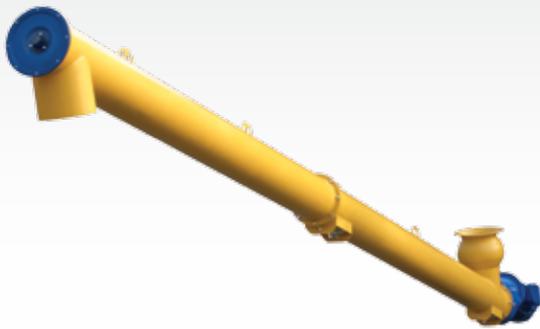


Concrete Production

Cement Screw Feeders ES



1



Description ▼

ES Screw Feeders are manufactured in carbon steel with a suitable surface finishing and powder coating. They are made up from a tubular trough that is equipped with at least one inlet and one outlet spout, a welded flange at each tube end, helicoid screw flighting welded on a centre pipe with a coupling bush at each end, two end bearing assemblies complete with self-adjusting shaft sealing unit (one of the bearing assemblies incorporated in the drive unit), a number of intermediate hanger bearings depending on the overall length of the machine. Furthermore, ES Screw Feeders are equipped with a gear motor that suits the application.

Function ▼

ES Screw Feeders are used for cement feeding and also in Dry Batch plants for feeding from the weigh hopper outlet into the track mixer.



Application ▼

In over forty years the ES-type Screw Feeder has become a synonym for cement feeding and conveying in concrete batching plants all over the world. In this period WAM® has supplied more than half a million units. After the turn of the new millennium it has become hard to find a batching plant manufacturer anywhere in the world who would not appreciate the unrivalled technical features and quality of the ES.

Benefits ▼

- ✓ **Extremely durable;**
- ✓ **Maintenance-free intermediate bearings;**
- ✓ **Quick, versatile installation thanks to innovative ball-jointed universal inlets and outlets;**
- ✓ **Perfectly matching spare parts thanks to industrial manufacturing process;**
- ✓ **Worldwide technical support and spare parts supply.**



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Concrete Production

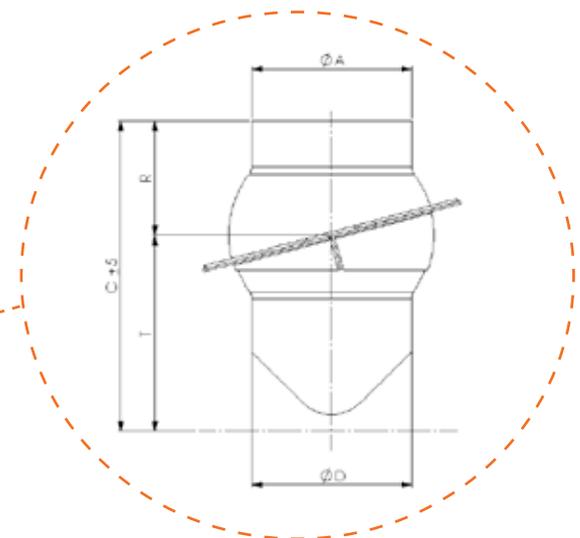
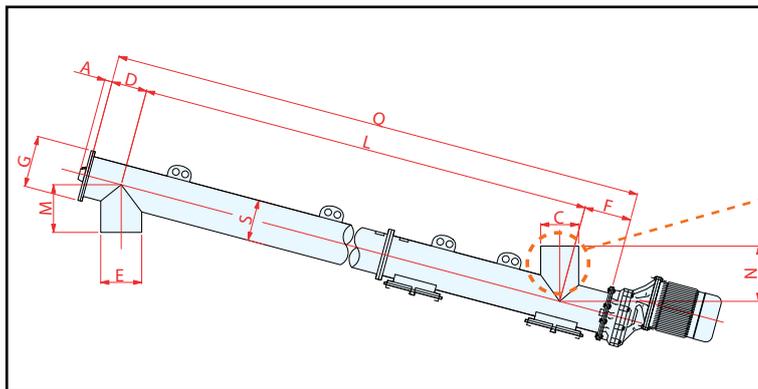
Cement Screw Feeders ES



Technical Features / Performance ▼

- ▶ Powder-coated
- ▶ 7 outside tube diameters
- ▶ Outside tube complete with welded end flanges, one inlet, one outlet, inspection hatch beneath the first inlet and beneath each intermediate hanger bearing
- ▶ Tubular housing in standardized flanged sections with one section made to measure
- ▶ Helicoid screw flighting welded on centre pipe
- ▶ End bearing assemblies complete with self-adjusting shaft sealing unit
- ▶ Splined shaft couplings
- ▶ Lifting eyelets on each tube section
- ▶ Standard flange-mounted electric motor
- ▶ Maintenance-free aluminium-cast intermediate hanger bearings with self-lubricating slide bushes
- ▶ Small diameter → great efficiency → high feed rates
- ▶ Small overall dimensions, compact design
- ▶ Reduced number of components and spare parts

Overall Dimensions ▼



| Ø S | 114 | 139 | 168 | 193 | 219 | 273 | 323 |
|-----|---------------------|-----|-----|-----|-----|-----|-----|
| A | 56 | 56 | 40 | 40 | 40 | 40 | 40 |
| C | on request | | | | | | |
| D | 120 | 120 | 140 | 150 | 160 | 180 | 220 |
| E | on request | | | | | | |
| F | 140 | 140 | 160 | 170 | 180 | 220 | 220 |
| L | on request | | | | | | |
| G | 190 | 190 | 250 | 250 | 275 | 330 | 405 |
| M | on request | | | | | | |
| N | see WAM® - standard | | | | | | |
| Q | L + D + F | | | | | | |

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

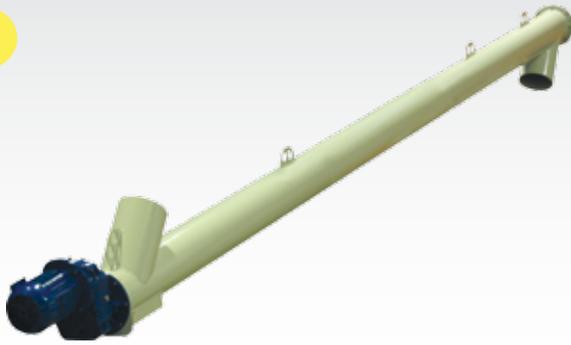


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Concrete Production

Microsilica Screw Feeders TU

2



Description ▼

TU Screw Feeders are manufactured in carbon steel with a suitable surface finishing. They are made up from a tubular trough that is equipped with at least one inlet and one outlet spout, a welded flange at each tube end, helicoid screw flighting welded on a centre pipe with a coupling bush at each end, two end bearing assemblies complete with self-adjusting shaft sealing unit, a number of intermediate hanger bearings depending on the overall length of the machine. Furthermore, TU Tubular Screw Feeders are equipped with a gear motor that suits the application.

Function ▼

TU Tubular Screw Feeders are highly versatile and offer a variety of standard solutions for handling powdery materials. Depending on the characteristics of the material, different feeder models are available in concrete production for handling microsilica (silica fume).



Application ▼

To feed microsilica from a silo into a separate weigh hopper the TU-type Screw Feeder should be installed at a fairly flat angle. It is advisable to avoid intermediate bearings when planning the plant layout.

Benefits ▼

- ✓ **Modular design offers a great variety of options suitable for numerous applications;**
- ✓ **Durable under extreme conditions;**
- ✓ **High feeding accuracy;**
- ✓ **Vast range of options and accessories;**
- ✓ **Attractive price.**

Concrete Production

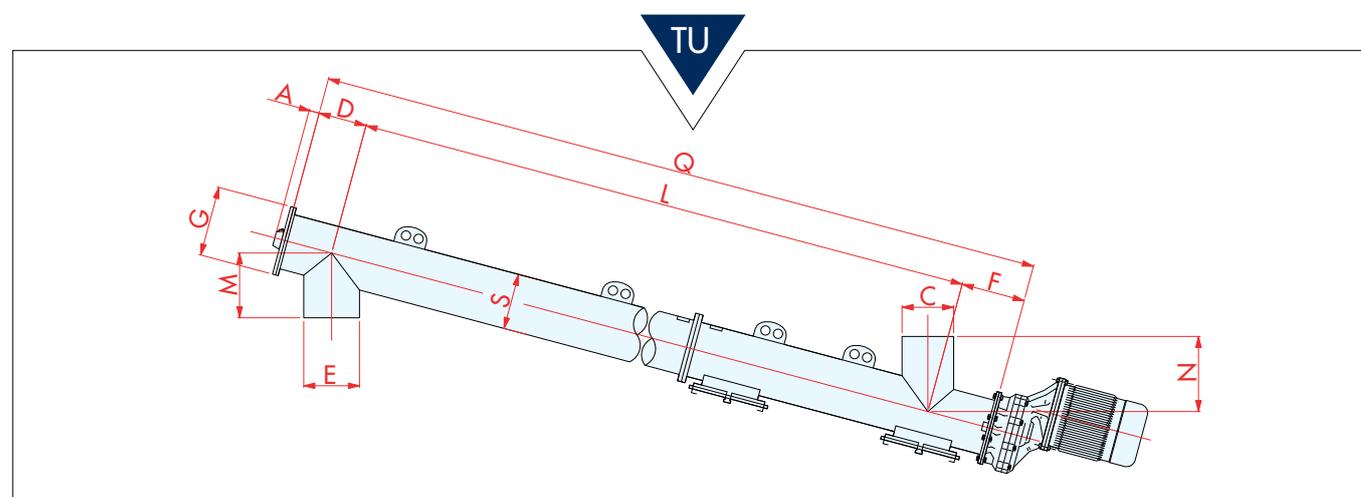
Microsilica Screw Feeders TU



Technical Features / Performance ▼

- ▶ Outside Tube Ø: 219 mm or 273 mm
- ▶ Angle of installation: $\leq 25^\circ$
- ▶ Length centre inlet – centre outlet: ≤ 7.5 m (from 4.5 m with enclosed hanger bearing, type XLY)
- ▶ Direct M-type drive
- ▶ Inlet end bearing seal c/w long-life grease lubrication (PROT 05)

Overall Dimensions ▼



| Ø S | 219 | 273 |
|-----|---------------------|-----|
| A | 40 | 40 |
| C | on request | |
| D | 160 | 180 |
| E | on request | |
| F | 180 | 220 |
| L | on request | |
| G | 275 | 330 |
| M | on request | |
| N | see WAM® - standard | |
| Q | L + D + F | |

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

Concrete Production

Vertical Screw Lift System



3



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.

Description ▼

The VE Vertical Screw Lift System consists of a Horizontal Screw Feeder and a Vertical Screw Conveyor. The Horizontal Screw Feeder, which may feed material from a silo or hopper or simply convey it being fed by an upstream feeding device, consists of a U-shape or tubular trough in carbon steel with appropriate surface finishing. In any case the outlet zone consists of a short tubular section flanged at a right angle on the bottom section of the Vertical Screw Conveyor. A flange is welded at each end of the Horizontal Screw Feeder. The trough / tube contains a rotating screw with shaft coupling bushes at each end that are connected with the shafts of the two end bearing assemblies. The Horizontal Screw Feeder is equipped with one or more intermediate hanger bearings should its overall length require any. Furthermore, it is equipped with a drive unit suitable for the application. The Vertical Screw Conveyor consists of a tubular housing complete with a tangential inlet in the bottom section which connects with the outlet of the Horizontal Screw Feeder, an inclined outlet spout in the top section, end flanges welded on each conveyor tube section, a rotating screw in one or more sections with shaft coupling bush at each end, a base bearing assembly complete with slide bush, and a number of intermediate hanger bearings should the overall height of the conveyor require any. The top-mounted drive unit with integrated end bearing assembly (from which the screw is suspended) and self-adjusting shaft sealing unit is suitable for the application. The VE Vertical Screw Lift System is available in a medium-heavy-duty version only.



Application ▼

The application in the photographs shows an arrangement with manual bag opening hopper, a standard length horizontal screw feeder and a vertical screw conveyor. The picture on the left shows filling of a single silo, whereas the picture on the right shows an installation with a pneumatically operated diverter valve for filling of two silos.

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.



Concrete Production

Vertical Screw Lift System

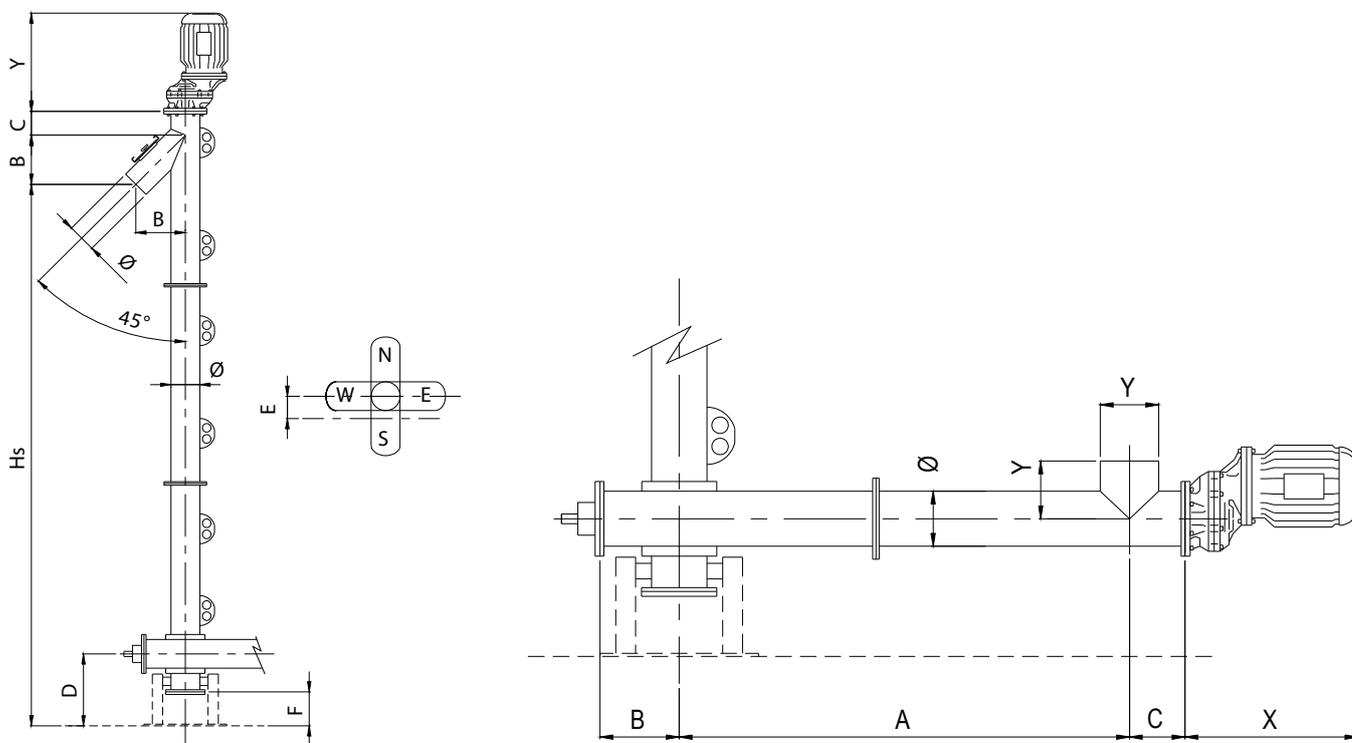


Technical Features / Performance ▼

- ▶ Small footprint
- ▶ Few parts subject to wear
- ▶ External tube diameter: 114mm (4.5 in), 139mm (5.5 in), 168mm (6.6 in), 193mm (7.6 in), 219mm (8.6 in), 273mm (10.7 in), 323mm (12.7 in)
- ▶ Elevation height in steps of 1 metre (3.3 ft) up to a maximum of 20 metres (65.6 ft)
- ▶ Throughput rates: between 3m³/h (1.8 cfm) and 95m³/h (56 cfm) considering the volumetric efficiency of Portland cement

Overall Dimensions ▼

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| Ø | 114 | 139 | 168 | 193 | 219 | 273 | 323 |
|---|-----|-----|-----|-----|-----|-----|-----|
| B | 212 | 212 | 283 | 283 | 354 | 354 | 354 |
| C | 100 | 100 | 115 | 115 | 130 | 130 | 145 |
| D | 350 | 350 | 440 | 440 | 500 | 500 | 550 |
| E | 70 | 90 | 115 | 125 | 140 | 165 | 220 |
| F | 150 | 150 | 200 | 200 | 200 | 200 | 200 |

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



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Concrete Production

Bucket Elevators EH



4



Description ▼

The EH version of Bucket Elevators has been specifically developed for vertical elevation of fine and coarse aggregates. They are designed to operate at low speed and are manufactured from extra-thick hot-galvanised carbon steel. The machines consist of a head and a foot section which include solidly mounted roller bearing units as supports for the bucket carrier belt, a variable number of sections, an intermediate section for bucket assembly and inspection, along with all the other sheet-metal casings necessary for the enclosure of the machine. The particular design of the buckets manufactured from reinforced mild steel offers extended durability versus the highly abrasive materials handled. The wide range of options and accessories enable a great variety of applications of EH-type Bucket Elevators providing highly efficient state-of-the-art performance in compliance with the relevant standards. EH-type Bucket Elevators have been designed according to DIN-15234.

Function ▼

EH-type Bucket Elevators are used for materials having bulk density between 0.8 and 2.5 kg/dm³. The material is introduced into a loading hopper which is included in the foot section. There the material is continuously picked up by appropriately shaped buckets which are fixed at an equal distance to an endless belt that rotates around a foot and a head roller wheel. The buckets are discharged through an outlet spout in the head section by centrifugal force after having passed the upper roller wheel.



Application ▼

EH-type Bucket Elevators are used in concrete batching plants for transfer of aggregates from ground level into intermediate vertical storage silos.

Benefits ▼

- ✓ **Reliable;**
- ✓ **Durable;**
- ✓ **Money-saving maintenance;**
- ✓ **Matching spares;**
- ✓ **Matching complementary equipment.**

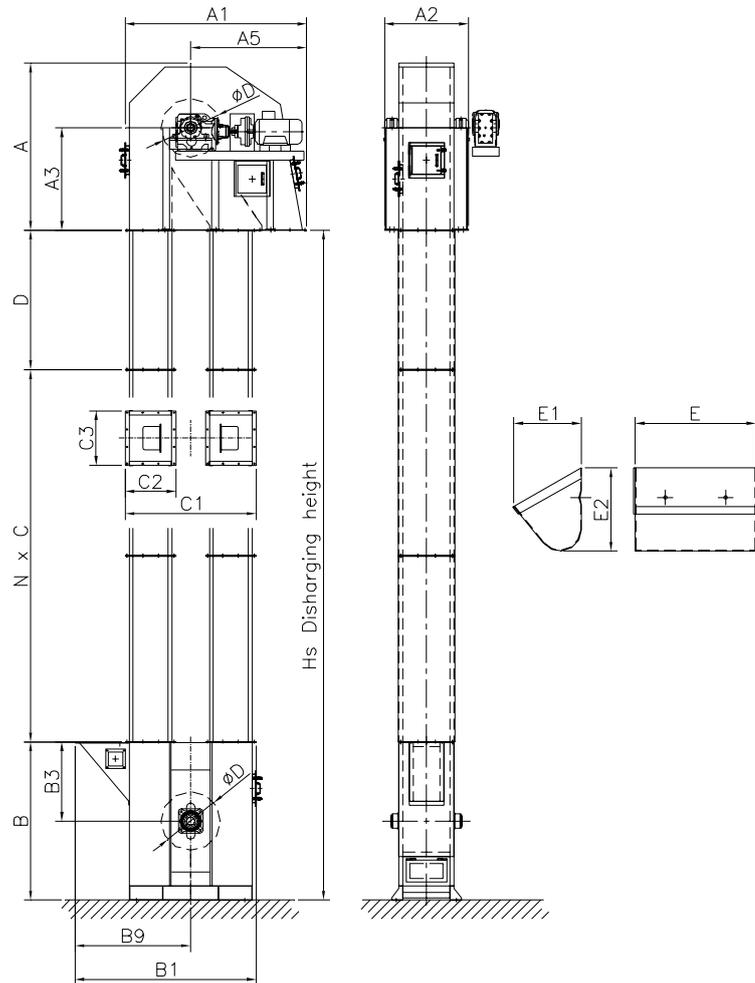
Concrete Production

Bucket Elevators EH



Technical Features / Performance ▼

- ▶ Throughput rates up to 420 m³/h
- ▶ Discharge height up to 60 m
- ▶ Inspection doors on foot, charge and discharge section
- ▶ Wide range of accessories:
 - Anti-wear plates on foot, charge and discharge section
 - Electrical control systems
 - Vent outlet for de-dusting system
 - Maintenance platform
 - Buckets in Nylon PA6



Overall Dimensions ▼

| EHN | A | A1 | A2 | A3 | A5 | B | B1 | B2 | B3 | B9 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| L/V 11 - 21 | 1,468 | 1,591 | 708 | 900 | 1,023 | 1,450 | 1,587 | 640 | 740 | 1,019 |
| L/V 31 - 41 | 1,793 | 1,930 | 900 | 1,100 | 1,232 | 1,700 | 1,926 | 740 | 850 | 1,228 |
| L/V 51 | 2,018 | 2,120 | 1,142 | 1,250 | 1,362 | 1,900 | 2,116 | 990 | 950 | 1,358 |
| L/V 61 | 2,253 | 2,431 | 1,312 | 1,400 | 1,578 | 2,150 | 2,427 | 1,100 | 1,100 | 1,574 |
| L/V 71 | 2,483 | 2,641 | 1,482 | 1,550 | 1,708 | 2,350 | 2,636 | 1,330 | 1,170 | 1,703 |
| L/V 81 | 2,783 | 2,931 | 1,742 | 1,750 | 1,878 | 2,550 | 2,926 | 1,550 | 1,300 | 1,873 |

| EHN | C | C1 | C2 | C3 | E | E1 | E2 | D | N | Hs |
|-------------|-------|-------|-----|-------|-----|-----|-----|-------------|-------------|-------------|
| L/V 11 - 21 | 2,000 | 1,136 | 436 | 486 | 160 | 140 | 180 | 1,500 - 500 | by customer | by customer |
| L/V 31 - 41 | 2,000 | 1,396 | 546 | 596 | 250 | 180 | 224 | | | |
| L/V 51 | 2,000 | 1,516 | 546 | 796 | 400 | 224 | 280 | | | |
| L/V 61 | 2,000 | 1,706 | 636 | 906 | 500 | 250 | 315 | | | |
| L/V 71 | 2,000 | 1,866 | 636 | 1,036 | 630 | 280 | 355 | | | |
| L/V 81 | 2,000 | 2,106 | 726 | 1,256 | 800 | 315 | 400 | | | |

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

Concrete Production

SILOTOP® R03 Silo Venting Filters



8



Description ▼

SILOTOP® is a cylindrically shaped dust collector for venting pneumatically filled silos. The stainless steel body contains vertically mounted, POLYPLEAT® filter elements. The air jet cleaning system is integrated in the hinged weather protection cover.

Function ▼

Dust separated from the air flow by special POLYPLEAT® filter elements drops back into the silo after an integrated automatic reverse air jet cleaning system inside the weather protection cover has removed it from the filter elements.

Application ▼

With tens of thousands of units working worldwide, since first going into production back in 1998, SILOTOP® has become the world's favourite solution for silo venting. The latest model conserves the benefits of the previous version adding a few more such as the particularly flowdynamic polymer top cover.



Benefits ▼

- ✓ Robust, particularly maintenance-friendly design;
- ✓ Low dust emission;
- ✓ Compliant with latest EU health and safety standards;
- ✓ Complete replacement of filter media by only one person within a few minutes.



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Concrete Production

SILOTOP® R03 Silo Venting Filters



Technical Features / Performance ▼

- ▶ Compact 800 mm (30 in) diameter 304 SS body with bottom flange and 24.5 m² (264 sq ft) filter surface
- ▶ Maintenance height = 1,100 mm (3.6 ft)
- ▶ High filtration efficiency due to POLYPLEAT® filtering elements
- ▶ Low dust emission level due to B.I.A.-certified filter media
- ▶ Maintenance-free air jet cleaning unit integrated inside weather protection cover
- ▶ Safe weather protection cover with lockable snap hook

Overall Dimensions ▼



| BODY | FILTER SURFACE | MAX. HEIGHT WHEN CLOSED | MAX. HEIGHT WHEN OPEN | kg |
|----------|---------------------|-------------------------|-----------------------|----|
| Ø 800 mm | 24.5 m ² | 1,100 mm | 1,850 mm | 79 |



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



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Concrete Production

WAMFLO® Front Dust Collector



9

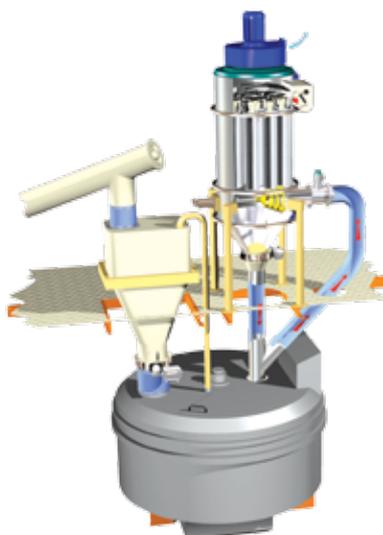


Description ▼

WAMFLO® Front Dust Collectors are equipped with a cylindrical shape stainless steel body with flanged connection that contains vertically mounted filter elements. The air jet cleaning system is integrated in the top cover. A top-mounted suction fan creates the negative pressure necessary for de-dusting.

Function ▼

The modular system combines the maximum safety of a flanged body connection with the variety of options in terms of type of filter media and filtering elements with the unique integrated pneumatic cleaning system design. Membrane-type, water-repellent filter elements ensure efficient dust collection and separation of moist particles.



Application ▼

In concrete batching plants WAMFLO® Front Dust Collectors are used for de-dusting the stationary concrete mixer.

Benefits ▼

- ✓ Safety for OEM and End User;
- ✓ Operating cost reduction;
- ✓ Low energy consumption;
- ✓ Maintenance cost reduction;
- ✓ Compliance with health and safety standards;
- ✓ Attractive price.



Concrete Production

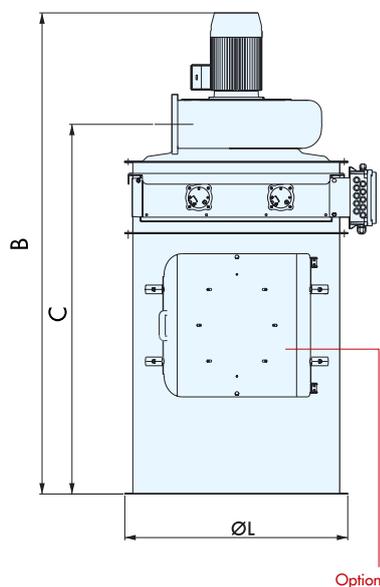
WAMFLO® Front Dust Collector



Technical Features / Performance ▼

- ▶ 304 stainless steel flanged cylindrical shape body
- ▶ Filter surface from 12 to 22m²
- ▶ Low emission level due to B.I.A.-certified filter media
- ▶ Air Volume from 60 m³/h to 1,400 m³/h
- ▶ Compressed air jet cleaning system
- ▶ High cleaning efficiency due to "Full Immersion" solenoid valves incorporated in aluminium air tank (corrosion-resistant) for low-maintenance operation
- ▶ Fan integrated into top cover
- ▶ No tools for filtering element removal required
- ▶ Large inspection door

Overall Dimensions ▼



| MIXER VOLUME m ³ | Filter Surface m ² | Ø L | B | C | Fan kW |
|--------------------------------|----------------------------------|-----|-------|-------|-----------|
| | FNS | | | | |
| 1 - 1.5 - 2 | 12 | 600 | 1,725 | 1,313 | 1.5 |
| 3 - 3.5 - 4 | 22 | 800 | 1,830 | 1,343 | 2.2 |

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Concrete Production

DRYBATCH® R01 Dust Collectors for Dry-Batch Concrete Plants



10



Description ▼

The polygonally shaped DRYBATCH® R01 Dust Collector is equipped with horizontally mounted filter elements, a compressed air jet cleaning system integrated in the access door and a suction fan.

Function

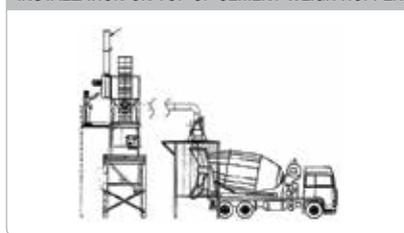
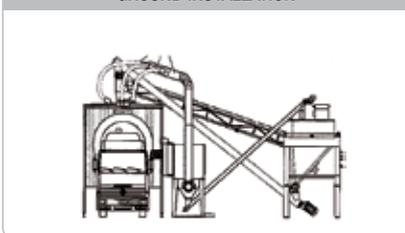
The DRYBATCH® R01 Dust Collector has been specially designed for dust collection from the truck mixer inlet zone in dry batch plants during filling of the truck mixer.



GROUND INSTALLATION



INSTALLATION ON TOP OF CEMENT WEIGH HOPPER



Application ▼

The DRYBATCH® Dust Collector can be installed as a stand-up unit on the ground next to the truck mixer port or on top of the cement weigh hopper.

Benefits ▼

- ✓ Maintenance time and cost reduction;
- ✓ Reduced energy consumption;
- ✓ Increased work safety;
- ✓ Durable.



Concrete Production

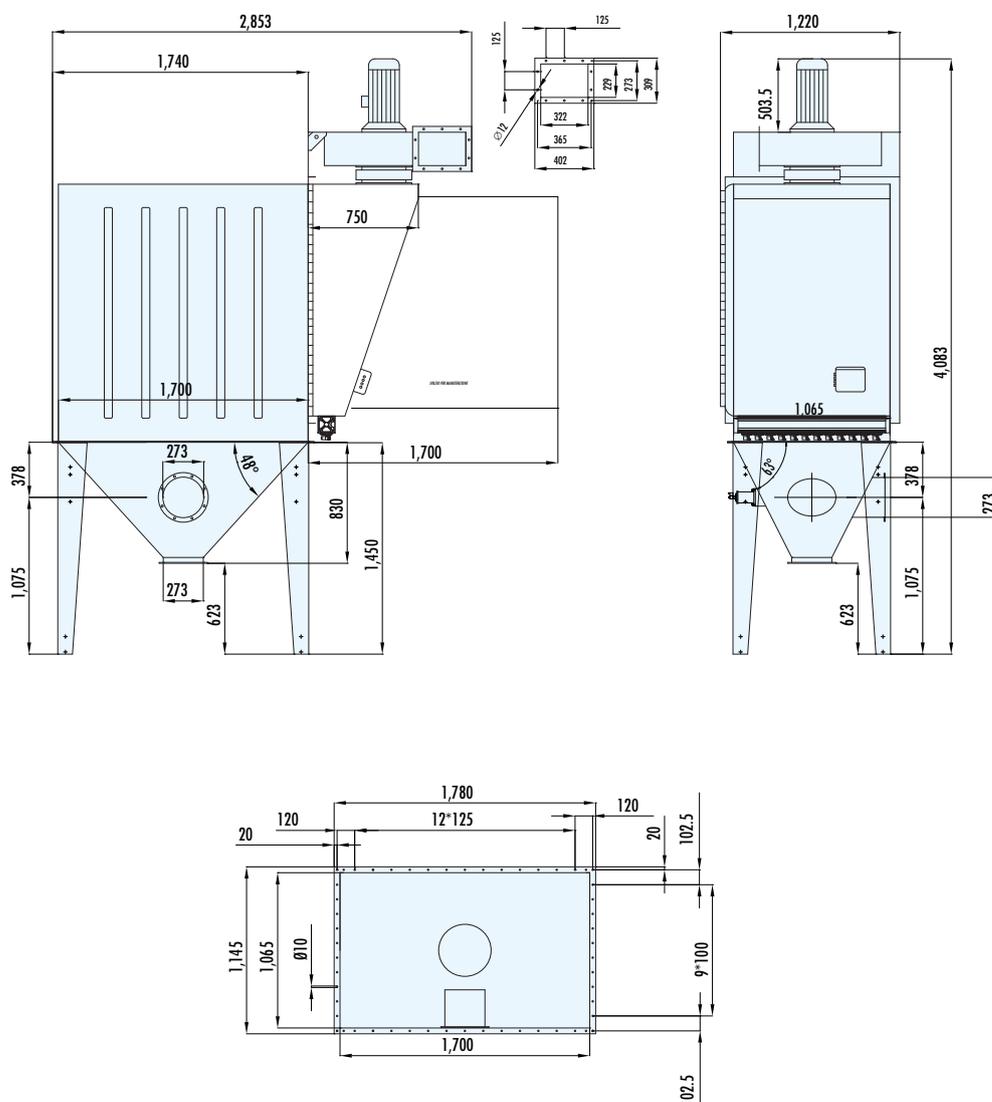
DRYBATCH® R01 Dust Collectors for Dry-Batch Concrete Plants



Technical Features / Performance ▼

- ▶ Horizontally mounted pocket filter elements
- ▶ Filter surface: 54 m² (580 sq ft)
- ▶ Filter media: polyester needle felt (500 g/m²)
- ▶ Reverse jet compressed air cleaning (min. 5 – max. 6 bar)
- ▶ Multi voltage electronic timer: 24 V – 260 V DC/AC 50/60 Hz
- ▶ 12 nos. solenoid valves
- ▶ Electronic pressure differential display meter (4 – 20 mA output)
- ▶ 11.0 kW (15.0 HP) suction fan
- ▶ Max. air volume capacity: 6,000 m³/h (3,530 cfm)
- ▶ 304 stainless steel body
- ▶ Seal frame in carbon steel powder-coated RAL 7001 (silver-grey)
- ▶ Diffuser and hammering device to break down the humidity

Overall Dimensions ▼



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



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Concrete Production

HOPPERTOP Weigh Hopper Venting Filters



11



Description ▼

HOPPERTOP is a small cylindrical venting filter especially developed for installation on weigh hoppers in concrete batching plants.

Function ▼

HOPPERTOP is a compact venting filter for mechanically filled hoppers. Dust which is separated from the air flow by a single WAM® cartridge filter element drops back into the hopper after an integrated automatic reverse air jet cleaning system inside the weather protection cover has removed the dust particles from the filter elements.

Application ▼

Thanks to its particularly small footprint the HOPPERTOP Venting Filter is the ideal solution for weigh hoppers for cement and other powdery materials in concrete batching plants.



Benefits ▼

- ✓ **Minimum maintenance required;**
- ✓ **High efficiency;**
- ✓ **Minimum space required;**
- ✓ **Easy to fit and retrofit.**



Concrete Production

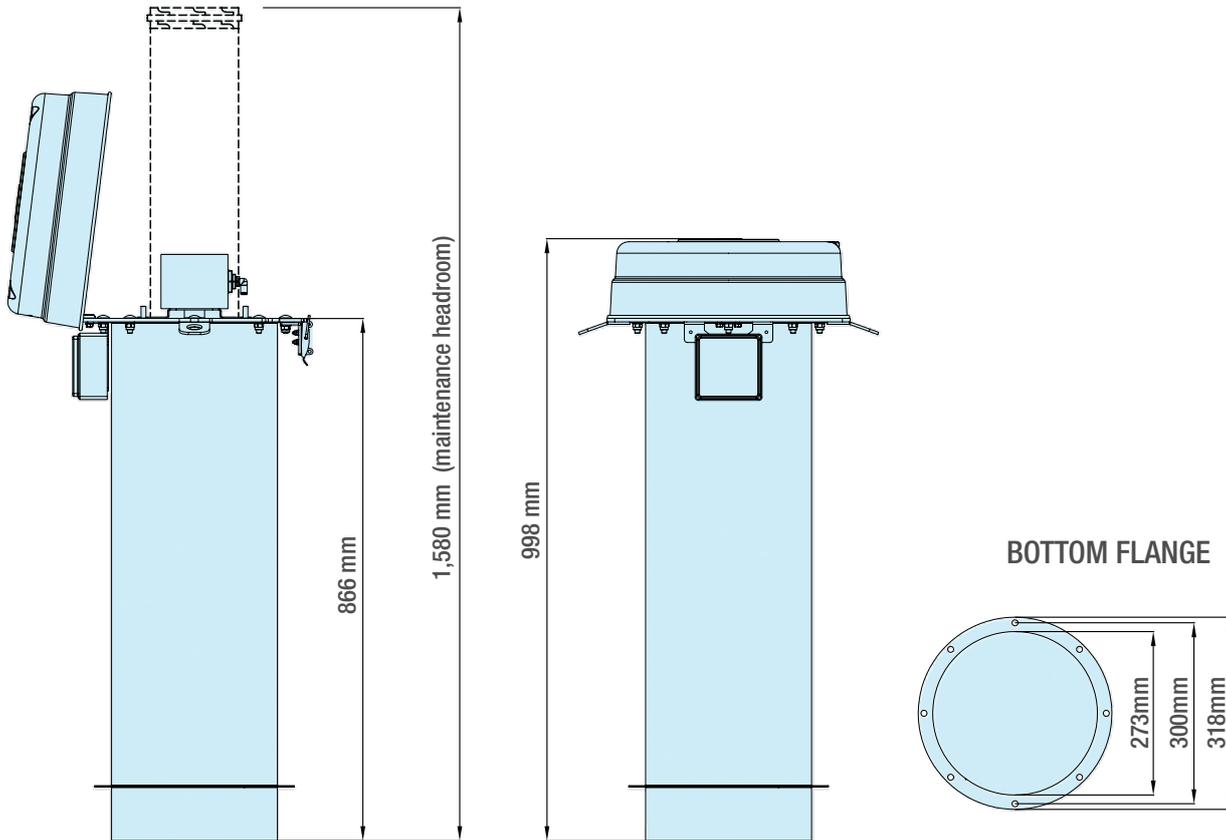
HOPPERTOP Weigh Hopper Venting Filters



Technical Features / Performance ▼

- ▶ Stainless steel, flanged, cylindrical shape body
- ▶ Dust emission <math>< 10 \text{ mg/Nm}^3</math> due to B.I.A.-certified filter media
- ▶ High filtration efficiency due to unique WAM® design filter elements
- ▶ Quick maintenance due to easy access for filtering element removal
- ▶ Filter surface: 1 m²
- ▶ Maintenance-free air jet cleaning unit integrated inside weather protection cover
- ▶ No tools required for filtering element removal
- ▶ Weld-on bottom ring included

Overall Dimensions ▼



| MODEL | TYPE | FILTER SURFACE m ² |
|-----------|---------|----------------------------------|
| HTP10001V | VENTING | 1 |

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



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Concrete Production

Butterfly Valves V2FF / V.FS

12



Description ▼

V2FF Silo Discharge Butterfly Valves are manufactured from a single-piece fabricated carbon steel body lined with WAM®'s polymer composite SINT®. Due to the four corner slots the integrated upper square flange can be adapted to different sizes of silo outlet flanges. The valve disc is manufactured from surface-treated carbon steel.

VFS Butterfly Valves consist of two high-pressure die-cast semi-bodies manufactured from aluminium alloy, a swivel disc in SINT® polymer composite or cast iron, and a pre-stressed elastomer 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 and silos containing cement or similar materials, 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.

Material flow is intercepted by activating a manual lever or a pneumatic or electric actuator turning the valve disc 90 degrees, thus closing the valve hermetically.



Application ▼

V2FF Silo Shut-Off Butterfly Valves are used in concrete batching plants wherever interception of gravity-fed cement or other powdery materials is required. They are fitted beneath hoppers, bins, or silos.

VFS Butterfly Valves are used in concrete batching plants where interception of gravity-fed or pneumatically conveyed dry materials is required. They are fitted beneath hoppers, bins, silos, screw feeder outlets, or in a 0.2 bar (29 PSI) pressure-proof version, on water scales outlets. Due to their special design and to the engineering materials used, they represent a particularly cost-effective yet most efficient solution.

Benefits ▼

- ✓ **Dust-tight (V.FS for water scales 0.2 bar pressure-proof);**
- ✓ **Quick fitting, retro-fitting and replacement;**
- ✓ **Modular design and easy maintenance thanks to small numbers of components;**
- ✓ **High flexibility thanks to interchangeable components;**
- ✓ **More durable thanks to special performance features.**



Concrete Production

Butterfly Valves V2FF / V.FS

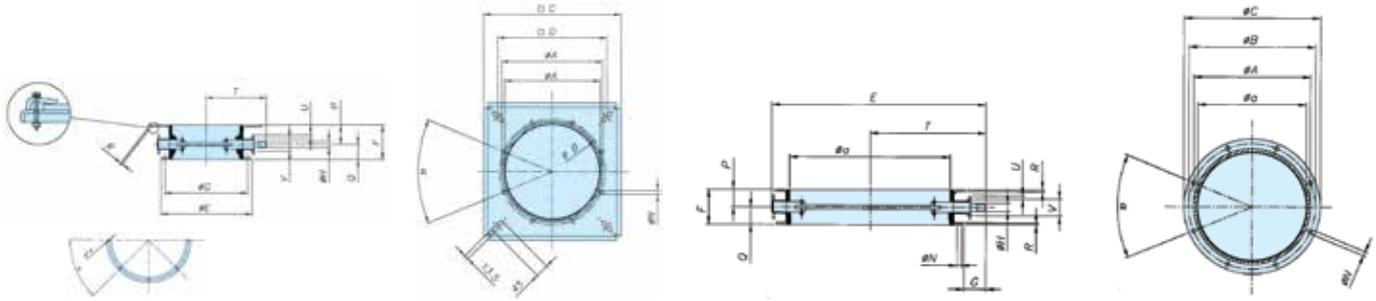


Technical Features / Performance

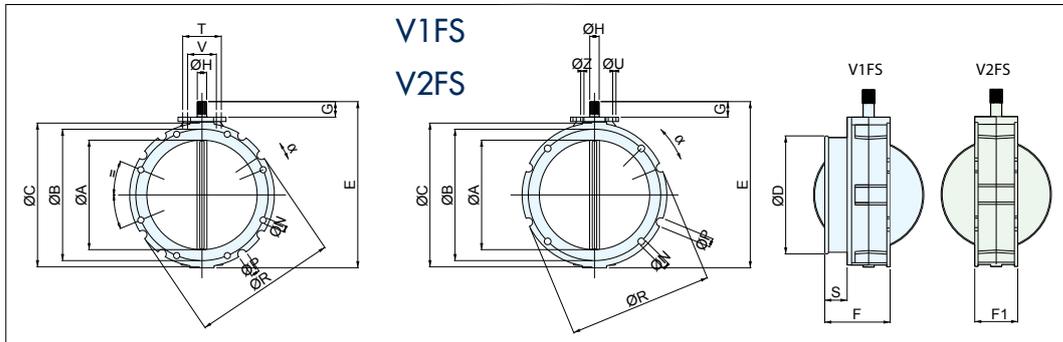
- ▶ V1FS with top flange and beaded bottom section suitable for fixing of flexible sleeve from 100 to 400mm (4 to 16 in)
- ▶ V2FS with identical top and bottom flange from 100 to 400mm (4 to 16 in)
- ▶ On request, pressure-proof up to 0.2 bar (2.9 PSI) and max. temperature of 100° C (212° F)
- ▶ Disc in cast iron or SNT®-coated
- ▶ Small number of components
- ▶ Easy part replacement

Overall Dimensions

V2FF



| TYPE | C | Ø a | Ø A | Ø B | Ø C | Ø D | Ø E | F | Ø G | Ø H DIN 5482 | Ø N DRILLINGS | Nr of DRILLINGS | P | Q | R | α | T | U | V | kg |
|-------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|------------------|--------------------|----|----|---|-----|-----|------|----|----|
| V2FF250F14N | | 255 | 275 | 375 | 400 | 322 | 328 | 100 | 300 | 22 x 19 | 13.5 | 8 | 50 | 50 | 6 | 45° | 202 | M 12 | 50 | 16 |
| V2FF300F19N | | 310 | 325 | 400 | 450 | 370 | 378 | 100 | 350 | 22 x 19 | 13.5 | 8 | 50 | 50 | 6 | 45° | 210 | M 12 | 50 | 19 |
| V2FF300F35N | | 290 | 315 | 350 | 378 | 370 | 450 | 100 | 50 | 22 x 19 | 13.5 | 8 | 50 | 50 | 6 | 45° | 239 | M 12 | 50 | 10 |



| TYPE | Ø A | Ø B | Ø C | Ø D | E | F | F1 | G | Ø H DIN 5482 | N Drilling | P External grooves | Ø R | α | S | T | U | V | Z | kg |
|-----------|-----|-----|-----|-----|-----|-----|----|----|-----------------|---------------|-----------------------|-----|--------|----|----|-----|----|-----|------|
| V1FS 100. | 95 | 180 | 220 | 105 | 250 | 115 | 77 | 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 | 77 | 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 | 77 | 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 | 77 | 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 | 77 | 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 | 85 | 50 | 28x25 | 8 x Ø14 | 8 x Ø20 | 440 | 10° | 40 | 80 | M12 | - | - | 16 |
| V1FS 400. | 400 | 470 | 530 | 413 | 580 | 123 | 85 | 50 | 28x25 | 8 x Ø14 | 16 x Ø20 | 530 | 4°30' | 40 | 80 | M12 | - | - | 20.5 |

Dimensions in mm

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

Concrete Production

VL Slide Valves

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Description ▼

VL-type Slide Valves consist of a two-piece carbon steel frame, which is partly coated with WAM®'s unique SINT® engineering polymer composite, and a sliding blade manufactured either from the same material or from carbon steel. The use of SINT® engineering polymer composites considerably increases resistance to abrasion compared to traditional valves.

Function ▼

VL Slide Valves are used where flow of a bulk solid caused by gravity or transport has to be intercepted. Valves may be fitted to hopper or silo outlets, to the inlets and outlets of mechanical conveyors and to the inlet of telescopic loading spouts.



Applications ▼

VL Slide Valves are used to shut off the outlets of cement and other powdery material silos. Usually kept open during regular operation and even after work shutdown, they need to be perfectly functional for outlet cone closure when maintenance is performed on any of the downstream equipment.

Due to their special design and to the engineering materials used, they represent a particularly cost-effective yet most efficient solution.

Benefits ▼

- ✓ **Dust and granule-proof thanks to components geometry;**
- ✓ **Easy integration into the process and easy handling;**
- ✓ **Modular design and easy maintenance thanks to small numbers of components;**
- ✓ **High flexibility and time-saving maintenance thanks to interchangeable components;**
- ✓ **Better performance thanks to friction-free contact design (actuator torque is not wasted in order to win friction resistance).**

Concrete Production

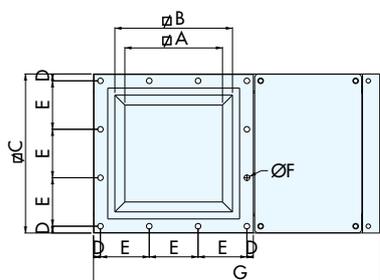
VL Slide Valves



Technical Features / Performance ▼

- ▶ Square (VLQ) or round (VLC) inlet from 150 to 400mm (6 to 16 in)
- ▶ Dust and granular-proof at max. temperature of 80°C (176 F°)
- ▶ Absence of residue points thanks to SINT® coated blade and SINT® lined frame
- ▶ Friction-free contact design
- ▶ Small number of components
- ▶ Easy part replacement
- ▶ Safe sealing with no additional measures due to the all-round dustproof seal lips incorporated in polymer coating

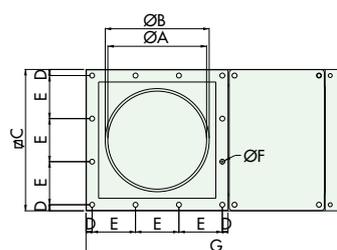
Overall Dimensions ▼



VLQ



| TYPE | A | B | C | D | E | N°E | Ø F | Bolts | G | H | kg |
|-----------|-----|-----|-----|------|-----|-----|------|-------|-------|-----|----|
| VLQ0250.. | 220 | 275 | 361 | 15.5 | 110 | 3 | 12.5 | M10 | 650 | 113 | 22 |
| VLQ0300.. | 270 | 325 | 431 | 23.0 | 128 | 3 | 12.5 | M10 | 765 | 113 | 30 |
| VLQ0350.. | 320 | 375 | 481 | 18.0 | 89 | 5 | 12.5 | M10 | 900 | 125 | 40 |
| VLQ0400.. | 370 | 425 | 531 | 15.5 | 100 | 5 | 12.5 | M10 | 1,000 | 125 | 46 |



VLC



| TYPE | A | Ø B | Ø C | D | E | N°E | Ø F | Bolts | G | H | kg |
|-----------|-----|-----|-----|------|-----|-----|------|-------|-------|-----|----|
| VLC0250.. | 250 | 265 | 361 | 15.5 | 110 | 3 | 12.5 | M10 | 650 | 113 | 22 |
| VLC0300.. | 300 | 315 | 431 | 23.0 | 128 | 3 | 12.5 | M10 | 765 | 113 | 30 |
| VLC0350.. | 350 | 365 | 481 | 18.0 | 89 | 5 | 12.5 | M10 | 900 | 125 | 40 |
| VLC0400.. | 400 | 415 | 531 | 15.5 | 100 | 5 | 12.5 | M10 | 1,000 | 125 | 46 |

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

Concrete Production

FIBC Dischargers SBB

14



Description ▼

The SBB FIBC Discharger consists of a mild steel frame complete with material discharge hopper and an upper mobile cross bar for lifting of the filled up bag by forklift truck into the Discharger.

Function ▼

The SBB is a modular system for discharging Flexible Intermediate Bulk Containers (Big Bags) in different configurations depending on the application. Easy introduction of the FIBC into the support frame and dust-free discharging along with a variety of options make the SBB extremely user-friendly.

The four loops of the FIBC are attached to the hooks of the detached cross bar that has previously been laid on top of the FIBC. The cross bar with the attached FIBC is then picked up by a forklift truck and introduced into the frame of the SBB Discharger. Once the FIBC has settled on the rubber seal of the discharge hopper the outlet closing rope of the FIBC can be pulled open through the inspection hatch of the discharge hopper. One-way bulk bags are cut open by a pyramid-shape cutting knife.



Application ▼

SBB FIBC Dischargers are used to transfer microsilica (silica fume) contained in FIBCs to a silo for storage from where the material can be conveyed pneumatically or mechanically (see POWPUMP™ sheet) into the silo.

Benefits ▼

- ✓ **Modular design;**
- ✓ **Compact shipping dimensions;**
- ✓ **Easy to install;**
- ✓ **Complete dust-free discharging from bag corners even with compressed powder.**

Concrete Production

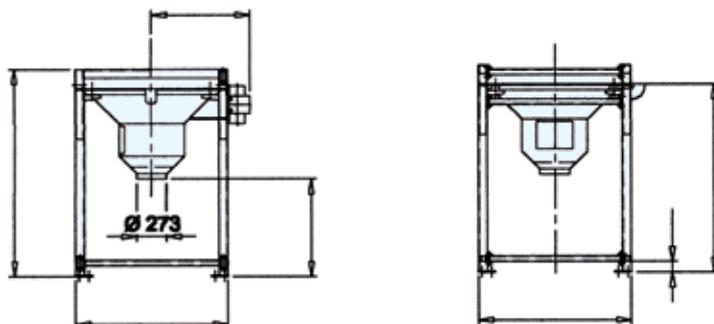
FIBC Dischargers SBB



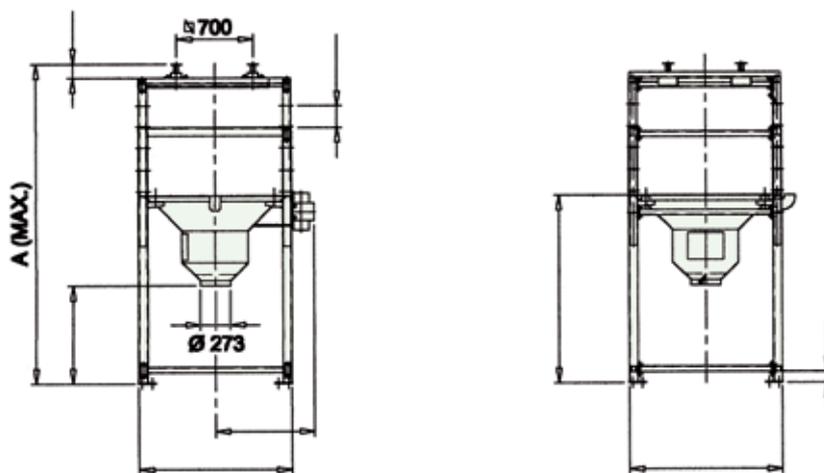
Technical Features / Performance ▼

- ▶ Sturdiness thanks to the steel structure
- ▶ Vibrating outlet cone fitted with outlet opening hatchway

Overall Dimensions ▼



| TYPE | A | B | C | E | F |
|-------------|-------|-------|-------|-----|-------|
| SBB. 125. C | 1,914 | 1,400 | 832 | 100 | 1,734 |
| SBB. 155. C | 2,490 | 1,800 | 1,047 | 160 | 1,880 |



| TYPE | A max. | B | C | D | E | F |
|-------------|--------|-------|-------|-----|-----|-------|
| SBB. 125. S | 3,960 | 1,400 | 832 | 130 | 100 | 1,734 |
| SBB. 150. S | 4,307 | 1,800 | 1,047 | 180 | 160 | 1,800 |

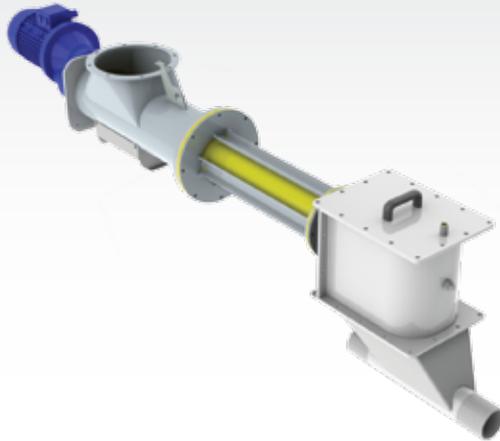
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Concrete Production

POWPUMP™ Powder Injector for Pneumatic Conveying



15



Description ▼

The POWPUMP™ Powder Injector for Pneumatic Conveying consists of a screw feeder in a SINT® polymer composite-lined tubular housing, a flanged shoe-shaped inlet spout, an inspection hatch under the inlet, a flush outlet with a spring-loaded closing disc, an outlet box with inspection top cover c/w connecting piece for the pneumatic conveying line, as well as drive unit with integrated end bearing assembly and shaft sealing unit.

Function ▼

The POWPUMP™ Powder Injector continuously feeds powdery material from a hopper into an air flow without allowing any air to flow back into the screw feeder.



Application ▼

The POWPUMP™ Powder Injector is used in concrete batching plants to transfer microsilica (silica fume) supplied in FIBCs to a large storage silo.

Benefits ▼

- ✓ No countercurrent air leakages;
- ✓ High efficiency with packing and abrasive powders;
- ✓ Easy to move from one silo to another.

Concrete Production

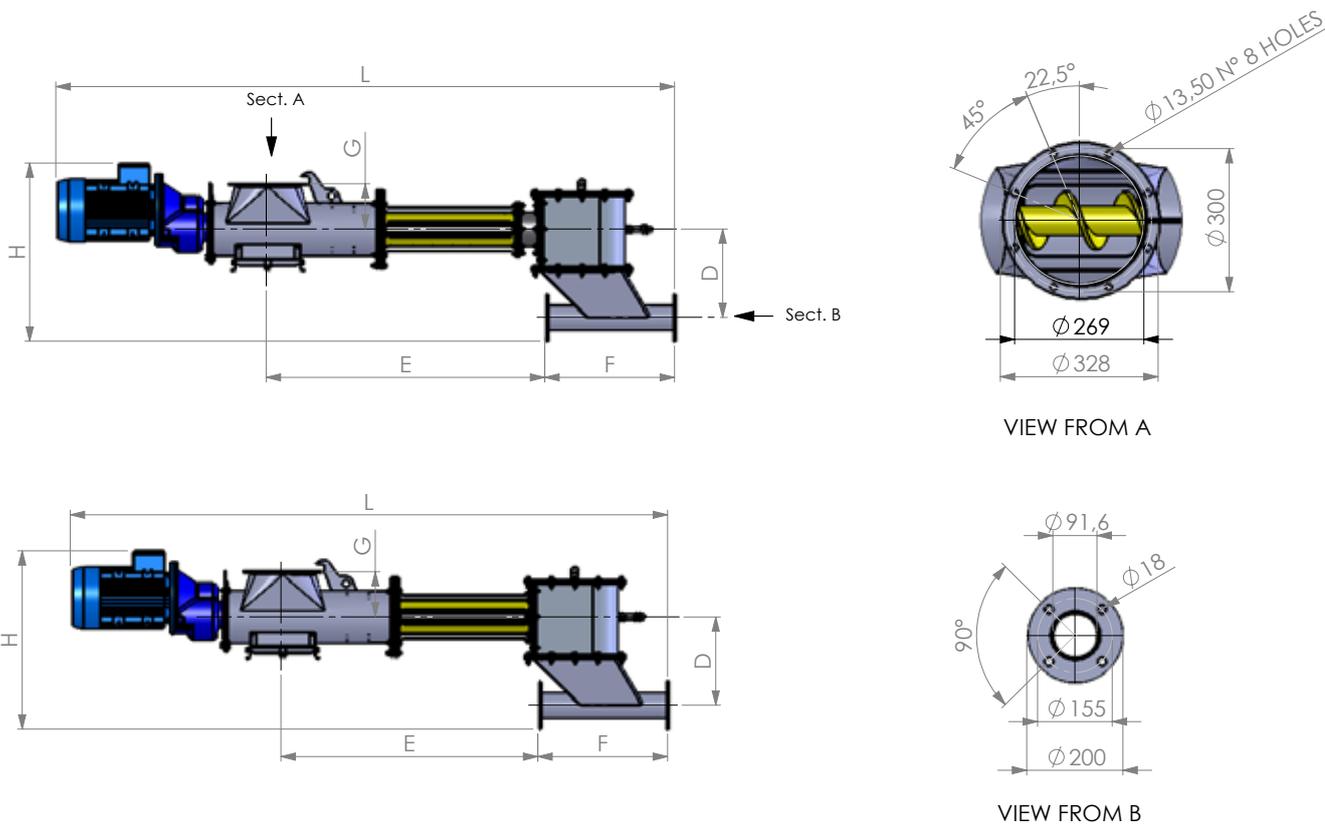
POWPUMP™ Powder Injector for Pneumatic Conveying



Technical Features / Performance ▼

- ▶ Crust-free SINT™ engineering polymer design
- ▶ Wear-resistant
- ▶ Low power consumption

Overall Dimensions ▼



| MODEL | TYPE | KW | L | H | G | D | E | F | KG |
|------------|---------------|-----|--------|-----|-----|-----|--------|-----|-------|
| POWPUMP120 | SPM1120A20001 | 5.5 | 2484.5 | 747 | 190 | 370 | 1068.5 | 540 | 140 |
| POWPUMP120 | SPM1120B20000 | 5.5 | 2574.5 | 747 | 190 | 370 | 1158.5 | 540 | 134.5 |
| POWPUMP150 | SPM1150A20000 | 9.2 | 2593 | 780 | 190 | 370 | 1129.5 | 540 | 239.5 |
| POWPUMP150 | SPM1150B20000 | 9.2 | 2683 | 780 | 190 | 370 | 1219.5 | 540 | 246.5 |

A - silica fume
B - cement

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



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Concrete Production

Continuous Level Measurement - ILS

17



ILSF/ILSE

ILSC/ILSD



Description ▼

A sensor weight, attached to a metal tape or rope, is electromechanically lowered into the vessel. Once the sensor weight rests on the material, the winding direction of the motor changes and the sensor weight is rewound to the upper stop position. As the weight is lowered, the distance is electronically measured.

A microprocessor converts the measured distance together with the programmed silo geometry into a volumetric output signal. This signal is updated each time the sensor weight is lowered.

Application ▼



Benefits ▼

- ✓ **Appropriate for nearly all kinds of bulk solids;**
- ✓ **Insensitive to:**
 - *Dielectricity and conductivity of the bulk material;*
 - *Dust inside the silo;*
 - *Changes in moisture of the bulk material;*
 - *Materials that tend to stick;*
- ✓ **No mechanical force on the silo top; sensor touches material only on its surface;**
- ✓ **Simple installation and commissioning;**
- ✓ **High-tech measurement; easy to understand;**
- ✓ **Highly accurate measurement.**

Concrete Production

Continuous Level Measurement - ILS



Technical Features / Performance ▼

- ▶ **Silo pressure**
max. 0.3 bar (44 psi)
- ▶ **Temperature inside silo**
ILSC-ILSD: -40°C + 80°C (-40°F +176°F) standard
+ 150°C / + 250°C (+302°F / +482°F) option
ILSE - ILSF: -40°C + 80°C (-40°F +176°F)
- ▶ **Ambient temperature**
ILSC - ILSD: -20°C / +60°C (-4°F +140°F) standard
-40°C / +60°C (-40°F + 140°F) with internal heater
ILSE - ILSF: -20°C / +60°C (-4°F +140°F)
- ▶ Microprocessor-controlled measurement with intelligent supervision;
- ▶ Integrated tape cleaner for extremely difficult materials (tape version);
- ▶ Different sensor weights, suitable for all applications;
- ▶ Robust dual-chamber aluminium die-cast casing IP66, NEMA 4.

| Technical Characteristics | ILSE / ILSF | ILSC / ILSD |
|---------------------------|-------------------------------------|---|
| Measurement of | Solids | Solids - Interface |
| Version | Rope - Tape | Rope - Tape |
| Remote Box | NO | Max. 10 Units |
| Measuring Range | Rope: 15/30 m Tape 15/30 m | Rope 30 m Tape 40 m |
| Process Temperature | -40°C / +80°C | -40°C / +250°C MAX |
| Process Pressure | +0.2 bar | +0.3 / 1.5 bar |
| Ex- Approval | ATEX II 1/2 D | ATEX II 1/2 D |
| Power | 230 V AC 115 V AC 20..28 V DC | 98...253 V AC 20...28 V DC |
| Process Connection | 1 1/2" Thread Flange DN100 | Flange DN 100 |
| Diagnostics | 4-20 mA | Relais, 4-20 mA Remote Box Diagnose History SD Card |
| Measurement Start | Internal Timer External Signal | Remote Box Internal Timer External Signal |
| Output | 4-20 mA | 0/4-20 mA MODBUS 5/10 cm Relay Pulse 1/2,5 cm opto pulse |
| Casing | Aluminium, Painted | Aluminium, Optionally Painted |
| IP Rating | IP 66 | IP 66 |
| Rope/Tape Cleaner | Tape Integrated | Tape Integrated |
| Motor | Standard | Standard Industrial |
| Number Of Pulleys | 1 | 2 |

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

Concrete Production

Silo Safety System KCS



19

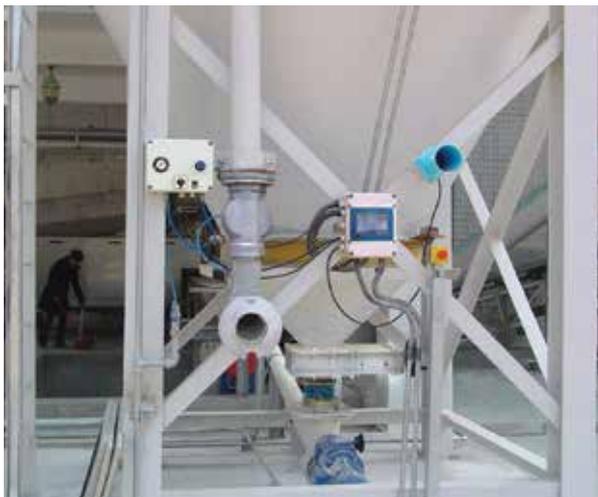


Description ▼

The KCS Silo Safety System for the safeguarding of silos consists of a central electronic monitoring and control unit which manages a series of silos and a component kit including, in the basic version one power panel for each silo, a silo pipe connection, a pinch valve, a tanker coupling with the filling pipe, a maximum level indicator, a differential pressure switch or electronic pressure meter, a pressure gauge for the venting filter, a pressure relief valve, and an audible alarm.

Function ▼

The KCS Silo Safety System can be used for silos which are filled by tanker with powdery materials. Damage to the silo or its accessories is most likely during the operation of tanker filling. This is due to the risk of overfilling or excess pressurisation. The KCS system, supplied in component form, prevents both overfilling and excess pressurisation, thus avoiding damage to the silo, to the venting filter or other accessories, as well as reducing the risk of dust emission into the atmosphere.



Application ▼

In concrete batching plants it is essential that the filler silo is equipped with the safety components described. The control panel should be installed in the central control room from where the plant operator can monitor up to 32 silos.

Benefits ▼

- ✓ Avoids harm to people and damage to the silo and its accessories;
- ✓ Reduces risk of air pollution;
- ✓ Eliminates risk of filling the wrong silo;
- ✓ Starts and stops filter cleaning automatically;
- ✓ Receives indication from electronic pressure meter whether filter may need attention.

Concrete Production

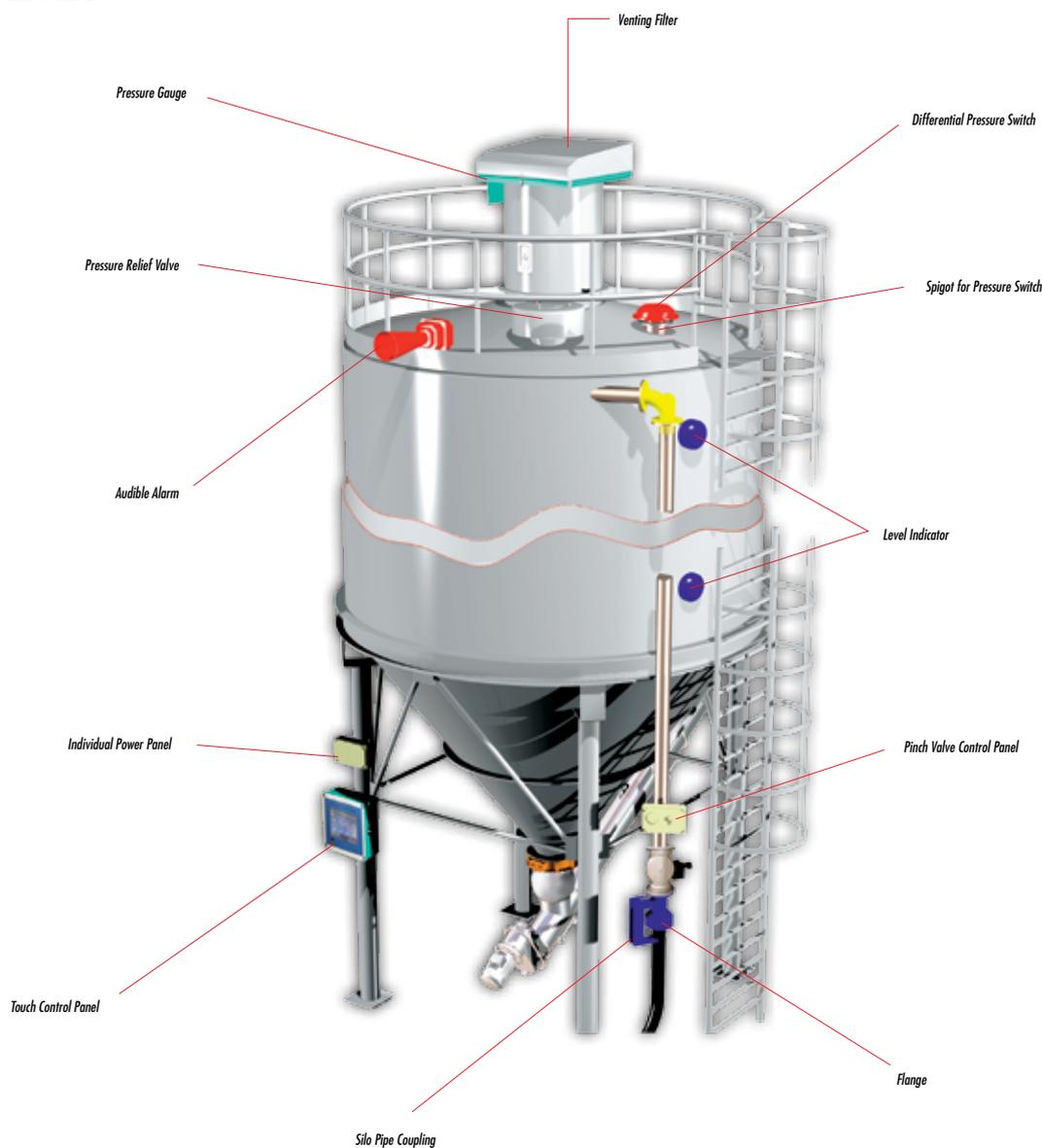
Silo Safety System KCS



Why invest in “KCS” ▼

- ▶ To avoid damage to silo and accessories
- ▶ To reduce risk of air pollution
- ▶ To eliminate risk of filling wrong silo
- ▶ To start and stop filter cleaning automatically
- ▶ To receive indication from pressure gauge whether filter may need attention
- ▶ To benefit from control panel monitoring of:
 - Internal pressure of any silo;
 - Maximum level indicator free;
 - Presence of compressed air to venting filter (if air jet filter is used);
 - Presence of compressed air to pinch valve.

Components ▼



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

Concrete Production

Spring-Loaded Pressure Relief Valves VCP

22/A



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 ▼

In 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 overcome the spring force. Once the pressure exceeds the preset value the lid is pushed up and the pressure can 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 ▼

- ✓ **Used with different materials in the same configuration;**
- ✓ **Easy to handle and fit thanks to lightweight design and reduced overall dimensions;**
- ✓ **Maintenance-friendly thanks to small numbers of components.**

Concrete Production

Spring-Loaded Pressure Relief Valves VCP

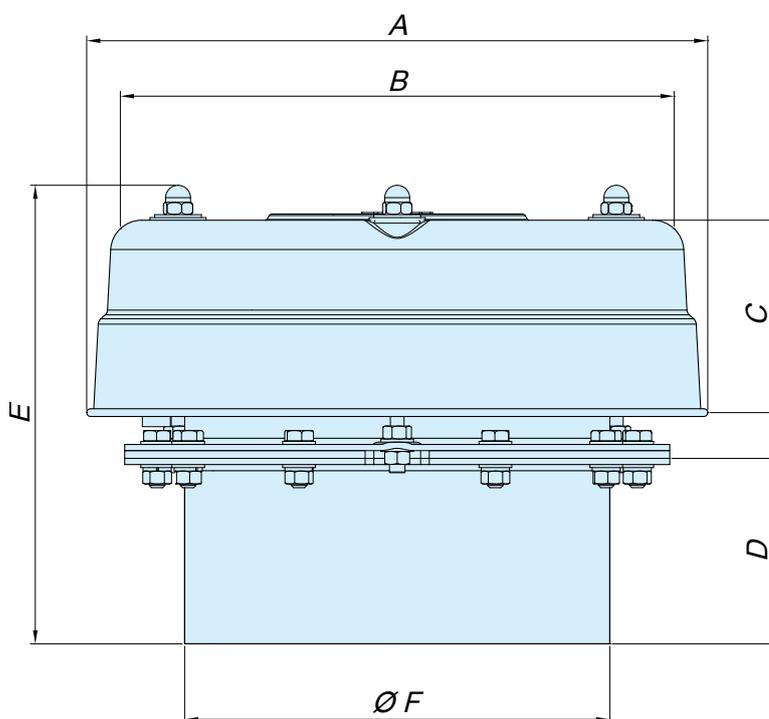


Technical Features / Performance ▼

- ▶ Carbon steel body (VCP...1C) painted RAL 7001
- ▶ Size 273mm (11 in) or 375mm (14 in)
- ▶ Weather protection cover in stainless steel
- ▶ Air volume up to 13,000 m³/h (7,650 cfm)
- ▶ Setting range: excess pressure from 300mm H₂O (0.44psi) up to 800mm H₂O (1.16 psi)
- ▶ Setting range: negative pressure from -50mm H₂O (0.07psi) up to -100mm H₂O (0.15psi)
- ▶ No welding seams inside
- ▶ Equipped for inductive signalling sensors
- ▶ Protective bellows for springs

Overall Dimensions ▼

| | TAMANHO [mm] | |
|-----|-------------------|-----|
| | 273 | 375 |
| A | 400 | 525 |
| B | 356 | 468 |
| C | 125 | 175 |
| D | 120 | 120 |
| E | 325 | 400 |
| Ø F | 273 | 356 |
| kg | 11 | 23 |



Concrete Production

Membrane Pressure Relief Valves VHS

22/B



Description ▼

VHS Pressure Relief Valves consist of a cylindrically shaped 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 ▼

The counterweight-loaded VHS-type Pressure Relief Valve has one decisive advantage over the spring-loaded type. Due to the moment of inertia of the helical springs on the latter, 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 membrane 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 resort if 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 when needed. With thousands of units installed worldwide, VHS Pressure Relief Valves have given evidence of being totally reliable under the most different conditions.

Benefits ▼

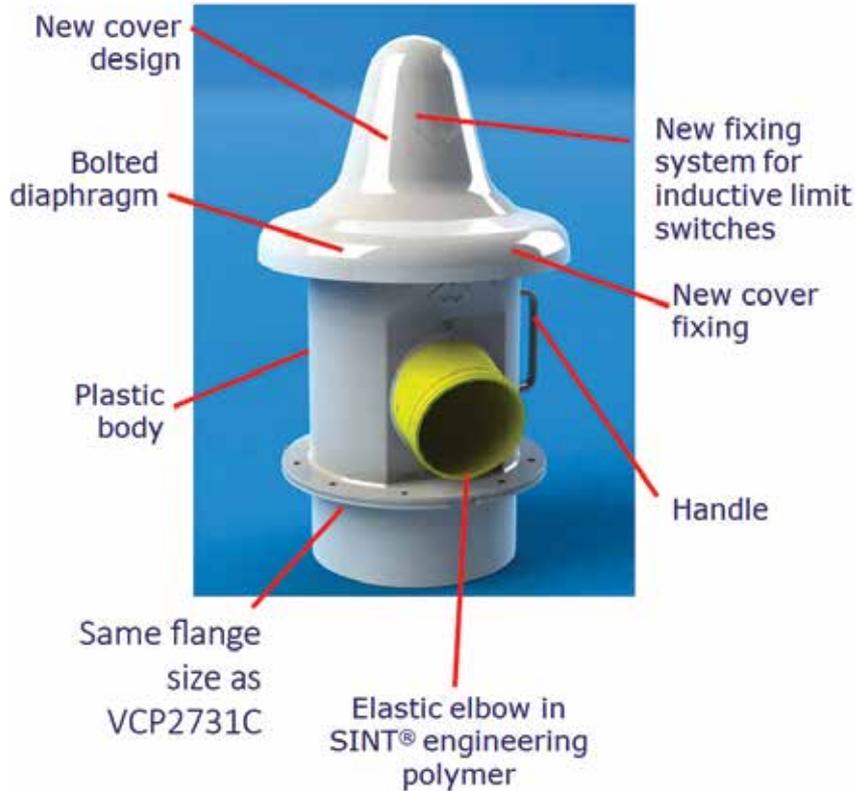
- ✓ Safety for people, plant and environment;
- ✓ Compliance with existing regulations;
- ✓ Maximum efficiency and minimum operating costs;
- ✓ Quick and easy maintenance;
- ✓ Attractive price.

Concrete Production

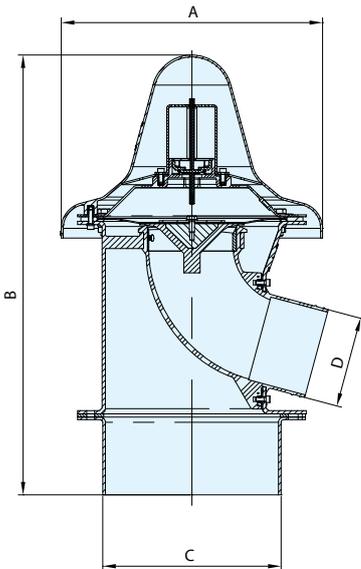
Membrane Pressure Relief Valves VHS



Technical Features / Performance ▼



Overall Dimensions ▼



| VHS273 | Excess Pressure | Negative Pressure | kg |
|---------------|----------------------------------|--------------------------|-----|
| Standard-type | 500 mm H ₂ O | -50 mm H ₂ O* | 8.0 |
| Option | 300 ~ 1,000 mm H ₂ O* | -50 mm H ₂ O* | |

| A | B | C | D |
|----------|--------|----------|----------|
| Ø 366 mm | 557 mm | Ø 273 mm | Ø 140 mm |

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Concrete Production

EXTRABEND® and EXTRACURVE® Pipe Elbows

23 24



Description ▼

Short-radius EXTRABEND® and wide-radius EXTRACURVE® Pipe Elbows are inserted as a link in pneumatic silo filling pipes. Both models are manufactured from a one-piece SINT™ engineering polymer cast.

Wear-resistant EXTRABEND® and EXTRACURVE® Pipe Elbows deflect incoming cement, filler dust or microsilica minimising material degradation and elbow wear, avoiding at the same time any clogging or plugging.

Function ▼

The EXTRABEND® short-radius Pipe Elbow offers a substantially innovative geometry suitable to reduce wear during operation.

The body cavity next to the point of diversion generates an internal material turbulence which protects the elbow from wear caused by the material travelling through the duct.

The EXTRACURVE® represents the latest evolution in the development of wide angle pipe elbows. Due to its flexibility and adaptability installation has become quicker while durability is dramatically increased.



Application ▼

EXTRABEND® and EXTRACURVE® Elbows are used as a link in silo filling pipes and in ductworks of pneumatic conveying systems. They excel through their particular resistance to wear with abrasive materials.

Benefits ▼

- ✓ Long-life elbow with abrasive materials thanks to anti-wear SINT™ engineering polymer material;
- ✓ Reduced installation costs thanks to elastic properties (no extra work for connection on site is needed);
- ✓ Reduced installation and maintenance time because EB/EW are easy to handle thanks to lightweight design;
- ✓ Reduced costs for plant designing thanks to elastic properties (elastic elbows fit for different plant layouts);
- ✓ Considerable reduction of flow resistance, consequently energy saving pneumatic conveying.

Concrete Production

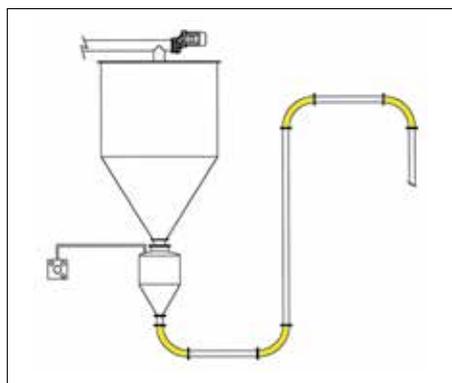
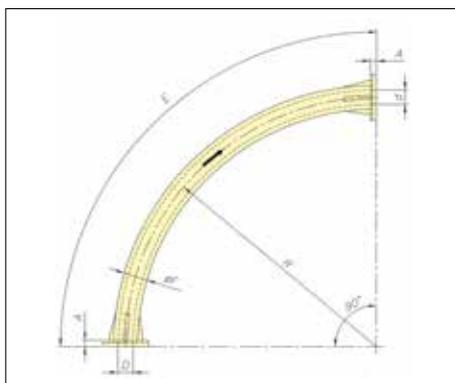
EXTRABEND® and EXTRACURVE® Pipe Elbows



Technical Features / Performance ▼

- ▶ SINT™ engineering polymer
- ▶ Range from 2" to 4"
- ▶ PN-type connecting flanges
- ▶ Up to 1.5 bar (22 PSI) in lean phase
- ▶ Max temperature : 80° C (176° F)
- ▶ Flexible and elastic
- ▶ Lightweight and easy to handle
- ▶ Reduced noise level

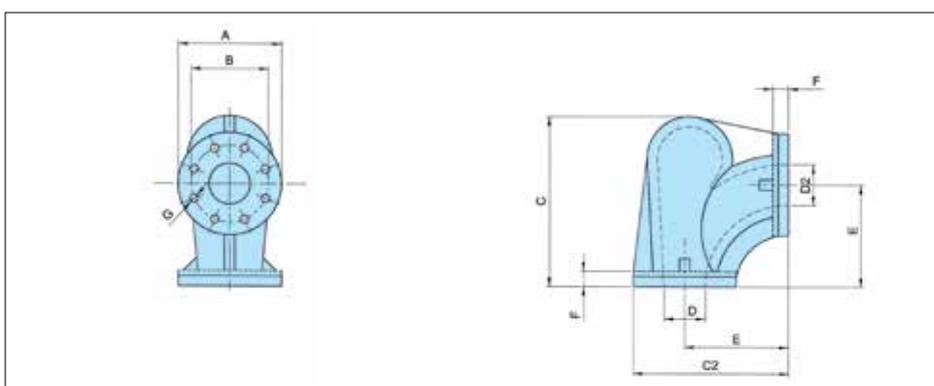
Overall Dimensions ▼



EXTRACURVE®

| EW | A | Ød | ØD | E | ØF | R | kg |
|----|----|-----|-----|-------|-----|-----|------|
| 2" | 23 | 52 | 55 | 1,400 | 85 | 900 | 7.3 |
| 3" | 30 | 80 | 83 | 1,400 | 110 | 900 | 9.6 |
| 4" | 30 | 105 | 108 | 1,400 | 140 | 900 | 13.4 |

Dimensions in mm



EXTRABEND®

| Type | Ø Pipe | A | B | C | C2 | Ø D | Ø D2 | E | F | Ø G | Flange Drillings | kg |
|------|--------|-----|-----|-----|-----|-----|------|-----|----|-----|------------------|----|
| EB 2 | 2" | 165 | 125 | 232 | 220 | 55 | 52 | 140 | 23 | 18 | 4 | 2 |
| EB 3 | 3" | 200 | 160 | 330 | 300 | 85 | 80 | 200 | 30 | 18 | 4 | 5 |
| EB 4 | 4" | 220 | 180 | 435 | 373 | 108 | 105 | 263 | 30 | 18 | 8 | 7 |

Dimension in mm

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



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Concrete Production

Pinch Valves VM / Pipe Connections KAT

25



Description ▼

The body of the VM Pinch Valve is manufactured from aluminium alloy. The sleeves are made from fabric-reinforced NR or NBR. The sleeve support bushes are either made from aluminium alloy or 304/316 stainless steel.

Function ▼

VM-type Pinch Valves are used for interception of the material flow in pneumatic conveying systems, or other pipelines. They can be also installed as a locking device for silo filling pipes. In the open position the internal cross section of the valve is identical with the connecting pipe diameter. By introducing compressed air through the threaded bore into the interior of the valve, the internal flexible sleeve is reshaped in such a way as to hermetically seal the passage.



Application ▼

VM Pinch Valves are mounted between the bottom end of the silo filling pipe and the KAT Pipe Connection for tanker filling. Should any abnormal conditions occur, such as excess pressure inside the silo or overfilling of the same, the VM Pinch Valve receives command for instantaneous closure, thus safeguarding the silo from any further filling or overpressurization.

Benefits ▼

- ✓ Full bore-through passage without any pressure loss and stagnation points;
- ✓ Particularly low air consumption;
- ✓ Easy and quick sleeve and bush replacement;
- ✓ Sleeves in fabric-reinforced NR;
- ✓ Compact overall dimensions;
- ✓ Lightweight due to valve body in aluminium alloy;
- ✓ No maintenance required except for periodic replacement of the sleeve and the bushes.

Concrete Production

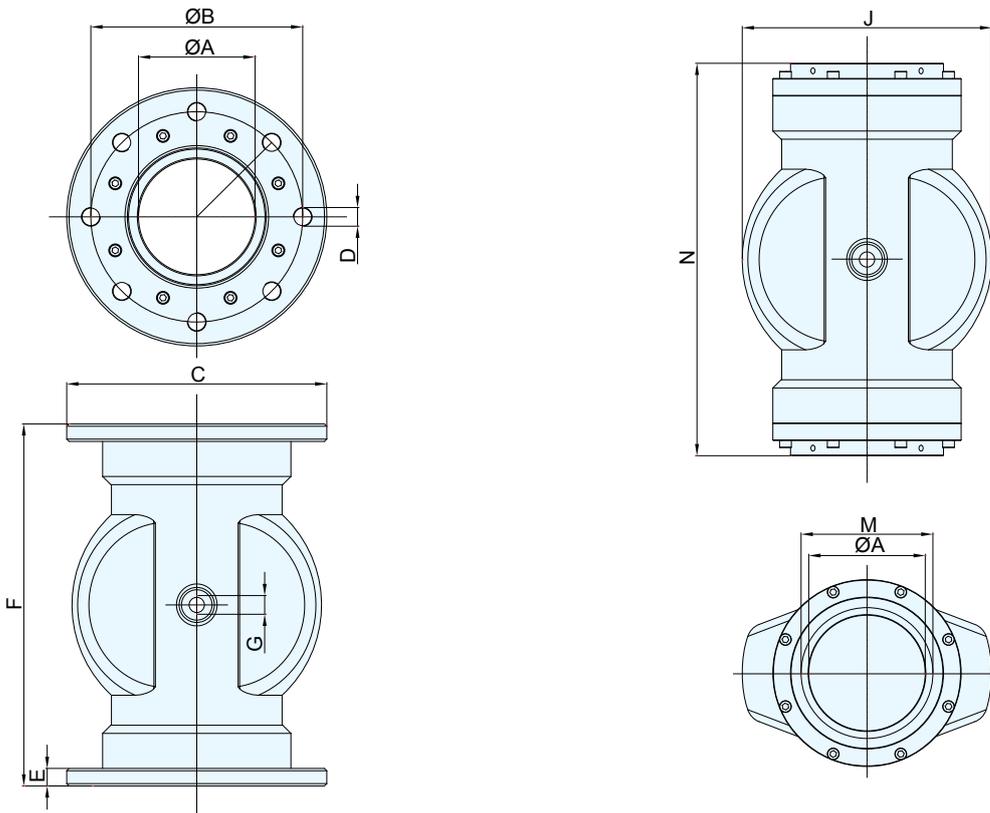
Pinch Valves VM / Pipe Connections KAT



Technical Features / Performance ▼

- ▶ Passage diameter 80mm or 100mm (3 or 4 in)
- ▶ Maximum working pressure: 3.5 bar (52 PSI)
- ▶ Maximum inflation pressure: 6.0 bar (90 PSI)
- ▶ Recommended maximum differential pressure: 2.5 bar (37 PSI)
- ▶ Sleeve material: NR
- ▶ Bush material: Aluminium alloy

Overall Dimensions ▼



| TYPE | A | B | C | D | | E | F | G | H | J | L | M | N | kg |
|--------|-----|-----|-----|---------------|------|----|-----|------|---|-----|---|----|-----|------|
| | | | | \varnothing | Qty. | | | | | | | | | |
| VM080 | 80 | 160 | 200 | M 16 | 4 | 15 | 270 | 1/4" | | 180 | | 3" | 294 | 5.40 |
| VM0100 | 100 | 180 | 220 | M 16 | 8 | 15 | 310 | 1/4" | | 214 | | 4" | 334 | 7.60 |

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

Concrete Production

External Electric Vibrators MVE

26



Description ▼

The range of "MVE" External Electric Motovibrators is the result of 50 years of experience in vibrating 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.

Function ▼

In Concrete Plants "MVE" External Electric Motovibrators are used for aiding aggregate flow from hoppers and silos, as well as microsilica from FIBC dischargers.



Application ▼

"MVE" External Electric Motovibrators are used in Concrete Batching Plants where flow aids are required.

Typical applications are as discharge aids for aggregates and subsequent cleaning of the aggregate hoppers and silos.

Fitted on the hopper of an SBB-type FIBC Discharger, the MVE Electric Motovibrator ensures complete emptying of the microsilica bulk bag.

Benefits ▼

- ✓ **Oversized SKF bearings;**
- ✓ **2-years-warranty including electric components;**
- ✓ **Ex-stock delivery;**
- ✓ **Certificates available: Ex/CE/ETL/GOST/Baseefa/IEC/IECEX.**



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Concrete Production

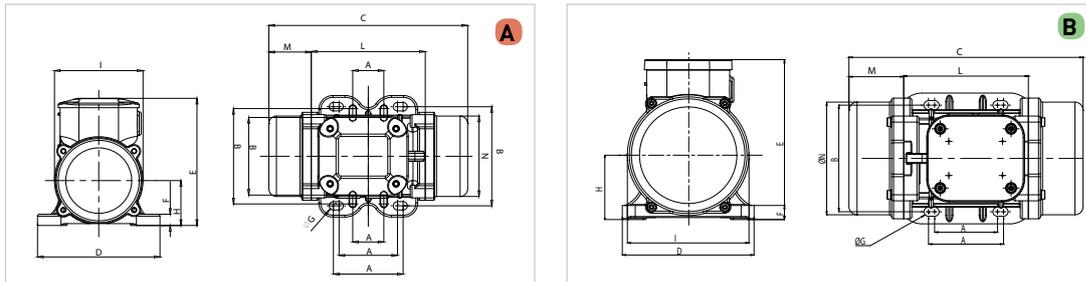
External Electric Vibrators MVE



Technical Features / Performance

- ▶ Aluminium casing up to size 50 (included), cast iron from size 60
- ▶ SKF bearings
- ▶ Operating temperature: -20° C to 40° C (-4° F to 104° F)
- ▶ Multiple voltages: 220-240/380-415 V, 50 Hz
- ▶ 750 - 1,000 - 1,500 - 3,000 R.P.M. (900 – 1,200 – 1,800 – 3,000 R.P.M.)
- ▶ Multiple fixing bores
- ▶ Motor protection: IP 66-NEMA 4
- ▶ Continuous duty: S1
- ▶ Insulation class: F
- ▶ Standard: ATEX Ex II 3D CERTIFIED
- ▶ Standard: ETL (UL-CSA) Class II Div.2
- ▶ ATEX Exe II 2 GD increased safety range available
- ▶ Explosion-proof range available

Overall Dimensions



| 3 Phase | | 1 Phase | | Overall dimension | | | | | | | | | | | | | | | | | | | | Weight | | | | | | | |
|----------------|-------------------|-----------------|---------|-------------------|------|--------|------|--------|-------|-----------|--------|-----------|------|--------|----------|------|--------|------|--------|------|--------|------|--------|--------|--------|------|--------|------|--------|-----|------|
| Type 50 / 60Hz | U.S. Market 60 Hz | Type 50 / 60 Hz | Drawing | Size | c | | m | | a | | b | | ø g | | N° Holes | d | | e | | f | | h | | i | | l | | n | | Kg | Lb |
| | | | | | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | (mm) | (inch) | | |
| 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 | A | 10 | 211 | 8.31 | 45 | 1.77 | 33 | 1.30 | 83-102 | 3.27-4.02 | 7 | 0.28 | 4 | 130 | 5.12 | 136 | 5.35 | 12 | 0.47 | 48 | 1.89 | 94 | 3.70 | 121 | 4.76 | 85 | 3.35 | 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 3 Phase Series

| 3 Phase | | Mechanical Features | | | | | | | | Electric Features | | | | | | | | | | | | | | |
|-----------------|-------------------|---------------------|------|-------|------|------|------|--------|--------|-------------------|-------|-----------|-------|--------------|------|-------|------|----------------|------|-------------|-------------|-------------|-----------------------------|-------------|
| | | Working moment [*] | | | | FC | | | | Power | | Current | | Power Factor | | Ia/In | | Class II Div.2 | | II 2D | | Cable Type | | Cable Gland |
| | | Kg*cm | | in*lb | | Kg | | Lb | | Kw | Hp | A max (V) | | | | | | Temp. Class | | Temp. Class | | Type | U.S. Market | |
| Type 50 / 60 Hz | U.S. Market 60 Hz | 50Hz | 60Hz | 50Hz | 60Hz | 50Hz | 60Hz | 50Hz | 60Hz | 50 hz | 60 hz | 50 hz | 60 hz | 400V | 460V | 50Hz | 60Hz | 50Hz | 60Hz | Temp. Class | Temp. Class | Class Temp. | Type: AWG (SOW) Class Temp. | Class Temp. |
| MVE 60/3 | MVE 160/2 | 1.3 | 0.9 | 1.1 | 0.9 | 66 | 71 | 145.5 | 156.5 | 0.08 | 0.09 | 0.11 | 0.12 | 0.16 | 0.18 | 0.74 | 0.82 | 3 | 3 | T4 | 100 | 4G1.5 | 18-4c | M16 |
| MVE 100/3 | MVE 220/2 | 1.9 | 1.3 | 1.7 | 1.1 | 98 | 95 | 216 | 209.4 | 0.1 | 0.11 | 0.13 | 0.15 | 0.19 | 0.18 | 0.76 | 0.85 | 3 | 3 | T4 | 100 | 4G1.5 | 18-4c | M16 |
| MVE 200/3 | MVE 440/2 | 3.7 | 2.6 | 3.2 | 2.3 | 187 | 189 | 412.3 | 416.7 | 0.18 | 0.21 | 0.24 | 0.28 | 0.35 | 0.35 | 0.78 | 0.87 | 3.3 | 3.30 | T4 | 100 | 4G1.5 | 18-4c | M16 |
| MVE 202/3 | MVE 444/2 | 3.7 | 2.6 | 3.2 | 2.3 | 187 | 189 | 412.3 | 416.7 | 0.18 | 0.21 | 0.24 | 0.28 | 0.35 | 0.35 | 0.78 | 0.87 | 3.3 | 3.30 | T4 | 100 | 4G1.5 | 18-4c | M16 |
| MVE 300/3 | MVE 690/2 | 6.4 | 4.5 | 5.5 | 3.9 | 321 | 323 | 708 | 712.1 | 0.27 | 0.28 | 0.36 | 0.38 | 0.52 | 0.45 | 0.84 | 0.89 | 3.60 | 3.50 | T4 | 100 | 4G2.5 | 16-4c | M20 |
| MVE 400/3 | MVE 890/2 | 7.9 | 5.7 | 6.9 | 4.9 | 407 | 411 | 897 | 906.1 | 0.30 | 0.36 | 0.40 | 0.48 | 0.58 | 0.60 | 0.88 | 0.88 | 3.50 | 3.50 | T4 | 100 | 4G2.5 | 16-4c | M20 |
| MVE 500/3 | MVE 1200/2 | 10.3 | 7.4 | 8.9 | 6.4 | 530 | 534 | 1168.4 | 1177.3 | 0.50 | 0.58 | 0.67 | 0.78 | 0.96 | 0.97 | 0.84 | 0.87 | 4.00 | 4.20 | T4 | 100 | 4G2.5 | 16-4c | M20 |
| MVE 700/3 | MVE 1700/2 | 14.9 | 10.6 | 12.9 | 9.2 | 758 | 765 | 1671.1 | 1686.5 | 0.66 | 0.75 | 0.89 | 1.01 | 1.25 | 1.24 | 0.83 | 0.88 | 4.30 | 5.00 | T4 | 100 | 4G2.5 | 16-4c | M20 |
| MVE 800/3 | MVE 1800/2 | 15.7 | 11.1 | 13.6 | 9.6 | 794 | 800 | 1750.5 | 1763.7 | 0.75 | 0.90 | 1.01 | 1.21 | 1.45 | 1.50 | 0.79 | 0.84 | 3.80 | 3.80 | T4 | 100 | 4G2.5 | 16-4c | M20 |

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



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Concrete Production

MATRSHOCK Pneumatic Hammers PS



27



Description ▼

MATRSHOCK Intermittent Electropneumatic 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.

MATRSHOCK Hammers are suitable for loosening of adhesive material crusts on walls, pipes and bins, and as bridge breakers in silos. The blow impulse leads to the complete detachment of the crusts or the collapse of a material bridge.

MATRSHOCK 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 ▼

The MATRSHOCK Pneumatic Hammer blows produce a violent impact on the wall on which the unit is fitted. MATRSHOCK is suitable for all bin or hopper shapes and sizes.



Application ▼

In concrete batching plants PS-type MATRSHOCK is mainly used for cleaning the weigh hoppers while emptying into the mixer.

Benefits ▼

- ✓ **No damage to the hopper structure;**
- ✓ **Low noise impact (with noise-abating accessories);**
- ✓ **Durable;**
- ✓ **Maintenance-friendly;**
- ✓ **Lubrication-free.**

Concrete Production

MATRSHOCK Pneumatic Hammers PS

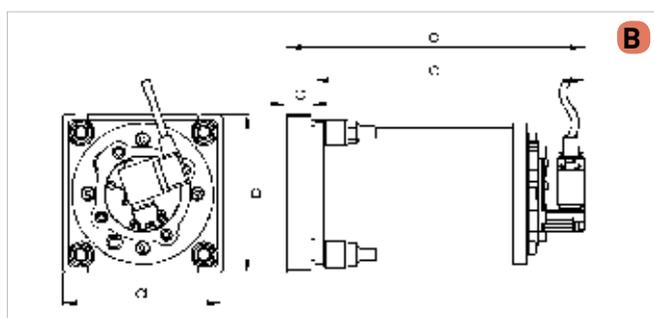
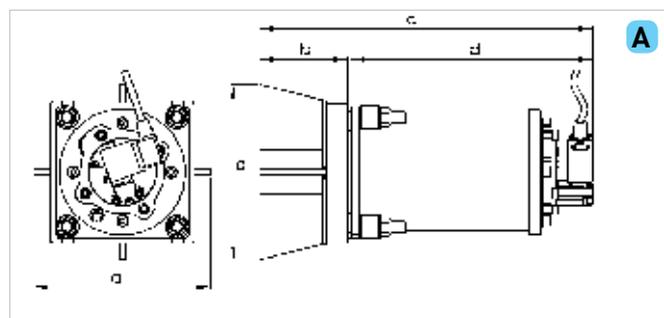


Technical Features / Performance ▼

- ▶ Galvanised steel body
- ▶ Weld-on steel plate included (2 types with different thickness)
- ▶ 4 vibration dampers
- ▶ PVC gasket between weld-on plate and body
- ▶ Safety chain fixed on hopper (for assembly and dismantling)
- ▶ Air inlet (PS40: 1/8"; PS63: 1/4")
- ▶ Electro-pneumatic kit
- ▶ Operating temperature: -20°C to 80°C (-4°F to 180°F)
- ▶ Operating pressure: 3 to 6 bar (44 to 88 PSI)
- ▶ Accessories:
 - IP 65 coils
 - Noise abating components
 - Control panel for adjustment of operation/pause intervals
- ▶ Extension with 2 or 4 outputs

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 | | i Ø Pipe | Air Nipple |
| | J | N | J | N | NL | | mm | Inch GAS |
| | 3 bar | | 6 bar | | 3 bar | 6 bar | | |
| 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 |

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Concrete Production

Aeration Pads I100

28/A



Description ▼

Due to the semi-convex shape of the durable polymer I100 Aeration Pads, air is given off at a wide emission angle across the entire white surface.

Function ▼

Fluidisation or aeration equipment is used as a preventive measure. A variety of materials will show perfect mass flow as soon as a certain amount of air is added at regular intervals during discharging of the bin or silo. With I100 Aeration Pads the action is gentle (operating pressure of the pad = 0.2 bar). The air-enriched material gains the desired flowability. At the same time, possible tendencies of the product to bridge, rat-hole, go lumpy, or deposit are prevented. Long-term field experience with I100 Aeration Pads performing with partial pulse jet fluidisation (Pulse-Jet and Felder System) have shown that virtually all dust generating materials can be successfully fluidised.



Application ▼

In a single row installation, I100 Aeration Pads are widely used for materials like cement. More sophisticated applications with alternately fed multiple rows are for example designed for lime in storage and dosing plants where fluidisation is used not only during discharging of the silo but also to keep the material in motion during longer storage periods.

Benefits ▼

- ✓ **Durable;**
- ✓ **Easy to install;**
- ✓ **Maintenance-free.**



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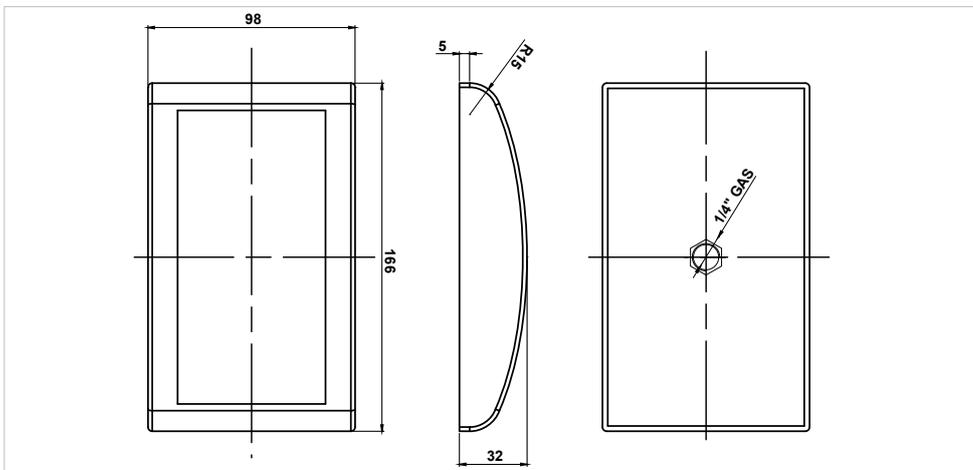
Aeration Pads I100



Technical Features / Performance ▼

- ▶ Operating pressure: 0.2 bar (3 PSI)
- ▶ Air consumption: 0.12 m³/h (0.07 cfm) at 0.2 bar (2.9 PSI) in continuous duty
- ▶ Weight including cardboard box packing: 250 g (0.55 lbs)
- ▶ Suitable for cement, lime and similar powdery materials

Overall Dimensions ▼



| I100 | Air consumption | |
|------|-------------------|------|
| | 0.2 bar (2.9 psi) | |
| | l/min | Cfm |
| | 2 | 0.07 |

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Concrete Production

Vibrating Bin Aerators VBS-Type

28/B



PATENTED



Description ▼

Vibrating Bin Aerator types VBS combine product aeration under operating pressure reaching 4 bar (58 PSI) with an additional slight vibration on the silo wall. Due to their 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 0.8 to 4 bar (12-58 PSI), no material can enter the zone beneath the elastic lip. VBS-type Vibrating Bin Aerators are used for the improvement of mass flow with powders and granular materials.

VBS can be used with compressed air or, in some cases, inert gases such as CO₂ as a preventive measure.



Function ▼

Compressed air is introduced into the stored material through the silicon lip which adheres to the inside silo wall. By varying the work pressure within a range between 0.8 and 4 bar (12 to 58 PSI) the intensity of vibration of the elastic silicon lip can be changed. Due to interval operation and a maximum operation time of five seconds air consumption is very low. TRAMONTANA™ disc: the Venturi style disc cavity of the VBS boosts air flow in the direction of the discharge point reducing load-out time and air consumption.

Application ▼

VBS Vibrating Bin Aerators are used in all types of powder processing plants where flow aids are required.

Typical application is fluidisation of filler dust and additives in storage silos and hoppers. They are fitted on storage silos or weigh or feed hoppers, as well as fluidisers for dry bulk trailers.

Benefits ▼

- ✓ **2 combined effects: vibration and aeration;**
- ✓ **No damage to the structure of the bin;**
- ✓ **Suitable for powdery or granular materials (non hygroscopic);**
- ✓ **Self-cleaning;**
- ✓ **Abrasion-resistant;**
- ✓ **Durable;**
- ✓ **Easy to fit;**
- ✓ **Maintenance-free;**
- ✓ **Suitable for external mounting.**



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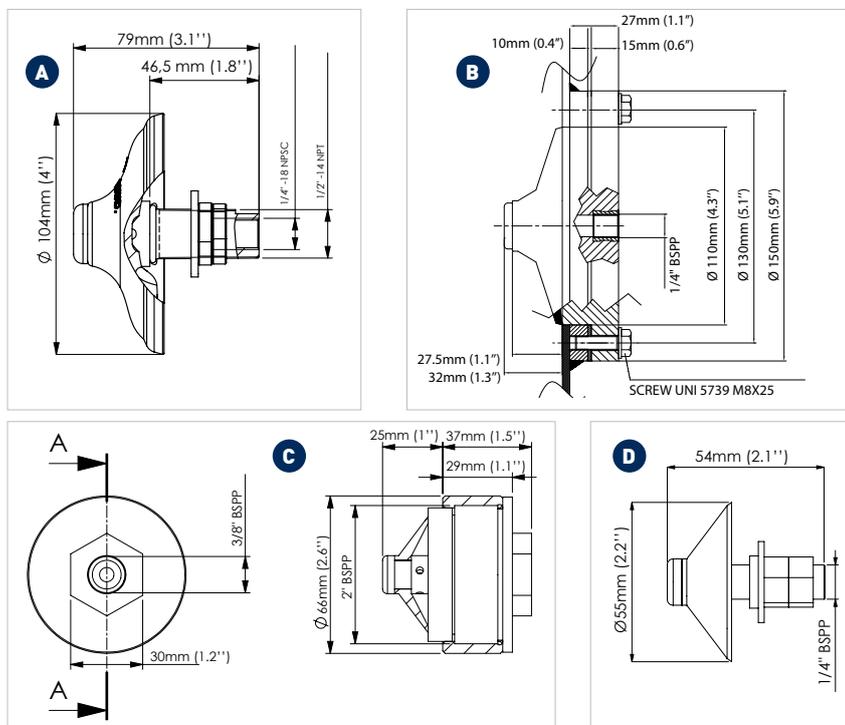
Vibrating Bin Aerators VBS-Type



Technical Features / Performance ▼

- ▶ Aluminum "anticorodal" shaft (stainless steel on request – VBI-Type)
- ▶ Vibrating silicon membrane
- ▶ Continuous or discontinuous duty cycle
- ▶ Work temperature: -40° ~ 235°C (-40° F ~ 455° F)
- ▶ Work pressure: 0.8 ~ 4 bar (12 ~ 58 psi)

Overall Dimensions ▼



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| PRODUCT | DRAWING | MEMBRANE COLOUR | STEM MATERIAL | Air consumption | | | | | | Working temperature | | | |
|---------|---------|-----------------|-----------------|--------------------|-----|----------------|-----|----------------|-----|---------------------|------|------|------|
| | | | | 0.8 bar (11.6 psi) | | 2 bar (29 psi) | | 4 bar (58 psi) | | °C | | °F | |
| | | | | l/min | Cfm | l/min | Cfm | l/min | Cfm | Min. | Max. | Min. | Max. |
| VBS | A | White | Aluminium | 600 | 20 | 800 | 28 | 1150 | 40 | -40 | 170 | -40 | 338 |
| VBSI | A | White | Stainless steel | 600 | 20 | 800 | 28 | 1150 | 40 | -40 | 170 | -40 | 338 |
| VBE | B | White | Nylon | - | - | - | - | 1150 | 40 | -40 | 80 | -40 | 176 |
| VBSME | C | White | Nylon | 100 | 3.5 | 150 | 5 | - | - | -40 | 80 | -40 | 176 |
| VBSM | D | White | Aluminium | 100 | 3.5 | 150 | 5 | - | - | -40 | 170 | -40 | 338 |
| VBSMI | D | White | Stainless steel | 100 | 3.5 | 150 | 5 | - | - | -40 | 170 | -40 | 338 |



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



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Concrete Production

CONSEP® Concrete Reclaimers

29 30



Description ▼

The new CONSEP® 5000 is an innovative Concrete Reclaimer used in ready-mixed concrete batching plants for reclaiming concrete washed out from truck mixers, as well as in pre-cast concrete batching plants for the recovery of concrete from the mixer and the moulds.

Function ▼

The CONSEP® 5000 allows the recovery of the residual concrete and wash water from truck mixers or concrete pumps making it possible for concrete manufacturers to comply with environmental standards with special reference to the environmental impact, prevention of contamination and recirculation of waste water and aggregates in concrete plants. The different CONSEP® 5000 configurations enable unloading up to 4 vehicles at a time with a recycling capacity of up to 20m³/h. The excellent solids-liquid separation and washing of aggregates, as well as large-capacity settling and extracting of fines with a particle size of down to 0.2mm, position CONSEP® as a top performing machine in this sector.



Application ▼

The CONSEP® 5000 offers the best price-performance ratio for high efficiency reclaiming of aggregates washed out from truck mixers or concrete pumps returning from job sites.

Benefits ▼

- ✓ Innovative modular SINT® engineering polymer components;
- ✓ Energy saving thanks to reduced running time;
- ✓ Low consumption of wash water;
- ✓ Easy and quick maintenance thanks to modular components;
- ✓ Non-stick SINT® abrasion resistant engineering polymer components;
- ✓ Total feed control on discharging vehicles.



Concrete Production

CONSEP® Concrete Reclaimers



Further Benefits ▼

- ✓ Perfect aggregate washing;
- ✓ High efficiency in solids-liquid separation due to large water volume in version with screw feeder;
- ✓ Different configurations satisfy various needs: CONSEP® 5000 with or without screw feeder;
- ✓ High resistance to corrosion of all fabricated parts.



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



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PATENT PENDING

Concrete Production

Polymer Pressure Relief Valve VHS-C



Description ▼

VHS Pressure Relief Valves consist of a cylindrically shaped 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.

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 operation mode, it must be efficient and reliable if needed.



Spring-loaded pressure relief valve releasing excess pressure



VHS Pressure Relief Valve releasing excess pressure

Benefits ▼

- ✓ **Compliance with existing regulations;**
- ✓ **Safety for people, plant and environment;**
- ✓ **Maximum efficiency and minimum operating costs;**
- ✓ **Quick and easy maintenance;**
- ✓ **Easy handling thanks to lightweight design;**
- ✓ **Attractive price.**



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PATENT PENDING

Concrete Production

Polymer Pressure Relief Valve VHS-C



DS.110.VHS-C.EN_May 2012.R00
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Technical Features / Performance ▼

- ✓ Body diameter 273mm (10 in)
- ✓ Exhaust outlet spout for connection with centralised suction system
- ✓ Preset for maximum negative pressure of - 0.005 bar (0.07 psi) and maximum excess pressure of + 0.05 bar (0.72 psi)
- ✓ Equipped for inductive signalling sensors
- ✓ Easy part replacement
- ✓ Lightweight
- ✓ Conveyed emissions
- ✓ Counterweight system never in contact with dust
- ✓ Body and cover made of engineering polymer
- ✓ Special properties of diaphragm and elbow prevent clogging, as well as formation of material crusts



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