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ALGO DOSYS SAGL

SWISS  MADE

PRODUCT CATALOG



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ABOUT US

Algo Dosys, company bases in Mendrisio in Switzerland, has been leader for over 30 years in the design and construction of conveying and gravimetric and volumetric dosing systems for any type of material.

It also produces electromagnetic vibrating bases for linear transport, for every sector such as plastics, rubber, chemical-pharmaceutical and foodstuffs.



It meets the needs and requirements of individual customers from design, development, implementation through to installation, training and after-sales service.



Precision, flexibility and innovation are its hallmarks.



DOSING SYSTEMS

The feeders form the basis from which to obtain an excellent finished product.

The different types of feeders ensure, in addition to wide versatility, maximum process quality by minimizing any waste or irregularities as much as possible.

Both volumetric and gravimetric feeders can be modified according to customer needs and are designed for maximum yield.

While volumetric feeders are mainly used for a conveyor or a load, gravimetric feeders play a key function in various processing where the key word is precision.

In fact, thanks to its weighing system, the feeder can accurately determine the hourly flow rate of the material stream in continuous mode.



The dosing system can be managed either locally or remotely with a PLC, pc, or other. The machine is operated by means of a Touch panel where the operator is able to set all parameters and read data easily.



DOSING SYSTEMS: VIBRATING CHANNELS

The dosing of granules, grains, fibres with irregular dimensions or simply recycled material / flakes is best suited with a vibrating channel. It is an homogeneous and continuous conveying or dosing with a high flow range and it requires no maintenance.



The feeder consists of an AISI 304 stainless steel linear channel designed according to the customer's requirements and the type of material to be fed. Vibration occurs by means of a vibrating base proportioned to the type of transport required. Dosing can be of the volumetric or gravimetric type thanks to the use of a load cell. Its dosing precision is guaranteed by the 24-bit weight reading.

Its compact design makes it easy to place, even in small spaces. The cleaning system can be operated by means of a pneumatic piston installed on the channel, reducing emptying times to a minimum and all in autonomous way.

On request, they are also available in Full Inox AISI 304 with FDA certification for foodstuffs and Atex zone 22 for potentially explosive working environments.

DOSING SYSTEMS: VIBRATING CHANNELS

An automatic cleaning system using a pneumatic piston has been developed on all vibrating channel feeders.

By selecting a manual selector placeable on the on-board junction box, the pneumatic piston below the channel will actuate a plate that will divert the flow of material further into the second outlet.

Once emptying is complete, the piston will return to its home position.



All this will make the emptying/cleaning phase easier and greatly reduce waiting time.

Very useful for performing a calibration, cleaning or colour change during production.



DOSING SYSTEMS: VIBRATING CHANNELS - BIG

Continuous channel gravimetric dosing unit with vibrating channel for dosing granules of any nature for flow rates from 20 kg/h to over 800 kg/h with a flow rate error of less than 1%.

The Single Point load cell allows flexibility to the weighing system maintaining accurate readings even when the load may not be positioned in unevenly so it will always read the same value at any load point.

Large vibrating channels can have a maximum width of 300 mm up to a maximum length of 600 mm (material loading - unloading measurements) with a single vibrating base



Continuous volumetric vibrating channel feeder with manual loading system and capacitive sensor of material presence. The system positioned a cart makes it particularly easy to use to use on different production lines



DOSING SYSTEMS: VIBRATING CHANNELS – MEDIUM

Continuous gravimetric dosing unit with vibrating channel for dosing granules such as masterbatch, compound, additives or similar, for a flow rate from 2,5 Kg/h to over 80 Kg/h with a flow rate error of less than 1%.

Completely storage hopper system for manual loading and with a capacitive sensor of material presence.

The single point load allows for a certain flexibility to the weighing system, maintaining accurate readings and ensuring dosing accuracy.

Small vibrating channels can have a maximum width of 50 mm up to a maximum length of 250 mm (material loading - unloading measurements) with a single vibrating base.



VIBRATING CHANNELS – SMALL

Continuous channel gravimetric dosing unit with vibrating trough for dosing granules such as masterbatch compounds, additives or similar, for flow rates from 0.1 Kg/h up to over 20 kg/h with a flow rate error of less than 1%.

The high dosing accuracy is due to its design developed and conceived for low flow rates. The V-shaped bottom and the damper at the beginning of the channel makes it possible to determine the exact quantity of material that will flow through it.



DOSING SYSTEMS: SINGLE SCREW

Single screw feeders are ideal for dosing mainly powders, flours, and micro granules. The sizing of the dosing unit from the auger to the hopper is determined by the material and the customer's requirements. Dosing can be volumetric or gravimetric thanks to the use of a load cell and a weight-reading device that guarantees accuracy.

The machine body is made entirely of AISI 304 stainless steel.

The construction is modular, characterised by extreme ease of disassembly, which simplifies cleaning for product change needs.

The range offers a wide selection of dosing screws and spirals, bridge breakers and hoppers, all interchangeable with each other.

Its motorisation consists of a single three-phase motor that acts on both the bridge breaker and the screw and increases its speed according to the flow rate.



An Atex zone 22 version is also available on request.

DOSING SYSTEMS: TWIN SCREW

Twin screw feeders are ideal for dosing mainly powders, flours, and microgranules with different characteristics. They are suitable for materials that are particularly sticky and difficult to dose. The double auger guarantees high dosing accuracy. Its sizing is determined by the material and the customer's needs. Dosing can be volumetric or gravimetric thanks to the use of a load cell and a weight-reading device that guarantees accuracy.

Thanks to the use of self-cleaning dosing screws, even sticky and plasticising materials can be dosed.

The construction is modular, characterised by extreme ease of disassembly, which simplifies cleaning for product change needs.

The range offers a wide selection of dosing screws and spirals, bridge breakers and hoppers, all interchangeable with each other.

Its motorisation consists of a double three-phase motor. One acts directly on the bridge breaker and can be operated separately. The other motor operates on the augers through a gearbox that sets the conveying range.

An Atex zone 22 version is also available on request.



DOSING SYSTEMS: PUMP UNITS

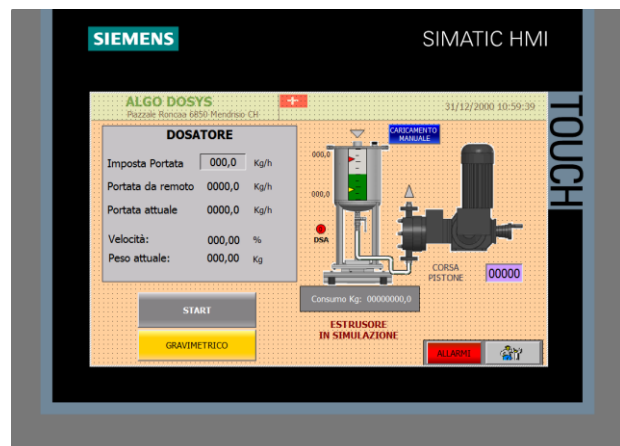
Algo Dosys completes its range of dosing systems with pump units for dosing or transporting liquids.

Handling is mainly by means of a piston and double diaphragm pump coupled via a speed reducer to an electric motor.

The system is equipped with a damper that has the function of making the material output constant with an analogue pressure gauge with an adjustable alarm threshold and an overflow valve as a safety bypass.



The load cell located under the heavy structure guarantees optimal continuous gravimetric dosing with the possibility of managing all system configuration parameters.



Its effectiveness is intended to last over time while maintaining high levels of functionality and performance.

An Atex zone 22 version is also available on request.

ELCTROMAGNETIC VIBRATING BASES

Vibrating bases are used for conveying and dosing products such as granules, recyclates and other flowable materials. Their operation, by means of an electromagnetic coil, spans various sectors from plastics to foodstuffs. The vibrations they generate in the channel ensure the homogeneity of the transport and the stability of the system.

Low energy consumption

Quick adjustment

No maintenance costs

Fast cleaning

Wide dosing range

Flow rate from 100 g/h to 6 t/h

Local or remote operation

Simple and compact design



Available in ATEX and full Inox versions with FDA components

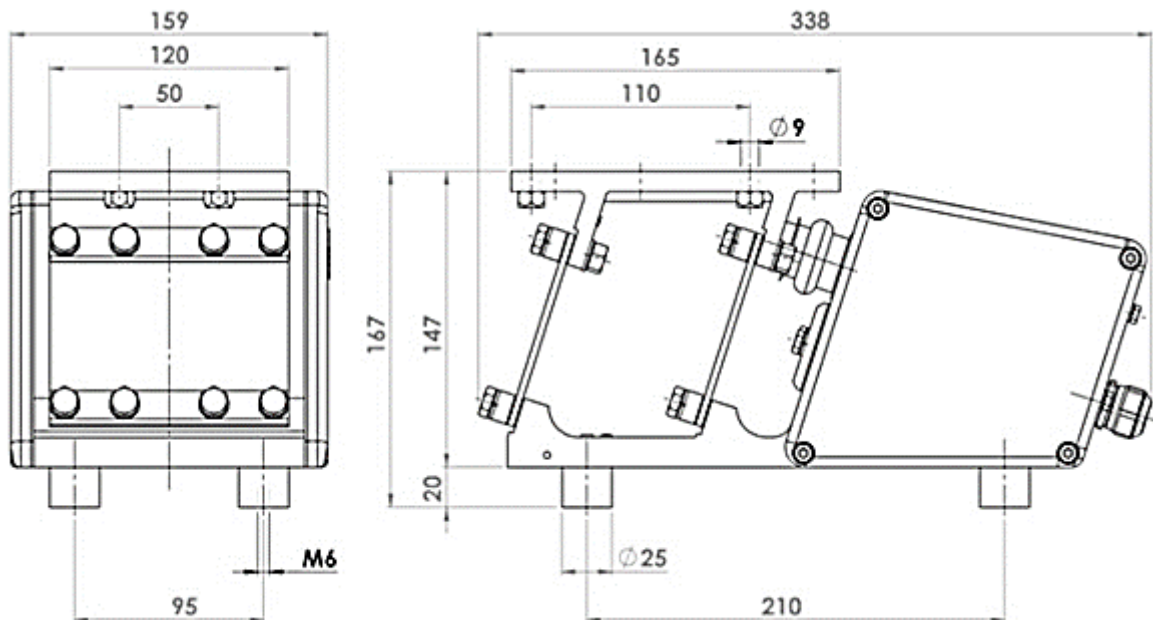


BIG VIBRATING BASES

TECHNICAL DATA	VG32	VG33
Base weight	15 Kg	
Work sector	Plastic, rubber, recycled, compound, food, chemical	
Maximum channel weight	15 Kg	
Max dimensions channel for vibrating base (loading - unloading measures L X W)	600 X 250 mm 400 X 350 mm	
Possibility of additional spring stations	Yes	
Type of anti-vibration mounts	Shock absorber 40 / 70 Sh / Inox	
Base fixing points	4 X M6	
Channel fixing points	4	
Hour flow	50 .. 6000 kg/h	
Tachometer sensor	No	BAD/02
Controller	Commercial	AD-CDVW/02
Frequency of resonance	Manual	Automatic
Cables	3X1,5 mm	3X1,5 + 2X1 mm
Max absorbed current 230V 50Hz	1.5 A	
IP protection degree	55 / 66	
Standard color	RAL 9011(matt black)	
Spring material	Glass fibre	
Atex version (Zone 22)	Yes	
AISI 304 stainless steel version	Yes	
Electromagnetic coil 110V 60Hz	Yes	
Working temperature	-20 .. +40 degrees	
CE compliant	Yes	

BIG VIBRATING BASES



Version	Description	
VG32g	In iron cast painted	
VG32g/Ex	Suitable for Atex zone 22	
VG33g	In iron cast painted	
VG33g/Ex	Suitable for Atex zone 22	
Inox version	Description	
VG32i	In stainless steel AISI304	
VG32i/Ex	In stainless steel AISI304 + suitable for Atex zone 22	
VG33i	In stainless steel AISI304	
VG33i/Ex	In stainless steel AISI304 + suitable for Atex zone 22	
<p>Inox version for food, chemical-pharmaceutical industries with silicone parts in FDA certification. SS AISI 316L on request.</p>		

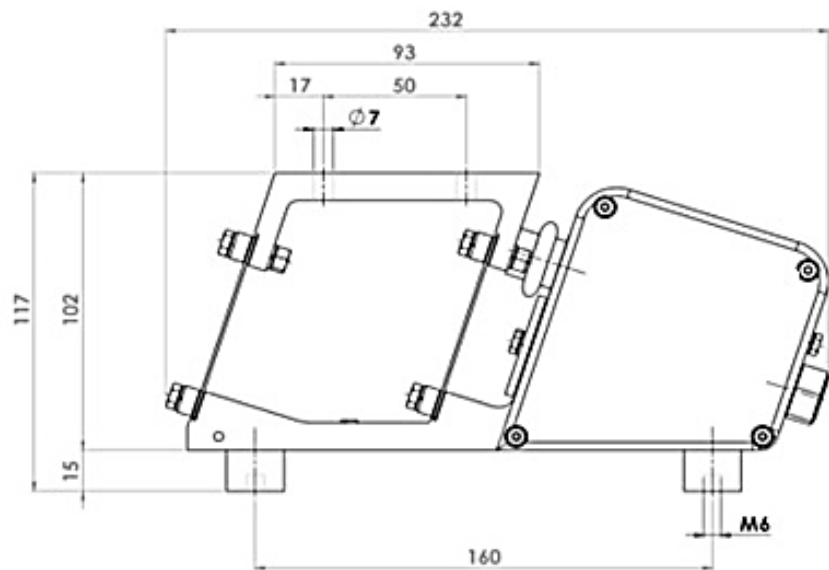
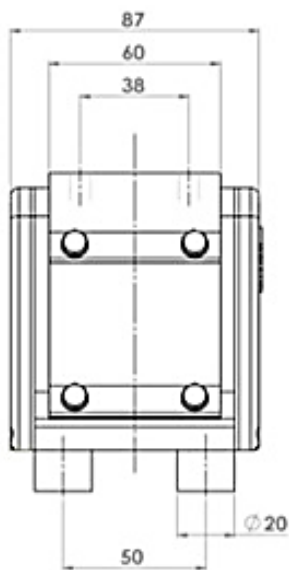


SMALL VIBRATING BASES

TECHNICAL DATA	VP10	VP12	VP13
Base weight	5 Kg		
Work sector	Plastic, rubber, recycled, compound, food, chemical		
Maximum channel weight	3 Kg		
Max dimensions channel for vibrating base (loading -unloading measures L X W)	250 X 50 mm (max height 50 mm)		
Possibility of additional spring stations	No		
Type of anti-vibration mounts	Shock absorber 40 / 70 Sh		
Base fixing points	4 X M6		
Channel fixing points	3		
Hour flow	0.2 .. 50 Kg/h		
Tachometer sensor	No	BAD/02	
Controller	Commercial	AD-CDVV/02	
Frequency of resonance	Manual	Automatic	
Cables	3X1,5 mm	3X1,5 + 2X1 mm	
Max absorbed current 230V 50Hz	0.15 A		
IP protection degree	55 / 66		
Standard color	Inox	RAL 9011(matt black)	
Spring material	Glass fiber		
Atex version (Zone 22)	Yes		
AISI 304 stainless steel version	Yes	No	
Electromagnetic coil 110V 60Hz	Yes		
Working temperature	-20 .. +40 degrees		
CE compliant	Yes		

SMALL VIBRATING BASES

Version	Description	
VP12g	In iron cast painted	
VP12g/Ex	Suitable for Atex zone 22	
VP13g	In iron cast painted	
VP13g/Ex	Suitable for Atex zone 22	
Inox version	Description	
VP10i	In stainless steel AISI304	
VP10i/Ex	In stainless steel AISI304 + suitable for Atex zone 22	
Inox version for food, chemical-pharmaceutical industries with silicone parts in FDA certification. SS AISI 316L on request.		



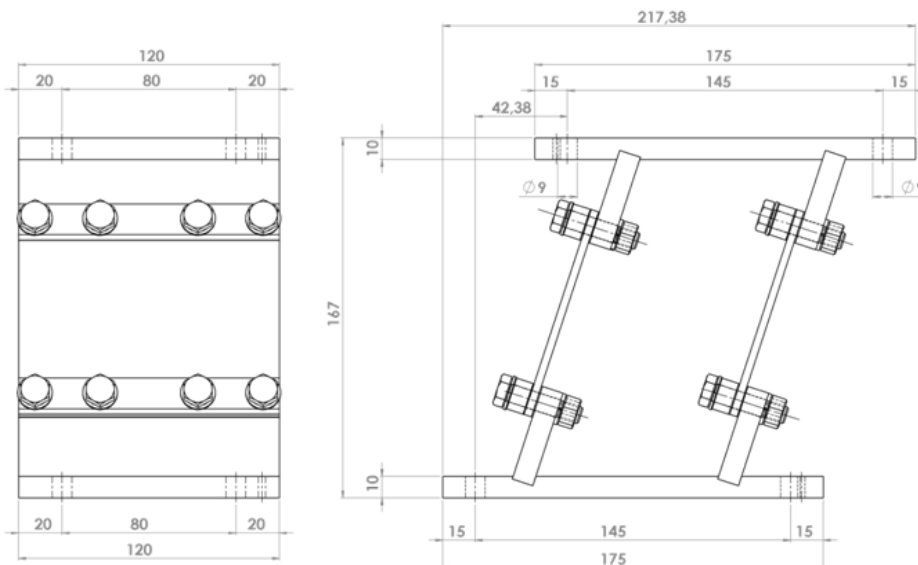
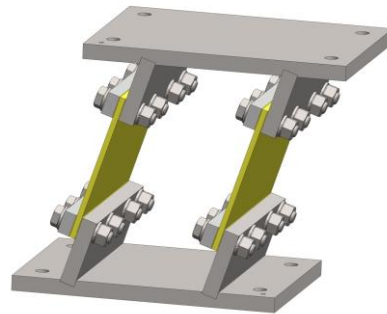
SPRING STATIONS

The spring station is used where there is a demand to increase the load and/or channel size on the vibrating base.



The spring station permits to design and produce vibrating tubes as long up to 3500 mm with a width of 250 mm, or even 600 mm long vibrating tanks with a width of 900 mm, always using a single vibrating base (VG32 / VG33).

The spring station consists of 2 reinforced cast aluminium parts without welding points that make it light and strong.

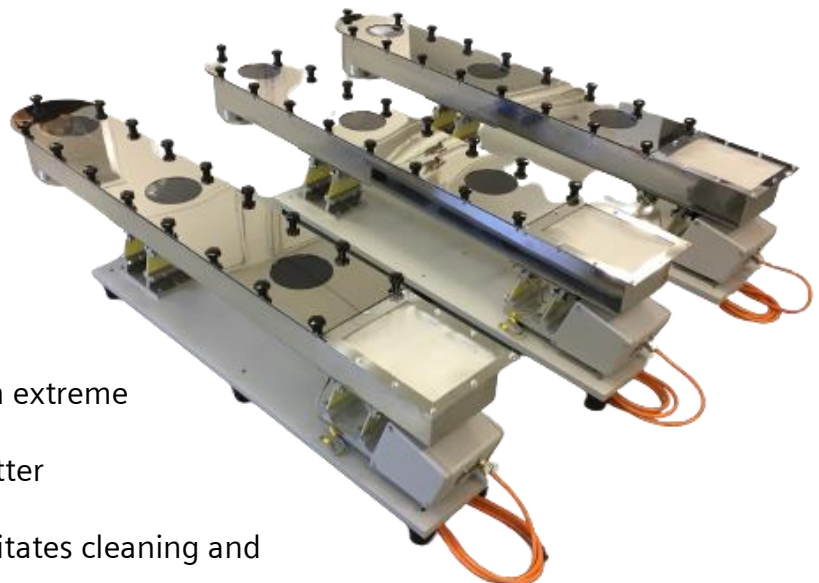


CONVEYORS: VIBRATING PIPES

The structure is designed to combine efficiency, compactness and simplicity in a single product.

The vibrating tube is capable of conveying all solid materials, recyclates and most powders with a continuous and smooth flow inside the extruder.

It has small dimensions and facilitates process layout.



Thanks to its constant vibration
It makes possible to transport with extreme
precision all materials that are
inside the tube, thus achieving better
production.

The perfectly smooth bottom facilitates cleaning and
sliding, eliminating possible waste.

CONVEYORS: VIBRATING PIPES

The vibrating pipe can vary in size according to the customer's needs and can be managed locally or remotely via PLC, PC, or other automation systems.



Conveying device: Vibrating Station AD VG33

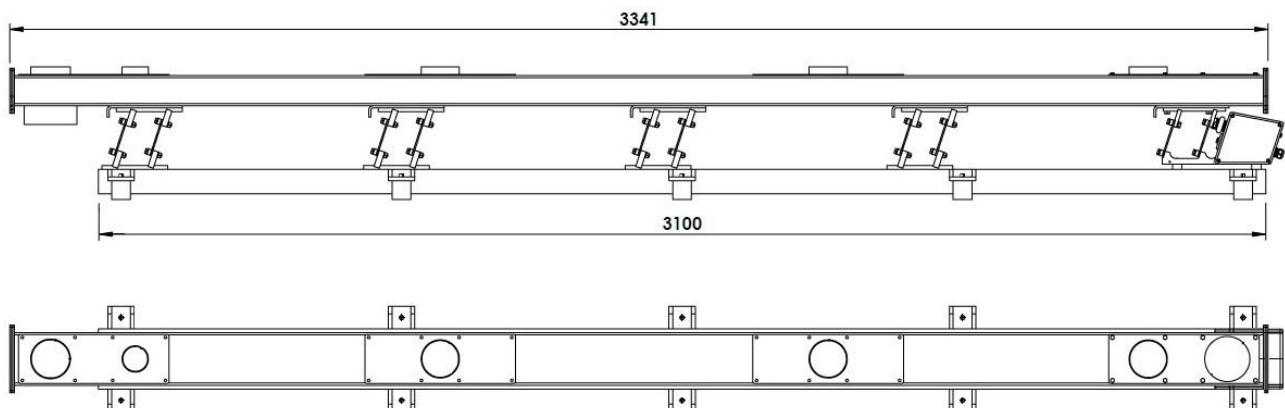
Transport range: 50 - 5,000 kg/h

Main connection: 230 V, PE, N, 50-60 Hz

Maximum current consumption: 1.5 A

Degree of protection: IP55/66

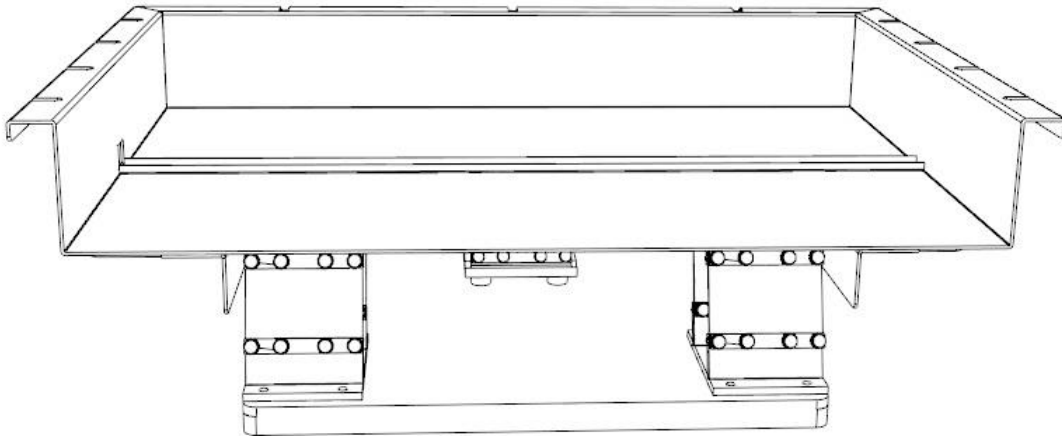
Controller: AD-CDVV/02



On request, the vibrator pipe can be certified for use in ATEX environments.

CONVEYORS: VIBRATING TANK

When there is a need to transport a large quantity of material, the vibrating tank is certainly the most ideal solution. The vibrating tank is characterised by a large channel designed according to customer requirements and is often used in the transport of different types of material.



It is motorised by a single vibrating base and managed with a controller from local or remote with PLC, PC, or other automation systems.

Conveying device: Vibrating Station AD VG33

Transport range: 100..10'000 Kg/h

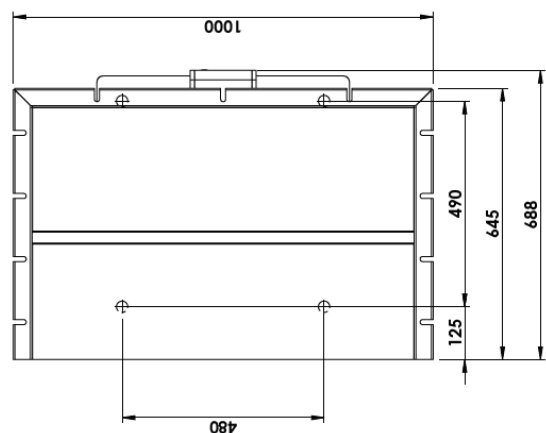
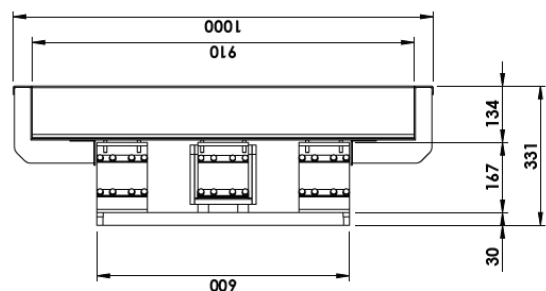
Main connection: 230 V, PE, N, 50-60 Hz

Maximum current consumption: 1.5 A

Degree of protection: IP55/66

Controller: AD-CDVV/02

On request, the vibrating tank can be certified for use in ATEX environments.



CONVEYORS: VIBRATING SIEVES

Usable in all sectors, from food to plastics, Algo Dosys vibrating sieve can have different dimensions and characteristics and can be managed locally or remotely via PLC, PC, or other automation systems.



They consist of an upper channel with a grating bottom for separating material and a lower channel for collecting dust. The shape and structure of the grids are designed according to the type of material and how much waste is to be separated.



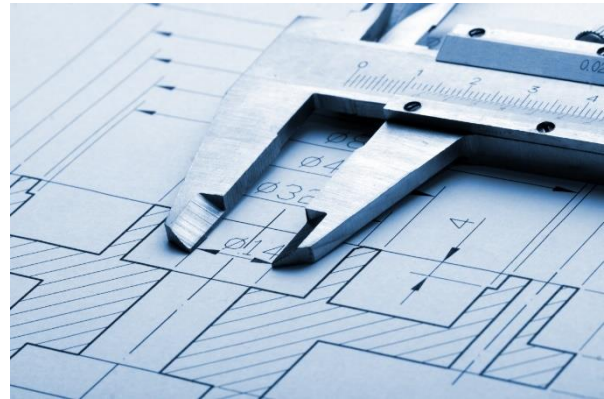
The vibrating screens have an automatic grids cleaning system by means of a pneumatic piston positioned at the rear of the channel. The waste part is channelled into a second outlet to be collected separately.

On request, the vibrating screens can be certified for use in Atex environments.

SERVICES

Design and engineering

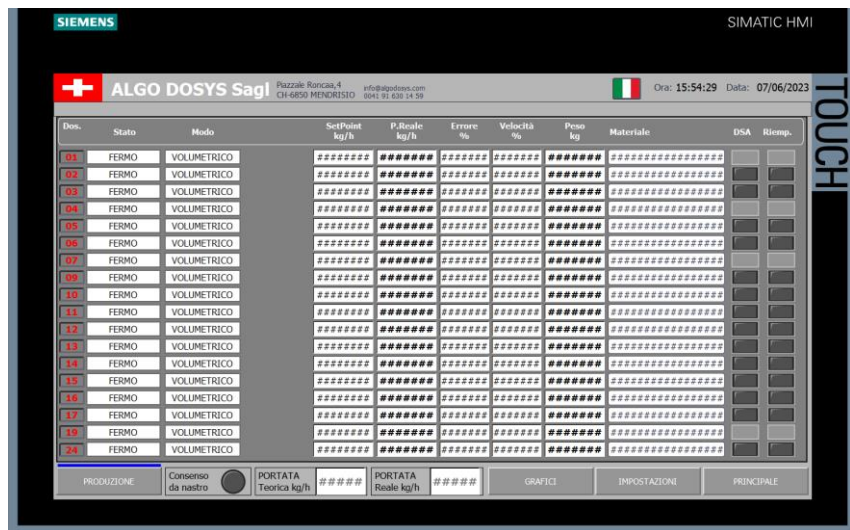
Our passion is to build the best process solution that enables our customers to grow. We manage projects with efficiency and flexibility, drawing on a range of established procedures and engineering practices, combined with simple and direct communication channels.



Existing plant upgrades

Algo Dosys carries out upgrades of both the electronic and mechanical parts in existing dosing and conveying systems, on any type of dosing unit.

Interaction with the customer and data collection of the existing plant are key to understanding which devices need to be replaced or overhauled.



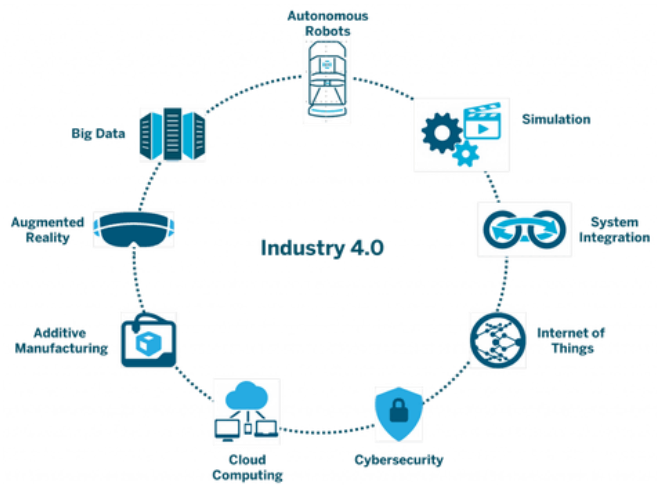
At the end of commissioning, Algo Dosys will not only provide comprehensive plant management training, but will also hand over all documentation to the customer, including certificates, user manuals, wiring diagrams and mechanical drawings.

SERVICES

Industry 4.0

Industry 4.0 has been at the centre of economic transformation in the world for some years now.

Algo Dosys develops suitable solutions for Industry 4.0 certification and is constantly looking for innovative and up-to-date solutions in the field of automation.



Customer Care

Collaboration with customers does not end after commissioning. Algo Dosys provides after-sales support to ensure plant continuity.

Algo Dosys deals with separate orders, spare parts, inspection, maintenance, training, process engineering, technical support and repairs, always with customer protection in mind.



All our vibrating bases comply with the directives:

2006/42/EC (Dir. Machinery)
2014/34/EU (Dir. ATEX)



STANDARDS APPLIED:

EN 60079-0: 2018
EN 60079-31: 2014
EN 80079-36: 2016

All the vibrating bases are painted RAL 9011 (matt black).
Other colors are available on customer's request.
The screws of the vibrating bases are secured with a torque spanner for vibrating safety.
All vibrating bases leave the factory with test run according to the configuration requested by the customer.
Spare parts available on stock.

Legal and operational Headquarter:

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