



ADVANCED TECHNOLOGY
in the handling of powders
and containment

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Company Profile

Agierre has been working from many years in the Italian and European market place as Leader Company in the projecting and manufacturing of machines and plants mainly used in the **pharmaceutical, chemical and food industries**. All Agierre's Machines and Plants are designed and manufactured with an **innovative technology** which allows their patentability.

Departments

Research and development

Quality is the permanent goal of AGIERRE



To improve automation for industries

High precision production



AGIERRE®

Engineering & Innovative Solutions

DISPENCING

HANDLING

PACKAGING



Vacuum transfer system for powder and grains

VTS - Vacuum transfer system



VTS: P.E.D. version



VTS: Filtervac version



VTS: Hoppervac version



VTS - Vacuum Transfer System for powder



The Vacuum Transfer Systems have an innovative design and they can be customized according to the technical requirements of each Customer. According to the technical and processing specification the Vacuum Transfer Systems can have **different configurations**:

Basic

Overpressure

Inertisation

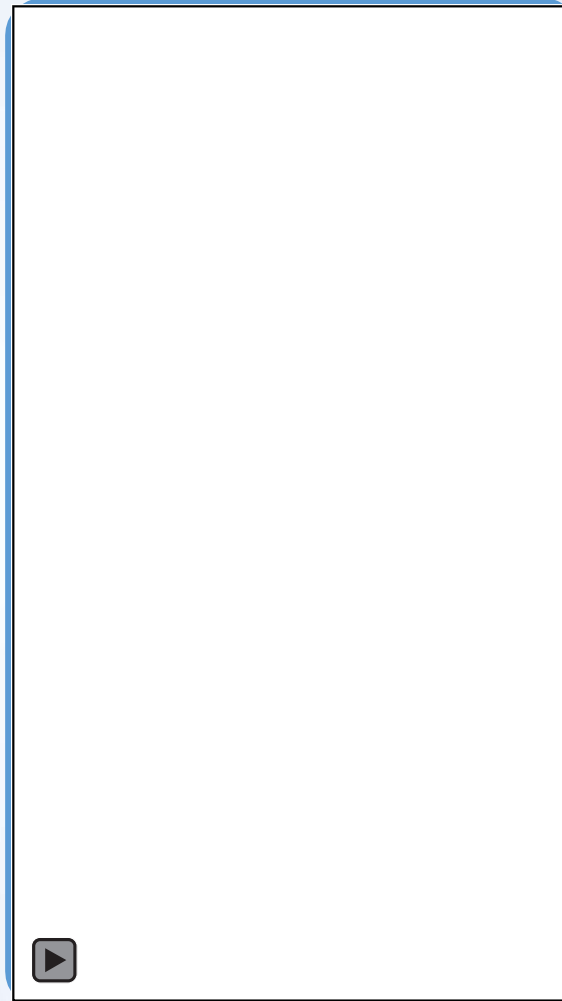
The connections could be with clamp, wing nuts or flanged (also in the UNI PN16 version).

Vacuum Transfer System with W.I.P., C.I.P. and S.I.P. systems

The Vacuum Transfer Systems can be equipped with some accessories that allow to wash, dry and sterilize it through the **W.I.P. (washing in place)**, **C.I.P. (cleaning in place)** and **S.I.P. (steam in place)** systems.



Play
video →



Vacuum transfer system - Installations



Vacuum transfer system PED (Pressure Rated)

The PED Conveyors are manufactured for the need to install the Vacuum Transfer System on reactors PED classified (according to the Directive 97/23/EC).

Overpressure

Inertisation

Also the PED Conveyors can be manufactured with **W.I.P.** (washing in place), **C.I.P.** (Cleaning in place) and **S.I.P.** (Steam in place) Systems.



Vacuum transfer system PED (Pressure Rated)

Ferrule of vapour collector



Through the Ferrule of Vapour Collector the Vacuum Conveyor can be installed directly on reactors and/or dissolvers even with both solvents and vapour, thanks to a structure with double cavity wall which creates a barrier of laminar flow. The double cavity wall traps the vapour of reactor which goes up to the inlet connection of reactor.

This system avoids any product accumulation on the discharge valve of the Vacuum Conveyor installed on the reactor, simplifying the discharging phase of product.



Vacuum transfer system - Installations



Vacuum transfer system in Filtervac

The Vacuum Conveyor type FILTERVAC is used to charge machines like Mixer, Reactor and Bicone where it's not possible to install the Vacuum Conveyor directly on the machine.

Also the Filtervac can be manufactured with **W.I.P.** (washing in place), **C.I.P.** (Cleaning in place) and **S.I.P.** (Steam in place) Systems.

Basic

Overpressure

Inertisation



Vacuum transfer system in Hoppervac

The Vacuum Conveyor type HOPPERVAC is mainly used when it's necessary to transport the product into a tank and/or container using the HOPPERVAC as a storage unit to supply another machine. In this case the HOPPERVAC is used not only as a powder transfer system but also as a container of product accumulation.

The functioning is the same of standard Vacuum Conveyor

Also the Hoppervac can be manufactured with **W.I.P.** (washing in place), **C.I.P.** (Cleaning in place) and **S.I.P.** (Steam in place) Systems.



Basic

Overpressure

Inertisation



Lifting Column for Bin

The Lifting Column for Pharma BIN is mainly used in the chemical, pharmaceutical and food industries to optimize the production process of the handling of powder and avoid the “cross-contamination” processes. Upon request it can be manufactured also according to the **Atex** Directive therefore it can be installed in powdery zones. It has a primary internal galvanized iron structure and an external stainless steel AISI 304 carter at which is connected the arm.



Automatic system for the
Vibrator activation



Automatic system for the
valve opening

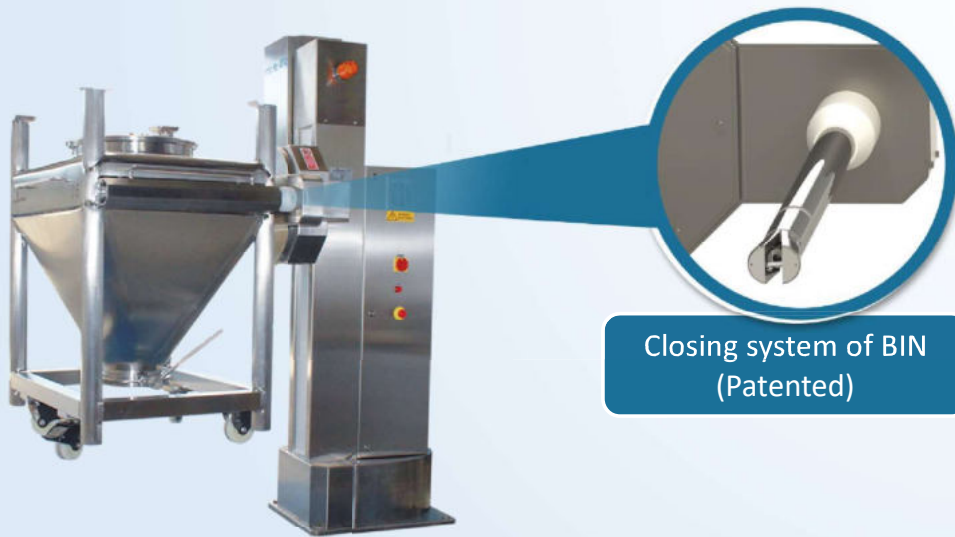


Bin Blender Column

The BIN Blender Column can be also used as a Lifting column.

The arm has a specific connection for Bin with 10° angle for a better mixing process. The forks of Bin Blender Column have an automatic device of lock/unlock of BIN (Patented)

All functions of the BIN Blender Column are managed automatically by the control panel with PLC system.



Lifting Column for Vacuum Transfer Systems

The Lifting Columns of AGR-LTFT series are mainly used to lift and support Vacuum Conveyor. They have the same structure and functioning of the Standard Lifting Columns of AGR-LIFT series. All functions of the Lifting Column (horizontal and vertical movement as well as all customizable technical specifications) are managed automatically by the control panel with PLC system.



Lifting Column for Drums

The Lifting Columns for Drums are mainly used to lift and rotate carton and plastic drums. They have the same structure and functioning of the Standard Lifting Columns of AGR-LIFT series.

Also in this type of Lifting Column the lifting system is made of a “worm screw”.



All functions of the Lifting Column for Drums (horizontal and vertical movement) are managed automatically by the **control panel** that could have a **pneumatic, electrical-pneumatic PLC system**.



Colonna di sollevamento per fusti

The Lifting Columns for Drums are mainly used to lift and rotate carton and plastic drums. They have the same structure and functioning of the Standard Lifting Columns of AGR-LIFT series.



Motorized trolley



Tumbler

The Tumbler is designed for mixing and homogenization of dry powders, and is primarily used in the **Pharmaceutical and Chemical Industries** in all those processes of **handling** of powders in which there is the need to mix homogeneously the powders directly inside Bin without the loading, unloading and cleaning operations of the mixer.



The Tumbler is managed by a PLC system that is connected at the safety sensors and the closing system of the arm.

The Tumbler produces a well mixing effect thanks to the double 15° inclination of the rotation axis of the machine, and it rotates the BIN both clockwise and counterclockwise.



Bin Blender

This type of Bin Blender consists of a **Mobile Mixer for BIN** designed for **mixing and homogenizing dry powders**. It is mainly used in the **Pharmaceutical and Chemical Industry** and in all those **handling** processes where there is a need to mix the powders homogeneously and directly into the Bin eliminating the loading, unloading and cleaning of the mixer.



MBL 300

For bin up to 300l



The **fixing and connection system** of the Bin can be **personalized** according to the specific requests of the customer.

Rotates the BIN both clockwise and counterclockwise.

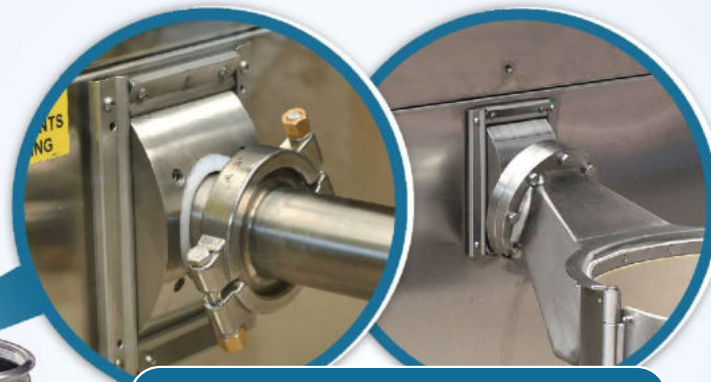
MBL 30

For bin up to 30l



Drum Blender

The **Drum Blender** is designed for dry powders blending and homogenisation. It is used in all pharmaceutical, chemical, food, plastic and mineral handling processes, where it is needed to mix the powders homogeneously and directly into the drums avoiding the loading, unloading and cleaning operations of the mixer.

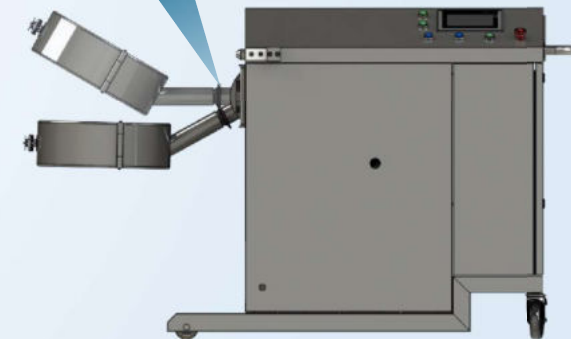


The **fixing and connection system** of the Drum can be **personalized** according to the specific requests of the customer.

For drums up to 200l

Rotates the BIN both clockwise and counterclockwise.

Inclination up to 30°



Cip-Skid

The mobile cip-skid machine washes and dries pharmaceutical bin and conveyors.

The **bin** and **conveyors** are washed and dried through a precise setting program managed by plc system.

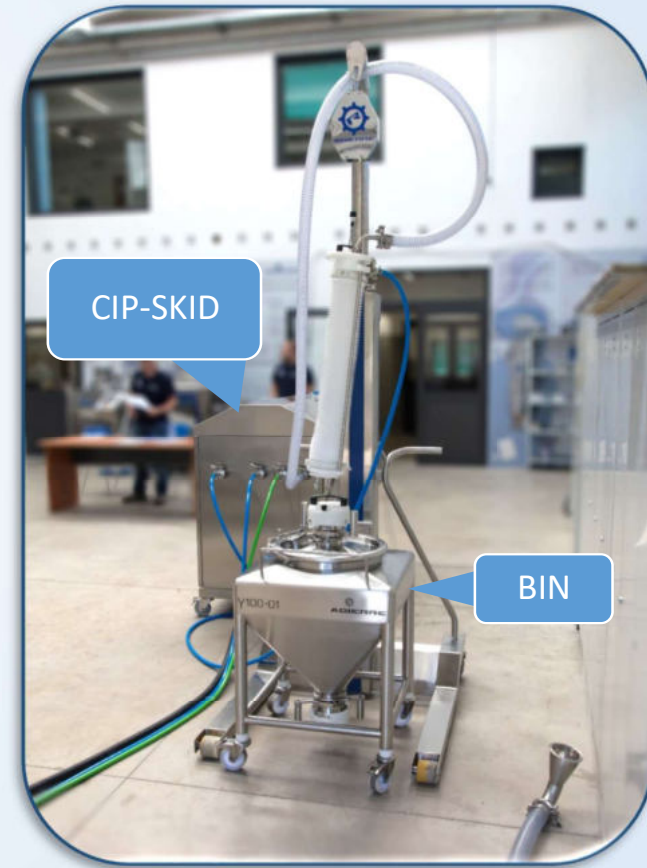


Comveyor washing



CIP-SKID

BIN

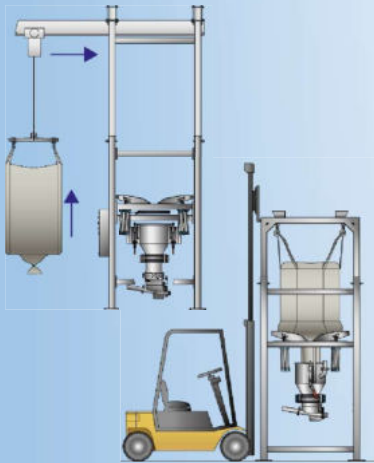


Big Bag Emptying structure

The Big-Bag emptying structure is a modular system with different configurations, depending on the type of application, used for the empty Big-Bag system.

The whole system is controlled by PLC system and is designed in accordance with the Machinery Directive 2006/42/EC and all the safety systems; upon request it is designed for applications in **ATEX zones**.

Two type of configuration



**Movable
Petals**



The discharge of product is made without any powders emission through a closing and tightening system properly designed for the specific Big-Bag.

Lifting Column for Emptying Big Bag

The Lifting Column for emptying Big Bag of AGR-LIFT series is designed and manufactured for the handling and supporting Big Bag.



It is mainly used in the **Chemical, Pharmaceutical and Food Industry** especially in those processes of handling of powder to optimize the production flow and avoid cases of "cross pollution". Upon request it could be installed in powdery environments and in **ATEX classification zone**.

Installations



AGR – Bag Press

The AGR BAGPRESS Conditioner for Big-Bag is used to recondition a Big-Bag, to bring its bulk solid materials into more or less granular powder, by pressing two tubular forks equipped with crushing plates. The machine is suitable to be used into both chemical and pharmaceutical environments.



Emptying system for bags and drums

The manual bag emptying system represents the ideal solution for emptying of powder or granules in the spaces with the complete absence of dust. It can be managed by a control panel with pneumatic operating system or with the PLC according to the specific application.

The system is so designed to minimize the internal stagnation of the product and **can be customized** with different solutions to meet the wide multiplicity and variety of applications.



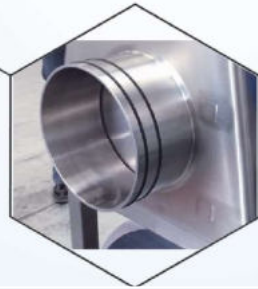
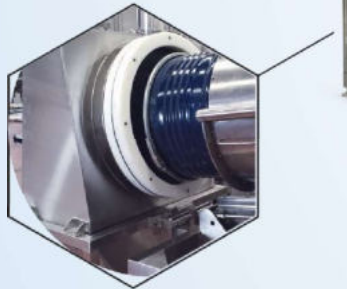
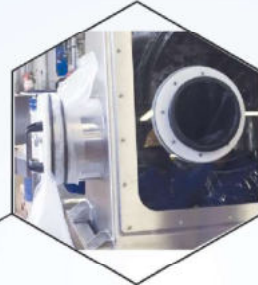
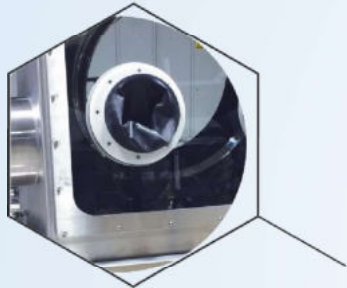
Opening system of door: the system can be customized with an openable glass door with the application of two gloves that allows to manipulate the product internally **without the environment or the operator are exposed to the product**.



Emptying system for bags and drums

Ventilation system: the upper chamber can be connected to a general extraction system or can be used without ventilation only by means of the installed filters.

Filtration system: the working chamber is provided with a special filtration system according to the degree of containment that is required (polyester filters or HEPA filters).



Lifting and tilting drums system: according to the types of application the system can be arranged for emptying of drums thanks to an automatic tilting mechanism for drums with an inflatable seal ensuring an OEB4 level of containment;

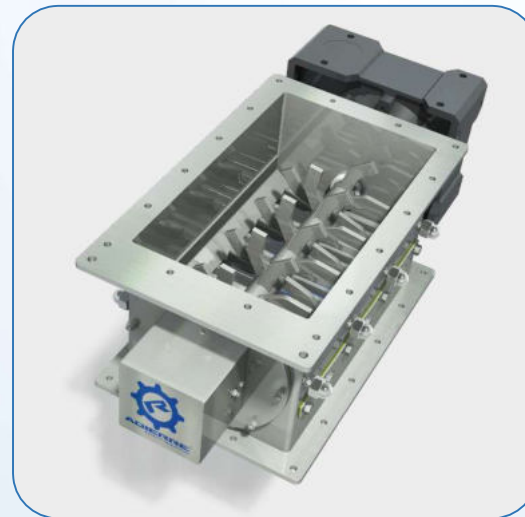
Continuous liner system: it can be installed on a side of the upper chamber and used for the safe removal of waste or for the introduction of instruments into the chamber. Inside there is a hinged door or a cap to guarantee the closure of such connection when the system is not used.



Lump Breaker

The **Lump Breaker model AGR-BREAKER** allows to crush the lumps that could form in the materials during the production process or the handling of powders. It is characterized by a self-cleaning design with very small dimensions and can also be mounted within existing systems or systems for emptying (bags, drums and Big-Bag), or usually located immediately above vessel, filter dryers, centrifuges, mixers and generally on the process machine.

The Lump Breaker is manufactured in accordance with the Machinery Directive 2006/42/EC and upon request **it can be manufactured for installation in ATEX zones.**



The **lump breaker aspiration lance** is designed to work in vacuum and to be connected with our Vacuum Conveyor. It finds the main application in the chemical and pharmaceutical Industries for the handling of humid powders with big lumps that the standard suction lance can't transport.

The lump breaker lance can be manufactured also with a fluidisation air/nitrogen system which guarantee the right air/nitrogen proportion for the fluid dynamics balance.

Reference List

	A.C.R.A.F. - Rome site - Italy
	ABBOTT/ABBVIE - Italy
	ALMIRALL Barcelona - Spain
	AMANO - Japan
	AMRI - Italy
	BALCHEM - Italy
	BARILLA - Italy
	BASF (Rome - Italy)
	BASF Schweiz AG (Monthey)
	BIDACHEM - Italy
	BRISTOL MYERS SQUIBB - Italy
	BRACCO - Italy
	B.S.P. - Italy
	CAMBREX - Italy
	CANNAMELA - Bonomelli Group -Italy
	CHEMI - Italy

	CHIESI - Italy
	CLARIANT - Italy
	COSMA - Italy
	DE ANGELI - Italy
	DOMPE - Italy
	GALENTIS - Italy
	GEYMONAT - Italy
	ECI PACKAGING LTD
	EIPICO (Egypt)
	ERREGIERRE - Italy
	FAVEA - Czech Republic
	FERMION (FINLAND)
	F.I.S. - Italy
	FRESENIUS-KABI - Italy
	FREWITT - Switzerland
	GADOR SA (Argentina)

	GNOSIS - Italy
	GNOSIS – Switzerland
	HAITOGLOU BROS - Greece
	HUMANA PHARMA - Italy
	I.M.S. - Italy
	INDUSTRIALE CHIMICA - Italy
	INFA LABOCHIM - Italy
	ITF CHEMICAL – Brazil
	JAPAN MACHINERY - Japan
	JANSSEN - Italy
	LABORATORIO FARMACEUTICO MILANESE - Italy
	LABORMED - Romania
	LABOMAR - Italy
	LAMBERTI - Italy
	LEKPHARM (Belarus)

Reference List

	LANXSESS – Italy
	LUNDBECK Italy
	Lusochimica - Italy (Gruppo Menarini)
	LMP - Tunisie
	Lima Corporate – Italy
	MAGIS – Italy
	MARCO VITI - Italy
	MECATEX - Switzerland
	MIMETE - Italy
	MONTENEGRO Bonomelli Group - Italy
	MULTI APEX PHARMA (Egypt)
	NESTLE' Product Technology Centre (Germany)
	NALCO Champion - USA
	NALCO Manufacturing - UK
	NALCO Manufacturing - Italy

	NORTEC QUIMICA (Brasil)
	Nilar - Sweden
	NOVARTIS - Napoli site - Italy
	NOVARTIS Barcelona - Spain
	NOVARTIS – Singapore
	NOVUS CAROTENOIS TECHNOGIES S.L. (Spain)
	OLON - Italy
	PATHEON - Italy
	PERUGINA - Italy
	PFIZER ITALIA - Italy
	PROCOS (ITALY)
	ROCHE (Italy)
	SABO - Italy
	SANDOZ - Romania

	SIEROLAT - Italy
	HUVEPHARMA - Garesio site - Italy
	SANOFI AVENTIS – Origgio site - Italy
	Sanofi company at Scoppito site (Aquila - site in Italy)
	Sanofi Company at Origgio site (VARESE - site in Italy)
	Sanofi Company at Garesio site (CUNEO - site in Italy)
	SIGMA TAU – Latina site - Italy
	SEITENBACHER GmbH (Germany)
	SIFAVITOR - Italy
	TECNOINOX - Italy
	TEVA (POLAND)
	TEVA (Italy)
	TEVA (ISRAEL- Jerusalem site)
	TEVA (Israel - Kfar-Saba)

Reference List

	TS Systems B.V. (Netherlands)
	UNIPHARM (Israel – Tel-Aviv)
	VALPHARMA – Italy
	V.MANE FILS - Fance
	WORLD MEDICINE EUROPE (Romania)
	WORLD MEDICINE EUROPE (Turkey)
	WYETH (PFIZER GROUP) – Italy, Latina site
	ZACH (ZAMBON GROUP) (ITALY)
	ZAMBON - Switzerland
	ZENTIVA (Turkey)



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