



Since 1997 Vacuum Material Handling Solutions



# CENTRALIZED VACUUM SYSTEMS



# CENTRALIZED VACUUM SYSTEMS

RGS Vacuum Systems has been designing and manufacturing the most complete and reliable centralized vacuum systems since 1999.

In many cases, the size of the room and the number of machines in a facility with multiple floors make it impractical to use multiple industrial vacuum cleaners. A centralized vacuum cleaner system is often a more convenient and cost-effective solution.

While a centralised vacuum cleaner system may initially appear less economical, it offers significant cost savings in the long run. By **reducing the number of cleaning operators and the time spent cleaning**, we can significantly cut operational costs. With a single operator, we can clean large areas that may extend over several floors, reducing the need for multiple cleaning crews. Additionally, the reduced footprint and running costs of the system make it an attractive option for businesses seeking to optimise their cleaning operations. By collecting all dirt in one container, we eliminate the need to clean every vacuum cleaner, further **reducing maintenance costs**. The servicing costs will no longer apply to all vacuum cleaners in the company. They will remain limited to the one vacuum cleaner used to operate the centralised vacuum system.



**FASTER AND CHEAPER**

**INCREASED CLEANING RADIUS**

**ONE SUCTION UNIT AND ONE CONTAINER**

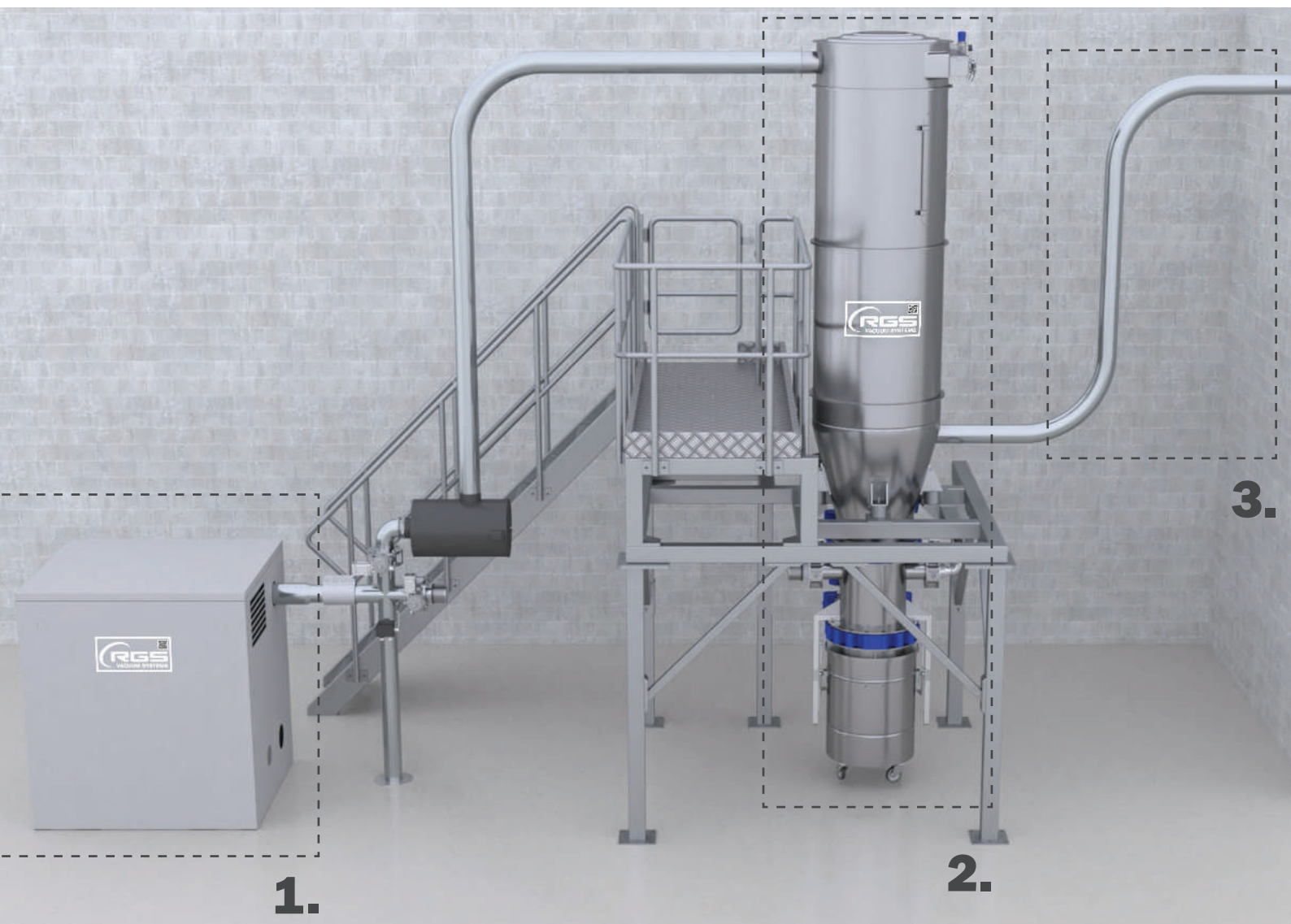
## WHAT IS A VACUUM SYSTEM?

A centralised vacuum cleaner system consists of:

- 1. SUCTION UNIT AND CONTROL PANEL**
- 2. FILTER UNIT FOR THE SEPARATION AND COLLECTION OF THE PRODUCT**
- 3. PIPEWORK AND ACCESSORIES**

It is common to use large industrial vacuum cleaners that are connected to pipework so that they can be positioned anywhere in the factory.

Thanks to the suction unit, a vacuum is generated inside these pipes so that the sucked material (even over long distances) is conveyed to the collection point.



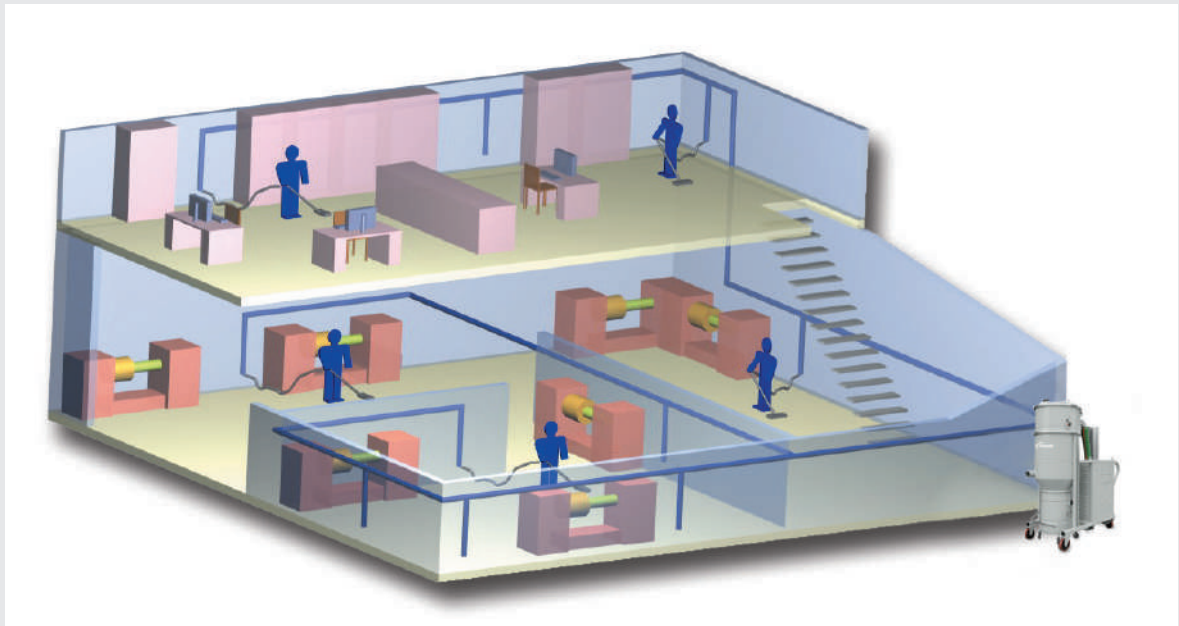
## BENEFITS

The use of centralized vacuum cleaning systems offers the following advantages:

- reduces time and cost to clean workplaces
- less cleaning operators: one operator can clean several floors in less time
- reduced maintenance costs: there is only one suction unit and a filter unit to clean and maintain
- larger cleaning radius with a smaller footprint
- one suction unit and container for multiple suction points
- a cleaner and less noisy working environment, as there is only one suction unit, and it can also be installed outside the building
- increased safety with ATEX-certified systems
- immediate savings

# WHY CHOOSING A CENTRALIZED

All central vacuum system solutions use the same operating principles: the vacuum generated inside the pipes **sucks in and conveys the material into a single container**.



## CENTRALIZED VACUUM CLEANER

Solutions with an vacuum cleaner  
used as centralised unit for small quantities.

### We offer:

- Three-phase industrial vacuum cleaners with high power and extraordinary sturdiness: equipped with multi-voltage motors, containers of various capacities, which can be fitted with a bracket for lifting with a forklift or combined with separators and filter units with excellent filtration performance.
- A wide range of stainless steel and zinc-plated piping accessories: *bends, couplings, pipes, diversions, suction intakes, and valves*. System status displayed on each station/ suction intakes.

# VACUUM SYSTEM?

The centralized vacuum system is suitable for all industries and can be tailored to suit any size of plant. *The most suitable system can be selected according to factors including the size of the company, the number of simultaneous sucking points, the material to be vacuumed, the number of bends and the distance to be covered.*



## CENTRALIZED VACUUM SYSTEMS

Solutions with suction units, filter units and add-ons for cleaning large workplaces or high simultaneous points.

### The components:

- Silos with diameters from 460 mm to 2.000 mm and capacities over 2.000 L.
- Sleeves or cartridge filtration systems.
- Shaking or air jet cleaning systems.
- Electronic control of compressed air consumption.
- Discharge systems with removable container, tilting discharge (also in integral version), rotary valve, or double valve.
- Suction units complete with system control panel, with possible regulation by vacuum and/or number of users connected.
- They can be equipped with one or more motors with electronic control of the speed and the airflow.
- A wide range of stainless steel and galvanized piping accessories: elbows, couplings, rigid pipes, diversions, suction intakes, valves.
- System operating status display on each station/suction intake.

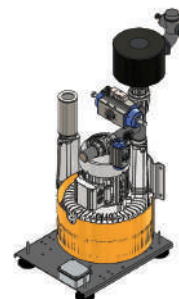
# WHAT IS A CENTRALIZED VACUUM

## Suction unit

### VU | SUCTION UNITS WITHOUT FAIRING

Caseless suction unit with side channel blower. It can be equipped with a venting system and a safety cartridge filter.

*Also available in ATEX version.*



	Voltage Volts	Power (kW)	Maximum vacuum (mbar)	Air flow rate (m <sup>3</sup> /h)	Ø vacuum connection (mm)	Noise dB(A)
VU5.5	400	5.5	420	320	50	82
VU5.5K	400	5.5	300	540	70	82
VU7.5	400	7.5	400	520	70	82
VU7.5K	400	7.5	250	790	88.9	82
VU11	400	11	350	780	88.9	85
VU12K	400	12	290	1.050	88.9	85

### VUC | SIDE CHANNEL BLOWERS IN PROTECTIVE HOUSING, UP TO 12 KW

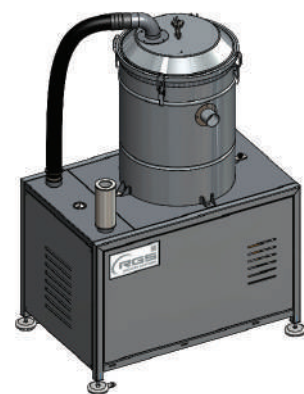
Suction units with three-phase side channel blowers, housed in a grey RAL7001 or AISI304 stainless steel and soundproofed cabinet. Each unit is equipped with an anti-vibration system, exhaust silencer, vacuum gauge for working point indication, pressure relief valve and suction connection.

Available in 2 versions:

- **high vacuum version** (K) for installations with short distances and vacuuming of light products with a specific weight of less than 1 kg/L;
- **high vacuum version** for installations with long distances and vacuuming of heavy products, generally with a specific weight above 1kg/L.

*Use the control panels, available in soft-start or inverter versions, to operate and start up the suction units.*

*Also available in ATEX version.*



	Voltage Volts	Power (kW)	Maximum vacuum (mbar)	Air flow rate (m <sup>3</sup> /h)	Ø vacuum connection (mm)	Noise * dB(A)
VUC5.5	400	5.5	420	320	50	76
VUC5.5K	400	5.5	300	520	70	76
VUC7.5	400	7.5	400	520	70	76
VUC7.5K	400	7.5	250	790	88.9	76
VUC11	400	11	350	780	88.9	78
VUC12K	400	12	290	1.050	88.9	78

\* Values with the sound insulation cabinet in place

# SYSTEM?

## VUC | SIDE CHANNEL BLOWERS UP TO 30 KW

Side channel blowers with ratings from 800 to 2.000 m<sup>3</sup>/h with soundproofed cabin, equipped with intake filter and optional venting kit. All units are also equipped with analogue or digital pressure gauges for easy control of the operating point.

*Also available in ATEX version.*



	Voltage Volts	Power (kW)	Maximum vacuum (mbar)	Air flow rate (m <sup>3</sup> /h)	Ø vacuum connection (mm)	Noise dB(A)
VUC15	400	15	450	800	88.9	78
VUC15K	400	15	350	940	101.6	78
VUC18	400	17.3	410	1.100	101.6/114.3	78
VUC20	400	20	450	1.150	101.6/114.3	78
VUC25K	400	25	310	2.000	120	78
VUC30	Inverter operating	29.4	310	1.550	120	78

## VUCH | LOBE PUMPS UP TO 75 KW

Rotary lobe pumps with airflows from 800 to 4.500 m<sup>3</sup>/h with soundproof cabinets and equipped with an intake filter and optional vent kit. All units are also equipped with analogue or digital pressure gauges for easy control of the operating point.

*Also available in ATEX version.*



	Voltage Volts	Power (kW)	Maximum vacuum (mbar)	Air flow rate (m <sup>3</sup> /h)	Ø vacuum connection (mm)	Noise dB(A)
VUCH18.5	400	18.5	500/300	800/950	114.3	72
VUCH30	400	30	500/300	1.200/1.450	139.7	73
VUCH37	400	37	500/300	1.500/1.700	168.3	72
VUCH45	400	45	500/300	2.000/2.800	219.1	74
VUCH75	400	75	500/300	3.750/4.500	273	77

# Filter unit for the separation and collection of the product

- **WITH BAG OR STAR FILTER UP TO 3.4 SQM**

It is a bag filter unit with pneumatic shaker.

## KF56, with collection bin

Filter unit with removable collection bin for easy emptying.

*These groups already include support frames with feet or wheels.*

Type	Collection bin	Star filter surface
KF56	175 l	3.4 m <sup>2</sup>



## X56EV, with discharge valve \*

This collection hopper has a butterfly valve that opens automatically when the suction cycle is interrupted.

Suitable for collecting product inside a container underneath which may be a box, a bin or a big-bag.

Type	Capacity	Star filter surface
X56EV	100 l	0.95 m <sup>2</sup>



## X56EV2, with double valve for sucking and discharging in continuous \*

It is an evolution of the X56EV as it is equipped with dual valves.

It is suitable for use with a vacuum system that runs 24 hours a day.

The product can be collected in a container underneath even in this case.

Type	Capacity	Star filter surface
X56EV2	100 l	0.95 m <sup>2</sup>



## X56R, with rotary valve for sucking and discharging in continuous \*

Equipped with a rotary valve at the discharge, this system is also suitable for connection to a continuously operating vacuum system.

The rotary valve allows large quantities of product to be discharged at a constant rate.

Type	Capacity	Star filter surface
X56R	100 l	0.95 m <sup>2</sup>



## • SLEEVE OR CARTRIDGE FILTERS UP TO 100 M<sup>2</sup>

These filter units are designed to accept sleeves or cartridges. They are fitted with a front door for easy removal and replacement of the filter elements. They are intended for installations with high airflows and large quantities of sucked material. The surface area of the filter varies from 3 m<sup>2</sup> for a Ø 600 system to 100 m<sup>2</sup> for a Ø 2.000 filter.

### KF60 - KF200, with collection bin

Filter unit with removable collection bin for easy emptying.

*These groups already include support frames with feet to be fixed to the floor or wheels.*

Type	Capacity	Surface cartridge filter	Sleeve filter surface
KF60	175 l	da 6.7 m <sup>2</sup> a 12.3 m <sup>2</sup>	da 3.1 m <sup>2</sup> a 6 m <sup>2</sup>
KF80	175 l	da 11.7 m <sup>2</sup> a 22 m <sup>2</sup>	da 5.4 m <sup>2</sup> a 10.5 m <sup>2</sup>
KF100	175 l	da 23 m <sup>2</sup> a 44 m <sup>2</sup>	da 10.8 m <sup>2</sup> a 21 m <sup>2</sup>
KF200	175 l	-	100 m <sup>2</sup>



### X60EV - X200EV, with discharge valve \*

This collection hopper has a butterfly valve that opens automatically when the suction cycle is interrupted.

Suitable for collecting product inside a container underneath which may be a box, a bin or a big-bag.

Type	Surface cartridge filter	Sleeve filter surface	Capacity
X60EV	da 6.7 m <sup>2</sup> a 12.3 m <sup>2</sup>	da 3.1 m <sup>2</sup> a 6 m <sup>2</sup>	150 l
X80EV	da 11.7 m <sup>2</sup> a 22 m <sup>2</sup>	da 5.4 m <sup>2</sup> a 10.5 m <sup>2</sup>	300 l
X100EV	da 23 m <sup>2</sup> a 44 m <sup>2</sup>	da 10.8 m <sup>2</sup> a 21 m <sup>2</sup>	500 l
X200EV	-	100 m <sup>2</sup>	800 l



### X60EV2 - X200EV2, with double valve for sucking and discharging in continuous \*

It is an evolution of the X56EV as it is equipped with dual valves.

It is suitable for use with a vacuum system that runs 24 hours a day.

The product can be collected in a container underneath even in this case.

Type	Surface cartridge filter	Sleeve filter surface	Capacity
X60EV2	da 6.7 m <sup>2</sup> a 12.3 m <sup>2</sup>	da 3.1 m <sup>2</sup> a 6 m <sup>2</sup>	150 l
X80EV2	da 11.7 m <sup>2</sup> a 22 m <sup>2</sup>	da 5.4 m <sup>2</sup> a 10.5 m <sup>2</sup>	300 l
X100EV2	da 23 m <sup>2</sup> a 44 m <sup>2</sup>	da 10.8 m <sup>2</sup> a 21 m <sup>2</sup>	500 l
X200EV2	-	100 m <sup>2</sup>	800 l



### X60R - X200R, with rotary valve for sucking and discharging in continuous \*

Equipped with a rotary valve at the discharge, this system is also suitable for connection to a continuously operating vacuum system.

The rotary valve allows large quantities of product to be discharged at a constant rate.

Type	Surface cartridge filter	Sleeve filter surface	Capacity
X60R	da 6.7 m <sup>2</sup> a 12.3 m <sup>2</sup>	da 3.1 m <sup>2</sup> a 6 m <sup>2</sup>	150 l
X80R	da 11.7 m <sup>2</sup> a 22 m <sup>2</sup>	da 5.4 m <sup>2</sup> a 10.5 m <sup>2</sup>	300 l
X100R	da 23 m <sup>2</sup> a 44 m <sup>2</sup>	da 10.8 m <sup>2</sup> a 21 m <sup>2</sup>	500 l
X200R	-	100 m <sup>2</sup>	800 l



# \* Standard support frames for filter silos

The RGS equipment includes all frames to provide safe support for the filter units (only for the silos without a collection bin).

## FIXED FRAME

It is a type of structure that, in addition to supporting the filter unit, also allows the possibility of introducing a collection container on the ground.

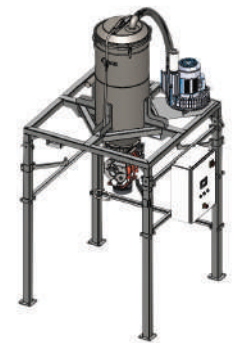
Our frames are available in painted carbon steel or AISI 304, with standard dimensions depending on the filter unit to be supported.



## TELESCOPIC FRAMES

These frames are equipped with telescopic elements to discharge the material into big bags of different sizes and allow the height of the discharge point to be adjusted up to 1500 mm.

The hooks supporting the big bag straps are also adjustable according to the type of big bag used.



## Compact units (all-in-one)

(suction unit and collection filter in the same machine, including a dedicated electrical panel and control system)

- **FIXED UNITS**

### VUCC

This compact unit contains all the necessary elements to be connected directly to the centralized vacuum system.

It is equipped with a filter unit with automatic cleaning, a collection container, a side channel blower and an electrical control panel.



	Voltage <i>Volts</i>	Power <i>(kW)</i>	Maximum vacuum <i>(mbar)</i>	Airflow rate <i>(m³/h)</i>	Ø vacuum connection <i>(mm)</i>	Noise <i>dB(A)</i>
VUCC4K	400	4	270	400	50	76
VUCC5.5K	400	5.5	300	540	70	78
VUCC7.5K	400	7.5	250	790	88.9	78

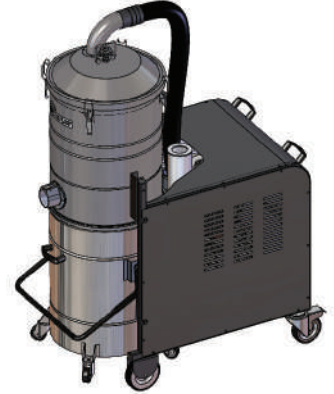
## • WHEELED UNITS

### A546KECO - A546ECO

Three-phase industrial vacuum cleaners with multi-voltage motor, ideal for vacuuming dust, liquids and debris in the most challenging industrial environments, thanks to their robust steel casing. They are available with a removable 100 L tank and are equipped with a large area star filter (1.9 m<sup>2</sup>) and manual filter shaker.

		A546KECO	A546ECO
Voltage	V	3~ 400V/50Hz *	3~ 400V/50Hz *
Power	kW	4	4
Maximum vacuum	mbar	280	450
Air flow rate	m <sup>3</sup> /h	540	310
Container capacity	L	100	100
Overall dimensions	cm	65x110x152h	65x110x152h
Weight	kg	135	135

\* Other voltages and frequencies available on request



### A1256K

Three-phase industrial vacuum cleaners with robust construction and high performance: equipped with 7.5, 8.5, 11- and 12.5-kW multi-voltage motors. They can be used in the toughest environments where powerful, efficient vacuuming is required. 175 litre, Ø560 container with easy access and large surface star filter - Ø560 - 3.4 m<sup>2</sup>.

		A1256K
Voltage	V	3~ 400V/50Hz *
Power	kW	8.5
Maximum vacuum	mbar	360
Air flow rate	m <sup>3</sup> /h	1.050
Container capacity	L	175
Overall dimensions	cm	74x157x187h
Weight	kg	380

\* Other voltages and frequencies available on request

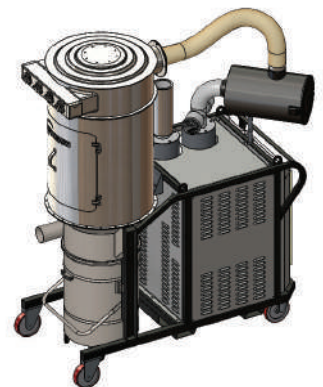


### A3080KC - A3078

Powerful and exceptionally robust three-phase industrial vacuum cleaners with 20 kW multi-voltage motor. Ideal for heavy-duty applications and capable of vacuuming large quantities of materials or handling many suction points simultaneously.

		A3080KC	A3078
Voltage	V	3~ 400V/50Hz *	3~ 400V/50Hz *
Power	kW	20	20
Maximum vacuum	mbar	320	600
Air flow rate	m <sup>3</sup> /h	2.350	1.100
Container capacity	L	175	175
Overall dimensions	cm	89x175x240h	89x175x240h
Weight	kg	520	520

\* Other voltages and frequencies available on request



# CONTROL PANEL

In addition to the main functions (motor start, filter cleaning control, indicators, stop and start buttons), the electrical panel for the control of the vacuum cleaner can be customized according to the user's needs.

The panels can therefore be integrated with different functions:

- **Inverter** to control the motor.
- **Electronic vacuum gauge** for automatic airflow control.
- **Remote control**
- **HMI** to visualise the system parameters.
- **Control of automatic systems** on the suction line (*valves, slide gates, diverters, etc.*) and the discharge line (*valves, sensors, rotary valves, etc.*).

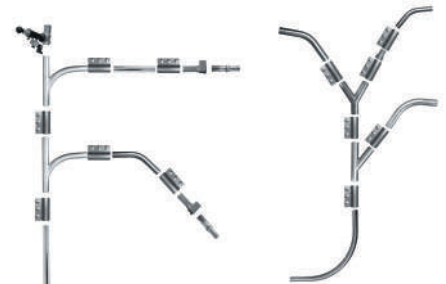


Also available in ATEX version.

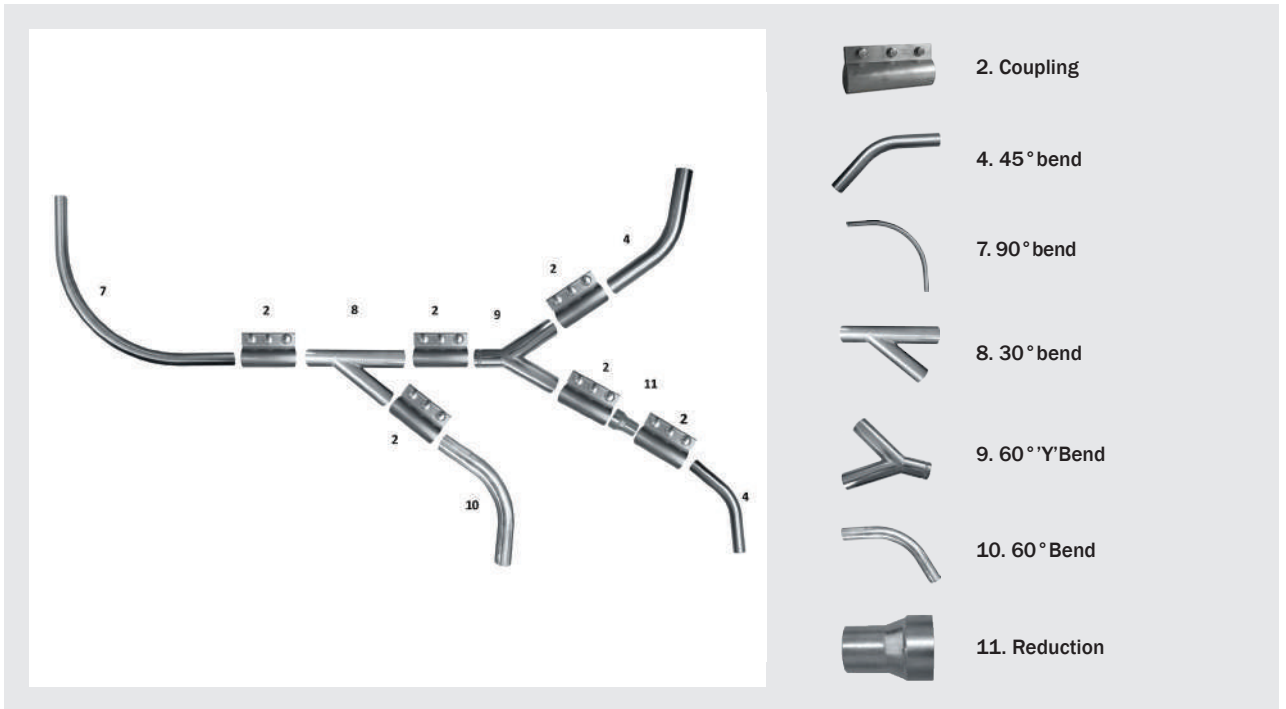
# PIPING

Wide range of fittings for stainless steel and galvanised pipework: pipes, bends, couplings, diversions, flap outlets, valves.

Display of the operating status of the system at each station / flap outlet.



	1. Pipe
	2. Coupling
	3. Bifurcation with 90° bend
	4. 45° bend
	5. Flap outlet
	6. Flap outlet connector
	12. Emptying valve kit



## ACCESSORIES

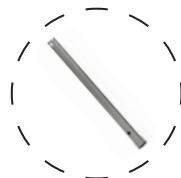
Our extensive range of accessories is specifically designed to make the operator's work easy, safe and secure, while meeting the various demands of different application areas.



Cone, nozzle, conical tool



Handgrip with mobile nozzle



Fluidifying nozzle



Scraper nozzle

# OPTIONAL

## EXPLOSION DISCHARGE OPTION (rupture disc)

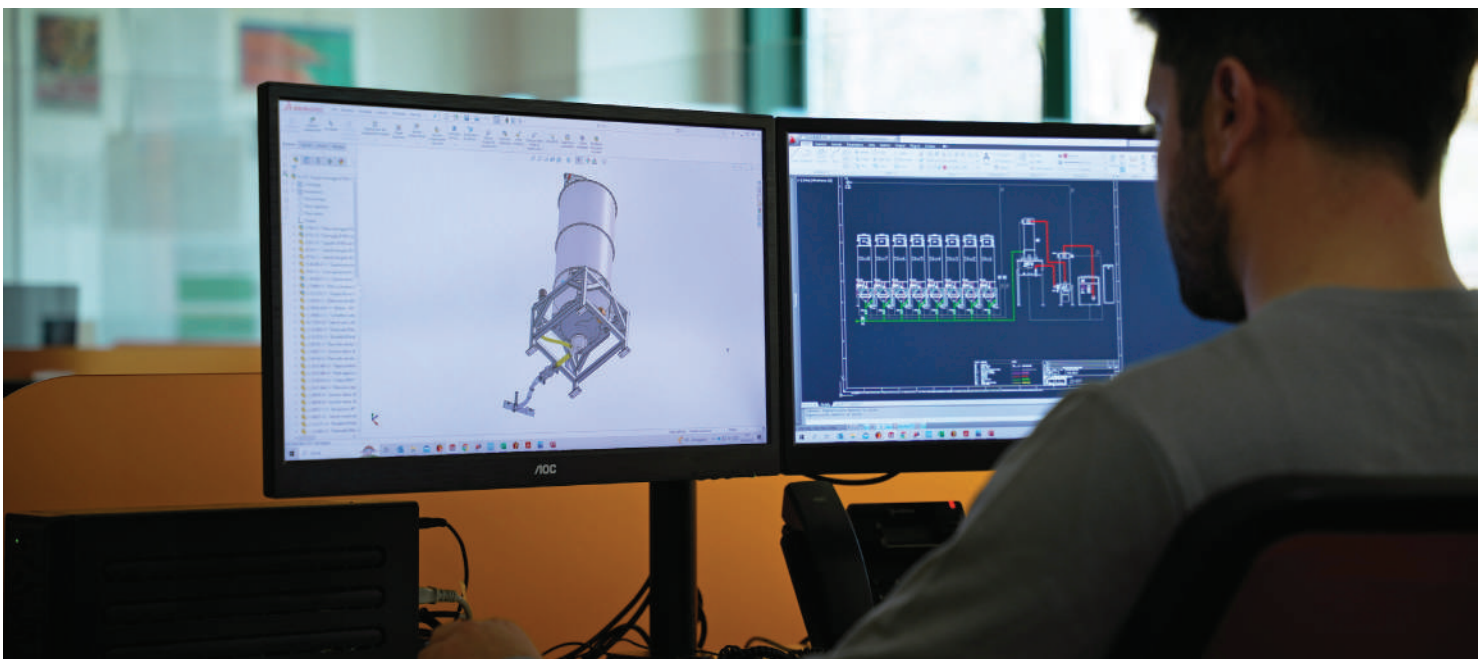
Upon request, a rupture disk can be installed in the suction unit as an **explosion protection system**.

Rupture discs are devices that intervene if an unexpected and sudden pressure variation (overpressure or underpressure) occurs in the system. They consist of a thin, disposable membrane which, when ruptured, allows excess pressure to escape. In the event of a fire, these devices can be fitted with a system of slats that allows the flame to be vented without spreading and the resulting gases to cool.



# CUSTOMISED SOLUTIONS FOR

RGS Vacuum Systems offers **tailor-made solutions** to meet customer layout requirements. All the centralised vacuum systems designed and manufactured are **dimensioned and constructed according to precise mathematical and physical formulae**. This means that the centralised vacuum system is dimensioned exactly according to the number of **simultaneous** users (for example, in a centralised system with 5 inlets, we can have from 1 to 5 simultaneous users, i.e. the case where 5 operators want to suck at the same time), depending on the **material to be sucked**, the number of **bends** and the **distance** that the centralised vacuum system has to cover.



## ATEX-CERTIFIED CENTRAL VACUUM SYSTEMS

All solutions from RGS Vacuum Systems are available with **ATEX certification** for use in explosive environments, due to the presence of explosive dust or gases. This ensures the highest levels of **safety** and minimizes risks.



# YOUR INDUSTRY

## WHAT DO YOU WANT TO VACUUM?

RGS Vacuum Systems has the experience and expertise to meet any requirement. Our **centralised vacuum systems are used in almost every industrial sector**, from food to *pharmaceuticals, tobacco, metalworking, textiles and many others.*



## SOME APPLICATIONS OF OUR 'TAILOR-MADE' PRODUCTS...



Fixed system with maintenance platform



With frame with compactor



Wheeled solution



Wall-mounted solution

# APPLICATIONS



FOOD INDUSTRY





# TOBACCO INDUSTRY





# METALWORKING INDUSTRY





# PLASTICS PROCESSING





Since 1997 Vacuum Material Handling Solutions

INDUSTRIAL VACUUM CLEANERS | PNEUMATIC CONVEYORS | CENTRALIZED SYSTEMS

# RGS in the World.



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● RGS branches


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