



LCONTENT





RANGE OF SCREW FEEDERS	
Volumetric	
Weighing system	
Disassembly and cleaning	
──● BELT FEEDER	
──● VIBRATING FEEDER	
EXAMPLES OF IMPLEMENTATION	
RANGE OF ROTARY AIRLOCKS	19
Drop through rotary airlock feeder	
Blow through rotary airlock feeder	
Wood pellets applications	
Dust collection	
Examples of implementations	
──● RANGE OF VALVES	
Rotary valve	
Butterfly valve	
Slide gate valve	
Pinch valve	
Examples of implementations	

Range of Feeding

Equipment





Feeder and agitator for a continuous or batch feeding with an accuracy < at 3%





Rotary valve for a continuous feeding process and for a totally sealed pressure between the downstream and upstream





Continuous or batch dosing for accurate dosing of fragile products





Rotary valve specially designed for sanitary dosing applications



To get a precise batch **Regulation for powder introduction into process** Operator's time saving with batch automation



Butterfly valve with pneumatic actuator for an absolute sealing and with electric regulation



Pinch Valve



Pinch valve, controlled pneumatically, adapted to be installed inline into pneumatic pipeline

Slide Gate Valve



Slide gate valve with no flow restriction when fully opened even with poorly flowing material





Valves and feeders control is managed by the Pal'Touch® technology which is configured by **PALAMATIC PROCESS automation**

SCREW FEEDERS

PALAMATIC PROCESS has designed a range of industrial feeders suitable for all your application requirements. With our expertise, we offer you precise dosing equipment, for high, regular or low throughputs, depending on the type of your bulk products.

Screw Feeder Volumetric

Ex

Jumetric

Capacity: 24 to 6,458 l./h.
Objectives: dosing of any kind of bulk materials

The PALAMATIC PROCESS volumetric screw feeders offer a uniform, constant and controlled feeding of your powders held in a hopper. Thanks to the exchangeable screw design system, our feeders can handle a wide variety of materials with a gentle and precise feeding of free-flowing materials.

> VOLUMETRIC FEEDER



The volumetric feeder provides accurate feeding of a wide variety of bulk products. The dosing of ingredients is conducted through a dosing screw which conveys the volume of material to feed. The rotation speed can be handled by a frequency inverter. The feeding precision is about 7 to 8%.

WEIGHT FEEDER



The weight feeder enables an automatic feeding of powdery or bulk materials by batch or in continuous process. The feeders are placed on a stable frame with a very efficient weighing system. This system works in gain-in-weight or loss-in-weight mode and provides a metering accuracy of 1%.





Models	D10	D11	D12	D13
Flow rates*	24 to 142 l./h.	89 to 523 l./h.	261 to 1,438 l./h.	1 174 to 6,458 l./h.
Tube ext. Ø in mm	33.7	42.4	76.1	114.3

*Frequency range: 45 to 100 Hrtz



Dosing assembly loss-in-weight

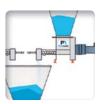
Dosing assembly weight gain

Screw Feeder

Hygienic design: allows an easy access to all parts of the feeder to clean, control and disinfect



No mechanical friction on the handled material



High linear feed



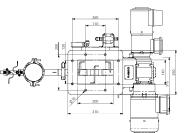
Agitator ensuring a constant feeding volume

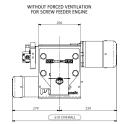
Volumetric_

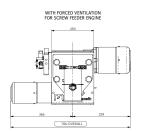


• FEEDER D10 (size and capacity)









O COMPLETE SCREWS RANGE

• Pigtail

Round section spiral without centre pipe

Light materials, granular products, PVC, pellets, polymers in pellets.



Ribbon spiral on pipe

Heavy sticky materials, heavy oxides, clays.

• With shaft

Standard screw

Heavy fluid materials, metallic grains.

AGITATORS RANGE



The agitator rotates constantly or intermittently at adjustable frequency. This intermittently operation allows an effective feeding of delicate, friable products which might bridge unless gently and regularly activated.

PNEUMATIC GATE



The pneumatic gate stops the product flow and averts the raise of humidity level.

Feeder screws	Application	Gear ratios	Rotation speed	Theoretical throughput	Precision*
Туре		1/	rev./min.	l./h.	g.
Pigtail		10	138	142	
	Light sticky materials: flour,	15 (Standard)	92	95	
\sim	sugar, cocoa, pellets, granular products, light and slightly	20	69	71	5 g
	sticky oxides	28	49	51	
		40	35	35	
Ribbon		10	138	103	
KIDDUII	Light materials, granular materials, pellets, PVC, poly- mers in pellets	15 (Standard)	92	69	
0000		20	69	51	3 g
		28	49	37	
		40	35	25	
With shaft		10	138	97	
With Share		15 (Standard)	92	64	
	Heavy fluid materials, metallic granules	20	69	48	1 g
4444	catao giunates	28	49	34	
		40	35	24	

'Accuracy: The accuracy provided for a batch operating system with a metering device fitted with a pneumatic quick-closing valve. Flow control is provided by a PALAMATIC PROCESS automated system integrating the management of large and small fall velocities. Accuracy may vary depending on the "quality of implementation of the dosing or weighing hopper" (inequality of the structure and

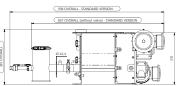
Screw Feeder

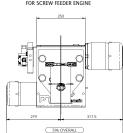
Volumetric



Technical Layouts

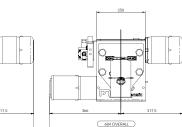
• FEEDER D11 (size and capacity)



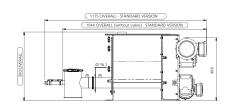


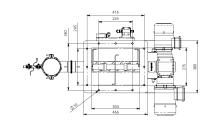
WITHOUT FORCED VENTILATION



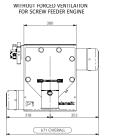


• FEEDER D12 (size and capacity)









FOR SCREW FEEDER ENGINE
380
759.5 OVERALL

Feeder screws	Application	Gear ratios	Rotation speed	Theoretical throughput	Precision*
Туре		1/	rev./min.	l./h.	g.
D: 4 3		10	138	523	
Pigtail	Light sticky materials: flour,	15 (Standard)	92	348	
mm	sugar, cocoa, pellets, granular products, light and slightly	20	69	261	5 g
	sticky oxides	28	49	186	
		40	35	130	
Ribbon		10	138	380	
KIDDOII	Light materials, granular materials, pellets, PVC, polymers in pellets	15 (Standard)	92	253	
		20	69	190	3 g
, 5 5 5 6		28	49	135	
		40	35	95	
		10	138	356	
With shaft		15 (Standard)	92	237	
	Heavy fluid materials, metallic granules	20	69	178	1 g
	meanic granates	28	49	127	
the same of the sa		40	35	89	

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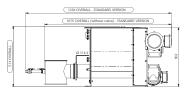
Feeder screws	Application	Gear ratios	Rotation speed	Theoretical throughput	Precision*
Туре		1/	rev./min.	l./h.	g.
Pigtail		10	138	1,438	
	Light sticky materials: flour,	15 (Standard)	92	959	
MMM	sugar, cocoa, pellets, granular products, light and slightly	20	69	719	10 g
	sticky oxides	28	49	513	
		40	35	359	
Ribbon	Light materials, granular materials, pellets, PVC, poly- mers in pellets	10	138	1,046	
A A I A		15 (Standard)	92	697	
70000		20	69	523	5 g
		28	49	373	
		40	35	261	
With shaft		10	138	1,273	
		15 (Standard)	92	848	
	Heavy fluid materials, metallic granules	20	69	636	1 g
		28	49	454	
		40	35	318	

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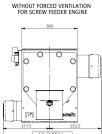


Screw Feeder

• FEEDER D13 (size and capacity)







Feeder screws	Application	Gear ratios	Rotation speed	Theoretical throughput	Precision*
Туре		1/	rev./min.	l./h.	g.
Dietail		10	138	6,458	
Pigtail	Light sticky materials: flour,	15 (Standard)	92	4,305	
\sim	sugar, cocoa, pellets, granular products, light and slightly	20	69	3,229	20 g
	sticky oxides	28	49	2,306	
		40	35	1,614	
Ribbon		10	138	4,696	
KIDDUII	Light materials, granular mate-	15 (Standard)	92	3,131	
	rials, pellets, PVC, polymers in pellets	20	69	2,348	15 g
0000		28	49	1,677	
		40	35	1,174	
		10	138	5,029	
With shaft		15 (Standard)	92	3,353	
	Heavy fluid materials, metallic granules	20	69	2,514	10 g
4444	metattic granutes	28	49	1,796	
		40	35	1,257	

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Volumetric_



▶ IMPACT OF PARTICULE SIZE

Material references	Floor (Type 55)	Sugar (cristal n°2)	Plastic granules
Granulometry in μm	100 μm	500 - 700 μm	2 - 5 mm
Product family	Fine	Crystal	Granules
Correction factor (feeding rate of the screw)	1.31	0.96	0.91

CALCULATION EXAMPLE OF RATES FOR CALCIUM CARBONATE

. Customer data

Product to be metered	Calcium carbonate
Bulk density	0.7
Granulometry	70μm
Product family	Fine
Type of coil	Screw with whaft
Correction factor	1.31
Wished actual flow rate 155 l./h.	

. Calculation formula

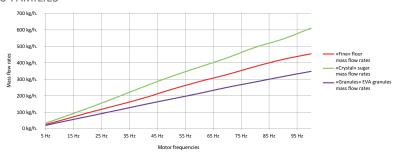
Theoretical throughput = -	Actual flow rate	_	155	_[118 l./l
medietical tilloughput –	Correction factor	_	1,31	_ [110 (./)

. Result

Type of feeder	D11
Motor reducing ratio	1/28
Theoretical throughput	127 l./h.*

*See flow charts of the feeders

MASS FLOW RATES GRAPH WITH D11 FEEDER (PIGTAIL TYPE SCREW) BASED ON THE 3 FAMILIES



WITH FORCED VENTILATION FOR SCREW FEEDER ENGINE

Screw Feeder

Capacity: 24 to 6,458 l./h.

Objectives: controlled feeding of materials

The batch feeding system guarantees an accurate weighing for each batch (granule or powder). The batch weighing provides a homogenous and complete control of the product flows, a better accuracy and contributes to processing efficiencies.

Homogenization

Pneumatic closing

valve of the filling

tube

tool

Feeding rotor

Weighing System.



TECHNICAL SPECIFICATIONS

Parts in contact with the material: stainless steel 304 L/316 L Structure and bolts: stainless steel 304 L/316 L Finishes of flange extremity: stainless steel 304 L/316 L Base capacity: 50 to 65 litres



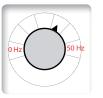
Load cells: system of three load cells to control the quantity of introduced powder



Closing membrane to cut off the product flow and avoid raise of humidity



Motor dedicated to drive the dosing system



Inverter to adjust throughputs



Load cells to ensure a Dosing screw constant weight

There is three types of weight feeders:

- Weight feeder in loss-in-weight: it provides the fastest and most accurate measurement and control of individual ingredients fed into a batch process
- **Gain-in-weight batching**: downstream the feeder, it doses and controls the weighing
- **Continuous weight feeder**: the feeder enables a continuous feeding by regulating its speed depending on the feeder loss weight to get a constant flow rate



The feeders D10, D11 D12 and D13 PALAMATIC PROCESS are compatible with the installation of servo load cells.

Models	D10	D11	D12	D13
Tube ext. Ø in mm	33.7	42.4	76.1	114.3

Dosing accuracy < to 1%

Options



Sealed flexible connection without weighing interference



Local weighing display for direct information

Disassembly and Cleaning



> FASYCLEAN VERSION

• RAPID DISASSEMBLY (STANDARD)

Design allowing rapid disassembly of the feeder to facilitate cleaning phases.

The standard design enables dismantling and provides easy access to all parts to perform the manual cleaning.



Mirror polished finishes that can be integrated for applications in food and cosmetics areas.







Some applications require frequent cleaning of the feeder either forchanges of materials and/or due to constraints of allergens, pigments, etc.

To respond to this industrial issue and in the context of offering sanitary equipment, PALAMATIC PROCESS developed the Easyclean option on its entire range of dosing.

This Easyclean option enables quick dismantling of all parts of the dispenser without any use of tools and without supporting loads. This is guaranteed by the integration of rails and rollers on the flanges of the feeder.









Belt Feeder

Capacity: up to 5 t./hr.

Objectives: extraction and weighing

PALAMATIC PROCESS belt feeder were specially designed for product continuous dosing/weighing. They are particularly suitable for such sectors as cement, steel, minerals, fertilizer production and food industry.

Δ ibrating Feeder

Ex

Capacity: up to 2 t./hr.

Objectives: extraction and weighing

PALAMATIC PROCESS vibrating feeders allow dosing of fragile ingredients and abrasive materials.

Installed on load cells, vibrating feeder is used for loss-in-weight dosing.

USE

Belt feeders capture the mass of material that passes over a measuring path. The timing control adjusts the belt speed to ensure the desired flow.

They operate with a constant belt speed. The product weight is entered when passing on the belt.

D TECHNICAL SPECIFICATIONS

Rates: the rates range varies by a factor of 1 to 10.

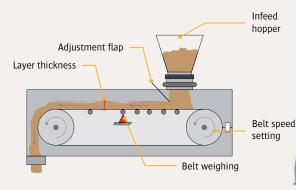
The nominal flow rate depends directly on three factors:

- Bandwidth
- · Belt speed
- Layer thickness

The layer thickness is controlled by an adjustable deflector at the outlet of the feeding hopper.

• OPERATING MODE

Continuous weighing: the standard application for belt feeders is continuous dosing.



[+] Advantages

- Gentle Handling of materials
- High flexibility in terms of dosing
- Easy cleaning and maintenance
- Accuracy +/- 0.5%



USE

The vibrating feeders consist of a vibrating base with the product flow trough. The flow rates and accuracy can be adjusted to complement the dimensioning of the trough.

Flow rates: depending on the dimensions of the trough, the product layer thickness is adjusted by the adjustment flap positioned at the hopper outlet.

D TECHNICAL SPECIFICATIONS

- . Dosing principle: gravimetric (loss-in-weight metering) or volumetric
- . Dosage device: vibrating trough
- . 3 widths: 80 to 250 mm.
- . Fabrication feeding hopper and vibrating trough manufacturing: steel, stainless steel
- . Volume of the feeding hopper: custom-made possibility of flow aid
- . Rectangular or tubular extraction
- . Possibility of powdering with output enlargement

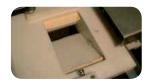
EXAMPLES OF IMPLEMENTATIONS



Vibrating feeder skid



Setting of the vibration amplitude (flow management)



Gap for conditioning





[+] Advantages

- Product Distribution metered over a significant width
- Fast and effective cleaning



Vibrating feeder with integrated metal detection for capsules

EXAMPLES OF IMPLEMENTATIONS

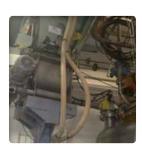
Industrial Feeders



Cleaning products



Petfood



Insecticides





Environmental technologies



Discover our feeding equipment in video on our YouTube channel: www.youtube.com/user/Palamaticpro-



Stationery



Hygiene products and industrial water treatment



of feeding equipment in

FRANCE and ABROAD

ROTARY AIRLOCK VALVES



The main function of a rotary airlock valve is to regulate the flow from one chamber to another while maintaining a good airlock condition. The material handled is usually dry free flowing powder, dust or granules. The rotary airlock valves are mainly used in the dust filtration field, the pneumatic conveying industry, for the pressure differentials or to control the rotor-stator gap.

DROP THROUGH ROTARY AIRLOCK FEEDER



The drop through rotary airlock feeder are designed to feed and discharge in a controlled way powdery or granular products coming from silos, hoppers, pneumatic conveying installations, bag filters houses, cyclones. This rotary valve is adapted when a high throughput is required. The effective flow rates are very variable depending on the products flowing.

BLOW THROUGH ROTARY AIRLOCK FEEDER



The blow through rotary feeder has been designed to feed and convey bulk products (powders and granules) in numerous applications. When the material tends to clog, this airlock valve is the ideal solution.

ROTARY AIRLOCK FEEDER FOR WOOD PELLETS AND CHIPPINGS



This rotary airlock valve feeds and discharges, in a controlled way, wood pellets and chippings from silos, hoppers, pneumatic conveying installations, bag filter houses, cyclones.

DUST ROTARY AIRLOCK FEEDER



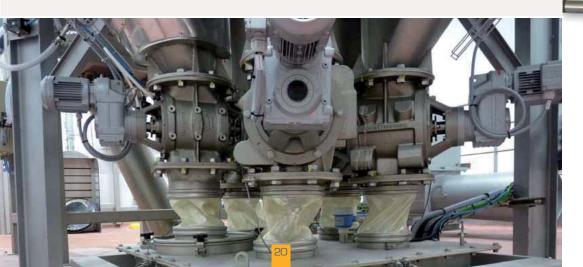
The dust rotary airlock feeder is specially dedicated for a combined use with cycloseparators for silos, hoppers, dust filters, dust cyclones or even dosing systems. This rotary airlock feeder suits simple or undemanding industrial applications. Its main function is to be an airlock.

LRotary Airlock Feeder

Capacity: 2.2 to 19.5 litres/revolution **Objectives**: material extraction and feeding

Rotary airlock valves are used for the dosing, feeding or discharging of fine-grained and powdered materials or granulates contained in silos, hoppers, pneumatic conveying installations, filters or even cyclones.

Rotor Adjustable paddles Bearings pressurization



Drop Through



Airlock -

TECHNICAL SPECIFICATIONS

Manufacturing materials: cast iron body or stainlss steel

Surface treatment of the rotor: nickel plating, tefloning, hardened paddles

Motorisation: direct or chain sprocket

Rotor: steel or stainless steel

Fixed rotor speed: 10, 20, 30 revolutions/min.

Variable rotor speed: 4-35 revolutions/min.

Capacity: 2.2 to 19.5 l./t.



Easy access to internal mechanical parts for a quick and simple cleaning



Compact and robust design



ATEX version to resist to explosions and flame flow



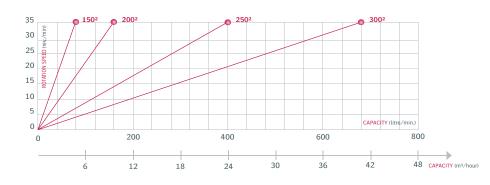
High feeding accuracy



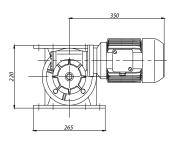
DROP Mo Cap

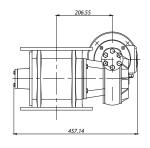
DROP THROUGH ROTARY VALVE RANGE

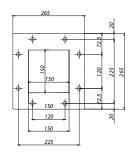
Models	150²	200²	250 ²	300 ²
Capacity (litres/rev.)	2.2	5.4	10.9	19.5
Flange section in mm.	150x150	200x200	250x250	300x300
			•	



DROP THROUGH ROTARY VALVE - 150²



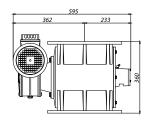


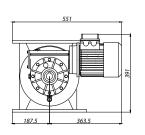


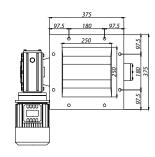
	10	rounds/n	nin.		20 rounds/min.						30 ı	ounds/m	in.	
Flow rate m ³ /h.	Load factor *	Power KW	Torque	Weight (kg)	Flow rate m³/h.					Flow rate m³/h.	Load factor *	Power KW	Torque **	Weight (kg)
1.1	0.85	0.37	190	73	1.98	0.75	0.5	155	58	2.6	0.65	0.5	110	58

^{*} For medium to easy flowing product

● DROP THROUGH ROTARY VALVE - 250²

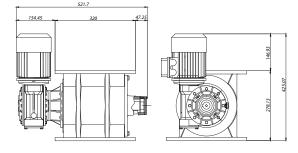


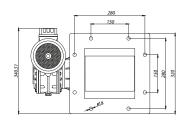




	10	rounds/n	nin.		20 rounds/min.					30 rounds/min.				
Flow rate m ³ /h.	Load factor *	Power KW	Torque	Weight (kg)	Flow rate Load Power Torque Weight (kg)				Flow rate m³/h.	Load factor *	Power KW	Torque	Weight (kg)	
5.6	0.85	0.5	300	140	9.81	0.75	0.75	250	123	12.8	0.65	1.1	240	123

● DROP THROUGH ROTARY VALVE - 200²

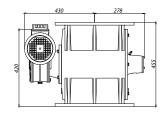


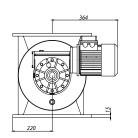


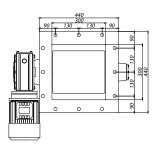
	10	rounds/min. 20 rounds/min.						30 rounds/min.						
Flow rate m ³ /h.	Load factor *	Power KW	Torque **	Weight (kg)	Flow rate m³/h.	Load factor *	Power KW	Torque **	Weight (kg)	Flow rate m³/h.	Load factor *	Power KW	Torque **	Weight (kg)
2.8	0.85	0.37	190	88	4.86	0.75	0.5	155	73	6,3	0.65	0.75	150	73

^{*} For medium to easy flowing product

DROP THROUGH ROTARY VALVE - 300²







	10 rounds/min. 20 rounds/min.							30 rounds/min.						
Flow rate m³/h.	Load factor *	Power KW	Torque **	Weight (kg)	Flow rate m ³ /h.	Load factor *	Power KW	Torque **	Weight (kg)	Flow rate m³/h.	Load factor *	Power KW	Torque 	Weight (kg)
9.9	0.85	0.75	400	195	17.6	0.75	1.1	360	181	22.8	0.65	1.5	300	181

^{*} For medium to easy flowing product

^{**} For a load factor of 100%

^{**} For a load factor of 100%

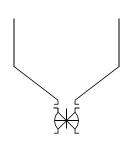
[&]quot; For a load factor of 100%

[&]quot; For a load factor of 100%

Drop Through Rotary Airlock Feeder

EXAMPLES OF INDUSTRIAL APPLICATIONS

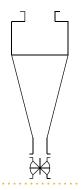
> Application under hopper







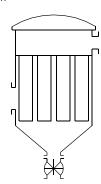
▶ Application under cyclone to separate material flow/conveying air







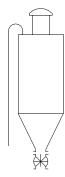
Application under filter to insure the sealing and evacuation of fine particles







> Application under silo







▶ Application under the pneumatic conveying feeding system to load the material into the piping







> Application above the filling stations to dose the product







LRotary Airlock Feeder

Capacity: 5 to 38 litres/revolution **Objectives:** powders dosing to feed

> The blow through adaptor enables to meter and/or feed material from a hopper or a bin into a pneumatic conveying line and to restrict or

Equipment EST CENTER Available Mesh screen hopper Conveying pipeline Rotary valve Conveying control cabinet Blowing pump



Blow Through



Manufacturing materials: cast iron body or stainless steel **Surface treatment of the rotor**: nickel plating, tefloning, hardened vanes Motorisation: direct or chain sprocket Rotor: steel or stainless steel
Fixed rotor speed: 10, 20, 30 revolutions/min.

Variable rotor speed: 4-35 revolutions/min.

Capacity: 2.2 to 19.5 l./t.



Surface treatment of the rotor: chromium and nickel plating, tefloning



Motorisations: direct by gear, coaxial variator with chain transmission or without motorisation (bare shaft)



Cast iron body or stainless steel AISI 304 I /316 I



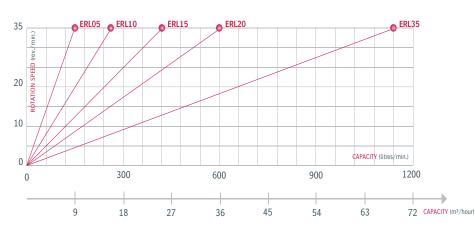
ATEX version for a high explosion resistance and at the passage of flame

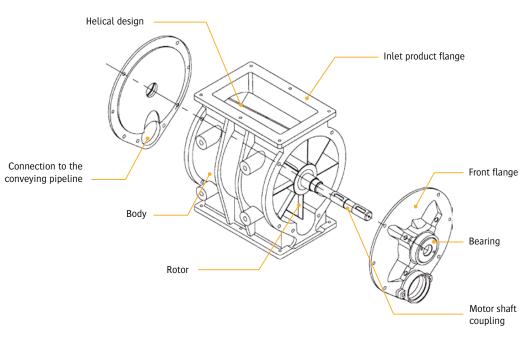




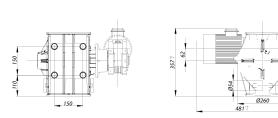
BLOW THROUGH ROTARY VALVE RANGE

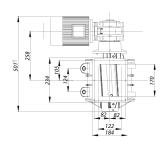
Models	ERL 05	ERL 10	ERL 15	ERL 20	ERL 35
Capacity (litres/rev.)	5	9	14	20	38
Feeding flange in mm.	170 x 122	135 x 238	148 x 276	196 x 337	284 x 569
Differential pressure max.	0.7	0.7	0.7	0.7	0.7
Service temperature	-20°C-60°C	-20°C-60°C	-20°C-60°C	-20°C-60°C	-20°C-60°C





● BLOW THROUGH ROTARY VALVE - ERL 05

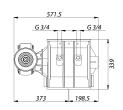


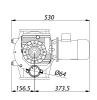


	10 roun	ds/min.			20 round	ds/min.			30 roun	ds/min.	
Flow rate m ³ /h.	Load factor *	Power KW	Torque (Nm)**	Flow rate Load Power Torque m ³ /h. factor * KW (Nm) **				Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **
3	0.85	0.37	300	6 0.75 0.55 232				9	0.65	0.55	149

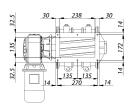
^{*} For medium to easy flowing product

D BLOW THROUGH ROTARY VALVE - ERL 10





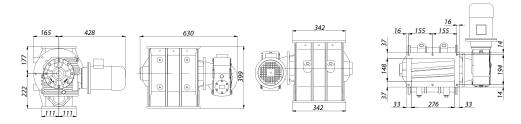




					20 round	ls/min.		30 rounds/min.				
Flow rate m³/h.			Torque (Nm)**	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	
5.4	0.85	0.37	300	10.8	0.75	0.55	232	16.2	0.65	0.55	149	

^{*} For medium to easy flowing product ** For a load factor of 100%

▶ BLOW THROUGH ROTARY VALVE - ERL 15

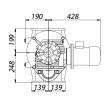


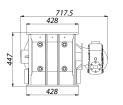
	10 roun	ds/min.		20 rounds/min.					30 roun	ds/min.	
Flow rate m³/h.	Load factor *	Power KW	Torque (Nm)**	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **
8.4	0.85	0.55	472	16.8	0.75	0.75	328	25.2 0.65 1.1 308			308

^{*} For medium to easy flowing product ** For a load factor of 100%

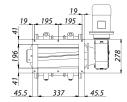
[&]quot; For a load factor of 100%

■ BLOW THROUGH ROTARY VALVE - ERL 20





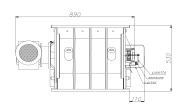


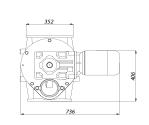


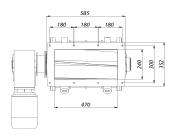
	10 roun	ds/min.			20 round	ls/min.			30 roun	ds/min.	
Flow rate m³/h.	Load factor *	Power KW	Torque (Nm)**	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **
12	0.85	0.55	472	24 0.75 1.1 328				36	0.65	1.1	308

^{*} For medium to easy flowing product ** For a load factor of 100%

■ BLOW THROUGH ROTARY VALVE - ERL 35







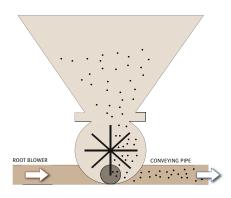
	10 roun	ds/min.			20 round	ls/min.			30 roun	ds/min.		
Flow rate m ³ /h.	Load factor *	Power KW	Torque (Nm)**	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	Flow rate m³/h.	Load factor *	Power KW	Torque (Nm) **	
22.8	0.85	1.1	929	45.6 0.75 1.5 633				8 68.4 0.65 2.2 630				

D USE

The blow through rotary airlock feeders are designed to suit to pneumatic conveying processes. They can be mounted inline into a pneumatic conveying line.



Due to the space available under the production machines, the blow through rotary airlock feeders are an efficient solution. The added value of those rotary valves is to transfer sticky materials. The air conveying flow, through the rotary valve, ensures the cleaning of the rotor by taking off particles stuck on the walls.



[&]quot; For a load factor of 100%



DEFLECTOR FOR GRANULES

The design highly respects the granular materials.

- High degree of filling
- Large degassing nozzle
- · Strong design
- · Available with direct motorisation or by chain
- Drilled flanges according to PN10, ANSI 150 lbs and JIS
- · Versions compliant with ATEX 94/9/CE are available



EASYCLEAN ROTARY VALVE

For a sanitary using in the food and pharmaceutical industries.

The rotary valve gets a rotor which can be easily dismantled in few minutes for controlling and cleaning the inside parts. The extraction mecanism of the moving parts is more secured for the operator and offers a better flexibility for the cleaning and maintenance of the installation between various productions. These stainless steel rotary valves can be dismantled easily as well as keeping the highest standards of hygiene.



PRESSURIZED BEARINGS

To seal the rotary valve.

A air flow is injected to avoid that fine particles come inside the sealing system through the cable gland.



ADJUSTABLE PADDLES

Adjustment of the rotor vane depending on the properties of each material.

A standard rotor is composed by 8 fixed vanes. Nevertheless, it is possible to configure the rotors, for making rotary valves suitable for the material, by adjusting vanes.



MANUFACTURING MATERIAL

Manufacturing material adapted to your needs and expectations.

Three different configurations are available: steel design, stainless steel body and cast iron flange or even the full cast iron design. The aluminium configuration is anodised.



DEGASSING NOZZLE

Deaeration system of the body to avoid the pressure return.

The degassing chambers are specially designed for being used in pneumatic conveying systems. It permits to avoid the pressure return into the piping and the hopper from where the product is extracted.



> PRECISION SHIM

For a more accurate feeding and the maintaining of a high rotation speed.

The precision shims are fixed directly onto the roto and reduce the rotay airlock valve displacement by a fine feeding or the maintaining of high rotation speed.



SPEED SET BOX

To facilitate the material introduction in the conveying pipeline.

The speed set box is settled under the rotary airlock valve to introduce the material in the pneumatic conveying pipeline.



OVERFILL CONTROLLER

To ensure a rotary airlock valve with large displacement.

The overfill controller has been specially designed for revolving materials or for applications needing a rotary airlock valve with large displacement.



DEGASSING BOX

To evacuate the air.

The degassing box is designed for pneumatic conveying applications to ensure the blower air evacuation returning by the rotary airlock valve.



NOTOR WITH SCRAPER PADDLES

To eliminate sticky materials from the rotary airlock valve body.

The rotor with scraper vanes helps to get a very strong sealing and a full cleaning of the rotary airlock valve body for very sticky materials.



ROTATION SENSOR

The box indicates a number of rotor rotations.

The box is an indicator aimed to check the airlock valve rotation speed and to identify any problems in case the velocity is too low.

otarv Val

Rotary Valve

Capacity: 2.2 to 19.5 litres/revolution **Objective:** woods pellets and chippings dosing

PALAMATIC PROCESS rotary valves are the perfect solution for controlled discharging and feeding of wood pellets or chippings from silos, hoppers, pneumatic conveying systems, bag filter houses, or cyclones.



TECHNICAL SPECIFICATIONS

Service temperature with special version: -20 - 150 °C

Certifications: the rotary valves are designed for wood combustible industry and are in conformity with ONORM M7132, ONORM M7133, ONORM M7135, ONORM M7136, ONORM M7137









Rotors equipped with blades



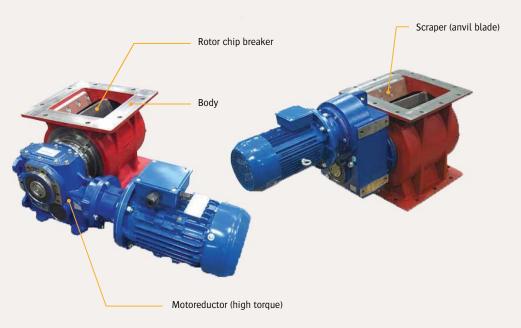
Robust compact design for a longer lifetime

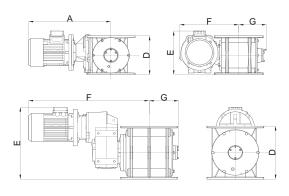


Direct motorisation









	A*	D	E*	F*	G	Motor speed (rpm)	Motor Power (kW)	Dosing flow rate (l./t.)					
211111 00	500	222	240	225	404	20	0.75	2.2					
RWN 02	500	220	248	325	131	30	1.1	2.2					
DIAM OF	F40	200	227	240	162	20	1.1						
RWN 05	540	280	237	340	162	30	1.5	5.4					
DIAM 10		200	400	702	100	20	1.5	100					
RWN 10	-	360	490	792	188	30	2.2	10.9					
DWW 20		455	F.C.1	055	226	20	2.2	10.5					
RWN 20	-	455	561	855	855	855	855	855	855	226	30	3.0	19.5

LRotary Valve

Capacity: 6 to 8.5 liters/revolution **Objectives:** regulate and dose the

> The PALAMATIC PROCESS dust lock valve has a dedicated design for filter applications. The standard inlet and outlet flanges are drilled in conformity with PN10 and are suitable for both round and square counter flanges. This rotary valve is suitable for simple and undemanding

Dust Collection



Certifications: ATEX certified rotary valve for Zone 20 insi-

Resistant: a pressure up to 10 bars ATEX 95 type for explosive atmospheres

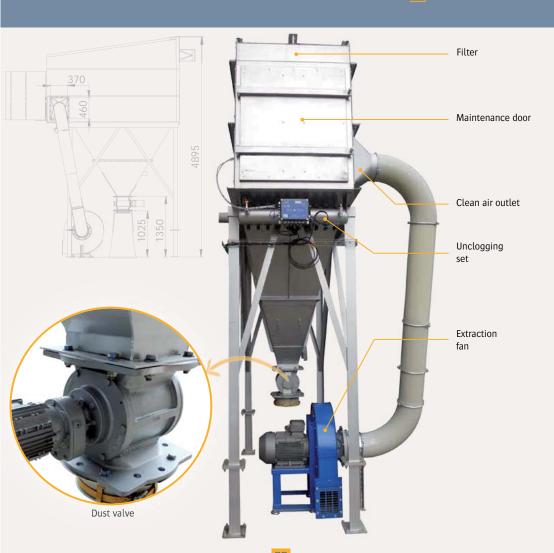
Flange connection: DN200/250 (round/square)

Capacity: 6 to 8.5 liters per revolution Pressure: differential pressure 0.5 bar

Shape of flanges: round or square, compliant with PN10/

mance of the rotor with 6 flexibles vanes made of polyure-

. The standard rotary airlock valve is adapted to materials









Flame proof certification ATEX 20-21-22



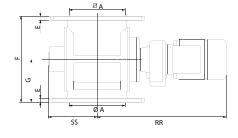
Flexible paddles manufactured in polyurethane

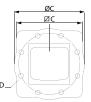


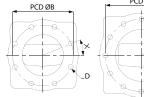
Standard flanges to make them suitable for PN10 round or square flanges











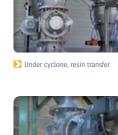
	.D												
3	14	310	155	22,5°	465	176							

EXAMPLES OF IMPLEMENTATIONS

Rotary Valves







Under a dust collector



Food product





Feeding a pneumatic conveying pipeline



Feeding for the conditioning



Under hopper, food ingredients



Pharmaceutical products



Discover our rotary valves in video on our YouTube channel: www.youtube.com/user/Palamaticpro-

INDUSTRIAL VALVES



PALAMATIC PROCESS offers a complete range of industrial valves to easily control the feeding and the fluid volume. Our valves guarantee an accurate sealing (under silo, hoppers, mechnical and pneumatical conveyors, weighing system, etc.) of the free-flowing powdery products or liquids in several sectors such as food, chemical, pharmaceutical, cosmetic or even building industries.

BUTTERFLY VALVE - MODEL VPP



The butterfly valve is a system which moves the spade by rotation around a perpendicular axis perpendicular to the direction of flow and, in open position, is bypassed by the fluid. Its use is perfect for non-viscous liquids. The butterfly valve is used in automatic or manual installations with stainless steel. This equipment limits the loss-in-weight and offers a constant product flow rate.

ROTARY VALVE - MODEL VRP



The rotary valve has been designed to respect rigourous sanitary requirements and to be disassembled quickly by the operator. The rotary valves are suitable for pharmaceutical applications to cut off or control the products flow. They offer a continuous powders and granulates feeding as well as a uniform dosing.

SLIDE GATE VALVE - MODEL VGP



The slide gate is one of the most effective ways to close a flow path in a material handling line. The slide gate valve is designed for a complete or relative seal and its control is perfectly linear.

PINCH VALVE - MODEL VMP



The pinch valve fits perfectly with conveying application by ensuring the regulation and dosing of powdery products without any loss of pressure.

This pinch valve enables the free flowing of the material. The oval shape of the valve body guarantees an efficient and quick closing of the valve. The pinch valves are ideal to stop powders, grains, fibers and dense mixtures flow.

LRotary Valve

Diameter: DN 100 to 250

Objectives: discharging, sealing and

The rotary valve has been designed to respect rigourous sanitary requirements and enables a quick disassembly by the operator. The rotary valves are particularly suitable for pharmaceutical industries to stop or control the products flow. These valves guarantee a continuous pow-

Distribution: DN 100 to 250 Finishes: stainless steel 316L **Actuator**: pneumatic until 6 bars







For a constant dosing and a flow control



Double solution with full open disc and small rotary valve DN50 or 80



Implementation on a sacks conditioning skid



Tri-clamp flange for a quick mounting and removal of the valve

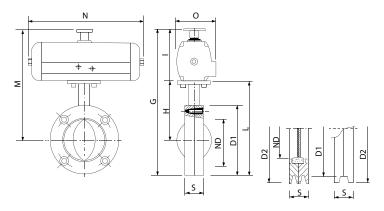


The rotary valve has been designed to cut off and control the free-flowing products in pharmaceutical industries. They enable a continuous feeding of powders and granulates with a uniform dosing.

The valve is composed of two elements. The butterfly is adapted to execute a coarse dosing while the little rotor performs more accurate dosing. The maximum accuracy achievable is around \pm 20 grams.

The valve can be combined with dosing or weighing systems.

This double valve can be supplied with a rubber seal between the paddles and the rotor to make it suitable for applications where the pressure rises to 0.5 bar.



Models	D1	D2	S	G	Н	1	L	M	N	0
DN 100	150	180	38	298	130	93	205	223	250	80
DN 150	200	230	38	348	155	93	255	248	250	80
DN 200	250	280	38	398	180	93	305	273	250	80
DN 250	306	330	40	488	213	122	366	335	310	105



Butterfly Valve

Manual, Pneumatic Actuator, Motoreductor

Objectives: discharge, sealing and

Palamatic

containing powder or granular materials. The butterfly valves are used in every installations needing to stop the materials flowing

Manufacturing: cast iron or stainless steel Diameter: DN 100 to 400







Shaft for actuator: manual; pneumatic; electric; option positioner 4-20 mA



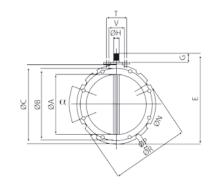
Sealed closing at 6, 10,

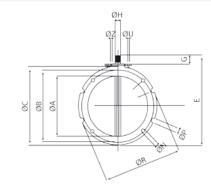


Profiled valve for an optimized material flow



Flange connection PN or tri clamp for pharmaceutical applications





	ØA	ØB	øс	ØD	Ε	F	G	ØН	N (holes)	P (honings)	ØR	α	S	Т	U	V	Z	Kg
VPP 100	95	180	220	105	250	115	35	22x19	N°4xØ14	N°4xØ20	220	22°30′	40	80	M12	50	M10	4
VPP 150	150	200	228	163	290	115	35	22x19	N°4xØ14	N°4xØ14	228	22°30′	40	80	M12	50	M10	5
VPP 200	200	250	278	213	340	115	35	22x19	N°4xØ14	N°4xØ14	278	22°30′	40	80	M12	50	M10	6.5
VPP 250	250	300	328	236	390	115	35	22x19	N°8xØ14	N°8xØ20	325	11°15′	40	80	M12	50	M10	7.5
VPP 300	300	350	378	313	440	115	35	22x19	N°8xØ14	N°16xØ20	375	5°41′	40	80	M12	50	M10	9
VPP 350	350	400	440	363	530	123	50	28x25	N°8xØ14	N°8xØ20	440	10°	40	80	M12	-	M10	16
VPP 400	400	470	530	413	580	123	50	28x25	N°8xØ14	N°16xØ20	530	4°30′	40	80	M12	-	M10	20.5

www.palamaticprocess.com/powder-machine/powder-dosing/industrial-valves/



Options





actuators

Butterfly Valve

OPTIONS_Butterly Valve_

PNEUMATIC ACTUATOR

Motorized pneumatic valve operating mode:

- <u>Double acting</u>: a pneumatic cylinder, piston rack type, drives the valve shaft with a 1/4 turn movement. A distributor sends a pneumatic signal alternatively in one of the two cylinder chambers to open or close the valve.
- <u>Single acting</u>: the pneumatic cylinder is equipped with piston compression springs. The pneumatic signal executes only one of the two mouvements of opening and closing, the second one being operated by the springs pressure. This type of operating mode helps to provide a safety position in case of power failure.

OPTION OF REINFORCED SEALING - Inflatable seat

Some applications need significant sealing action under vaccum or pressure. The inflatable seat technology ensures this result.

The PALAMATIC PROCESS butterfly valves use air pressure to expand the seal against the dics, providing an even-distribution for a bubble tight seal. Since the seat makes only causal contact with the disc during valve opening and closing, there is minimal disc impingement. This is unlike conventional butterfly valves where disc impignement leads to shaving of the seat which decreases operational performance. This option increases the valve life and its efficiency.

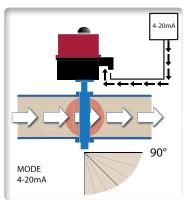


OPTION OF POSITIONER TO FEED BY CONTROL SIGNAL 4-20 mA

The pneumatic actuator is set up with a controler for 4-20 mA which adjusts the opening angle of the butterfly. This technology feeds the material and regulates the flow.







RESISTANCE TO CLEANING AGENTS

The design highly respects granular products.

The butterfly valves are resistant to agressive cleaning agents and other chemical products.



EXCHANGABLE ACTUATORS

For a sanitary using in food and pharmaceutical industries.

There are a variety of actuators by which the valve can be operated: manual, electric, single or double acting pneumatic actuator.



> HIGH TEMPERATURE RESISTANCE

Operating temperature up to 205°C.



BFM FLEXIBLE CONNECTION

The quality of the stainless steel (316 L) and the valve disc enable food and pharmaceutical applications. EPDM, viton, rubber.



> FLANGE CONNECTION

Valve conception with flange.

Tri-clamp system for applications where the valve dismantling is important for the cleaning operations.



4-20 mA

Dosing specificity.

Slide Gate Valve

Objectives: extraction and dosing

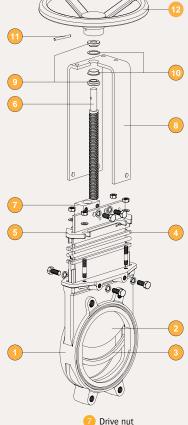
The slide gate valves are commonly used to control flows with susduct thanks to the central blade seal which provides an excellent product retention. Our slide gate valves are mainly used in the chemical, food, energy or even water treatment industries.

Pneumatic: uni-directional Manual: bi-directional

knife gate valve for liquids and

knife gate valve appropriate for

products with a solids concentration and for bulk materials



- Body
- 2 Spade
- Rubber seal
- 4 Trim
- Cable gland
- 6 Stem
- n Pin 12 Hand wheel

Brass bush

Nylon bush and washer

8 Arch

Diameter: DN 80 - DN 800 Flanges finishes: EN 1092 PN 10 Sealing: ISO 5208, classe A Temperature: maximum 180°C (depending on the pressure, the liquid and the materials)

Manufacturing: stainless steel 304 L & 316 L

Actuator: hand wheel, ratchet lever, chain wheel, manual wheel reductor, pneumatic cylinder, electric servomotor, hydraulic cylinder

Pressure: 10 bars (DN 80-DN 350)/6 bars (DN 400-DN 600)/4 bars



Secured sealing without any additional mesurement thanks to the rubbers seal integrated in the polymere coating



The valves bodies are totally coated with engineering polymer composite (food, FDA/EN approved on demand)



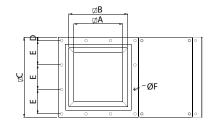
Exchangeable actuators: manual, pneumatic or electomecanic



High resistence to abrasion



SQUARE SIZE VALVE

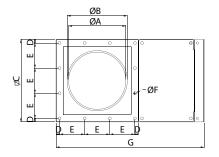




Models	Flow area AXA	В	С	D	Е	N°E	ØF	Bolts	G	Н	Kg
VGPC0150	120	175	261	15.5	115	2	12.5	M10	455	113	14
VGPC0200	170	225	311	15.5	93.3	3	12.5	M10	555	113	18
VGPC0250	220	275	361	15.5	110	3	12.5	M10	650	113	22
VGPC0300	270	325	431	23	128.3	3	12.5	M10	765	113	30
VGPC0350	320	375	481	18	89	5	12.5	M10	900	125	40
VGPC0400	370	425	531	15.5	100	5	12,5	M10	1 000	125	46

Dimensions in mm.

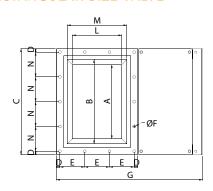
● ROUND SIZE VALVE





Models	Ø flow area A	ØB	ØС	D	E	N°E	ØF	Bolts	G	Н	Kg
VGPRD0150	150	165	261	15.5	115	2	12.5	M10	455	113	14
VGPRD0200	200	215	311	15.5	93,3	3	12.5	M10	555	113	18
VGPRD0250	250	265	361	15.5	110	3	12.5	M10	650	113	22
VGPRD0300	300	315	431	23	128,3	3	12.5	M10	765	113	30
VGPRD0350	350	365	481	18	89	5	12.5	M10	900	125	40
VGPRD0400	400	415	531	15.5	100	5	12.5	M10	1,000	125	46

▶ RECTANGULAR SIZE VALVE

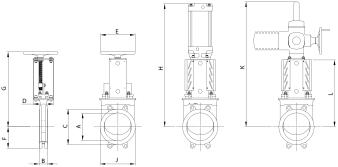




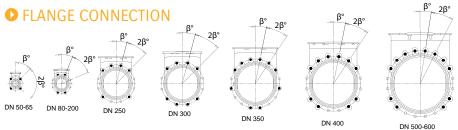
	Models	Α	В	С	D	E	N°E	ØF	Bolts	G	Н	L	М	N	N°N	Kg
V	GPR0150	204	260	346	15.5	115.0	2	12.5	M10	455	109	119	175	105	3	18
V	GPR0200	281	337	423	15.5	93.3	3	12.5	M10	555	109	169	225	98	4	25
V	GPR0250	353	409	495	15.5	110.0	3	12.5	M10	650	109	219	275	116	4	30
V	GPR0300	428	484	592	23.0	128.3	3	12.5	M10	765	109	269	325	136	4	40

Dimensions in mm.

● SLIDE GATE VALVE WITH STANDARD FLANGE (for difficult applications)



DN (mm.)	Size	А	В	С	D	E	F	G	Н	J	К	L	Air feeding	Weight (kg)
50	1 1/2	50	43	90	86	202	59	299	441	90	575	227	1/4"	5.5
65	2 1/2	65	46	105	86	202	66	324	481	105	600	252	1/4"	6.5
80	3	80	46	120	86	202	88	346	519	120	623	275	1/4"	7.5
100	4	100	52	144	86	202	101	381	574	144	658	310	1/4"	9.5
125	5	125	56	469	86	250	112	421	709	169	698	350	1/4"	12
150	6	150	56	192	86	250	130	464	776	192	740	392	1/4"	14
200	8	200	60	256	151	317	154	561	888	256	818	483	1/2"	27
250	10	250	68	307	151	317	153	657	1,034	307	914	579	1/2"	38
300	12	300	78	354	151	317	213	753	1,180	354	1,059	675	1/2"	53
350	14	350	80	407	187	400	245	880	1,367	407	1,228	783	1/2"	81
400	16	400	80	460	187	400	246	977	1,514	460	1,375	880	1/2"	106
500	20	500	90	566	262	520	284	1,214	1,835	566	1,706	1,100	1/2"	185
600	24	600	100	682	262	520	341	1,419	2,311	682	2,011	1,305	1.	275



										211 000 000								
DN (mm.)		65	80	100	125	150	200	250	300	350	400		600					
Ø external flange (mm.)	165	185	200	220	250	285	340	395	445	505	565	670	780					
Ø bolts (mm.)	125	145	160	180	210	240	295	350	400	460	515	620	725					
Front dimensions (mm.)	43	46	46	52	56	56	60	68	78	80	80	90	100					
Number through-holes	-	-	4	4	4	4	4	6	4	6	6	8	8					
Number tapped holes	4	4	4	4	4	4	4	6	8	10	10	12	12					
Bolts size	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M27					
ß°	45	45	22.5	22.5	22.5	22.5	22.5	15	15	11.25	11.25	9	9					
Screw size (mm.)	14	16	10	12	12	14	16	18	18	18	20	24	24					

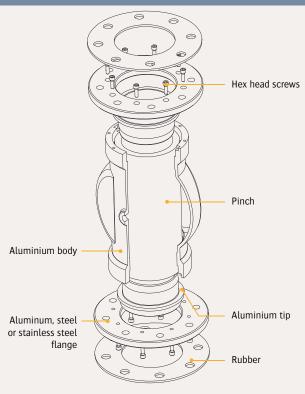
Pinch Valve

Objectives: complete shut off or

The pinch valves provide the ability to control the flow of a fluid through an uninterrupted flow path for installation of pneumatic conveying. Economic, the ideal solution for the passage of liquid, gas or powder materials by ensuring complete sealing of the tube when the pitch closes. Our pinch valves can







OPERATING MODE

The pinch valves are the solution for isolating and regulating abrasive, corrosive and fibrous products such as granulates, powder, etc.



Position N°1: The valve is in open position. Its inner section is identical to the one of the piping.



By introducing compressed air or pressurized water inside the body, the flexible sleeve bends to completely close the pas-

Valve body manufacturing: aluminum alloy Connection mouths manufacturing: aluminum, hardened carbon steel or stainless steel 304 L/316 L Maximum operating pressure: 3.5 bars Maximum inflation pressure: 6.0 bars

Diverter for pneumatic

conveying

Maximum differential pressure: 2.5 bars

Sealed closure of the valve

to stop the material flowing



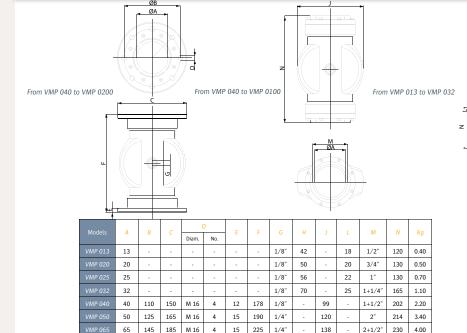




pinch and the ring

Quick replacement of the





www.palamaticprocess.com/powder-machine/powder-dosing/industrial-valves/pich-valve B Download videos & layouts from our website

M 16

340 M 16

160

180 220

210 250

240

295

180

214

250

285

374

3" 294

4" 334 7.60

10.20

15.60

Options



ATEX zone 22



15 270

15 310 1/4"

15 350

18 396 1/4"

25 460

EXAMPLES OF REALIZATIONS

Valves

_AUTOMATION & ELECTRICITY__



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Designer of specific equipments, PALAMATIC PROCESS associates programmed PLCs with its production units in an ergonomic and visual way. The production control is as important as the result. That is why automation and IT engineers of PALAMATIC PROCESS review the raw material feeding, the batches traceability, operators identification and dosings database. Thanks to continuous exchanges during the phase of project execution, between your production team and our engineering office, screens for packaging lines control offer ergonomic and easy use with unique personalization.

Equipment and programs: Schneider, Siemens, Rockwell, Omron, Philips, Intuch, Pc Vue, VijeoDesigner, ...



Pharmaceutical products



Building industry



Waste treatment



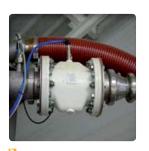
Spices



Food products



Chemical products



Penumatic conveying



Cut off valve



Discover our feeding equipment in video on our YouTube channel: www.youtube.com/



Our expertise:

FILLING SOLUTIONS FOR BIG BAG AND OCTABIN To fill

EMPTYING SOLUTIONS FOR BIG BAG AND OCTABIN To empty, compact and massage

SACK, DRUM AND CARDBOARD FILLING SOLUTIONS To fill, package, handle

SACK AND DRUM EMTYING SOLUTIONSTo empty, compact, handle, discharge

SOLUTIONS FOR PNEUMATIC CONVEYING Vacuum, pressure

SOLUTIONS FOR MECHANICAL CONVEYINGTo transfer with screw, belt conveyor, bucket elevator, aeromechanical or vibratory conveyor, truck loading spout

CRUMBLING AND GRINDING EQUIPMENTTo granulate, crumble, grind, pound, micronise, disagglomerate

SIFTING EQUIPMENTTo sift, segregate, sieve, protect

CONTAINERS AND STORAGE SOLUTIONS To fill, charge, empty, contain

DOSING EQUIPMENTTo control, regulate, empty, extract

To homogenise, incorporate, fluidify, stir, mix

To vibrate, fluidise, unclog, drain, facilitate extraction, control the descent, prevent stacks and vaults, connect

IDUSTRIAL DUST COLLECTING EQUIPMENT

To filter, clean, confine, secure





contact@palamatic.fr

Sales Department: +33 (0)2 22 93 63 08

ZA La Croix Rouge • 35530 Brécé • France Tel: +33 (0)2 99 86 06 22 • Fax: +33 (0)2 99 86 08 10

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