



Since 1997 Vacuum Material Handling Solutions



**SOLUTIONS FOR THE
PHARMACEUTICAL INDUSTRY**



ADVANCED SOLUTIONS FOR THE

Health, safety and improving production efficiency

In the pharmaceutical industry, hygiene, safety and efficiency are key requirements. RGS Vacuum Systems offers a complete range of industrial vacuum cleaners and pneumatic conveying systems designed to ensure clean production environments, regulatory compliance and an optimised production process.

Our solutions are designed to handle fine dust, process waste and the safe transport of bulk materials, reducing the risk of contamination and improving productivity. Using state-of-the-art technology and high-quality materials, our systems ensure reliable and durable performance, ideal for **laboratories, clean rooms and pharmaceutical production lines.**



REQUIREMENTS OF PHARMACEUTICAL ENVIRONMENTS

Pharmaceutical environments must meet strict safety, hygiene and contamination control standards to ensure product quality and compliance with international regulations.

Here are the main requirements:

CONTAMINATION CONTROL

- Use of clean rooms with controlled levels of particulate matter in the air (ISO 14644-1 classification).
- HEPA or ULPA filtration systems to remove fine dust and microorganisms.
- Regular decontamination and sanitisation procedures.

DUST HANDLING

- Industrial vacuum systems to remove dust and processing residues.
- Pneumatic conveying technologies to move dust and granulates safely and without dispersion.
- Containment devices to avoid cross-contamination between batches.

COMPLIANCE WITH

- Compliance with Manufacturing Practice for pharmaceuticals.
- ATEX certification for hazardous environments.
- FDA and EU 1907/2006 regulations for pharmaceutical products.

PHARMACEUTICAL INDUSTRY



RGS Vacuum Systems designs advanced solutions that meet these requirements, **ensuring a safe, compliant and highly efficient pharmaceutical production environment.**

REGULATIONS

With GMP (Good Manufacturing Practices) regulations for pharmaceutical production. Solutions for explosion-prevention. ISO 9001/2015 compliant contact with products.

OPERATOR SAFETY

- Extraction systems with advanced filtration to protect personnel from exposure to toxic dusts.
- Ergonomic design of equipment to reduce the risk of accidents and improve operational efficiency.

PROCESS EFFICIENCY

- Automation and monitoring of production steps to ensure precision and repeatability.
- Pneumatic conveying systems to reduce waste and optimise material handling.
- Reduced cleaning and maintenance time to improve productivity.

INDUSTRIAL VACUUM CLEANERS

Cleanroom vacuum cleaners

MOBILE VACUUM CLEANERS | THREE-PHASE

Mobile industrial vacuum cleaners are ideal for vacuuming large quantities of product on board the machine but can also be used at the end of a shift for general cleaning of the work environment.

Also available in ATEX version.



		A136	A236	F230P	A336	F340
Voltage	Volts	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz
Power	kW	0.90	1.5	1.5	2.2	2.2
Maximum depression	mbar	230	250	250	310	310
Maximum air flow	m ³ /h	150	210	210	310	310
Primary filter surface	m ²	0.70	0.70	0.70	1.90	1.90
Container capacity	L	25	25	25	48	48
Noise level	dB(A)	63	64	64	69	69
Dimensions	cm	40x70x126h	40x70x126h	45x80x135h	50x80x154h	50x80x154h
Weight	kg	69	71	70	120	120

Vacuum cleaners for pharmaceutical production machines

STATIONARY SUCTION UNITS | VERTICAL SUCTION UNITS

Three-phase vacuum cleaners, ideal for installation on process machines and production lines. They are designed to extract small quantities of dust in continuous operation. Vertically mounted and fitted with a protective casing.



		BAV2805	BAV281	BAV361	BAV362	BAV363	BAV465
Voltage	Volts	3~ 230-400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz
Power	kW	0.37	0.90	0.90	1.5	2.2	4
Maximum depression	mbar	160	230	230	250	310	320
Maximum air flow	m ³ /h	80	150	150	210	310	520
Primary filter surface	m ²	0.23	0.23	0.70	0.70	0.70	1.9
Container capacity	L	9	9	12	12	12	25
Noise level	dB(A)	60	63	63	73	73	76
Dimensions	cm	36x36x75h	36x36x75h	51x56x105h	51x56x105h	51x56x105h	60x70x150h
Weight	kg	22	30	40	48	54	95

FOR PHARMACEUTICAL DUSTS

STATIONARY SUCTION UNITS | HORIZONTAL SUCTION UNITS

Three-phase suction units ideal for installation on process machines and processing lines. They are suitable for the continuous extraction of small quantities of dust. Horizontally mounted, they are available with exposed or covered motor.



		BA2205	BA2805	BA281	BA3605	BA361	BA362	BA363	BA465
Voltage	<i>Volts</i>	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz
Power	<i>kW</i>	0.37	0.37	0.90	0.37	0.90	1.5	2.2	4
Maximum depression	<i>mbar</i>	160	160	230	160	230	250	310	400
Maximum air flow	<i>m³/h</i>	80	80	150	80	150	210	310	520
Primary filter surface	<i>m²</i>	0.15	0.23	0.23	0.70	0.70	0.70	0.70	1.90
Container capacity	<i>L</i>	3	9	9	12	12	12	12	25
Noise level	<i>dB(A)</i>	60	60	63	60	63	64	73	78
Dimensions	<i>cm</i>	35x60x46h	35x60x46h	35x60x45h	39x80x64h	39x80x64h	39x80x64h	39x80x64h	46x105x85h
Weight	<i>kg</i>	20	22	30	35	35	42	52	62

TRIM EXTRACTORS

Vacuum cleaners for plastic scraps or other materials that are produced by packaging machines when closing the pack, which not only remove the scraps but also compact them inside the filter bag to optimise emptying operations. In this process, the combination of a packaging machine (or flow pack, or compressing machine, or blister machine, or capsuling machine) with an industrial vacuum cleaner becomes fundamental to be able to remove dust, avoiding its accumulation and keeping **production constant and without stoppages**, eliminating the risk of contamination of the product to be packaged.

Also available in Atex version.



		AS146	AS1546	AS246	AS250X	AS1556	AS256	AS356	AS556
Voltage	<i>Volts</i>	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz	3~ 400V/50Hz
Power	<i>kW</i>	0.85	1.3	1.5	1.5	1.1	1.5	2.2	4
Maximum depression	<i>mbar</i>	230	230	230	240	230	250	310	400
Maximum air flow	<i>m³/h</i>	150	150	210	219	150	210	310	520
Primary filter surface	<i>m²</i>	-	-	-	-	-	-	-	-
Container capacity	<i>L</i>	105	105	105	100	150	150	150	215
Noise level	<i>dB(A)</i>	63	70	64	66	70	64	69	73
Dimensions	<i>cm</i>	Ø46x116h	Ø46x116h	Ø46x116h	Ø53x100h	Ø56x116h	Ø56x116h	Ø56x116h	66x134x145h
Weight	<i>kg</i>	42	42	55	70	60	65	72	160

PNEUMATIC CONVEYING FOR PHARMA

Hygienic, high-performance solutions with pneumatic conveying systems

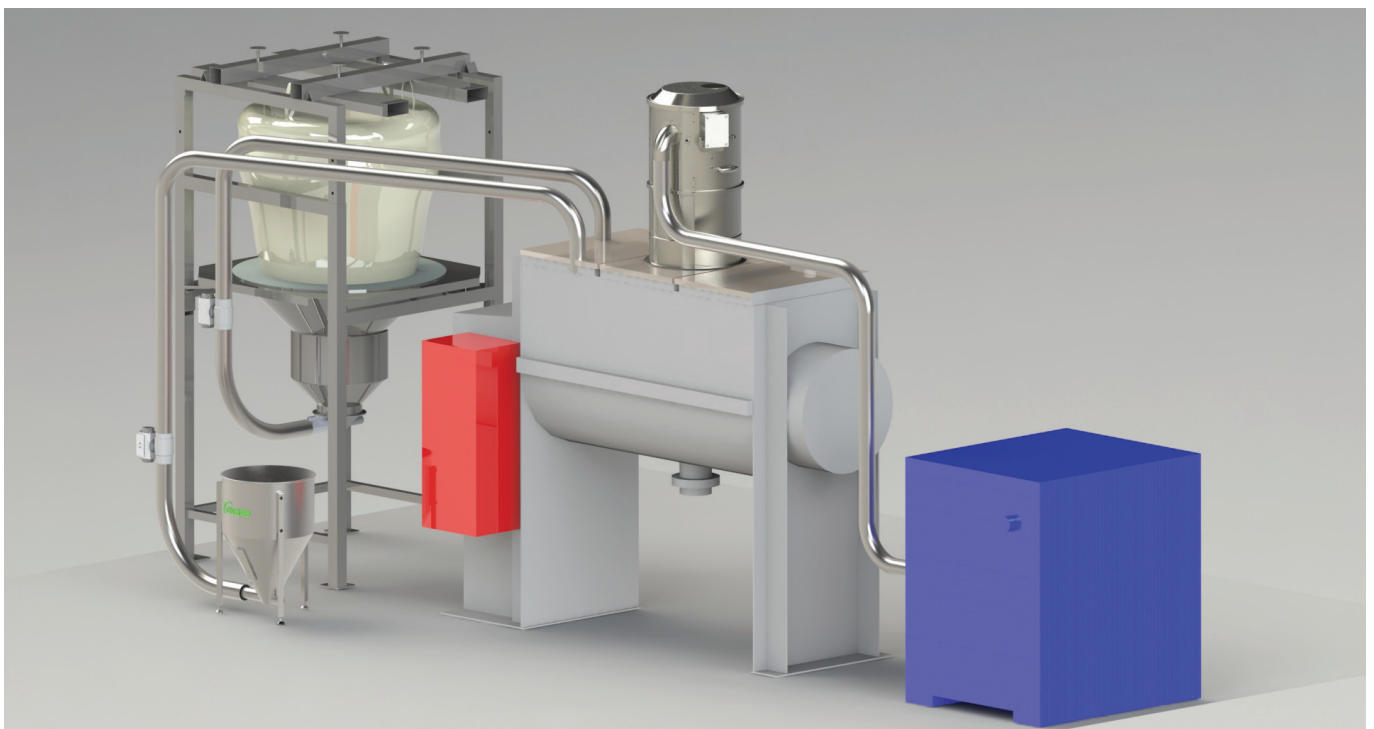
Thanks to its experience, knowledge and technical skills, RGS manufactures pneumatic conveying systems specifically for the **pharmaceutical and nutraceutical** (food supplements) sectors, made entirely of AISI 316L stainless steel with mechanical polishing treatment and roughness down to 0.02 Ra. Ideal for any type of **single-component powder or blends** (suitable for feeding compressing, bagging, capsulating and blistering machines) or for **transporting light products** (capsules).

Our pneumatic conveyors serve packaging machines for the pharmaceutical and nutraceutical industry; designed and manufactured with the aim of **improving production efficiency, increasing safety and maintaining high hygiene within the departments.**

Powder is loaded automatically, without clogging and without the need for manual operator intervention, ensuring a cleaner working environment and improving the production process. The technology used for vacuum generation is the high vacuum Venturi pump, so as not to demix and gently convey the material.



*All material finishes are specially made to comply with pharmaceutical industry standards. In this type of environment, our systems therefore **ensure total hygiene, no contamination of end products and the protection of workers' health.***



CEUTICAL POWDERS AND GRANULES

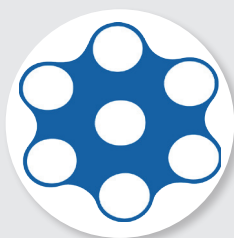
COMMON APPLICATIONS

Pneumatic conveying systems accompany the operator from the first stages of **powder handling** (Formulation Production) or **API** (Active Pharmaceutical Ingredient) **to packaging**.

Ensuring the highest levels of hygiene and safety is essential to avoid any kind of contamination or contact with these products to ensure maximum productivity.

Granulation

- loading of granulators
- sieves / vibrating screens
- mills



Mixing

- mixers
- V-shaped, cone-shaped mixers
- octagonal, belt mixers



Compression

- compressors
- operculators



Capsules filling

- tablet coating
- capsuling machines



PNEUMATIC CONVEYING FOR PHARMA

Active ingredient transfer systems (API)

VH, High Vacuum Pneumatic Conveyors with vacuum vane pump

The pneumatic high vacuum conveyor is ideal for transferring powders composed of several components and with different specific weights: by exploiting a high vacuum and a very low air flow rate, product homogeneity is respected. Particularly suitable for feeding tablet presses and packaging machines, it is equipped with quick connections to make all cleaning and sterilisation operations extremely easy. The feed hopper is completely made of polished AISI 316 L stainless steel.

- **VH...**: suction unit with vacuum vane pump
- **VH...HV**: suction unit with vacuum vane pump and hopper discharge with butterfly valve
- **VH...I**: vacuum unit with vacuum vane pump and switch panel

√ product homogeneity √ easy sanitisation



		VH916	VH925	VH1525
Power	<i>kW</i>	0.55	0.75	0.75
Depression	<i>mbar</i>	780	780	780
Air flow	<i>m³/h</i>	16	25	25
Capacity	<i>kg/h</i>	200	250	300
Container capacity	<i>L</i>	9	9	15
Hopper	<i>Ø mm</i>	220	220	220



CEUTICAL POWDERS AND GRANULES

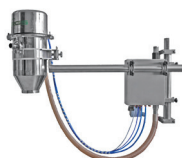
VHD, High Vacuum Pneumatic Conveyors with Venturi Kit

As with the VH model, the VHD pneumatic conveyor is a specialised vacuum unit for conveying pharmaceutical mixtures to the hopper of the processing machine without changing the homogeneity of the compound. Using a Venturi system (compressed air vacuum generator) for its operation, it is particularly suitable for use in environments where electricity is prohibited or absent. All product contact parts are made of polished Aisi 316L.

Installation of the VHD is very simple and does not require any additional space: thanks to the fixing of the hopper by means of a 'quick release' system, with just a few operations the machine is ready for use.

✓ *no de-mixing of the product* ✓ *high safety standards*

Available with a telescopic arm and quick release system that make it easy and versatile to use and speed up sterilisation operations.



		VHD 940	VHD 980	VHD 1540	VHD 1580
Air consumption	<i>NI/min</i>	250	500	250	500
Depression	<i>mbar</i>	750	750	750	750
Air flow	<i>m³/h</i>	40	80	40	80
Capacity	<i>kg/h</i>	200	250	250	300
Capacity container	<i>L</i>	9	9	15	15
Hopper	<i>Ø mm</i>	220	220	220	220



HVP LOADING HOPPERS

Product loading hoppers made of AISI 316L stainless steel with internal and external mirror polishing, food grade versions. Body Ø300, Ø400 and Ø500 mm with capacity from 0 to 1,500 kg/h. Cleaning system by pneumatic filter shaker with stainless steel cylinder. Exhaust via butterfly valve. Can be dismantled into two parts via quick connect strip. With tear-resistant seals made of vulcanised silicone conforming to EU Reg. 1935/2004 and FDA.

Compliant with EU Reg. 1935/2004 and FDA.

✓ no de-mixing of the product ✓ high safety standards



X30HVP



X40HVP



X50HVP

Hopper diameter	Ø mm	300	400	500
Capacity	L	15	30	50
Feeding pressure	bar	4-6	4-6	4-6

Pneumatic conveying systems for capsules and tablets

PR

The new PR200 pressure transport model is suitable for feeding of filling systems with empty capsules and blister machines with full capsules without changing their integrity and without opening them. It is made entirely of stainless steel; it works with compressed air and thanks to this the noise level is minimal. The hopper can hold up to 200 litres of product. Due to its small size, it can be used in small spaces. All connections are made with Tri-Clamp clamps for easy disassembly and sterilisation.

20-litre model also available.

✓ easy sanitisation ✓ product integrity ✓ compact dimensions



		PR20	PR200
Air flow	m ³ /h	da 200 a 500	da 200 a 500
Compressed air consumption	kg/h	da 300 a 1.000	da 300 a 1.000
Compressed air pressure	L	da 3 a 6	da 3 a 6

COMPLETION SYSTEMS

PNEUMATIC LIFTER

The K.SO.005 is completely made of stainless steel 304, easy to handle, and is particularly suitable for operations that require flexibility in the discharge of the sucked product. Thanks to the arm that can rotate and reach a maximum extension of 1350 mm, it is adaptable to any situation. No compressed air connections are required. Very easy to use, with a single control that allows the loader to be raised and lowered for placement on automatic machines. A pneumatic safety circuit locks the column in the position reached even in the absence of compressed air. All connections are made with clamps that facilitate disassembly and sterilisation.

The K.SO.005 pneumatic lift is suitable for use in combination with the pneumatic conveyors Ø 220, 280, 300, 360, 400 mm.

✓ high flexibility of use ✓ easy sanitisation



K.SO.005 equipped with VH



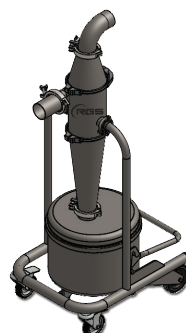
K.SO.005 equipped with X28

CYCLONE SEPARATOR

Wheeled filtering unit with cyclone and collection container. The cyclone separator allows dust to be recovered and screened, and is interposed between the packaging machine and the suction unit/suction base.

- easily disassembled body
- made of AISI 304/316 stainless steel polished inside/outside

✓ maximum dust containment ✓ safety for operators



PRODUCT COLLECTION HOPPER

Product intake containers made of AISI 316 stainless steel to be used for product intake.

Circular, square and vertical wall models are available, with capacities from 15 to 60 litres.

All versions can be equipped with level control, vibrator to facilitate product descent, air flow valve, wheels and lid if required.



EMPTY BIG BAG MODULAR

Three versions are available:

SB1: lower structure only (the big-bag needs an external bracket to be supported).

SB2: consisting of lower structure and upper bracket for supporting the big-bag (the big-bag needs a forklift to be moved).

SB3: consisting of lower structure and prepared with rail for hoist.

In addition to these standard models, we can supply customised versions, both in height and in discharge.

They can be manufactured either with 'petal' technology or with the vibration system. Both versions can be constructed in painted steel or stainless steel, depending on industry requirements, and integrated weighing systems can be realised.

✓ *petal technology* ✓ *high customisation of construction*



ACCESSORIES

Wide range of silicone accessories for removing dust or processing residues from production lines.

Available with **FDA** certification for food contact.



Straight conical lance
and with handle



Trunk
conical



Flat suction cup
and notched

SAFETY SYSTEMS

F236 Pharma with BIBO

Robust and specifically for dust extraction and use in industrial Atex work environments for the pharmaceutical sector.

Practical and manoeuvrable with vertical dimensions to meet space and height requirements. Equipped with differential **vacuum gauge** with visual indication of primary filter clogging level. Equipped with a cartridge filter with an easy replacement system (**bibo**) preventing the operator from coming into contact with the sucked product. In addition, there is an H14 absolute expulsion filter.

✓ *maximum protection for operators* ✓ *high filtration efficiency*



F236

Voltage	Volts	3~ 400V/50Hz
Power	kW	1.5
Maximum depression	mbar	250
Maximum air flow	m ³ /h	210
Primary filter surface	m ²	1.78
Container capacity	L	10, bibo system
Noise level	dB(A)	75
Dimensions	cm	45x77x142h
Weight	kg	78

BIBO Canister

- Mobile unit with H14 Bag-In Bag-Out (bibo) filter.
- Total safety for the operator during maintenance and high efficiency during operation.
- With on-board analogic magnehelic for visual control of filter clogging level

✓ *maximum protection for operators*

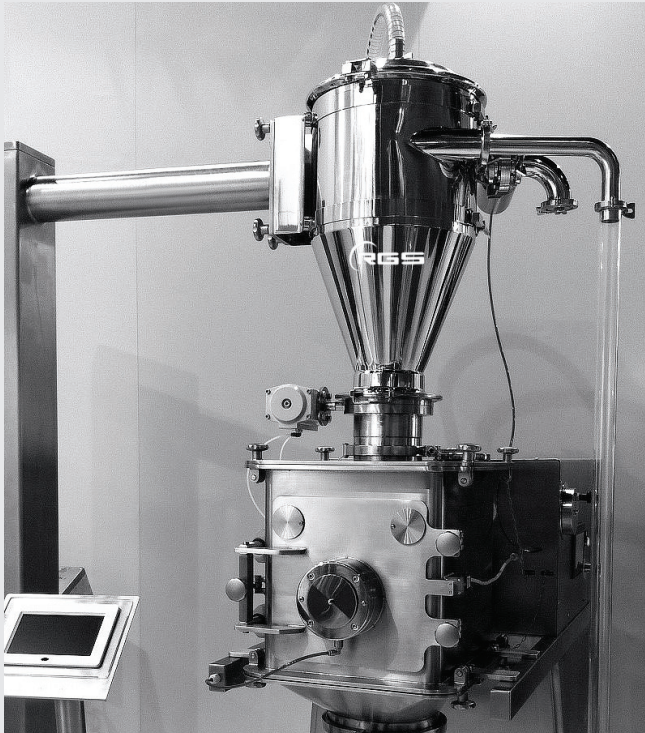


Sintered filter unit

- Filter assembly made of EN 1.4404 (AISI 316L) stainless steel body, SINTEK® EPDM FDA gasket, and sintered polyethylene filter sterilizable.



Granulation



Mixing



Compression



Capsules filling

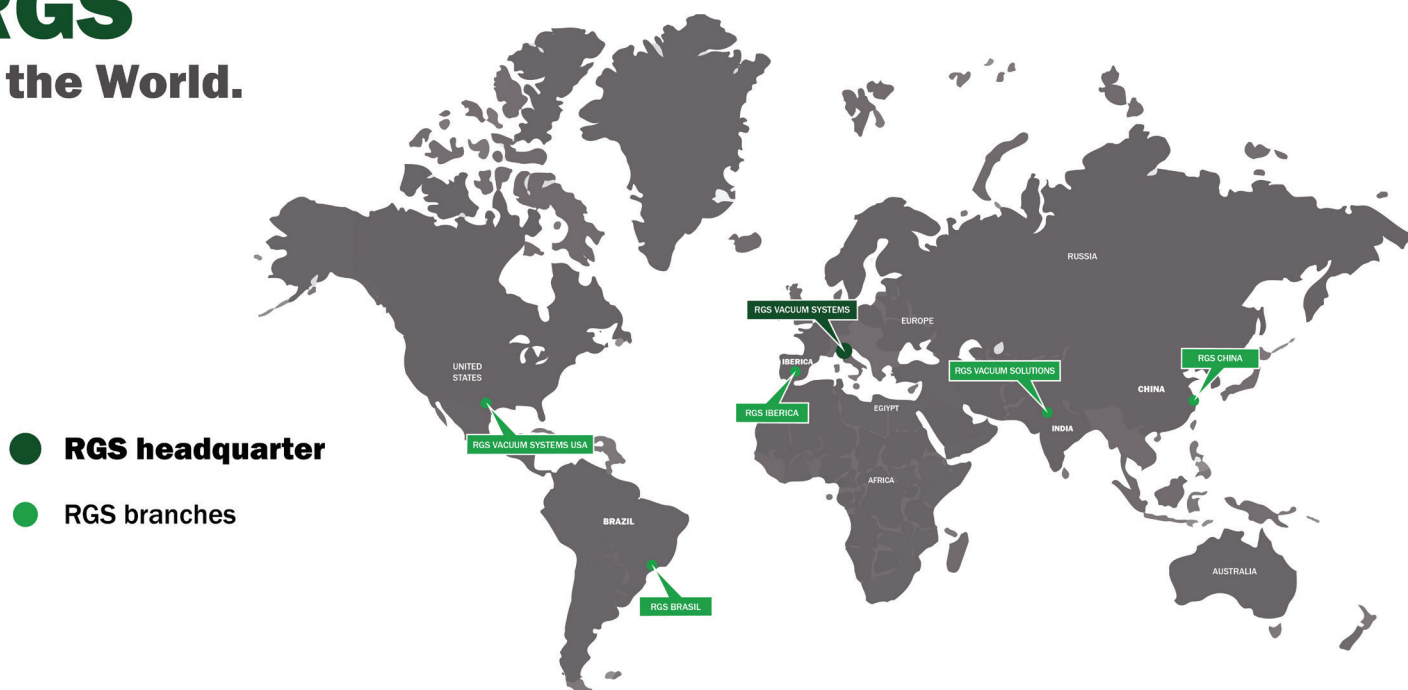




Since 1997 Vacuum Material Handling Solutions

INDUSTRIAL VACUUM CLEANERS | PNEUMATIC CONVEYORS | CENTRALIZED SYSTEMS

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in the World.



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