

Pasta Processing Plant

Stainless Steel Bin Activator BA

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Description ▼

The BA Bin Activator is a device of tapered conical shape that due to vibration facilitates material flow from hoppers or silos. It consists of a seamless stainless steel cone manufactured on a sheet metal lathe, a seamless food-grade SINT®AL engineering polymer seal with integrated upper and lower flange, suspensions for connection of the Bin Activator with the silo, as well as one or two electric vibrators.

Function ▼

One or two electric vibrators fitted to the unit generate vibration of the Bin Activator every time the feeding device beneath the silo is started for material extraction. During operation the Bin Activator describes a gyratory movement which is transmitted to the material inside the silo. The result is smooth material flow through the Bin Activator outlet into the connected feeder.

BA Bin Activators are used in various applications in pasta processing plants to facilitate discharging of powdery materials from silos or hoppers. The use of this equipment ensures optimum feeding of the material causing "mass flow" inside the silo, thus avoiding bridging or ratholing phenomena.



Application ▼

BA Bin Activators are usually fitted in large numbers under ground material storage silos or daily buffer silos/hoppers to discharge poorly flowing powders such as spinach flour, tomato flour, semolina, or micro-toxin-free wheat. For those applications a stainless steel design is required (ATEX version available on demand).

The Bin Activator outlet is usually shut off by a slide valve or butterfly valve which is connected via flexible connection to a mechanical conveying device or loading bellows.

Benefits ▼

- ✓ No material residue;
- ✓ No material contamination;
- ✓ High discharging performance;
- ✓ Reduced maintenance;
- ✓ Operator safety according to ATEX directive.

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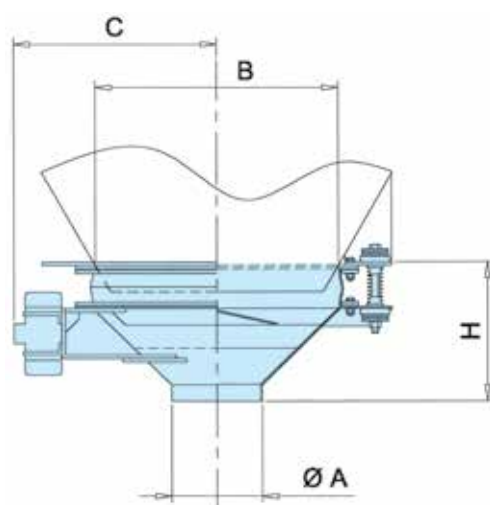
Stainless Steel Bin Activator BA



Technical Features / Performance ▼

- ▶ Diameters up to 2,100mm
- ▶ Food-grade design (stainless steel)
- ▶ FDA-approved seal
- ▶ No internal dead spaces
- ▶ Highly accurate internal finishing
- ▶ ATEX-compliant

Overall Dimensions ▼



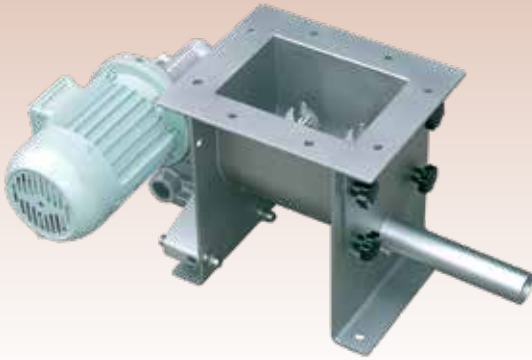
TYPE	Size	Ø A STD	B	C	H	Motors	kg
BA040	400	114	380	427	330	1	47
BA060	600	168	580	519	408	1	66
BA075	750	219	730	609	456	1	82
BA090	900	219	880	684	531	1	114
BA100	1,000	273	980	734	555	1	125
BA125	1,250	273	1,230	937	730	1	221 (4) / 225 (8)
BA150	1,500	323	1,480	1,120	774	1	376 (8) / 385 (12)
BA180	1,800	323	1,780	1,194	924	2	610 (8) / 620 (12)
BA210	2,100	406	2,080	1,420	1,033	2	674 (12) / 687 (18)

Dimensions in mm

Pasta Processing Plant

Micro-Batch Feeders MBF

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Description ▼

The MBF Micro-Batch Feeder for continuous volumetric feeding of powdery or granular materials consists of a casing entirely manufactured from stainless steel, a horizontally mounted rotating agitator tool, a feeder screw beneath the agitator tool, a feeder pipe enclosing the protruding feeder screw, one drive unit each for agitator and feeder screw.

Function ▼

MBF Micro-Batch Feeders for feeding of powdery and granular materials are particularly suitable for poorly flowing materials which tend to clog, along with adhesive products. Fed through a bag opening hopper, a bulk bag discharger, or another feeding device, the agitator tool manages to keep the material flowing, reducing at the same time the possibility of formation of lumps or bridges. The size of the material particles is of utmost importance when choosing the type of feeder screw. Poorly flowing materials with cohesion or bridging problems are homogeneously fed into the feeding zone by the blending or agitator shaft which is shaped according to the product properties. Depending on the user's individual requirements, the MBF Micro-Batch Feeder can be supplied with alternative feeder screws and blending tools and with various accessories.



Application ▼

MBF, which come in various configurations, in pasta processing plants are suitable for feeding granules or powders. Design flexibility enables feeding of flour, gluten, vitamins, spinach flour, tomato flour, semolina, and micro-toxin-free wheat. Typical areas of application are production lines for enriched flours or for formulation of flours for special application lines. Typical positions within the plant are on weighing scales for loss-in-weight installations next to the mixer. Furthermore, they are installed in dosing stations on top of weighing scales upstream of the mixer.

Benefits ▼

- ✓ Easy and quick internal cleaning thanks to quick access inspection panel;
- ✓ Feeding of different additives with the same feeder thanks to interchangeability of components;
- ✓ Small number of parts makes maintenance easy and quick;
- ✓ Independent drives for agitator and feeder tool leave all options open in terms of drive power and tool speed;
- ✓ Maximum safety for OEM and user thanks to ATEX-certification;
- ✓ High degree of homogeneity of material fed thanks to blending/agitating tool;
- ✓ Easy integration into the plant;
- ✓ Process reliability thanks to back-up through WAMGROUP® test labs.

Pasta Processing Plant

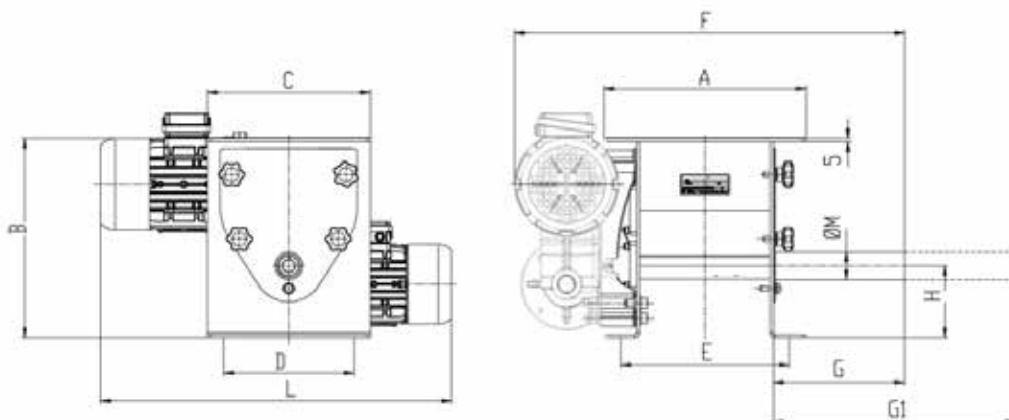
Micro-Batch Feeders MBF



Technical Features / Performance ▼

- ▶ Wide range of interchangeable machine components
- ▶ Suitable for powders, granules, fibres, flakes or ground materials
- ▶ Compact design, small footprint
- ▶ 3 sizes available with feed rates ranging from 3 dm³/h to 4,000 dm³/h
- ▶ Agitator and feeder tool with independent drives
- ▶ Internal geometry guarantees smooth feeding of particularly difficult materials
- ▶ No residue nests
- ▶ Quick-access inspection panel
- ▶ Contact surfaces in 304 SS (316 SS option)
- ▶ Shaft seals with grease lubrication system

Overall Dimensions ▼



MBF	A	B	C	D	E	F	G	G1	H	L	M	N	dm ³	kg
042	310	295	250	200	260	595	200	370	100	535	42	12.5	5	40
073	464	486	390	305	410	855	250	500	135	600	76	12.5	28	105
114	464	486	390	305	410	855	250	500	135	600	114	12.5	35	110

Dimensions in mm

Pasta Processing Plant

K - External Pneumatic Vibrator Cushioned

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Description ▼

The range of K-type Cushioned External Pneumatic Vibrators is the result of more than 50 years of experience in vibration technology for various industrial applications worldwide. OLI® Vibrators afford to guarantee long-term durability reflecting the care taken over selection of components and the high level of precision adopted in manufacture.

Function ▼

K-series Cushioned External Pneumatic Vibrators are used in various applications: as material flow aids, for vibrating feeders, for screening and compacting.



Application ▼

K-series Vibrators are used in all sections of pasta processing where flow aids are required. A typical application is hopper emptying.

Benefits ▼

- ✓ **Silent;**
- ✓ **Suitable for hygroscopic and sticky materials;**
- ✓ **Easy installation;**
- ✓ **ATEX II 2DG-certified.**

Pasta Processing Plant

K - External Pneumatic Vibrator Cushioned

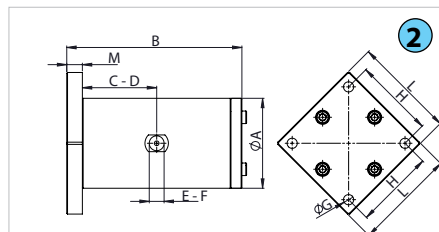
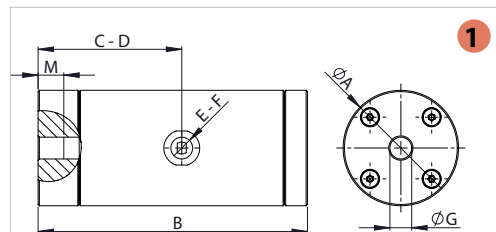


Technical Features / Performance ▼

- ▶ Discontinuous duty cycles
- ▶ Working pressure: from 2 to 6 bar (from 29 to 87 PSI)
- ▶ Pneumatic circuits, filter + flow control valves
- ▶ Air supply, quality class 5.4.4
- ▶ Working temperature: from -20° to 130°C (from -40 to 266°F)
- ▶ Max noise level: 80 dB(A)
- ▶ Technology: cushioned pneumatic piston
- ▶ Aluminum casing

Overall Dimensions ▼

	Draw.	Overall dimension																		
		A		B		C		D		E	F	G	H		L		M		Weight	
		mm	in	mm	in	mm	in	mm	in				mm	in	mm	in	mm	in	kg	lb
K15	1	32	1,26	69	2,72	37	1,46	37	1,46	M5	1/8"	M8	/	/	/	/	9	0,35	0,17	0,37
K 22	1	45	1,77	105	4,13	56	2,2	56	2,2	1/8"	1/8"	M10	/	/	/	/	13	0,51	0,5	1,1
K 30	1	60	2,36	116	4,57	62	2,44	62	2,44	1/4"	1/4"	M12	/	/	/	/	13	0,51	1,03	2,27
K 45	2	80	3,15	151	5,94	78	3,07	78	3,07	1/4"	3/8"	ø 8,5	72	2,83	90	3,54	15	0,59	2,86	6,3
K 60	2	115	4,53	224	8,82	115	4,53	115	4,53	1/2"	1/2"	ø 13	102	4,02	130	5,12	20	0,79	4,6	10,14



Features																					
Type	2 BAR - 29 PSI							4 BAR - 58 PSI							6 BAR - 87 PSI						
	Vibration	Force		Dynamic Moment		Air Consump.		Vibration	Force		Dynamic Moment		Air Consump.		Vibration	Force		Dynamic Moment		Air Consump.	
		VPM	kg	lb	kg*cm	in*lb	l/min		cfm	VPM	kg	lb	kg*cm	in*lb		l/min	cfm	VPM	kg	lb	kg*cm
K15	4500	2,8	6,2	0,02	0,02	9	0,3	5625	5,9	13	0,03	0,03	15	0,5	6672	8,3	18,3	0,03	0,03	21	0,7
K 22	2850	9	19,8	0,2	0,17	32	1,1	3450	14,2	31,3	0,21	0,18	50	1,8	4050	19,6	43,2	0,21	0,18	73	2,6
K 30	2475	14,8	32,6	43	37,2	45	1,6	3075	24,3	53,6	0,46	0,4	90	3,2	3450	30,6	67,5	0,46	0,4	140	4,9
K 45	1800	38,6	85,1	1,07	0,93	56	2	2250	68	149,9	2,4	2,08	125	4,4	2625	92	202,8	2,4	2,08	194	6,8
K 60	1200	62	136,7	7,67	6,64	48	1,7	1500	110	242,5	8,76	7,58	125	4,4	1700	141	310,8	8,76	7,58	202	7,1

Pasta Processing Plant

Screw Feeders CX

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Description ▼

CX trough-type Screw Conveyors and Feeders are suitable for all those applications where perfect cleanliness, contamination-free operation, weather and corrosion-resistance play an essential role. They are widely used in pasta processing plants.

Function ▼

CX Screws are usually installed as feeders under hoppers, silos or bin activators, as well as other devices. They are also used as conveyors for handling all the raw materials in pasta processing.



Application ▼

The application in the photograph shows an inclined CX Screw Feeder for material transfer (spinach flour, tomato flour, semolina, micro-toxin-free wheat).

Benefits ▼

- ✓ No material residue thanks to perfectly smooth trough surface;
- ✓ Trough end flanges welded on high precision jigs;
- ✓ Trough-bolted end plates complete with laser-cut drillings to accommodate end bearing assemblies;
- ✓ Screws made up of modular helicoids flighting with constant or variable pitch continuously welded on both sides on high quality centre pipe;
- ✓ Screw sections connected through bolted or splined shaft couplings;
- ✓ Screws electronically balanced.

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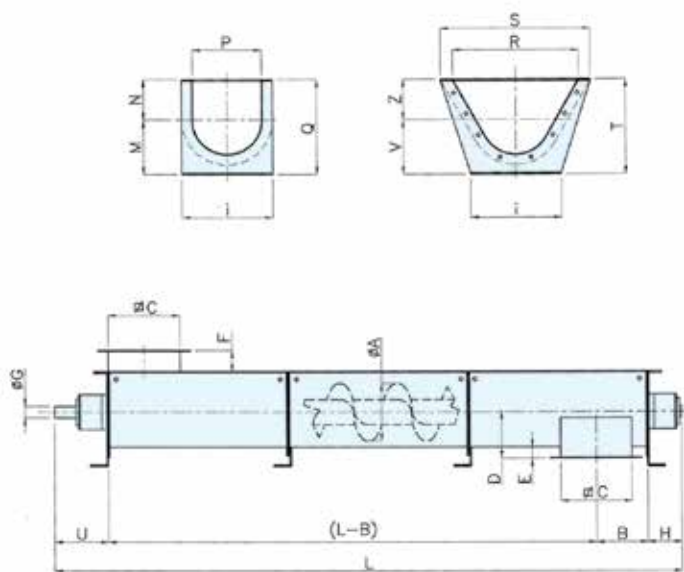
Screw Feeders CX



Technical Features / Performance ▼

- ▶ 304 L / 316 L stainless steel
- ▶ Modular trough and screw sections
- ▶ Square or cylindrical WAM® standard inlet and outlet spouts welded on the trough orthogonally as to the conveyor axis
- ▶ Bolted modular trough cover complete with strip gasket
- ▶ End bearing assemblies with shaft, roller bearings and externally adjustable packing glands
- ▶ Intermediate hanger bearings complete with shaft and self-lubricating long-life slide bushes

Overall Dimensions ▼



Ø A	100	120	150	200	250	300	350	400	500	600
B	170	170	170	195	220	260	290	340	390	440
C	175	175	175	225	275	325	375	425	525	625
D	130	130	130	165	195	225	225	285	340	395
E	40	40	40	50	55	60	65	70	75	80
F	60	60	60	60	60	60	60	80	80	80
Ø G	25	25	35	35	35	35-45	35-45	45	55-65	55-65-80
H	115	115	125	125	125	125-145	145	145-155	155-165	155-165-180
I	265	265	265	315	365	435	485	540	655	755
L	Rounded up to 0.5 m									
M			145	185	215	245	275	305	380	465
N			115	135	160	195	235	270	340	420
P			175	225	275	325	375	425	525	625
Q			260	320	375	440	510	575	720	885
R	175	175	375	425	525	525	625	730	830	1040
S	265	265	485	540	655	655	755	900	1000	1250
T	260	260	320	385	440	495	545	595	720	885
U	160	160	185	185	185	185-230	230	230-240	240-270	240-270-310
V	145	145	145	185	215	245	275	305	380	465
Z	115	115	175	200	225	250	270	290	340	420

Dimensions in mm

This datasheet might not show the complete range but only the models specialised for the application.



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Pasta Processing Plant

External Electric Vibrators MVE-Type

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Function ▼

MVE-type External Electric Vibrators are used in various different applications: as material flow aids, for screening, conveying, cleaning, detaching, compacting and sorting.



Description ▼

The MVE External Electric Vibrator range is the result of more than 50 years of experience in vibration technology for various industrial applications worldwide. OLI® External Electric Vibrators afford a guarantee of long-term durability reflecting the care taken over selection of components and the high level of precision adopted in manufacture.

Application ▼

MVE-type External Electric Vibrators are used in all the sections of pasta processing where flow aids are required. Typical applications are: hopper emptying, sieves, vibrating extractors.

Benefits ▼

- ✓ High quality bearings;
- ✓ 2-years warranty including electric components;
- ✓ Ex-stock delivery;
- ✓ Certificates available: Ex/CE/ETL/GOST/Baseefa/IEC/IECEX;
- ✓ ATEX II 2DG-certified.

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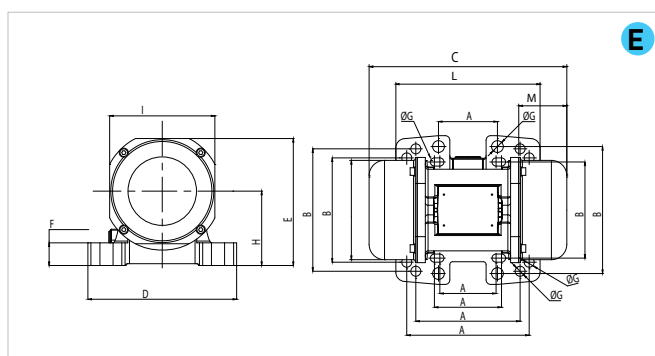
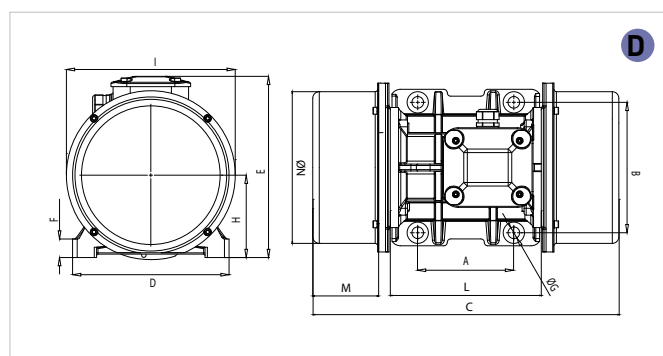
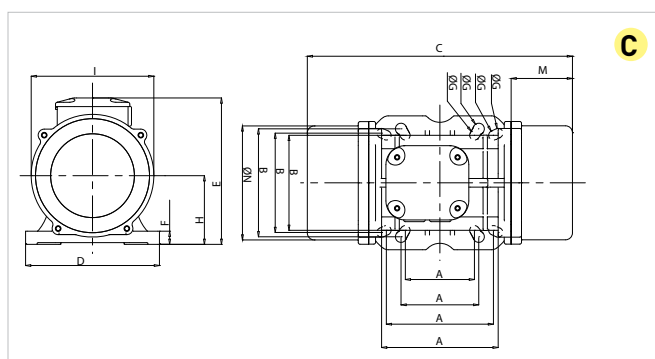
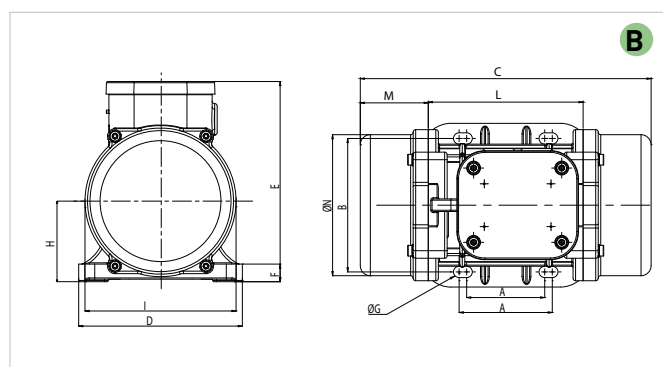
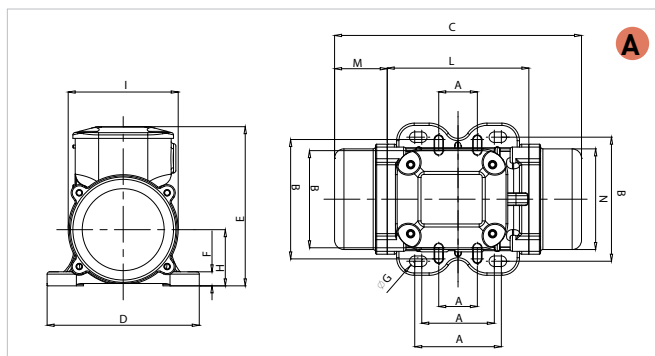
External Electric Vibrators MVE-Type



Technical Features / Performance ▼

- ▶ Continuous duty: S1
- ▶ Insulation class: F
- ▶ Standard: ATEX Ex II 3D-certified
- ▶ Standard: ETL (UL-CSA) Class II Div.2 - GOST
- ▶ Cast iron casing
- ▶ Working temperature: -20° to 40°C (-4° to 104° F)
- ▶ Standard voltage: 230/400 V, 50 Hz (264/460 V, 60 Hz)
- ▶ 1,000 - 1,500 - 3,000 R.P.M. (1,200 - 1,800 - 3,600 R.P.M.)
- ▶ Motor protection: IP66-NEMA 4

Overall Dimensions ▼



3 Phase		1 Phase	Overall dimension																													
			Drawing	Size	c		m		a		b		Ø g		1/2" Holes	d		e	f		h		i		l		n		Weight			
(mm)	(inch)	(mm)			(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)		(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Kg)	(Lb)		
MVE 60/3	MVE 160/2	MVE 60/3M	A	10	211	8.31	45	1.77	62-74	2.44-2.91	106	4.17	9	0.35	4	130	5.12	136	5.35	12	0.47	48	1.89	94	3.70	121	4.76	85	3.35	4.2	9.3	
MVE 100/3	MVE 220/2	MVE 100/3M			231	9.09	54	2.13	62-74	2.44-2.91	106	4.17	9	0.35		131	5.16	159	6.26	15	0.59	64	2.52	121	4.76	123	4.84	112	4.41	4.6	10.1	
MVE 200/3	MVE 440/2	MVE 200/3M	B	20	231	9.09	54	2.13	62-74	2.44-2.91	106	4.17	9	0.35	4	131	5.16	159	6.26	15	0.59	64	2.52	121	4.76	123	4.84	112	4.41	7.0	15.4	
MVE 202/3	MVE 444/2	MVE 202/3M	E	23	218	8.58	53	2.09	62-74	2.44-2.91	106	4.17	9	0.35	4	164	6.46	140	5.51	25	0.98	82	3.23	116	4.57	159	6.26	110	4.33	7.2	15.9	
									65	2.56	140	5.51	13	0.51																		
									115	4.53	135	5.31	11	0.43																		
MVE 300/3	MVE 690/2	-	C	30	253	9.96	45	1.77	80	3.15	110	4.33	11	0.43	4	154	6.06	175	6.89	15	0.59	79	3.11	142	5.59	163	6.42	131	5.16	9.8	21.6	
									90	3.54	125	4.92	13	0.51																		
									124	4.88	110	4.33	11	0.43																		
MVE 400/3	MVE 890/2	-			273	10.75	55	2.17	135	5.31	115	4.53	11	0.43																		
MVE 500/3	MVE 1200/2	-	D	40	334	13.15	78	3.07	105	4.13	140	5.51	13	0.51	4	168	6.61	196	7.72	22	0.87	92	3.62	169	6.65	178	7.01	158	6.22	15.8	34.8	
MVE 700/3	MVE 1700/2	-																														
MVE 800/3	MVE 1800/2	-																														

This datasheet might not show the complete range but only the models specialised for the application.



OLI®



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Pasta Processing Plant

MARTSHOCK "PS" Pneumatic Hammers



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Description ▼

PS-type MARTSHOCK Intermittent Electro-pneumatic Hammers belong to those flow aids that act destructively as bridge breakers. The mechanical energy released at regular intervals, at the moment of collision, is transmitted through the container wall to the stored material. MARTSHOCK Hammers are suitable for loosening of adhesive material crusts on walls, pipes or bins, and as bridge breakers in silos. The blow impulse leads to the complete detachment of the crusts or collapsing of a material bridge. MARTSHOCK Hammers are particularly suitable for retrofitting to existing silo cones or hoppers as no emptying of the bin or drilling of the wall is required.

Function ▼

MARTSHOCK Pneumatic Hammer blows produce a violent impact on the wall on which the unit is fitted. It is suitable for all bin shapes and sizes.



Application ▼

PS-type MARTSHOCK is used in all areas of pasta processing wherever in the process flow aids are required.

Benefits ▼

- ✓ Suitable for powdery and granular materials even if hygroscopic;
- ✓ Avoids further compaction of the material to be handled;
- ✓ The intermittent hammering effect radically resolves all mass flow problems;
- ✓ No damage on bin structure;
- ✓ ATEX 22-compliant – Ex II 3D T85° (ATEX KIT [accessories]);
- ✓ Low-noise impact (noise reduction kit [accessories]);
- ✓ Durable;
- ✓ Easy maintenance.

Pasta Processing Plant

MARTSHOCK "PS" Pneumatic Hammers

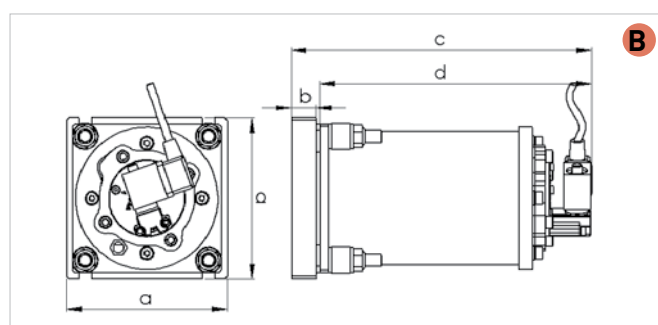
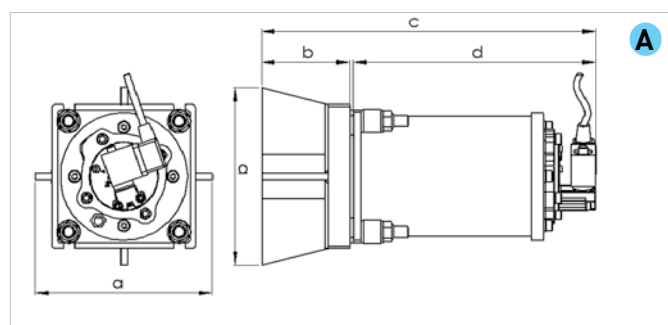


Technical Features / Performance ▼

- ▶ Discontinuous duty cycle; [1 blast every 30 sec]
- ▶ Working pressure: from 3 to 6 bar (from 43 to 87 PSI)
- ▶ Pneumatic circuits, filter + flow control valves
- ▶ Air supply, quality class 5.4.1
- ▶ Working temperature: from -20 ° to 80°C (from -4 ° to 176°F);
- ▶ Max noise level: 125 dB(A)
- ▶ Single impact technology
- ▶ ATEX kit II 3D c T85°C
- ▶ Timer adjustable from 30 sec to 45 min [accessory]
- ▶ Multi-tension coils from 24 V (AC/DC) to 230 V AC [accessory]
- ▶ Fully pneumatic kit, [accessory]

Overall Dimensions ▼

Overall dimension					
Type	PS TYPE "A" [≤ 3mm hopper thickness]				
	a	b	c	d	M
	mm	mm	mm	mm	mm
PS 40	160	80	302	219	16
PS 63	200	95	357	259	25
PS 80	250	119	430	308	
Overall dimension					
Type	PS TYPE "B" [> 3mm hopper thickness]				
	a	b	c	d	M
	mm	mm	mm	mm	mm
PS 40	130	20	242	219	16
PS 63	163	20	282	259	25
PS 80	200	25	336	308	



Features							
Type	Energy	Force	Energy	Force	Air Consumption		Air Nipple
	J	N	J	N	NI		
	3 bar		6 bar		3 bar	6 bar	i Ø Pipe mm Inch GAS
PS 40	8.4	199	18.1	429	3.6	5.3	6 1/8" GAS
PS 63	28.8	589	62	1268	6.4	11.6	8 1/4" GAS
PS 80	59.2	846	153	2186	12.5	21	8 1/4" GAS



This datasheet might not show the complete range but only the models specialised for the application.



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Pasta Processing Plant

RSM – RSMX Stainless Steel Manual Bag Openers



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Description ▼

For the applications in this sector the RSM Manual Bag Opener is manufactured from stainless steel. It consists of a grille with a rest fitted to its front. The grille is mounted on top of a hopper which is supported by four feet. A fabricated hood with protection door fitted to its front covers the hopper and grille. RSM Bag Openers are manufactured in high-finish-grade materials and come with or without integrated de-dusting filter unit. In the version with integrated dust filter the filter elements are cleaned pneumatically by reverse air jet. For RSMX (ATEX-compliant version) special ATEX devices such as an acoustic alarm and a signal lamp warn the operator in case of an increase in temperature due to an overload of the fan motor.

Function ▼

The operator puts the bag on the rest and pushes it on to the grille. He then slits the bag open with a vertical cut and shakes it empty. While the bag content may be discharged through a hopper or by BINSWEEP®, a special rotary discharging device, into any type of feeder, the built-in fan operated, air jet cleaned dust collector filters the dust generated during emptying. The empty bag is dropped into the chute on the side which leads into the optional COM-type Waste Bag Compactor (see COM).

Manual RSM Bag Openers are designed to minimise material residue. Due to their modular component design they satisfy a large number of applications.



Application ▼

RSM Manual Bag Openers are used to transfer raw materials such as additives contained in bags to the mixer or to silos for storage. The material is conveyed pneumatically or mechanically into the mixer or silo.

Benefits ▼

- ✓ Space-saving overall dimensions and compact user-friendly design;
- ✓ Built-in, fan-operated, air jet-cleaned, maintenance-friendly dust collector;
- ✓ With optional BINSWEEP® Rotary Discharging Device (see chapter);
- ✓ Low overall height;
- ✓ Favourable price-performance ratio.

Pasta Processing Plant

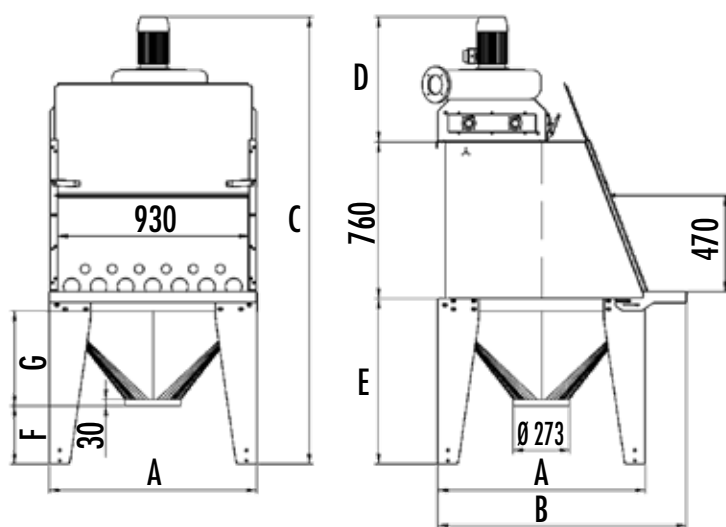
RSM – RSMX Stainless Steel Manual Bag Openers



Technical Features / Performance ▼

- ▶ Material: stainless steel
- ▶ Available with de-dusting filter or equipped for centralised dust suction
- ▶ Filter element options: round bags, elliptical bags made of antistatic filter media in case of ATEX version
- ▶ Filter surface from 3 to 7m² (32 to 75 sq ft)
- ▶ Collecting hoppers with different capacity volumes
- ▶ Support feet with possibility of height adjustment
- ▶ ATEX-compliant for zone 22 on request

Overall Dimensions ▼



	RSM03
A	1,006
B	1,208
C*	2,166
D*	606
E*	800
F**	282
G**	458

* Depending on the height of the filter elements and on the type of support feet

** Depending on the hopper model

Pasta Processing Plant

Screw Feeders TX

1



Description ▼

TX Tubular Screw Feeders and Conveyors, which are manufactured from stainless steel with a suitable surface finishing grade appropriate for the application in Pasta Processing Plants, are highly versatile. Manufacture of the fabricated components is carried out on machines that guarantee a perfectly smooth surface due to which material residue is reduced to the minimum. The screw conveyors or feeders are made up from a tubular trough which is equipped with an inlet and an outlet spout, an end plate at each tube end, helicoid screw flighting continuously welded on both sides on a centre pipe with a coupling bush at each end, two end bearing assemblies complete with an air or gas-purged, adjustable shaft seal. Furthermore, the screw conveyors or feeders, which for this industry come without intermediate bearings, are equipped with a gear motor suitable for the application

Function ▼

TX Tubular Screw Feeders are usually installed under a silo or FIBC (Bulk Bag) discharger to feed powdery or granular materials into a weigh hopper. They are suitable for applications in which any contamination of the material handled has to be strictly avoided.



Application ▼

The application in the photograph shows a TX Screw Feeder installed under a bin activator for transfer of the material (e.g. spinach flour, tomato flour, semolina, micro-toxin-free wheat) into a mixer.

Benefits ▼

- ✓ Comfortable cleaning and maintenance;
- ✓ Minimum residue;
- ✓ High feeding accuracy;
- ✓ Vast range of options and accessories;
- ✓ Attractive price.

Pasta Processing Plant

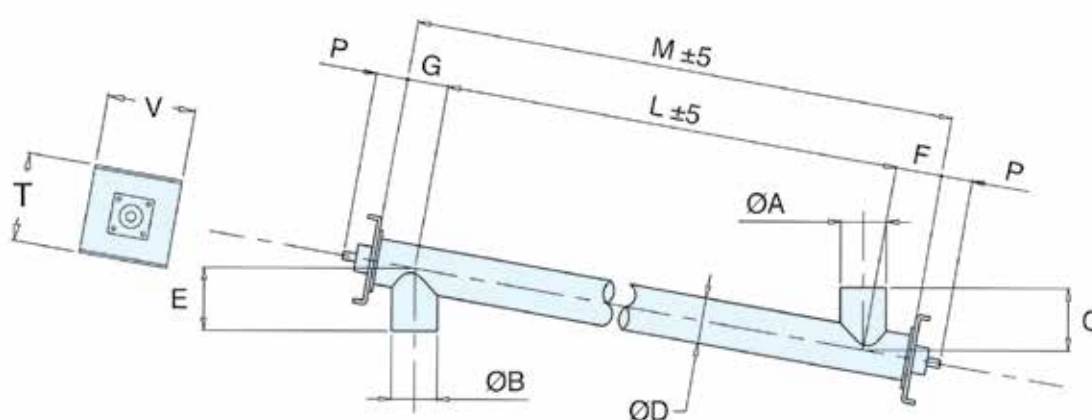
Screw Feeders TX



Technical Features / Performance ▼

- ▶ All fabricated parts manufactured from stainless steel
- ▶ Air or gas-purged shaft seals for maximum material protection against contamination
- ▶ Easily accessible inspection hatches
- ▶ Modular design
- ▶ ATEX zone 22 certification

Overall Dimensions ▼



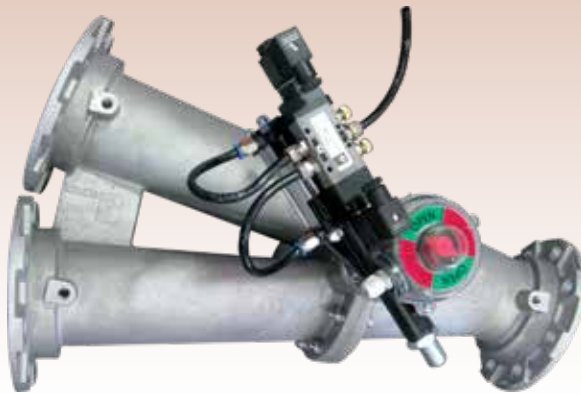
Type	100	120	150	200	250	300	350	400	500
Ø A	114	139	168	219	273	323	406	457	558
Ø B	114	139	168	219	273	323	406	457	558
C	1)								
Ø D	114	139	168	219	273	323	406	457	558
E	1)								
F	140	140	160	180	220	220	270	280	340
G	120	120	140	160	180	220	280	320	360
L	2)								
M	L + F + G								
P	114	114	124	124	124	124	151	151	162
T	280	280	280	355	410	465	535	590	740
V	265	265	265	315	365	435	485	540	655

Dimensions in mm

Pasta Processing Plant

Diverter Valves VAB

23

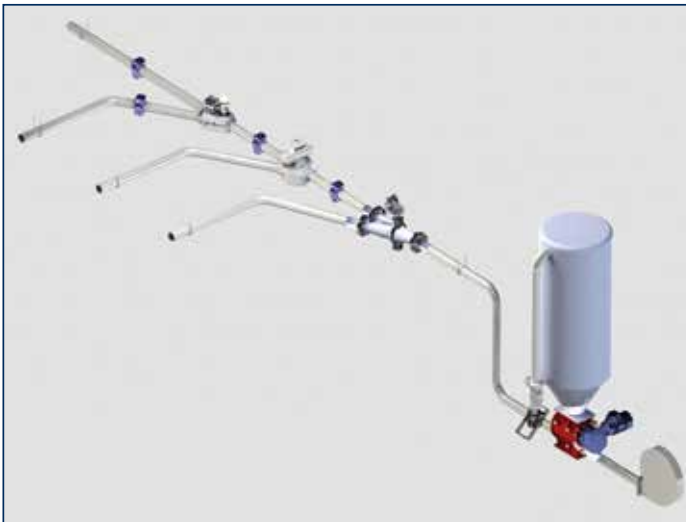


Description ▼

The VAB Flap diverter Valve consist of a robust body manufactured in two sections, split at a centre flange for ease of access to the internal sealing flap. The flap components and actuating cylinder are connected to the drive shaft which in turn is integrated into the valve body.

Function ▼

Two-way flap type diverter valve, is designed to meet the pneumatic conveying industry's requirement to re-route powder, pellets or granules from one discharge point to another with minimal pressure drop and high sealing efficiencies. The flap diverter valve uses a swinging flapper to divert material from one duct to another one.



Application ▼

The VAB Flap Diverter Valves are fitted directly to the pneumatic conveying ducts whenever is needed to switch the flow of material to different production lines.

Benefits ▼

- ✓ No contamination due to the Nickel Plating food certified;
- ✓ Use with different materials in a one configuration only;
- ✓ Quick integration into the process thanks to its light weight and easy handling;
- ✓ Modular design and easy maintenance thanks to small numbers of components;
- ✓ Small divert angle of 22.5°;
- ✓ Low pressure drop – minimal transition effect;
- ✓ Smooth internals - no lodgment points;
- ✓ Various actuators available, Pneumatic, electric and manual types;
- ✓ Available in 7 size ranging from 50 up to 200 mm;
- ✓ ATEX Compliance Group II Cat. 1D/3D c T135°C.

Pasta Processing Plant

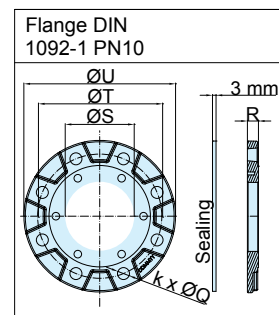
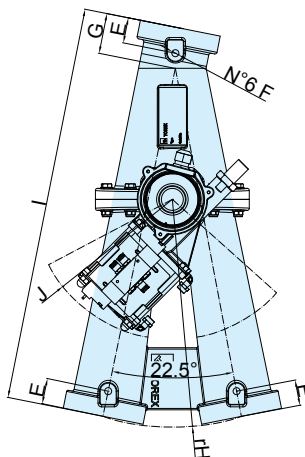
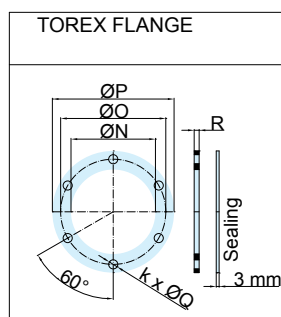
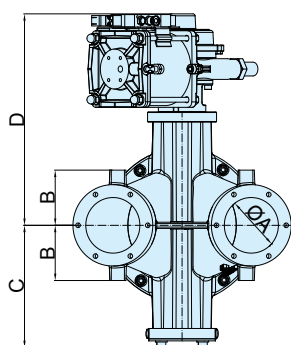
Diverter Valves VAB



Technical Features / Performance ▼

- ▶ Material of construction: Aluminum Casting
- ▶ Moveable Flap: Epdm
- ▶ Working Temperature: from - 20°C To 80°C
- ▶ Working Pressure: Max.+ 2.0 bar and -0.3 bar
- ▶ Actuators: Pneumatic (CP101 + MIC23), Electric (AE), Manual (CM)
- ▶ Diameter Range: It will be available in the following diameter:
50 Mm – 65 Mm - 80 Mm – 100 Mm – 125 Mm – 150 Mm – 200 Mm
- ▶ Atex Certification available for Group II Cat. 1D/3D C T 135°C
- ▶ It can be used either diverter or converger

Overall Dimensions ▼



									Pneumatic Actuator		Electric Actuator			
Size	A	B	C	E	F	G	r H	I	D	r J	D	r J		
50	50	60	153	32	70	45	448	493	281	205	363	275		
65	65	70		37		47	497	545					305.5	412.5
80	80	80				59	514	574						
100	100	90	178	65	M16	559	629		402		495			
125	125	110	203			74	639	712					330.5	
150	156	125	277			74	745	818						
200	206	150				857	922							

Dimensions in mm

Pasta Processing Plant

Diverter Valves VAR

22



Description ▼

VAR Diverter Valves consist of a cast aluminium body and cover and a rotary inner drum which closes one of the two outlet pipes as required. The rotation of the inner drum is brought about by means of a pneumatic actuator. The inner sealing is ensured by pneumatically inflatable gaskets.

Function ▼

VAR Diverter Valves are suitable for conveying any kind of material, both in powdery and granular form. The pneumatic actuator which activates the inner rotary drum makes it possible to divert the outlet pipe and thereby divert the flow of material from one duct to another.



Application ▼

VAR Diverter Valves are fitted directly on pneumatic conveying ducts whenever it is required to divert the flow of material to different production lines.

Benefits ▼

- ✓ No contamination due to the 304 stainless steel contact inserts;
- ✓ Minimum pressure drop thanks to inflatable seal;
- ✓ Minimum friction during diverting operation due to inflatable seal;
- ✓ ATEX-compliant pneumatic actuator and solenoid valves;
- ✓ Use with different materials in one configuration only;
- ✓ Quick process integration thanks to lightweight design and easy handling;
- ✓ Modular design and easy maintenance thanks to small numbers of components.

Pasta Processing Plant

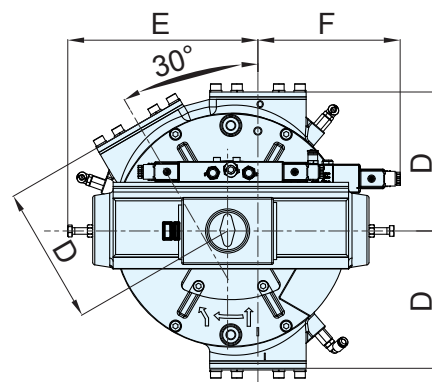
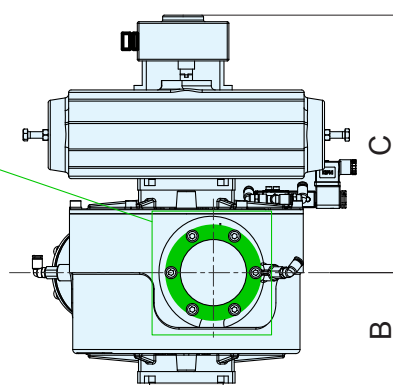
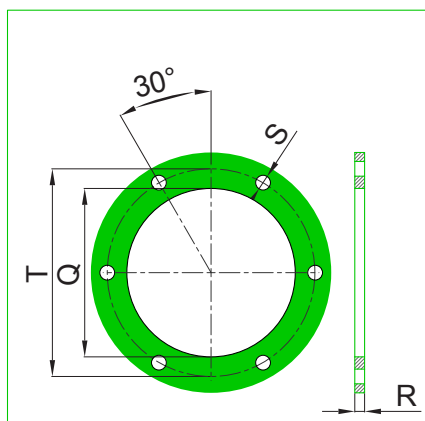
Diverter Valves VAR



Technical Features / Performance ▼

- ▶ Basic structure manufactured from cast aluminium
- ▶ Operating temperature: -20° C to 80° C (-4° F to 180° F)
- ▶ Diverter operating pressure: max. 3.5 bar (36 PSI)
- ▶ Inflatable seal closure pressure: max. 4 bar (58 PSI)
- ▶ Pneumatic actuator activation pressure: max. 8 bar (116 PSI)
- ▶ Range comprising diameters from 80mm to 150mm (3 to 6 in)
- ▶ Micro-switch box for signalling actuator position
- ▶ Electro-pneumatic actuator with different supply voltages: 24/48/110/230 V AC

Overall Dimensions ▼



Type	B	C	D	E	F	T	Q	R	S
VAR 080	142	314	169	260	174	103	82	6	9
VAR 100	148	320	209	266	160	127	102		11
VAR 125	181	386	242	299	191	158	127		
VAR 150	197	402	273	305	184	185	158		
VAR 175	216	453	313	432	197	217	177	10	
VAR 200	233	469	338	436	186	245	208		

Dimensions in mm

Pasta Processing Plant

“VB” Vibrating Bin Aerators

17



Description ▼

Vibrating Bin Aerators (VBI, VBIM) combine product aeration under operating pressure reaching 6 bar (87 PSI) with an additional slight vibration on the silo wall (see rear for sizing, positioning and number of aerators). Due to its design, damage of the silo is impossible even with abrasive materials. An additional backstop valve is not required as, due to the work pressure ranging from 1 to 2 bar (VBIM) (14-29 PSI) and from 2 to 6 bar (VBI) (29-87 PSI), no material can enter the zone beneath the elastic FDA-approved silicon lip. Vibrating Bin Aerators are used for the improvement of mass flow with powders or granular materials. In pasta processing plants only the stainless steel stem version (VBI-VBIM) is used.

Function ▼

Compressed air is introduced into the stored material through the silicon lip which adheres to the inside silo wall. By varying the operating pressure within a range between 2 and 6 bar (29 to 87 PSI) the intensity of vibration of the elastic silicon lip can be changed. Due to interval operation and a maximum operation time of 5 seconds air consumption is very low.



Application ▼

Vibrating Bin Aerators are used in all departments of pasta processing plants where flow aids are required. They are fitted on silos or storage and pipes, as well as on weigh or feed hoppers.

Benefits ▼

- ✓ 2 combined effects: vibration and aeration;
- ✓ No damage to the bin structure;
- ✓ Suitable for powdery and granular materials;
- ✓ Self-cleaning;
- ✓ Abrasion-resistant;
- ✓ Durable;
- ✓ Easy to fit;
- ✓ FDA-approved.

Pasta Processing Plant

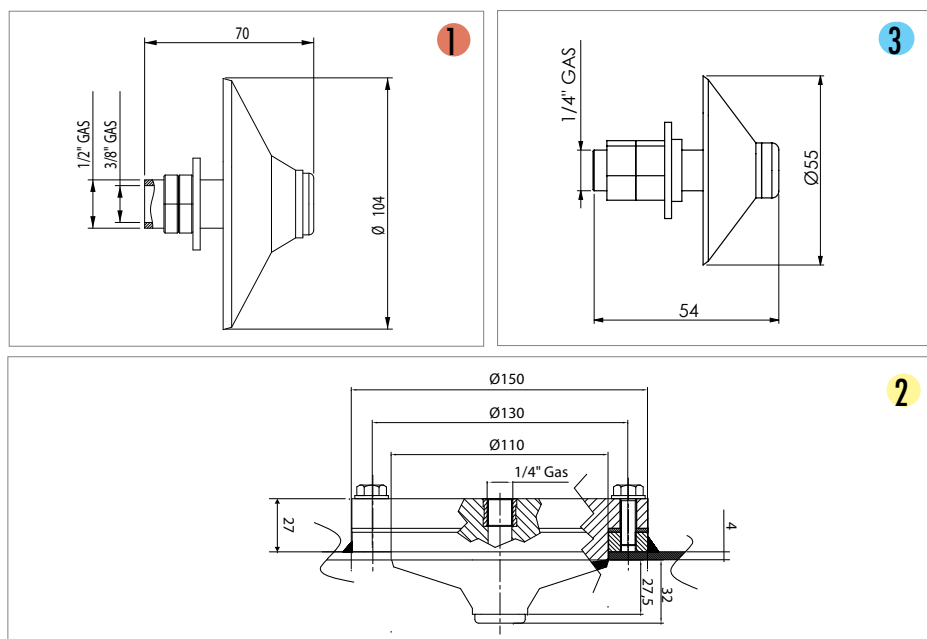
“VB” Vibrating Bin Aerators



Technical Features / Performance ▼

- ▶ Discontinuous duty cycles
- ▶ Working pressure VBI: from 2 to 6 bar (from 29 to 87 PSI)
- ▶ Working pressure VBIM: from 1 to 2 bar (from 14.5 psi, to 29 PSI)
- ▶ Pneumatic circuits, filter + flow control valves
- ▶ Air supply, quality class 5.4.1 or inert Gas (CO2)
- ▶ Working temperature: from -40° to 170°C (from -40° to 338°F) VBI-VBIM
- ▶ Max noise level: 125 dB(A);
- ▶ Vibro-fluidisation technology
- ▶ Food-grade membrane, stainless steel stem
- ▶ Red membrane high temperature up to 235°C (455°F) (on request)
- ▶ External mounting kit (on request)

Overall Dimensions ▼



Type	Draw.	Features							
		Air consumption							
		1 bar (14.5 psi)		2 bar (29 psi)		4 bar (58 psi)		6 bar (87 psi)	
		L/min	Cfm	L/min	Cfm	L/min	Cfm	L/min	Cfm
VB - VBI	1	-	-	100	3.53	150	5.29	250	8.82
VBE	2	-	-	100	3.53	150	5.29	250	8.82
VBM - VBIM	3	50	1.8	70	2.47	-	-	-	-

Pasta Processing Plant

VCP Spring-Loaded Pressure Relief Valves



9



Description ▼

VCP Pressure Relief Valves consist of a cylindrical casing with a bottom flange to be connected with a spigot welded on the silo roof, a disc-shape inner steel lid for negative pressure operation held in position by a central spring rod, an outside steel ring for excess pressure kept in position by three spring rods, gaskets, and a weather protection cover.

Function ▼

Inside the VCP Pressure Relief Valve, helical springs keep the valve lids closed when the pressure value remains within the preset limits. The three outside spring rods keep the external ring-shaped lid firmly closed as long as the force generated by the pressure inside the silo does not exceed the spring force. Once the pressure exceeds the pre-set value, the lid is pushed up allowing pressure to escape. The smaller lid covers the central circular opening of the external lid from below. It is held in the middle by a single spring rod and is pressed onto the external lid by the normal air pressure inside the silo. In the event of suction pressure, the spring is compressed and allows the lid to drop. The air entering the silo from outside ensures rapid pressure balance and pushes the central lid back up into the "closed" position.



Application ▼

VCP Pressure Relief Valves are the last resort when abnormal pressure conditions endanger the silo structure. This is why sudden excess or suction pressure inside the silo must be dealt with instantaneously. Even though ideally a Pressure Relief Valve should never have to go into action, it must be efficient and reliable if needed. With tens of thousands of units installed worldwide, VCP Pressure Relief Valves have given evidence of being totally reliable under the most different conditions.

Benefits ▼

- ✓ Safety for OEM and user thanks to ATEX certification zone 21;
- ✓ No contamination due to metal steel discs and EPDM white seal;
- ✓ Used with different materials in the same configuration;
- ✓ Easy to handle and fit thanks to lightweight design and reduced overall dimensions;
- ✓ Quick maintenance due to few components;
- ✓ Easy maintenance thanks to small numbers of components.

Pasta Processing Plant

VCP Spring-Loaded Pressure Relief Valves

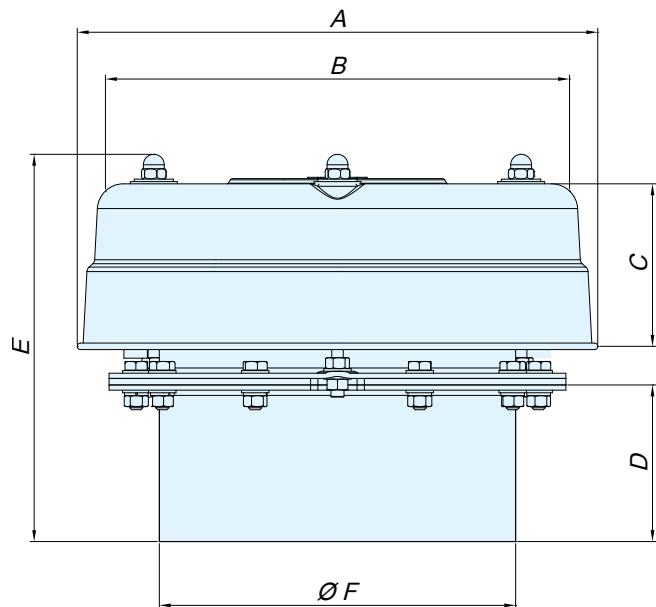


Technical Features / Performance ▼

- ▶ 304 stainless steel body (VCP...2C)
- ▶ Size 273mm (11 in) and 356mm (14 in)
- ▶ Weather protection cover in stainless steel
- ▶ ATEX certification (zone 21) and HSE British Guidelines
- ▶ Air volume up to 13,000 m³/h (7,650 cfm)
- ▶ Setting range: excess pressure from 300mm H₂O (0.44 PSI) up to 800mm H₂O (1.16 PSI)
- ▶ Setting range: negative pressure from -50mm H₂O (0.07 PSI) up to -100mm H₂O (0.15 PSI)
- ▶ No internal welding seams
- ▶ Equipped for inductive signalling sensors
- ▶ Protective bellows for springs
- ▶ White integral food-grade seal
- ▶ Small number of components
- ▶ Easy part replacement
- ▶ Lightweight and easy to handle
- ▶ Interchangeable discs

Overall Dimensions ▼

	Ø 273 mm	Ø 375 mm
A	400	525
B	356	468
C	125	175
D	120	120
E	325	400
Ø F	273	356
kg	9.5	23



Pasta Processing Plant

Vertical Screw Lift System VEX



2



Description ▼

The VEX Vertical Screw Lift System consists of a Horizontal Screw Feeder and a Vertical Screw Conveyor. The Horizontal Screw Feeder, which consists of a U-shape or tubular trough in stainless steel with appropriate surface finishing, may feed material from a silo or hopper or simply convey it being fed by an upstream feeding device. It is equipped with a drive unit suitable for the application. The outlet zone of the Horizontal Screw Feeder consists of a short tubular section flanged at a right angle on the bottom section of the stainless steel Vertical Screw Conveyor.

The Vertical Screw Conveyor consists of a tubular housing with a tangential inlet in the bottom section, connected with the outlet of the Horizontal Screw Feeder, an inclined outlet spout in the top section, complete with a top-mounted drive unit with integrated end bearing assembly (from which the screw is suspended).

For both screws, the helicoid screw flighting is continuously welded on both sides on a centre pipe. At each end, the end bearing assemblies are complete with adjustable packing gland shaft sealing unit (air or gas-purged seals available).

Function ▼

The VE Vertical Screw Lift System consists of two units: a Horizontal Screw Feeder which receives material from a silo, hopper, or another feeder or conveyor, and a Vertical Screw Conveyor that lifts the material to a certain level. Material may be discharged into a weigh hopper, into one or more bins or silos, or into another conveyor or conveying system. Fabricated components, screws, and bearing assemblies have been specially designed for this system to facilitate maintenance. The VE Vertical Screw Lift System, which excels through high volumetric efficiency and excellent mechanical features, was patented in various countries in the 1980s.



Application ▼

The application in the photographs shows the link between horizontal and vertical stainless steel screw.

Benefits ▼

In comparison with bucket elevators or pneumatic conveying systems, the VE Vertical Screw Lift System has the smallest overall dimensions, is easier to maintain, requires the smallest number of spare parts, and offers the best price-performance ratio.

Pasta Processing Plant

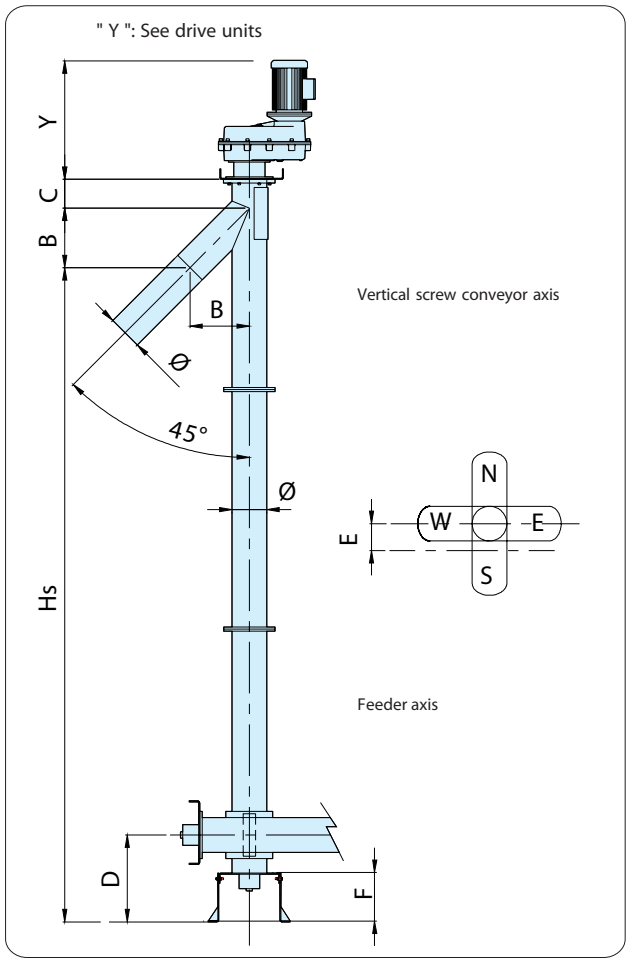
Vertical Screw Lift System VEX



Technical Features / Performance ▼

- ▶ Small footprint
- ▶ Few parts subject to wear
- ▶ External tube diameter: 114mm, 139mm, 168mm, 219mm, 273mm, 323mm
- ▶ Elevation height without intermediate hanger bearings up to 5 metres (16.5 ft)
- ▶ Throughput rates: between 3m³/h and 95m³/h considering the volumetric efficiency of a free flowing material

Overall Dimensions ▼



Ref.	Hs					
	Ø					
	100	120	150	200	250	300
1	840	840	800	716	716	700
2	1,840	1,840	1,800	1,716	1,716	1,700
3	2,840	2,840	2,800	2,716	2,716	2,700
4	3,840	3,840	3,800	3,716	3,716	3,700
5	4,840	4,840	4,800	4,716	4,716	4,700
6	5,840	5,840	5,800	5,716	5,716	5,700
7	6,840	6,840	6,800	6,716	6,716	6,700
8	7,840	7,840	7,800	7,716	7,716	7,700
9	8,840	8,840	8,800	8,056	8,056	8,700
10	9,840	9,840	9,800	9,716	9,716	9,700

Ø	100	120	150	200	250	300
B	212	212	283	354	354	354
C	100	100	115	130	130	145
D	350	350	440	500	500	550
E	70	90	115	140	165	220
F	150	150	200	200	200	200

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Pasta Processing Plant

VFS Butterfly Valves

14



Description ▼

VFS Butterfly Valves consist of two high-pressure die-cast semi-bodies manufactured from aluminium alloy, a stainless steel swivel disc and an integral, FDA-approved seal. While V1FS has a top flange and a beaded bottom section suitable for the attachment of a flexible sleeve, the V2FS comes with an identical top and bottom flange.

Function ▼

For closing bins, hoppers or silos containing powders or granular materials, VFS Butterfly Valves are among the most widely used equipment worldwide. What used to be custom-built items for specific applications, have been turned by WAM® into a mass-produced industrial product with features that allow extremely versatile use.

VFS Butterfly Valves are used in all types of Pasta Processing Plants where interception of gravity-fed or pneumatically conveyed dry materials is required.



Application ▼

VFS Butterfly Valves are used in all types of powder, flakes or granular material processing plants (e.g. spinach flour, tomato flour, semolina, micro-toxin-free wheat) where interception of gravity-fed or pneumatically conveyed dry materials is required. Typical applications are storage, transport and processing lines. They are fitted beneath hoppers, bins, silos, screw or other type conveyors, or to intercept pneumatic conveying ducts. Due to their special design and to the engineering materials used, they represent a particularly cost-effective yet most efficient solution.

Benefits ▼

- ✓ No product contamination;
- ✓ Dust-tight thanks to special component geometry;
- ✓ Suitable for different materials in the same configuration;
- ✓ Safety for OEM and end user (ATEX zone 22 certification);
- ✓ Quick integration into the process;
- ✓ Modular design and easy maintenance thanks to small number of components;
- ✓ High flexibility thanks to interchangeable components.

Pasta Processing Plant

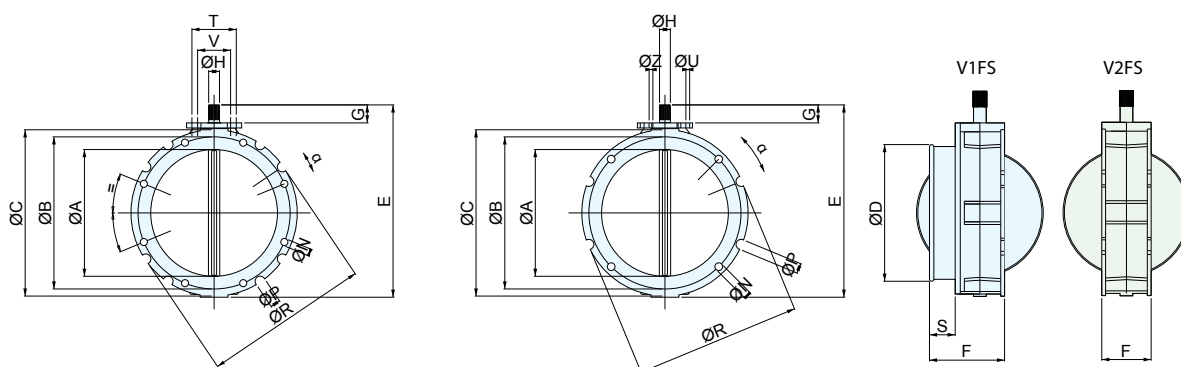
VFS Butterfly Valves



Technical Features / Performance ▼

- ▶ V1FS with top flange and beaded bottom section suitable for fixing of a flexible sleeve from 100 ~ 400 mm (4 in ~ 16 in)
- ▶ V2FS with identical top and bottom flange from 100 ~ 400 mm (4 in ~ 16 in)
- ▶ Pressure-proof up to 0.2 bar (2.9 PSI) and max. temperature of 100°C (212°F)
- ▶ Stainless steel disc
- ▶ Absence of stagnation points
- ▶ White integral food-grade seal
- ▶ Interchangeable discs

Overall Dimensions ▼



TYPE	Ø A	Ø B	Ø C	Ø D	E	F	G	Ø H DIN 5482	N Drilling	P External grooves	Ø R	α	S	T	U	V	Z	κr
V1FS 100.	95	180	220	105	250	115	35	22x19	4 x Ø14	4 x Ø20	220	22°30'	40	80	M12	50	M10	4
V1FS 150.	150	200	228	163	290	115	35	22x19	4 x Ø14	4 x Ø20	228	22°30'	40	80	M12	50	M10	5
V1FS 200.	200	250	278	213	340	115	35	22x19	4 x Ø14	4 x Ø20	278	22°30'	40	80	M12	50	M10	6.5
V1FS 250.	250	300	328	263	390	115	35	22x19	8 x Ø14	8 x Ø20	325	11°15'	40	80	M12	50	M10	7.5
V1FS 300.	300	350	378	313	440	115	35	22x19	8 x Ø14	16 x Ø20	375	5°41'	40	80	M12	50	M10	9
V1FS 350.	350	400	440	363	530	123	50	28x25	8 x Ø14	8 x Ø20	440	10°	40	80	M12	-	-	16
V1FS 400.	400	470	530	413	580	123	50	28x25	8 x Ø14	16 x Ø20	530	4°30'	40	80	M12	-	-	20.5

Dimensions in mm

TYPE	Ø A	Ø B	Ø C	E	F	G	Ø H DIN 5482	N Drilling	P External grooves	Ø R	α	T	U	V	Z	κr
V2FS 100.	95	180	220	250	77	35	22x19	4 x Ø14	4 x Ø20	220	22°30'	80	M12	50	M10	4
V2FS 150.	150	200	228	290	77	35	22x19	4 x Ø14	4 x Ø20	228	22°30'	80	M12	50	M10	5
V2FS 200.	200	250	278	340	77	35	22x19	4 x Ø14	4 x Ø20	278	22°30'	80	M12	50	M10	6.5
V2FS 250.	250	300	328	390	77	35	22x19	8 x Ø14	8 x Ø20	325	11°15'	80	M12	50	M10	7.5
V2FS 300.	300	350	378	440	77	35	22x19	8 x Ø14	16 x Ø20	375	5°41'	80	M12	50	M10	9
V2FS 350.	350	400	440	530	85	50	28x25	8 x Ø14	8 x Ø20	440	10°	80	M12	-	-	16
V2FS 400.	400	470	530	580	85	50	28x25	8 x Ø14	16 x Ø20	530	4°30'	80	M12	-	-	20.5

Dimensions in mm

Pasta Processing Plant

Pressure Relief Valves VHS

15



EC 1935/2004-certified

Description ▼

VHS Pressure Relief Valves consist of a cylindrically shaped metal body with flanged connection spigot to the silo, an exhaust outlet spout for duct connection, an elastic diaphragm able to re-establish pressure balance instantaneously, a counterweight kit to keep the valve closed under normal conditions, and a weather protection cover.



Function ▼

For some time, tighter safety regulations in industrialised countries have ensured strict enforcement of rules regarding the safeguarding of silos and bins against both excess and negative pressure. There is no question that other countries will have to follow this example. The counterweight-loaded VHS-type Pressure Relief Valve has one decisive advantage over other types of pressure relief valve. Due to the moment of inertia of the helical springs on those traditional pressure relief valves, pressure balance is re-established extremely quickly but not instantaneously.

The VHS, on the other hand, does the job in real time. Through an interplay of pressure on different surface areas on both sides of a diaphragm fitted inside the valve casing, perfect pressure balance is achieved. In the event of excess pressure this interaction enables air from inside the silo to flow back into the atmosphere; in case of suction pressure the air penetrates from the atmosphere into the silo.

Application ▼

VHS Pressure Relief Valves are the last safety net when abnormal pressure conditions endanger the silo structure. This is why sudden excess or suction pressure inside the silo must be dealt with instantly. Even though ideally a VHS Pressure Relief Valve should never have to go into action, it must be efficient and reliable if needed.

Benefits ▼

- ✓ Safety for people and the environment thanks to the possibility to convey emissions;
- ✓ Special properties of the diaphragm help avoid locking and formation of material crusts;
- ✓ Innovative working principle (special double-acting diaphragm pervious to air sees to both excess and suction pressure relief);
- ✓ No failure thanks to counterweight system never in contact with dust;
- ✓ Quick and easy maintenance due to few components;
- ✓ Easy to handle and fit thanks to lightweight design and reduced overall dimensions.

Pasta Processing Plant

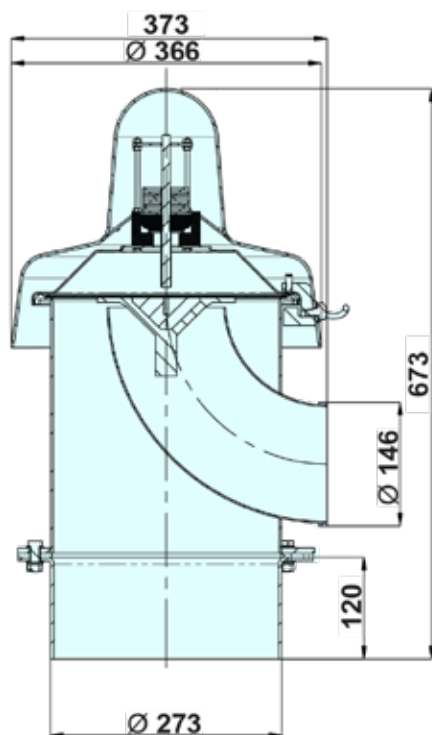
Pressure Relief Valves VHS



Technical Features / Performance ▼

- ▶ 304 stainless steel casing (VHS2732B)
- ▶ Casing diameter = 273mm (10 in)
- ▶ Air volume up to 5,000 Nm³/h (2,950 cfm)
- ▶ Exhaust outlet spout for connection to centralised suction system
- ▶ Valves are preset for a maximum negative pressure of -0.005 bar (0.07 PSI) and a maximum excess pressure of 0.05 bar (0.72 PSI)
- ▶ Should customer requirements be different, the valves can be set at a maximum excess pressure ranging from 0.02 bar (0.29 PSI) to 0.08 bar (1.16 PSI)
- ▶ Weight: 16 kg (35 lbs)
- ▶ Pre-equipped for inductive signalling sensors
- ▶ Small number of components
- ▶ Easy part replacement
- ▶ Lightweight and easy to handle
- ▶ Conveyed emission
- ▶ Compliance with European Regulation (EC) No. 1935/2004

Overall Dimensions ▼



TYPE	Excess Pressure	Negative Pressure	kg
VHS273	300 ~ 1,000 mm H ₂ O*	-50 mm H ₂ O*	22

Pasta Processing Plant

WAMFLO® Dust Collectors FN and FNX



6



Description ▼

WAMFLO® FN Dust Collectors have been specifically developed for Pasta Processing Plants. They are equipped with a round stainless steel body with a large residue-free access door for filter element removal. The casing contains vertically mounted round bag-type filter elements with antistatic filter media. To keep the filter media clean an air jet cleaning system is integrated in the top cover.

Function ▼

WAMFLO® FN Dust Collectors are used for both venting and suction applications. Dust separated from the air flow by round bag-type filter elements drops back into the silo, bin or hopper after an integrated automatic reverse air jet cleaning system has removed it from the filter elements.



Application ▼

WAMFLO® FN Dust Collectors are mainly used for final product silo venting and weigh hopper venting. They are equipped with a centrifugal fan with a potential air volume capacity of up to 53 m³/min.

Benefits ▼

- ✓ Running cost reduction;
- ✓ Residue-free access door;
- ✓ Round bags available in after-market;
- ✓ Compliance with health and safety standards;
- ✓ Maintenance cost reduction;
- ✓ Safety for OEM and End User.



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Pasta Processing Plant

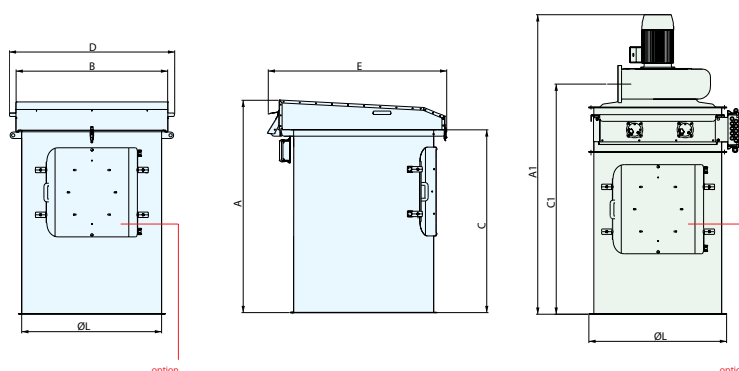
WAMFLO® Dust Collectors FN and FNX



Technical Features / Performance ▼

- ▶ 304 SS (316 SS on request) flanged cylindrical body
- ▶ Filter surface from 2 to 21 m²
- ▶ Low emission level due to B.I.A.-certified filter media
- ▶ Compressed air jet cleaning system integrated in top cover
- ▶ High efficiency centrifugal fan
- ▶ Pred = 1 barg
- ▶ ATEX category 2/3D and 2/2D
- ▶ High cleaning efficiency due to "Full Immersion" solenoid valves incorporated in aluminium air tank (corrosion-resistant) for low-maintenance operation
- ▶ No tools required for filtering element removal
- ▶ Large access door for comfortable filter element removal

Overall Dimensions ▼



Filter Surface (m ²)				Ø L	A	B	C	D	E	A1	C1
FNW ①	FNE ②	FNM / FNB ③	FNC / FNS ④								
-	-	-	2-4	400	746	495	520	580	635	1,197	879
-	-	-	3-5	400	996	495	770	580	635	1,447	1,129
-	-	1	6	400	1,146	495	920	580	635	1,597	1,279
-	-	2	-	400	1,586	495	1,360	580	635	2,037	1,719
-	-	3	-	400	2,066	495	1,840	580	635	2,517	2,199
7	2	-	7	600	746	690	520	775	880	1,325	913
11	-	-	10	600	996	690	770	775	880	1,575	1,163
14	4	3	12	600	1,146	690	920	775	880	1,725	1,313
-	7	5	-	600	1,586	690	1,360	775	880	2,165	1,753
-	9	6	-	600	2,066	690	1,840	775	880	2,645	2,233
13	4	-	12	800	746	875	520	960	1,010	1,430	943
20	-	-	18	800	996	875	770	960	1,010	1,680	1,193
24	7	5	22	800	1,146	875	920	960	1,010	1,830	1,343
-	10	8	-	800	1,586	875	1,360	960	1,010	2,270	1,783
-	13	11	-	800	2,066	875	1,840	960	1,010	2,750	2,263
27	6	-	24	1,000	746	1,125	520	1,210	1,325	1,455	963
40	-	-	36	1,000	996	1,125	770	1,210	1,325	1,705	1,213
48	12	11	44	1,000	1,146	1,125	920	1,210	1,325	1,855	1,363
-	18	16	-	1,000	1,586	1,125	1,360	1,210	1,325	2,295	1,803
-	24	21	-	1,000	2,066	1,125	1,840	1,210	1,325	2,775	2,283

This datasheet might not show the complete range but only the models specialised for the application.

Pasta Processing Plant

Batch-Type Single Shaft Mixers Discharge for
Pasta Processing WBH

11



Description ▼

WBH batch-type mixers consists of a single horizontal shaft equipped with ploughshare or shovel tools, housed in a tubular mixing drum. The machines come with one or more inlets, an outlet with a central discharge port, a venting spout, two drum closing end plates that carry flanged end bearing assemblies complete with integrated, adjustable shaft sealing unit, and a drive unit complete with power transmission.

Function ▼

WBH horizontal single shaft ploughshare mixers work on the principle of mechanical fluidisation of the product.

The particular shape, position and rotation speed of the mixing tools, create a centrifugal vortex motion, which allows the ingredients to be projected in a three-dimensional way and to merge with each other.

This ensures that ingredients with different particle size and bulk density are perfectly blended and mixed with high precision within the shortest possible time.



Application ▼

WBH mixers installed in the dry raw materials section of a pasta processing plant.

Benefits ▼

- ✓ High mixing homogeneity;
- ✓ High speed mixing;
- ✓ Low material residue;
- ✓ Minimum wear/low maintenance;
- ✓ Easy access to all internal parts of the mixer;
- ✓ Top quality mixing;
- ✓ ATEX-certified;
- ✓ Attractive price.

Pasta Processing Plant

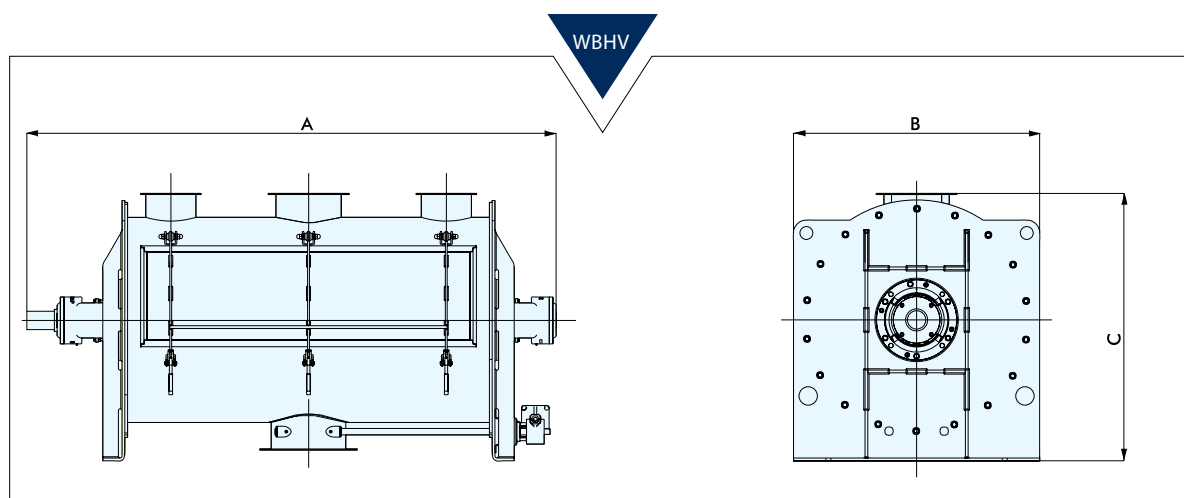
Batch-Type Single Shaft Mixers Discharge for
Pasta Processing WBH



Technical Features / Performance ▼

- ▶ Sizes: 75 to 25,000 litres
- ▶ Drive units: 4.0 kW to 300 kW
- ▶ Mixing capacity: 2 to 18 batches per hour (depending on recipe and unit configuration)
- ▶ End bearing assemblies with various types of shaft seals and option of air or nitrogen purging
- ▶ Central discharge valve
- ▶ Heavy-duty mixing chamber manufactured in carbon steel or 304L or 316L stainless steel
- ▶ Jacketed chamber
- ▶ Chopper bearing assemblies with air-purged rotary shaft seal
- ▶ Liquid injection devices
- ▶ Decompression control panel
- ▶ Pneumatic sampling device
- ▶ PT 100 temperature probe on jacketed mixing chamber
- ▶ Wide range of mixing tools
- ▶ Automatic cleaning system

Overall Dimensions ▼



TYPE	A	B	C	Usable Volume (dm³)	Empty Weight (kg)
WBHV 75	1,300	611	649	56	245
WBHV 150	1,460	670	754	105	350
WBHV 300	1,840	770	889	210	550
WBHV 550	2,150	930	1,075	385	840
WBHV 800	2,350	980	1,151	560	1,080
WBHV 1100	2,690	1,100	1,278	770	1,400
WBHV 2000	2,920	1,340	1,455	1,400	2,100
WBHV 3000	3,920	1,340	1,455	2,100	2,800
WBHV 4800	4,520	1,500	1,750	3,360	4,300
WBHV 6000	4,820	1,600	1,860	4,200	4,800
WBHV 8800	5,390	1,810	2,130	6,160	5,800
WBHV 10500	5,630	1,910	2,160	7,350	6,900
WBHV 15000	6,124	2,110	2,445	10,500	8,200
WBHV 20000	6,617	2,312	2,665	14,000	11,903
WBHV 25000	6,888	2,432	2,735	17,500	13,653

Indicative dimensions (mm)

This datasheet might not show the complete range but only the models specialised for the application.

Flour Milling

WBN Batch-Type Ribbon Blender



21

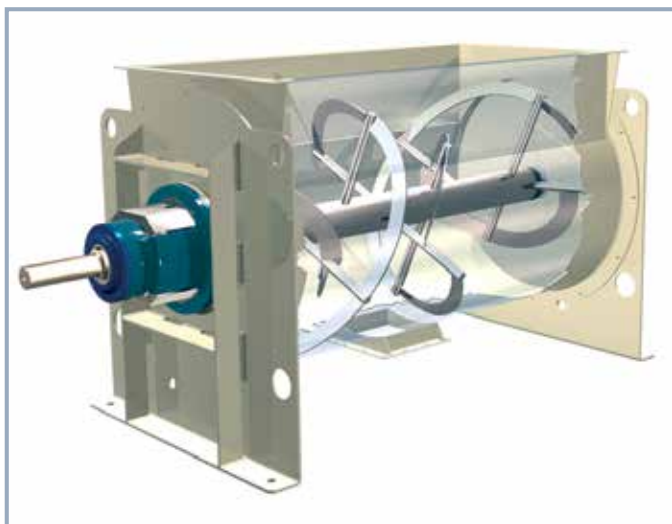


Description ▼

WBN Batch-Type Ribbon Blenders consist of a horizontal, single shaft double counter-pitch ribbon screw housed in a tubular mixing drum, a central inlet or a rectangular shape inlet port across the entire length of the mixing drum, an outlet with central discharge, a venting spout, two drum closing end plates that carry flanged end bearing assemblies complete with integrated adjustable shaft sealing unit, and a drive unit complete with power transmission.

Function ▼

The outer helix will move the material from both ends of the vessel towards the centre, while the inner helix will transfer the material towards both ends, performing a sort of convection mixing. The product is processed gently in a relative short mixing time.



Application ▼

For blending different types of flour or mixing flour with additives.

Benefits ▼

- ✓ Excellent mixing homogeneity;
- ✓ Mixing of fragile materials without particle damage;
- ✓ Low material residue;
- ✓ Minimum wear/low maintenance;
- ✓ Easy access to all internal parts;
- ✓ Attractive price.

Flour Milling

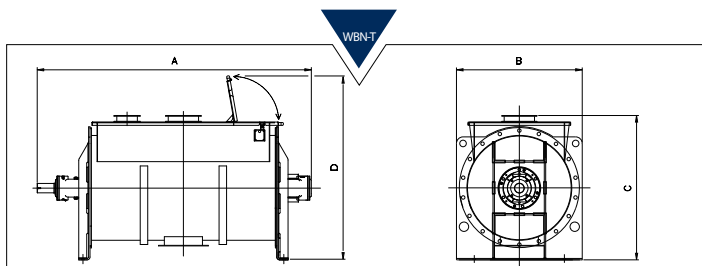
WBN Batch-Type Ribbon Blender



Technical Features / Performance ▼

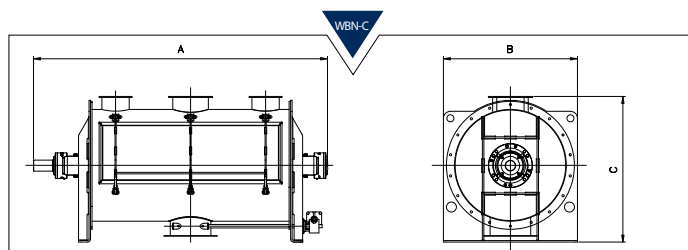
- ▶ From 75 up to 15,000 litres volume capacity
- ▶ Different construction materials
- ▶ Bomb-bay discharge available (15° and 60°).

Overall Dimensions ▼



TYPE	A	B	C	D	Usable Volume (dm³)	Empty Weight (kg)
WBN-T 75	1,300	611	670	1,051	56	160
WBN-T 150	1,460	670	763	1,274	105	270
WBN-T 300	1,840	770	930	1,393	210	400
WBN-T 550	2,150	930	1,133	1,585	385	690
WBN-T 800	2,350	980	1,154	1,602	560	850
WBN-T 1100	2,690	1,100	1,260	1,754	770	1,200
WBN-T 2000	2,920	1,340	1,465	1,975	1,400	2,400
WBN-T 3000	3,920	1,340	1,465	2,090	2,100	2,700
WBN-T 4800	4,520	1,500	1,725	2,199	3,360	3,800
WBN-T 6000	4,820	1,600	1,876	2,325	4,200	4,400
WBN-T 8800	5,390	1,810	2,067	2,665	6,160	5,300
WBN-T 10500	5,630	1,910	2,413	2,862	7,350	6,900
WBN-T 15000	6,124	2,110	2,706	3,190	10,500	8,000

Dimensions in mm



TYPE	A	B	C	Usable Volume (dm³)	Empty Weight (kg)
WBN-C 75	1,300	611	649	56	160
WBN-C 150	1,460	670	754	105	270
WBN-C 300	1,840	770	889	210	400
WBN-C 550	2,150	930	1,075	385	690
WBN-C 800	2,350	980	1,151	560	850
WBN-C 1100	2,690	1,100	1,278	770	1,200
WBN-C 2000	2,920	1,340	1,455	1,400	2,400
WBN-C 3000	3,920	1,340	1,455	2,100	2,700
WBN-C 4800	4,520	1,500	1,750	3,360	3,800
WBN-C 6000	4,820	1,600	1,860	4,200	4,400
WBN-C 8800	5,390	1,810	2,130	6,160	5,300
WBN-C 10500	5,630	1,910	2,160	7,350	6,900
WBN-C 15000	6,124	2,110	2,445	10,500	8,000

Dimensions in mm

This datasheet might not show the complete range but only the models most suitable for the application.

Pasta Processing Plant

Rotary Level Indicators ILT

16



Description ▼

ILT-type Bin Level Indicators have been designed for electric signalling by rotary action of minimum or maximum material level inside bins, hoppers or silos.



Function ▼

As long as material is present, the paddle of the ILT Bin Level Indicator does not rotate. As soon as the material level sinks below the paddle radius, rotation restarts activating other system components. The top or side-mounted indicators are commonly used for materials having a bulk density ranging between 0.5t/m^3 (0.02 lb per cu in) and 2t/m^3 (0.08 lb per cu in).

Application ▼

Typically ILT Rotary Level Indicators are fitted on the vertical walls of a bin, silo or hopper at the desired maximum or minimum level.

Equipped with an extension rod, they can also be mounted vertically into the roof plate.

Benefits ▼

- ✓ No product contamination due to 304 stainless steel shaft and measuring paddle and non-toxic plastic fittings;
- ✓ No contact between product and casing;
- ✓ Zone 20 /21 ATEX-certified;
- ✓ Adjustable via reset of force spring in 3 positions;
- ✓ Double-threaded fitting ensures system compatibility;
- ✓ Use with different materials in one single configuration;
- ✓ Easy and quick installation and replacement;
- ✓ Compact overall dimensions;
- ✓ Lightweight due to casing in aluminium alloy;
- ✓ Maintenance-free;
- ✓ Cost-effective.

Pasta Processing Plant

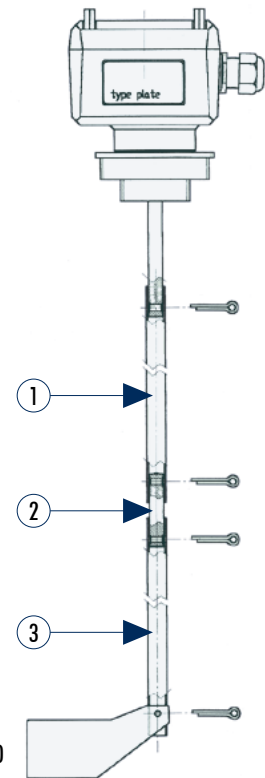
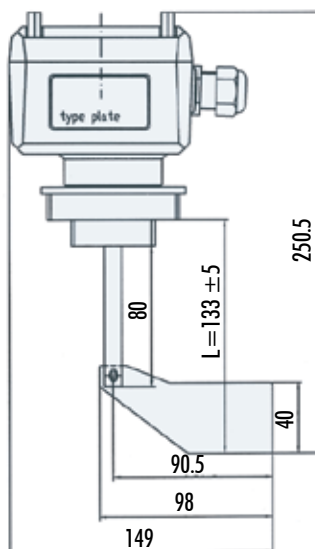
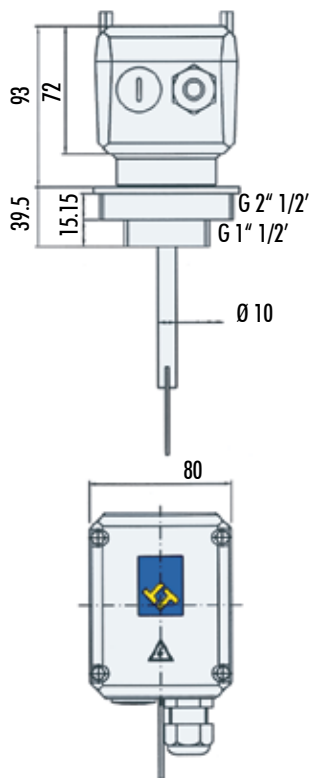
Rotary Level Indicators ILT



Technical Features / Performance ▼

- ▶ Voltages available: 24 V – 48 V (AC), 50-60 Hz; 110 V – 230 V (AC), 50-60 Hz; 24 V (DC)
- ▶ Signal output: Floating microswitch AC max. 250 V, 2 A
- ▶ Standard connection: thread G 1½" – G 2 ½"
- ▶ Enclosure: IP 66
- ▶ Working temperature inside vessel: - 20°C to 80°C (- 4°F to 178°F)
- ▶ Vessel maximum pressure: max. 0.8 bar (12 PSI)
- ▶ Threaded fittings material: plastic
- ▶ Rotating shaft and measuring paddle material: 304 stainless steel
- ▶ Casing material: aluminium alloy
- ▶ Speed of measuring paddle: 1 rpm
- ▶ Friction clutch protection of the gearing from impacts of the measuring paddle
- ▶ Self-opening double-paddle for light materials
- ▶ Flanged connection as option
- ▶ Modular shaft extension up to 3 metres (10 ft)
- ▶ External light

Overall Dimensions ▼

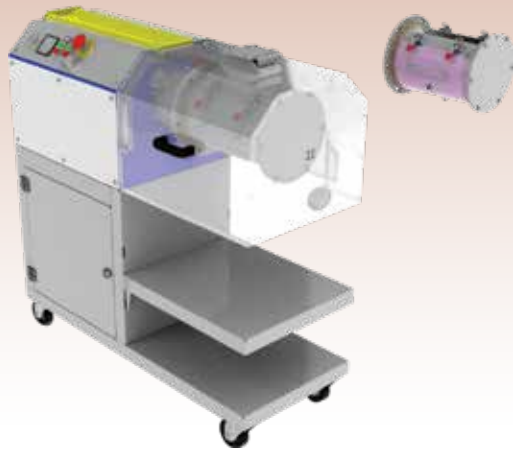


1: L = 500 / 1,000

Pasta Processing Plant

Laboratory Mixers MLH

20



Description ▼

MLH is a Laboratory Mixers which was developed for R&D purposes and small scale production in the field of mixing technology in virtually all sectors and applications.

The MLH Laboratory Batch Mixer consists of a stand-alone drive unit with incorporated frequency inverter, an easily replaceable horizontal mixing shaft supported at the drive end only, and an equally easily replaceable, revolving mixing vessel complete with inlet/outlet.

Function ▼

MLH Laboratory Batch Mixers operate on the principle of a mechanically generated fluid bed. Consequently, it is possible to test using different mixing technologies: mixing, moistening/coating, agglomerating/granulating, as well as reacting/drying. This ensures efficient product and process development as required by the industry today. The quick replacement of drum size combined with a rich basic equipment package ensures use in a variety of applications. In some cases, to obtain the desired mixing effect, a separately driven high-speed chopper can be installed.



Application ▼

The MLH Laboratory Mixer can be easily moved from one location to another. For the user this means optimum versatility in operating the equipment.

Benefits ▼

- ✓ Short mixing time;
- ✓ Ideal for product and process development;
- ✓ Table top or free standing, mobile unit on wheels;
- ✓ Variety of options;
- ✓ Easy to use, clean and maintain;
- ✓ Stainless steel design;
- ✓ Quick and easy replacement of interchangeable shafts;
- ✓ Ergonomic handling;
- ✓ Attractive price.

Pasta Processing Plant

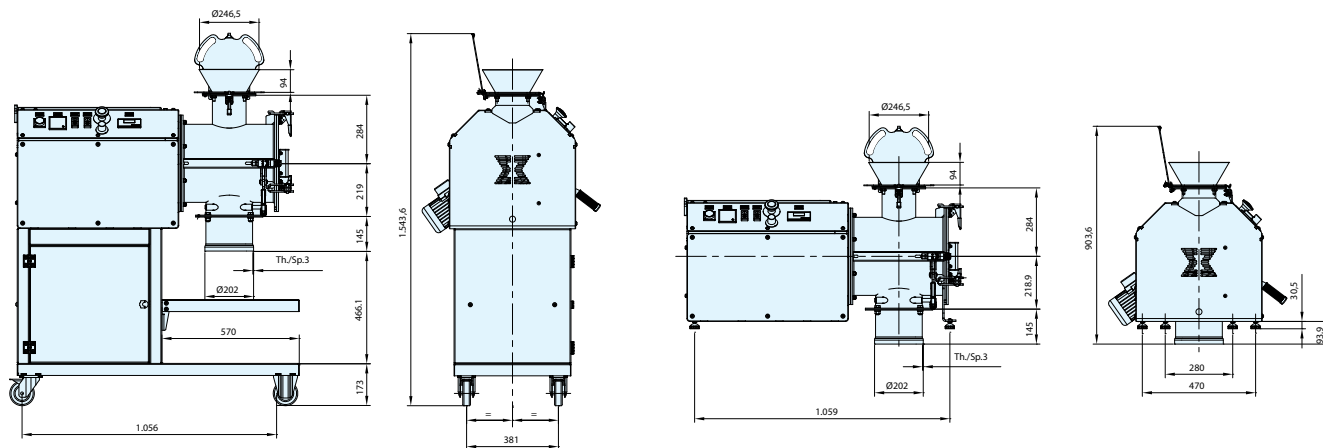
Laboratory Mixers MLH



Technical Features / Performance ▼

- ▶ Range: 6, 12 and 30 litres (1.2 to 26 litres of net working capacity)
- ▶ Drive: 1.1 kW for 6 and 12 litres; 2.2 kW for 30 litres
- ▶ Capacity: 2 to 15 batches per hour (depending on recipe and configuration of the unit)
- ▶ Chopper units (for size 12 and 30 litres only)
- ▶ Quick release of mixing vessel
- ▶ Prearrangement for liquid injection

Overall Dimensions ▼



Total volume	30 litres
Minimum Working Volume	6 litres
Maximum Working Volume	24 litres
Drive Power	2.2 kW
Rotation Speed	70 – 270 rpm
Chopper Power	0.12 kW
Chopper Rotation speed	1,450 rpm
Weight	275 kg

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This datasheet might not show the complete range but only the models specialised for the application.

Pasta Processing Plant

RV-RVR Drop-Through Rotary Valves

5



Description ▼

RV Drop-Through Rotary Valves consist of a tubular cast iron or stainless steel casing, a horizontally mounted rotor with a certain number of V-shaped cross section compartments, a drive unit and a casing cover opposite the drive end.



Function ▼

RV Rotary Valves have been developed for maximum versatility in application. They are suitable for controlled discharging and feeding of powdery or granular materials from silos, hoppers, pneumatic conveying systems, or cyclones.

Application ▼

RV-RVR Rotary valves are fitted at the outlet of silos, bins or hoppers for feeding the discharged material with high accuracy into the downstream process. In negative pressure applications they are fitted on screw conveyor outlets to prevent suction.

Benefits ▼

- ✓ No product contamination due to 304/316 stainless steel design and air-purged seals;
- ✓ Zone 22 ATEX-certified;
- ✓ Square or round flanges ensure system compatibility and match with WAM® flanges;
- ✓ Cast iron or 304/316 SS, nickel coating, as well as various rotor versions available to ensure the most appropriate configuration for application requirements;
- ✓ Quick integration into the process thanks to lightweight easy handling;
- ✓ Modular design and easy maintenance thanks to small numbers of components.

Pasta Processing Plant

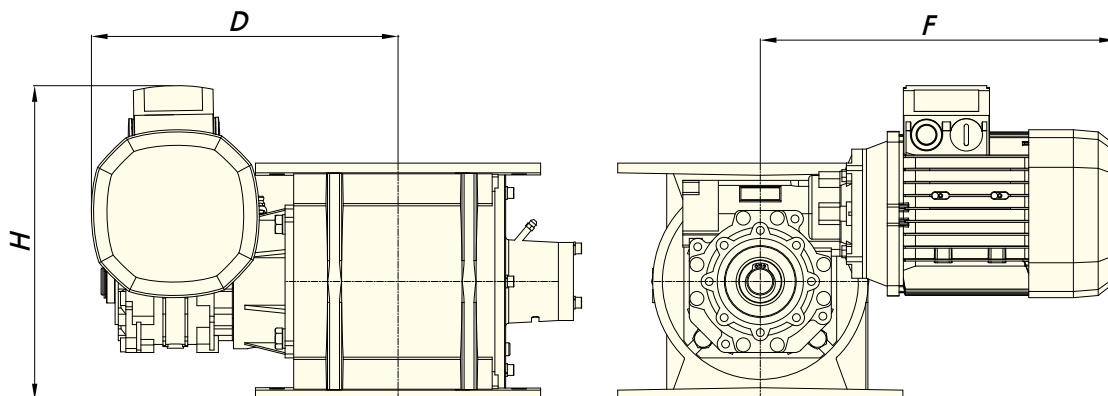
RV-RVR Drop-Through Rotary Valves



Technical Features / Performance ▼

- ▶ Capacity: 2.2 to 19.5 litres per revolution (0.08 to 0.7 cu ft per revolution)
- ▶ Working temperature: - 20° C to 150° C (- 4° F to 300° F)
- ▶ Maximum differential pressure: 0.3 bar (4.4 PSI)
- ▶ Cast iron or 304/316 SS design
- ▶ Nickel coating available
- ▶ Rotor with bevelled blades available
- ▶ Easy access to internal mechanical parts
- ▶ Sturdy compact structure
- ▶ Small footprint
- ▶ Drive unit mounted directly on shaft without further bearing assembly or coupling
- ▶ Square or round flanges and inlet spouts
- ▶ Compatibility with WAM® standard flanges on inlet and outlet
- ▶ Different materials and surface treatments available depending on material handled

Overall Dimensions ▼



TYPE	D*	F*	H*		kW
			RV	RVR	
RV/RVR 02 30 rpm	294	350	318	333	0.5
RV/RVR 02 20 rpm					
RV/RVR 05 30 rpm	328		348	373	0.75
RV/RVR 05 20 rpm					0.5
RV/RVR 10 30 rpm	364	394	425		1.1
RV/RVR 10 20 rpm					0.75
RV/RVR 20 30 rpm	392	419	472		1.5
RV/RVR 20 20 rpm					1.1

This datasheet might not show the complete range but only the models specialised for the application.



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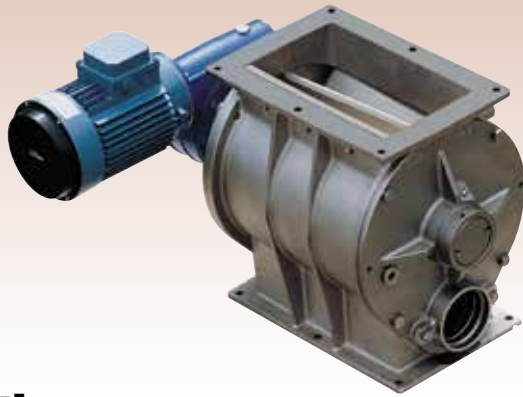
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Pasta Processing Plant

RVS Blow-Through Rotary Valves



4



Description ▼

RVS Blow-Through Rotary Valves consist of a tubular cast iron or stainless steel casing, a horizontally mounted rotor with a certain number of oblique V-shaped cross section compartments, a drive unit and a casing cover at each end.

Function ▼

Two compartments at a time of the continuously turning rotor are filled up with material through the inlet at the top of the Rotary Valve. After less than half a turn the material falls through the bottom opening into an air stream passing through a pneumatic conveying duct connected with the bottom part of the Rotary Valve.



Application ▼

RVS Blow-Through Rotary Valves are usually fitted at the outlet of a bin, silo or hopper upstream of a pneumatic conveying duct into which the material is accurately fed.

Benefits ▼

- ✓ No product contamination due to 304/316 SS design and air-injected seals;
- ✓ Zone 22 ATEX-certified;
- ✓ 304 SS inserts for granules;
- ✓ Cast iron or 304/316 SS material, nickel coating and various other rotor versions available to offer the best configuration for most application requirements;
- ✓ Pipe connections already included simplify unit installation and removal.

Pasta Processing Plant

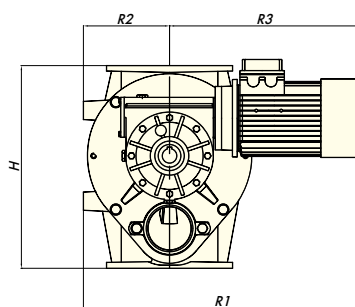
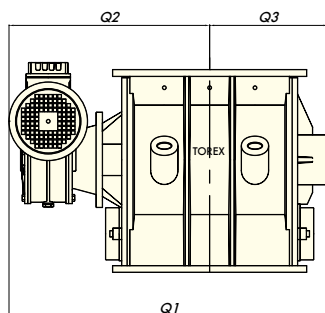
RVS Blow-Through Rotary Valves



Technical Features / Performance ▼

- ▶ Feed rates: 5, 9, 14, 20, 38 litres per revolution (0.17, 0.3, 0.5, 0.7, 1.3 cu ft per revolution)
- ▶ Working temperature: -20°C to 150°C (-4°F to 240°F)
- ▶ Maximum differential pressure: 0.8 bar (11.6 PSI)
- ▶ Cast iron or 304/316 SS
- ▶ Nickel coating available
- ▶ Rotor with bevelled blades
- ▶ Easy access to internal mechanical parts
- ▶ Sturdy compact structure
- ▶ Small footprint
- ▶ Drive unit mounted directly on shaft without any further bearing assembly or coupling
- ▶ Rectangular inlet flanges
- ▶ Counterflanges to be welded on pneumatic duct
- ▶ Blade scraper installed inside the inlet to ease rotor movement
- ▶ Different materials and treatments available depending on material handled

Overall Dimensions ▼



30 RPM	TYPE	Dimensions in mm							Electric Motor	
		Q1	Q2	Q3	R1	R2	R3	H	kW	min ⁻¹
	RVS/C 05	505	342	163	550	130	420	335	0.55	1,400
	RVS/C 10	572	372	200	560	140	420	339	0.75	1,400
	RVS/C 15	605	390	215	588	162	426	399	1.1	1,400
	RVS/C 20	705	444	261	608	181	426	447	1.5	1,400
	RVS/C 35	890	558	332	740	217	523	530	2.2	1,400
	RVS/C 80	1,165	718	447	890	277	613	677	3.0	1,400

20 RPM	TYPE	Dimensions in mm							Electric Motor	
		Q1	Q2	Q3	R1	R2	R3	H	kW	min ⁻¹
	RVS/C 05	505	342	163	550	130	420	335	0.55	900
	RVS/C 10	572	372	200	560	140	420	339	0.55	900
	RVS/C 15	605	390	215	588	162	426	399	0.75	900
	RVS/C 20	705	444	261	608	181	426	447	1.1	900
	RVS/C 35	890	558	332	740	217	523	530	1.5	900
	RVS/C 80	1,165	718	447	883	277	556	677	2.2	900

10 RPM	TYPE	Dimensions in mm							Electric Motor		Pre-Torque
		Q1	Q2	Q3	R1	R2	R3	H	kW	min ⁻¹	
	RVS/C 05	475	342	163	517	130	387	335	0.37	1,400	YES
	RVS/C 10	542	342	200	527	140	387	339	0.37	1,400	YES
	RVS/C 15	585	370	215	572	162	410	399	0.55	1,400	YES
	RVS/C 20	658	397	261	591	181	410	447	0.75	1,400	YES
	RVS/C 35	890	558	332	740	217	523	530	1.1	1,400	NO
	RVS/C 80	1,150	703	447	832	277	555	677	1.5	1,400	NO

This datasheet might not show the complete range but only the models specialised for the application.



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Pasta Processing Plant

Continuous Single Shaft Mixers WAH

10



Description ▼

Continuous type WAH mixers consist of a horizontal, single shaft, equipped with ploughshare or shovel tools, housed in a tubular mixing drum. The machines come with one or more inlets, an outlet, a venting spout, two drum closing end plates that carry flanged end bearing assemblies complete with integrated, adjustable, shaft sealing units, and a drive unit complete with power transmission.

WAH-type horizontal single shaft mixers work on the principle of mechanical fluidisation of the product.

The particular shape, position and rotation speed of the mixing tools, create a centrifugal vortex motion, which allows the ingredients to be projected in a three-dimensional way and to merge with each other.

This ensures that ingredients with different particle size and bulk density are perfectly blended and mixed with high precision within the shortest possible time. The quality of the mixture is achieved before the product reaches the mixer outlet.



Application ▼

WAH mixer installed in the flour mixing section of a pasta making plant in Italy.

Benefits ▼

- ✓ **Maximum mixing homogeneity;**
- ✓ **High speed mixing;**
- ✓ **Low material residue;**
- ✓ **Minimum wear - low maintenance;**
- ✓ **Easy access to all internal parts of the mixer;**
- ✓ **High quality mixing;**
- ✓ **High productivity;**
- ✓ **ATEX-certified;**
- ✓ **Attractive price.**

Pasta Processing Plant

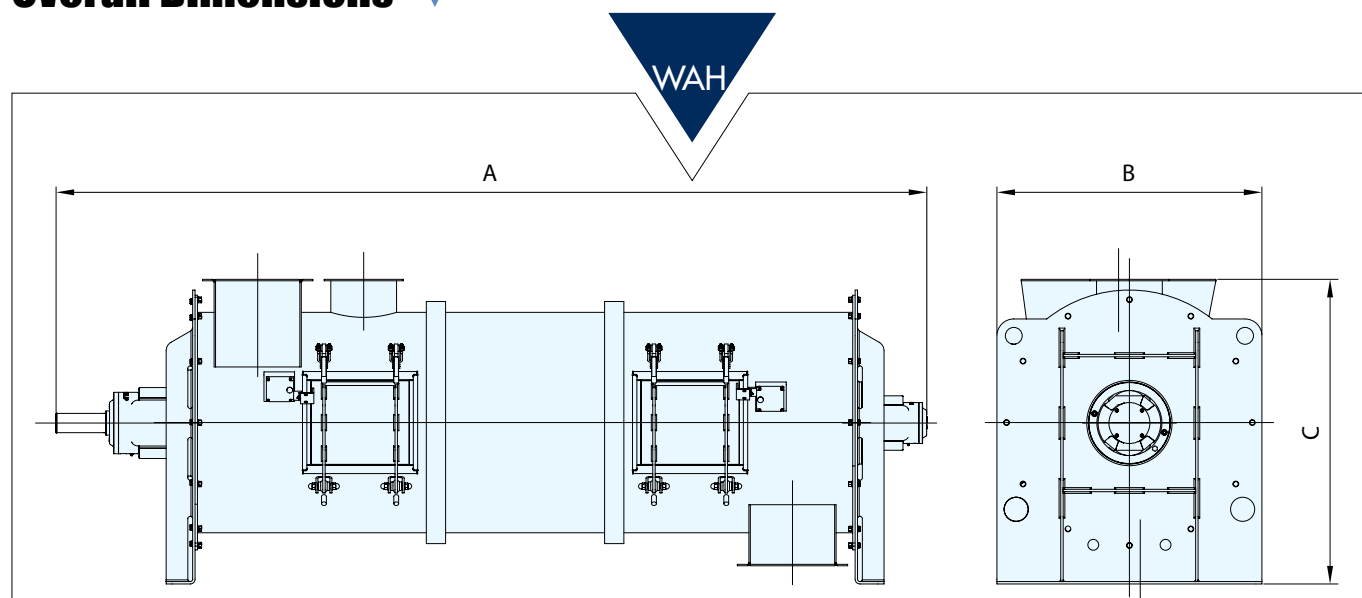
Continuous Single Shaft Mixers WAH




Technical Features / Performance ▼

- ▶ Sizes: 75 to 25,000 litres
- ▶ Drive units: 4.0 kW to 300 kW
- ▶ Mixing capacity: from 2 to 1,000 m³/h (depending on recipe and unit configuration)
- ▶ End bearing assemblies with various types of shaft seals and option of air or nitrogen purging
- ▶ Flush discharge valve
- ▶ Heavy-duty mixing chamber manufactured in carbon steel, or 304L, or 316L stainless steel
- ▶ Jacketed mixing chamber
- ▶ Chopper bearing assemblies with rotary air-purged shaft seals
- ▶ Liquid injection devices
- ▶ Decompression control panel
- ▶ Pneumatic sampling device
- ▶ PT 100 temperature probe on jacketed mixing chamber
- ▶ Wide range of mixing tools
- ▶ Automatic cleaning system

Overall Dimensions ▼



	A	B	C	50%  dm ³ /h Residence Time		Empty Weight (kg)
				60 s	180 s	
WAH 00075	1,690	485	556	2,022	674	210
WAH 00150	1,960	570	634	4,031	1,344	350
WAH 00300	2,220	670	801	7,892	2,631	580
WAH 00500	2,550	770	920	13,716	4,572	840
WAH 01000	3,140	930	1,118	27,993	9,331	1,390
WAH 01800	3,670	1,100	1,265	50,170	16,723	2,100
WAH 03000	3,920	1,340	1,472	82,577	27,526	2,800
WAH 04800	4,510	1,500	1,800	134,281	44,760	3,800
WAH 06000	4,816	1,600	1,860	165,708	55,236	4,500
WAH 08800	5,325	1,810	2,133	245,796	81,932	5,840
WAH 10500	5,580	1,910	2,237	295,322	98,441	6,600
WAH 15000	6,090	2,110	2,465	411,885	137,295	8,200

Dimensions in mm

This datasheet might not show the complete range but only the models specialised for the application.