

DryMix Processing

Heavy-Duty Tubular Screw Feeders TP-TE



1



Description ▼

TP and TE Tubular 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 ▼

TP / TE Tubular Screw Conveyors are used for both batch and continuous operation in applications where durability and easy replacement of those conveyor components that are subject to wear are among the main requirements.



Application ▼

TP and TE screw conveyors are the perfect solution to:

- Transfer sand from screens to storage silos;
- Feed sand and other additives from silos to the weigh hopper
- Feed and transfer drymix material from the mixer to the storage or dosing system

Benefits ▼

- ✓ **Modular design offers a great variety of options suitable for numerous applications;**
- ✓ **High manufacturing reliability and less maintenance frequency;**
- ✓ **High feeding accuracy;**
- ✓ **Easy maintenance**
- ✓ **Durable components for abrasive materials.**

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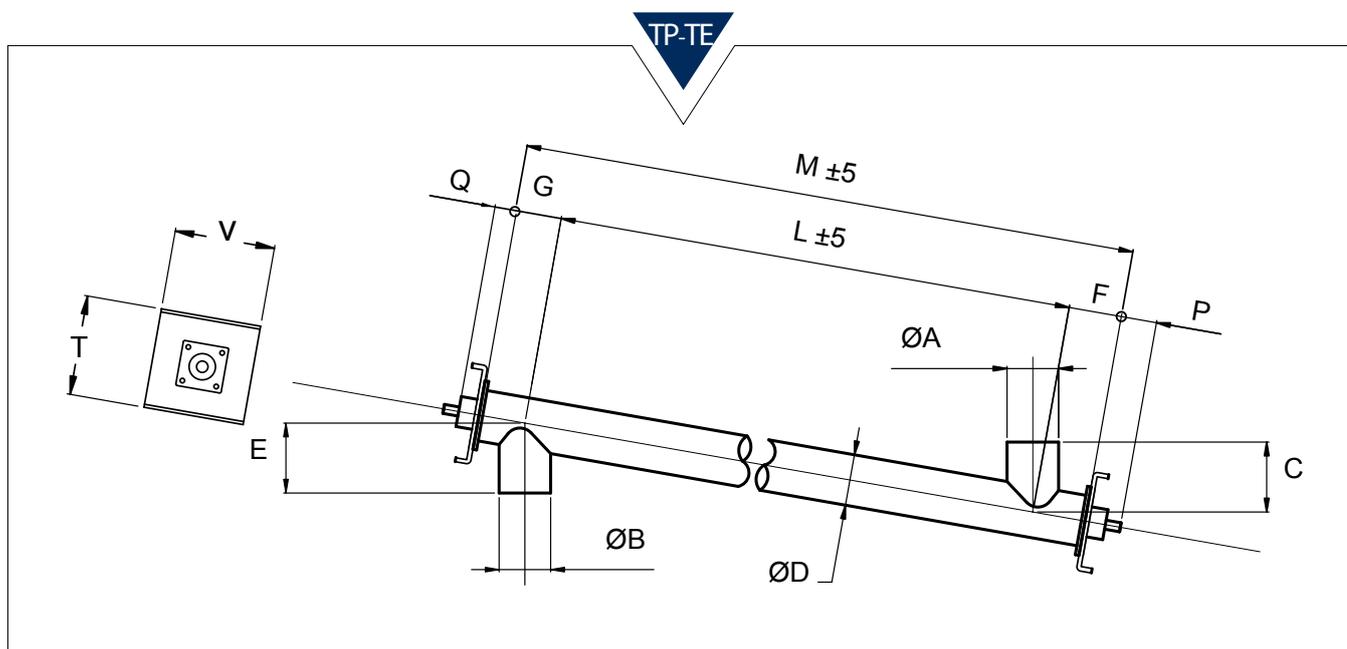
Heavy-Duty Tubular Screw Feeders TP-TE



Technical Features / Performance ▼

- ▶ Outside Tube Ø: from 114 to 558 mm
- ▶ Flight in wear-resistant material and increased thickness
- ▶ Robust mechanical components
- ▶ Shoe inlet spouts
- ▶ Square, tapered or cylindrical inlet
- ▶ Optimised feed rates

Overall Dimensions ▼



| TYPE | 114 (*) mm | 139 (*) mm | 168 (*) mm | 219 mm | 273 mm | 323 mm | 406 mm | 457 mm | 558 mm | 660 mm |
|------|-------------------------|---------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| OA | 114 | 139 | 168 | 219 | 273 | 323 | 406 | 457 | 558 | 660 |
| OB | 114 | 139 | 168 | 219 | 273 | 323 | 406 | 457 | 558 | 660 |
| C | see technical catalogue | | | | | | | | | |
| OD | 114 | 139 | 168 | 219 | 273 | 323 | 406 | 457 | 558 | 660 |
| E | see technical catalogue | | | | | | | | | |
| F | 140 | 140 | 160 | 180 | 220 | 220 | 270 | 280 | 340 | 430 |
| G | 120 | 120 | 140 | 160 | 180 | 220 | 280 | 320 | 360 | 450 |
| L | see technical catalogue | | | | | | | | | |
| M | L + F + G | | | | | | | | | |
| P | 156 | 156 | 182 | 182 | 225 | 233 | 233 | 267 | 310 | 310 |
| Q | 114 | 114 | 124 | 124 | 143 | 151 | 151 | 162 | 180 | 180 |
| T | 280 | 280 | 280 | 355 | 410 | 465 | 535 | 590 | 740 | 900 |
| V | 265 | 265 | 265 | 315 | 365 | 435 | 485 | 540 | 655 | 755 |

(*) Available only as TP version

Dimensions in mm

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

DryMix Processing

Bucket Elevators EIS



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Description ▼

EIS-type Bucket Elevators are specialised for vertical elevation of dry sand and fine aggregates in dry premixed building material processing plants.

Function ▼

The machine consists of a head section with rubber-coated pulley, a foot section with squirrel-cage pulley and a variable number of intermediate sections. Buckets are available in reinforced mild steel or increased thickness Nylon PA6 to ensure high durability against abrasive materials handled.



Application ▼

EIS Bucket Elevators are used for dry sand and fine aggregates having bulk density ranging from 0.8 to 2.5 kg/dm³, and particle size of up to 5mm.

The material, entering through the loading hopper of the foot section, is continuously picked by appropriately shaped buckets fixed on the rubber belt, which is rotating around head and foot roller wheels.

A screw tensioning system enables tensioning of the rubber belt.

The buckets discharge the material through the outlet spout by centrifugal force at a constant speed of 1.5 m/s.

EIS Bucket Elevators are used in dry premixed building material processing plants to fill dry sand and fine aggregates into vertical storage silos.

Benefits ▼

- ✓ **Reliable & durable;**
- ✓ **Easy installation thanks to modular components;**
- ✓ **Low maintenance;**
- ✓ **Small footprint;**
- ✓ **Matching complementary equipment.**

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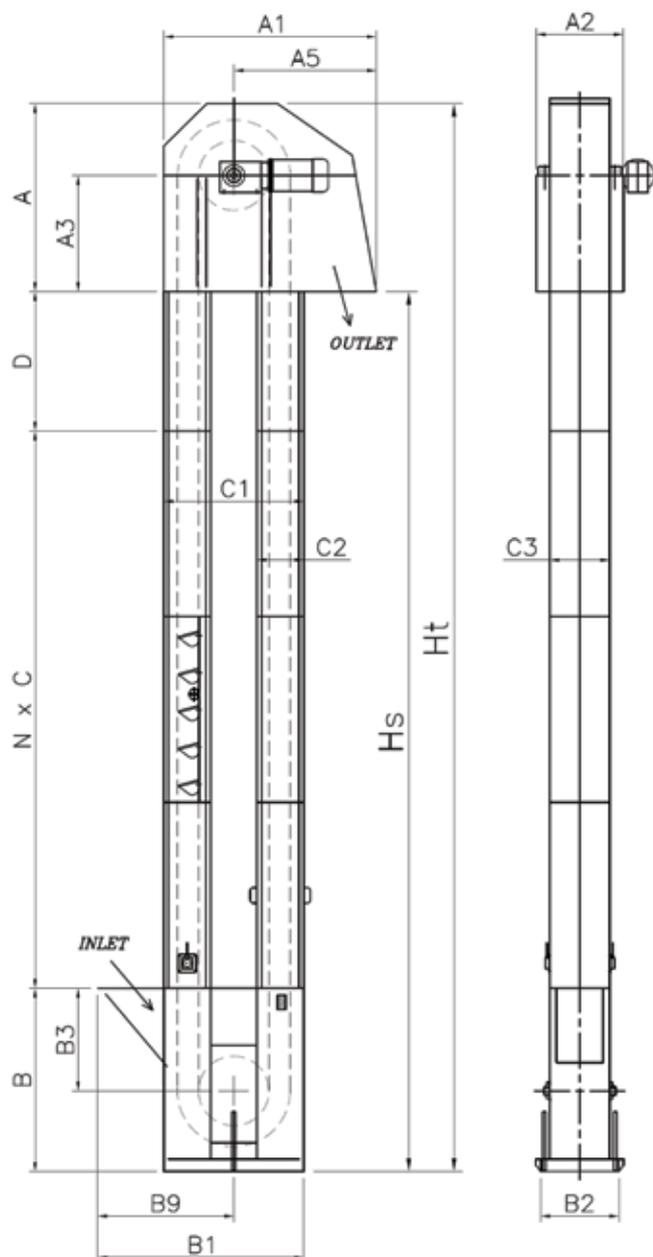
Bucket Elevators EIS



Technical Features / Performance ▼

- ▶ Throughput rates up to 52 m³/h
- ▶ Discharge heights up to 34m
- ▶ Anti-wear shields on inlet and outlet
- ▶ Plummer-block bearing with packing on head shaft
- ▶ Flanged-block bearing with felt on foot shaft

Overall Dimensions ▼



| Rif | 08-09 | 11 | 20-21 | 29-30 |
|-----|-----------|-------|-------|-------|
| | mm | mm | mm | mm |
| A | 765 | 950 | 1,172 | 1,276 |
| A1 | 823 | 1,026 | 1,224 | 1,422 |
| A2 | 345 | 410 | 460 | 620 |
| A3 | 460 | 580 | 700 | 740 |
| A5 | 548 | 687 | 812 | 961 |
| B | 753 | 923 | 1,104 | 1,320 |
| B1 | 814 | 941 | 1,136 | 1,352 |
| B2 | 310 | 384 | 432 | 490 |
| B3 | 370 | 430 | 550 | 720 |
| B9 | 539 | 604 | 725 | 891 |
| C | 2,000 | 2,000 | 2,000 | 2,000 |
| C1 | 550 | 674 | 822 | 922 |
| C2 | 211 | 230 | 264 | 336 |
| C3 | 211 | 250 | 300 | 386 |
| D | 500-1,500 | | | |
| N | variable | | | |

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

DryMix Processing

SILOTOP® R03 Silo Venting Filters



4



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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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 |

D.S. 120-SILOTOP®EN, April 2014, 6/00 Rights reserved to modify technical specifications.



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



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DryMix Processing

WAMFLO® FNM4J16

Silo Venting Filters

4



Description ▼

WAMFLO® FNM4J16 Dust Collectors have been specifically developed for venting pneumatically loaded silos. WAMFLO® FNM4J16 is equipped with a round stainless steel body (diameter 1,000mm) that contains vertically mounted round bag-type filter elements with polyester felt filter media. To keep the filter media clean an air jet cleaning system is integrated in the 304 stainless steel top cover.

Function ▼

WAMFLO® FNM4J16 Dust Collectors are used for both venting and suction applications. Dust separated from the air flow by the round bags drops back into the silo, after an integrated automatic reverse air jet cleaning system has removed it from the filter elements.



Application ▼

WAMFLO® FNM4J16 Dust Collectors are mainly used for venting of silos. The total filter surface amounts to 16 m².

Benefits ▼

- ✓ **Compliance with health and safety standards;**
- ✓ **Dust emission < 10 mg/Nm³;**
- ✓ **Air volume 1,800 m³/h;**
- ✓ **Real filter surface 16 m²;**
- ✓ **Round bags available on after-market;**
- ✓ **Easy maintenance thanks to filter elements manually removable without tools;**
- ✓ **Durable thanks to stainless steel design and high quality filter media;**
- ✓ **Easy maintenance thanks to cleaning system integrated in weather protection cover.**

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WAMFLO® FNM4J16

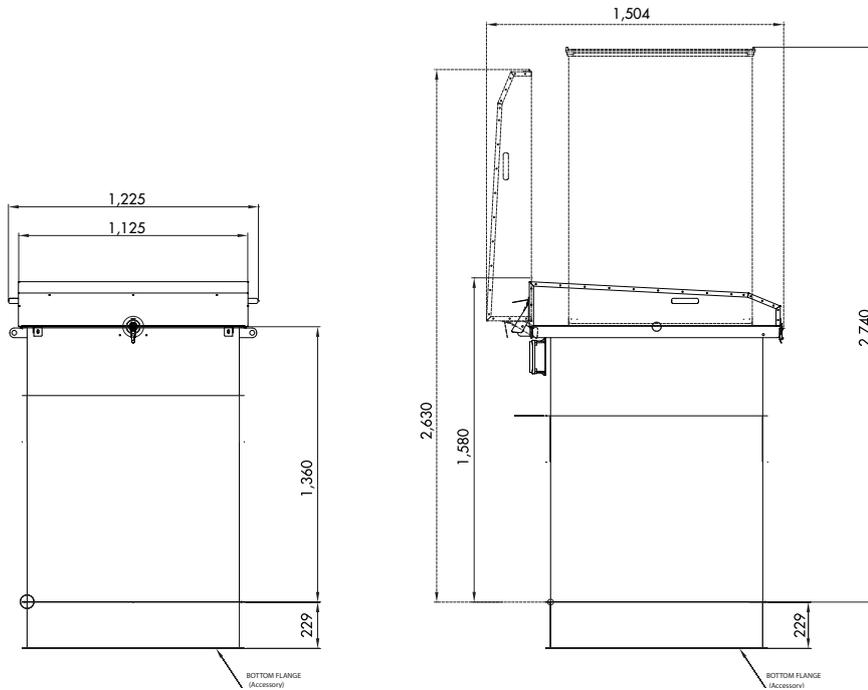
Silo Venting Filters



Technical Features / Performance ▼

- ▶ 304 SS flanged cylindrical body (Ø 1,000mm)
- ▶ Filter surface 16m² (more on request)
- ▶ Low emission level due to B.I.A. certified filter media
- ▶ Compressed air-jet cleaning system integrated in top cover
- ▶ Air volume: max 1,800 m³/h
- ▶ High cleaning efficiency due to "Full Immersion" solenoid valves integrated in aluminium air tank (corrosion-resistant) ensuring low-maintenance operation
- ▶ No tools for filtering element removal required

Overall Dimensions ▼



| FILTER CODE | FILTER SURFACE (m ²) | Ø L | A | B | C |
|-------------|----------------------------------|-------|-------|-------|-------|
| FNM4J16 | 16 | 1,038 | 1,692 | 2,351 | 1,859 |
| FNB4J21 | 21 | 1,038 | 1,580 | 1,225 | 2,339 |

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

DryMix Processing

WAMFLO® Front Dust Collectors



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Description ▼

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

Function ▼

WAMFLO® Front 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® Front Dust Collectors are mainly used for venting of mixer for finished products 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 both OEM and End User.

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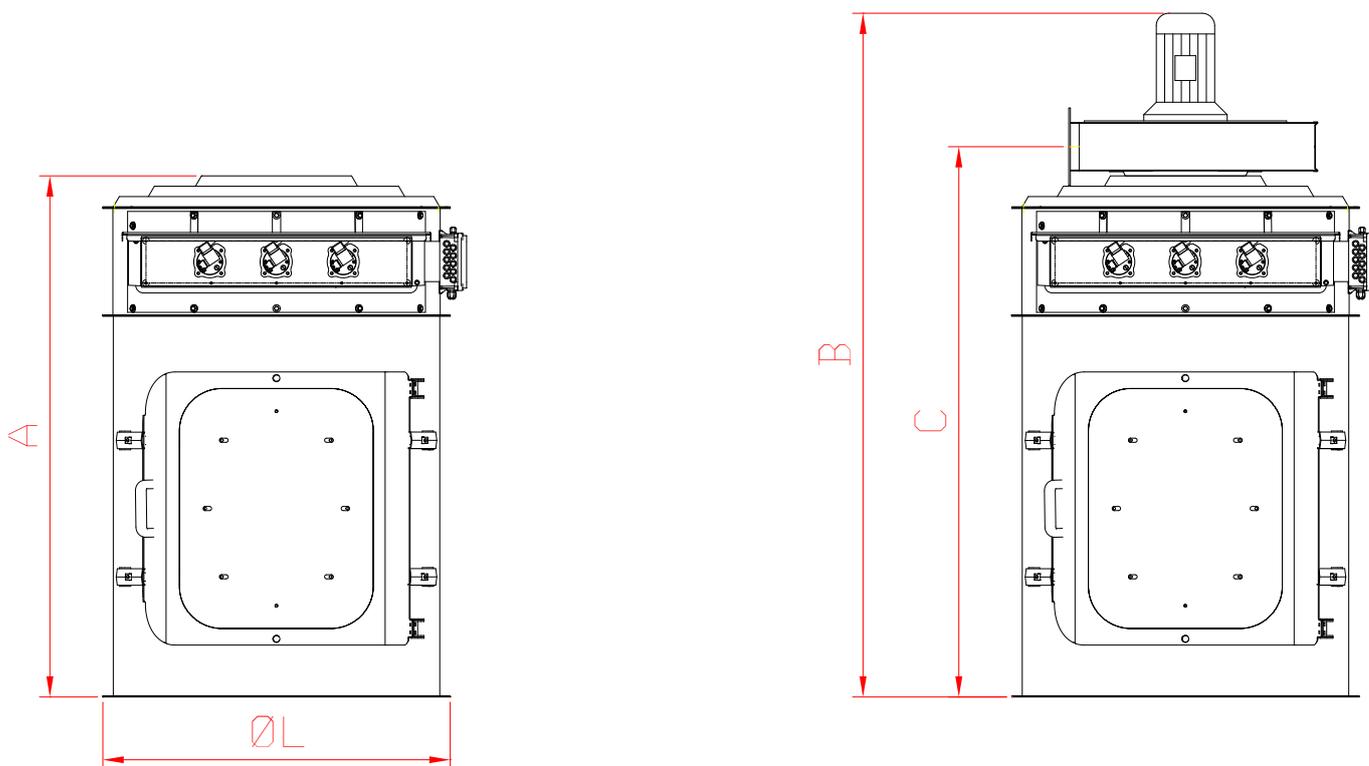
WAMFLO® Front Dust Collectors



Technical Features / Performance ▼

- ▶ 304 SS flanged cylindrical body
- ▶ Filter surface from 5 to 21m² (54 to 226 sq ft)
- ▶ Low emission level due to B.I.A.-certified filter media
- ▶ Compressed air-jet cleaning system integrated in top cover
- ▶ High efficiency centrifugal fan
- ▶ High cleaning efficiency due to "Full Immersion" solenoid valves integrated inside aluminium air tank (corrosion-resistant) for low-maintenance operation
- ▶ No tools for filtering element removal required
- ▶ Large access door for comfortable filter element removal

Overall Dimensions ▼



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| FILTER CODE | FILTER SURFACE (m ²) | Ø L | A | B | C |
|-------------|----------------------------------|-------|-------|-------|-------|
| FNB2J05 | 5 | 603 | 1,666 | 2,221 | 1,809 |
| FNB3J08 | 8 | 783 | 1,676 | 2,326 | 1,839 |
| FNB3J11 | 11 | 783 | 2,156 | 2,806 | 2,319 |
| FNB4J16 | 16 | 1,038 | 1,692 | 2,351 | 1,859 |
| FNB4J21 | 21 | 1,038 | 2,172 | 2,831 | 2,339 |

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DryMix Processing

WAMAIR® Dust Collectors FP-120



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Description ▼

WAMAIR® FP 120 Dust Collectors consist of a polygonal shape casing, specifically developed for de-dusting mechanical conveyors in Dry-Mix Processing Plants. The filter is equipped with horizontally inserted pocket filter elements and a reverse air jet cleaning system integrated inside the hinged access door.

Function ▼

WAMAIR® Dust Collectors separate dust from the air flow by means of pocket filter elements. The dust drops down after an automatic reverse air jet cleaning device inside the front inspection door has removed it from the filter elements.



Application ▼

WAMAIR® FP 120 Dust Collectors are specially developed for de-dusting mechanical conveyors such as belt conveyors, chain conveyors and bucket elevators.

Benefits ▼

- ✓ Filter dimensions match conveyor shape;
- ✓ Compliance with health and safety standards;
- ✓ Filter elements available in after-market;
- ✓ Safety for both OEM and End User;
- ✓ Running cost reduction;
- ✓ Low energy consumption;
- ✓ Maintenance cost reduction.

DryMix Processing

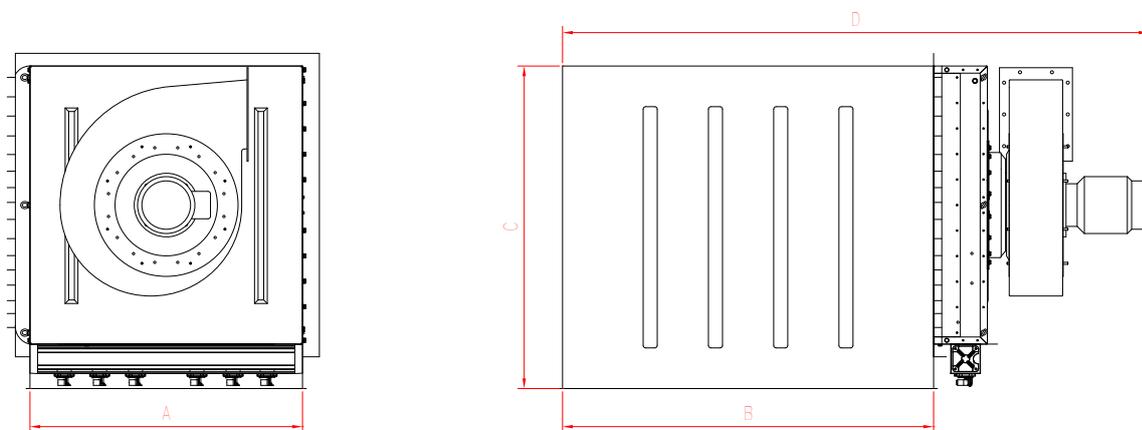
WAMAIR® Dust Collectors FP-120



Technical Features / Performance ▼

- ▶ 304 SS polygonal body
- ▶ Filter surface from 3 to 54m² (32 to 581 sq ft)
- ▶ Low emission level due to B.I.A.-certified filter media
- ▶ Large access door for comfortable filter element removal
- ▶ High cleaning efficiency due to "Full Immersion" solenoid valves integrated in aluminium air tank (corrosion-resistant) for low-maintenance operation
- ▶ High efficiency centrifugal fan
- ▶ Fan integrated in access door

Overall Dimensions ▼



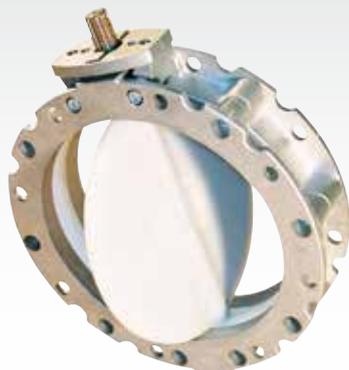
| FILTER CODE | FILTER SURFACE (m ²) | A | B | C | D |
|-------------|----------------------------------|-------|-------|-------|-------|
| FPHT 1 03 | 3 | 570 | 700 | 825 | 1,570 |
| FPHT 2 05 | 5 | 570 | 950 | 825 | 1,820 |
| FPHT 5 09 | 9 | 570 | 1,700 | 825 | 2,570 |
| FPHT D 12 | 12 | 570 | 1,200 | 1,320 | 2,170 |
| FPHT E 15 | 15 | 570 | 1,450 | 1,320 | 2,420 |
| FPHT F 18 | 18 | 570 | 1,700 | 1,320 | 2,670 |
| FPHT M 22 | 22 | 845 | 1,450 | 1,320 | 2,440 |
| FPHT R 24 | 24 | 1,065 | 1,200 | 1,320 | 2,190 |
| FPHT S 30 | 30 | 1,065 | 1,450 | 1,320 | 2,530 |
| FPHT T 36 | 36 | 1,065 | 1,700 | 1,320 | 2,813 |
| FPHT Y 45 | 45 | 1,065 | 1,450 | 1,815 | 2,563 |
| FPHT U 54 | 54 | 1,065 | 1,700 | 1,815 | 2,813 |

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DryMix Processing

Butterfly Valves V.FS

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Description ▼

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 ▼

V.FS Butterfly Valves are used where interception of gravity-fed or pneumatically conveyed dry materials is required. They are fitted beneath hoppers, bins, silos, or screw feeder 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;**
- ✓ **Quick fitting, retro-fitting or replacement;**
- ✓ **Excellent resistance to wear and abrasive powders;**
- ✓ **More durable thanks to special performance features.**

DryMix Processing

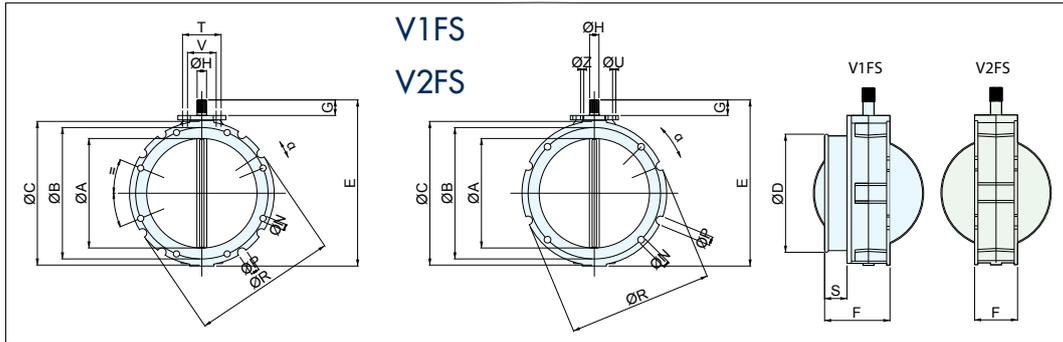
Butterfly Valves V.FS



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)
- ▶ Disc in cast iron or SNT®-coated
- ▶ Few components
- ▶ Easy part replacement

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 | kg |
|-----------|-----|-----|-----|-----|-----|-----|----|-----------------|---------------|-----------------------|-----|--------|----|----|-----|----|-----|------|
| 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 | kg |
|-----------|-----|-----|-----|-----|----|----|-----------------|---------------|-----------------------|-----|--------|----|-----|----|-----|------|
| 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

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

DryMix Processing

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 on hopper or silo outlets, on inlets or 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 special component geometry;**
- ✓ **Easy integration into the process and easy handling;**
- ✓ **ATEX certified on request;**
- ✓ **Time-saving maintenance thanks to interchangeable components;**
- ✓ **Optimized performance thanks to friction-free contact design (actuator torque is not wasted in order to win friction resistance).**

DryMix Processing

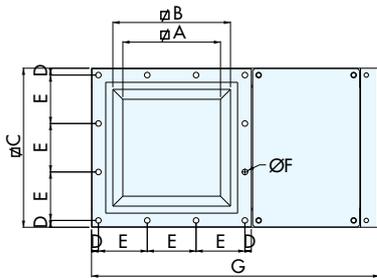
VL Slide Valves



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°)
- ▶ Carbon steel frame, SINT® polymer or carbon steel blade
- ▶ Absence of residue points
- ▶ Friction-free contact design
- ▶ Few components
- ▶ Easy part replacement
- ▶ Safe sealing with no additional measures due to the all-round dustproof seal lips incorporated in polymer coating

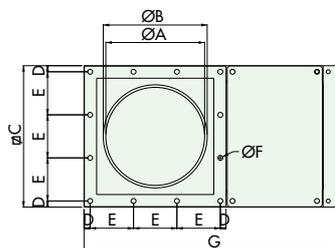
Overall Dimensions ▼



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 |

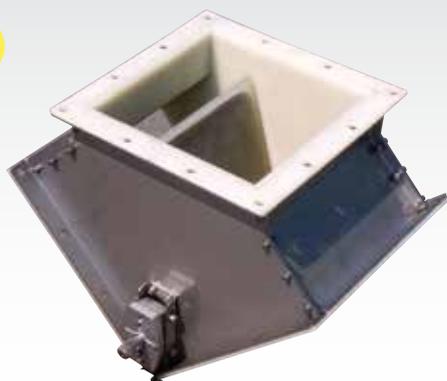
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DryMix Processing

Diverter Valves DVA

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Description ▼

DVA Diverter Valve consists of a casing in stainless steel lined with SINT® engineering polymer and a flap in SINT® engineering polymer with a steel core. The flap is activated by a manual lever, or by a pneumatic or electric actuator.

Function ▼

DVA is a Diverter Valve with one inlet and two outlets for the diversion of the flow of powdery or granular materials. Engineering materials used enable quick cleaning and maintenance apart from offering great resistance to abrasion.



Applications ▼

DVA Diverter Valves are used in all types of plants where diversion of gravity flow or of conveyed dry materials is required. DVA are also installed on top of bag or bulk bag packaging lines.

Benefits ▼

- ✓ **Contact between diverter flap and casing ensures dustproof sealing;**
- ✓ **Elastic outline of the SINT® flap ensures material transport without particle break-down, grinding or jamming;**
- ✓ **Use with different materials in the same configuration;**
- ✓ **Easy integration into process thanks to lightweight design and easy handling;**
- ✓ **Modular design and easy maintenance thanks to few components.**

DryMix Processing

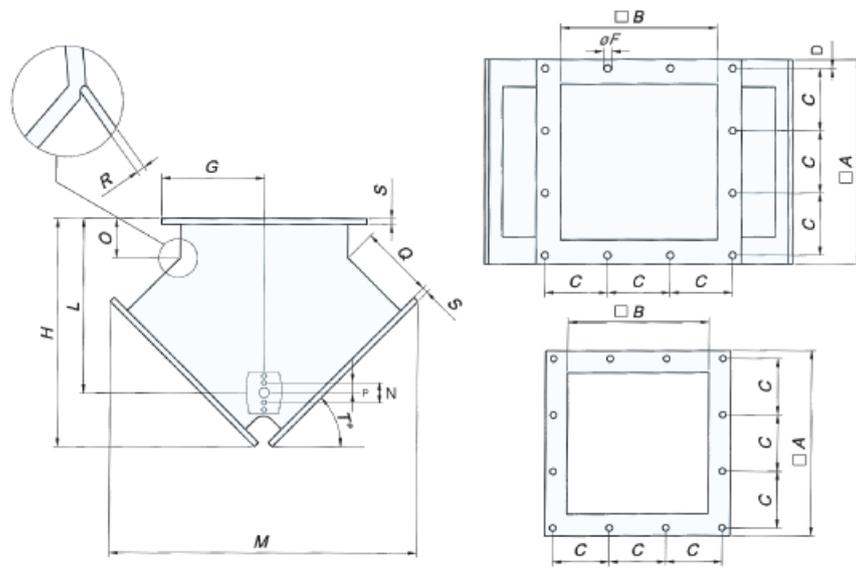
Diverter Valves DVA



Technical Features / Performance ▼

- ▶ Range from 150mm to 300mm (6 to 12 in)
- ▶ Dust-proof at max. temperature of 80° C (176° F)
- ▶ Sturdy 304 stainless steel casing completely lined with non-stick, wear-resistant SINT® engineering polymer
- ▶ Flexible casing and flap
- ▶ Easy part replacement

Overall Dimensions ▼



| TYPE | A | B | C | D | ØF | G | H | L | M | N | O | P | Q | R | S | T | kg |
|------|-----|-----|-------|----|------|-----|-----|-----|-----|----|----|----|-----|---|----|-----|----|
| 150 | 261 | 175 | 115 | 15 | 12.5 | 131 | 312 | 221 | 401 | 50 | 66 | 25 | 98 | 5 | 10 | 45° | 12 |
| 200 | 311 | 225 | 93.3 | 15 | 12.5 | 156 | 358 | 267 | 472 | 50 | 66 | 25 | 114 | 5 | 10 | 45° | 15 |
| 250 | 358 | 275 | 110 | 15 | 12.5 | 179 | 403 | 312 | 542 | 50 | 72 | 25 | 127 | 8 | 10 | 45° | 19 |
| 300 | 433 | 325 | 128.3 | 24 | 12.5 | 217 | 465 | 358 | 645 | 50 | 66 | 25 | 152 | 8 | 10 | 45° | 24 |

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



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DryMix Processing

FIBC Dischargers SBB

10



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 bulk 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.



Application ▼

SBB FIBC Dischargers are used to discharge additives contained in FIBCs to be transferred to a weigh hopper from where the material can be conveyed pneumatically or mechanically into the mixer.

Benefits ▼

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

DryMix Processing

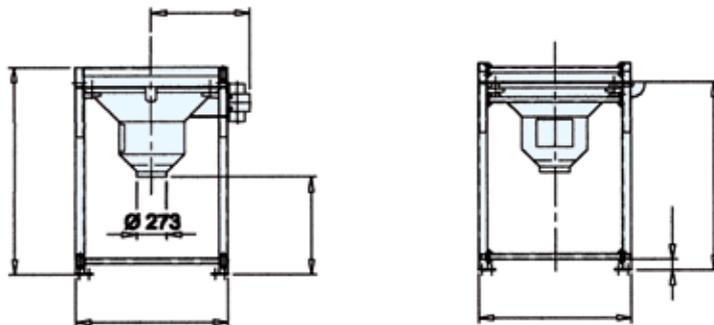
FIBC Dischargers SBB



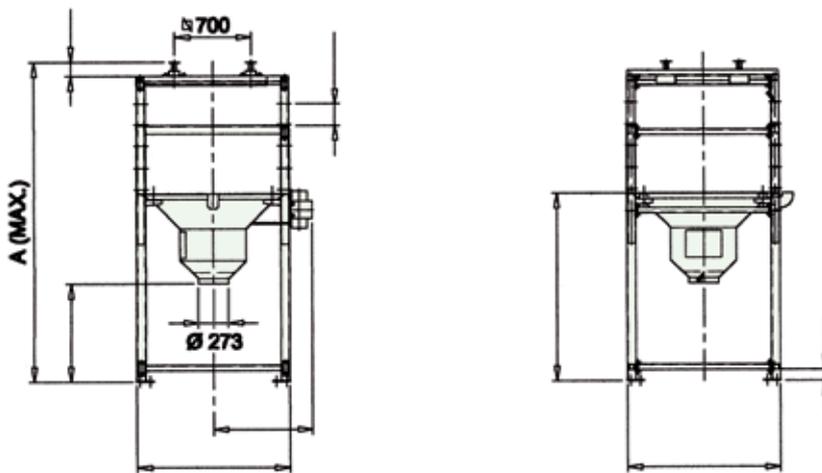
Technical Features / Performance ▼

- ▶ Construction material: mild steel
- ▶ 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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This datasheet might not show the complete range but only the models specialised for the application.

DryMix Processing

Manual Bag Openers RSM and RSMX

11



Description ▼

RSM Manual Bag Openers are manufactured from mild steel or stainless steel and consist of a grille with a rest fitted to their front. The grille is mounted on top of a hopper which is supported by four feet. A fabricated hood with protection door fitted to the front covers the hopper and grille. RSM Bag Openers are manufactured in high finishing-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.

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. They satisfy a large number of applications due to their modular component design.



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 normally conveyed pneumatically or mechanically into the mixer or silo.

Benefits ▼

- ✓ Residue-free internal design;
- ✓ Easy and quick access to all internal parts for cleaning;
- ✓ 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 sheet) low overall height;
- ✓ Attractive price-performance ratio.

DryMix Processing

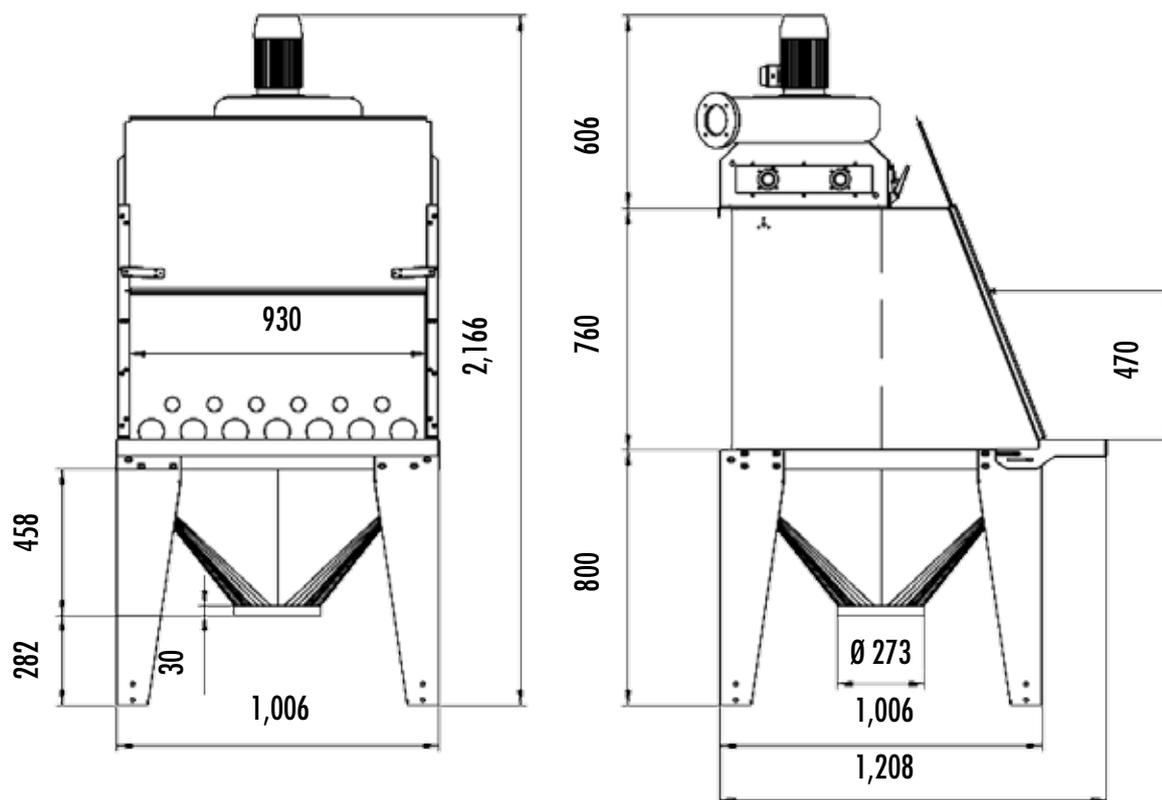
Manual Bag Openers RSM and RSMX



Technical Features / Performance ▼

- ▶ Material: mild steel or stainless steel
- ▶ Gas spring-supported residue-free access door on demand
- ▶ Available with de-dusting filter or equipped for centralised dust suction
- ▶ Filter element options: round or elliptical bags
- ▶ Filter surface from 3 to 22m² (32 sq ft)
- ▶ Collecting hoppers with different volume capacity
- ▶ Support feet with possibility of height adjustment

Overall Dimensions ▼



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

** Depending on the hopper model

Further outlet dimensions reported in Technical Catalogue

DryMix Processing

Bin Activator BA and BAEX



12



Description ▼

The BA Bin Activator is a device of conical shape that, due to vibration, facilitates material flow from hoppers or silos. It consists of a seamless carbon steel cone manufactured on a sheet metal lathe, a seamless SINT® 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 discharge. 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.

The use of this equipment ensures optimum feeding of the material causing "mass flow" inside the silo, thus avoiding bridging or rat holing phenomena.



Applications ▼

Discharging of a variety of powders

Usually fitted in large numbers under material storage silos or daily buffer silos/hoppers to discharge poorly flowing powders such as additives.

The Bin Activator outlet is usually shut off by a slide valve or butterfly valve which is connected with a mechanical feeding device or loading bellows.

Benefits ▼

- ✓ **High discharging performance;**
- ✓ **No waste material thanks to special seal design;**
- ✓ **Reduced maintenance thanks to long-life seal material.**

DryMix Processing

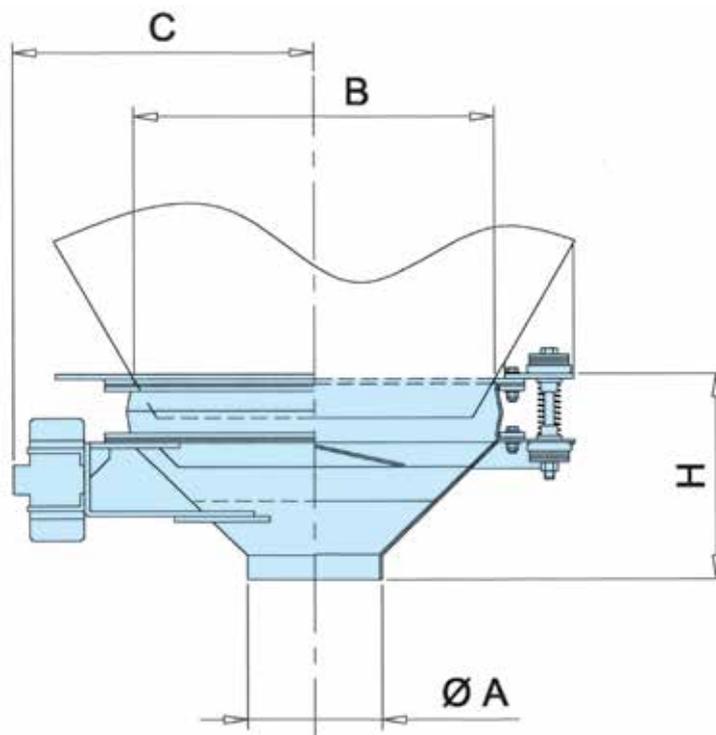
Bin Activator BA and BAEX



Technical Features / Performance ▼

- ▶ Diameters up to 3,000mm
- ▶ 304L SS available for additives
- ▶ Strong seamless seal
- ▶ No internal residue nests
- ▶ Smooth internal finishing
- ▶ ATEX-compliant

Overall Dimensions ▼



| TYPE | Size | Ø A* Standard | B | C | H | Vibrators | kg |
|-------|-------|------------------|-------|-------|-------|-----------|-------|
| BA040 | 400 | 114 | 380 | 427 | 330 | 1 | 59 |
| BA060 | 600 | 168 | 580 | 519 | 408 | 1 | 80 |
| BA075 | 750 | 219 | 730 | 609 | 456 | 1 | 99 |
| BA090 | 900 | 219 | 880 | 684 | 531 | 1 | 134 |
| BA100 | 1,000 | 273 | 980 | 734 | 555 | 1 | 146 |
| BA125 | 1,250 | 273 | 1,230 | 937 | 730 | 1 | 290 |
| BA150 | 1,500 | 323 | 1,480 | 1,120 | 774 | 1 | 475 |
| BA180 | 1,800 | 323 | 1,780 | 1,194 | 924 | 2 | 726 |
| BA210 | 2,100 | 406 | 2,080 | 1,420 | 1,033 | 2 | 881 |
| BA235 | 2,350 | 406 | 2,330 | 1,547 | 1,166 | 2 | 1,255 |

(*) Further outlet dimensions reported in Technical Catalogue

Dimensions in mm

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

DryMix Processing

BELLOJET® ZA

Tanker Loading Bellows With Built-In Dust Filter



13



Description ▼

BELLOJET® ZA Loading Bellows are used for efficient, dust-controlled loading of dry, dusty bulk solids into tankers. The spouts are provided with inner cones to contain the flow of material and an outer double bellows to provide for dust removal. At the lower end of the Loading Bellows, a polymer-coated SINT® cone with special sealing properties is provided for connection to the tanker.

The BELLOJET® dust filtration system, which includes 8 cartridges to provide an overall surface area of 10m² (108 sq ft), is equipped with a 2.2 kW (3.0 HP) fan.

Function ▼

First the Loading Bellows is lowered from the stand-by position towards the inlet spout of the tanker. As soon as the bellows outlet cone has settled on the inlet spout of the tanker, the slack cable switch mounted outside the transmission box stops lowering of the bellows. The limit switch inside the transmission box stops both full extension and contraction of the bellows. Material loading is started by opening the silo outlet valve. During the filling of the tanker, the polymer SINT® coating of the outlet cone acts as a perfect dust seal. At the same time the filter fan continuously sucks dust through the external bellows into the integrated filter cartridges in the upper section of the unit and exhausts excess air. A slack cable switch activates further extension of the bellows as the tanker lowers under the increasing material weight. A level monitoring device installed in the centre of the outlet cone signals maximum material level in the tanker compartment and orders immediate closing of the silo outlet valve. Contraction of the bellows back to stand-by position starts after a delay of approximately 10 seconds in order to allow the filter to evacuate the remaining dust. Once the bellows is fully contracted, the cable limit switch inside the transmission box stops operation. The preset after shut-down cleaning cycle now provides for additional pulse-jet cleaning of the filter cartridges for another 10 minutes.



Application ▼

BELLOJET® ZA Telescopic Loading Bellows are suitable for continuous loading at a maximum flow rate of 250m³/h (147 cfm) of bulk material.

The outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised. The equipment features an electric winch. The fan of the BELLOJET® dust filtration system increases the efficiency of the filtering elements. Due to an after-shutdown-cleaning-cycle, the filter elements are always in perfect condition at the start of each new loading.

Benefits ▼

- ✓ **No product contamination thanks to the following features:**
 - Double bellows which keeps the falling material separate from the upstream dust
 - Built-in filter unit which recycles dust extracted into the tanker
 - Built-in dust filter reduces dust emission during filling operation
- ✓ **Flexible chute in Neoprene covered by Hypalon® makes bellows weather-proof, highly abrasion and temperature-resistant and durable;**
- ✓ **Reverse cone with inside level indicator indicates when tanker is full, raises loading bellows gradually and improves material distribution inside the tanker;**
- ✓ **Outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised and prevents that the loading area will be full of dust;**
- ✓ **Two lifting cables outside the material flow raise and lower the loading bellows without any cable wear due to material friction and obstruction to material flow.**

DryMix Processing

BELLOJET® ZA

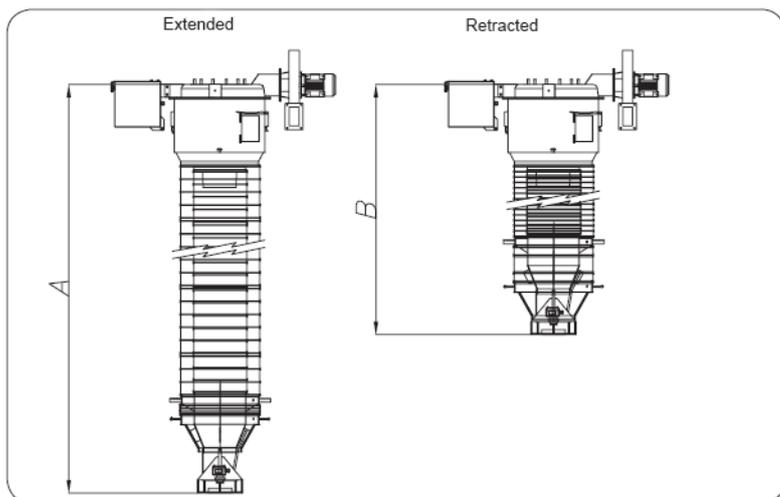
Tanker Loading Bellows With Built-In Dust Filter



Technical Features / Performance ▼

- ▶ Inlet diameter: 300mm (12 in)
- ▶ Maximum flow rate: 250 m³/h (147 cfm)
- ▶ Working temperature: - 20 °C up to 120 °C (- 4° F to 250° F)
- ▶ Hoisting system equipped with 0.55 kW electric motor and gear reducer with belt transmission.
- ▶ Upper/lower limit switch
- ▶ Slack cable limit switch
- ▶ Dust filtration system including 8 cartridges with polyester or antistatic media
- ▶ Filtering surface: 10 m² (108 sq ft)
- ▶ Dust suction fan equipped with 2.2 kW (3.0 HP) electric motor
- ▶ Electronic filter cleaning panel
- ▶ Fabricated parts in carbon steel or anti-abrasive steel
- ▶ Bellows manufactured from Neoprene/Hypalon®
- ▶ Double bellows with optional internal steel cones for granules
- ▶ Rubber bottom outlet cone to ensure perfect sealing of tanker hatch
- ▶ Control panel with remote control for fully automatic operation
- ▶ Available with rotary level indicator or vibrating level indicator
- ▶ Anti-spillage device on outlet
- ▶ 2 external hoisting cables

Overall Dimensions ▼



| A _{max} [mm] | B _{min} [mm] | [kg] |
|--------------------------|--------------------------|------|
| 2,050 | 1,550 | 303 |
| 2,330 | 1,590 | 305 |
| 2,630 | 1,630 | 308 |
| 2,810 | 1,650 | 309 |
| 3,110 | 1,690 | 311 |
| 3,390 | 1,720 | 313 |
| 3,590 | 1,750 | 315 |
| 3,870 | 1,780 | 317 |
| 4,170 | 1,820 | 319 |
| 4,450 | 1,850 | 322 |
| 4,730 | 1,890 | 324 |
| 5,030 | 1,930 | 326 |
| 5,310 | 1,960 | 328 |

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DryMix Processing

Tanker Loading Bellows ZG



13



Description ▼

ZG Loading Bellows are used for efficient, dust-controlled loading of dry, dusty bulk solids into tankers. The spouts are provided with inner cones to contain the flow of material and an outer double bellows to provide for dust removal. At the lower end of the Loading Bellows, a polymer-coated SINT® cone with special sealing properties is provided for connection to the tanker.

Function ▼

ZG Telescopic Loading Bellows are suitable for continuous loading with a maximum flow rate of 250 m³/h (147 cfm) of bulk material. The outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised. The equipment features a manual or an electric winch. A spigot on the header can be connected on site to an external de-dusting filter. First the Loading Bellows is lowered from its stand-by position towards the inlet spout of the tanker. As soon as the bellows outlet cone has settled on the inlet spout of the tanker, the slack cable switch mounted outside the transmission box stops lowering of the bellows. The limit switch inside the transmission box stops both full extension and retraction of the bellows. Material loading is started by opening the silo outlet valve. During the filling of the tanker, the polymer SINT® coating of the outlet cone acts as a perfect dust seal. The slack cable switch activates further extension of the bellows as the tanker lowers under the increasing weight of the material. A level control device installed in the centre of the outlet cone signals maximum material level in the tanker compartment and orders immediate closing of the silo outlet valve. Contraction of the bellows back to stand-by position starts after a delay of approximately ten seconds in order to allow the external filter to evacuate the remaining dust. Once the bellows is fully retracted, the cable limit switch inside the transmission box stops operation.



Application ▼

ZG Telescopic Loading Bellows are suitable for continuous loading of both raw materials and finished products shipped in bulk.

Benefits ▼

- ✓ No product contamination thanks to double bellows keeping falling material separate from dust;
- ✓ Flexible chute in Neoprene covered by Hypalon® makes bellows weather-proof, highly abrasion and temperature-resistant and durable;
- ✓ Reverse cone with inside level indicator indicates when tanker is full, raises loading bellows gradually, thus improving material distribution inside the tanker;
- ✓ Outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised and prevents that the loading area will be full of dust;
- ✓ 2 lifting cables outside the material flow raise and lower the loading bellows without any cable wear due to material friction and obstruction to material flow.

DryMix Processing

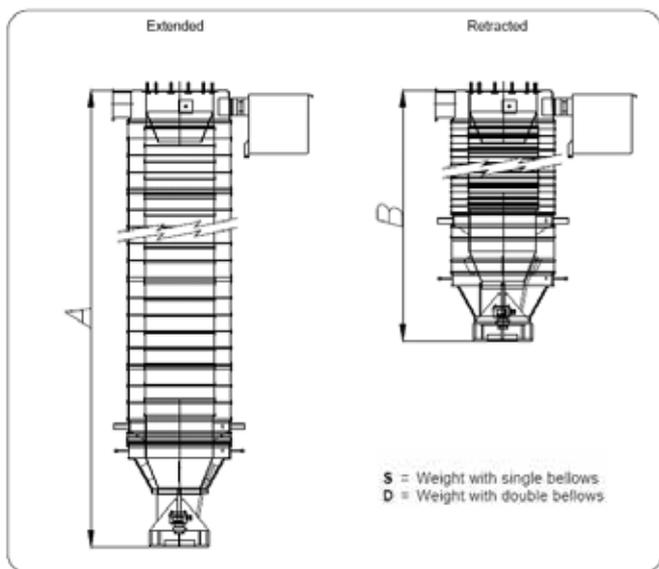
Tanker Loading Bellows ZG



Technical Features / Performance ▼

- ▶ Inlet diameter: 300mm (12 in)
- ▶ Maximum flow rate: 250 m³/h (147 cfm)
- ▶ Working temperature: - 20 °C up to 120 °C (- 4° F to 248° F)
- ▶ Hoisting system equipped with an 0.55 kW electric motor and gear reducer with belt transmission.
- ▶ Upper/lower limit switch
- ▶ Slack cable limit switch
- ▶ Fabricated parts in carbon steel, stainless steel and anti-abrasive steel
- ▶ Bellows manufactured from Neoprene/Hypalon®
- ▶ Double bellows with optional internal steel cones for granules
- ▶ Rubber bottom outlet cone to ensure perfect sealing of tanker hatch
- ▶ Control panel with remote control for fully automatic operation
- ▶ Available with rotary level indicator or vibrating level indicator
- ▶ Anti-spillage device on outlet
- ▶ 2 external hoisting cables

Overall Dimensions ▼



| A _{max} mm | B _{min} mm | S kg | D kg |
|------------------------|------------------------|---------|---------|
| 1,610 | 1,100 | 183 | 205 |
| 1,890 | 1,140 | 184 | 207 |
| 2,190 | 1,170 | 185 | 210 |
| 2,370 | 1,200 | 186 | 211 |
| 2,670 | 1,230 | 188 | 213 |
| 2,950 | 1,270 | 189 | 215 |
| 3,150 | 1,290 | 190 | 217 |
| 3,430 | 1,330 | 191 | 219 |
| 3,730 | 1,370 | 192 | 221 |
| 4,010 | 1,400 | 193 | 224 |
| 4,290 | 1,440 | 195 | 226 |
| 4,590 | 1,470 | 196 | 228 |
| 4,870 | 1,510 | 197 | 230 |
| 5,170 | 1,540 | 198 | 223 |
| 5,710 | 1,740 | 205 | 231 |
| 5,990 | 1,770 | 206 | 233 |
| 6,290 | 1,800 | 207 | 235 |
| 6,590 | 1,840 | 208 | 237 |
| 6,870 | 1,880 | 209 | 239 |
| 7,150 | 1,910 | 210 | 241 |
| 7,340 | 1,940 | 211 | 243 |
| 7,710 | 1,980 | 212 | 245 |
| 8,010 | 2,020 | 213 | 247 |

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

DryMix Processing

Loss-In-Weight Feeding Systems - MBF+BE

14



Description ▼

MBF and BE Loss-In-Weight Screw Feeders consist of a steel-reinforced SINT® engineering polymer body (optionally body 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 independent drive unit each for agitator and feeder screw and an optional electronically operated scale pan mounted on load cells.

The system is able to assess any variation in weight in time adjusting the feed rate by varying the speed of both discharging and feeding device.

Function ▼

Wherever powders or granular materials have to be continuously fed and metered, MBF-BE type Loss-In-Weight Screw Feeders offer exceptional operating versatility due to a highly precise metering performance and excellent user-friendliness.

MBF series Micro-Batch Feeders for powder and granular material feeding are particularly suitable for poorly flowing materials which tend to clog, along with adhesive products. Poorly flowing materials with cohesion or bridging problems are homogeneously fed into the feeding zone by the blending shaft which is shaped according to the material properties.

Depending on the user's individual requirements, MBF Micro-Batch Feeders can be supplied with alternative feeder screws and blending tools and with various accessories.



Applications ▼

Loss-in-weight systems, which come in various configurations, are suitable for feeding of powdery or granular materials.

Typical positions within a plant are on weighing scales for loss-in-weight installations above the mixer. Furthermore, they may be installed in a separate part of the plant where all additives are dosed.

Benefits ▼

- ✓ Simplification of automation of the feeding process;
- ✓ Quick integration into new or existing production processes;
- ✓ Suitable for installations in a battery configuration;
- ✓ Easy to use, clean and maintain;
- ✓ Minimum downtime during product change;
- ✓ Highly reliable and durable;
- ✓ Functional assessment in WAMGROUP®'s own test facility based on decades of experience in bulk solids feeding and metering;
- ✓ Attractive price.



DryMix Processing

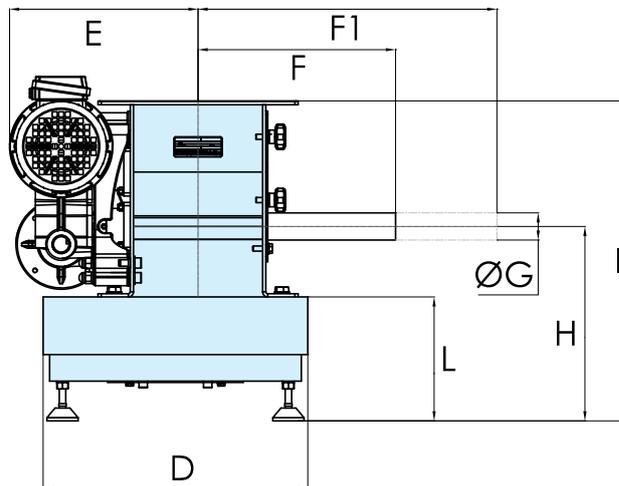
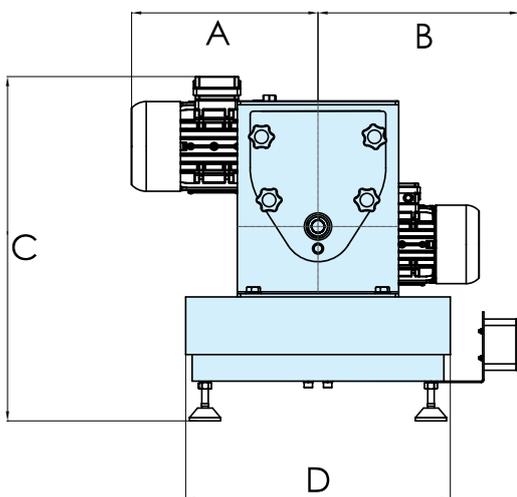
Loss-In-Weight Feeding Systems - MBF+BE



Technical Features / Performance ▼

- ▶ Continuous real-time controlling and adjustment depending on material weight and flow
- ▶ Feeding accuracy between 0.5 and 1%
- ▶ Sturdy, compact system with contact surfaces manufactured from suitable materials
- ▶ Interchangeability of standard components and accessories within the feeder range
- ▶ Feed hoppers having different geometry and volume

Overall Dimensions ▼



| MODEL | A | B | C | D | E | F | F1 | Ø G | H | I | L |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 042 | 298 | 312 | 538 | 410 | 292 | 306 | 476 | 42 | 304 | 500 | 194 |
| 073 | 335 | 372 | 570 | 510 | 417 | 435 | 685 | 76 | 333 | 685 | 199 |
| 114 | 335 | 372 | 589 | 510 | 417 | 435 | 685 | 114 | 333 | 703 | 199 |

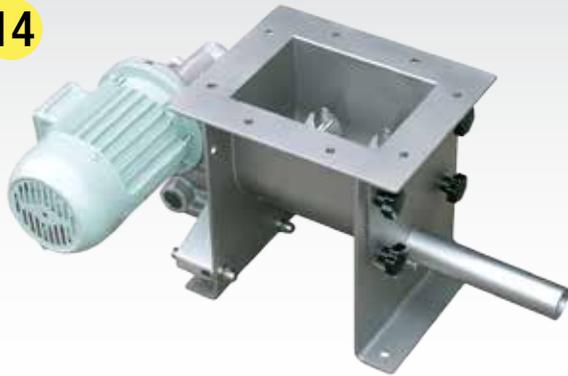
Dimensions in mm

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DryMix Processing

Micro-Batch Feeders MBF

14



Description ▼

The MBF Micro-Batch Feeder consists of a casing entirely manufactured from stainless steel or a steel-reinforced SINT® engineering polymer body, a horizontally mounted rotating agitator tool, a feeder screw beneath the agitator tool, a feeder pipe enclosing the protruding feeder screw, as well as one drive unit each for agitator and feeder screw.

Function ▼

MBF Micro-Batch Feeders are particularly suitable for poorly flowing materials which tend to clog, as well as for 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.

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.



Applications ▼

MBF, which come in various configurations, are suitable for feeding of granules or powders.

The flexible design enables feeding of a variety of additives used in Dry-Mix processing.

Typical positions within the plant are on weighing scales for loss-in-weight installations next to the mixer. Furthermore, they are fitted inside dosing stations on top of weighing scales upstream of the mixer.

Benefits ▼

- ✓ Easy integration into the plant;
- ✓ Feeding of different additives with the same unit thanks to component interchangeability;
- ✓ 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;
- ✓ Process reliability due to back-up by WAMGROUP® test labs ;
- ✓ High degree of homogeneity of fed material thanks to blending/agitating tool;
- ✓ Easy and quick internal cleaning thanks to quick-access inspection panel.

DryMix Processing

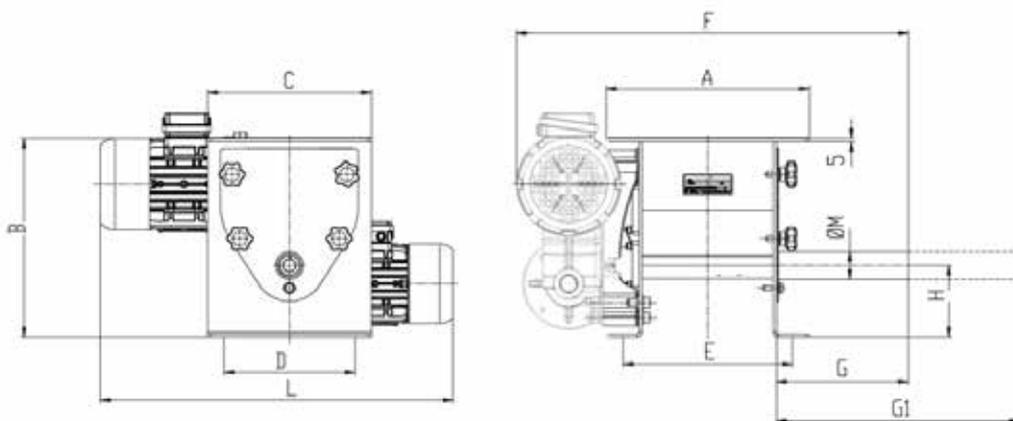
Micro-Batch Feeders MBF



Technical Features / Performance ▼

- ▶ Wide range of interchangeable machine components
- ▶ 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 ensures smooth feeding of particularly difficult materials
- ▶ No material residue
- ▶ Quick-access inspection panel available for stainless steel feeders
- ▶ Contact surfaces in SINT® engineering polymer or 304 SS (316 optional)
- ▶ Different types of 304 SS shaft seals

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

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



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DryMix Processing

RV-RVR Drop-Through Rotary Valves

15



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.

Benefits ▼

- ✓ Air-purged seals;
- ✓ Square or round flanges ensure system compatibility and match with WAM® flanges;
- ✓ Cast iron or SS, nickel coating, chrome-plated casing, as well as various rotor versions available to ensure the most appropriate configuration for application requirements;
- ✓ Quick integration into the process thanks to easy handling;
- ✓ Modular design and easy maintenance thanks to few components.

DryMix Processing

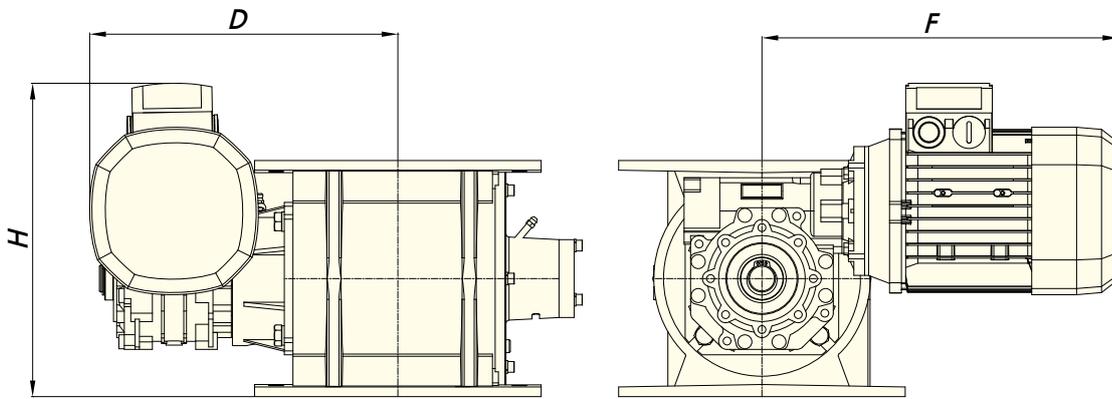
RV-RVR Drop-Through Rotary Valves



Technical Features / Performance ▼

- ▶ Capacity: 2.2 ~ 19.5 litres per revolution
(0.08 ~ 0.7 cu ft per revolution)
- ▶ Working temperature: - 20° C ~ 150° C (- 4° F ~ 300° F)
- ▶ Maximum differential pressure: 0.3 bar (4.4 psi)
- ▶ Cast iron or SS design
- ▶ Nickel coating or chrome-plated casing for abrasive materials available
- ▶ Rotor with beveled blades or replaceable tips available
- ▶ 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

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 | | | 348 | 373 | 0.75 |
| RV/RVR 05 30 rpm | 328 | 394 | 425 | | 0.5 |
| RV/RVR 05 20 rpm | | | 472 | | 1.1 |
| RV/RVR 10 30 rpm | 364 | 419 | 472 | | 0.75 |
| RV/RVR 10 20 rpm | | | 472 | | 1.5 |
| RV/RVR 20 30 rpm | 392 | 419 | 472 | | 1.1 |
| RV/RVR 20 20 rpm | | | 472 | | 1.1 |

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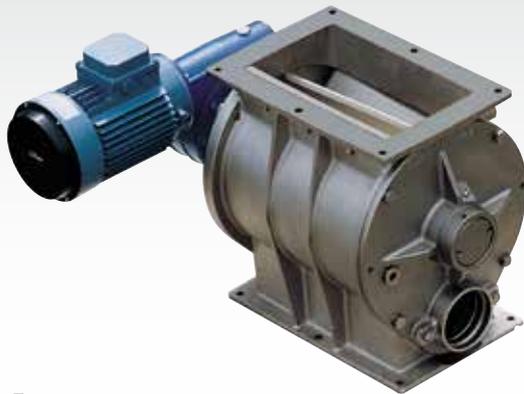
This datasheet might not show the complete range but only the models specialised for the application.

DryMix Processing

Blow-Through Rotary Valves RVS



15



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 ▼

- ✓ **Material: cast iron, SS, coating, chromed body and various rotor versions available to offer the ideal configuration for most application requirements;**
- ✓ **Pipe connections included simplifying unit installation and removal.**

DryMix Processing

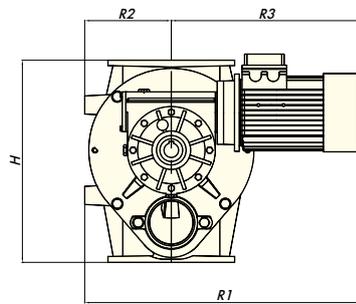
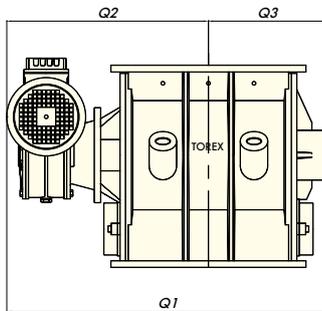
Blow-Through Rotary Valves RVS



Technical Features / Performance ▼

- ▶ Feed rates: 5, 9, 14, 20, 38, 80 litres per revolution (0.17, 0.3, 0.5, 0.7, 1.3, 2.8 cu ft per revolution)
- ▶ Working temperature: -20 °C ~ 220 °C (-4° F ~ 428° F)
- ▶ Maximum differential pressure: 0.8 bar (11.6 psi)
- ▶ Cast iron or 304 SS
- ▶ Nickel coating available
- ▶ Rotor with beveled blades or replaceable tips
- ▶ Chrome-plated casing for abrasive materials
- ▶ 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 conveying duct
- ▶ Blade scraper installed inside the inlet to ease rotor movement

Overall Dimensions ▼



| | TYPE | Dimensions in mm | | | | | | | Electric Motor | |
|--------|----------|------------------|-----|-----|-----|-----|-----|-----|----------------|-------------------|
| | | Q1 | Q2 | Q3 | R1 | R2 | R3 | H | kW | min ⁻¹ |
| 30 RPM | 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 | 1,400 |

| | TYPE | Dimensions in mm | | | | | | | Electric Motor | |
|--------|----------|------------------|-----|-----|-----|-----|-----|-----|----------------|-------------------|
| | | Q1 | Q2 | Q3 | R1 | R2 | R3 | H | kW | min ⁻¹ |
| 20 RPM | 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 |

| | TYPE | Dimensions in mm | | | | | | | Electric Motor | | Pre-Torque |
|--------|----------|------------------|-----|-----|-----|-----|-----|-----|----------------|-------------------|------------|
| | | Q1 | Q2 | Q3 | R1 | R2 | R3 | H | kW | min ⁻¹ | |
| 10 RPM | 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.

DryMix Processing

Rotary Level Indicators ILT

16



Description ▼

ILT-type Bin Level Indicators are 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 cylindrical part of a silo at the desired maximum or minimum level. Equipped with an extension rod, they can also be mounted vertically into the roof plate.

Benefits ▼

- ✓ No material contact with the casing;
- ✓ Adjustable by resetting 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.

DryMix Processing

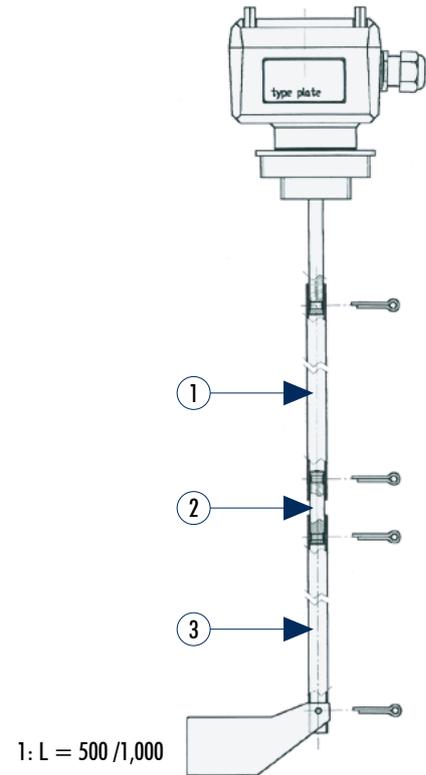
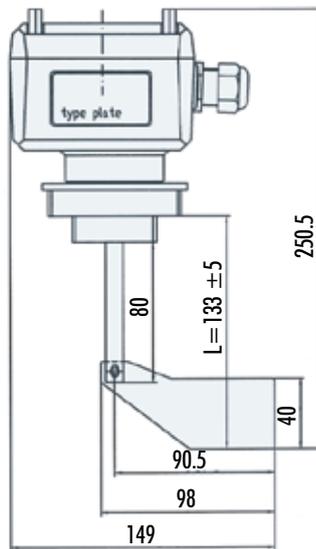
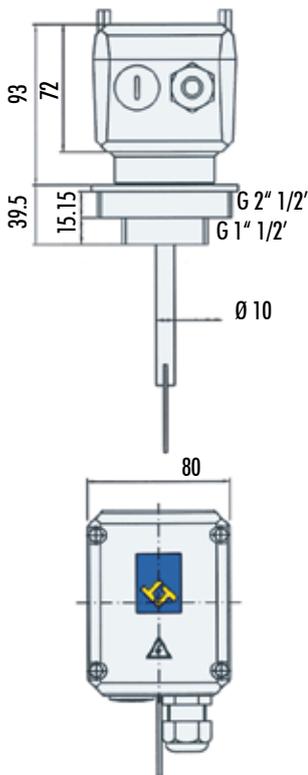
Rotary Level Indicators ILT



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 2½"
- ▶ 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 gears from impacts on 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 ▼



DryMix Processing

Continuous Level Measurement - ILS



18



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.**

DryMix Processing

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.

DryMix Processing

Silo Safety System KCS

20



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 Dry-Mix plants it is essential that each 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.

DryMix Processing

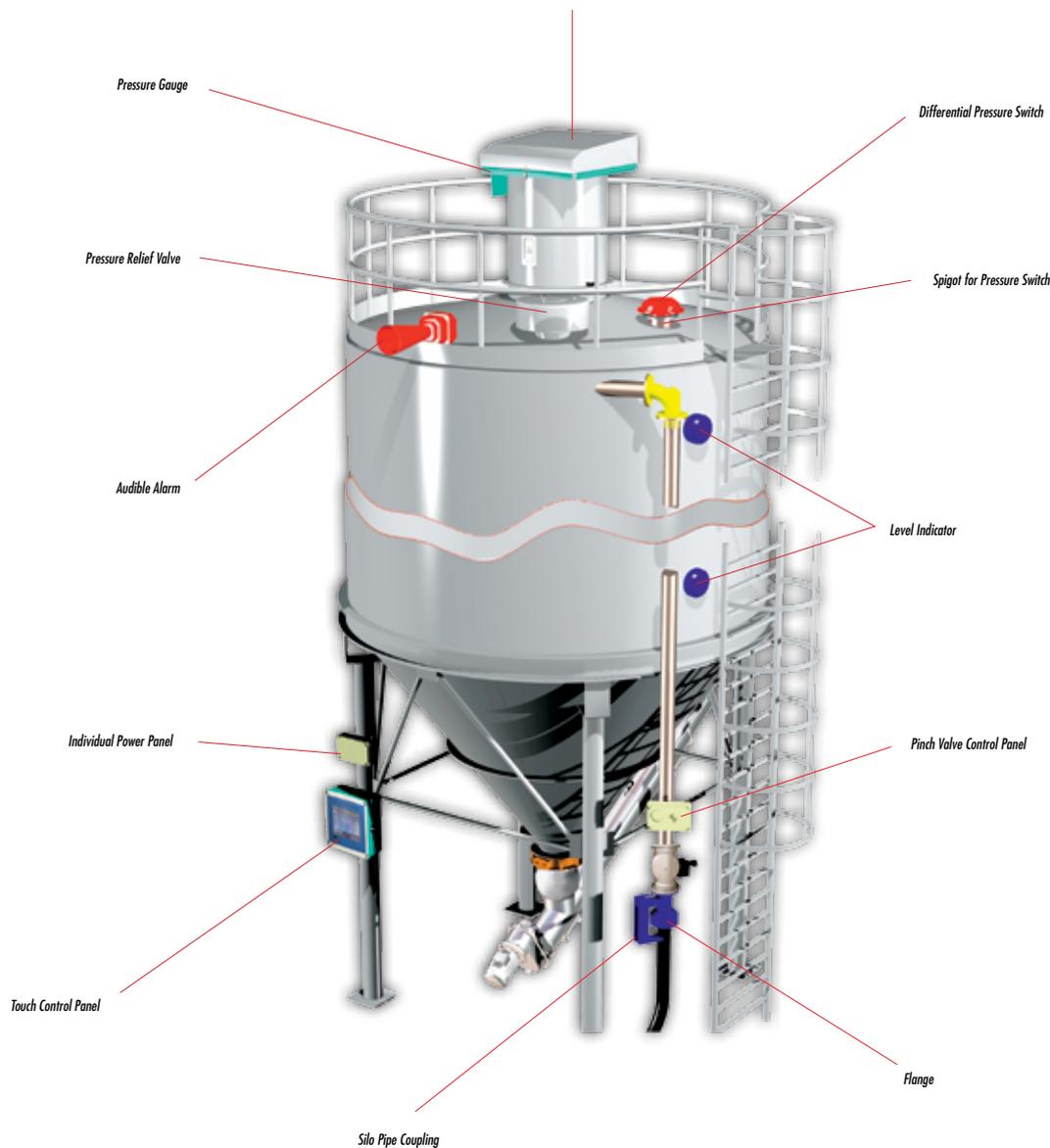
Silo Safety System KCS



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

DryMix Processing

Pinch Valves VM / Pipe Connections KAT

22



Description ▼

The casing of the VM Pinch Valve is manufactured from aluminium alloy. 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 latter, 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;
- ✓ 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.

DryMix Processing

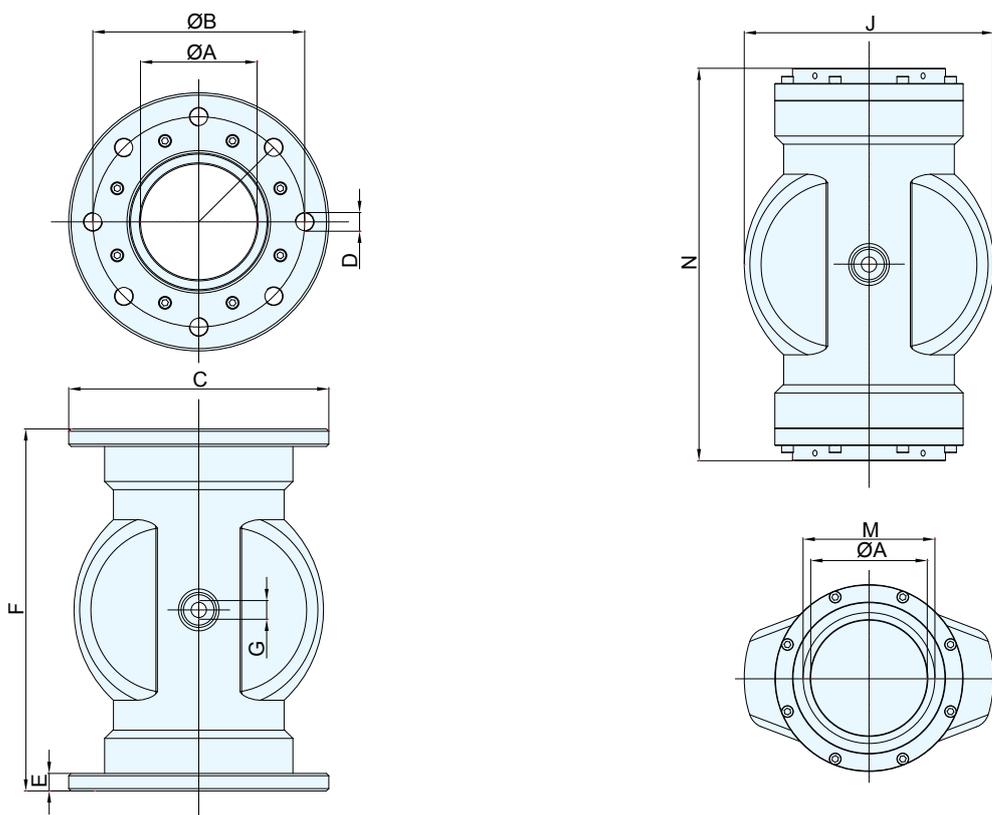
Pinch Valves VM / Pipe Connections KAT



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 |
|--------|-----|-----|-----|------|------|----|-----|------|---|-----|---|----|-----|------|
| | | | | Ø | 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 might not show the complete range but only the models specialised for the application.

DryMix Processing

Spring-Loaded Pressure Relief Valves VCP

23



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 as long as 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 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 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.**

DryMix Processing

Spring-Loaded Pressure Relief Valves VCP

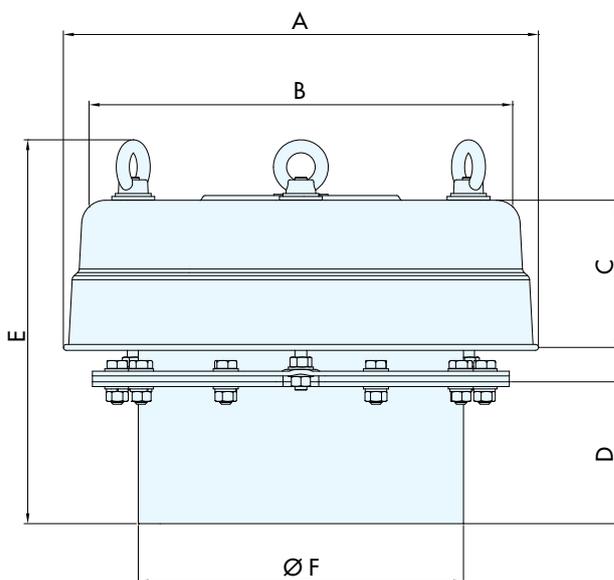


Technical Features / Performance ▼

- ▶ 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 ▼

| | Size 273 mm | Size 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 |



DryMix Processing

Membrane Pressure Relief Valves VHS

23



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 ▼

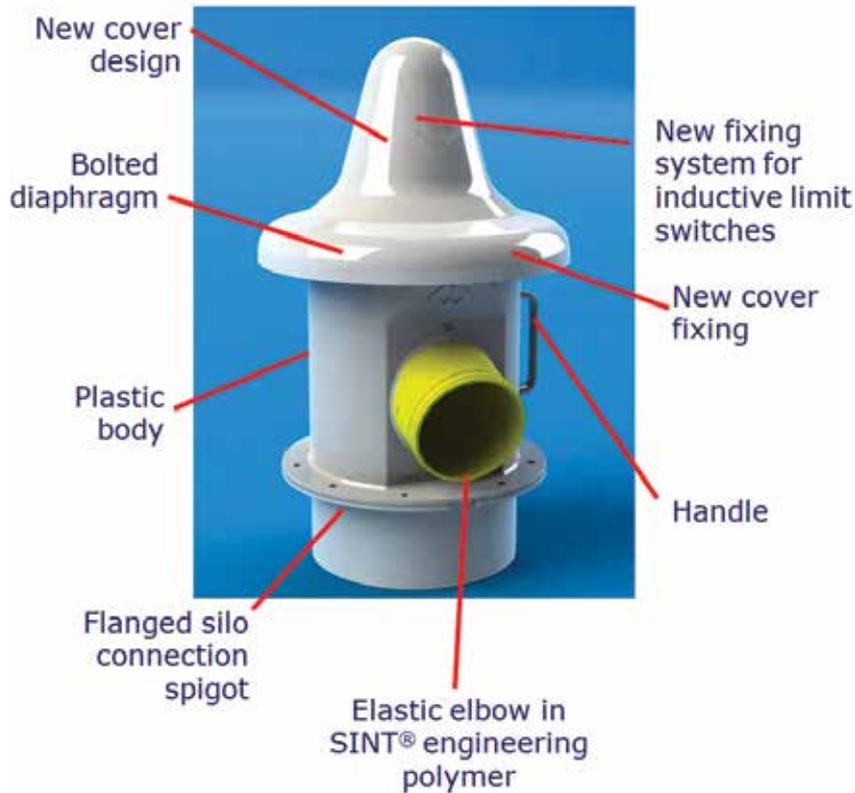
- ✓ Safety for people, plant and environment;
- ✓ Compliance with existing regulations;
- ✓ Maximum efficiency and minimum operating costs;
- ✓ Quick and easy maintenance;
- ✓ Attractive price.

DryMix Processing

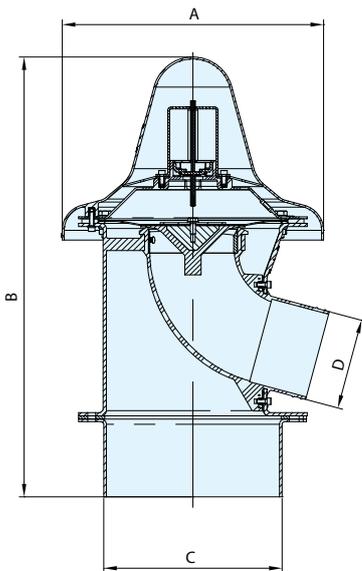
Membrane Pressure Relief Valves VHS



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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DryMix Processing

EXTRABEND® and EXTRACURVE® Pipe Elbows

24 25



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 or other bulk materials 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 substantially 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.

DryMix Processing

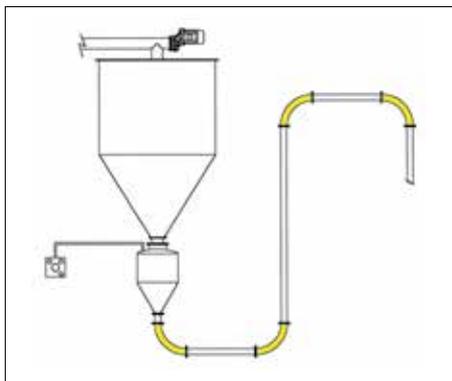
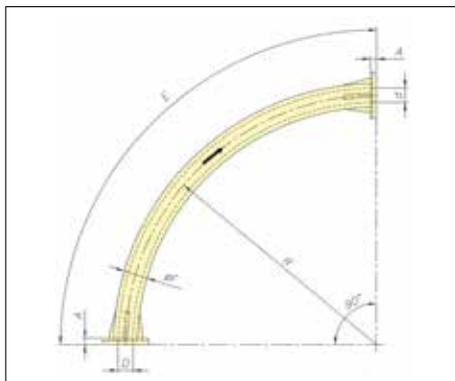
EXTRABEND® and EXTRACURVE® Pipe Elbows



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

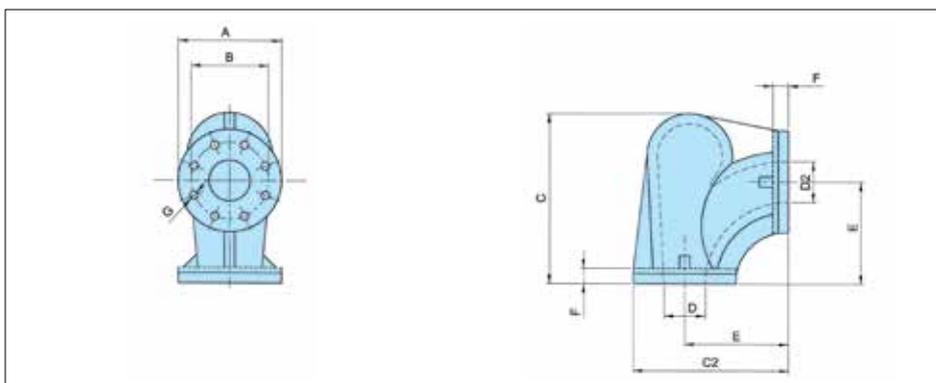
Overall Dimensions ▼



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



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DryMix Processing

External Electric Vibrators MVE 200/3 Type

26



Description ▼

The range of MVE-type External Electric Vibrators is the result of more than fifty years of experience in vibrating technology for various industrial applications worldwide.

The high frequency of 3,000 rpm at 50 Hz (3,600 rpm at 60 Hz) avoids generation of dangerous resonance on the silo structure.

IP 66 protection ensures operation in severe environmental conditions.

Single phase models available.

Function ▼

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



Application ▼

MVE-type External Electric Vibrators are used for silo and hopper emptying.

Benefits ▼

- ✓ **2-years-warranty including electric components;**
- ✓ **Ex-stock delivery;**
- ✓ **Maintenance-free;**
- ✓ **Excellent quality-price ratio.**

DryMix Processing

External Electric Vibrators MVE 200/3 Type



Technical Features / Performance ▼

- ▶ High quality SKF bearings
- ▶ Working temperature: -20° to 40°C (-4° F to 104° F)
- ▶ Standard voltage: 230/400V, 50Hz (264/460V 60Hz)
- ▶ Standard: Atex Ex II 3D CERTIFIED

Overall Dimensions ▼

| TYPE | Dimensional Features | | | | | | | | | | | | | | | | |
|-------------|----------------------|------|--------|------|--------|-------|--------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|
| | FIG. | Size | C (mm) | | M (mm) | | A (mm) | B (mm) | Ø G (mm) | Bores Qty. | D (mm) | E (mm) | F (mm) | H (mm) | I (mm) | L (mm) | N (mm) |
| | | | 50Hz | 60Hz | 50Hz | 60Hz | | | | | | | | | | | |
| MVE 40/15 | A | 10 | 211 | | 45 | * | * | * | 4 | 130 | 136 | 12 | 48 | 94 | 121 | 85 | |
| MVE 90/15 | B | 20 | 219 | | 41 | 62-74 | 106 | 9 | 4 | 131 | 159 | 15 | 64 | 121 | 123 | 112 | |
| MVE 200/15 | C | 30 | 260 | | 43 | *** | *** | *** | 4 | 154 | 175 | 15 | 79 | 142 | 163 | 131 | |
| MVE 400/15 | D | 40 | 338 | | 75 | 105 | 140 | 13 | 4 | 168 | 196 | 22 | 92 | 169 | 178 | 158 | |
| MVE 500/15 | D | 40 | 338 | | 75 | 105 | 140 | 13 | 4 | 168 | 196 | 22 | 92 | 169 | 178 | 158 | |
| MVE 300/15 | D | 50 | 311 | | 47 | 120 | 170 | 17 | 4 | 208 | 210 | 22 | 94 | 180 | 205 | 170 | |
| MVE 700/15 | D | 50 | 397 | | 90 | 120 | 170 | 17 | 4 | 208 | 210 | 22 | 94 | 180 | 205 | 170 | |
| MVE 1100/15 | D | 50 | 451 | | 112 | 120 | 170 | 17 | 4 | 208 | 210 | 22 | 94 | 180 | 205 | 170 | |
| MVE 1400/15 | D | 60 | 448 | | 98 | 140 | 190 | 17 | 4 | 229 | 247 | 30 | 120 | 247 | 220 | 222 | |
| MVE 1700/15 | D | 60 | 448 | | 98 | 140 | 190 | 17 | 4 | 229 | 247 | 30 | 120 | 247 | 220 | 222 | |
| MVE 2400/15 | D | 60 | 510 | 448 | 129 | 98 | 140 | 190 | 17 | 4 | 229 | 247 | 30 | 120 | 247 | 220 | 222 |
| MVE 2500/15 | D | 70 | 522 | 486 | 123 | 105 | 155 | 225 | 22 | 4 | 272 | 284 | 40 | 140 | 267 | 250 | 235 |
| MVE 3000/15 | D | 70 | 522 | 486 | 123 | 105 | 155 | 225 | 22 | 4 | 272 | 284 | 40 | 140 | 267 | 250 | 235 |
| MVE 3800/15 | D | 75 | 588 | 538 | 140 | 115 | 155 | 255 | 23.5 | 4 | 302 | 318 | 35 | 147 | 295 | 273 | 264 |
| MVE 4300/15 | D | 75 | 588 | | 140 | | 155 | 255 | 23.5 | 4 | 302 | 318 | 35 | 147 | 295 | 273 | 264 |
| MVE 5500/15 | D | 80 | 603 | | 130 | | 180 | 280 | 26 | 4 | 332 | 360 | 37 | 167 | 345 | 304 | 310 |

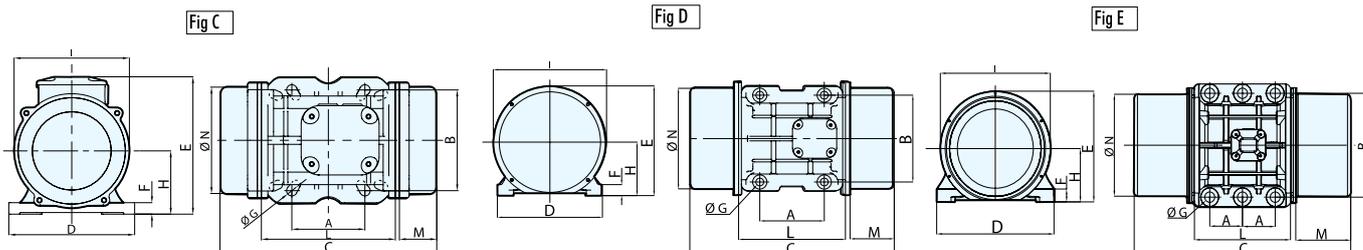
| TYPE | Dimensional Features | | | | | | | | | | | | | | | | |
|--------------|----------------------|------|--------|------|--------|------|--------|--------|----------|------------|--------|--------|--------|--------|--------|--------|--------|
| | FIG. | Size | C (mm) | | M (mm) | | A (mm) | B (mm) | Ø G (mm) | Bores Qty. | D (mm) | E (mm) | F (mm) | H (mm) | I (mm) | L (mm) | N (mm) |
| | | | 50Hz | 60Hz | 50Hz | 60Hz | | | | | | | | | | | |
| MVE 7200/15 | D | 85 | 605 | | 120 | 200 | 320 | 28 | 4 | 385 | 410 | 49 | 200 | 422 | 325 | 378 | |
| MVE 9000/15 | D | 85 | 605 | | 120 | 200 | 320 | 28 | 4 | 385 | 410 | 49 | 200 | 422 | 325 | 378 | |
| MVE 10000/15 | E | 90 | 726 | 646 | 160 | 120 | 125 | 380 | 38 | 6 | 452 | 430 | 44 | 204 | 422 | 367 | 378 |

Fig A

| | A | B | Ø G |
|---|---------|--------|-----|
| * | mm | mm | mm |
| | 62 - 74 | 106 | 9 |
| | 33 | 83-102 | 7 |

Fig C

| | A | B | Ø G |
|-----|-----|-----|-----|
| | mm | mm | mm |
| *** | 80 | 110 | 11 |
| | 90 | 125 | 13 |
| | 124 | 110 | 11 |
| | 135 | 115 | 11 |



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

DryMix Processing

MARTSHOCK Pneumatic Hammers PS

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Description ▼

MARTSHOCK PS Single impact vibrator or "Hammer", deliver high power impact 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.

The vibrating impulse leads to the complete detachment of the crusts or the collapse of a material bridge.

MARTSHOCK Hammers are particularly suitable for retrofitting on silo cones or hoppers as no emptying of the bin or drilling of the wall is required.

Function ▼

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



Application ▼

In Dry-Mix plants PS-type MARTSHOCK 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;
- ✓ Guarantee of up to 150,000 strikes.

DryMix Processing

MATRSHOCK Pneumatic Hammers PS

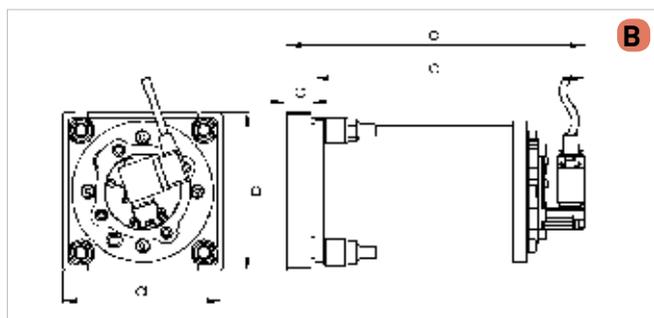
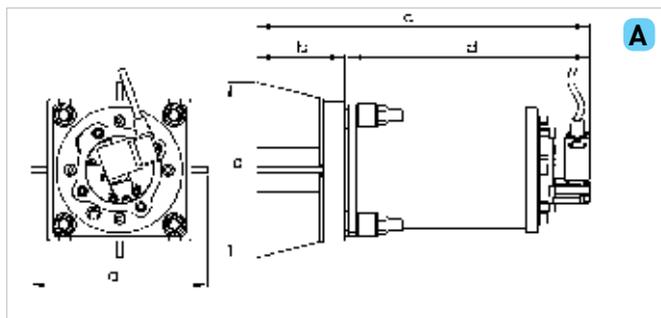


Technical Features / Performance ▼

- ▶ Galvanised steel body
- ▶ Weld-on steel plate included (2 types with different thicknesses)
- ▶ Safety chain fixed on hopper (for assembly and dismantling)
- ▶ Air inlet (PS40: 1/8"; PS63: 1/4"; PS80: 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 plate (option)
- ▶ Timer kit for adjustment of operation setting (option)

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 |



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



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DryMix Processing

Aeration Pads I100

28



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 and during the storing process. Aeration during storing prevents compaction and segregation. 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 such as cement. More sophisticated applications with alternately fed multiple rows are for example designed for lime 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.**



DryMix Processing

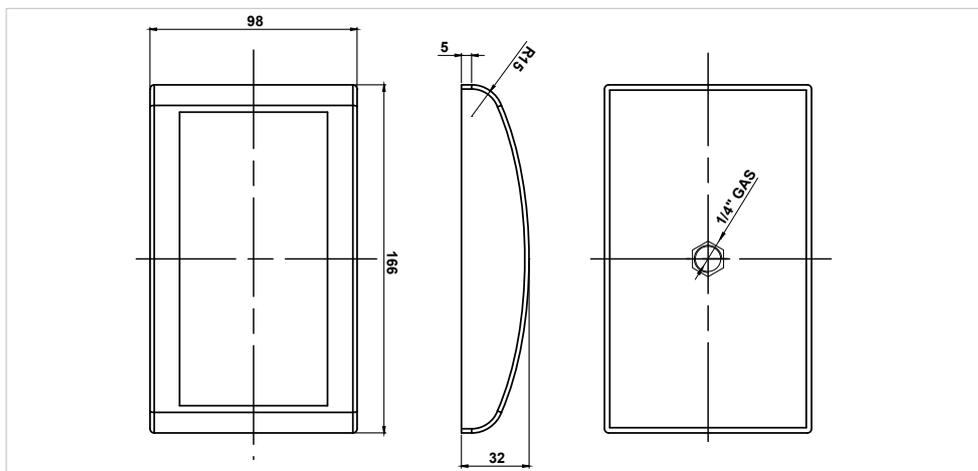
Aeration Pads I100



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 dry and fine powdery materials

Overall Dimensions ▼



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

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DryMix Processing

Vibrating Bin Aerators VBS-Type

28



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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DryMix Processing

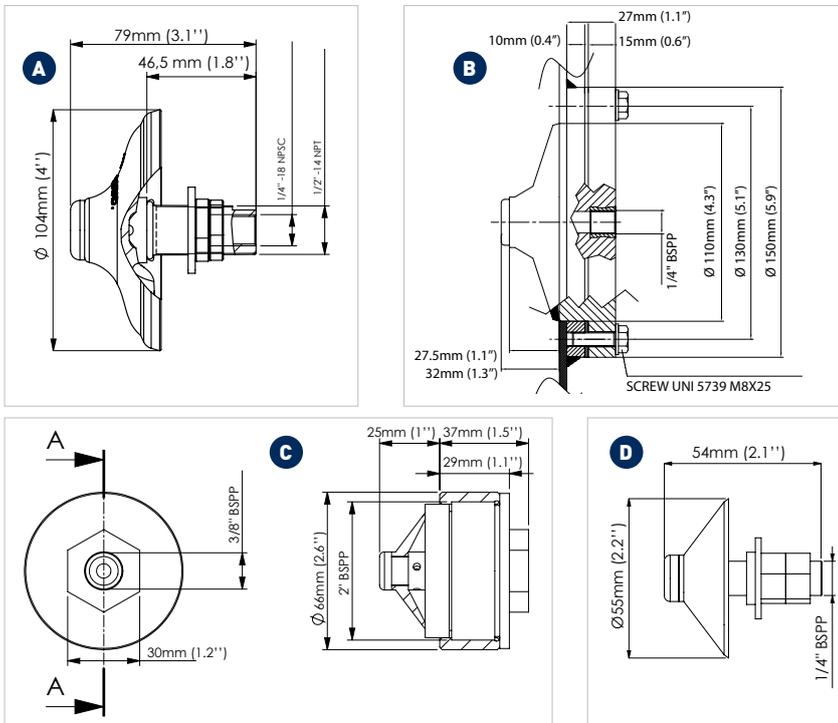
Vibrating Bin Aerators VBS-Type



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 ▼



| 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 |

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DryMix Processing

WETMIX® V05 Mortar Mixers for Mobile Silos



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Description ▼

WETMIX® V05 is a continuous horizontal single-shaft mixer with a mixing chamber completely manufactured from wear-proof SINT® engineering polymer which is externally supported by four mild steel bars which make the complete mixer lightweight and easy to handle.

Different options are available in terms of tool type, shaft length, machine capacity and drive power, to ensure perfect mixing quality for different mortar recipes.

Function ▼

The dry premixed material is extracted from the silo and transferred by the feeder screw into the mixing zone where water is added to produce wet mortar ready for use. The SINT® engineering polymer enables daily self-cleaning of the inside of the mixer in less than two minutes.



Application ▼

Fitted under small building site silos, WETMIX® is used for the preparation of wet mortars or plasters on site.

The use of SINT® engineering polymers ensures both durability of the mixing tools as compared to traditional carbon steel equipment and an extremely short cleaning time.

Benefits ▼

- ✓ Homogeneous wet mortar in a few seconds;
- ✓ Self-cleaning machine;
- ✓ No waste dry material;
- ✓ Modular shafts for different types of mortar;
- ✓ Reduction of maintenance and cleaning costs;
- ✓ Quick return on investment;
- ✓ Attractive price.

DryMix Processing

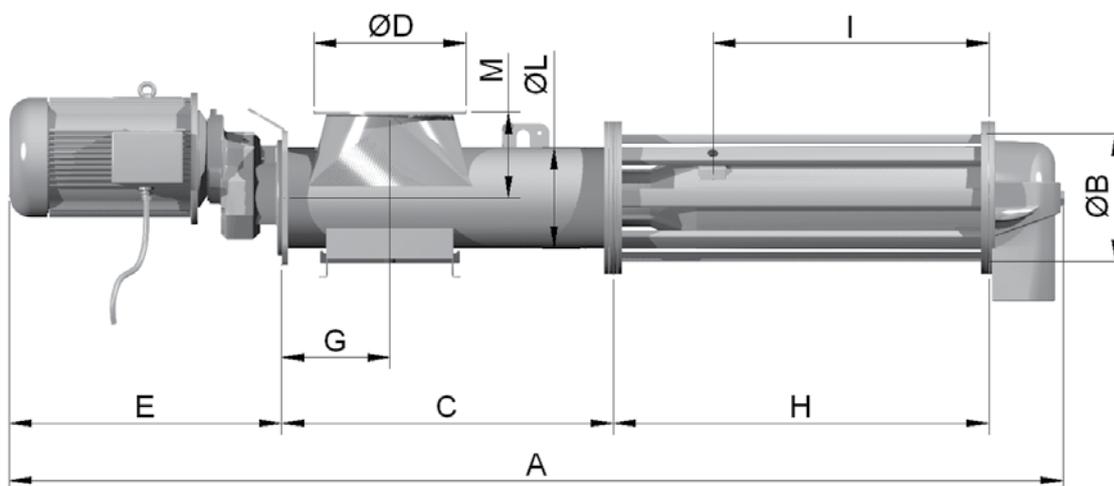
WETMIX® V05 Mortar Mixers for Mobile Silos



Technical Features / Performance ▼

- ▶ Mixing chamber and rotor shaft in non-stick anti-wear SINT® engineering polymer
- ▶ Rotor shaft with modular one-by-one replaceable mixing tools
- ▶ Fabricated parts in carbon steel, powder-coated RAL 9010 (pure white)
- ▶ Drive unit WAM 230/400V, 4.0 or 5.5 kW (5.5 or 7.5 HP), or commodity 230 V, 3.0 kW (4.0 HP)
- ▶ Capacity from 40 to 100 litres per minute (1.4 to 3.5 cfm)

Overall Dimensions ▼



| WETMIX™ V05 TYPE | A | Ø B | C | Ø D | E | G | H | I | Ø L | M | kg |
|------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| WML 1S.... (4.0 kW) | 1,880 | 273 | 700 | 273 | 355 | 226 | 650 | 442 | 219 | 186 | 130 |
| WML 1S.... (5.5 kW) | 2,115 | 273 | 700 | 273 | 590 | 226 | 650 | 442 | 219 | 186 | 146 |
| WML 1L.... (4.0 kW) | 2,030 | 273 | 700 | 273 | 355 | 226 | 800 | 587 | 219 | 186 | 135 |
| WML 1L.... (5.5 kW) | 2,265 | 273 | 700 | 273 | 590 | 226 | 800 | 587 | 219 | 186 | 151 |

Dimensions in mm

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

DryMix Processing

Batch-Type Single Shaft Mixers with Bomb-Bay Discharge for Dry Premixed Building Materials WBHT

30



Description ▼

WBHT - WBHP Batch-Type Single Shaft Mixers consist of a horizontal single shaft, equipped with ploughshare or shovel tools, housed in a tubular mixing drum. Bomb-Bay Discharge Batch Mixers, type WBHT with 60° opening section satisfy any customer's requirement in terms of high quality mixing in batch-type processes which are oriented towards optimised efficiency. An outlet opening across the entire length of the mixing drum ensures virtually residue-free discharge of the product in the shortest possible time.

Function ▼

The horizontal single shaft ploughshare mixer WBHT is based 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 products to be projected in a three-dimensional way and to merge. This ensures that components with different particle size and bulk density are perfectly blended and mixed with high precision within the shortest possible time.



Application ▼

- Masonry mortars
- Base renders/plasters (gypsum or cement)
- Bricklaying mortars and adhesives
- Cement or gypsum-based floor screeds
- Dry or shotcrete concrete
- Decorative plasters or coatings
- Ceramic tile adhesives
- Joint sealing /tile grouts
- Fillers, putties and trowelling compounds
- Building adhesives
- Repair mortars
- Flooring compounds

Benefits ▼

- ✓ **High-speed mixing;**
- ✓ **Quick and accurate additive dispersion;**
- ✓ **Maximum mixing homogeneity;**
- ✓ **No residue;**
- ✓ **Minimum wear;**
- ✓ **Easy access to all internal parts;**
- ✓ **Low maintenance.**

DryMix Processing

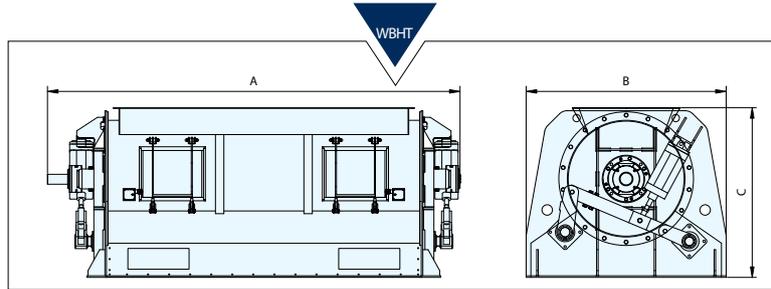
Batch-Type Single Shaft Mixers with Bomb-Bay Discharge for Dry Premixed Building Materials WBHT



Technical Features / Performance ▼

- ▶ From 550 up to 15,000 litres volume
- ▶ Wide range of materials: mild steel, special wear-resistant steel, internal anti-wear liner
- ▶ Choppers and liquid injection
- ▶ Great variety of accessories and options available

Overall Dimensions ▼



| TYPE | A | B | C | Usable Volume (dm ³) | Empty Weight (kg) |
|------------|-------|-------|-------|----------------------------------|-------------------|
| WBHT 550 | 2,150 | 1,250 | 1,200 | 385 | 690 |
| WBHT 800 | 2,350 | 1,200 | 1,250 | 560 | 850 |
| WBHT 1100 | 2,615 | 1,500 | 1,500 | 770 | 1,200 |
| WBHT 2000 | 2,920 | 1,900 | 1,650 | 1,400 | 2,400 |
| WBHT 3000 | 3,920 | 1,900 | 1,650 | 2,100 | 3,000 |
| WBHT 4800 | 4,550 | 2,000 | 1,790 | 3,360 | 3,800 |
| WBHT 6000 | 4,870 | 1,960 | 1,900 | 4,200 | 4,400 |
| WBHT 8800 | 5,390 | 2,200 | 2,200 | 6,160 | 5,300 |
| WBHT 10500 | 5,630 | 2,400 | 2,430 | 7,350 | 6,900 |
| WBHT 15000 | 6,124 | 2,800 | 2,525 | 10,500 | 8,000 |

Indicative dimensions (mm)

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