', 15' or 21 minutes).

	CODE	MODELS	DESCRIPTION
	11532	QE 60 LL TP	1 speed with air volume 60 m³/h and timer pro
	11534	QE 60/35 LL TP	2 speeds air volumes 60/35 m³/h and timer pro
1	11533	QE 100 LL TP	1 speed air volume 100 m³/h and timer pro
	11535	QE 100/60 LL TP	2 speeds air volumes 100/60 m³/h and timer pro
	11536	QE 100/60/35 LL TP	3 speeds air volumes 100/60/35 m³/h and timer pro

#### TIMER + PIR SENSOR (T PIR)

- The fan immediately starts when the PIR (Passive Infra Red) detects occupants; after the room has been left, the product stops to run with a delay between 0 and 20".
- In case of multiple speed models it possible to set, at installation, the continuous operation at minimum speed (Continuous Ventilation), automatically boosting the fan to higher speed through the PIR sensor.

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CODE	MODELS	DESCRIPTION
11544	QE 60 LL T PIR	1 speed air volume 60 m³/h timer and PIR sensor
11546	QE 60/35 LL T PIR	2 speeds air volumes 60/35 m³/h timer and PIR sensor
11545	QE 100 LL T PIR	1 speed air volume 100 m³/h timer and PIR sensor
11547	QE 100/60 LL T PIR	2 speeds air volumes 100/60 m³/h timer and PIR sensor



Residential centrifugal extractor fans

### **VENTILATION UNITS**

### TIMER EVO + HCS SENSOR (TP HCS)

- Timer EVO mode: the on/off switching realized through the light switch; the on-board electronics allows to set at installation, the start/stop delay when the product is switched on/off (delays can be set at 0, 45", 90" or 120" and at 6', 10', 15' or 21').
- HCS mode: the on/off switching is realized according to ambient relative humidity (RH) detected by the HCS sensor (Humidity Control System) integrated in the on-board electronics. The system operates with three different modes, to ensure the best environmental conditions:
  - The product starts to run when RH the pre-set according to exceeds a threshold, adjustable at installation at 60%, 70%, 80%, 90% (70% is the factory setting). The fan stops when the RH falls 15% below the pre-set value or after two hours of continuous running.
  - The product automatically starts as a result of a sudden RH increase (> 20% in 10 minutes), and immediately stops air when the RH falls 15% below the pre-set limit or after two hours of continuous running.
  - The fan is controlled through a remote switch, independently from the RH detected (E.g. to avoid its switch-on when the outdoor humidity is too high).

	CODE	MODELS	DESCRIPTION
	11537	QE 60 LL TP HCS	1 speed air volume 60 $m^3/h$ timer pro and humidity sensor
	11541	QE 60/35 LL TP HCS	2 speeds air volumes 60/35 m³/h timer pro and humidity sensor
C.	11538	QE 100 LL TP HCS	1 speed air volume 100 m³/h timer pro and humidity sensor.
	11542	QE 100/60 LL TP HCS	2 speeds air volumes 100/60 m³/h timer plus and humidity sensor
	11543	QE 100/60/35 LL TP HCS	3 speeds with air volume 100/60/35 m³/h timer plus and humidity sensor



Forward curved centrifugal impeller, PBT made, granting high rigidity, dimensional stability and great resistance to aggressive chemical agents. Its high efficiency, resulting from accurate aerodynamics studies, assures high pressure levels in a wide range of airflows.





#### CASINGS -

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
K 90			DIN 18017-3, as certified by TUV German Institute.

### BASIC FOR RECESSED INSTALLATION

#111	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

A	CODE	MODEL	DESCRIPTION
			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,
K 90	11562	QE - B I VK90	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.



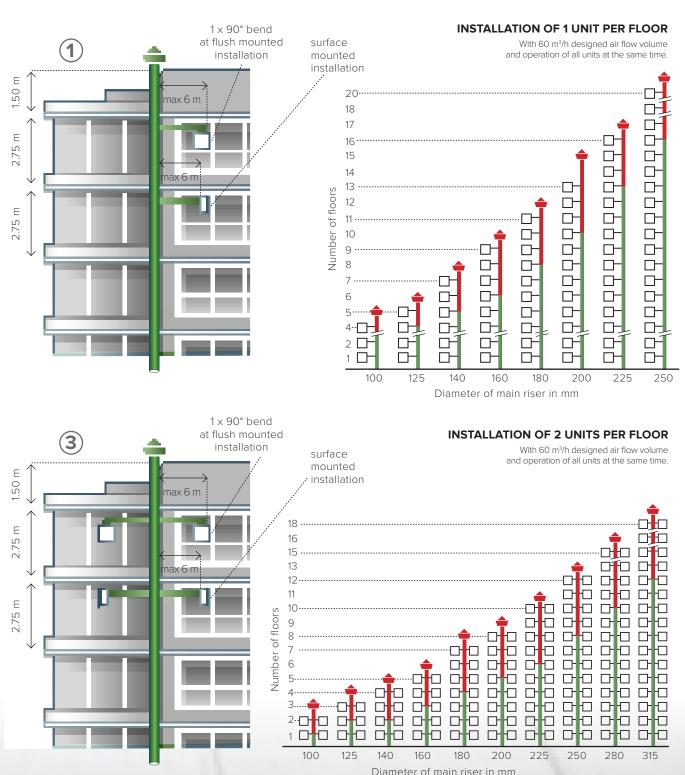
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# RECESSED MOUNTINGS

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

	CODE	MODELS	DESCRIPTION
K 90	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.
K 90	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.
K 90	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.
K 90	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.
K 90	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.





#### 60 m<sup>3</sup>/h BATHROOM OR TOILETS

Reference room height 2.75 m; straight ducting without bends; ducting lenght 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 m<sup>3</sup>/h per unit and all units operated at the same time. Copies of approvals are available on request.

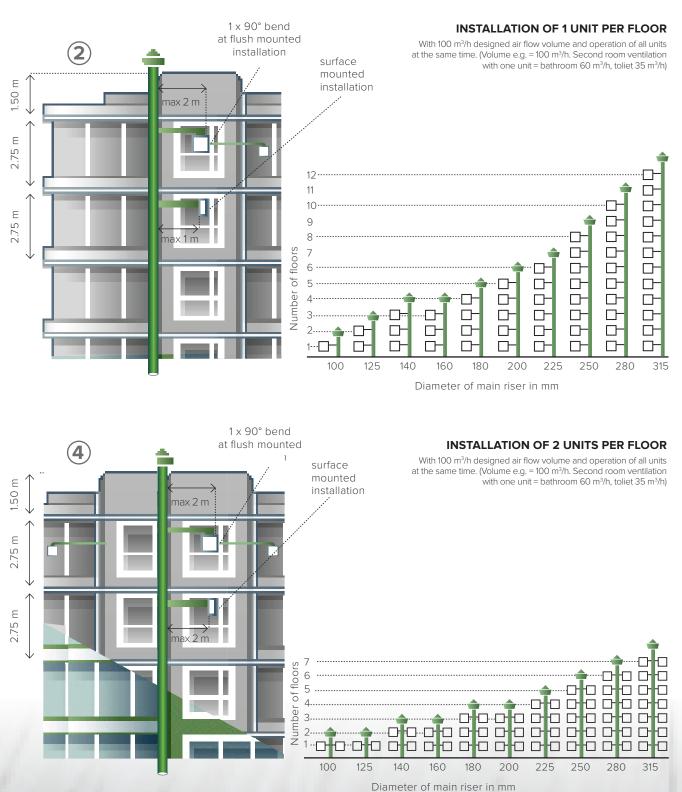
# These number of floors are outside of comfort range, therefore non recommendable.

#### Example 1 Type of room: bathroom/toilet V = 60 m<sup>3</sup>/h

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



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# 100 m<sup>3</sup>/h ONE AND TWO ROOM VENTILATION

Example 2

Type of room: bathroom + toilet (2 rooms) or kitchen V = 100 m<sup>3</sup>/h (bathroom 60 m<sup>3</sup>/h and toilet 35 m<sup>3</sup>/h)

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



CODE	MODELS	V ~ 50 Hz	w	Α		IRFLOW	MAX PR		MAX
11521	QE 60 LL				m³/h	l/s	mmH <sub>2</sub> O	Pa	°C
11526	QE 60 LL T								
11532	QE 60 LL TP	220 - 240	16	0.14	60	16,7	35	343	50
11537	QE 60 LL TP HCS								
11544	QE 60 LL T PIR								
11523	QE 60/35 LL								
11528	QE 60/35 LL T								
11534	QE 60/35 LL TP	220 - 240	16 9	0.14 0.11	60 35	16,7 9,7	35 10	343 98	50
11541	QE 60/35 LL TP HCS		5	0.11	55	5,7	10	50	
11546	QE 60/35 LL T PIR								
11522	QE 100 LL								
11527	QE 100 LL T								
11533	QE 100 LL TP	220 - 240	26	0.17	100	27,8	36	353	50
11538	QE 100 LL TP HCS								
11545	QE 100 LL T PIR								
11524	QE 100/60 LL								
11531	QE 100/60 LL T								
11535	QE 100/60 LL TP	220-240	26 16	0.17 0.14	100 60	27,8 16,7	36 35	353 343	50
11542	QE 100/60 LL TP HCS								
11547	QE 100/60 LL T PIR								
11525	QE 100/60/35 LL		26	0.17	100	27,8	36	353	
11536	QE 100/60/35 LL TP	220 - 240	16	0.14	60	16,7	35	343	50
11543	QE 100/60/35 LL TP HCS		9	0.11	35	9,7	10	98	

# TECHNICAL DATA

SOUND LEVES -

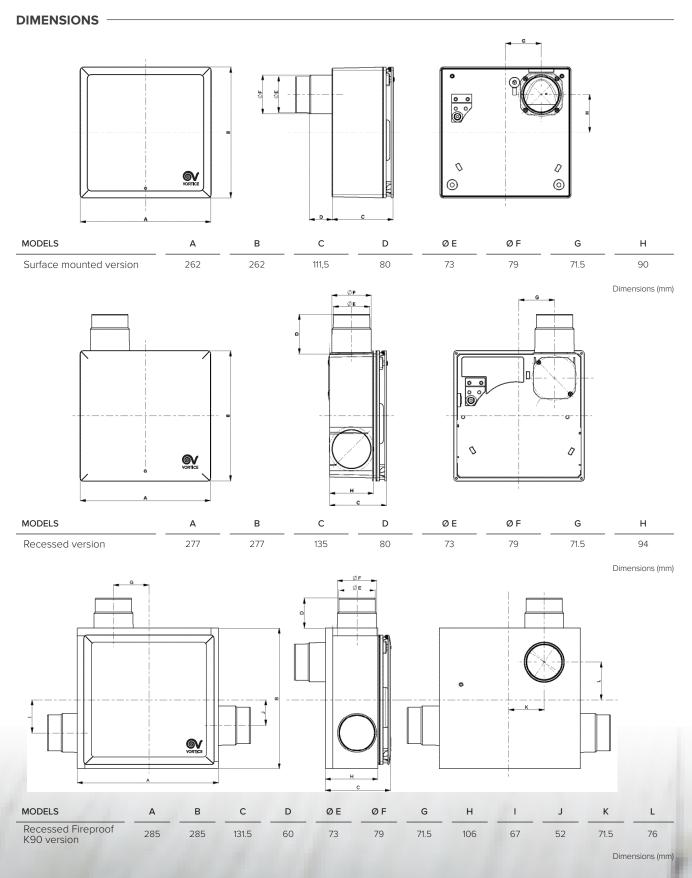
				SOUND POWER LwA				
Airflow m <sup>3</sup> /h	WALL MC	OUNTING 60	35		Airflow m <sup>3</sup> /h	RECESSED 100	MOUNTING 60	35
dB(A)	48	43	38		dB(A)	45	41	36

				SOUND PRESSURE* Lp				
Airflow m <sup>3</sup> /h	WALL MO	DUNTING 60	35		Airflow m <sup>3</sup> /h	RECESSED 100	MOUNTING 60	35
dB(A)	30,5	25,2	20,5		dB(A)	27,5	23,5	18,5

\*Sound pressure calculated in free-field conditions, 3 m distance, emispheric distribution.

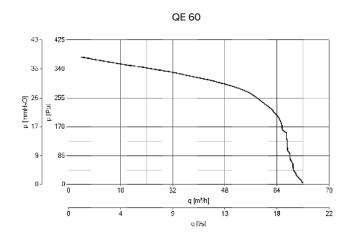


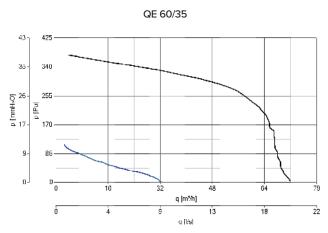
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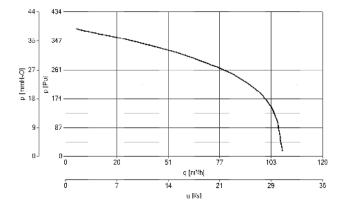


## **PERFORMANCE CURVES** –

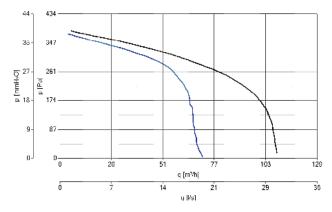




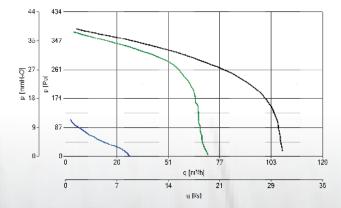




QE 100/60







MAX speed MID speed MIN speed



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# ACCESSORIES

	CODE	NAME	DESCRIPTION
	24127	QE - MH	Mounting holder for flush mounting in plasterboard systems
	24128	QE - TEK	Toilet extraction kit for WC
	24094	QE - UMB	Universal bracket for flush mounting in duct systems and false ceilings also for fireproof K90 casings
	24129	QE - SRK	Second room kit (including second room spigot)
	24183	QE - FBA	Plasterboard adapter
e	21118	QE - AD	Second room spigot
	24229	QE - CFR	Plasterboard cover
	21101	QE - SPF	Spacer frame
J.	21119	SAWG	White door grille
	21120	SABG	Brown door grille
INTERFECTION OF THE OTHER POLICY AND ADDRESS OF THE	91018	EAA30 BL	Automatic acoustic air inlet 30 m³/h
• <u> </u>	91035	EAA45 BL	Automatic acoustic air inlet 45 m³/h



# ACCESSORIES -

	CODE	NAME	DESCRIPTION			
	21121	AVR 100	Fire damper, diameter 100 mm			
	21122	AVR 125	Fire damper, diameter 125 mm			
	21123	AVR 140	Fire damper, diameter 140 mm			
	21124	AVR 160	Fire damper, diameter 160 mm			
11	21125	AVR 180	Fire damper, diameter 180 mm			
	21126	AVR 200	Fire damper, diameter 200 mm			
	21127	MDV 100	Manual air supply valve for 100 mm duct			
	21128	ADV 100	Automatic air supply valve for 100 mm duct			
	21129	MSDV 100	Manual air supply valve for 100 mm duct, with sound insulation			
	21130	ASDV 100	Automatic air supply valve for 100 mm duct, with sound insulation			
	21132	3SS - D	2 - 3 speeds switch for flush mounted installation, in a DIN Standard box			
	21133	2SS - I	2 speeds switch for flush mounted installation, in a UNI 503 Standard box			
	21134	3SS - I	3 speeds switch for flush mounted installation, in a UNI 503 Standard box			



Residential centrifugal extractor fans

### **APPLICATIONS**



Example: Recessed Casings mounting cod. 11560 with Timer (T) motor fan cod. 11526;



Example: Recessed Casings mounting cod. 11560 with Timer Evo + HCS sensor (TP HCS) motor fan cod. 11543;





### **APPLICATIONS** -



Example: Recessed installation fireproof encasement K90, with fireproof class K90 backdraught shutter cod. 11566 with Timer EVO (TP) motor fan cod. 11533;



Example: External Casings mounting cod. 11561 with basic motor fan cod. 11521;

# **VORTICE GROUP COMPANIES**

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