



**GEAR REDUCER  
DUST COLLECTOR  
BUTTERFLY VALVES**

# **Bulk Solids Handling Equipment**



**Cement plant**



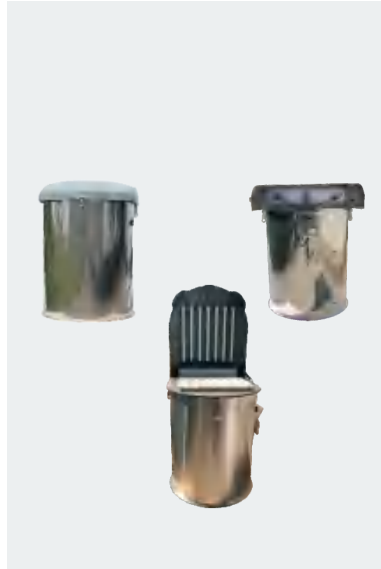
**Mixing station**



**Metallurgical**

Our products are widely used in concrete mixing station, solid bulk transportation machinery, power plants, cement, pharmaceuticals, natural gas, metallurgy, Light industry, filling equipment, water treatment, environmental protection and other fields. The company has been regarded as the most user satisfaction with suppliers.

# **Products Handbook**





## Company Introduce

AKMK AUTOMATION CO., LTD. WAS ESTABLISHED IN ZHEJIANG, CHINA, IN THE VAST MARKET HAS BEEN GRADUALLY GROWN INTO GLOBAL PROFESSIONAL QUALITY MIXING STATION ACCESSORIES DEVELOPER AND MANUFACTURER IN CHINA WITH R & D CENTER, MANUFACTURING BASE, INVENTORY AND SERVICE CENTER . IT HAS ADVANCED CNC MACHINING EQUIPMENT AND TESTING EQUIPMENT , AND PRODUCTS THROUGH THE USE OF VARIOUS INDUSTRIES HAVE BEEN RECOGNIZED.

OUR PRODUCTS ARE WIDELY USED IN CONCRETE MIXING STATION, SOLID BULK TRANSPORTATION MACHINERY, POWER PLANTS, CEMENT, PHARMACEUTICALS, NATURAL GAS, METALLURGY, LIGHT INDUSTRY, FILLING EQUIPMENT, WATER TREATMENT, ENVIRONMENTAL PROTECTION AND OTHER FIELDS. THE COMPANY HAS BEEN REGARDED AS THE MOST USER SATISFACTION WITH SUPPLIERS.

THE COMPANY'S PRODUCTS PROVIDE TECHNICAL CONFIRMATION AND INSTALLATION SERVICES AT A PROFESSIONAL LEVEL, AND ARE MANUFACTURED AND STORED IN AREAS WITH SUPERIOR COST.

- TAKE ADVANTAGE OF PROVIDING COST-EFFECTIVE PRODUCTS AND SERVICES.
- ALWAYS PUT THE INTERESTS OF CUSTOMERS FIRST, AND PROVIDE CUSTOMERS WITH PRODUCTS THAT ARE INTERCHANGEABLE WITH OTHER BRANDS
- MAKE EVERY EFFORT TO MEET THE INDIVIDUAL REQUIREMENTS OF CUSTOMERS, AND CREATE VALUE FOR CUSTOMERS WITH THE RICHEST PRODUCTS AND THE MOST COMPLETE SERVICES.
- OUR COMPANY ADHERES TO THE PURSUIT OF EXCELLENCE; FULL PARTICIPATION; CONTINUOUS IMPROVEMENT AS THE PURPOSE, AND THE SPIRIT OF HEAVEN TO REWARD THE DILIGENCE TO SERVE OUR CUSTOMERS.

# CATALOGUE

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# BULK SOLIDS HANDLING EQUIPMENT

## SILO DISCHARGE BUTTERFLY VALVES

### Powder pneumatic valve VFS-Series

The VFS pneumatic butterfly valve is mainly used to switch bins, hoppers and silos containing powder or granular materials. Can be applied to all For the processing of powdery and granular materials, the valve uses the gravity of the material to intercept and pneumatically convey dry materials.

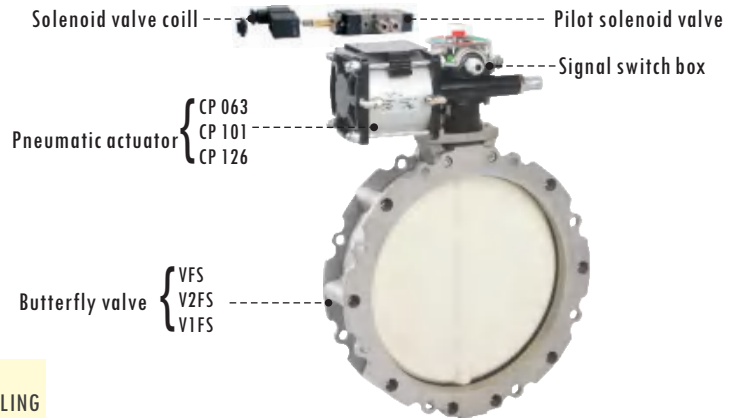
### HOW TO ORDER

VFS	300	S	N	-	W	F	220
Connection	-DN	Valve disc	Sealing	-Control	-Signal switch box	-Pilot valve/	voltage
VFS Double flange with single flange	100 150 200 250 300 350 400	S Polymer GB Cast iron A Stainless steel L Aluminum	N NBR E EPDM B WHITE EPDM S VMQ I FDA EPDM U PU	P Pneumatic (can be ignored) E Electric drive CM Handle drive WM Worm gear drive	W	F	220VAC 110VAC 24VDC
V1FS Single flange							
V2FS Double flange							



Demonstration: V2FS300SN-WF/24VDC

Is: Double flange connection butterfly valve, diameter 300mm, wear dust-proof valve plate, NBR seal, with solenoid valve coil voltage of 24 VDC, with MIC23 signal feedback.



#### PNEUMATIC ACTUATOR COUPLING

Butterfly valve size	V*FS100	V*FS150	V*FS200	V*FS250	V*FS300	V*FS350	V*FS400
Under light load	CP 063	CP 063	CP 101	CP 101	CP 101	CP 126	CP 126
Under heavy load	CP 101	CP 101	CP 101	CP 126	CP 126	CP 126T	CP 126T

\* Installation type: 1 - Single flange butterfly valve for sleeve connection  
2 - Double flange butterfly valve  
NO - Detachable open type single flange (double flange with single flange)

#### COUPLING OF MANUAL LEVER

Butterfly valve size	V*FS100	V*FS150	V*FS200	V*FS250	V*FS300	V*FS350	V*FS400
Matching actuator	CM4	CM4	CM4	CM4	CM4	CM3B	CM3B

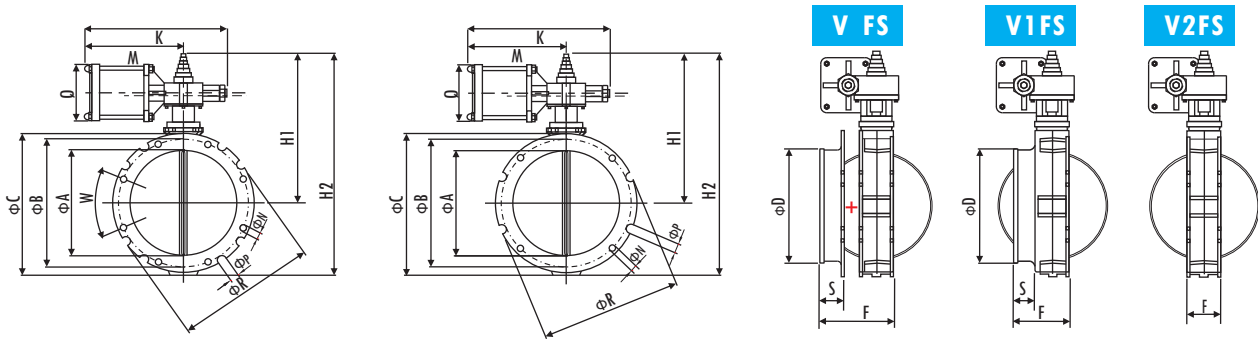
\* Installation type: 1 - Single flange butterfly valve for sleeve connection  
2 - Double flange butterfly valve  
NO - Detachable open type single flange (double flange with single flange)

N.B.. ACTUATOR CHOICE DEPENDS APPLICATION AND TYPE OF MATERIAL, WITH LUMPY, GRANULAR AND FIBROUS PRODUCTS, IT IS ADVISABLE TO USE A CASTIRON OR AISI 304 DISC.



# BULK SOLIDS HANDLING EQUIPMENT

## TECHNOLOGY ABSTRACT VFS



### Detachable open type single flange (double flange with single flange)

TYPE	$\phi A$	$\phi B$	$\phi C$	$\phi D$	F	G	H1	H2	K	M	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	$\phi R$	W	S	Q	kg
V FS100-WF	95	180	220	105	117	35	250	380	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	220	45°	40	110	10
V FS150-WF	150	200	228	163	117	35	255	390	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	228	45°	40	110	11
V FS200-WF	200	250	278	213	117	35	280	440	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	278	45°	40	110	13
V FS250-WF	250	300	328	263	117	35	305	490	260	175	N°8x $\phi$ 14	N°8x $\phi$ 20	325	22.5°	40	110	15
V FS300-WF	300	350	378	313	117	35	340	540	260	175	N°8x $\phi$ 14	N°16x $\phi$ 20	375	22.5°	40	110	18.5
V FS350-WF	350	400	440	363	125	50	400	680	450	280	N°8x $\phi$ 14	N°8x $\phi$ 20	440	22.5°	40	130	35
V FS400-WF	400	470	530	413	125	50	445	740	450	280	N°8x $\phi$ 14	N°16x $\phi$ 20	530	22.5°	40	130	45

### SINGLE FLANGE BUTTERFLY VALVE FOR SLEEVE CONNECTION

TYPE	$\phi A$	$\phi B$	$\phi C$	$\phi D$	F	G	H1	H2	K	M	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	$\phi R$	W	S	Q	kg
V1FS100-WF	95	180	220	105	117	35	250	380	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	220	45°	40	110	10
V1FS150-WF	150	200	228	163	117	35	255	390	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	228	45°	40	110	11
V1FS200-WF	200	250	278	213	117	35	280	440	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	278	45°	40	110	13
V1FS250-WF	250	300	328	263	117	35	305	490	260	175	N°8x $\phi$ 14	N°8x $\phi$ 20	325	22.5°	40	110	15
V1FS300-WF	300	350	378	313	117	35	340	540	260	175	N°8x $\phi$ 14	N°16x $\phi$ 20	375	22.5°	40	110	18.5
V1FS350-WF	350	400	440	363	125	50	400	680	450	280	N°8x $\phi$ 14	N°8x $\phi$ 20	440	22.5°	40	130	35
V1FS400-WF	400	470	530	413	125	50	445	740	450	280	N°8x $\phi$ 14	N°16x $\phi$ 20	530	22.5°	40	130	45

### DOUBLE FLANGE BUTTERFLY VALVE

TYPE	$\phi A$	$\phi B$	$\phi C$	F	G	H1	H2	K	M	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	$\phi R$	W	Q	kg
V2FS100-WF	95	180	220	77	35	250	380	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	220	45°	110	10
V2FS150-WF	150	200	228	77	35	255	390	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	228	45°	110	10
V2FS200-WF	200	250	278	77	35	280	440	260	175	N°4x $\phi$ 14	N°4x $\phi$ 20	278	45°	110	11.5
V2FS250-WF	250	300	328	77	35	305	490	260	175	N°8x $\phi$ 14	N°8x $\phi$ 20	325	22.5°	110	13.5
V2FS300-WF	300	350	378	77	35	340	540	260	175	N°8x $\phi$ 14	N°16x $\phi$ 20	375	22.5°	110	17
V2FS350-WF	350	400	440	85	50	400	680	450	280	N°8x $\phi$ 14	N°8x $\phi$ 20	440	22.5°	130	33
V2FS400-WF	400	470	530	85	50	445	740	450	280	N°8x $\phi$ 14	N°16x $\phi$ 20	530	22.5°	130	42

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SILO DISCHARGE BUTTERFLY VALVES

### Powder butterfly valve VFS-Series

VFS butterfly valve body is made of lightweight high-pressure cast aluminum alloy. The sealing structure formed by the wear-resistant disc and the wear-resistant rubber sealing ring is very suitable for various powder and granular materials, especially for materials with strong abrasiveness.



#### HOW TO ORDER

V 2 FS

300

S

N

Connection	-DN	Discs	Sealinging
V FS DOUBLE FLANGE WITH SINGLE FLANGE	100 300 150 350 200 400 250	S Wear-resistant dustproof disc GB Cast iron valve disc A Stainless steel disc L Aluminum alloy disc	N NBR E EPDM B WHITE EPDM S VMQ I FDA EPDM U PU
V1FS SINGLE FLANGE			
V2FS DOUBLE FLANGE			

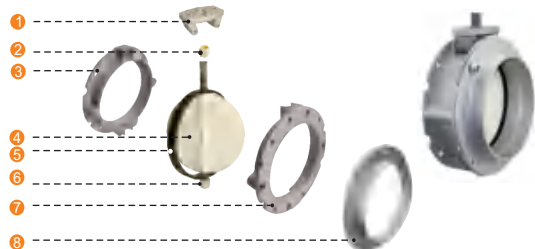
#### V1FS-GBN series

- 1 Yoke-Casting Aluminium Alloy
- 2 Shaft Sleeve-Nylon
- 3 Valve Body-Casting Aluminium Alloy
- 4 GB Series Disc-Nodular cast iron GS 400/12
- 5 N Series Sealing Ring-NBR Rubber
- 6 Shaft Sleeve-Nylon
- 7 Valve Body-Casting Aluminium Alloy



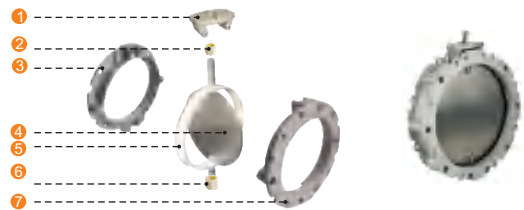
#### V.FS-SN series

- 1 Yoke-Casting Aluminium Alloy
- 2 Shaft Sleeve-Nylon
- 3 Valve Body-Casting Aluminium Alloy
- 4 S Series Disc-Wear-resisting High Molecular Material
- 5 N Series Sealing Ring-NBR Rubber
- 6 Shaft Sleeve-Nylon
- 7 Valve Body-Casting Aluminium Alloy
- 8 Valve Body-Detachable open type single flange (double flange with single flange)



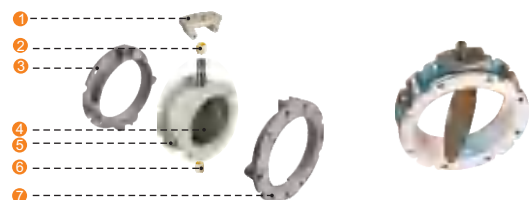
#### V2FS-AS series

- 1 Yoke-Casting Aluminium Alloy
- 2 Shaft Sleeve-Nylon
- 3 Valve Body-Casting Aluminium Alloy
- 4 A Series Disc-Stainless Steel 304/316
- 5 S Series SI Sealing Ring-Rubber
- 6 Shaft Sleeve-Nylon
- 7 Valve Body-Casting Aluminium Alloy



#### V2FS-AI series

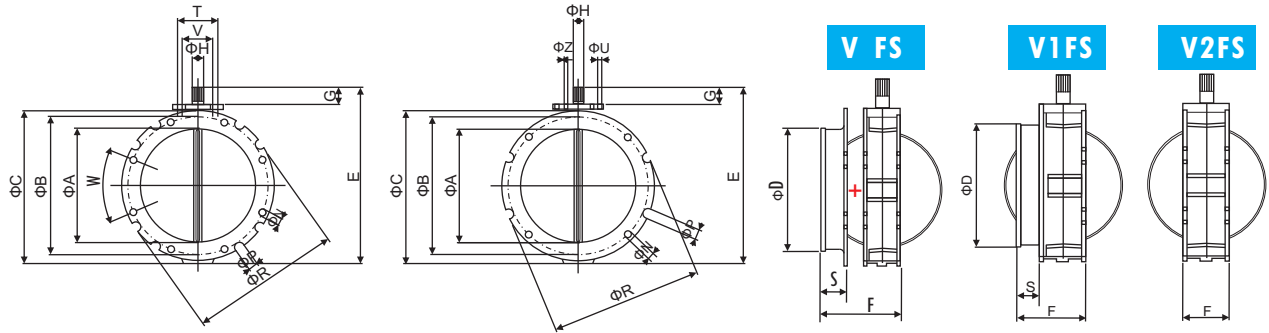
- 1 Yoke-Casting Aluminium Alloy
- 2 Shaft Sleeve-Nylon
- 3 Valve Body-Casting Aluminium Alloy
- 4 A Series Disc-Stainless Steel 304/316
- 5 I Series Sealing ring-Rubber for Foodstuff Industry
- 6 Shaft Sleeve-Nylon
- 7 Valve Body-Casting Aluminium Alloy



# BULK SOLIDS HANDLING EQUIPMENT

## TECHNOLOGY ABSTRACT

### VFS – Technical parameters



#### Detachable open type single flange (double flange with single flange)

TYPE	Φ A	Φ B	Φ C	Φ D	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	Φ R	W	S	T	U	V	Z	kg
V FS 100	95	180	220	105	250	117	35	22x19	N°4x φ 14	N°4x φ 20	220	45°	40	80	M12	50	M10	6
V FS 150	150	200	228	163	290	117	35	22x19	N°4x φ 14	N°4x φ 20	228	45°	40	80	M12	50	M10	7
V FS 200	200	250	278	213	340	117	35	22x19	N°4x φ 14	N°4x φ 20	278	45°	40	80	M12	50	M10	9
V FS 250	250	300	328	263	390	117	35	22x19	N°8x φ 14	N°8x φ 20	325	22.5°	40	80	M12	50	M10	11
V FS 300	300	350	378	313	440	117	35	22x19	N°8x φ 14	N°16x φ 20	375	22.5°	40	80	M12	50	M10	15
V FS 350	350	400	440	363	530	125	50	28x25	N°8x φ 14	N°8x φ 20	440	22.5°	40	80	M12	-	-	24
V FS 400	400	470	530	413	580	125	50	28x25	N°8x φ 14	N°16x φ 20	530	22.5°	40	80	M12	-	-	33

#### SINGLE FLANGE BUTTERFLY VALVE FOR SLEEVE CONNECTION

TYPE	Φ A	Φ B	Φ C	Φ D	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	Φ R	α	S	T	U	V	Z	kg
V1FS 100	95	180	220	105	250	117	35	22x19	N°4x φ 14	N°4x φ 20	220	45°	40	80	M12	50	M10	6
V1FS 150	150	200	228	163	290	117	35	22x19	N°4x φ 14	N°4x φ 20	228	45°	40	80	M12	50	M10	7
V1FS 200	200	250	278	213	340	117	35	22x19	N°4x φ 14	N°4x φ 20	278	45°	40	80	M12	50	M10	9
V1FS 250	250	300	328	263	390	117	35	22x19	N°8x φ 14	N°8x φ 20	325	22.5°	40	80	M12	50	M10	11
V1FS 300	300	350	378	313	440	117	35	22x19	N°8x φ 14	N°16x φ 20	375	22.5°	40	80	M12	50	M10	15
V1FS 350	350	400	440	363	530	125	50	28x25	N°8x φ 14	N°8x φ 20	440	22.5°	40	80	M12	-	-	24
V1FS 400	400	470	530	413	580	125	50	28x25	N°8x φ 14	N°16x φ 20	530	22.5°	40	80	M12	-	-	33

#### DOUBLE FLANGE BUTTERFLY VALVE

TYPE	Φ A	Φ B	Φ C	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	Φ R	α	T	U	V	Z	kg
V2FS 100	95	180	220	250	77	35	22x19	N°4x φ 14	N°4x φ 20	220	45°	80	M12	50	M10	6
V2FS 150	150	200	228	290	77	35	22x19	N°4x φ 14	N°4x φ 20	228	45°	80	M12	50	M10	6
V2FS 200	200	250	278	340	77	35	22x19	N°4x φ 14	N°4x φ 20	278	45°	80	M12	50	M10	7.5
V2FS 250	250	300	328	390	77	35	22x19	N°8x φ 14	N°8x φ 20	325	22.5°	80	M12	50	M10	9.5
V2FS 300	300	350	378	440	77	35	22x19	N°8x φ 14	N°16x φ 20	375	22.5°	80	M12	50	M10	13
V2FS 350	350	400	440	530	85	50	28x25	N°8x φ 14	N°8x φ 20	440	22.5°	80	M12	-	-	21
V2FS 400	400	470	530	580	85	50	28x25	N°8x φ 14	N°16x φ 20	530	22.5°	80	M12	-	-	30

Dimensions in mm

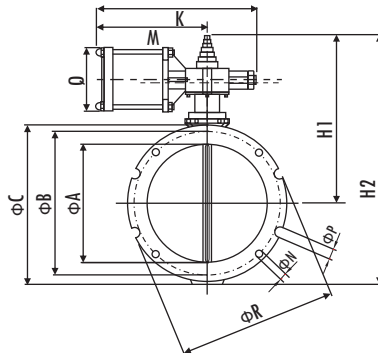
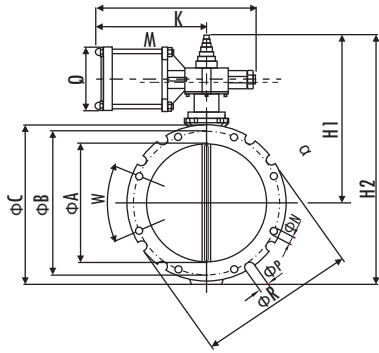


# BULK SOLIDS HANDLING EQUIPMENT

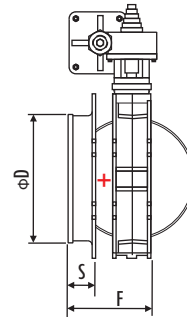
## TECHNOLOGY ABSTRACT

### VFS-AI – technical parameter

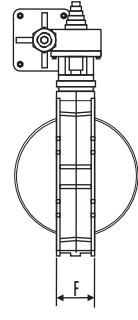
V2FS-AI-WF



VFS-WF



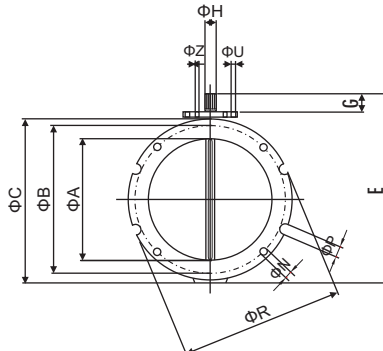
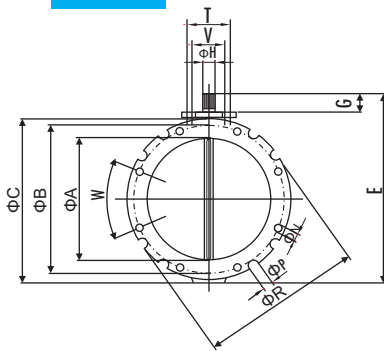
V2FS-WF



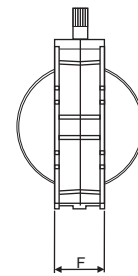
### FOOD-GRADE BUTTERFLY VALVE

TYPE	Φ A	Φ B	Φ C	F	G	H1	H2	K	M	N Drilling Bohrungen Trous Fori	P External grooves Einbuchungen Evidages Incavi	Φ R	W	Q	kg
V2FS100AI-WF	90	180	220	84	35	250	380	260	175	N 4xΦ 14	N°4x Φ 20	220	45°	110	8
V2FS150AI-WF	145	200	228	84	35	255	390	260	175	N 4xΦ 14	N°4x Φ 20	228	45°	110	9
V2FS200AI-WF	195	250	278	84	35	280	440	260	175	N 4xΦ 14	N°4x Φ 20	278	45°	110	10
V2FS250AI-WF	245	300	328	84	35	305	490	260	175	N 8xΦ 14	N°8x Φ 20	325	22.5°	110	12
V2FS300AI-WF	295	350	378	84	35	340	540	260	175	N 8xΦ 14	N°16x Φ 20	375	22.5°	110	14

V2FS-AI



V2FS



### FOOD-GRADE BUTTERFLY VALVE

TYPE	Φ A	Φ B	Φ C	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	P External grooves Einbuchungen Evidages Incavi	Φ R	W	T	U	V	Z	kg
V2FS100AI	90	180	220	250	84	35	22x19	N 4xΦ 14	N°4x Φ 20	220	45°	80	M12	50	M10	4
V2FS150AI	145	200	228	290	84	35	22x19	N 4xΦ 14	N°4x Φ 20	228	45°	80	M12	50	M10	5
V2FS200AI	195	250	278	340	84	35	22x19	N 4xΦ 14	N°4x Φ 20	278	45°	80	M12	50	M10	6.5
V2FS250AI	245	300	328	390	84	35	22x19	N 8xΦ 14	N°8x Φ 20	325	22.5°	80	M12	50	M10	8
V2FS300AI	295	350	378	440	84	35	22x19	N 8xΦ 14	N°16x Φ 20	375	22.5°	80	M12	50	M10	10

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SILO DISCHARGE BUTTERFLY VALVES

### Powder pneumatic valve SD-Series

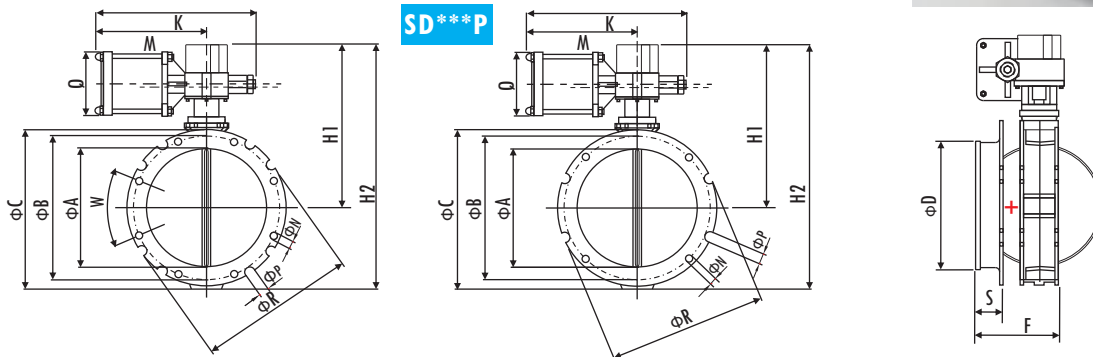
The body of the SD butterfly valve is made of lightweight high-pressure cast aluminum alloy, and the sealing structure formed by the wear-resistant disc and the wear-resistant rubber sealing ring is very suitable. Various applications of powder and granular materials, especially for abrasive materials.

#### HOW TO ORDER

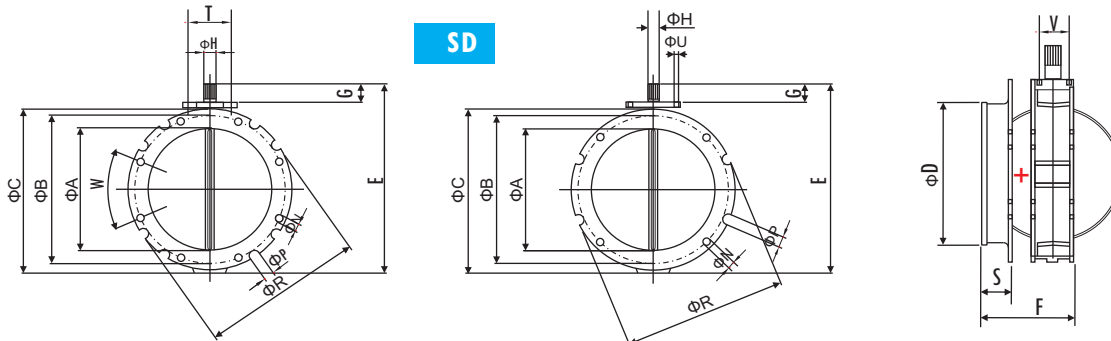
**SD**    **300**    **P**    /    **220V**

Type	-DN	-Driver	/	Control voltage
------	-----	---------	---	-----------------

<b>S1D</b> SINGLE FLANGE	100 250	<b>P</b> Pneumatic		220VAC
<b>S2D</b> DOUBLE FLANGE	150 300 200	<b>M</b> Manual		110VAC 24VDC



TYPE	Φ A	Φ B	Φ C	Φ D	F	G	H1	H2	K	M	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	Φ R	W	Q	kg
<b>SD100P</b>	90	180	220	105	117	35	250	380	260	175	N 4xφ 14	N°4x φ 20	220	45°	110	8
<b>SD150P</b>	145	200	228	163	117	35	255	390	260	175	N 4xφ 14	N°4x φ 20	228	45°	110	9
<b>SD200P</b>	195	250	278	213	117	35	280	440	260	175	N 4xφ 14	N°4x φ 20	278	45°	110	10
<b>SD250P</b>	245	300	328	263	117	35	305	490	260	175	N 8xφ 14	N°8x φ 20	325	22.5°	110	12
<b>SD300P</b>	295	350	378	313	117	35	340	540	260	175	N 8xφ 14	N°16x φ 20	375	22.5°	110	14



TYPE	Φ A	Φ B	Φ C	Φ D	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	P External grooves Einbuchtungen Evidages Incavi	Φ R	W	T	U	V	kg
<b>SD 100</b>	90	180	220	105	250	117	35	22x19	N 4xφ 14	N°4x φ 20	220	45°	65	M8	54	4
<b>SD 150</b>	145	200	228	163	290	117	35	22x19	N 4xφ 14	N°4x φ 20	228	45°	65	M8	54	5
<b>SD 200</b>	195	250	278	213	340	117	35	22x19	N 4xφ 14	N°4x φ 20	278	45°	65	M8	54	6.5
<b>SD 250</b>	245	300	328	263	390	117	35	22x19	N 8xφ 14	N°8x φ 20	325	22.5°	65	M8	54	8
<b>SD 300</b>	295	350	378	313	440	117	35	22x19	N 8xφ 14	N°16x φ 20	375	22.5°	65	M8	54	10

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SILO DISCHARGE BUTTERFLY VALVES

### Stainless steel Butterfly valve-VFC-Series

The valve body and valve disc are made of stainless steel. The sealing structure formed by the stainless steel disc and the wear-resistant rubber sealing ring is very suitable for various powders andThe application of granular materials, especially for food-grade materials.

#### Butterfly Valve

### VFC

#### Performance & Technical Features - Benefits

- Pressure: 0.2 bar (2.9 PSI)
- Splined shaft and bushing connection in accordance with DIN 5482
- Can match other drives

#### Options & Accessories

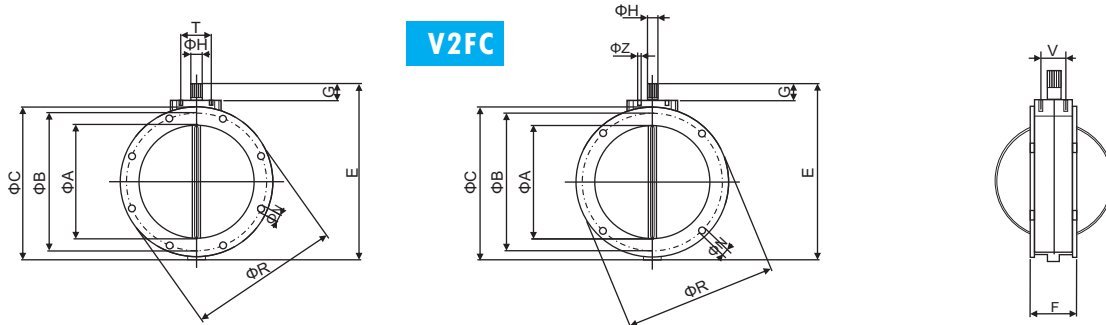
- Pneumatic actuators: CP 063 - CP 101 - CP 126
- Switch box: MIC 23
- 5/2Solenoid valve: 4V210&4V310
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC



#### HOW TO ORDER:

V 2 FC 300 A S - W F / 220 EX

Connection	-DN	Discs	Sealinging	-Driver	-control signal	Pilot valve / voltage
V2FC DOUBLE FLANGE	100 150 200 250 300 350 400	A AISI 304 R AISI 316	N NBR B EPDM S VMQ V FKM	P Pneumatic CM Manual	W Switch box F Solenoid valves	220VAC 110VAC 24VDC EX Explosion proof



#### DOUBLE FLANGE BUTTERFLY VALVE

TYPE	Φ A	Φ B	Φ C	E	F	G	Φ H DIN5482	N Drilling Bohrungen Trous Fori	Φ R	T	V	Z	kg
V2FC 100	100	180	220	250	78	35	22x19	N°4x φ 13	205	50	50	M10	9
V2FC 150	150	200	228	290	78	35	22x19	N°4x φ 13	225	50	50	M10	9
V2FC 200	200	250	278	340	78	35	22x19	N°4x φ 13	275	50	50	M10	12
V2FC 250	250	300	328	390	78	35	22x19	N°8x φ 13	325	50	50	M10	15
V2FC 300	300	350	378	440	78	35	22x19	N°8x φ 13	375	50	50	M10	20
V2FC 350	350	400	440	530	86	50	28x25	N°8x φ 13	425	80	80	-	33
V2FC 400	400	470	530	580	86	50	28x25	N°8x φ 13	495	80	80	-	45

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## BUTTERFLY VALVE FOR SILO

### Silo Discharge Butterfly Valve -VFF-Series

The VFF silo closing butterfly valve is suitable for gravity-fed dry material processing plants that require interception in various buildings. Suitable for hopper, silo, etc.

Butterfly Valve

**V2FF**

HOW TO ORDER

V2FF

300

F

1



Connection	-DN	Discs	Flange style
------------	-----	-------	--------------

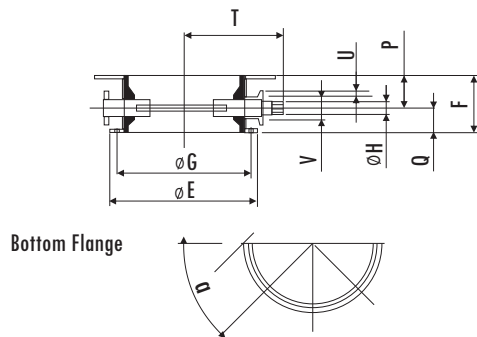
V2FF DOUBLE FLANGE

150	300
200	500
250	600

F Carbon steel  
A Stainless steel

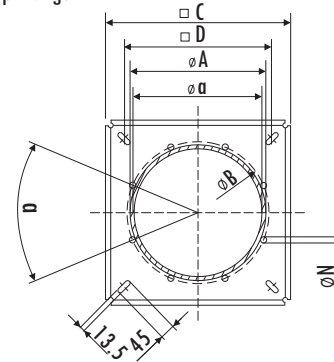
1 Square  
3 Round shape

Butterfly Valves with Square Top Flange and Round Bottom Flange



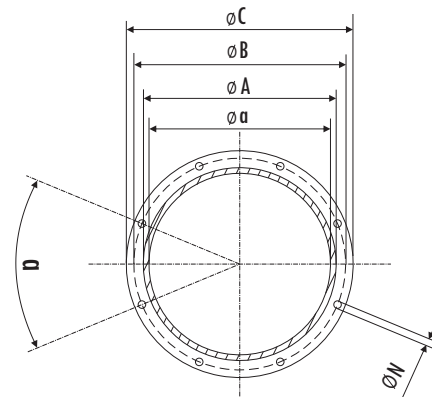
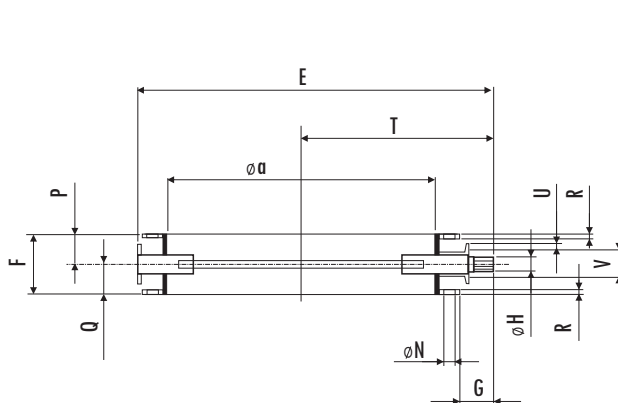
V2FF

Top Flange



#### CONNECTION SIZE

TYPE	Φa	ΦA	ΦB	ΦC	ΦD	ΦE	F	ΦG	ΦH DIN 5482	ΦN DRILLINGS	Nr of DRILLINGS	P	Q	R	α	T	U	V	kg
V2FF250F14N	245	268	375	400	325	328	100	300	22 x 19	13.5	8	50	50	6	45°	202	M 12	50	16
V2FF300F19N	295	318	400	450	370	378	100	350	22 x 19	13.5	8	50	50	6	45°	210	M 12	50	19



#### CONNECTION SIZE

TYPE	Φa	ΦA	ΦB	ΦC	ΦE	F	G	ΦH DIN 5482	ΦN DRILLINGS	Nr of DRILLINGS	P	Q	R	α	T	U	V	kg
V2FF 250 F34N	245	268	300	328	400	100	50	22 x 19	13.5	8	50	50	6	45°	214	M 12	50	8.6
V2FF 300 F35N	295	318	350	378	450	100	50	22 x 19	13.5	8	50	50	6	45°	239	M 12	50	10
V2FF 500 F61N	500	530	590	620	688	200	64	28 x 25	17.5	8	50	50	10	45°	374	M 12	80	38

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## IRIS VALVE FOR BULK BAG

### Iris diaphragm valve-IR-Series

The iris valve is mainly used for unloading bulk material bags. The valve acts to cut off the flow of materials by tightening the neck of the material bag. The iris valve performs well when conveying explosive materials and brittle materials.

#### ↙ Iris Valve

**IR**

*Performance & Technical Features - Benefits*

- A variety of diaphragm materials are available, suitable for different media materials
- Simple valve operation and maintenance
- Diaphragm and bushing are easy to replace and inexpensive
- The iris valve will not get stuck
- Aperture type opening and closing, large flow path, no blocking, fast discharge speed



### HOW TO ORDER

**IR**

**300**

**A**

**T**

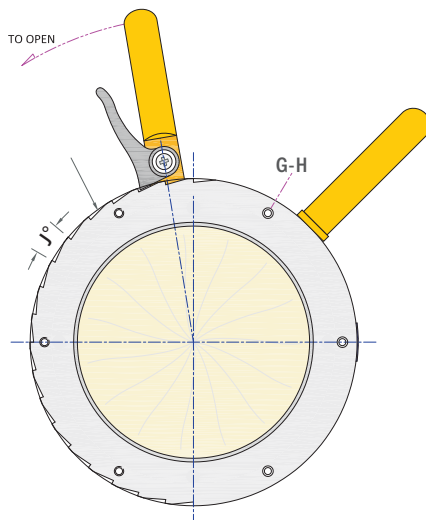
TYPE	-DN	Body	Diaphragm material
------	-----	------	--------------------

**IR**

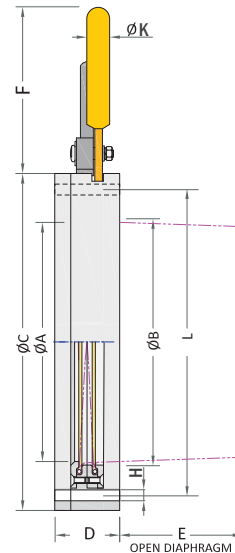
100	250
150	300
200	400
	450

<b>A</b>	AISI304
<b>R</b>	AISI316
<b>C</b>	Carbon steel

<b>T</b>	Terylene
<b>N</b>	Nylon
<b>A</b>	AntiStatic Nylon
<b>U</b>	Urethane
<b>C</b>	Cotton



**IR**



Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
IR 300	300	297	300	380	44	152	150	6	M10	12,5	25	358	16

Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## IRIS DIAPHRAGM VALVE

### Iris diaphragm valve-AD-Series

The AD series iris valve is mainly used to unload bulk material bags. The valve is used to tighten the neck of the material bag and cut off the flow of materials. The iris valve performs well when conveying explosive materials and brittle materials. Double diaphragm structure, good sealing effect.



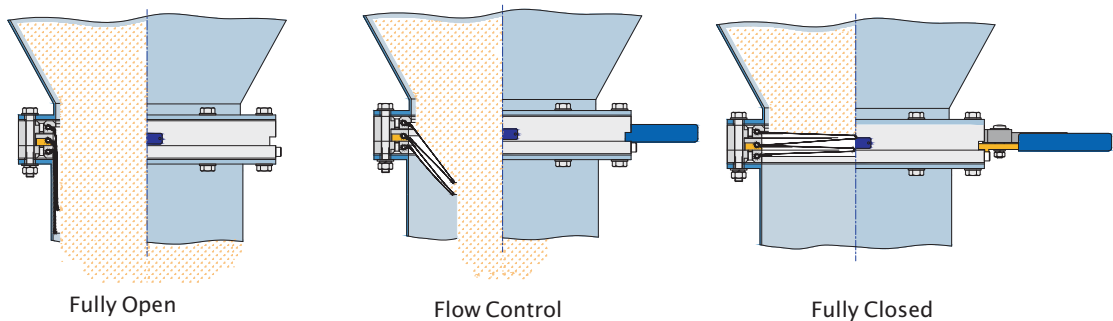
#### Performance & Technical Features - Benefits

- AD Series Iris Valves have a double diaphragm for in-line applications with no leakage of powders to the atmosphere.
- Robust construction for medium to heavy duty applications. This valve is able to handle materials up to 1600 Kg / m<sup>3</sup>.
- Proven design and is suitable for frequent operation.
- There are a number of different diaphragms that could be used to suit your specific application.
- Ø Standard AD Iris Valve Range - Nominal Bore size 80mm to 450mm
- Ø Notched AD Iris Valve range — Nominal Bore size 80mm to 450mm

### HOW TO ORDER

AD	12	A																									
TYPE	Diameter (inch)	Body material	Diaphragm material																								
AD	<table border="1"> <tr> <td>3"=80mm</td> <td>12"=300mm</td> </tr> <tr> <td>4"=100mm</td> <td>15"=380mm</td> </tr> <tr> <td>8"=200mm</td> <td>18"=400mm</td> </tr> <tr> <td>10"=250mm</td> <td></td> </tr> </table>	3"=80mm	12"=300mm	4"=100mm	15"=380mm	8"=200mm	18"=400mm	10"=250mm		<table border="1"> <tr> <td>A</td> <td>AISI304</td> </tr> <tr> <td>R</td> <td>AISI316</td> </tr> <tr> <td>L</td> <td>Aluminum</td> </tr> </table>	A	AISI304	R	AISI316	L	Aluminum	<table border="1"> <tr> <td>T</td> <td>Terylene</td> </tr> <tr> <td>N</td> <td>Nylon</td> </tr> <tr> <td>A</td> <td>AntiStatic Nylon</td> </tr> <tr> <td>U</td> <td>Urethane</td> </tr> <tr> <td>C</td> <td>Cotton</td> </tr> </table>	T	Terylene	N	Nylon	A	AntiStatic Nylon	U	Urethane	C	Cotton
3"=80mm	12"=300mm																										
4"=100mm	15"=380mm																										
8"=200mm	18"=400mm																										
10"=250mm																											
A	AISI304																										
R	AISI316																										
L	Aluminum																										
T	Terylene																										
N	Nylon																										
A	AntiStatic Nylon																										
U	Urethane																										
C	Cotton																										

### APPLICATION



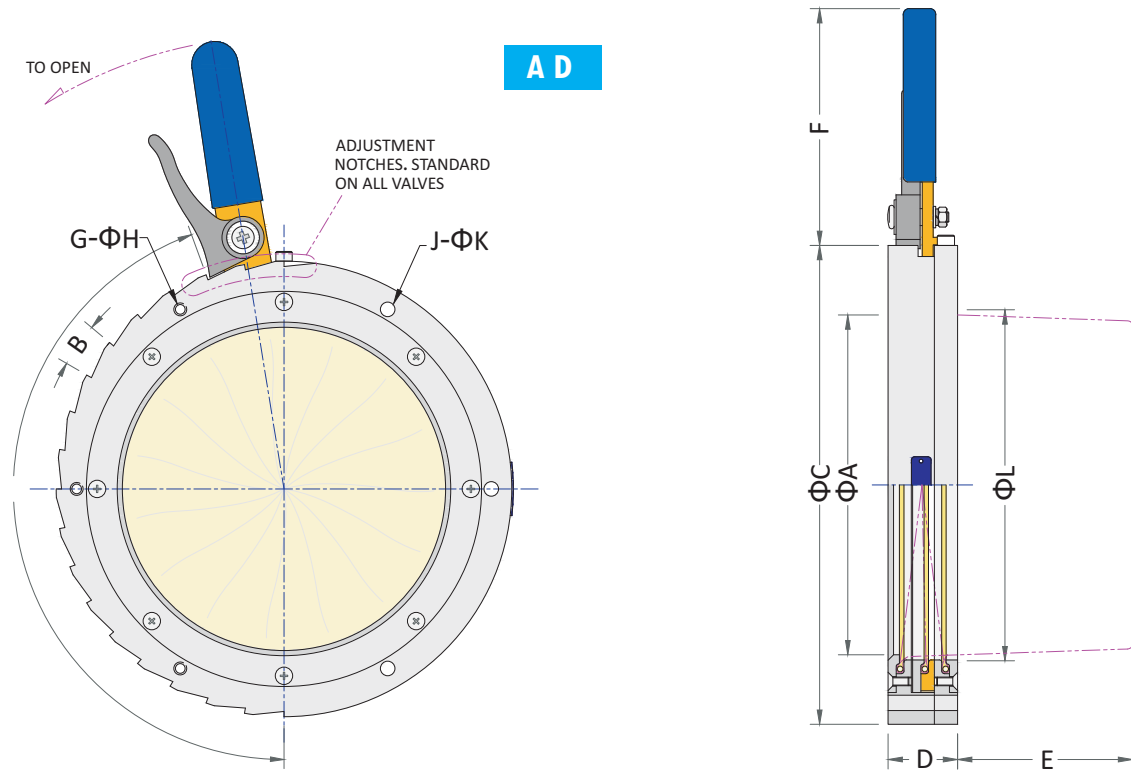
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## IRIS DIAPHRAGM VALVE

### Hand Operated valve-AD-Series

#### Overall Dimensions



#### CONNECTION SIZE

Valve Type	Nominal Bore	A	B	C	D	E	F	G	H	J	K	L	Nett Weight
AD 3	3"(80mm)	73	78	127	35	38	109	3	M6	3	7	113	4,0
AD 4	4"(100mm)	102	102	172	46	50	136	3	M8	3	9	156	5,8
AD 6	6"(150mm)	147	153	228	41	75	136	3	M8	3	9	203	9,4
AD 8	8"(200mm)	198	204	280	41	102	136	3	M8	3	9	254	12,0
AD 10	10"(250mm)	250	260	356	52	127	174	4	M10	4	11	327	22,0
AD 12	12"(300mm)	300	310	406	52	152	174	4	M10	4	11	278	25,4
AD 15	15"(380mm)	381	387	498	59	190	180	6	M10	6	11	470	42,1
AD 18	18"(450mm)	457	464	575	59	228	180	6	M10	6	11	546	48,5

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## IRIS DIAPHRAGM VALVE

### Iris Diaphragm Valve-AD-Series

#### DIAPHRAGM OPTINS

DIAPHRAGM TYPE	FABRIC	COATED FABRIC	RUBBER
Powder		Yes	Yes
Granules	Yes	Yes	Yes
Abrasive	+		Yes
Hygienic			Yes
Pressure		Yes	
Vacuum		Yes	
Temperature	Yes	++	

+ Terylene is abrasion resistant

++ Viton Coated Terylene is ok for 200°C.

Select most appropriate material using the diaphragm selection guide.

#### DIAPHRAGM TYPE

APPLICATION	Food Quality White Rubber	Rubber	TPU	Leno	Nylon	AntiStatic Nylon	Hypalon Coated Nylon	Polyurethane Coated Nylon	Teflon	Terylene	Viton Coated Terylene
Powders below 150 mesh	..	..	..	..			..	..			..
Granules over 150 mesh	.	.	.	.	.	.	.	.	.	.	.
Lumps	..	..	..	.	.	.	.	.	.	.	.
Slurry	Under 1Mhead	Under 1Mhead	Under 1Mhead	.			.	.			.
Liquid	Under 1Mhead	Under 1Mhead	Under 1Mhead	.			.	.			.
Air or Gas				.			.	.			.
Abrasion resistance	.	..	.	.	.	.	.	.	..	..	
Acid	.	.						.			
Alkali	.	.	.	.	.	.	.	.	.		
Max temperature	70°C	70°C	70°C	70°C	110°C	110°C	120°C	100°C	250°C	120°C	200°C
Min temperature	-0°C	-0°C	-0°C	-0°C	-5°C	-5°C	-5°C	-0°C	-5°C	-5°C	-0°C
Pressure or vacuum		Below 0.4 bar		Up to 0.20 bar							
Food or pharm	..				.	.	.	.	..	.	
Infestation or mould growth	.			.	.	.	.		..	..	
Dangerous static			.		.	.					
Hygroscopic	..	..					.	.			
Oil or Fat content					.	.	..	.	.	.	.
Poor flow	..	..	..								
Flammability	Inflammable	Inflammable	Inflammable	Flammable	Inflammable		Will not propagate a flame			Inflammable	
Weather resistance	Good	Excellent	Good	Very Good	Slow loss of strength		Excellent	Excellent	Excellent	Slow loss of strength	Good
Tensile strength kgs/c m <sup>2</sup>	120	120	120	5.625	4.6		25% above Basematerial	25% above basematerial	4.6	6.4	6.4
Elongation & break	700%	700%	700%	25%	25%		25%	25%	13%	30%	30%
Cost factor	2	2	2	1	1	1	1	1	5	1	5
Availability 1-best 5-worst	1	1	2	3	1	4	3	1	4	2	4

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PRESSURE RELIEF VALVE

### Pressure Relief Valve-VCP-Series

The VCP series pressure relief valve is used to discharge the high pressure in the cement silo. When the pressure reaches the preset pressure limit, these valves begin to operate.

#### Pressure Relief Valve

### VCP

#### Performance & Technical Features

- Carbon steel body (VCP2731 / VCP3751) painted RAL 7001 or 304 stainless steel body (VCP2732 / VCP 3752)
- Weather protection cover in stainless steel for all versions, Body diameter = 273 / 356mm (10" / 14")  
Air volume up to 7,000m<sup>3</sup>/h (4,120 cfm) for VCP273 or 13,000m<sup>3</sup>/h (7,650 cfm) for VCP375
- Equipment for inductive signalling sensors
- All standard versions preset for an activation negative pressure of - 0.005 bar (0.07 psi) and an excess pressure of + 0.05 bar (0.72 psi)
- In case of particular customer requirements calibration can be changed by means of a special spring kits



#### How To Order

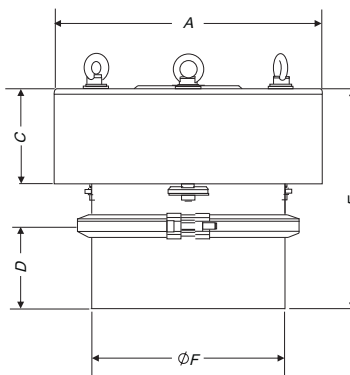
VCP	273	1	B
Type	Body diameter	Body	Connection type
Pressure Relief Valves	273 mm	0 = Carbon steel body 1 = Carbon steel body and stainless steel 2 = Stainless steel body AISI304 3 = Stainless steel body AISI316	B = Clip C = Flange

#### Pressure Relief Valve

Calibration by manufacturer

Pressure  
500mm H<sub>2</sub>O

Negative Pressure  
-20mm H<sub>2</sub>O



Pressure  
280 → 1000mm H<sub>2</sub>O \*

Negative Pressure  
-20 → -120mm H<sub>2</sub>O \*

#### CONNECTION SIZE

Type	A	B	C	D	E	ΦF	kg	Body	LxWxH (mm)
VCP2730	380		125	120	325	273	12	WCB	410x410x355
VCP2731								WCB&SUS304	
VCP2732								SUS304	
VCP2733								SUS316	

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## VALVE ACTUATORS

### Electropneumatic Actuator-CP-Series

CP type piston type electromagnetic pneumatic driver is suitable for controlling the opening and closing of VFS type butterfly valve, VSS type ball valve and DVA type two-way diverter valve

#### Pneumatic Actuator

**CP**



#### Performance & Technical Features - Benefits

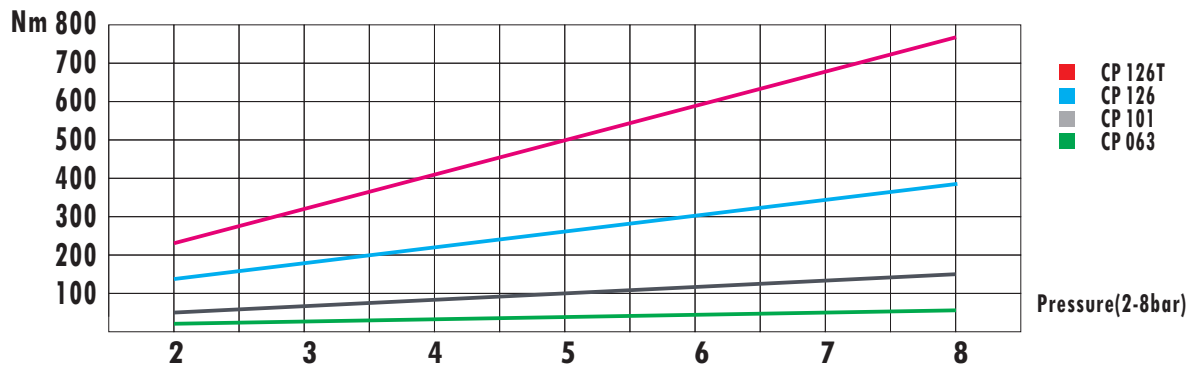
- pressure: 2 ~ 8 bar (29 ~ 116 PSI)
- Shaft and sleeve connection conform to DIN 5482 standard
- Interchangeable with other types of drives

#### Options & Accessories

- Switch box: MIC 23
- 5/2Solenoid valve: V5V80 - V5V40
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

#### How To Order

CP	101		W	F	/24VDC
TYPE	Path	Connection Processes	Switch box	Solenoid valve	Voltage
CP : Actuator	063 101 126	Blank = Standard T = TANDEM TC = Three-position	W = MIC23	F = Solenoid valve	24VDC 220VAC 110VAC



#### PNEUMATIC ACTUATOR COUPLING

Valve diameter	V.FS100	V.FS150	V.FS200	V.FS250	V.FS300	V.FS350	V.FS400
Under light load	CP 063	CP 063	CP 101	CP 101	CP 101	CP 126	CP 126
Under heavy load	CP 101	CP 101	CP 101	CP 126	CP 126	CP 126T	CP 126T

Dimensions in mm



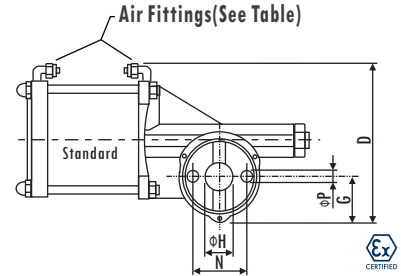
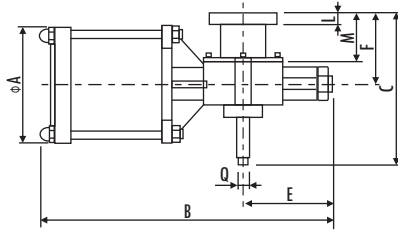
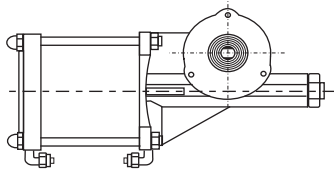
# BULK SOLIDS HANDLING EQUIPMENT

## VALVE ACTUATORS

### Electropneumatic Actuator-CP-Series

#### Actuator

#### CP

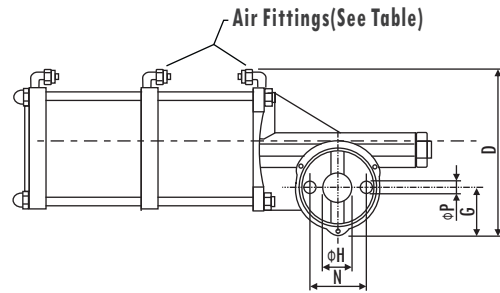
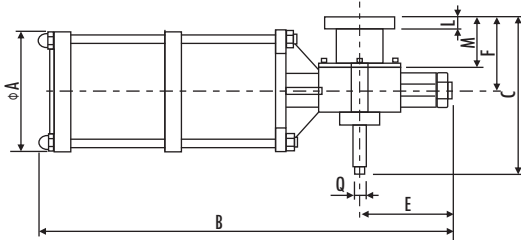


#### CONNECTION SIZE

TYPE	$\phi A$	B	C	D	E	F	G	$\phi H$ DIN 5482	L	M	N	$\phi P$	Q	$\phi$ Thread	$\phi$ Hose	Air Consumption per Cycle at 6 bar(Nl)	Operation time in sec.at 6 bar	Kg
CP063	70	265	130	140	85	60	33	22X19	10	47	50	11	12	1/8 "	8x6	2.0(x2)	0.8	2.8
CP101	106	260	130	150	85	60	33	22X19	10	47	50	11	12	1/8 "	8x6	4.4(x2)	0.8	3.3
CP126	125	450	180	215	170	100	65	28x25	16	52	80	13	12	1/4 "	8x6	6.3(x2)	0.8	9.5

#### TANDEM Actuator

#### CP - T

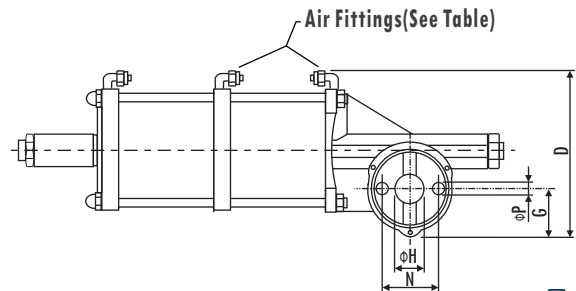
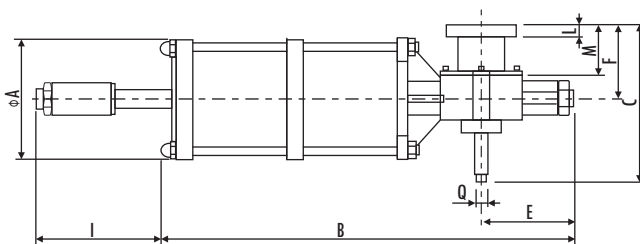


#### CONNECTION SIZE

TYPE	$\phi A$	B	C	D	E	F	G	$\phi H$ DIN 5482	L	M	N	$\phi P$	Q	$\phi$ Thread	$\phi$ Hose	Air Consumption per Cycle at 6 bar(Nl)	Operation time in sec.at 6 bar	Kg
CP126	125	600	180	215	170	100	65	28x25	16	52	80	13	12	1/4 "	8x6	6.3(x2)	0.8	15

#### pneumatic Actuator

#### CP - TC



#### CONNECTION SIZE

TYPE	$\phi A$	B	C	D	E	F	G	$\phi H$ DIN 5482	I	L	M	N	$\phi P$	Q	Thread	$\phi$ Hose	Air Consumption	Operation time in sec.at 6 bar	Kg
CP063TC	70	380	130	140	85	60	33	22X19	150	10	47	50	11	12	1/8 "	8x6	2.0(x2)	0.8	3.3
CP101TC	106	380	130	150	85	60	33	22X19	150	10	47	50	11	12	1/8 "	8x6	4.4(x2)	0.8	5.0
CP126TC	125	600	180	215	170	100	65	28x25	200	16	52	80	13	12	1/4 "	8x6	6.3(x2)	0.8	15

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## VALVE ACTUATORS

### Electropneumatic Actuator-RA-Series

The RA piston type electromagnetic pneumatic driver is suitable for controlling the opening and closing of the SD butterfly valve

#### Pneumatic Actuator

## RA

### Performance & Technical Features - Benefits

- pressure: 2 ~ 8 bar (29 ~ 116 PSI)
- Shaft and sleeve connection conform to DIN 5482 standard
- Interchangeable with other types of drives

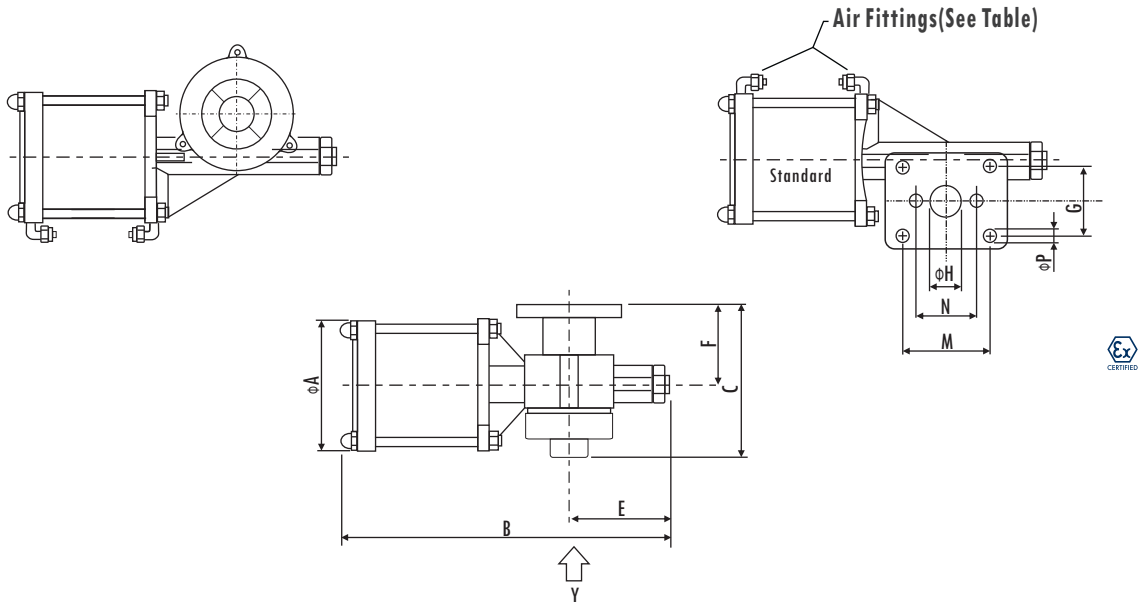
### Options & Accessories

- Switch box: MIC 23
- 5/2Solenoid valve: V5V80 - V5V40
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC



### How To Order

RA	100	/24VDC
TYPE	Path	Voltage
RA : Actuator	100	24-110-220 DC/AC



### CONNECTION SIZE

TYPE	Φ A	B	C	D	E	F	G	Φ H DIN 5482	M	N	Φ P	Φ Thread	Φ Hose	Air Consumption per Cycle at 6 bar(NI)	Operation time in sec.at 6 bar	Kg
RA 100	110	260	130	150	85	60	54	22X19	65	50	10	1/8 "	8x6	4.4(x2)	0.8	3.3
DA 100	110	260	130	150	85	60	54	22X19	65	50	10	1/8 "	8x6	4.4(x2)	0.8	3.3

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SIGNALLING SYSTEMS

### Switch Box-MIC-Series

MIC series mini signal switch box is suitable for CP type actuator to open and close the output signal feedback



#### Performance & Technical Features - Benefits

- High strength of PC shell, switch position can be clearly identified indicator
- Protection grade: IP67/NEMA4&4X (standard) IP68 (option)
- Device: can adjust the positioning cam cam position signal
- Mechanical switch: 2SPDT
- Contact: 250VAC/16A、400VAC/10A、
- Single-wire interface: PG9
- Terminal: 5points(0.08-2.5mm<sup>2</sup>)



Micro-Switch Box

IP 66  
0-10A 400V  
0-16A 250V

320g

## SIGNALLING SYSTEMS

### Switch Box-APL-Series

APL series mini signal switch box is suitable for GT and AT type actuator to open and close the output signal feedback



	<b>APL - 2 10</b>	<b>N</b>
<b>Enclosure</b> ←		↓ <b>Bolt on Position Indicator</b>
2 (Mini)		
3 (IP67)		
4 (E Exd II BT6)		
5 (E Exd II CT6)		
<b>Switch type</b> ←		
Mechanical switch	Proximity switch	Reed type Proximity Sensor
10 2-SPDT	20 P&F. NJ2-V3-N	30 Normal temperature type
11 3-SPDT	21 Autonics.ps17-5Dnu	31 High temperature type
12 4-SPDT	22 P&F NJ4-12GM-N	
13 2-SPDT	23 NBB2-V3	
14 2-SPDT		
15		

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## MANUAL LEVER

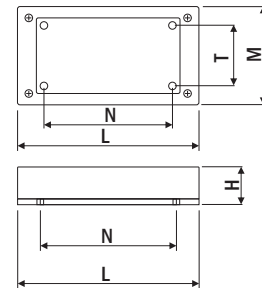
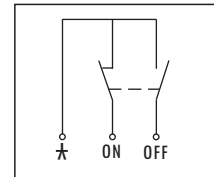
### Switch Box-GTB-Series

GTB type mini signal switch box is suitable for GT/AT type actuator to open and close the output signal feedback



#### Performance & Technical Features - Benefits

- High strength of PC shell, switch position can be clearly identified indicator
- Protection grade: IP67/NEMA4&4X (standard) IP68 (option)
- Device: can adjust the positioning cam cam position signal
- Mechanical switch: 2SPDT
- Contact: 250VAC/16A、400VAC/10A、
- Single-wire interface: PG9
- Terminal: 5points(0.08-2.5mm<sup>2</sup>)

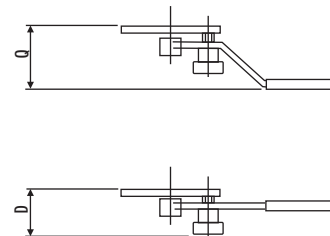
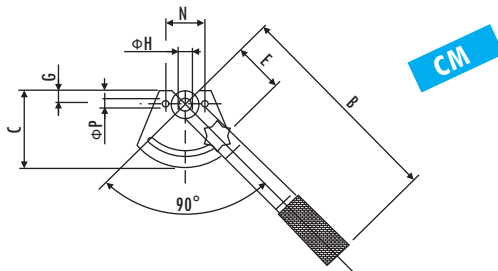


#### CONNECTION SIZE

TYPE	L	M	N	T	H	Kg
GTB	120	65	80	30	30	1.3

### Manual Lever-CM-Series

CM handle driver suitable for control of VFS type butterfly valve, ball valve of VSS type and DVA type bidirectional shunt valve opening and closing



#### CONNECTION SIZE

TYPE	B	C	D	E	G	H DIN 5482	N	P	Q	Kg
CM4	300	104		72	14	22x19	50	10.5	115	1.3
CM2	300	104	60	72	14	22x19	50	10.5		1.3
CM3B	500	107	60	72	17	28x25	80	10.5		2.0

#### COUPLING OF MANUAL LEVER

DIAMETER	V*FS100	V*FS150	V*FS200	V*FS250	V*FS300	V*FS350	V*FS400
ADAPTATION	CM4	CM4	CM4	CM4	CM4	CM3B	CM3B

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## LEVEL INDICATORS

### Rotary Paddle Level Meter-ILT-Series

The output signal of the ILT level gauge is a contact-type electrical signal, which determines the material position by rotating in various sizes of hoppers or silo barrels.

#### Rotary Paddle Level Meter

## ILT

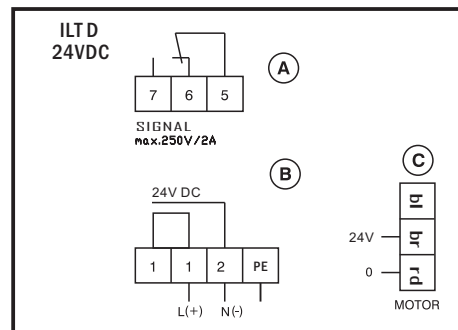
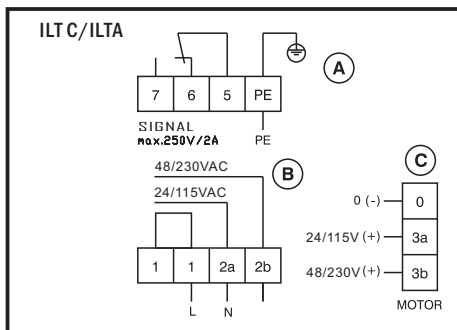
### Operating Conditions

- Container excess pressure: max. 0.8 bar
- Temperature inside vessel: -20 to 80°C
- Ambient temperature inside casing: -20 to 70°C
- Enclosure: IP 65
- Process connection: Thread G1 1/4", G1 1/2", G2 1/2"
- measuring vane: Stainless Steel
- Friction clutch: Protection of the gearing from impact
- Pickup delay: Approx. 1.3 sec
- Sensitivity: Adjustable via reset force
- Speed of measuring vane: 1 r.p.m.



### How To Order

ILT	C	0	S	220
Type	Voltage	Connect	Security Level	Operating Voltage
Rotary Paddle Level Meter	C: 115V/220 AC 50-60Hz A: 24V AC 50-60Hz D: 24V DC	Threaded 0: 1 1/2" - 2 1/2" 1: 1 1/2" NPT 2: 1 1/4" NPT	S: Standard EX: Explosion-proof	220: 220V 110: 110V 024: 24V



Part #	Stem Material	Mains voltage	Signal output	Installed load	Connection terminal	Process connection	Kg	LxWxH (mm)
ILTCO	Stainless Steel	230 V - 50/60 Hz	AC max. 250 V, 2 A 500 W (Cos j=1)	3VA (3W)	1 x max. 1.5 mm <sup>2</sup>	1 1/2" - 2 1/2" NPT	1.2	270x150x90
ILTAO		24/48 V - 50/60 Hz						
ILTDO		24 V - DC	DC max. 300 V, 2 A, 60 W					
ILTC2		230 V - 50/60 Hz	AC max. 250 V, 2 A 500 W (Cos j=1)	3VA (3W)		1 1/4" NPT		
ILTA2		24/48 V - 50/60 Hz						
ILTD2		24 V - DC	DC max. 300 V, 2 A, 60 W					

Dimensions in mm

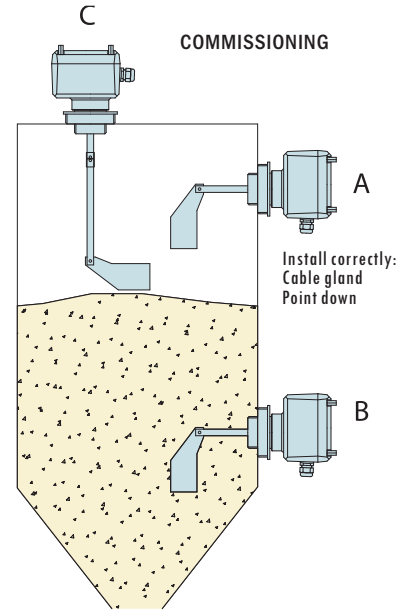
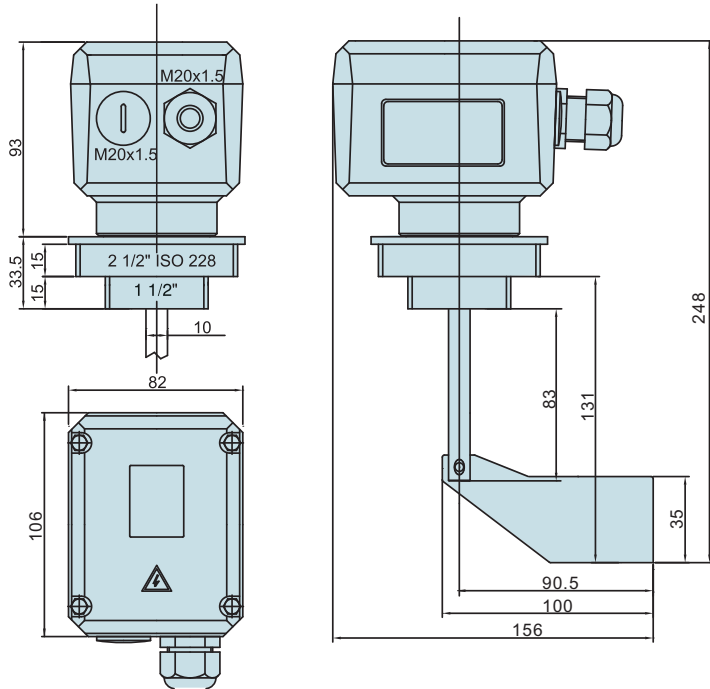


# BULK SOLIDS HANDLING EQUIPMENT

## LEVEL INDICATORS

### Rotary Paddle Level Meter-ILT-Series

## DIMENSION



A = Horizontal installation of the highest level

B = Minimum level installation

C = Vertical installation of the highest level

## Accessories

Threaded bushings

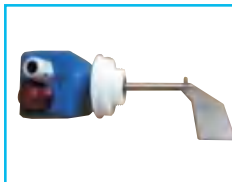


A variety of threads can be selected  
Easy to install  
Thread: 1 1/4" ISO228  
Thread: 1 1/2" ISO228  
Thread: 2 1/2" ISO228

Double scoop for light materials



External light



Explosion-proof metal thread



ATEX Ex II 1/2 D IP66 T 100°C  
Thread: 1 1/2" ISO 228  
Materials: Aluminium

Extension axis



The extension of the shaft is available in galvanized iron or 304 stainless steel.  
- There are 500 mm and 1000 mm  
- Modular expansion  
- Maximum allowable length of 3000 mm  
- Can only be used vertically

# BULK SOLIDS HANDLING EQUIPMENT

## LEVEL INDICATORS

### Rotary Paddle Level Meter-ILY-Series

The output signal of the ILY level gauge is a contact-type electrical signal, which determines the material position by rotating in various sizes of hoppers or silo barrels.

#### Rotary Paddle Level Meter

**ILY**

#### Operating Conditions

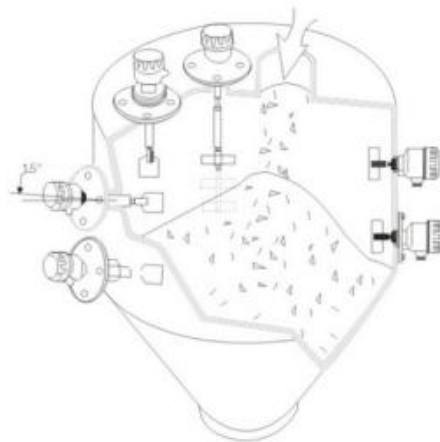
- Container excess pressure: max. 0.8 bar
- Temperature inside vessel: -20 to 80°C
- Ambient temperature inside casing: -20 to 70°C
- Enclosure: IP 65
- Process connection: Thread G1"
- measuring vane: Stainless Steel
- Friction clutch: Protection of the gearing from impact
- Pickup delay: Approx. 1.3 sec
- Sensitivity: Adjustable via reset force
- Speed of measuring vane: 1 r.p.m.



#### How To Order

ILY Type	C Voltage	3 Connect
Rotary Paddle Level Meter	C: 220 AC 50-60Hz A: 24V 50-60Hz D: 24V DC	Threaded 3: 1"NPT 5: Flanged

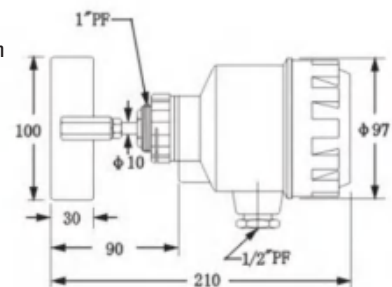
#### Level Indicators



**ILY**

Suitable for horizontal installation  
 Operating temperature:  
 -10°C-60°C  
 weight:1.2Kg

#### Thread type



1.2kg

Part #	Stem Material	Mains voltage	Signal output	Installed load	Connection terminal	Process connection
ILYC3	Stainless Steel	230 V - 50/60 Hz	AC max. 250 V, 2 A 500 W (Cos j=1)	3VA (3W)	1 x max. 1.5 mm <sup>2</sup>	1" NPT
ILYA3		24/48 V - 50/60 Hz				
ILYD3		24 V - DC	DC max. 300 V, 2 A, 60 W			

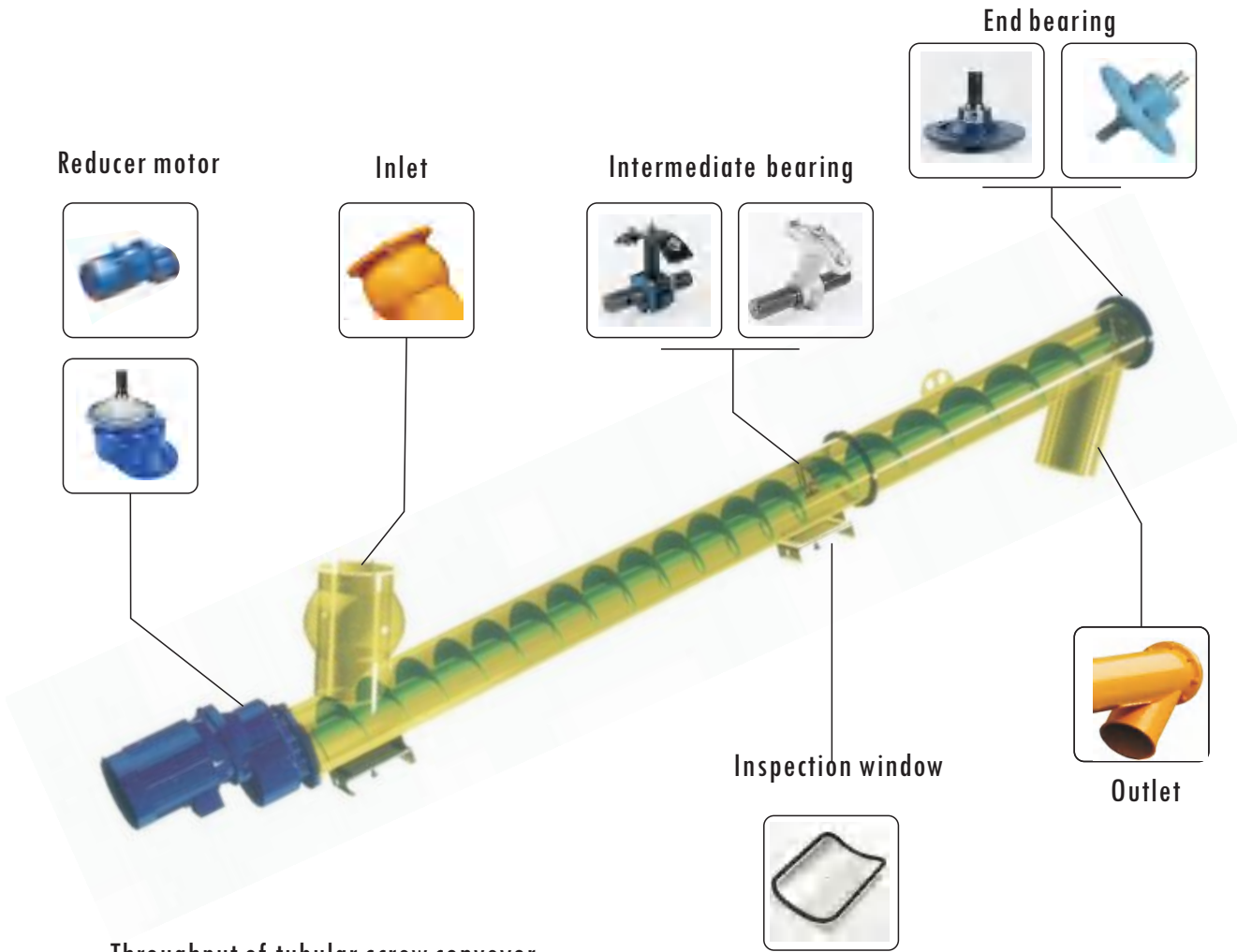
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SCREW CONVEYOR ACCESSORIES

### Tubular screw conveyor-ES/TU-Series

Tubular screw conveyors can be used to transport almost all powder materials with the use of various accessories, and have a very high cost performance. The products adopt standardized design and automated production, and have been widely used in concrete mixing plants, dry sand paddle mixing plants, asphalt mixing plants and other industries.



Throughput of tubular screw conveyor

114	=	6.5T/h	Inclination 0°	→	6T/h	Inclination 45°
168	=	25T/h	Inclination 0°	→	20T/h	Inclination 45°
219	=	70T/h	Inclination 0°	→	55T/h	Inclination 45°
273	=	100T/h	Inclination 0°	→	75T/h	Inclination 45°
323	=	125T/h	Inclination 0°	→	95T/h	Inclination 45°
406	=	160T/h	Inclination 0°	→	120T/h	Inclination 45°

The above data is based on transporting cement with a bulk density of 1.13T/H

# BULK SOLIDS HANDLING EQUIPMENT

## GEAR REDUCER

### Gear Reducer-M4-Series

 Gearbox layout diagram

Code **M 4 9 1 0 1 8 0 E S 5**

Type	Gear reducer size	Ratio	Motor size	ØFeeder
------	-------------------	-------	------------	---------

		Electric motor						
		Gear ratio						
kW	i	Feeder diameter						
		114	139	168	193	219	273	323
1.1 Size 90S	1/5							
	1/7	M4107090ES0						
	1/10	M4110090ES0						
1.5 Size 90L	1/5	M4105090ES0	M4105090ES0					
	1/7	M4107090ES0	M4107090ES0					
	1/10	M4310090ES0	M4310090ES0	M4310090ES1				
2.2 Size 100LR	1/5	M4105100ES0	M4105100ES0					
	1/7	M4307100ES0	M4307100ES0	M4307100ES1	M4307100ES2			
	1/10	M4310100ES0	M4310100ES0	M4310100ES1	M4310100ES2			
3 Size 100LH	1/5	M4105100ES0	M4105100ES0	M4305100ES1				
	1/7	M4307100ES0	M4307100ES0	M4307100ES1	M4307100ES2			
	1/10			M4510100ES1	M4510100ES2	M4510100ES3		
4 Size 112M	1/5		M4305112ES0	M4305112ES1	M4305112ES2			
	1/7			M4307112ES1	M4307112ES2	M4307112ES3		
	1/10			M4510112ES1	M4510112ES2	M4510112ES3		
5.5 Size 132S	1/5			M4305132ES1	M4305112ES2	M4305132ES3		
	1/7				M4507132ES2	M4507132ES3	M4507132ES4	
	1/10				M4710132ES2	M4710132ES3	M4710132ES4	
7.5 Size 132M	1/5			M4505132ES1	M4505132ES2	M4505132ES3		
	1/7				M4507132ES2	M4507132ES3	M4507132ES4	
	1/10				M4710132ES2	M4710132ES3	M4710132ES4	M4710132ES5
9.2 Size 132L	1/5				M4505132ES2	M4505132ES3		
	1/7					M4707132ES3	M4707132ES4	
	1/10					M4710132ES3	M4710132ES4	M4710132ES5
11 Size 160M	1/5					M4505160ES3		
	1/7					M4707160ES3	M4707160ES4	M4707160ES5
	1/10					M4910160ES3	M4910160ES4	M4910160ES5
15 Size 160L	1/5					M4705160ES3		
	1/7						M4707160ES4	M4907160ES5
	1/10						M4910160ES4	M4910160ES5
18.5 Size 180M	1/5							
	1/7						M4907180ES4	M4907180ES5
	1/10							M4910180ES5
22 Size 180L	1/5							
	1/7							M4907180ES5
	1/10							M4910180ES5
30 Size 200L	1/5							
	1/7							M4907200ES5
	1/10							M4910200ES5

Standard gear reducer

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

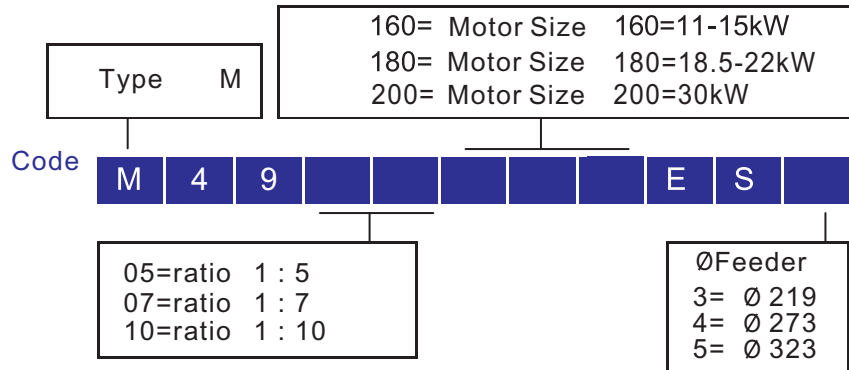
## GEAR REDUCER

### Gear Reducer-M49-Series

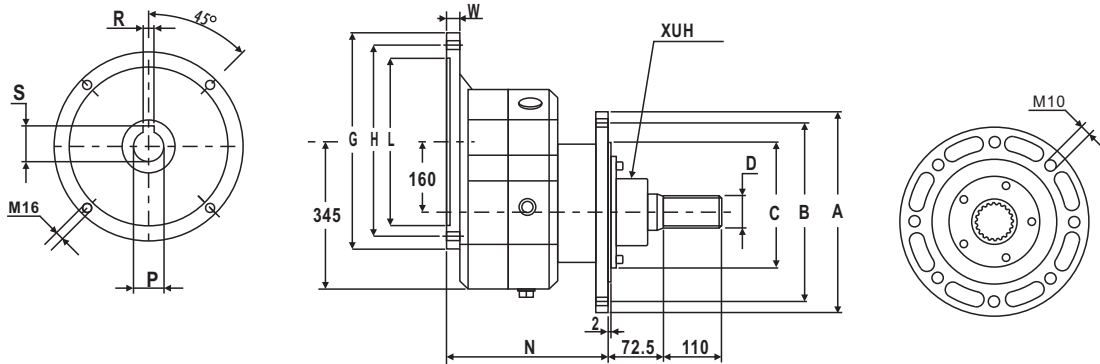
The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

#### ↓ Gear Reducer

## M49



### Gear Reducer



#### CONNECTION SIZE

Motor Size	∅G	∅H	∅L	N	P	R	S	W
160	350	300	250	304	42	12	45.3	22
180	350	300	250	304	48	14	51.8	22
200	400	350	300	304	55	16	59	22

Gear reducer	∅Feeder	∅A	∅B	∅C	DIN5482 ∅D	Kg
M49.ES3	219	275	250	210	60x55	120
M49.ES4	273	330	305	265	60x55	120
M49.ES5	323	405	370	315	60x55	120

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

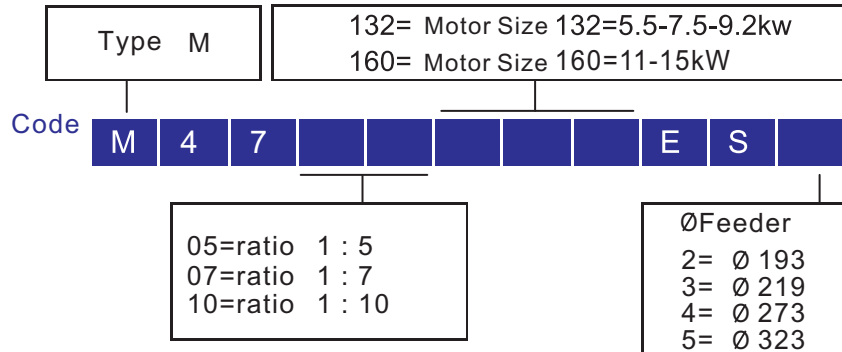
## GEAR REDUCER

### Gear Reducer-M47-Series

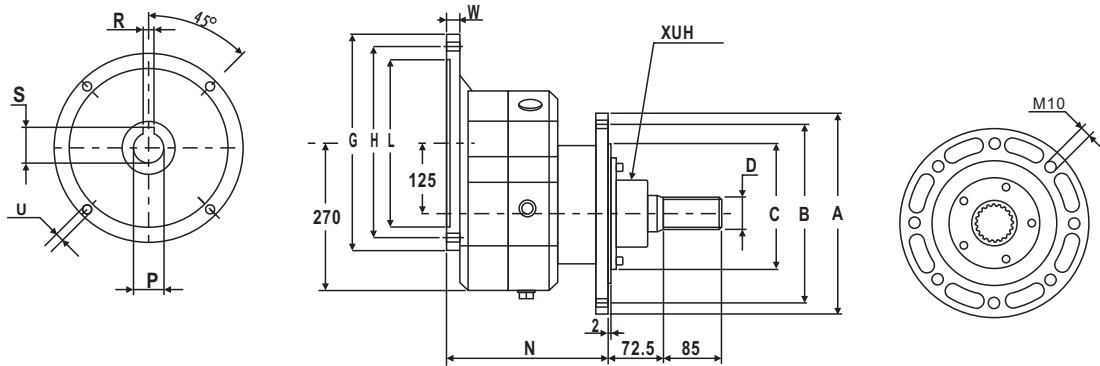
The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

#### ↙ Gear Reducer

## M47



### Gear Reducer



#### CONNECTION SIZE

Motor Size	ØG	ØH	ØL	N	P	R	S	U	W
132	300	265	230	247	38	10	41	M12	20
160	350	300	250	277	42	12	45	M14	20

Gear reducer	ØFeeder	ØA	ØB	ØC	DIN5482 ØD	kg
M47.ES2	193	250	220	186	40x36	66
M47.ES3	219	275	250	210	40x36	68
M47.ES4	273	330	305	265	40x36	70
M47.ES5	323	405	370	315	40x36	80

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

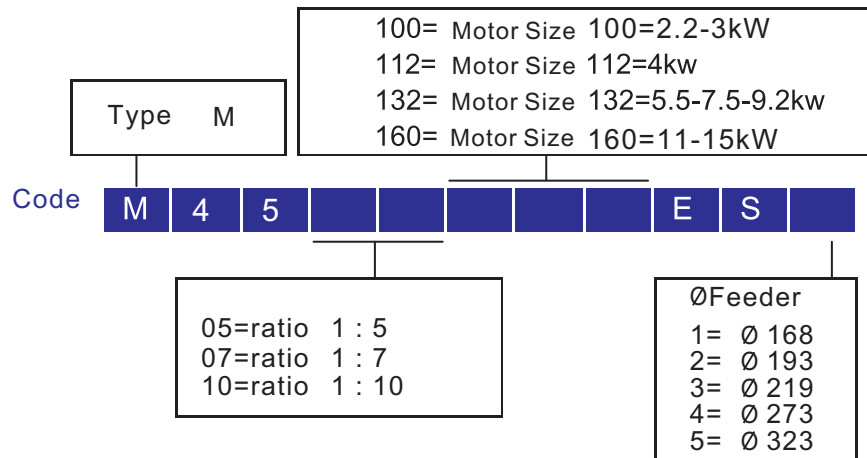
## GEAR REDUCER

### Gear Reducer-M45-Series

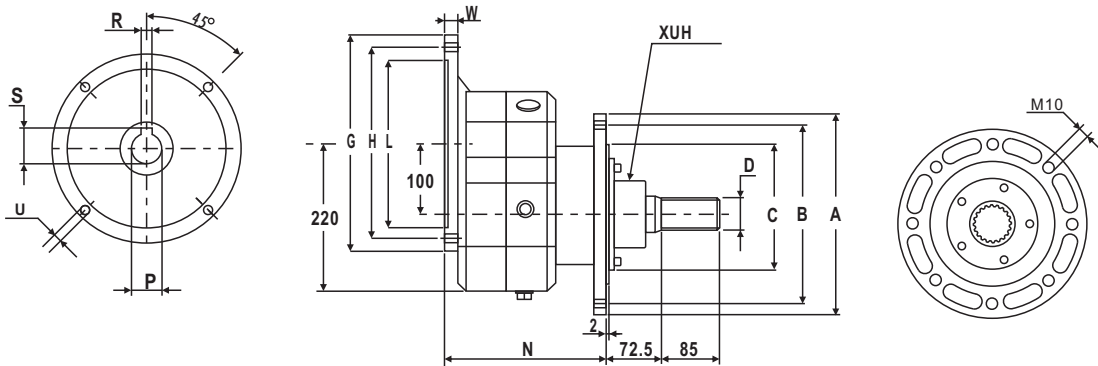
The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

#### ↙ Gear Reducer

## M45



#### Gear Reducer



#### CONNECTION SIZE

Motor Size	ØG	ØH	ØL	N	P	R	S	U	W
100	250	215	180	212	28	8	31	12	16
112	250	215	180	212	28	8	31	12	16
132	300	265	230	232	38	10	41	12	16
160	350	300	250	262	42	12	45	16	16

Gear reducer	ØFeeder	ØA	ØB	ØC	ØD DIN5482	kg
M45.ES1	168	250	220	162	40x36	46
M45.ES2	193	250	220	186	40x36	48
M45.ES3	219	275	250	210	40x36	50
M45.ES4	273	330	305	265	40x36	52

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

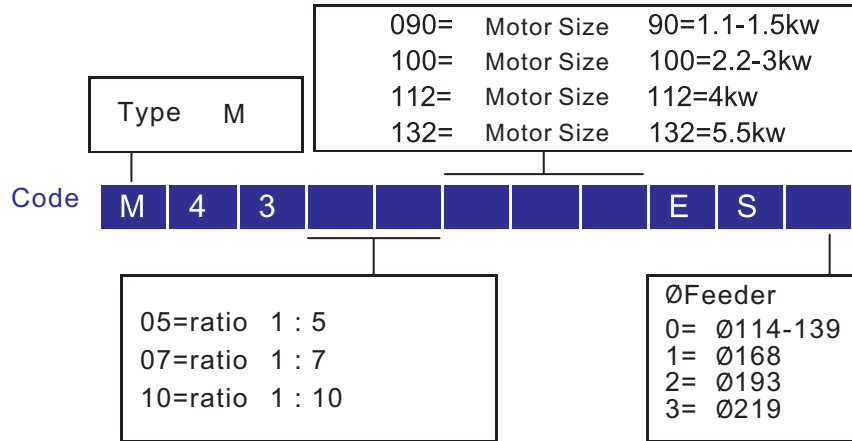
## GEAR REDUCER

### Gear Reducer-M43-Series

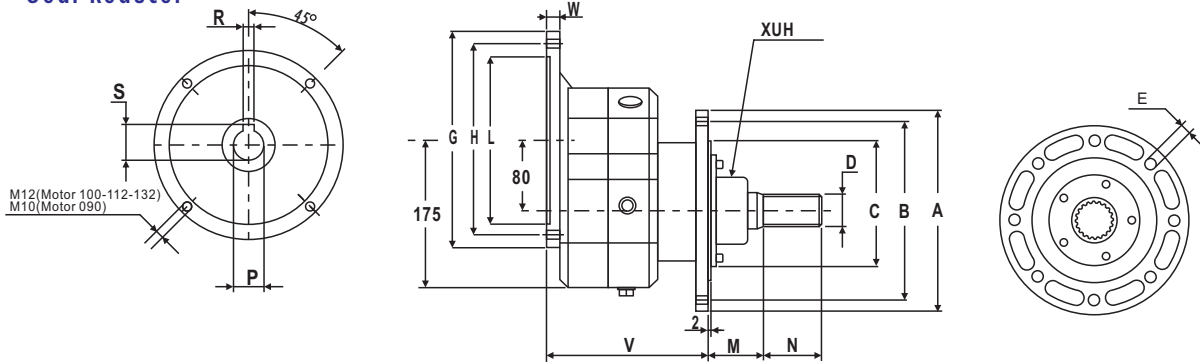
The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

 Gear Reducer

# M43



### Gear Reducer



### CONNECTION SIZE

Motor Size	Ø G	Ø H	Ø L	P	R	S	V	W
090	200	165	130	24	8	27	183	12
100	250	215	180	28	8	31	193	14
112	250	215	180	28	8	31	193	14
132	300	265	230	28	10	41	228	14

Gear reducer	ØFeeder	Ø A	Ø B	Ø C	5482 Ø D DIN	M	N	E		Kg
								N°	Ø	
M43.ES0	114-139	190	170	148	28x25	54	65	4	M8	20
M43.ES1	168	250	220	162	40x36	72.5	85	8	M10	26
M43.ES2	193	250	220	186	40x36	72.5	85	8	M10	26
M43.ES3	219	275	250	210	40x36	72.5	85	8	M10	32

Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

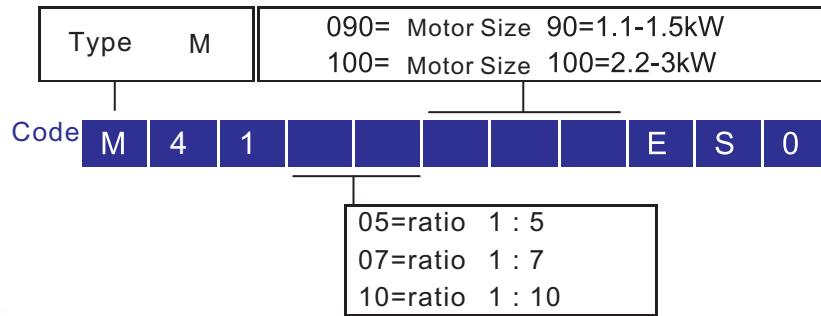
## GEAR REDUCER

### Gear Reducer-M41-Series

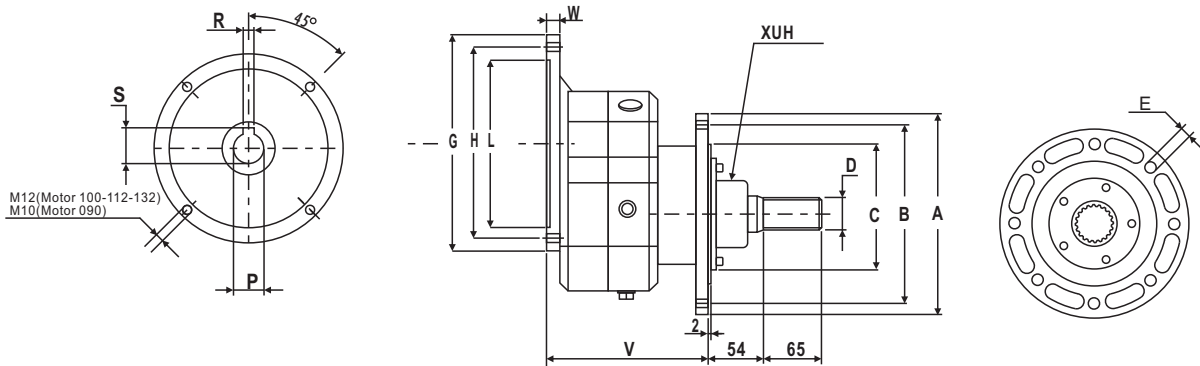
The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

#### ↙ Gear Reducer

## M41



### Gear Reducer



### CONNECTION SIZE

Motor Size	ØG	ØH	ØL	P	R	S	V	W
090	200	165	130	24	8	27	157	12
100	250	215	180	28	8	31	161	14

Gear reducer	Ø Feeder	ØA	ØB	ØC	DIN5482 ØD	E		kg
						N°	Ø	
M41.ES0	114-139	190	170	148	28X25	4	M8	16.5

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## GEAR REDUCER

### Gear Reducer-Z4-Series

The gear reducer is suitable for various tubular screw conveyors and feeders such as ES.TU.TC.TS, and is used to transport cement and filler dust in concrete mixing plants.

#### ↓ Gear Reducer



Type

Z49

Z47

Z45

Z43

100= Motor Size 100=3kw

112= Motor Size 112=4kw

132= Motor Size 132=5.5-7.5-9.2kw

160= Motor Size 160=11kW

180= Motor Size 180=18.5-22kW

Code

Z	4	5						S	S
---	---	---	--	--	--	--	--	---	---

05=ratio 1 : 5

07=ratio 1 : 7

10=ratio 1 : 10

ØFeeder

1= Ø 168

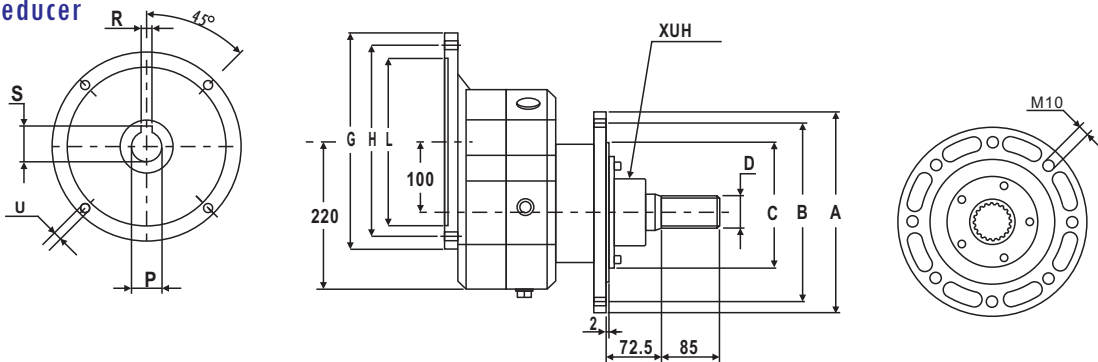
2= Ø 193

3= Ø 219

4= Ø 273

5= Ø 323

#### Gear Reducer



#### CONNECTION SIZE

Motor Size	ØG	ØH	ØL	P	R	S	U
100	250	215	180	28	8	31	12
112	250	215	180	28	8	31	12
132	300	265	230	38	10	41	12
160	350	300	250	42	12	45	16
180	350	300	250	48	14	52	16

Gear reducer	ØFeeder	ØA	ØB	ØC	ØD DIN5482	Teeth
Z4...SS1	168	250	220	162	40x36	20
Z4...SS2	193	250	220	186	40x36	20
Z4...SS3	219	275	250	210	40x36	20
Z4...SS4	273	330	305	265	40x36	20
Z4...SS5	273	330	305	265	60x55	28

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

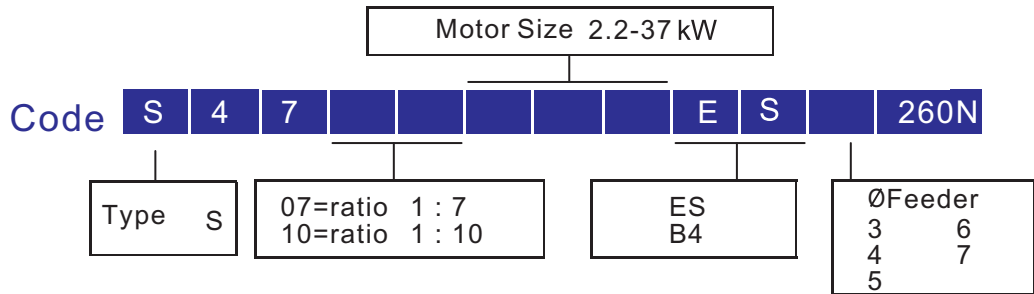
## GEAR REDUCER

### Gear Reducer-S47-Series

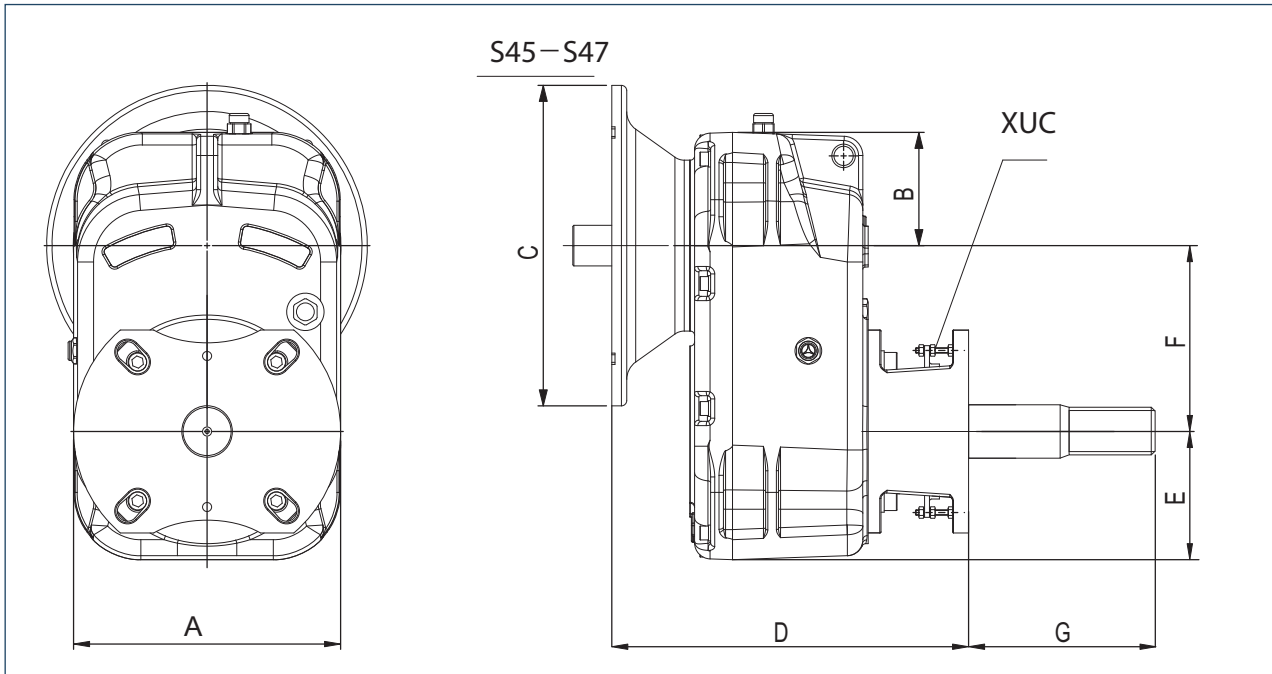
Gear reduction box is suitable for all kinds of screw conveyors and feeders, used to transport cement and filler dust.

#### Gear Reducer

# S47



#### S47 GEAR REDUCER DIMENSIONS



Gear reducer	Ø Screw	A	B	E	F
S45	/	250	106	120	174
S47	/	320	124	158	218

Gear reducer	Motor dimensions	C	D	Weight [kg]
S47	100 -112	250	351	135
	132	300	371	138
	160	350	401	142
	<b>180</b>	350	401	142
	200	400	401	147
	225	450	401	187

Gear reducer	Screw flange dimensions	G
S47	ES 3	180
	ES 4	180
	B4	152

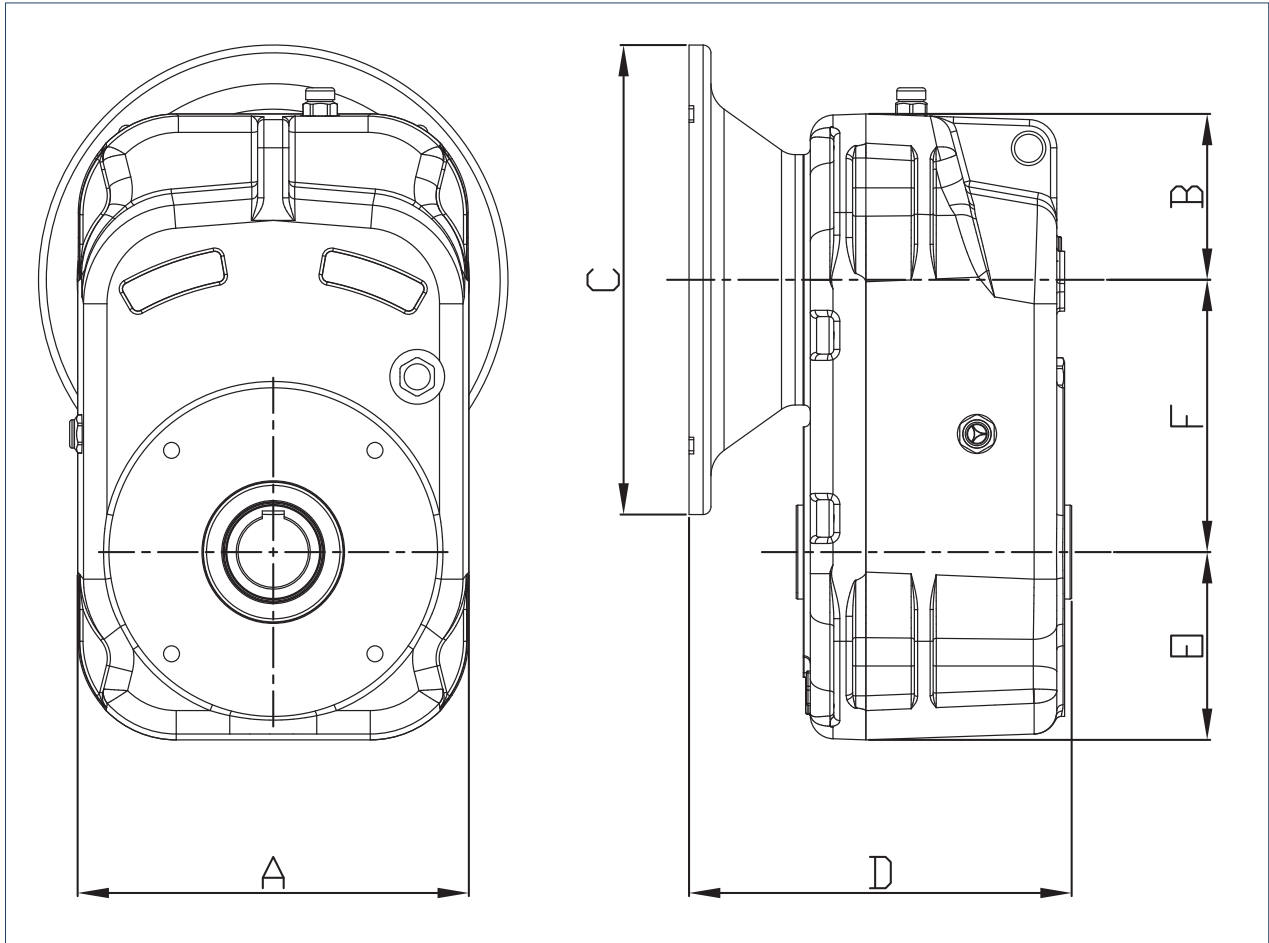
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### S45 AND S47 GEAR REDUCER DIMENSIONS WITH HOLLOW SHAFT (CV)

#### Overall Dimensions



Gear reducer	Φ Screw	A	B	E	F
S45	/	250	106	120	174
S47	/	320	124	158	218

Motor dimensions	C	D	Weight [kg]
100 -112	250	261	106
132	300	281	108
160	350	311	112
<b>180</b>	350	311	112
200	400	311	117

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## REDUCER SHAFT BOX SEALING

### Reducer Shaft Box Sealing-XUH-Series

XUH series sealing box is suitable for M and S series gearbox shaft seal.

#### Gear Reducer Sealing

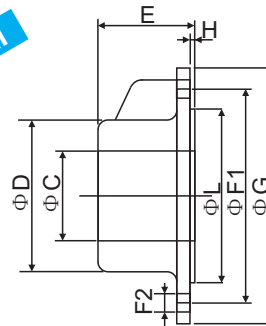
# XUH



Code **X U H** [ ] [ ] [ ] **J** [ ]

Gear reducer  
 050= M43 M45 M47  
 060= S47  
 070= M49

**XUH**



#### CONNECTION SIZE

Code	ØC	ØD	ØF1	F2		ØG	E	H	L	kg	For
				Ø	N°						
XUH035J4	35	58	68	5	4	76	37	-	-	0.3	M41-M43(ES0)
XUH050J4	50	90	134	9	5	155	57	2.5	118	0.5	S25-M43-M45-M47
XUH060J1	60	90	134	9	5	155	57	2.5	118	0.5	S47
XUH070J1	70	105	134	9	5	155	57	2	118	0.8	M49

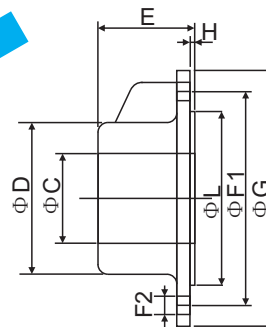
#### Gear Reducer Sealing

# RUH

Code **R U H** [ ] [ ] [ ]

Gear reducer  
 050= RM 20 RM25  
 070= RM 30 RM35

**RUH**



#### CONNECTION SIZE

Code	ØC	ØD	ØF1	F2		ØG	E	H	L	kg	For
				Ø	N°						
RUH050	50	90	134	9	4	155	57	2.5	118	0.5	RM 15 / RM 20 / RM 25
RUH060	60	90	134	9	4	155	57	2.5	118	0.5	
RUH070	70	105	134	9	4	155	57	2	118	0.8	RM 30 / RM 35

Dimensions in mm

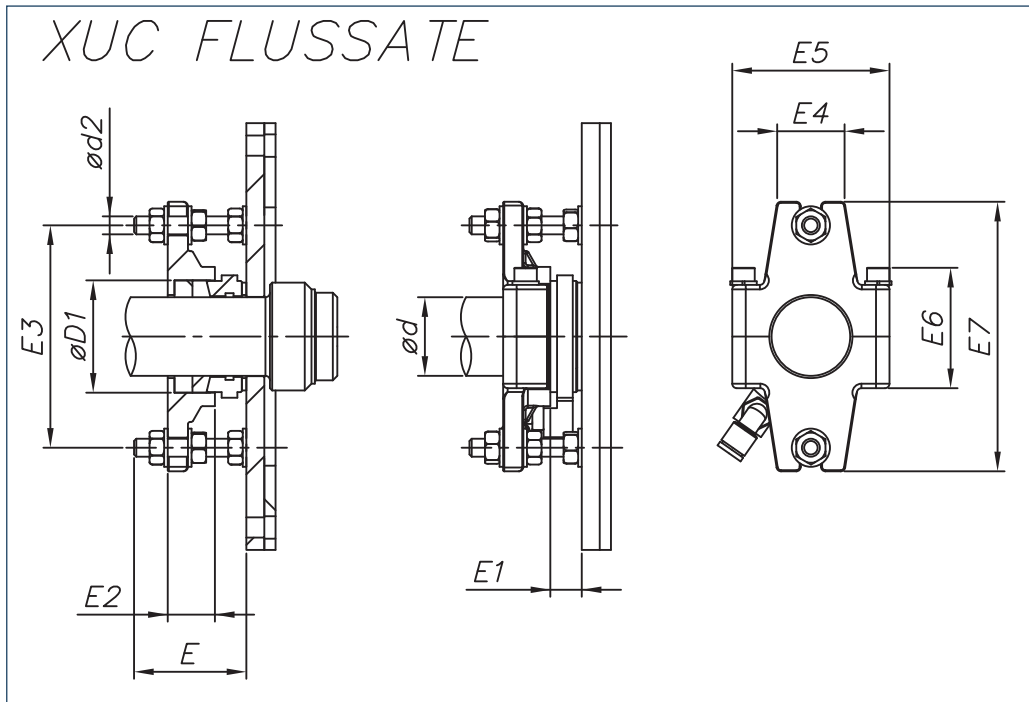
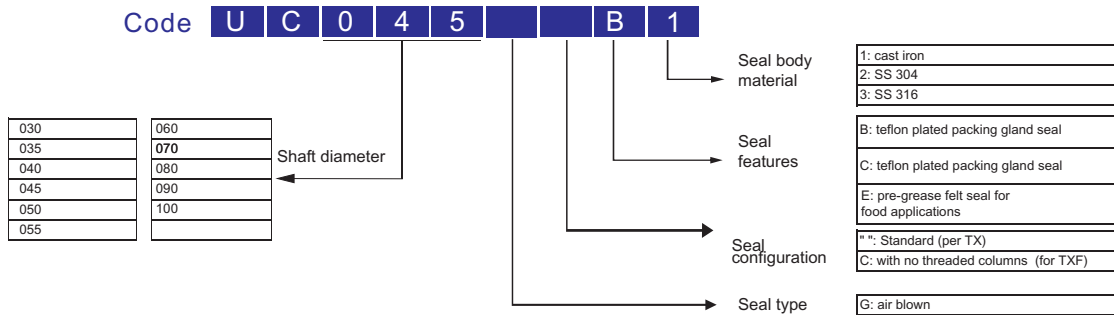
# BULK SOLIDS HANDLING EQUIPMENT

## SHAFT BOX SEALING

### Air-blown sealing unit- XUC-Series

XUC series sealing box is suitable for shaft sealing of S series gearbox..

## SHAFT BOX SEALING XUC



Code	Φd	ΦD1	Φd3	E	E2	E3	E4	E5	E6	E8	E9
XUC030	30	45	M8	50	20	21	30	70	50	99	120
XUC035	35	50	M8	50	20	21	30	70	50	99	120
XUC040	40	55	M8	50	20	21	30	80	60	121.6	140
XUC045	45	60	M8	50	20	21	30	80	60	121.6	140
XUC050	50	70	M10	60	24	27	45	100	70	141.4	164
XUC055	55	75	M10	60	24	27	45	100	70	141.4	164
XUC060	60	80	M10	60	24	27	45	105	70	183.8	210

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SCREW CONVEYOR ACCESSORIES

### Intermediate Hanger Bearing-XLR-Series

The XLR series intermediate hanging shaft is an indispensable connecting piece in the screw feeder, used for the connection and energy transfer between the two screws.

#### Hanger Bearing XLR

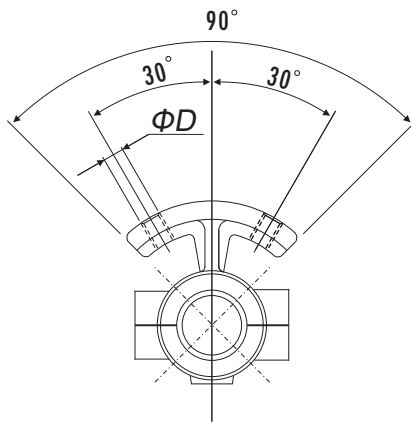
#### Performance & Technical Features - Benefits

- Material: Aluminum alloy
- Suitable for cement, lime and similar powders

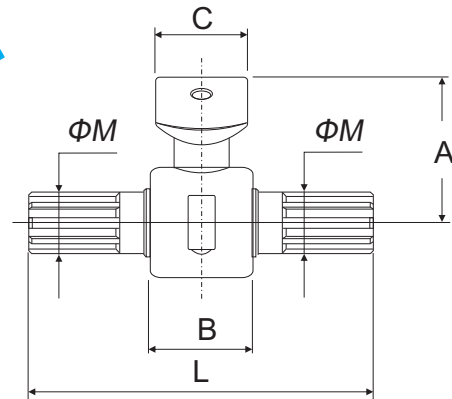


Code **X L R 0 4 0 B**      **T 4 4**

Ø Shaft	Ø Feeder
040=Ø40mm	015=Ø 168    020=Ø 219 017=Ø 193    025=Ø 273 030=Ø 323



**XLR**



FOR: ES Screw conveyor

#### CONNECTION SIZE

Part #	Φ Shaft	Φ Feeder	A	B	C	D	M DIN 5482	L	Teeth	Kg
XLR040B015T44	40	168	80	55	51	M14	40x36	245	20	3.5
XLR040B017T44	40	193	92.5	55	51	M14	40x36	245	20	3.5
XLR040B020T44	40	219	105.5	55	51	M14	40x36	245	20	3.9
XLR040B025T44	40	273	132.5	55	51	M14	40x36	245	20	4.5
XLR040B030T44	40	323	157.5	55	51	M14	40x36	245	20	5.0

Dimensions in mm

**SCREW CONVEYOR ACCESSORIES**

**Intermediate Hanger Bearing-XLY-Series**

The XLY series intermediate hanging shaft is an indispensable connecting piece in the screw feeder. It is a hanger with a self-lubricating bushing for the connection and energy transfer between two screws.

**Hanger Bearing**

**XLY**

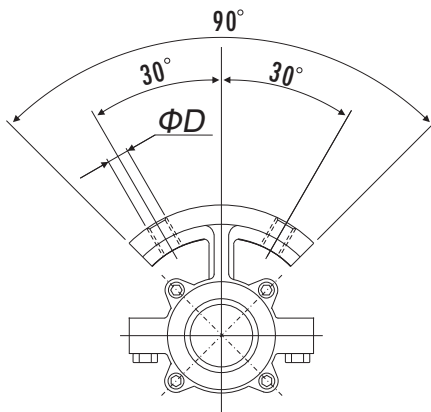
**Performance & Technical Features - Benefits**

- Material: carbon steel
- Bearing: wear - resistant bronze bearing
- Suitable for cement, lime and similar powders

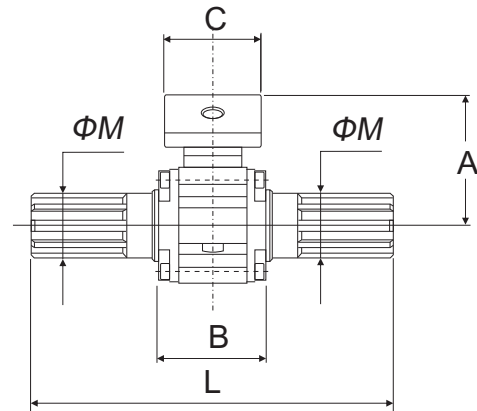


Code **X L Y 0 4 5 H T 1 1**

Ø Shaft	Ø Feeder	
045=Ø45mm	015=Ø168	025=Ø273
060=Ø60mm	020=Ø219	030=Ø323
		035=Ø406



**XLY**



FOR:TU Screw conveyor

**CONNECTION SIZE**

Part #	Φ Shaft	Φ Feeder	A	B	C	D	M DIN 5482	L	Teeth	Kg
XLY045H015T11	45	168	80	75	62	M14	40x36	225	20	4.0
XLY045H017T11	45	193	92.5	75	62	M14	40x36	225	20	4.2
XLY045H020T11	45	219	105.5	75	62	M14	40x36	225	20	4.5
XLY045H025T11	45	273	132.5	75	62	M14	40x36	225	20	4.7
XLY045H030T11	45	323	157.5	75	62	M14	40x36	225	20	5.0
XLU060H035T11	60	406	197.0	75	60	M20	60x55	295	28	14.0
XLY045H015T10	45	168	80	75	62	M14	40x36	245	20	4.0
XLY045H017T10	45	193	92.5	75	62	M14	40x36	245	20	4.2
XLY045H020T10	45	219	105.5	75	62	M14	40x36	245	20	4.5
XLY045H025T10	45	273	132.5	75	62	M14	40x36	245	20	4.7
XLY045H030T10	45	323	157.5	75	62	M14	40x36	245	20	5.0
XLU060H035T10	60	406	197.0	75	60	M20	60x55	295	28	14.0

Dimensions in mm



**SCREW CONVEYOR ACCESSORIES**

**Intermediate Hanger Bearing-SI-Series**

The SI series intermediate hanging shaft is an indispensable connecting piece in the screw feeder, used for the connection and energy transfer between the two screws.

**Hanger Bearing**

**SI**

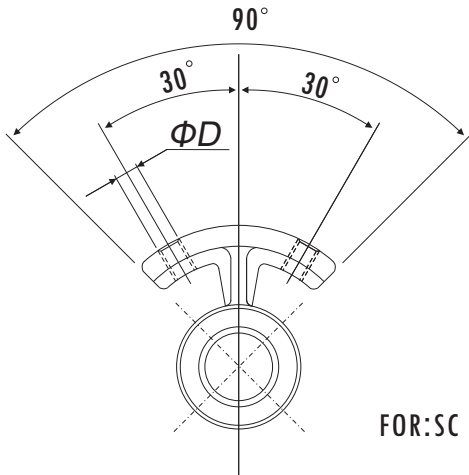
**Performance & Technical Features - Benefits**

- Material: carbon steel
- Bearing: wear - resistant bronze bearing
- Suitable for cement, lime and similar powders

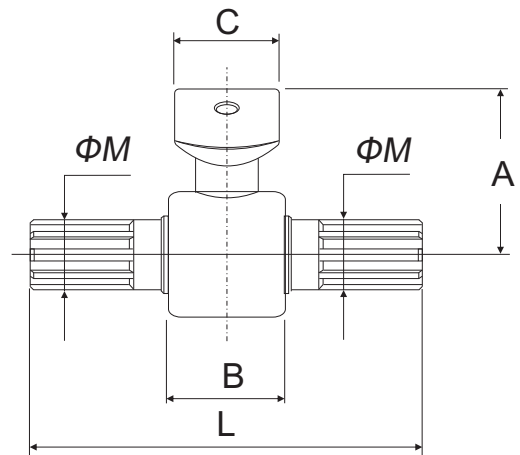


Code **S I 3 2 5**

Ø Feeder	
Ø 168	Ø 273
Ø 219	Ø 325
	Ø 407



**SI**



**CONNECTION SIZE**

Part #	Φ Shaft	Φ Feeder	A	B	C	D	M DIN 5482	L	Teeth	Kg
SI 325	60	SC 323	157.5	75	54	M14	60x55	295	20	13.0
SI 407	60	SC 407	197.0	75	60	M20	60x55	295	28	15.0

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SCREW CONVEYOR ACCESSORIES

### Outlet end bearing assembly-XTA-Series

The XTA series outlet terminal support assembly is an indispensable connection part in the screw feeder, and is used to support the blade spindle at the screw tail end.

#### Outlet End Bearing Assembly

# XTA



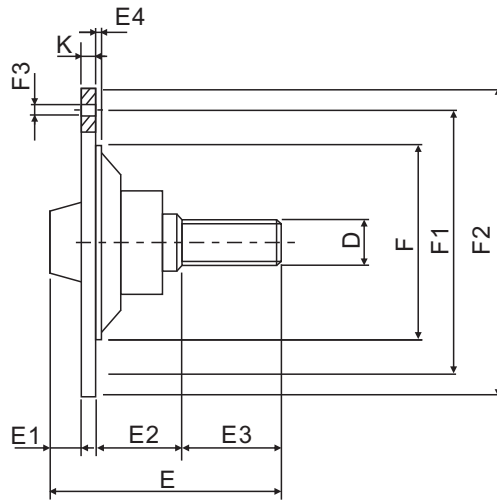
Code X T A 0 0 E S A 0 1

A= Outlet

Ø Feeder  
 0= Ø114-139    3= Ø 219  
 1= Ø 168        4= Ø 273  
 2= Ø 193        5= Ø 323

### OUTLET END BEARING

XTA



#### CONNECTION SIZE

Code	Ø Feeder	DIN 5482 ØD	E	E1	E2	E3	E4	ØF	ØF1	ØF2	F3		K	KG	Bearing
											Ø	N°			
XTA00ES0A01	114-139	28×35	175	50	54	65	2	148	170	190	M8	4	12	3	6006-2RS
XTA00ES1A01	168	40×36	197.5	32	72.5	85	3	162	220	250	M10	8	14	7	6008-2RS
XTA00ES2A01	193	40×36	197.5	32	72.5	85	3	186	220	250	M10	8	14	7	6008-2RS
XTA00ES3A01	219	40×36	197.5	32	72.5	85	3	210	250	275	M10	8	15	7.5	6008 2RS
XTA00ES4A01	273	40×36	197.5	32	72.5	85	3	265	305	330	M10	8	15	9.5	6008-2RS
XTA00ES5A01	323	40×36	197.5	26	72.5	85	14	315	370	405	M10	8	15	19	6008-2RS

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

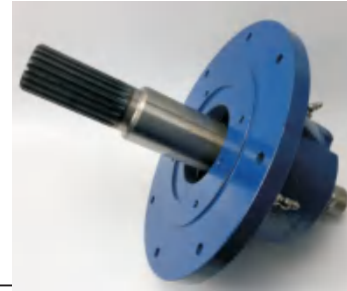
## SCREW CONVEYOR ACCESSORIES

### Inlet end bearing assembly-XTB-Series

The XTB series feed port terminal support assembly is an indispensable connecting piece in the screw feeder. It is used for the screw tail end to support the blade spindle. It is used for heavy loads.

#### Inlet End Bearing Assembly

# XTB



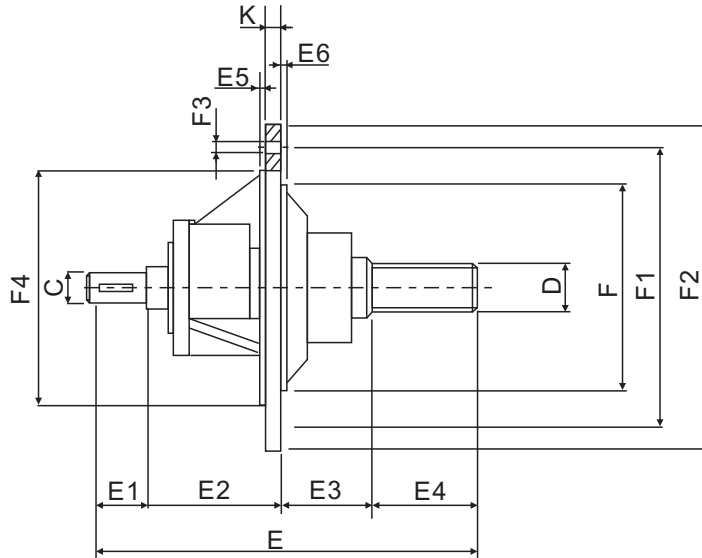
Code **X T B** **E S** **B 1 2**

B= Inlet

ØFeeder  
 0= Ø114-139      3= Ø 219  
 1= Ø 168        4= Ø 273  
 2= Ø 193        5= Ø 323

### INLET END BEARING

# XTB



#### CONNECTION SIZE

Code	ØFeeder	UNI 6397 ØC	DIN 5482 ØD	E	E1*	E2	E3	E4	E5	E6	F	Ø F1	Ø F2	F3		Ø F4	K	L	Kg	Bearing		Grease kg
														Ø	N°					rad.	ax.	
XTB25ES0B12	114-139	25	28x25	250	50	81	54	65	2	2	148	170	190	M8	4	110	12	45	6	6006	51108	0.06
XTB35ES1B12	168	35	40x36	330	55	117.5	72.5	85	2	3	162	220	250	M10	8	186	14	50	14	6208	51108	0.08
XTB35ES2B12	193	35	40x36	330	55	117.5	72.5	85	2	3	186	220	250	M10	8	186	14	50	14	6208	51108	0.08
XTB35ES3B12	219	35	40x36	330	55	117.5	72.5	85	2	3	210	250	275	M10	8	186	15	50	16.5	6308	51208	0.09
XTB35ES4B12	273	35	40x36	330	55	117.5	72.5	85	2	3	265	305	330	M10	8	186	15	50	19.7	6308	51208	0.09
XTB35ES5B12	323	35	40x36	330	55	117.5	72.5	85	2	14	315	370	405	M10	8	186	15	50	30	6308	51208	0.09

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SCREW CONVEYOR ACCESSORIES

### Inlet end bearing assembly-XTB-Series

The XTE series feed port terminal support assembly is an indispensable connecting piece in the screw feeder. It is used for the screw tail end to support the blade spindle. It is used for heavy loads.

#### Inlet End Bearing Assembly

# XTE

Code X T E E S B 1 2

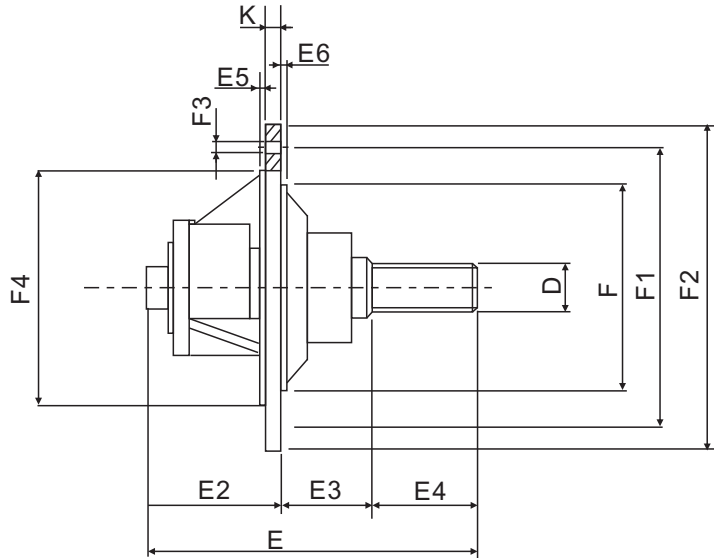
E= Inlet

ØFeeder  
 0= Ø114-139      3= Ø 219  
 1= Ø 168        4= Ø 273  
 2= Ø 193        5= Ø 323



### INLET END BEARING

XTE



#### CONNECTION SIZE

Code	ØFeeder	UNI 6397 ØC	DIN 5482 ØD	E	E2	E3	E4	E5	E6	F	Ø F1	Ø F2	F3		Ø F4	K	L	Kg	Bearing		Grease kg
													Ø	N°					rad.	ax.	
XTE25ES0B12	114-139	25	28x25	200	81	54	65	2	2	148	170	190	M8	4	110	12	45	6	6006	51108	0.06
XTE35ES1B12	168	35	40x36	275	117.5	72.5	85	2	3	162	220	250	M10	8	186	14	50	14	6208	51108	0.08
XTE35ES2B12	193	35	40x36	275	117.5	72.5	85	2	3	186	220	250	M10	8	186	14	50	14	6208	51108	0.08
XTE35ES3B12	219	35	40x36	275	117.5	72.5	85	2	3	210	250	275	M10	8	186	15	50	16.5	6308	51208	0.09
XTE35ES4B12	273	35	40x36	275	117.5	72.5	85	2	3	265	305	330	M10	8	186	15	50	19.7	6308	51208	0.09
XTE35ES5B12	323	35	40x36	275	117.5	72.5	85	2	14	315	370	405	M10	8	186	15	50	30	6308	51208	0.09

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## REDUCER SHAFT COUPLINGS

### Shaft Couplings-XA-Series

XA couplings are welded to both ends of the inner tube to connect the screw blades. It is suitable for various types of screw conveyors.

#### Shaft Couplings

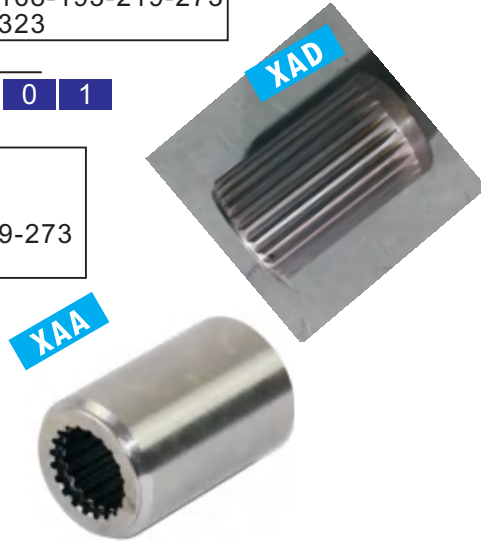
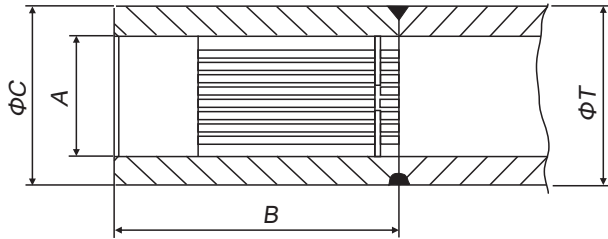
**XAA**

042= Ø 114  
048= Ø 139  
060= Ø 168-193-219-273  
114= Ø 323

Code **X A A 0 4 0 T 0 6 0 1**

A= Wstandard  
L= With holes  
D= Internal and external splines

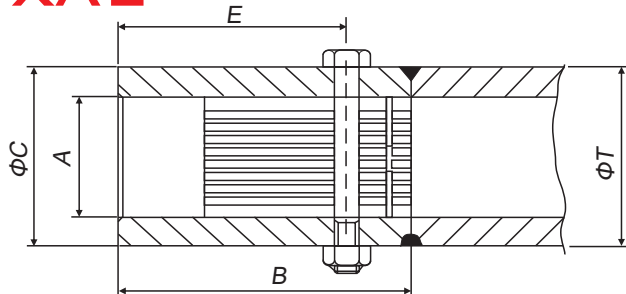
Ø Feeder  
028= Ø 114-139  
040= Ø 168-193-219-273  
060= Ø 273-323



#### CONNECTION SIZE

Part #	Ø Feeder	Number of teeth	A	B	C	T	Kg
XAA 028T0421	114 139	13	28x25	70	42	42	0.5
XAA 040T0601	168 193 219 273	20	40x36	92	60	60	1.2
XAC 040T1141*	323	20	40x36	140	114	114	9.2
XAA 060T0901	323	28	60x55	110	90	90	4.1
XAA 060T1140	323	28	60x55	110	114	114	7.1
XAA 060T1141	323	28	40x36	140	114	114	8.2
XAD 040T0601	323	20-28	40x36	92	60x55	60	1.2

**XAL**



#### CONNECTION SIZE

Part #	Ø Feeder	Number of teeth	A	B	C	E	T	Kg
XAL 028T0421	168 193 219 273	13	28X25	70	42	35	42	0.5
XAL 040T0601	168 193 219 273	20	40X36	92	60	35	60	1.2
XAL 060T1140	323	28	60X55	110	114	55	114	8.1
XAL 060T1141	323	28	60X55	140	114	55	114	9.1

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SCREW CONVEYOR ACCESSORIES

### Inspection hatch-XKA-Series

The inspection chamber is located under the first inlet pipe and under each intermediate suspension shaft. Used to facilitate maintenance of the intermediate hanging shaft.

#### Inspection Hatch

# XKA



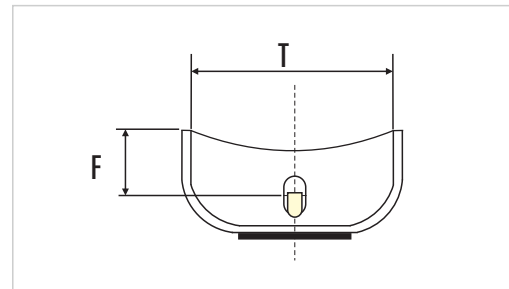
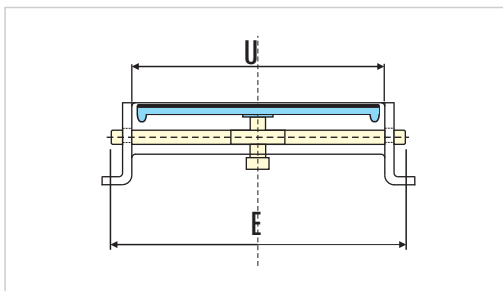
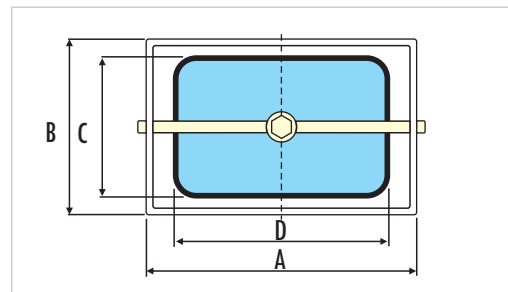
#### Performance & Technical Features - Benefits

- Suitable for 168/219/273/323 screw conveyor
- With an elastic sealing strip
- With a fixed link

Code **X** **K** **A** **2** **1** **9** **S**

Ø Feeder	
Ø168	Ø 273
Ø219	Ø 323

**XKA**



#### CONNECTION SIZE

Code	Ø Feeder	A	B	C	D	E	F	T	U	Kg	
XKA168S	168	274	150	144	265	300	71.0	181	267	3.5	
XKA193S	193									3.5	
XKA219S	219		187	180						206	3.5
XKA273S	273		212	205						230	3.5
XKA323S	323		236	230						3.5	

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## MECHANICAL COMPONENTS

### Flanges-XKF-Series



Code X K F 3 5 1

Ø Feeder		Materials	
1=	Ø 168	1=	Carbon steel
2=	Ø 193	2=	SS304
3=	Ø 219	3=	SS316
4=	Ø 273		
5=	Ø 323		
6=	Ø 323		
7=	Ø 357		
8=	Ø 408		

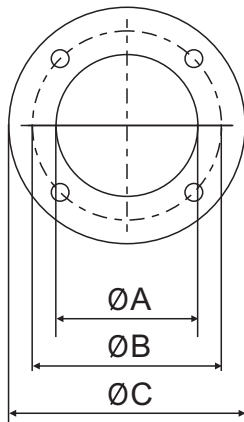


FIG. 1

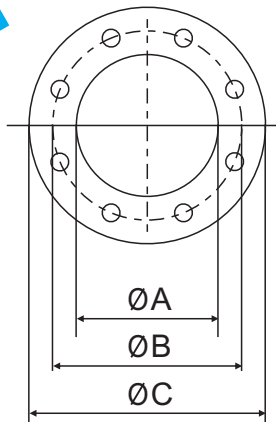


FIG. 2

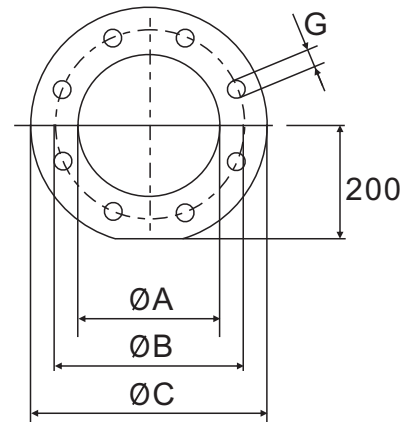


FIG. 3

Fig	Code	ØA	ØB	ØC	G		Thickness	VFS	kg
					N°	Ø			
1	XKF291	141	180	220	4	13.5	6	100	1
1	XKF301	116	180	220	4	14	6	100	1.5
1	XKF311	168	200	228	4	14	6	150	1.0
1	XKF321	193	250	278	4	14	6	200	1.7
2	XKF331	219	250	278	8	14	6	200	1.3
2	XKF341	273	300	328	8	14	6	250	1.5
2	XKF351	323	350	378	8	14	6	300	1.7
3	XKF361	323	375	440	8	14	6	300	4.0
2	XKF371	357	400	440	8	14	6	350	3.0
2	XKF381	408	470	530	8	14	6	400	5.0

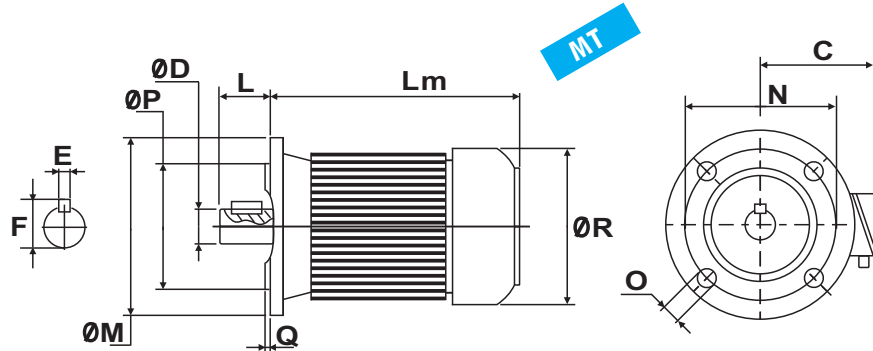
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

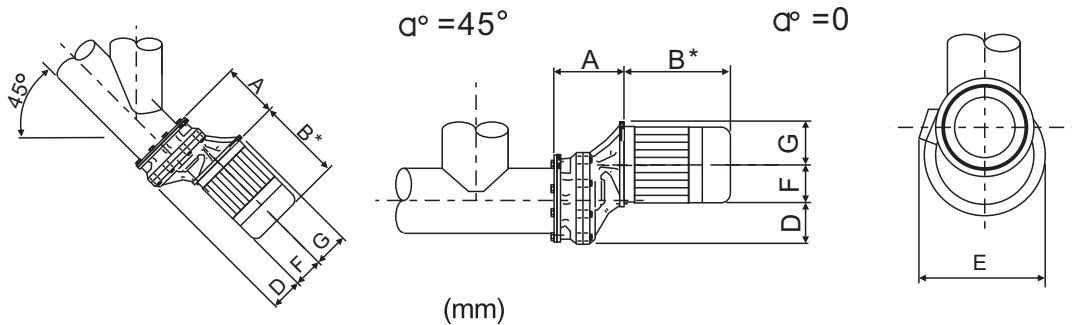
## MOTOR

### Motor-MT-Series

MT series drive motors are suitable for M4&Z4 series gear reducers.



kW	Motor	Code	C	D	E	F	L	Lm*	M	N	O	n°	P	Q	R	kg	PG
1.1	90S	MT0900S04145	126	24	8	27	50	248	200	165	12.5	4	130	3.5	180	25	13.5
1.5	90L	MT0900L04145	126	24	8	27	50	273	200	165	12.5	4	130	3.5	180	26	13.5
2.2	100LR	MT100LR04145	142	28	8	31	60	306	250	215	15	4	180	4	218	34	16
3	100LH	MT100LH04145	142	28	8	31	60	306	250	215	15	4	180	4	218	35	16
4	112M	MT1120M04145	142	28	8	31	60	334	250	215	15	4	180	4	218	44	21
5.5	132S	MT1320S04145	172	38	10	41	80	371	300	265	15	4	230	4	258	65	21
7.5	132M	MT1320M04145	172	38	10	41	80	409	300	265	15	4	230	4	258	79	21
9.2	132ML	MT1320L04145	172	38	10	41	80	409	300	265	15	4	230	4	258	87	21
11	160M	MT1600M04245	204	42	12	45	110	485	350	300	19	4	250	5	300	118	29
15	160L	MT1600L04245	204	42	12	45	110	529	350	300	19	4	250	5	300	139	29
18.5	180M	MT1800M04245	200	48	14	51.5	110	543	350	300	19	4	250	5	340	160	29
22	180L	MT1800L04245	270	48	14	51.5	110	585	350	300	19	4	250	5	340	220	29



M43						
KW	A	B*	D	E	F	G
1.5	154	278	100	250	83	100
2.2	164	302	100	270	83	125
3	164	302	100	270	83	125
4	164	334	100	270	83	125
5.5	199	371	100	322	83	150

M47						
KW	A	B*	D	E	F	G
5.5	242	371	130	322	130	150
7.5	242	409	130	322	130	150
9.2	242	420	130	322	130	150
11	272	485	130	405	130	175
15	272	509	130	405	130	175

M45						
KW	A	B*	D	E	F	G
3	202	302	106	270	100	125
4	202	334	106	270	100	125
5.5	223	371	106	322	100	150
7.5	223	409	106	322	100	150
9.2	223	420	106	322	100	150
11	253	485	106	413	100	175

M49						
KW	A	B*	D	E	F	G
11	263	485	200	405	162	175
15	263	529	200	405	162	175
18.5	263	543	200	421	162	175
22	263	585	200	445	162	175

Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## MECHANICAL COMPONENTS

### Mechanical components

#### ES-ESV Screw feeder accessories

Ø	Inlet end bearing for drive at outlet	outlet end bearing for drive at Inlet	Intermediate Bearing	Inler Shaft Couplings	Outler Shaft Couplings	Inlermediate Shaft Couplings	Valve
114	XTB25ES0B12	XTA00ES0A01	XLR028B010T44	XAA028T0421	XAA028T0421	XAA028T0421	VFS100
139	XTB25ES0B12	XTA00ES0A01	XLR028B012T44	XAA028T0481	XAA028T0481	XAA028T0481	VFS100
168	XTB35ES1B12	XTA00ES1A01	XLR040B015T44	XAA040T0601	XAA040T0601	XAA040T0601	VFS150
193	XTB35ES2B12	XTA00ES2A01	XLR040B017T44	XAA040T0601	XAA040T0601	XAA040T0601	VFS200
219	XTB35ES3B12	XTA00ES3A01	XLR040B020T44	XAA040T0601	XAA040T0601	XAA040T0601	VFS200
273	XTB35ES4B12	XTA00ES4A01	XLR040B025T44	XAA040T0601 (FORM49 XAA060T0601)	XAA040T0601 (FORM49 XAA060T0601)	XAA040T0601	VFS250
323	XTB35ES5B12	XTA00ES5A01	XLR040B030T44	XAA060T1141 (FORM47&XTB35 XAC040T1141)	XAA060T1141 (FORM47&XTA XAC040T1141)	XAC040T1141	VFS300

#### TU-TC-TS

Ø	Inlet end bearing for drive at outlet	outlet end bearing for drive at Inlet	Intermediate Bearing	Inler Shaft Couplings	Outler Shaft Couplings	Inlermediate Shaft Couplings	Valve
114	XTB25ES0B12	XTB25ES0A12	XLY045H010T11	XAA028T0421	XAA028T0421	XAA028T0421	VFS100
139	XTB25ES0B12	XTB25ES0A12	XLY045H012T11	XAA028T0481	XAA028T0481	XAA028T0481	VFS100
168	XTB35ES1B12	XTB35ES1A12	XLY045H015T11	XAA040T0601	XAA040T0601	XAA040T0601	VFS150
193	XTB35ES2B12	XTB35ES2A12	XLY045H017T11	XAA040T0601	XAA040T0601	XAA040T0601	VFS200
219	XTB35ES3B12	XTB35ES3A12	XLY045H020T11	XAA040T0601	XAA040T0601	XAA040T0601	VFS200
273	XTB35ES4B12	XTB35ES4A12	XLY045H025T11	XAA040T0601	XAA040T0601	XAA040T0601	VFS250
323	XTB35ES5B12	XTB35ES5B12	XLY045H030T11	XAA040T1141	XAA040T1141	XAC040T1141	VFS300

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SILO VENTING FILTERS

### Silo venting filters-SILOR-Series

Round exhaust filter made of stainless steel (sealing frame is made of surface-treated carbon steel). The filter has a flanged housing that can be fixed in the silo with 24 bolts

### Venting Filters

# SILOR



Feature	Function	– Advantage
Standard Stainless Steel Body	Resistance to Corrosion	Reduced Maintenance Costs Due to Increased Durability
High Quality Filter Media	High Filtration Efficiency	Lower Dust Emission
Push-Fit Filter Elements	No tools for cartridge maintenance needed (no loss of hardware)	Lower Maintenance Costs
Maintenance Height = 1,150mm (3.8 ft)	Easy Maintenance	Increased Work Safety - Reduced Maintenance Costs
Easy opening system with hinged cover	Easy Maintenance	Reduced Maintenance Costs

### Code

SILOR	0	3	E
Dust collector	Filter surface	Series	Body material
SILOR	0: 24m <sup>2</sup>	3	E: SUS430 2: SUS304 4: SUS316



### Specification data

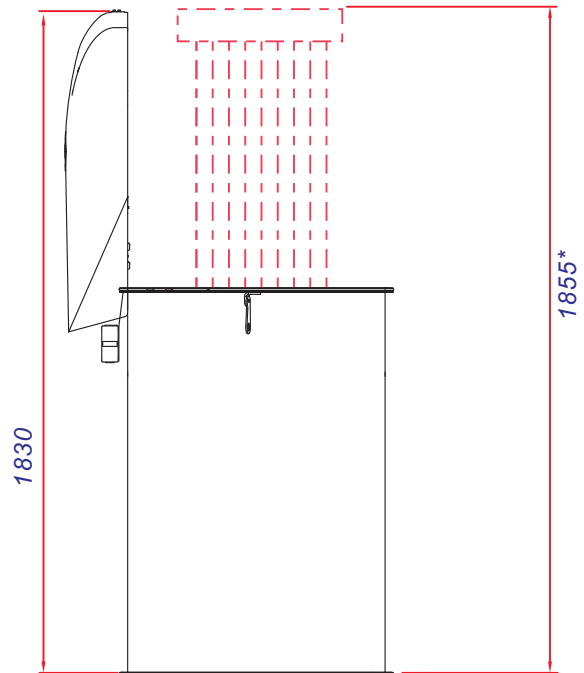
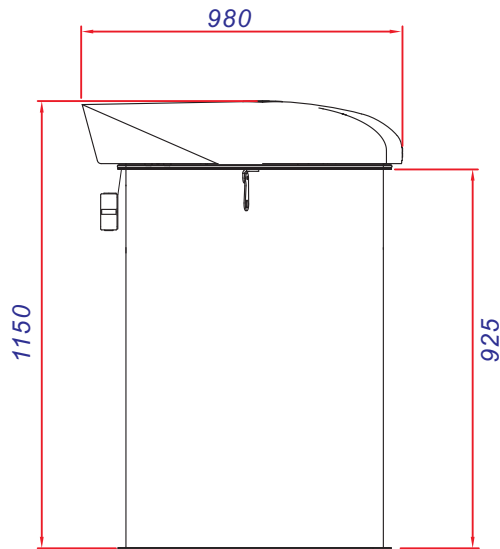
CODE	BODY Ø mm [in]	Filter surface m <sup>2</sup> [sq ft]	Air consumption Nm <sup>3</sup> /h	Max. height when closed mm [in]	Max. height when open mm [in]	Weight kg [lb]
SILOR03E	800 [31.5]	24.5 [264]	4.5	1,100 [43.3]	1,850 [72.8]	79 [174]
SILAB24E	800 [31.5]	24.5 [264]	4.5	1,100 [43.3]	1,850 [72.8]	79 [174]
SILAB14E	800 [31.5]	14.0 [150]	2.5	1,100 [43.3]	1,850 [72.8]	68 [150]

Dimensions in mm

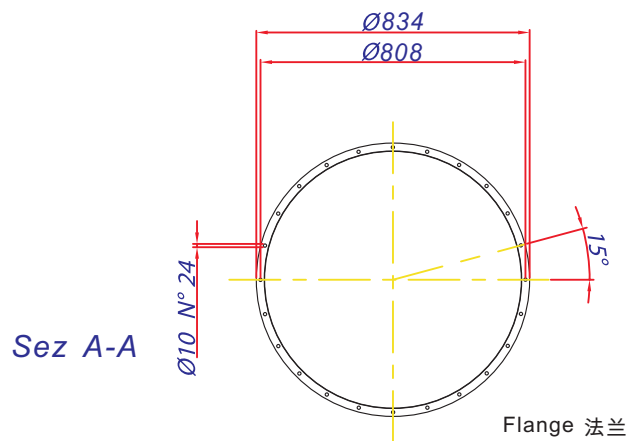
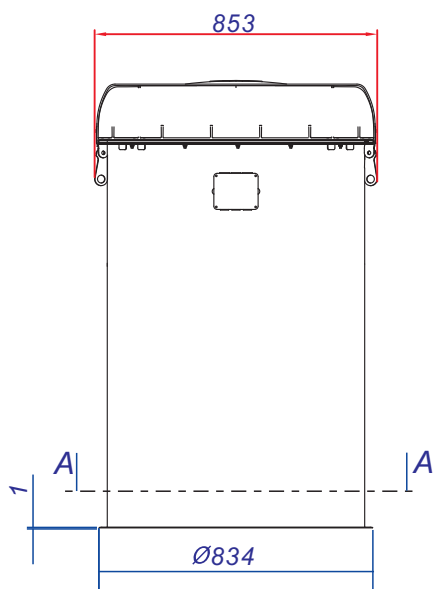
# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Overall Dimensions



\*Only for maintenance



Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SILO VENTING FILTERS

### Venting filters-FNC-Series

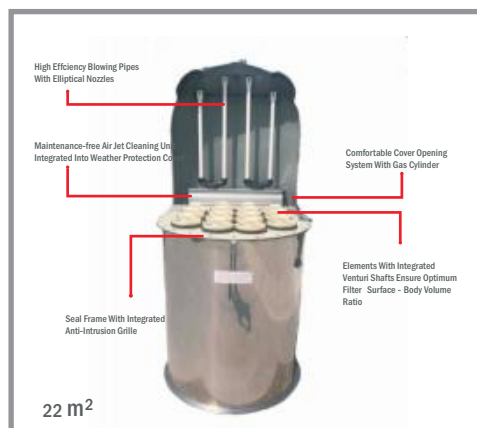
FNC is a round exhaust filter made entirely of stainless steel (the sealing frame is made of surface-treated carbon steel). The filter belt There is a flanged housing that can fix the filter in the silo with 24 bolts



Feature	Function	
Standard Stainless Steel Body	Resistance to Corrosion	Reduced Maintenance Costs Due to Increased Durability
High Quality Filter Media	High Filtration Efficiency	Lower Dust Emission
Push-Fit Filter Elements	No tools for cartridge maintenance needed (no loss of hardware)	Lower Maintenance Costs
Maintenance Height = 1,150mm (3.8 ft)	Easy Maintenance	Increased Work Safety - Reduced Maintenance Costs
Easy opening system with hinged cover	Easy Maintenance	Reduced Maintenance Costs
With fan exhaust system	High efficiency exhaust	Clean room, no dust leakage

### Code

FN	C	3	J	22	V	Body material	A
TYPE	Filtering elements	Filter diameter	Cleaning system	Filter surface	Pressure meter		Fan motor power
FN	C= Cartridges W= Square cartridge	1=400mm 2=600mm 3=800mm 4=1000mm	J= Compressed air	01-48m <sup>2</sup>	V=	+ =430St.st 2=304St.st 4=316St.st	C=Plastic cover A= With fan



### Specification data

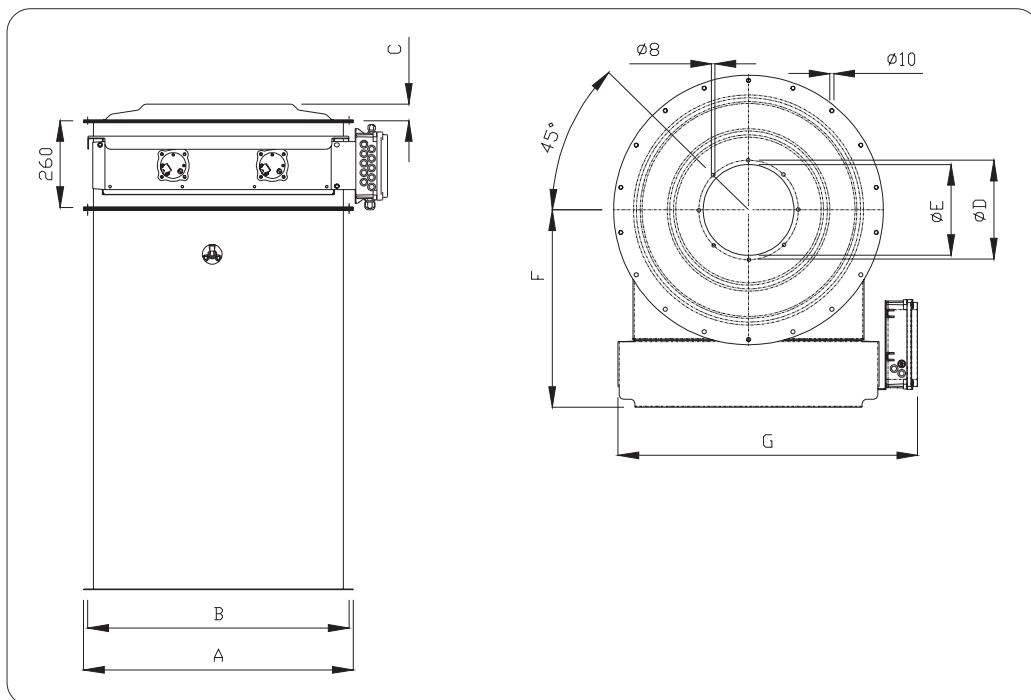
CODE	BODY Ø mm [in]	Filter surface m <sup>2</sup> [sq ft]	Air consumption Nm <sup>3</sup> /h	Max. height when closed mm [in]	Max. height when open mm [in]	Weight kg [lb]
FNC3	800 [31.5]	22 [237]	4.5	1,100 [43.3]	1,850 [72.8]	79 [174]

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Overall Dimensions



### Overall Dimensions

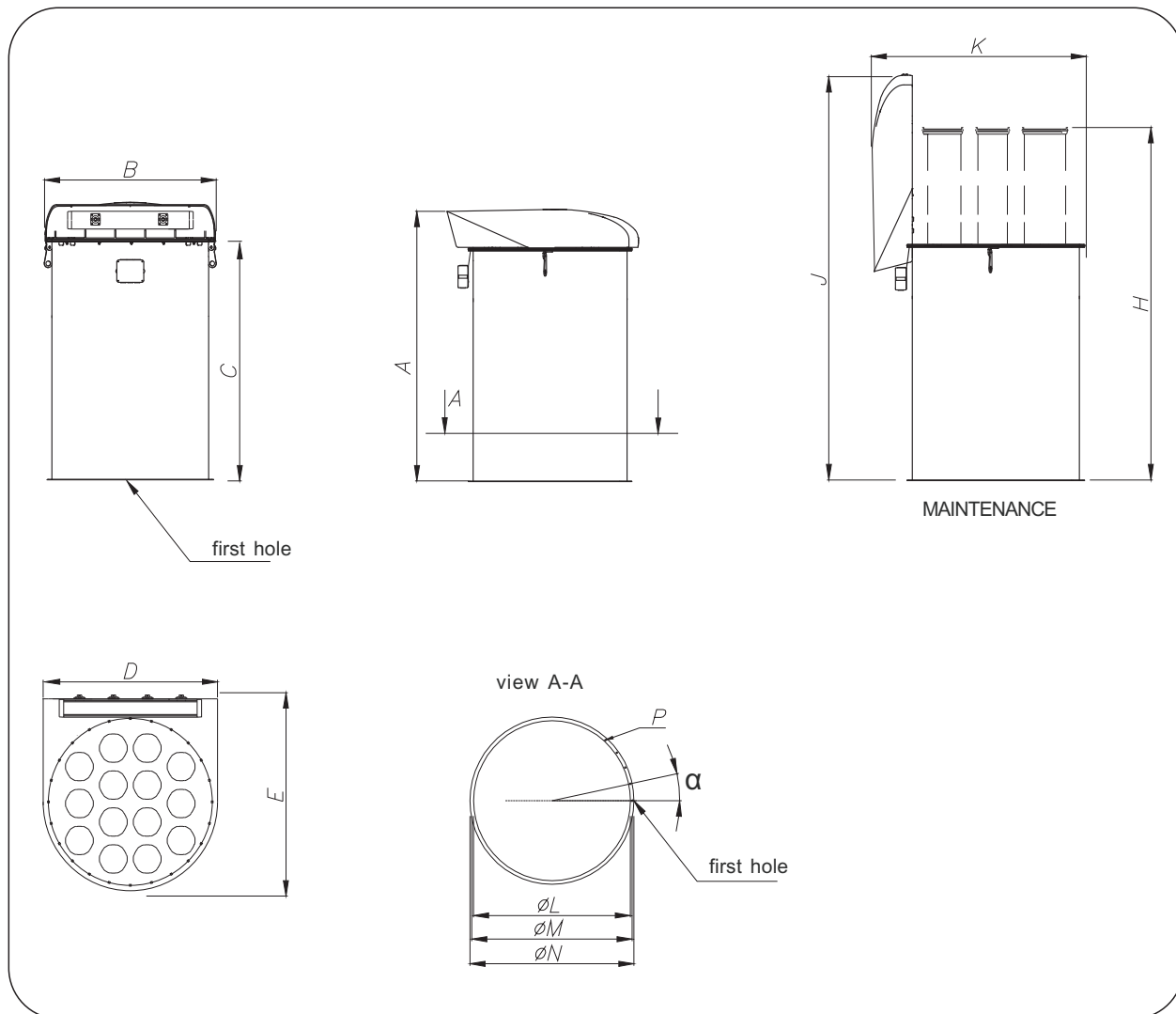
TYPE	Φ	Length	A	B	C	Φ D	Φ E	F	G
FN 2	600	520	653	628	40	242	220	478	726
		770							
		920							
		1360							
		1840							
FN 3	800	520	833	808	50	242	220	573	826
		770							
		920							
		1360							
		1840							
FN 4	1000	520	1088	1063	66	332	270	698	1061
		770							
		920							
		1360							
		1840							

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Overall Dimensions



### Overall Dimensions

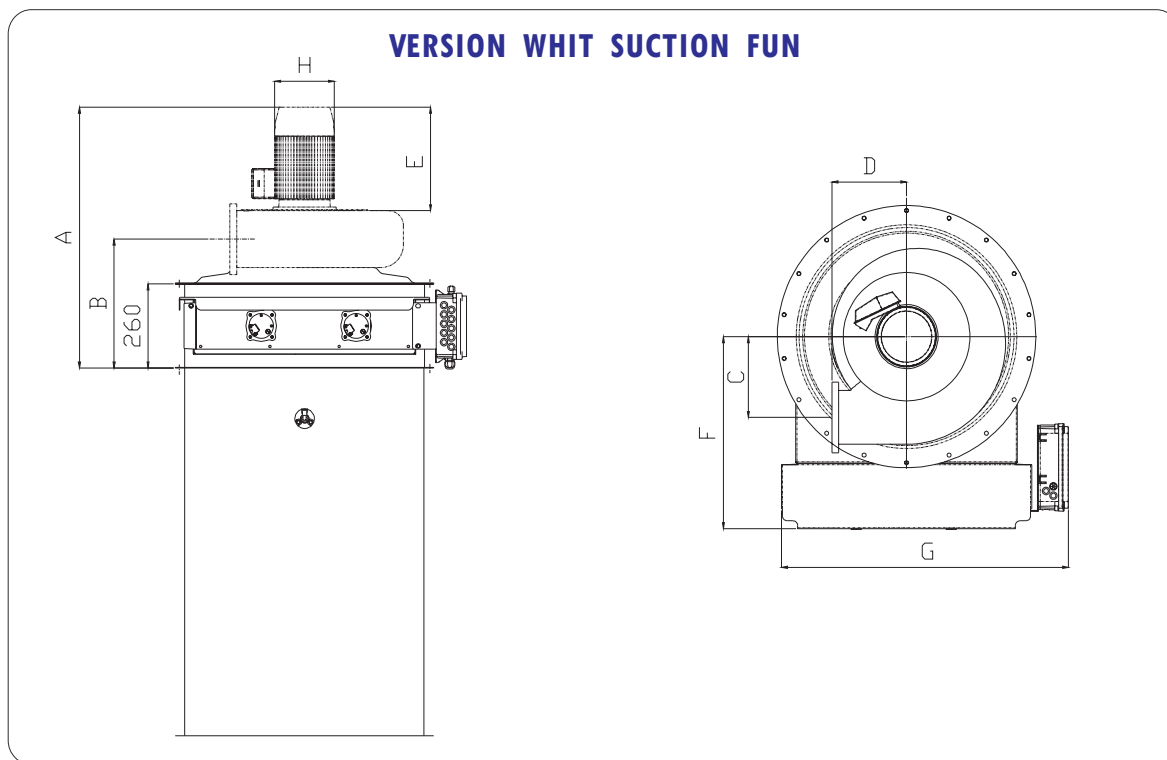
TYPE	Filter surface (m <sup>2</sup> )	Filter Elements		A	B	C	D	E	H	J	K	$\phi L$	$\phi M$	$\phi N$	$\alpha$	P		Weight
		No.	Lenght													N°	$\Phi$	
FNC3J12	11.7	14	520	710	860	526	960	1005	1060	1465	1110	783	808	833	15	24	10	89
FNC3J18	18	14	770	960	860	776	960	1005	1560	1715	1110	783	808	833	15	24	10	97
FNC3J22	22	14	920	1110	860	926	960	1005	1860	1865	1110	783	808	833	15	24	10	103

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Overall Dimensions



Φ	FAN		A	B	C	D	E	F	G	H
	TYPE	power								
600	A	0.75	640	348	201	197	240	478	726	160
	A	1.1	640	348	201	197	240			160
	B	1.1	652	354	238	280	240			160
	B	1.5	697	379	238	280	260			180
	C	2.2	765	393	319	285	280			180
	C	3	805	393	319	285	320			200
800	A	0.75	645	353	201	197	240	573	826	160
	A	1.1	645	353	201	197	240			160
	B	1.1	657	359	238	280	240			160
	B	1.5	677	359	238	280	260			180
	C	2.2	765	393	319	285	280			180
	C	3	805	393	319	285	320			200
	D	4	845	423	357	320	320			210
	D	5.5	910	423	357	385	385			250
1000	A	0.75	670	373	201	197	240	698	1061	160
	A	1.1	670	373	201	197	240			160
	B	1.1	702	379	238	280	240			160
	B	1.5	722	379	238	280	260			180
	C	2.2	810	413	319	285	280			180
	C	3	850	413	319	285	320			200
	D	4	870	443	357	320	320			210
	D	5.5	935	443	357	385	385			250

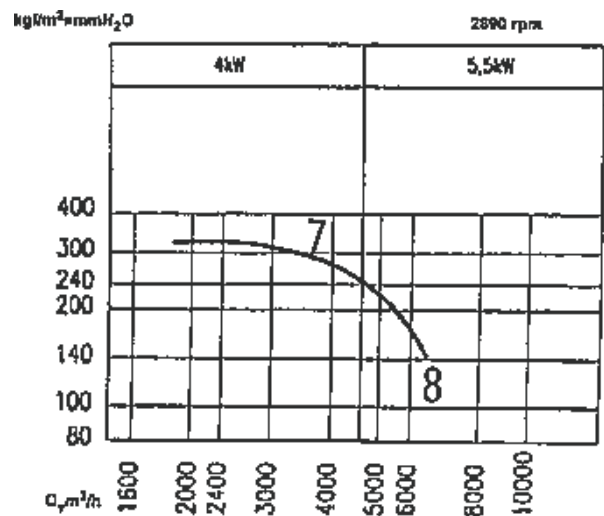
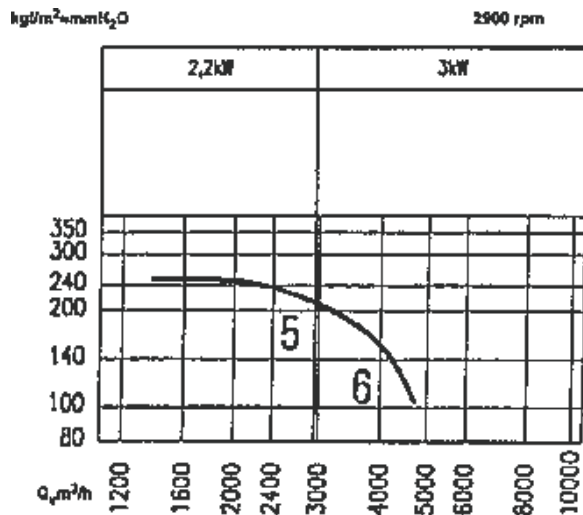
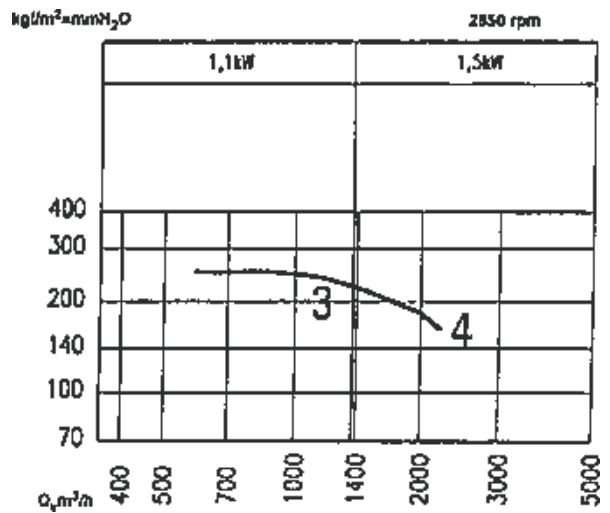
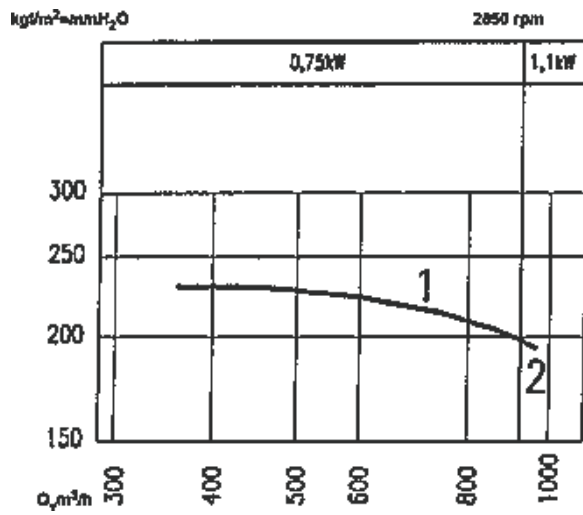
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Fan performance curves

Air volume flow and pressure curves at filter inlet refer to clean filter elements. When sizing a fan, according to the type of filter, the particle size and dust concentration, a pressure drop of approximately 70 to 100 mm H<sub>2</sub>O must be considered.



Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## SILO VENTING FILTERS

### Silo venting filters-V2-Series

V2 is a round exhaust filter made entirely of stainless steel (the sealing frame is made of surface-treated carbon steel). The filter belt There is a flanged housing that can fix the filter in the silo with 24 bolts

## Venting Filters

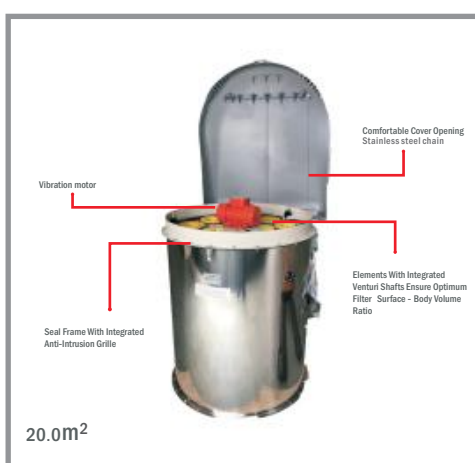
# V2

Feature	Function	
Standard Stainless Steel Body	Resistance to Corrosion	Reduced Maintenance Costs Due to Increased Durability
High Quality Filter Media	High Filtration Efficiency	Lower Dust Emission
Push-Fit Filter Elements	No tools for cartridge maintenance needed (no loss of hardware)	Lower Maintenance Costs
Maintenance Height = 1,150mm (3.8 ft)	Easy Maintenance	Increased Work Safety - Reduced Maintenance Costs
Easy opening system with hinged cover	Easy Maintenance	Reduced Maintenance Costs
With fan exhaust system	High efficiency exhaust	Clean room, no dust leakage



Code

V2	I	R	02
TYPE	Filter type	Series	
V2= Vibration dust collector	I: TM:	R	



## Overall Dimensions

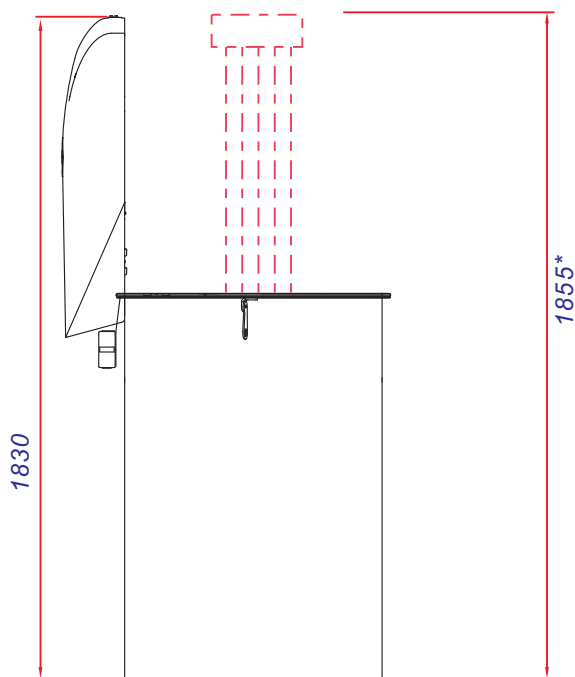
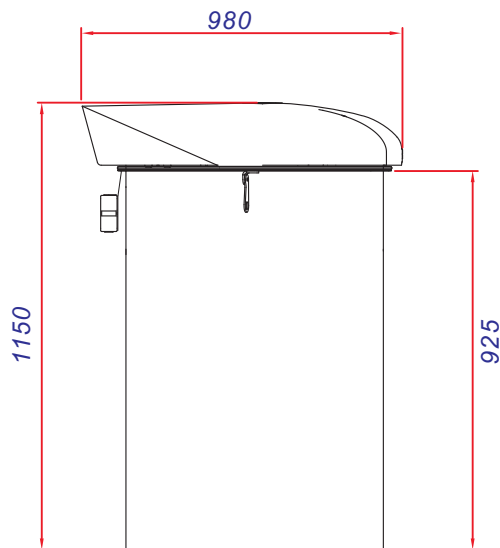
CODE	BODY Ø mm [in]	FILTER SURFACE m <sup>2</sup> [sq ft]	MAX. HEIGHT WHEN CLOSED mm [in]	MAX. HEIGHT WHEN OPEN mm [in]	WEIGHT kg [lb]
V2	800 [31.5]	20 [122]	1,140 [44.9]	1,825 [71.8]	120 [264]

Dimensions in mm

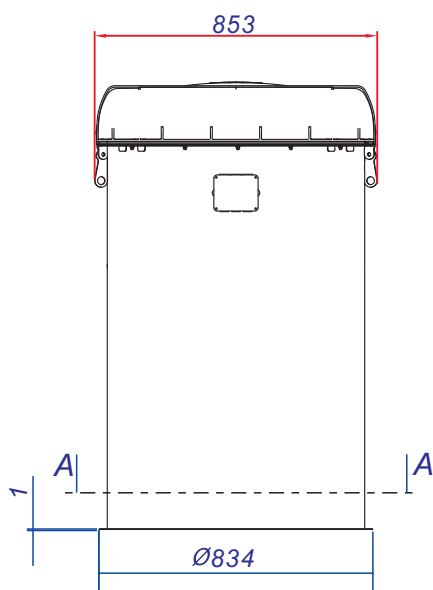
# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

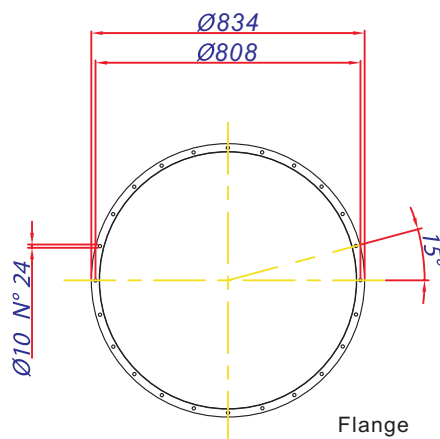
### Overall Dimensions



\*Only for maintenance



Sez A-A



Flange

Dimensions in mm

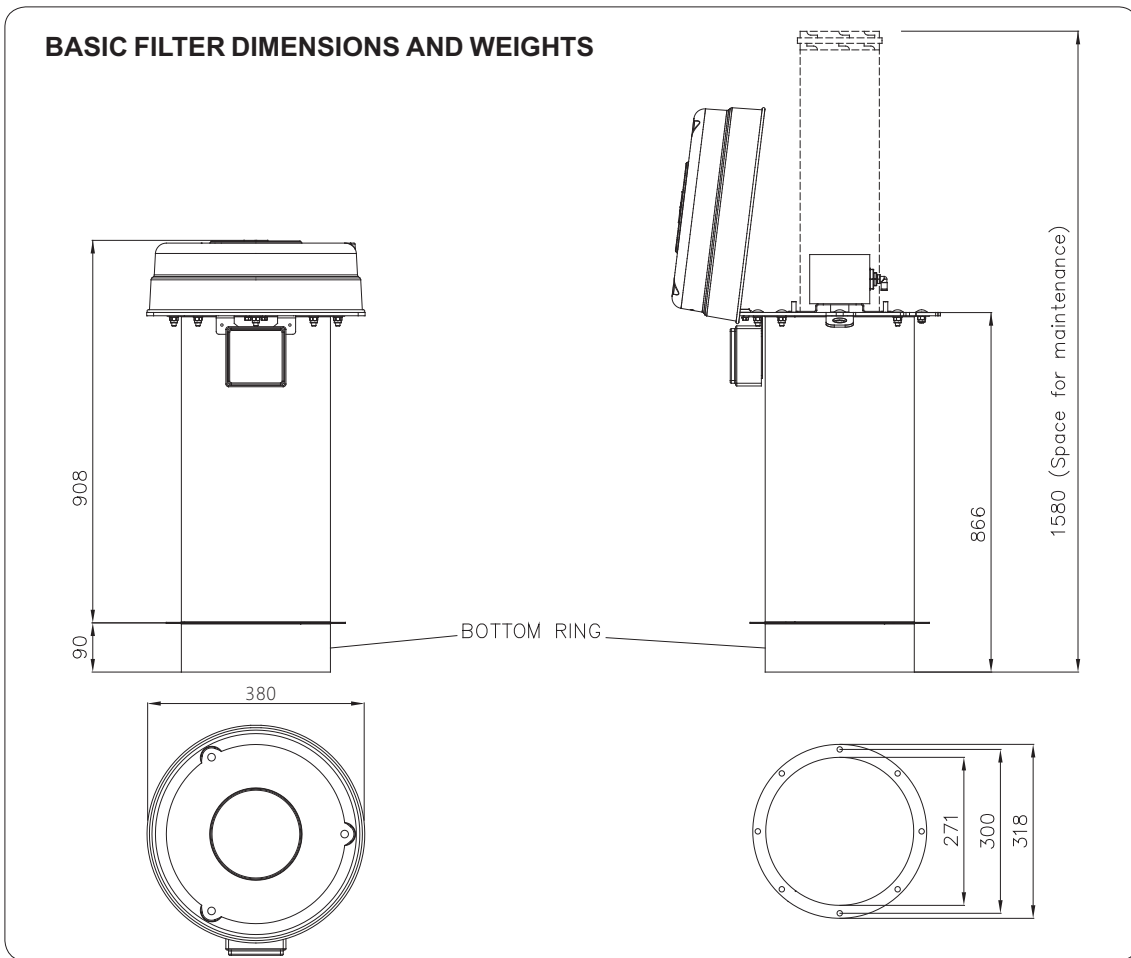
**SILO VENTING FILTERS**

**Silo venting filters-HTP-Series**

HTP is a round exhaust filter made entirely of stainless steel (the sealing frame is made of surface-treated carbon steel). The filter belt There is a flanged housing, the filter can be fixed in the silo with 8 bolts

**HTP**

Feature	Function	
Standard Stainless Steel Body	Resistance to Corrosion	Reduced Maintenance Costs Due to Increased Durability
High Quality Filter Media	High Filtration Efficiency	Lower Dust Emission
Push-Fit Filter Elements	No tools for cartridge maintenance needed (no loss of hardware)	Lower Maintenance Costs
With fan exhaust system	High efficiency exhaust	Clean room, no dust leakage



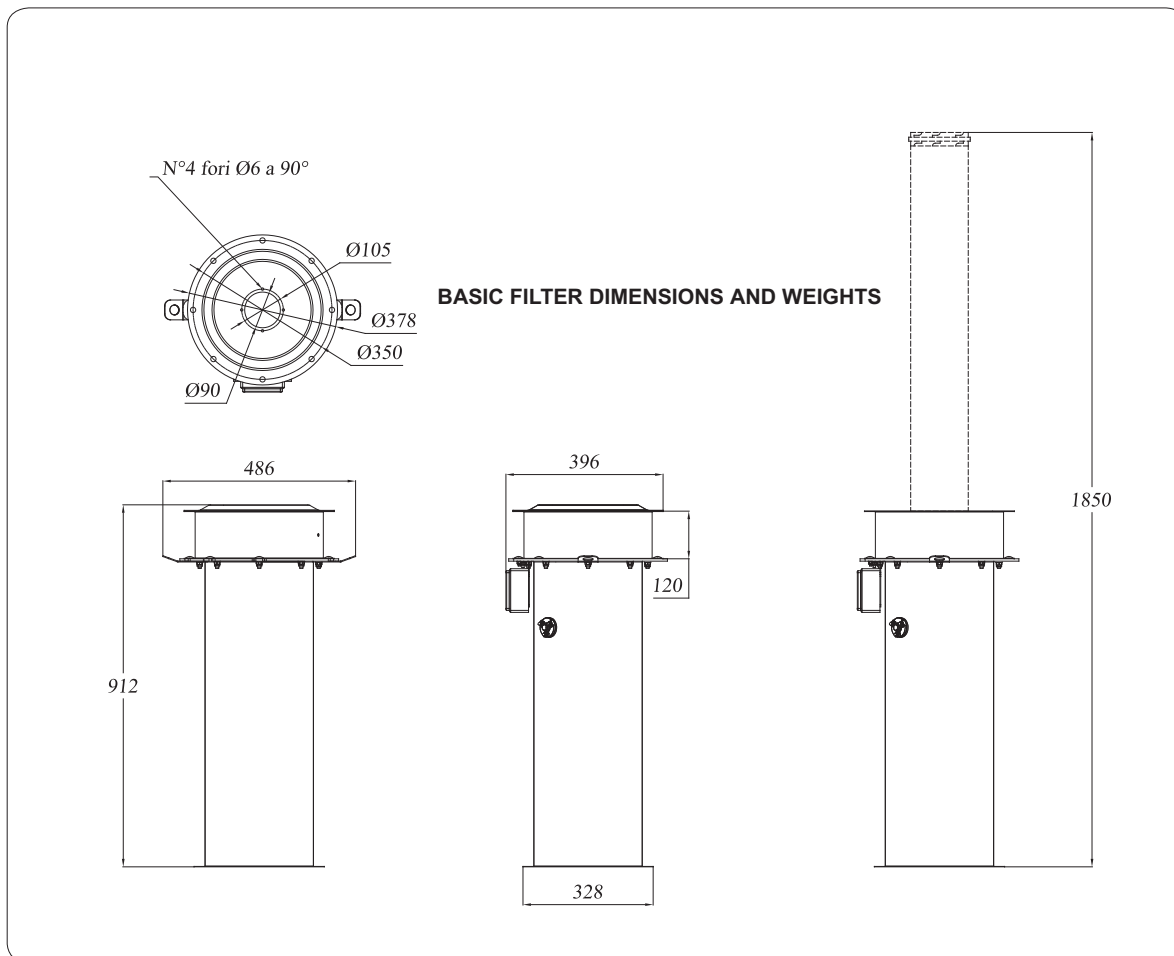
TYPE	FILTER SURFACE [m <sup>2</sup> ]	WEIGHT [Kg]
HTP10001V	1	15

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## DESCRIPTION AND TECHNICAL CHARACTERISTICS

### Overall Dimensions



Spazi minimi per MANUTENZIONE

TYPE	FILTER SURFACE [m <sup>2</sup> ]	WEIGHT [Kg]
HTP10001R	1	16.5

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SPAREPARTS

### Filter elements-KFEW-Series

The KFEW filter element is suitable for dust collectors to discharge the gas in the silo. The material is polyester fiber, STD or anti-static or PTFE are available.

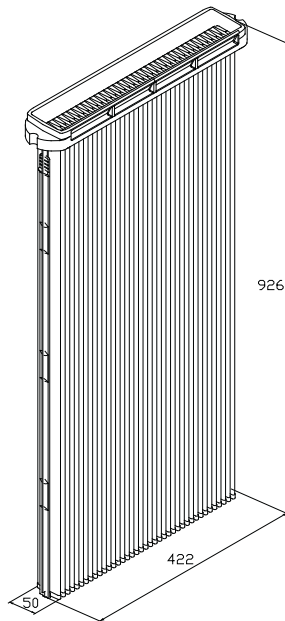
#### Venting Filters

## KFEW

Code

KFEW	3	007	PP	VE
Type	Specification	Qty	Material	
KFEW	1: H=520mm 2: H=770mm 3: H=920mm	001 : 1 filter cartridges 007 : 7 filter cartridges	PP: Polyester fibre PH: Polyester+ Nanofiber	

### FILTER ELEMENTS



the filtering medium is a non-woven pleated spunbonded fleece. The total filtering surface is 24.5m.

### Overall Dimensions

CODE	FILTER SURFACE m <sup>2</sup> [sq ft]	LENGTH mm [in]	WIDTH mm [in]	HEIGHT mm [in]	WEIGHT kg [lb]
KFEW3001	3.5 [21.5]	425 [16.7]	50[1.97]	935 [36.8]	2.5 [5.5]

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SPAREPARTS

### Filter elements-KFNC-Series

The KFNC filter element is suitable for dust collectors to discharge the gas in the silo. The material is polyester fiber, STD or anti-static or PTFE are available.

#### Venting Filters

## KFNC



**Feature**                      **Function**  
 Height 500/750/900 mm, diameter 151 mm  
 Mounting method - 2 threaded studs  
 Polypropylene Core, Outer Bands (2)  
 Media: 100% Spunbond Polyester, 40 Pleats  
 Max Temperature: 180 degrees F

Filtering material	PP FP	PV FV	PA FA	PT FT
--------------------	----------	----------	----------	----------

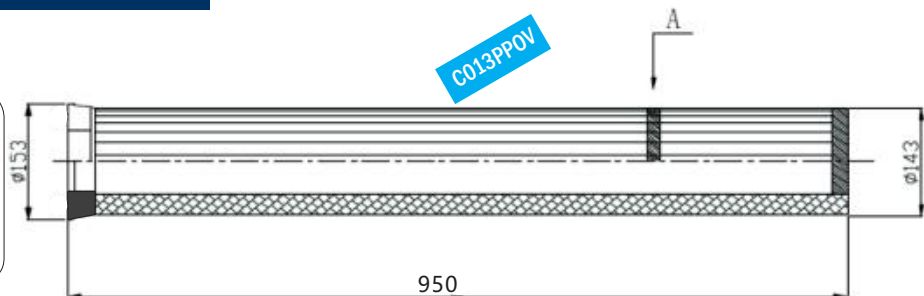
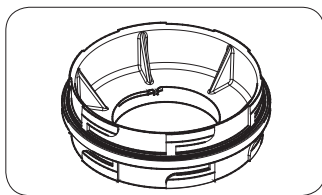
Material handling                      Teflon coating.                      Anti-static                      Polytetrafluoroethylene film.

Should be used    General powder                      Wet or oily powder.                      It needs to be de-static.                      A special powder.

#### Code

KFNC	3	001	PP	3	J	C
Type	Specification	Qty	Material		Application	
KFNC	1: L=500mm 2: L=750mm 3: L=900mm	001 : 1 filter cartridges	PP: Polyester fibre		J: Std D: Underpressure	

### Overall Dimensions



### Overall Dimensions

CODE	APPLICABLE MACHINE TYPE	BODY Ø mm	FILTER SURFACE m <sup>2</sup>	FILTER MEDIUM	FILTER THE NUMBER	LENGTH (mm)
KFNC1000PP3JC	FNC& FNS	143		PP-PV-PA-PT		520
KFNC2000PP3JC	FNC&FNS	143		PP-PV-PA-PT		770
KFNC3000PP3JC	FNC& FNS	143		PP-PV-PA-PT		920
C013PPOV		143		PP-PV-PA-PT		920

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SPAREPARTS

### Filter elements-KFEC-Series

The KFEC filter element is suitable for dust collectors to discharge the gas in the silo. The material is polyester fiber, STD or anti-static or PTFE are available.

#### Venting Filters

## KFEC



**Feature**                      **Function**  
 Height 520/770/920 mm, diameter 151 mm  
 Mounting method - 2 threaded studs  
 Polypropylene Core, Outer Bands (2)  
 Media: 100% Spunbond Polyester, 40 Pleats  
 Max Temperature: 180 degrees F

Filtering material	PP FP	PV FV	PA FA	PT FT
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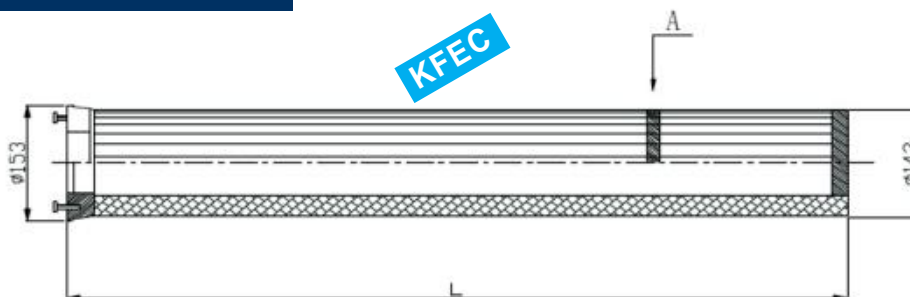
Material handling                      Teflon coating.                      Anti-static                      Polytetrafluoroethylene film.

Should be used      General powder                      Wet or oily powder.                      It needs to be de-static.                      A special powder.

#### Code

KFEC	3	001	PP	3	J	C
Type	Specification	Qty	Material		Application	
KFEC	1: L=520mm 2: L=770mm 3: L=920mm	001 : 1 filter cartridges	PP:Polyester fibre		J:Std D:underpressure	

### Overall Dimensions



### Overall Dimensions

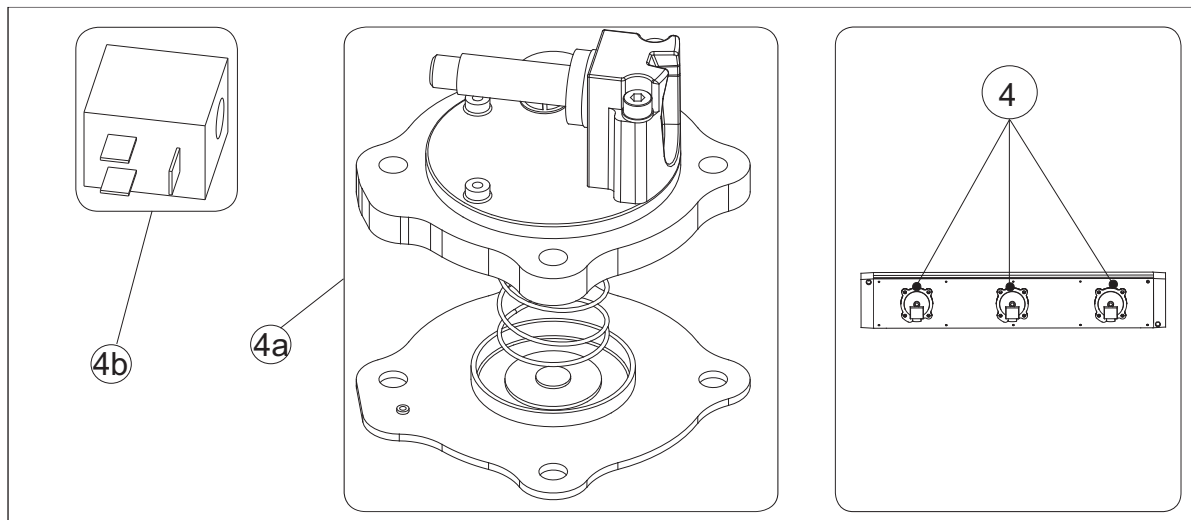
CODE	APPLICABLE MACHINE TYPE	BODY Ø mm	FILTER SURFACE m <sup>2</sup>	FILTER MEDIUM	FILTER THE NUMBER	LENGTH (mm)
KFEC1000PP3JC	FC1V03, FC1J03 FC1V04, FC1J04 FC1V05, FC1J05	143		PP-PV-PA-PT	3	520
KFEC2000PP3JC	FC2V07, FC2J07 FC2V11, FC2J11 FC2V13, FC2J13	143		PP-PV-PA-PT	8	770
KFEC3000PP3JC	FC3V12, FC3J12 FC3V20, FC3J20 FC3V24, FC3J24	143		PP-PV-PA-PT	14	920
C002PPB	FC3V12, FC3J12 FC3V20, FC3J20 FC3V24, FC3J24	143		PP-PV-PA-PT	14	920

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## SPAREPARTS

### Pulse solenoid valve&controller



Item	Description	Code	
4a	Solenoid valve repair kit	12020250A	
4b	Coil	BOB02450	24V AC
		BOB024CC	24V DC
		BOB04850	48V AC
		BOB048CC	48V DC
		BOB11050	110V AC
		BOB110CC	110V DC
		BOB22050	220V AC
4 (4a + 4b)	Solenoid valve assembly	KEVN02450	24V AC
		KEVN024CC	24V DC
		KEVN04850	48V AC
		KEVN048CC	48V DC
		KEVN11050	110V AC
		KEVN110CC	110V DC
		KEVN22050	220V AC

Item-Pos.06	1302	002	OC
Number of outputs	_____		
OC= Std. panel - OE= Spare on original type-	_____		



Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## ACCESSORIES

### BOTTOM RING -UFN-Series

**BOTTOM RING** Used to connect the filter with a hopper, silo etc. This connection is made by welding

#### FINISHING:

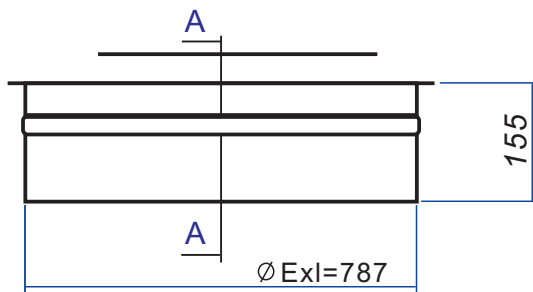
- Carbon steel powder-coated RAL 7001 (silvergry)
- AISI 304 stainless steel
- AISI 316 stainless steel

#### Bottom ring

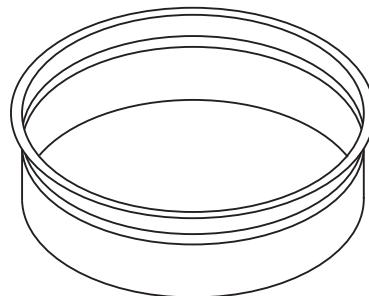
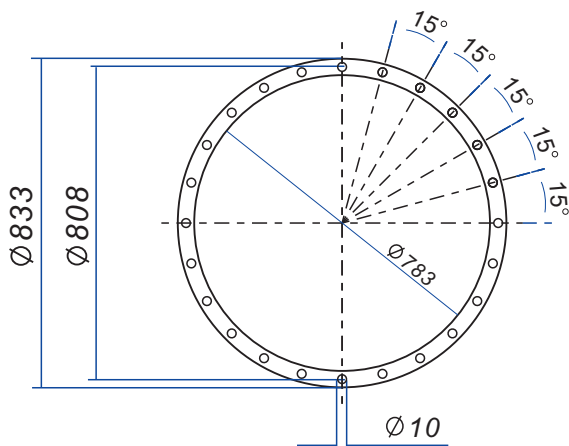
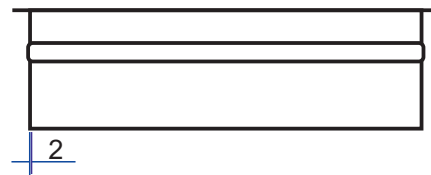
## UFN

Code

UFN	800	1
Type	Specification	Material
UFN	600mm 800mm 1000mm	1: Carbon steel 2: AISI 304 3: AISI 316



SEZ.A-A



Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Silo Flow Aids Fluidizer

### Silo Fluidizer-VB4-Series

43 and 44 vibratory bowl for help gas flow to improve the bulk material

#### Silo Fluidizer

## VB 4

#### Performance & Technical Features - Benefits

- Sturdy design Self-cleaning Abrasion-resistant Easy to install
- Air pressure 2 to 4 bar (29 to 58 PSI)
- Working temperature 43-44 -40° C to 230° C (-40° F to 450° F)
- For powders and granular products Food-grade (FDA-approved)

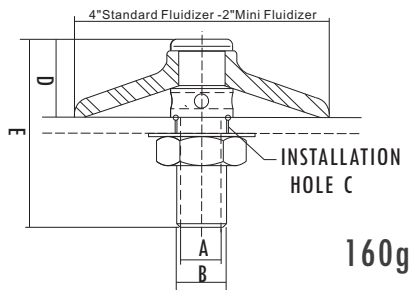
#### Options & Accessories

- With stainless steel shaft
- For external assembly
- Miniature execution

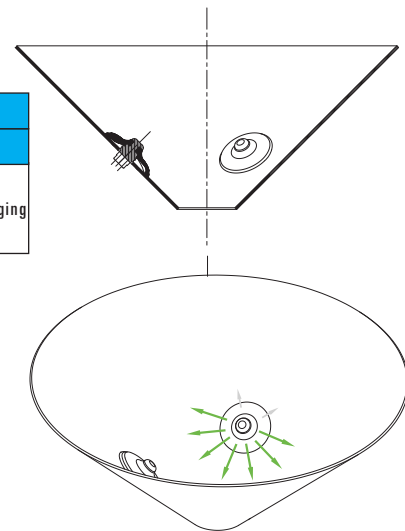


#### How To Order

VB 4	3	02	4	N
Type	Thread	Shaft	Qty	Combination
VB 4	3= 1/2 4= 3/4 8= 1/4	02/03:Aluminium 04/05:Stainless steel	4: 4 PCS 6: 6 PCS	N: standard packaging



160g



Part #	Stem Material	Disk Color	Disk Material	A	B	C	D	E	Airline Options
VB 4302	Aluminum	Blue	Silicone	1/4" NPT	1/2" NPT	7/8" (22mm)	1-3/16" (30mm)	3" (76mm)	3/8" 1/2" (10-12mm) Tubing
VB 4303		White							
VB 4304	Stainless Steel	Blue							
VB 4305		White							
VB 4402	Aluminum	Blue	Silicone	1/2" NPT	3/4" NPT	1-1/16" (27mm)	1-1/4" (32mm)	3 1/16" (78mm)	1/2" 3/4" (13-19mm) Tubing or Hose
VB 4403		White							
VB 4404	Stainless Steel	Blue							
VB 4405		White							
VB 4804	Stainless Steel	Blue	Silicone	1/8" NPT	NA	1/2" (13mm)	9/16" (14mm)	1-1/2" (38mm)	1/4 Tubing (6mm)
VB 4805		White							

The work broken arch recommended intermittent operation, such as using open 2-3 seconds, stop for 10-15 seconds, different pressures and under different working intermittently broken arch device will produce different effects of aid flows.

Series	Air consumption-Luftverbrauch						
	MAX.						
	0.5bar(7.2psi)	1bar(14.5psi)	1.5bar(21.7psi)	2bar(29psi)	3bar(43psi)	3.5bar(50.7psi)	4bar(58psi)
	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h
4400	23	46	70				
4300		15	22.5	30	45	52.5	60

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Silo Flow Aids Fluidizer

### Vibro Aerators-VBS- Series

VBS vibratory bowl for help gas flow to improve the bulk material



# VBS

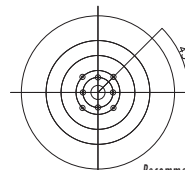
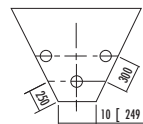


#### Performance & Technical Features - Benefits

- Air pressure 0.8 to 4 bar
- For powders and granular products
- Food-grade (FDA-approved)

#### Options & Accessories

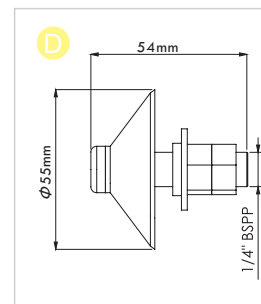
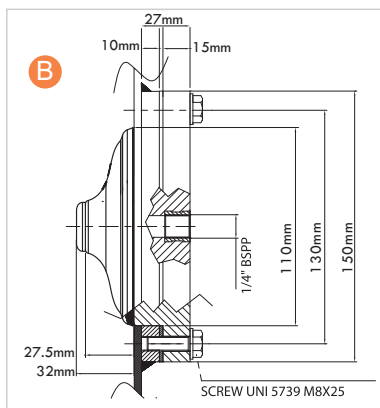
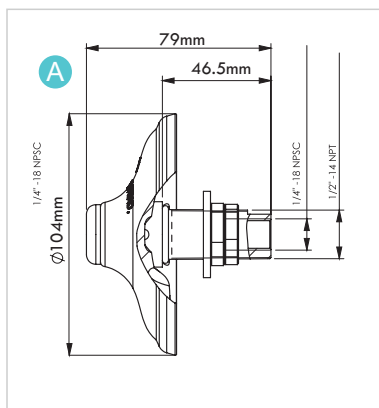
- With stainless steel shaft (VBSI)
- For external assembly (VBSE only)
- Miniature execution (VBSM)



Recommended mounting

#### How To Order

VBS	M	I	HT	E	4	N
TYPE	SERIES	SHAFT	RUBBER MATERIAL	INSTALLATION	QTY	COMBINATION
Type	BLANK=Standard M=Micro Aerator	BLANK=Aluminium I=Stainless steel	BLANK=Standard HT= High Temperature MD= Metal Detectable	BLANK=Standard E= External Mounting	4: 4 PCS 6: 6 PCS	



Part #	DRAWING	MEMBRANE COLOUR	STEM MATERIAL	Air consumption-Luftverbrauch <b>MAX.</b>						Working temperature		MEMBRANE DIAMETER	
				0.8bar(11.6psi)		2bar(29psi)		4bar(58psi)		Min	Max		
				L/min	cfm	l/min	cfm	l/min	cfm			°C	
VBS	A	White	Aluminium	600	20	800	28	1150	40	-40	170	104	4
VBSI	A	White	Stainless steel	600	20	800	28	1150	40	-40	170	104	4
VBSIHT	A	Red	Stainless steel	600	20	800	28	1150	40	-40	170	104	4
VBSIMD	A	Blue	Stainless steel	600	20	800	28	1150	40	-40	170	104	4
VBSE	B	White	Nylon	-	-	-	-	1150	40	-40	80	104	4
VBSIE	B	White	Nylon	-	-	-	-	1150	40	-40	80	104	4
VBSM	D	White	Aluminium	100	3.5	150	5	-	-	-40	170	54	2.1
VBSIM	D	White	Stainless steel	100	3.5	150	5	-	-	-40	170	54	2.1
VBSME	C	White	Nylon	100	3.5	150	5	-	-	-40	80	54	2.1

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Silo Flow Aids Fluidizer

### Vibro Aerators-VB- Series

VB and VBE vibratory bowl for help gas flow to improve the bulk material



## VB

### Performance & Technical Features - Benefits

- Air pressure 0.8 to 4 bar
- For powders and granular products
- Food-grade (FDA-approved)

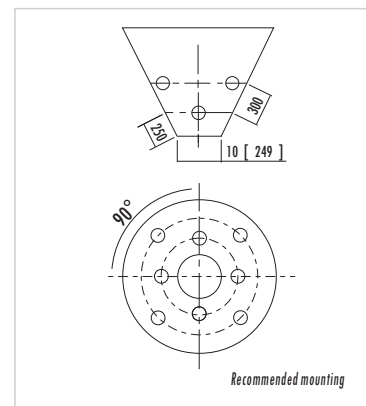
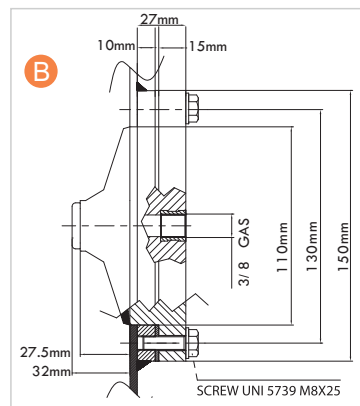
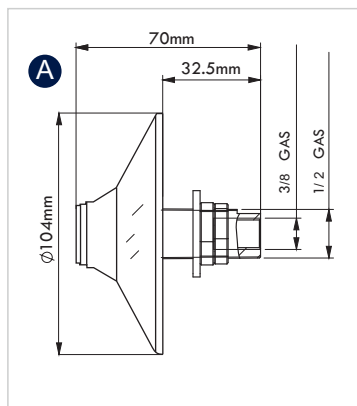
### Options & Accessories

- With stainless steel shaft (VBSI)
- For external assembly (VBSE only)
- Miniature execution (VBSM)



### How To Order

VB	I	E	4	N
TYPE	SHAFT	INSTALLATION	QTY	COMBINATION
VB	BLANK: Aluminium I: Stainless steel	BLANK: Standard E: External Mounting	4: 4 PCS 6: 6 PCS	



Part #	DRAWING	MEMBRANE COLOUR	STEM MATERIAL	Air consumption-Luftverbrauch <b>MAX.</b>					
				2bar(29psi)		4bar(58psi)		6bar(87psi)	
				l/min	cfm	l/min	cfm	l/min	cfm
DL 15	A	White	Aluminium	500	17	1000	34	1660	57
VB	A	White	Aluminium	500	17	1000	34	1660	57
VBI	A	White	Stainless steel	500	17	1000	34	1660	57
VBE	B	White	Nylon	500	17	1000	34	1660	57
VBIE	B	White	Nylon	500	17	1000	34	1660	57

The work broken arch recommended intermittent operation, such as using open 2-3 seconds, stop for 10-15 seconds, different pressures and under different working intermittently broken arch device will produce different effects of aid flows.

### Air consumption:

$$\text{CFM} \times \text{number of fluidizers} \times \text{total on time (seconds)/minute} \times 1 \text{ minute}/60 \text{ seconds} = \text{total CFM required}$$

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## FLUIDIZER CONTROL SYSTEM

### FLUIDIZER CONTROL SYSTEM

Share in our knowledge of dry bulk discharge techniques by installing a Controller to program the operation of your aeration system. Through the easy solid state controller provides more effective movement of powders while alternating aerators can assist in more complete discharge.

#### Fluidizer Control System

# MKX

#### Performance & Technical Features - Benefits

- Pulsate Aerators for optimum discharge
- Alternate Aerator operation for highest performance
- Controls up to 16 Aerators



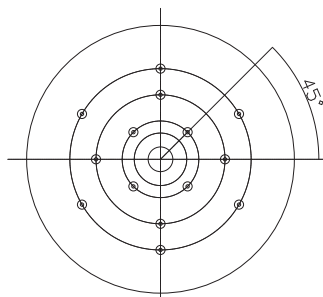
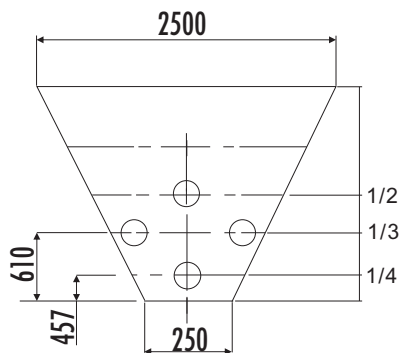
#### How To Order

MKX	-220	-024	-2	-08	-VBS
Type	Input voltage	Output voltage	Output signal quantity	Number of fluidizers	fluidizers type
MKX	220=220VAC	BLANK=220VAC 024=24VDC	1 2 3 4	04=4PCS fluidizers 08=8PCS fluidizers 12=12PCS fluidizers 16=16PCS fluidizers	VB VBE VBI VBM VBS VBS VBS1 VBS1M VB 43 VB 44

#### PLACEMENT GUIDELINES:

Aerate the bottom 1/3 – 1/2 of the outlet cone. Slope of the cone should be at least 45° for maximum effectiveness. On curved surfaces the mounting diameter must be greater than 16" to ensure proper sealing (a modification can be made for tighter curvature). Locate the first row of Fluidizers 12"-18" from the discharge opening. There should be enough units to space every 20"-24" on this row. Subsequent rows should alternate to achieve complete coverage. Spacing on higher rows can be increased.

Example:



Recommended mounting

Effective placement of aerators depends on material type and volume requirements.

Dimensions in mm

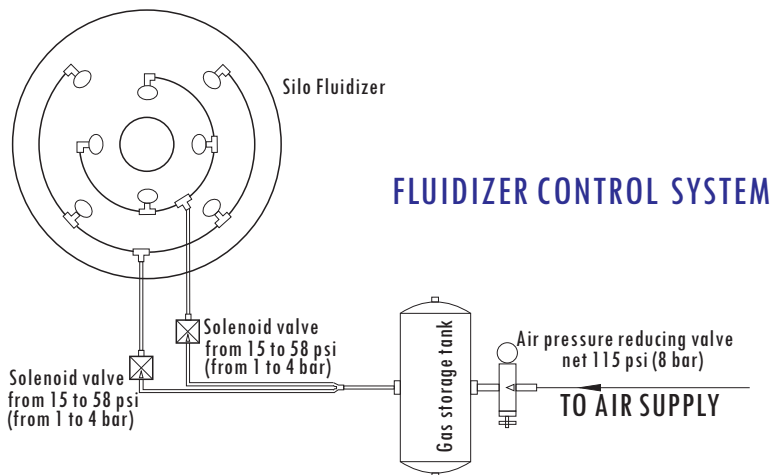
# BULK SOLIDS HANDLING EQUIPMENT

## FLUIDIZER CONTROL SYSTEM

### FLUIDIZER CONTROL SYSTEM

#### AIR DISTRIBUTION:

Only operate the Fluidizers while discharging material from the silo to avoid creating air channels or voids. To ensure balanced air distribution it is recommended to use an air manifold or operate no more than four Fluidizers together as shown:



#### Maximize Your Air

Only operate the Fluidizers while discharging material from the silo. To ensure balanced air distribution it is recommended to use an air manifold or operate no more than four Fluidizers together as shown.

#### FLUIDIZER CONTROL SYSTEM PACKAGES INCLUDE:

- Timer Control Boards with Enclosure\*
- Air Surge Tanks
- Solenoids
- Air Regulators
- Tubing
- Fittings
- Installation and Operating Instructions

\*All enclosures are NEMA 4 unless otherwise requested.

**NB: The control system does not include fluidizer components and customers must purchase them separately.**

#### AIR CONSUMPTION:

Pulsed air flow saves air and decreases the chance of air pockets and channeling to occur. Every product and application is unique, but typical pulse sequencing is 2-3 seconds on with a 7-10 second off time. Air capacity for the different models is shown on the Fluidizer Data Sheet (See Appendix 2).

Air consumption for your application can be calculated by the following:

$$\text{CFM} \times \# \text{ of Fluidizers} \times \text{total on time (sec)/minute} \times 1 \text{ min}/60 \text{ sec.} = \text{Total CFM Required}$$

**FLUIDIZER CONTROL SYSTEM**

**FLUIDIZER CONTROL SYSTEM**

# SILO FLUIDIZER CONTROL PACKAGES

Custom Packages available that operate between 1 and 36 Fluidizers. Contact us for more details and pricing.

**ITEM** **PART#**

**ITEM** **PART**

**4 UNIT CONTROL PACKAGE**



Package operates 4 Fluidizers (sold separately) and includes: 1 Male Connector, 2 Male Swivel Elbows, 2 Male Branch Tee's, 1 Union Tree, 1 Solenoid Valve, 1 Timer with Enclosure, 1 Regulator, 15 Ft. of Tubing and 1-4.5 gal. Surge Tank.

**8 UNIT CONTROL PACKAGE**



Package operates 8 Fluidizers (sold separately) and includes: 2 Male Connector, 4 Male Swivel Elbows, 4 Male Branch Tee's, 2 Union Tree, 2 Solenoid Valve, 1 Timer with Enclosure, 1 Regulator, 30 Ft. of Tubing and 1-4.5 gal. Surge Tank.

**12 UNIT CONTROL PACKAGE**



Package operates 12 Fluidizers (sold separately) and includes: 3 Male Connector, 6 Male Swivel Elbows, 6 Male Branch Tee's, 3 Union Tree, 3 Solenoid Valve, 1 Timer with Enclosure, 1 Regulator, 40 Ft. of Tubing and 1-8 gal. Surge Tank.

**16 UNIT CONTROL PACKAGE**



Package operates 16 Fluidizers (sold separately) and includes: 4 Male Connector, 8 Male Swivel Elbows, 8 Male Branch Tee's, 4 Union Tree, 4 Solenoid Valve, 1 Timer with Enclosure, 2 Regulator, 50 Ft. of Tubing and 2-4.5 gal. Surge Tanks.

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Fluidising Flow Aids

### Aeration Pads-I100-Series

I100 is mainly used for air flow aids preventive measures. In the hopper or silo discharge process, if an internal periodic blowing air flow state of the material will in most materials ideal

## Aeration Pads I100

### Function

- Working pressure: 0.2 bar (2.9PSI)
- Working temperature: -20 ~ +80 °C (-4 to 180° F)
- convex shape, the air emitted from the white surface of the larger transmission range.
- Suitable for cement, lime and powdered materials related.
- outlet softer materials to avoid possible bypass, holes, separation agglomeration, etc.



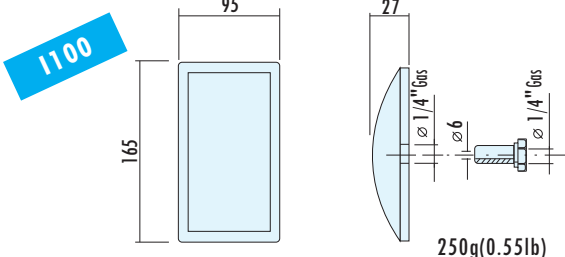
### How To Order

I100	6	N
Type	Qty	Unit
I100	6= 6PCS	N: standard packaging

### Aeration pads

0.2bar(2.9PSI)

0.12m<sup>3</sup>/h(0.07cfm)



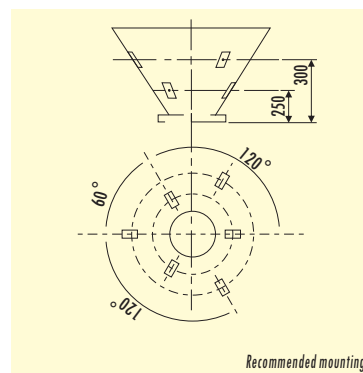
250g(0.55lb)



Type	Operating Pressure	Air consumption	Weight
I100	0.2bar(2.9PSI)	0.12m <sup>3</sup> /h(0.07cfm)	250g
PI20			



- 1) Segregation
- 2) Rat Holing
- 3) Bridging
- 4) Residues



Recommended mounting

The work broken arch recommended intermittent operation, such as using open 2-3 seconds, stop for 10-15 seconds, different pressures and under different working intermittently broken arch device will produce different effects of aid flows.

### Air consumption:

CFM x number of fluidizers x total on time (seconds)/minute x 1 minute/60 seconds = total CFM required

Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## Fluidising Flow Aids

### Aeration Nozzles-JL25-Series

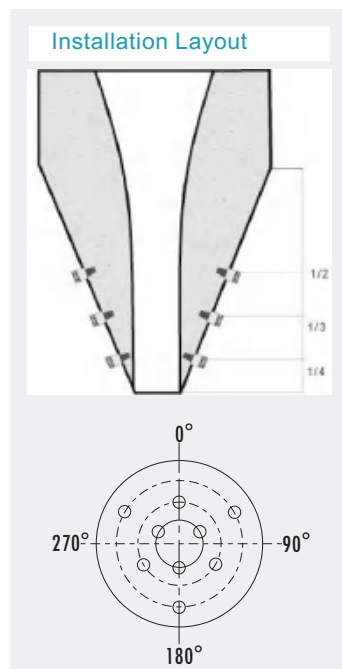
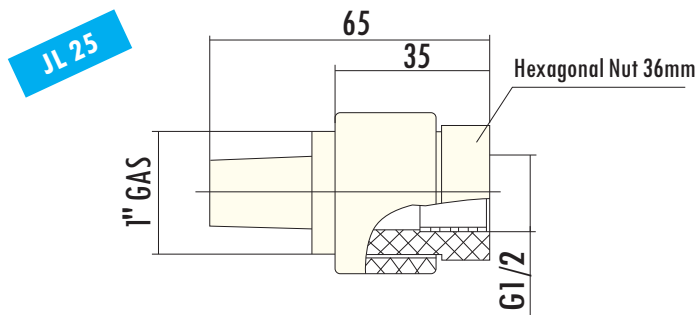
JL series broken arch gas nozzle is easy to install, applied to hopper and silo-pipe, suitable for fine powder (cement and lime), to solve the material bridge arch and rat hole. The problem is especially suitable for the installation from the outside of the silo when it cannot be installed in the silo.

#### Aeration Nozzles

## JL 25

### Performance & Technical Features - Benefits

- APPLICATION: Hopper and silo - piping
- POWDER: Fine and dust (cement and lime)
- PROBLEM SOLVING: Bridge and rat-holing
- DUTY CYCLE: Continuous
- WORKING PRESSURE: From 0.2 bar to 1 bar (from 2.9 psi to 14 psi)
- PNEUMATIC CIRCUIT: Filter + flow control valve
- AIR SUPPLY QUALITY: Class 5.4.1
- WORKING TEMPERATURE: From -20°C to 80°C (from -4°F to 176°F)
- TECHNOLOGY: Fluidification
- MATERIAL: JL25 - ring carbon steel, sintered brass filter, carbon steel body



Type	Operating Pressure	Air consumption	Weight
JL 25	0.2bar(2.9PSI)	0.1m <sup>3</sup> /h(0.03cfm)	240g

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Fluidising Flow Aids

### Aeration Nozzles-U-Series

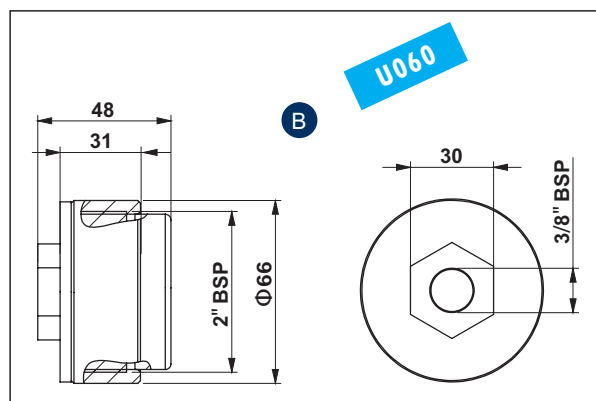
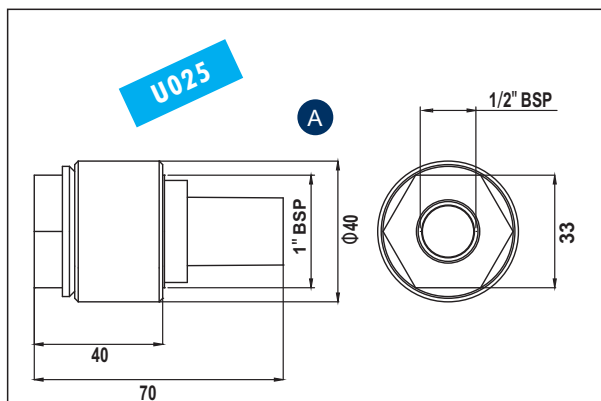
U series broken arch gas nozzle is easy to install, applied to hopper and silo-pipe, suitable for fine powder (cement and lime), to solve the material bridge arch and rat hole. The problem is especially suitable for the installation from the outside of the silo when it cannot be installed in the silo.

#### Aeration Nozzles

## U025/U060

### Performance & Technical Features - Benefits

- APPLICATION: Hopper and silo - piping
- POWDER: Fine and dust (cement and lime)
- PROBLEM SOLVING: Bridge and rat-holing
- DUTY CYCLE: Continuous
- WORKING PRESSURE: From 0.2 bar to 1 bar (from 2.9 psi to 14 psi)
- PNEUMATIC CIRCUIT: Filter + flow control valve
- AIR SUPPLY QUALITY: Class 5.4.1
- WORKING TEMPERATURE: From -20°C to 80°C (from -4°F to 176°F)
- TECHNOLOGY: Fluidification
- MATERIAL: U060 - ring carbon steel, sintered PE filter, Nylon (UV resistant) body  
U025 - ring carbon steel, sintered brass filter, Nylon (UV resistant) body



FEATURES						
Model	Drawings	Air consumption				Weight
		0.2 bar (2.9 psi)		1 bar (14 psi)		
		l/min	Cfm	l/min	Cfm	
U025	A	0.83	0.03	-	-	150g
U060	B	-	-	30	1.1	300g

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PNEUMATIC VIBRATORS

### Rotary Ball Vibrators -S-series

The frequency is variable by adjusting the inlet pressure. Rotary ball vibrators “S-type”. No maintenance required.  
 APPLICATIONS: Bins and hoppers、Compacting、 Separation .

### Roller Vibrators

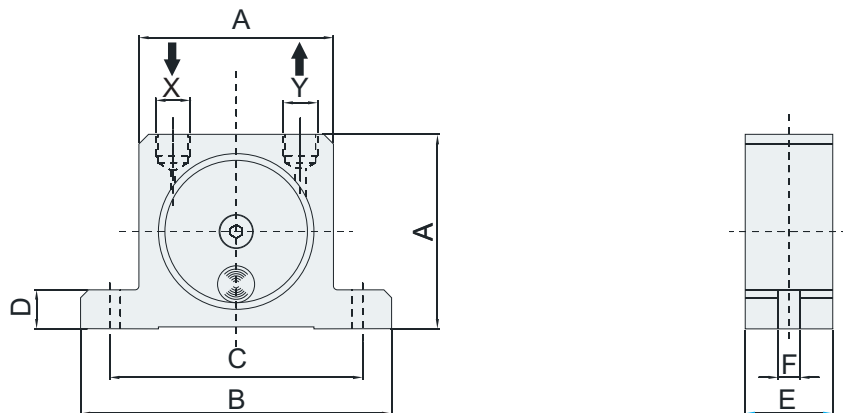
S



S

Rotary Ball Vibrators

Ball-Type



- Lubrication-free
- Maintenance-free
- Flameproof
- 20 ~ +180°C



### CONNECTION SIZE

TYPE	Vibrations			F.C. max.			Air consumption			A	B	C	D	E	F	X-Y	KG
	Vpm			kg			l/min										
	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar								
S 8	25,500	31,000	35,000	13	26	36	83	145	195	50	86	68	12	20	7	1/8	0.13
S 10	22,500	28,000	34,000	25	47	71	92	150	200	65	113	90	16	28	9	1/4	0.26
S 13	15,000	18,500	22,500	32	55	87	94	158	225								0.30
S 16	13,000	17,000	19,500	45	80	110	122	200	280	80	128	104	16	38	9	1/4	0.53
S 20	10,500	14,500	16,500	72	122	172	130	230	340								0.63
S 25	9,200	12,200	14,000	93	157	205	160	290	425	100	160	130	20	50	11	3/8	1.13
S 30	7,800	9,700	12,500	151	247	321	215	375	570								1.34
S 36	7,300	9,000	10,000	206	315	405	260	475	675								

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PNEUMATIC VIBRATORS

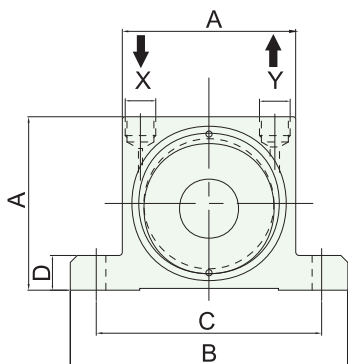
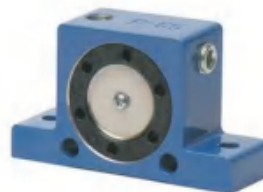
### Roller Vibrators -OR-series

Vibration is generated by a rotor which describes an epicycloida movement inside a steel race. OR vibrators generate a very high frequency with low consumption as compared to the force given.

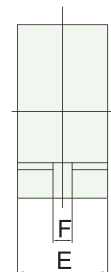
#### Roller Vibrators

**OR**

Roller Vibrators



Roller-type  
Rollenversion  
Lubrication-free  
Maintenance-free  
Flameproof  
-20 ~ +180°C



#### CONNECTION SIZE

TYPE	A		B		C		D		E		F		X-Y	📦	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		kg	lbs
OR 50	50	1.97	86	3.39	68	2.68	12	0.47	30	1.18	7	0.28	1/8"	0.370	0.81
OR 65	65	2.56	113	4.45	90	3.54	16	0.63	36	1.42	9	0.35	1/4"	0.760	1.67
OR 80	80	3.15	128	5.04	104	4.09	16	0.63	40	1.57	9	0.35	1/4"	1.270	2.79
OR 100	100	3.94	160	6.30	130	5.12	20	0.79	52	2.05	11	0.43	1/4" - 3/8"	2.600	5.72

TYPE	Vibrations - Schwingungen Vibrations - Vibrazioni			F.C. max.						Air consumption - Luftverbrauch Consommation d'air - Consumo d'aria					
	Vpm			2 bar = 29 psi		4 bar = 58 psi		6 bar = 87 psi		2 bar = 29 psi		4 bar = 58 psi		6 bar = 87 psi	
	2 bar = 29 psi	4 bar = 58 psi	6 bar = 87 psi	kg	lbs	kg	lbs	kg	lbs	l	CF	l	CF	l	CF
OR 50	21,000	25,000	29,500	188	413	281	619	355	780	78	2.8	144	5.1	204	7.2
OR 65	19,000	22,000	26,000	235	516	439	966	552	1215	100	3.5	198	7.0	296	10.5
OR 80	14,000	16,000	21,500	342	752	587	1292	624	1373	122	4.3	255	9.0	378	13.3
OR 100	6,750	9,750	11,000	289	637	604	1329	783	1722	132	4.7	284	10.0	412	14.5

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PNEUMATIC VIBRATORS

### Rotary Turbine Vibrators-OT-series

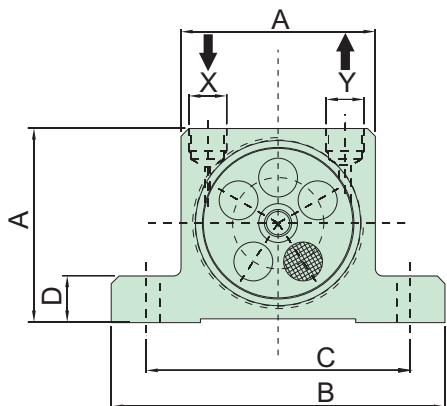
With OT-series Rotary Turbine Vibrators vibration is generated by a turbine fitted with eccentric weights.

#### Roller Vibrators

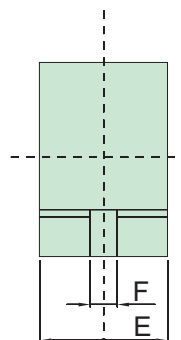
**OT**



#### Rotary Turbine Vibrators



**OT**  
Turbine-type



- Lubrication-free
- Maintenance-free
- Explosion-proof
- Low noise level
- 0 ~ +200°C

#### CONNECTION SIZE

TYPE	Vibrations			F.C. max.			Air consumption			A	B	C	D	E	F	X-Y	
	Vpm			kg			l/min										
	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar								
OT 8	34,000	38,000	42,000	110	205	292	45	81	110	50	86	68	12	33	7	1/8	0.26
OT 10	26,000	33,000	38,000	105	171	252	45	81	110								0.27
OT 13	24,500	28,500	31,000	202	263	300	122	204	285	65	113	90	16	42	9	1/4	0.57
OT 16	18,000	20,000	21,000	194	239	264	122	204	285								0.58
OT 20	14,500	19,000	23,000	251	404	526	184	318	452	80	128	104	16	56	9	1/4	1.10
OT 25	13,200	15,500	17,000	244	336	508	184	318	452								1.12
OT 30	11,000	12,500	14,500	351	721	781	322	542	749	100	160	130	20	73	11	3/8	2.20
OT 36	8,500	11,500	12,000	341	698	749	322	542	749								2.30

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PNEUMATIC VIBRATORS

### Rotary Turbine Vibrators-GT-series

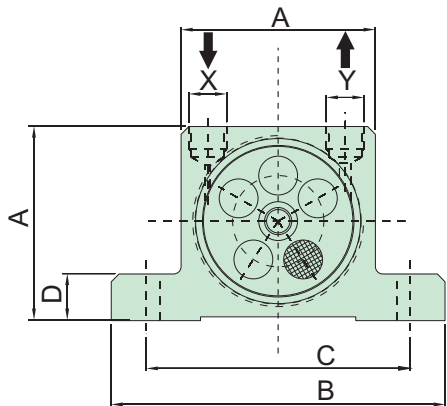
With OT-series Rotary Turbine Vibrators vibration is generated by a turbine fitted with eccentric weights.

### Roller Vibrators

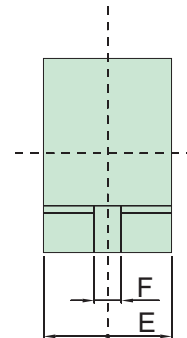
**GT**



### Rotary Turbine Vibrators



**GT**  
Turbine-type



- Lubrication-free
- Maintenance-free
- Explosion-proof
- Low noise level
- 0 ~ +200°C

### CONNECTION SIZE

TYPE	Vibrations			F.C. max.			Air consumption			A	B	C	D	E	F	X-Y								
	Vpm			kg			l/min											mm	mm	mm	mm	mm	mm	kg
	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar	2 bar	4 bar	6 bar															
GT 8	34,000	38,000	42,000	110	205	292	45	81	110	50	86	68	12	33	7	1/8	0.26							
GT 10	26,000	33,000	38,000	105	171	252	45	81	110								0.27							
GT 13	24,500	28,500	31,000	202	263	300	122	204	285	65	113	90	16	42	9	1/4	0.57							
GT 16	18,000	20,000	21,000	194	239	264	122	204	285								0.58							
GT 20	14,500	19,000	23,000	251	404	526	184	318	452	80	128	104	16	56	9	1/4	1.10							
GT 25	13,200	15,500	17,000	244	336	508	184	318	452								1.12							
GT 30	11,000	12,500	14,500	351	721	781	322	542	749	100	160	130	20	73	11	3/8	2.20							
GT 36	8,500	11,500	12,000	341	698	749	322	542	749								2.30							

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Pneumatic piston vibrators

### Pneumatic piston vibrators-SK/AH-series

SK impact hammer, also known as air percussion hammer, is characterized by large impact force, simple structure and convenient use. It can effectively solve the problems of powder material sticking to the wall, hanging, blocking, and bridging.

#### Pneumatic piston vibrators

## SK/AH

### ● working principle:

There is a strong magnetic magnet inside the hammer head of the air hammer, and the magnetic hammer head is closely attached to the magnetic substrate before it is moved. When the three-way solenoid valve is energized and the inlet pressure is greater than the magnetic force, the magnetic hammer head will be separated from the substrate at a high speed and impact towards the bottom. After the impact, the three-way solenoid valve is de-energized, the gas in the product is exhausted, and the hammer head returns to the initial position with the help of a spring. The impact force of the air hammer is transmitted to the pipe or the wall of the barrel, so that the material can flow smoothly

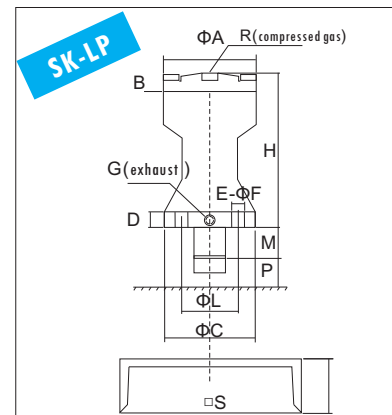
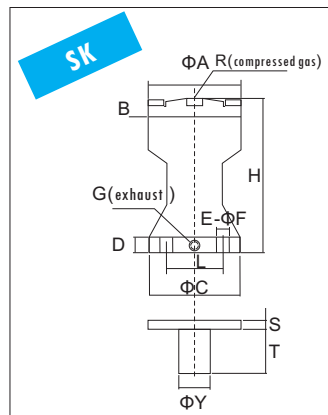


### How To Order

SK	40	LP
Type	Specification	LP
SK	30	BLANK: Standard LP: Bracket
AH	40	
	60	
	80	
	100	

TYPE	Pressure	Air consumption	Impact	Weight	
	(MPa)	(L)	(Ns)	NW	GW
SK-30	0.35-0.6	0.028	1.0~1.5	0.70	1.00
SK-40	0.35-0.6	0.082	3.3~5.1	1.80	2.90
SK-60	0.35-0.6	0.228	7.1~10.8	4.60	7.80
SK-80	0.35-0.6	0.455	19.3~29.5	7.90	11.0
SK-100	0.35-0.6	1.012	44.5~67.9	7.90	35.2

### Piston vibrators



### CONNECTION SIZE

TYPE	A	B	C	D	E	F	G	H	L	S	T	R	Z	Y	
SK-30	65	15	70	10	4	9	1/8	110	55	6	40	1/4	1/4	27.2	
SK-40	90	22	95	16	4	11	1/8	160	70	12	90	1/4	1/4	34.0	
SK-60	120	30	140	16	4	15	1/4	210	110	12	100	1/4	1/4	76.3	
SK-80	139	40	150	18	4	17	3/8	250	120	14	110	3/8	3/8	76.3	
SK-100	176	44	210	24	4	21	3/8	328	170	22	145	3/8	3/8	114.3	
TYPE	A	B	C	D	E	F	G	H	L	S	T	R	Z	M	P
SK-30LP	65	15	70	10	4	9	1/8	110	55	6	40	1/4	20	30	20
SK-40LP	90	22	95	16	4	11	1/8	160	70	12	90	1/4	25	55	20
SK-60LP	120	30	140	16	4	15	1/4	210	110	12	100	1/4	40	65	25
SK-80LP	139	40	150	18	4	17	3/8	250	120	14	110	3/8	50	45	45
SK-100LP	176	44	210	24	4	21	3/8	328	170	22	145	3/8	68	26	64

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## Electric Motovibrators

### Electric vibrators-MVE-series

Single-phase and three-phase standard type vibration motors are used as universal excitation sources for various types of vibration machinery. This product can be widely used in mining, metallurgy, coal, electric power, construction, chemical, foundry, light industry and food industries.



# MVE

### Performance characteristics

Technical parameters of MVE series vibrating motor:

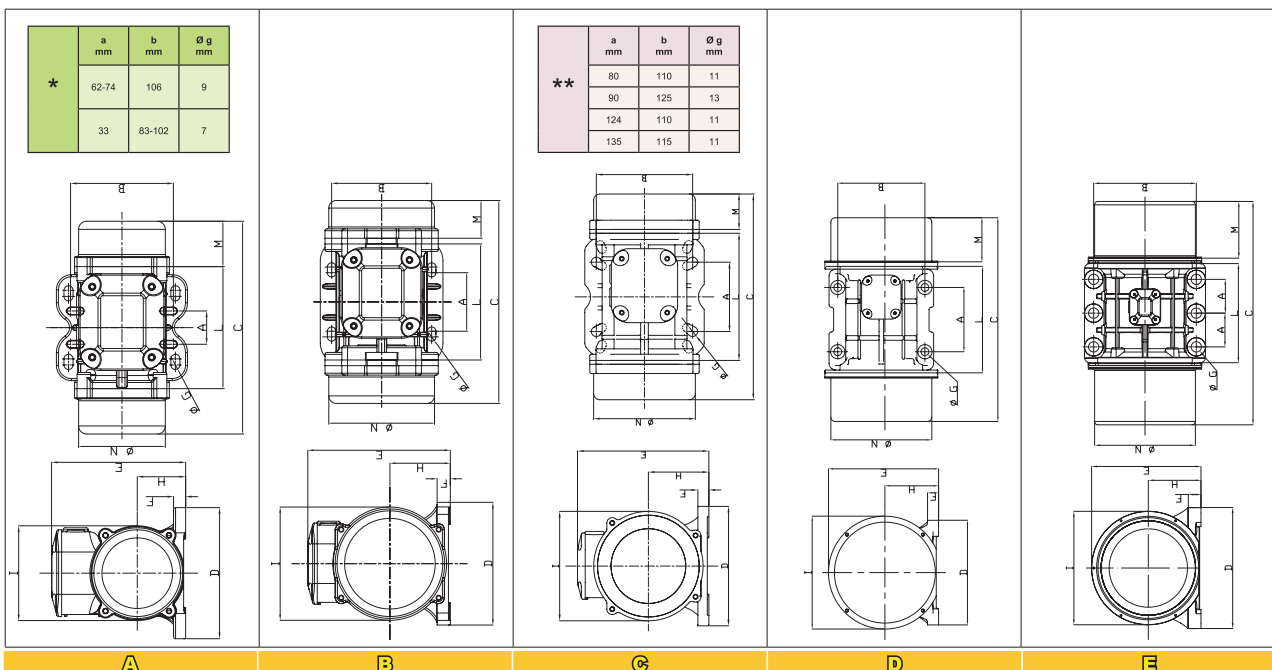
Rated voltage: 380V (three-phase) 220V (single phase) (also available for 23/400v, 23/460v)  
 Dc voltage: 12V 24V 220V  
 Insulation level: class H, level F  
 Working system: continuous (S1)  
 Excitation force: single phase 0-- 800kg  
 Rated frequency: 50HZ (also available for 60HZ)  
 Protection level: Ip65  
 Vibration adjustment range: 0 - maximum  
 Three phase 0---13000kg



### Code

MVE	200	/3	M
Type	Force (kg)	Speed (r/min)	Voltage
MVE	60-9000	3 : 3000 15 : 1500	BLANK : Three phase M : Single phase

### CONNECTION SIZE



Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## Electric Motovibrators

### Electric vibrators-MVE-series

Technical data for MVE series three phase vibrators(380v/50Hz) ( 2Poles -3000rpm)

TYPE	Force		Power	Efficiency	Current	Weight	SIZE	A	B	C	D	E	F	G	H	I	L	M	ΦN	Cable Gland	Fig
	kg/f	kN	kw	%	A	kg															
MVE60/3	71	0.7	0.03	46	0.16	4.2	SIZE10	62-74	106	211	130	136	12	9	48	94	121	45	86	M16X1.5	A
MVE100/3	99	1	0.04	44	0.19	4.6	SIZE10	62-74	106	221	130	136	12	9	48	94	121	50	86	M16X1.5	A
MVE200/3	198	2	0.09	60	0.35	6.8	SIZE20	62-74	106	231	131	159	15	9	64	121	123	54	112	M20X1.5	A
MVE300/3	311	3	0.16	64	0.52	9.8	SIZE30	90	125	253	154	175	15	13	79	142	163	45	131	M20X1.5	B
MVE400/3	400	4	0.20	74	0.58	10.3	SIZE30	90	125	273	154	175	15	13	79	142	163	55	131	M20X1.5	B
MVE500/3	516	5	0.37	77	0.96	15.8	SIZE40	105	140	334	168	196	22	13	92	169	178	78	158	M20X1.5	B
MVE700/3	750	7	0.45	77	1.25	16.5	SIZE40	105	140	334	168	196	22	13	92	169	178	78	158	M20X1.5	B
MVE800/3	788	8	0.55	79	1.45	20.6	SIZE50	120	170	321	208	210	22	17	94	180	205	58	170	M20X1.5	B
MVE1200/3	1018	10	0.75	82	1.85	21.6	SIZE50	120	170	321	208	210	22	17	94	180	205	58	170	M20X1.5	B
MVE1300/3	1386	13	1.10	76	2.44	24.5	SIZE50	120	170	321	208	210	22	17	94	180	205	58	170	M20X1.5	B
MVE1600/3	1571	16	1.25	81	2.94	51.6	SIZE60	140	190	416	229	247	30	17	120	247	220	80	222	M25X1.5	B
MVE1800/3	1848	18	1.50	81	3.75	52.0	SIZE60	140	190	416	229	247	30	17	120	247	220	80	222	M25X1.5	B
MVE2200/3	2033	20	2.00	83	4.07	52.8	SIZE60	140	190	416	229	247	30	17	120	247	220	80	222	M25X1.5	B
MVE2300/3	2310	23	2.00	83	4.44	53.6	SIZE60	140	190	416	229	247	30	17	120	247	220	80	222	M25X1.5	B
MVE3200/3	3250	32	2.20	76	5.30	96.9	SIZE75	155	255	538	302	318	35	25	147	295	273	115	264	M32X1.5	B
MVE4000/3	4030	40	2.30	76	5.30	107	SIZE75	155	255	538	302	318	35	25	147	295	273	115	264	M32X1.5	B
MVE5000/3	5070	50	3.50	83	7.22	111	SIZE75	155	255	588	302	318	35	25	147	295	273	140	264	M32X1.5	B
MVE6500/3	6500	65	4.20	86	8.20	228	SIZE85	200	320	605	385	410	49	28	200	421	325	120	378	M32X1.5	B
MVE9000/3	9030	90	7.20	72	10.3	240	SIZE85	200	320	605	385	410	49	28	200	421	325	120	378	M32X1.5	B

Technical data for MVE series three phase vibrators(380v/50Hz) ( 4Poles -1500rpm)

TYPE	Force		Power	Efficiency	Current	Weight	SIZE	A	B	C	D	E	F	G	H	I	L	M	ΦN	Cable Gland	Fig
	kg/f	kN	kw	%	A	kg															
MVE40/15	32	0.3	0.03	33	0.26	4.6	SIZE10	62-74	106	221	130	136	12	9	48	94	121	50	86	M16X1.5	A
MVE90/15	90	0.9	0.04	36	0.31	7.4	SIZE20	62-74	106	231	131	159	15	9	64	121	123	54	112	M20X1.5	A
MVE200/15	183	2	0.06	50	0.49	11.8	SIZE30	90	125	273	154	175	15	13	79	142	163	55	131	M20X1.5	B
MVE250/15	257	2.5	0.07	54	0.54	13.2	SIZE30	90	125	303	154	175	15	13	79	142	163	70	131	M20X1.5	B
MVE300/15	305	3	0.08	57	0.62	16.5	SIZE30	90	125	303	154	175	15	13	79	142	163	70	131	M20X1.5	B
MVE400/15	388	4	0.15	60	0.84	19.5	SIZE40	105	140	334	168	196	22	13	92	169	178	78	158	M20X1.5	B
MVE500/15	518	5	0.25	68	1.06	21.0	SIZE40	105	140	334	168	196	22	13	92	169	178	78	158	M20X1.5	B
MVE700/15	693	7	0.37	77	1.32	27.4	SIZE50	120	170	391	208	210	22	17	94	180	205	93	170	M20X1.5	B
MVE800/15	807	8	0.40	73	1.36	28.3	SIZE50	120	170	391	208	210	22	17	94	180	205	93	170	M20X1.5	B
MVE1100/15	1045	11	0.40	73	1.40	35.8	SIZE50	120	170	451	208	210	22	17	94	180	205	123	170	M20X1.5	B
MVE1400/15	1406	14	0.45	75	1.78	59.8	SIZE60	140	190	448	229	247	30	17	120	247	220	96	222	M25X1.5	B
MVE1700/15	1757	17	0.75	68	2.09	61.8	SIZE60	140	190	448	229	247	30	17	120	247	220	96	222	M25X1.5	B
MVE2400/15	2420	24	1.00	71	3.20	68.0	SIZE60	140	190	514	229	247	30	17	120	247	220	129	222	M25X1.5	B
MVE2500/15	2500	25	1.20	75	3.40	90.0	SIZE70	155	225	522	272	284	40	22	141	267	250	123	235	M25X1.5	B
MVE3000/15	3065	30	1.50	79	3.68	97.5	SIZE70	155	225	522	272	284	40	22	141	267	250	123	235	M25X1.5	B
MVE3800/15	3830	38	1.72	78	4.15	130.4	SIZE75	155	255	588	302	318	35	23.5	147	295	273	140	264	M32X1.5	B
MVE4300/15	4312	43	1.94	78	4.50	134.4	SIZE75	155	255	588	302	318	35	23.5	147	295	273	140	264	M32X1.5	B
MVE5500/15	5576	55	2.20	73	6.50	192.2	SIZE80	180	280	603	332	360	37	26	168	345	304	130	310	M32X1.5	B
MVE7200/15	7188	72	3.00	75	9.60	253.0	SIZE85	200	320	605	385	410	49	28	200	422	325	120	378	M32X1.5	B

Technical data for MVE-M series single phase vibrators(220v/50Hz) ( 2Poles -3000rpm)

TYPE	Force		Power	Capacitor	Current	Weight	SIZE	A	B	C	D	E	F	G	H	I	L	M	ΦN	Cable Gland	Fig
	kg/f	kN	kw	UF	A	kg															
MVE60/3M	66	0.7	0.08	4	0.43	4.5	SIZE10	62-74	106	211	130	136	12	9	48	94	121	45	86	M16X1.5	A
MVE100/3M	99	1	0.10	4	0.54	5.1	SIZE10	62-74	106	221	130	136	12	9	48	94	121	50	86	M16X1.5	A
MVE200/3M	197	2	0.13	5	0.71	6.8	SIZE20	62-74	106	231	131	159	15	9	64	121	123	54	112	M20X1.5	A
MVE300/3M	311	3	0.29	12	1.58	10.0	SIZE30	90	125	253	154	175	15	13	79	142	163	45	131	M20X1.5	B
MVE400/3M	400	4	0.31	12	1.68	10.8	SIZE30	90	125	273	154	175	15	13	79	142	163	55	131	M20X1.5	B

Dimensions in mm

# Electric Motovibrators

## Electric vibrators-MVE-DC series

Single-phase and three-phase standard type vibration motors are used as universal excitation sources for various types of vibration machinery. This product can be widely used in mining, metallurgy, coal, electric power, construction, chemical, foundry, light industry and food industries.

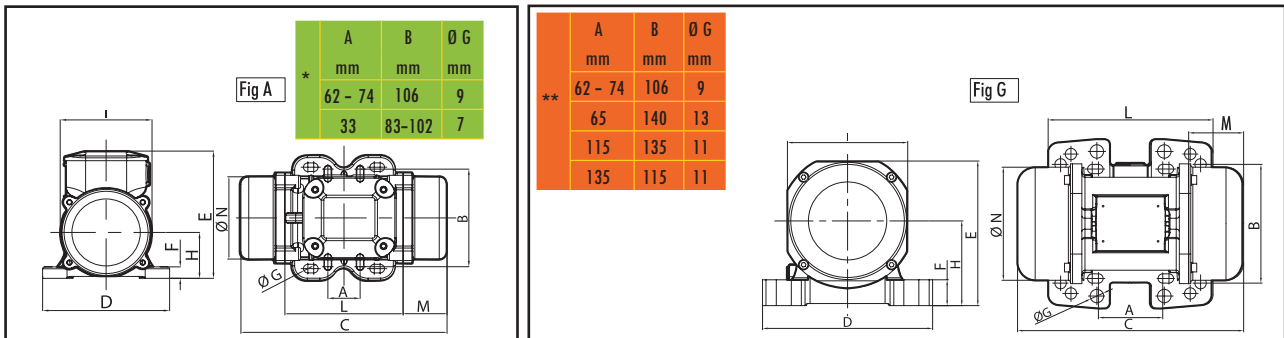


### MVE-DC



Code

MVE	50	DC	24
Type	Force (kg)	Speed (r/min)	Voltage
MVE	50-200	DC:	24: 24V 12: 12V



TYPE	Mechanical Features				Electric Features			
	RPM	Working moment (*) Kgcm	FC Kg	Weight Kg	Power Kw	Current A max	Ex	Cable Glande
							ii3 D Temp. Class (°C)	
MVE 202 DC 24		4.17	200	7.2	0.16	6.7	100	M20
MVE 202 DC 12	3000	4.17	200		0.16	13.3	100	M20
MVE 50 DC 24	3000	1.02	50	4.4	0.08	3.3	100	M16
MVE 50 DC 12	3000	1.02	50		0.08	6.6	100	M16

TYPE	Dimensional Features														
	FIG.	Size	C	M	A	B	Ø G	Holes	D	E	F	H	I	L	N
			(mm) 50Hz	(mm) 50Hz	(mm)	(mm)	(mm)	n°	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
MVE 202 DC 24	G	23	218	53	**	**	**	4	164	140	25	82	116	159	110
MVE 202 DC 12	G	23	218	53	**	**	**	4	164	140	25	82	116	159	110
MVE 50 DC 24A		10	211	45	*	*	*	4	130	136	12	48	94	121	85
MVE 50 DC 12A		10	211	45	*	*	*	4	130	136	12	48	94	121	85

(\*) = Working moment = 2 x static moment

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PINCH VALVES

### Pinch Valve - VM-Series

Pinch Valves are used for material flow interception in pneumatic conveying systems, or other pipelines.

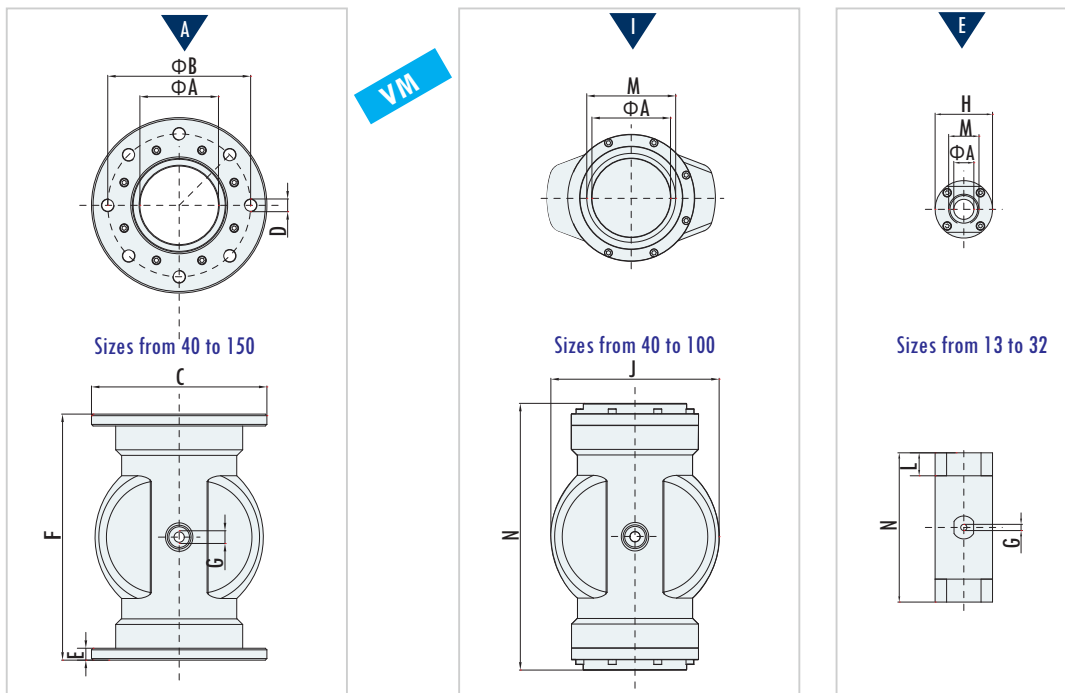


#### OPERATING CONDITIONS

- Pi Internal Max. Pneumatic Conveying System Pressure: 3.5 bar
- Pc Closure control Pressure: Pi + 2.5 bar (Max. 6 bar)
- Working Temperature: from -10 ° C up to 80°C



#### Pinch Valve



pi max: max 3.5 bar  
pc max: max 6 bar

#### CONNECTION SIZE

TYPE	A	B	C	D		E	F	G	H	J	L	M	N	kg
				Φ	n°									
VM040	40	110	150	M 16	4	12	178	1/8"		99		1+1/2"	202	2.20
VM050	50	125	165	M 16	4	15	190	1/4"		120		2"	214	3.40
VM065	65	145	185	M 16	4	15	225	1/4"		138		2+1/2"	230	4.00
VM080	80	160	200	M 16	4	15	270	1/4"		180		3"	294	5.40
VM 100	100	180	220	M 16	8	15	310	1/4"		214		4"	334	7.60
VM 125	125	210	250	M 16	8	15	350	1/4"		250				10.20
VM 150	150	240	285	M 16	8	18	396	1/4"		285				15.60
VM 200	200	295	340	M 16	8	25	460	1/4"		374				22.80

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

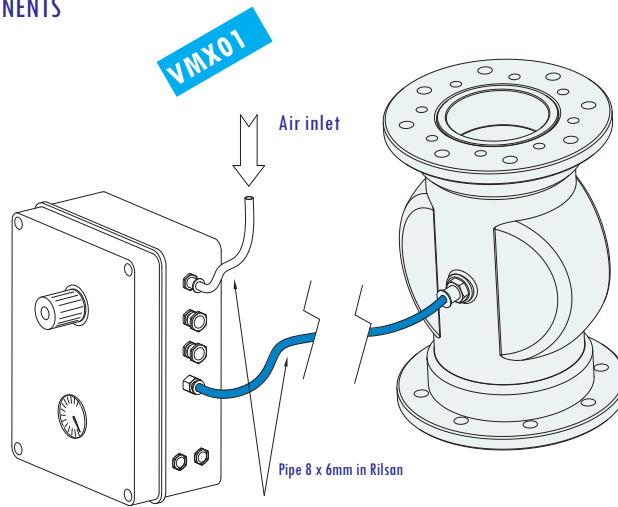
## PINCH VALVE CONTROL COMPONENTS

### Pinch Valve Control Panel

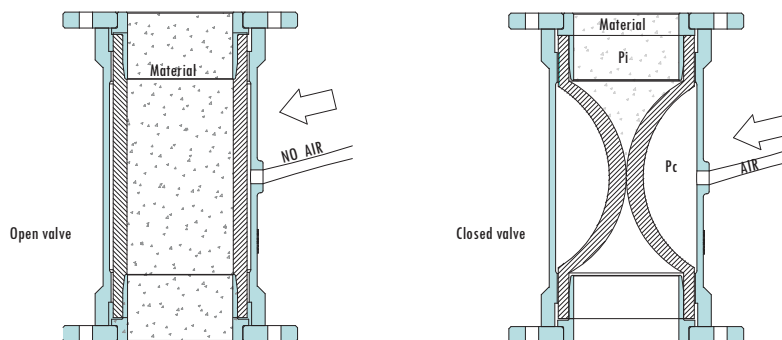
VMX control system for controlling the VM pinch valve open or closed.



### PINCH VALVE CONTROL COMPONENTS



Cross section showing how Pinch Valve operates when open and closed



$P_i$  = Internal pressure pneum. conv. system

$P_c$  = Closure control pressure

Max. Operating Pressure					
Sleeve Material	Size	Temp.(°C)	$P_i$ max(bar)	$P_c$ max(bar)	Max. Pressure (bar)
NR	13-65	-10 ~ +80°C	3.5	$P_i+2.5$	6
	80-200			$P_i+2.5$	6
NBR	13-65	-10 ~ +80°C	3.5	$P_i+2.5$	6
	80-200			$P_i+2.5$	6

$P_i$  = Internal pressure pneum. conv. system  
 $P_c$  = Closure control pressure

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## PINCH VALVE CONTROL COMPONENTS

### Pinch Valve Control Panel-VMX Series

VMX control system for controlling the VM pinch valve open or closed.



#### OPERATING CONDITIONS

- Ambient temperature inside casing: -20 to 70° C

#### OPTIONS & ACCESSORIES

- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

#### How To Order

VMX	01	N	A	EX
Type	Series	Coil	Voltage	Protection class
VMX	BLANK= Without cabinet 01= box-type	N= Wireless circle	A= 24V DC B= 110V AC 50-60Hz D= 220V AC 50-60Hz C= 24V AC 50-60Hz	BLANK= Standard EX= Explosion proof

### PINCH VALVE CONTROL COMPONENTS

Part#	NAME
1	Pressure gauge
2	Pressure reducing valve
3	Solenoid valve
4	Pressure switch 1.5bar
5	Air inlet
6	Quick connector
7	Cable gland
8	Quick connector

Package dimensions: 300X240X160

Part#	NAME
1	Pressure reducing valve
2	Pressure gauge
3	Solenoid valve
4	Tee joint
5	Pressure switch

Part #	Operating pressure	Mains voltage	Temperature	Connection terminal	Ø Hose	Installed load	Protection level	Weight (KG)
VMX01	3.5Bar	12-24-48	-10 ... +50°C	3 x max. 1.5 mm <sup>2</sup>	8X6	6VA (6W)	IP55	1.90
VMX		110-220 AC/DC						

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## ELECTROPNEUMATIC VALVE

### Solenoid Valve-4V-Series

pneumatic electromagnetic valve suitable for control of CP,SC,QGBQ,AT,GT type pneumatic actuator 0-90° angle opening and closing

 Solenoid valve

**4V**



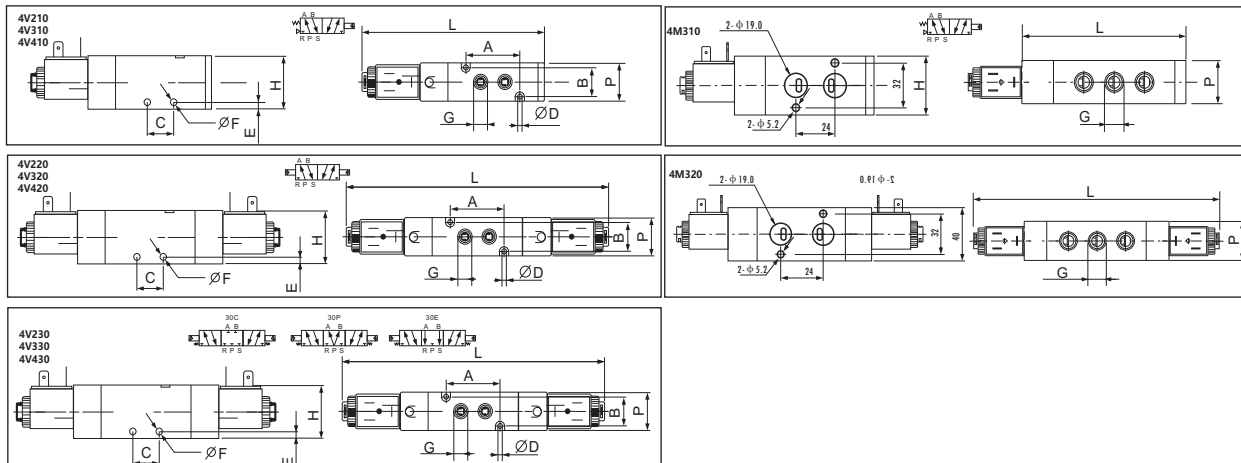
### Performance & Technical Features - Benefits

- Operation: Solenoid or manual
- Valve body : Engineering plastics
- The rated flow: QNn=1060L/min
- Temperature: -20°C ~ +60°C
- Operating pressure: 2.5-10bar (29 ~ 116 PSI)
- Medium: 40um compressed air, dry and dew point to -20 °C

### How To Order

4	V	2	10	-08	A	G
Specification	Control	Standard sizes	Coil and number of bits	Thread	Voltage	Thread code
4=Five-way reversing valve 3=Three-way reversing valve	V=Electronic control A=Air control M=Namur	2=200 Series 3=300 Series 4=400 Series	10=Single Control 20=Double Control 30=Double Control	06=1/8 08=1/4 10=3/8 15=1/2	A=AC220V 50/60Hz B=DC24V C=110VAC 50/60Hz E=AC24V 50/60Hz F=DC12V	BLANK=PT T=NPT G=G

### CONNECTION SIZE



TYPE	A	B	C	D	E	F	G	H	L	P	KG
4V210	38	17	20	3.2	7.0	4.3	1/8 - 1/4	35	116	22	0.22
4V310	50	20	24	4.3	6.5	4.3	1/4 - 3/8	40	135	27	0.31
4V410	72	27	28	4.3	7.5	5.5	3/8 - 1/2	50	168	34	0.60
4V220	38	17	20	3.2	7.0	4.3	1/8 - 1/4	35	170	22	0.32
4V320	50	20	24	4.3	6.5	4.3	1/4 - 3/8	40	188	27	0.40
4V420	72	27	28	4.3	7.5	5.5	3/8 - 1/2	50	224	34	0.77
4V230	38	17	20	3.2	7.0	4.3	1/8 - 1/4	35	189	22	0.40
4V330	50	20	24	4.3	6.5	4.3	1/4 - 3/8	40	210	27	0.54
4V430	72	27	28	4.3	7.5	5.5	3/8 - 1/2	50	245	34	0.80

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## ELECTROPNEUMATIC VALVE

### Solenoid Valve-4M-Series

pneumatic electromagnetic valve suitable for control of GT&AT type pneumatic actuator 0-90° angle opening and closing



# 4M



### Performance & Technical Features - Benefits

- Operation: Solenoid or manual
- Valve body : Aluminium
- Switching time: 40 milliseconds
- The rated flow: QNn=1060L/min
- Temperature: -20°C ~ +60°C
- Operating pressure: 2.5-10bar (29 ~116 PSI)
- Medium: 40um compressed air, dry and dew point to -20 °C

### How To Order

4	M	2	10	-08	A	G
Specification	Control	Standard sizes	Coil and number of bits	Thread	Voltage	Thread code
4=Five-way reversing valve 3=Three-way reversing valve	M=Namur	2=200 Series 3=300 Series 4=400 Series	10=Single Control 20=Double Contro 30=Double Contro	06=1/8 08=1/4 10=3/8 15=1/2	A=AC220V 50/60Hz B=DC24V C=110VAC 50/60Hz E=AC24V 50/60Hz F=DC12V	BLANK=PT T=NPT G=G

<p>Electrovalve 5/2</p> <p>4M310-08 1/4" Monostable</p> <p>4M320-08 1/4" Bistable</p> <p>For GT-AT</p>	<p><b>V45K</b></p>	<p>4M310-08</p>	<p>4M320-08</p>
		<p>4M210-08L</p>	<p>4M220-08L</p>

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## BUTTERFLY VALVE

### Wafer type butterfly valve-CPD-Series

Butterfly valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Butterfly valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

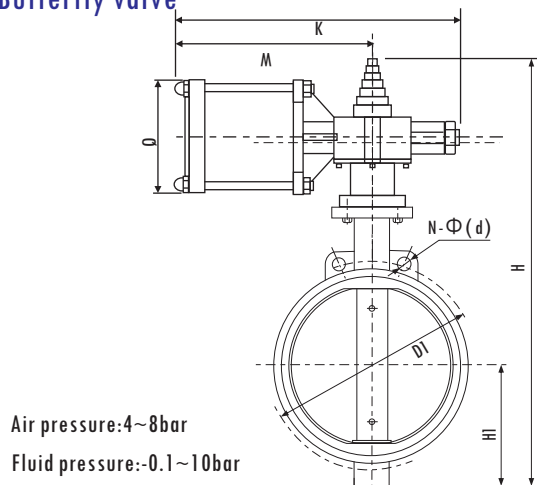


#### How To Order

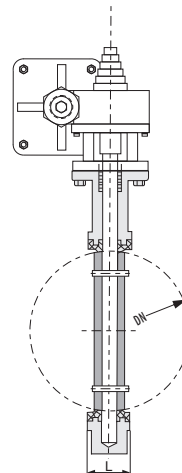
CPD	6	-100	W	F	/24VDC
TYPE	Transfer method	Valve size	Switch box	Solenoid valve	Voltage
Butterfly valve	6= Pneumatic	DN40-200	W	F	24-110-220V DC/AC

For example: choose DN100 pneumatic butterfly valve: CPD6-100, if you need to add DC24V solenoid valve, the model is: CPD6-100WF/24V.

#### Butterfly valve



CPD



#### CONNECTION SIZE

Part #	Disk Material	Seal packing Material	Q	K	N-Ø(d)	D1	H	H1	L	M	NPS
CPD6-40	Nodular cast iron	N = NBR	110	260	2-Ø23	110	370	80	42	175	1-1/2"
CPD6-50			110	260	2-Ø23	120	370	80	42	175	2"
CPD6-65			110	260	2-Ø26.5	136	394	90	45	175	2-1/2"
CPD6-80			110	260	2-Ø18	160	406	95	45	175	3"
CPD6-100	Stainless Steel	E = EPDM	110	260	2-Ø24.5	185	444	115	52	175	4"
CPD6-125			110	260	2-Ø23	215	520	130	55	175	5"
CPD6-150			110	260	2-Ø25	238	545	140	56	175	6"
CPD6-200			132	450	2-Ø25	295	615	175	61	280	8"

Dimensions in mm



# BULK SOLIDS HANDLING EQUIPMENT

## BUTTERFLY VALVE

### Water Valve-V2FS-Series

V2FS series butterfly valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Butterfly valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

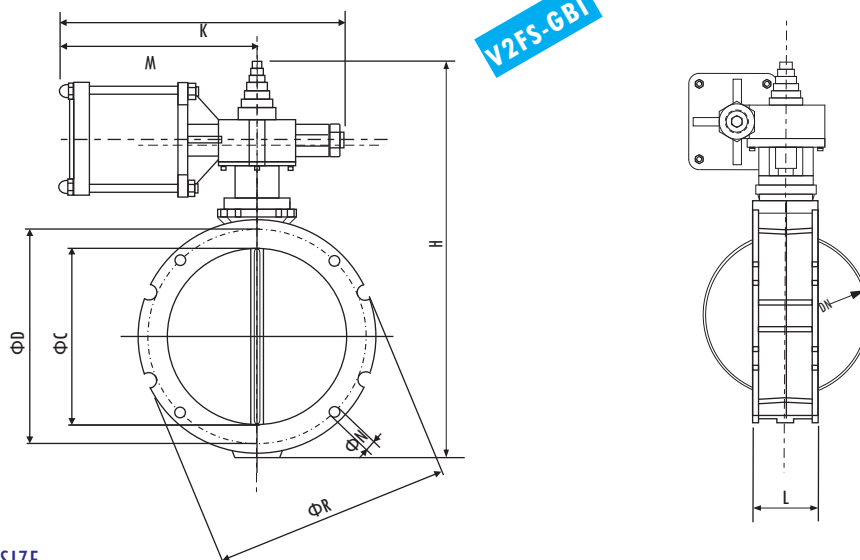


#### How To Order

V2FS	150	GB	K	W	F	/220VAC
Butterfly valve	SIZE	GB= Cast iron disc	K: Black rubber I: White rubber	Signal inverter	Solenoid valve	24-110-220V DC/AC

For example: buy DN150 water scale butterfly valve: V2FS150GBK, if need to add pneumatic actuator, DC24V solenoid valve model is: V2FS150GBK-WF/24VDC.

#### Butterfly valve



#### CONNECTION SIZE

Part #	Disk Material	Seal packing Material	K	C	D	ØN	R	H	L	M	NPS
V2FS100GBI	Nodular cast iron	I = EPDM	260	95	180	4-Ø14	220	380	84	175	4"
V2FS150GBI			260	150	200	4-Ø14	225	390	84	175	6"
V2FS200GBI			260	200	250	4-Ø14	275	440	84	175	8"
V2FS250GBI			260	250	300	8-Ø14	325	490	84	175	10"
V2FS300GBI			260	300	350	8-Ø14	375	540	84	175	12"

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## BUTTERFLY VALVE

### Wafer type butterfly valve-D71-Series

Butterfly valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Butterfly valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

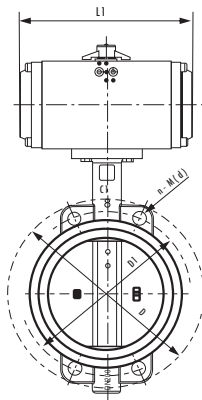
- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

#### How To Order

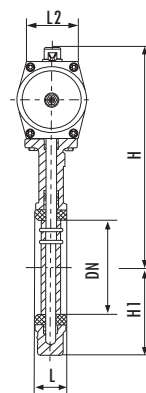
D	6	71	X	10	Z	B1	100	W	F	220VAC
TYPE	Transfer method	Connection	Seal	Pressure	Valve Body	Valve disc	Valve size	Switch box	Solenoid valve	Voltage
Butterfly valve	6= Pneumatic 9= Electric	71= Wafer 41= Flanged	X= Rubber F= PTFE	10=10Bar 16=16Bar	Z= ZT C=WCB	B1=ZT B7=SUS	DN40-400	W	F	24-48-110 220V DC/AC

For example: choose DN100 pneumatic butterfly valve: D671X-10-DN100, if you need to add a DC24V solenoid valve, the model is: D671X-10-100WF/24VDC.

#### Butterfly valve



D71



Air pressure: 4~8bar

Fluid pressure: -0.1~10bar

#### CONNECTION SIZE

Part #	Disk Material	Seal packing Material	n-M(d)	D1	H	H1	L	L1	L2	NPS
D671X-40	Nodular cast iron	X1 = NBR	4-023	110	270	80	42	130	59	1-1/2"
D671X-50			4-023	120	270	80	42	140	70	2"
D671X-65			4-026.5	136	285	88	45	140	70	2-1/2"
D671X-80			8-018	160	290	95	46	186	91	3"
D671X-100			4-024.5	185	320	115	52	186	91	4"
D671X-125	Stainless Steel	X3 = EPDM	4-023	215	351	130	55	254	120	5"
D671X-150			4-025	238	380	140	56	254	120	6"
D671X-200			4-025	295	435	175	61	296	137	8"
D671X-250			4-029	357	510	200	66	384	173	10"
D671X-300			4-029	407	600	240	77	501	208	12"
D671X-350			4-030	467	655	265	77	640	201	14"
D671X-400			4-030	515	720	300	87	827	270	16"

Note: The connecting flange of this valve is in accordance with GB9119-2000, GB/T9113.1-2000 standard (1.0MPa)

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## BUTTERFLY VALVE

Butterfly valve is used to control the opening or closing of water, liquid, gas pipeline.

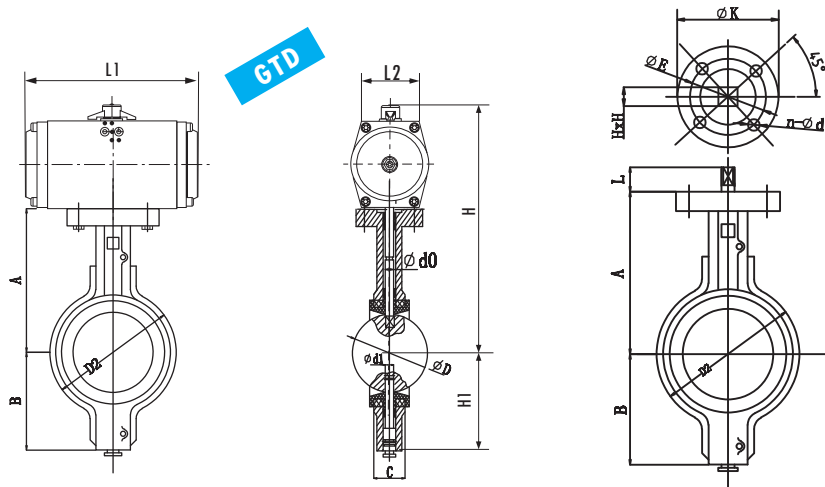


### How To Order

GTD	6	-100	W	F	/24VDC
TYPE	Transfer method	Valve size	Switch box	Solenoid valve	Voltage
Butterfly valve	6= Pneumatic	DN40-200	W	F	24-110-220V DC/AC

### Butterfly valve

Air pressure: 4~8bar  
Fluid pressure: -0.1~10bar



Part #	SIZE	A	B	C	D	D2	d0	d1	K	E	L	N-φd	HxH
GTD6-50	2"	130	80	42	52.9	100	14.3	12.6	90	70	30	4-10	11x11
GTD6-65	2.5"	140	89	44.7	64.5	121	14.3	12.6	90	70	30	4-10	11x11
GTD6-80	3"	150	95	45.8	78.8	131	14.3	12.6	90	70	30	4-10	11x11
GTD6-100	4"	163	114	52	104	156	15.77	15.77	90	70	30	4-10	11x11
GTD6-125	5"	178	127	54.4	123.3	187	18.92	18.92	90	70	30	4-10	14x14
GTD6-150	6"	191	139	55.8	155.1	217	18.92	18.92	90	70	30	4-10	14x14
GTD6-200	8"	238	175	60.6	202.5	268	22.1	22.1	125	102	38	4-12	17x17
GTD6-250	10"	285	203	65.6	250.5	325	28.45	28.45	125	102	38	4-12	22x22
GTD6-300	12"	315	242	76.9	301.6	375	31.6	31.6	125	102	44	4-12	22x22

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## THREADED BALL VALVE

### Threaded Ball Valve-GTQ61-Series

GTQ61 series ball valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Ball valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC



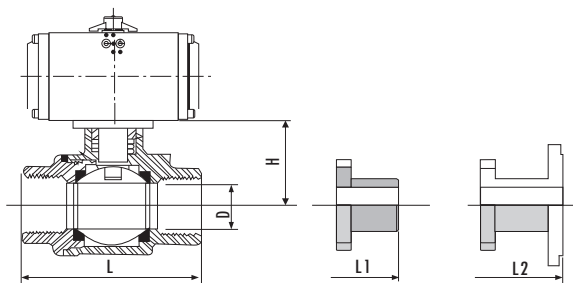
#### How To Order

GTQ	6	1	-25	P	W	F	220VAC
TYPE	Transfer method	Screw thread	Valve size	Valve Body	Switch box	Solenoid valve	Voltage
Ball valve	6= Pneumatic 9= Electric	11= Screw thread	DN10-100	R= SUS316 P= SUS304	W	F	24-48-110 220V DC/AC

For example: choose DN25 pneumatic stainless steel threaded ball valve: Q61-25PWF, if you need to add a DC24V solenoid valve, the model is: Q6125PWF/24VDC.

#### Threaded ball valve

GTQ61



Air pressure: 4~8bar

Fluid pressure: -0.1~16bar

#### CONNECTION SIZE

Part #	Material	Seal packing Material	DN	NPS	D	H	L	L1	L2
GTQ61-10	Stainless Steel	F = PTFE	10	3/8"	12.7	42	75	70	
GTQ61-15			15	1/2"	15	42	75	75	130
GTQ61-20			20	3/4"	20	49	80	90	150
GTQ61-25			25	1"	25	58.5	90	100	160
GTQ61-32			32	1-1/4"	32	63	110	110	180
GTQ61-40			40	1-1/2"	38	70	120	125	200
GTQ61-50			50	2"	50	78	140	150	230
GTQ61-65			65	2-1/2"	65	100	185	190	290

Note: Two piece of types ball valves connection form has the butt welding (BW) to receive in addition inserts welds (SW), and may bring the international standard ISO support and the fixing device.

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## THREADED BALL VALVE

### Threaded Ball Valve-Q611-Series

Q11Fseries ball valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Ball valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220V DC & 50Hz AC



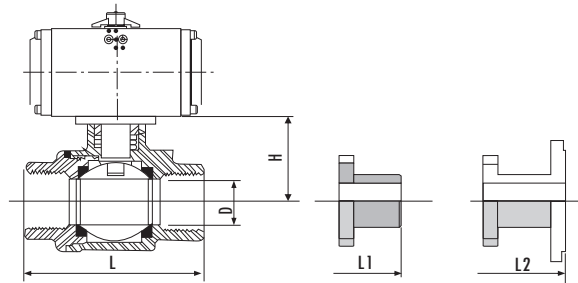
#### How To Order

Q	6	11	F	16	P	25	W	F	220VAC
TYPE	Transfer method	Screw thread	Seal	Pressure	Valve Body	Valve size	Switch box	Solenoid valve	Voltage
Ball valve	6= Pneumatic 9= Electric	11=Screw thread	F=PTFE	16=16Bar	R= SUS316 P= SUS304	DN10-100	W	F	24-48-110 220V DC/AC

For example: choose DN25 pneumatic stainless steel threaded ball valve: Q611F-10P-DN25, if you need to add a DC24V solenoid valve, the model is: Q611F-16P-25WF/24VDC.

#### Threaded ball valve

Q11F



Air pressure: 4~8bar

Fluid pressure: 0.1~16bar

#### CONNECTION SIZE

Part #	Material	Seal packing Material	DN	NPS	D	H	L	L1	L2
Q611F-10	Stainless Steel	F = PTFE	10	3/8"	12.7	42	75	70	
Q611F-15			15	1/2"	15	42	75	75	130
Q611F-20			20	3/4"	20	49	80	90	150
Q611F-25			25	1"	25	58.5	90	100	160
Q611F-32			32	1-1/4"	32	63	110	110	180
Q611F-40			40	1-1/2"	38	70	120	125	200
Q611F-50			50	2"	50	78	140	150	230
Q611F-65			65	2-1/2"	65	100	185	190	290
Q611F-80			80	3"	80	110	205	220	310
Q611F-100			100	4"	100	140	240	270	350

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## THREADED BALL VALVE

### Three-way ball valve-Q14-Series

Three-way ball valve is used to control the flow of water, liquid, gas pipeline, flow and flow.

#### Ball valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

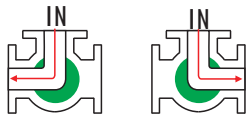


#### How To Order

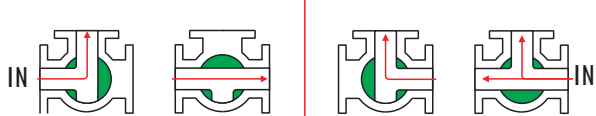
Q	6	14	F	16	P	25	W	F	220VAC
TYPE	Transfer method	Screw thread	Seal	Pressure	Valve Body	Valve size	Switch box	Solenoid valve	Voltage
Ball valve	6= Pneumatic 9= Electric	14=L 15=T	F= PTFE	16=16Bar	R= 316 P= 304	DN10-100	W	F	24-48-110 220V DC/AC

#### FLUID FLOW DIAGRAM

##### L-shaped Passage

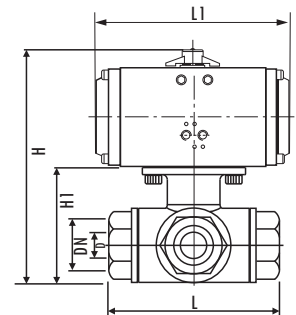
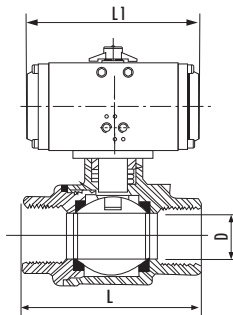


##### T-shaped Passage



#### Pneumatic ball valve

Air pressure: 4~8bar  
Fluid pressure: 0.1~16bar



#### CONNECTION SIZE

Part #	Material	Seal packing Material	DN	NPS	D	H	H1	L	L1	L2
Q614/5F-10	Stainless Steel	F = PTFE	10	3/8"	11	165	67	80	130	59
Q614/5F-15			15	1/2"	11	165	67	80	130	59
Q614/5F-20			20	3/4"	15	188	78	88	140	70
Q614/5F-25			25	1"	20	205	94	108	140	70
Q614/5F-32			32	1-1/4"	25	215	104	124	140	70
Q614/5F-40			40	1-1/2"	32	245	117	135	186	91
Q614/5F-50			50	2"	40	260	132	164	186	91

Note: Two piece of types ball valves connection form has the butt welding(BW) to receive in addition inserts welds(SW),and may bring the international standard ISO support and the fixing device.

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## FLANGED BALL VALVE

### Flanged Ball Valve-Q41-Series

Q41F series ball valve is used to control the opening or closing of water, liquid, gas pipeline.

#### Ball valves

#### Operating Conditions

- Container excess pressure: max. 16 bar
- Is suitable the medium: Water, oil, gas (W.O.G)
- Temperature inside vessel: -20 to 185° C
- Ambient temperature inside casing: -20 to 70° C

#### Options & Accessories

- Control mode: pneumatic or electric (24VDC 220AC 380VAC)
- Switch box: APL210
- Solenoid valve: VM520 V45K2-15
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

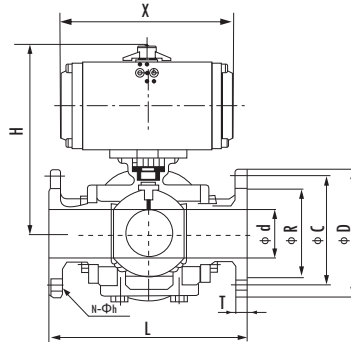


#### How To Order

Q	6	41	F	16	P	25	W	F	220VAC
TYPE	Transfer method	Screw thread	Seal	Pressure	Valve Body	Valve size	Switch box	Solenoid valve	Voltage
Ball valve	6= Pneumatic 9= Electric	41= Flanged	F= PTFE	16=16Bar	C=WCB P=SUS304	DN10-100	W	F	24-48-110 220V DC/AC

#### Flanged ball valve

Q 41



Air pressure: 4~8bar

Fluid pressure: -0.1~16bar

#### CONNECTION SIZE

Part #	L	$\phi D$	$\phi C$	$\phi R$	T	N- $\phi h$	H	X
Q641F-15	130	95	65	45	14	4-14	89	135
Q641F-20	140	105	75	55	14	4-14	94	135
Q641F-25	150	115	85	65	14	4-14	105	170
Q641F-32	165	135	100	78	16	4-18	115	170
Q641F-40	180	145	110	85	16	4-18	125	200
Q641F-50	200	160	125	100	16	4-18	140	200
Q641F-65	220	180	145	120	18	4-18	173	300
Q641F-80	250	195	160	135	20	8-18	183	300
Q641F-100	280	215	180	155	20	8-18	202	400
Q641F-125	320	245	210	185	22	8-18	290	500
Q641F-150	360	280	240	210	24	8-23	310	800
Q641F-200	400	335	295	265	26	12-23	350	1100

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## ACTUATORS

### Pneumatic Actuators-GT-Series

GT pneumatic actuator adapted to control butterfly valves, ball valves and two-way diverter valve open and closed

#### Pneumatic Actuators

#### Performance-characteristics

- Use medium: dry and clean without corrosive gas
- Angle of rotation:  $90^{\circ} \pm 5^{\circ}$
- Operating temperature:  $-10 \sim +80^{\circ}\text{C}$
- Working form: double-acting, single-acting (spring return)

#### Options & Accessories

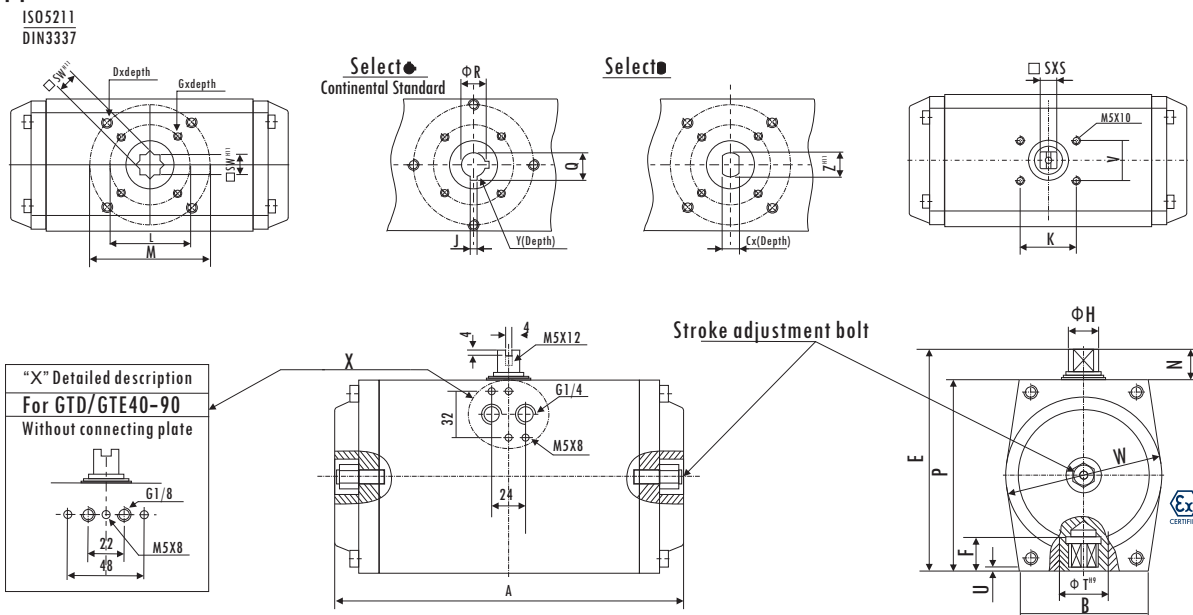
- Switch box: APL ITS
- 5/2Solenoid valve: VM 520 4M310
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC



#### How To Order

GTX	N	127	x 90°	N	P	22	K4
Type	Colour	Bore size	Stroke	Upper shaft extension	Shaft	Assembly hole size	Drive form
GTX	N= Black	32-270	90° 120° 180°	C = 20mm N = 30mm T = 50mm	P = ☉ D = ○ W = ○	See size chart	K=Single

#### Appearance and connection size chart



#### CONNECTION SIZE

TYPE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	SXS	SW	T	U	V	W	Y	Z	Nm 5bar	
GTXN40	104	45	8X12	M6X10	82	14		12		80		F04.φ42	20	60			9	11	20	1	30	50	12	15		
GTXN52	130	50	8X12	M6X10	94	15	M5X8	12	3	80	F03.φ36	F05.φ50	20	74	14.2	φ12.7	10	11	24	1	30	59	32	12	20	
GTXN63	140	60	10X16	M8X12	108	15	M6X10	12	3	80	F05.φ50	F07.φ70	20	88	14.2	φ12.7	10	14	24	1	30	70	32	16	35	
GTXN75	164	65	10X16	M8X12	120	15	M6X10	12	3	80	F05.φ50	F07.φ70	20	100	14.2	φ12.7	13	14	32	1	30	83	32	16	50	
GTXN83	186	65	10X16	M8X12	128	17	M6X10	18	5	80	F05.φ50	F07.φ70	20	108	18.4	φ15.9	13	17	32	1	30	91	32	16	77	
GTXN110	254	90	14X22	M10X16	160	25	M8X12	25	5	80	F07.φ70	F10.φ102	20	140	21.6	φ19.1	16	22	47	1	30	120	45	22	165	
GTXN127	296	103	20X24	M10X16	180	25	M8X12	30	5	80	F07.φ70	F10.φ102	20	160	24.8	φ22.3	19	22	53	1	30	137	45	30	256	
GTXN160	384	128	28X30	M12X20	228	30	M10X16	45	8	130	F10. 102	F12.φ125	30	198	32.1	φ28.6	28	27	66	2	30	173	45	42	660	
GTXN190	501	130	28X30	M16X24	257	34		50	8	130		F12.φ125	30	227	32.1	φ28.6	28	36	89	2	30	208	45	42	1111	
GTXN210	533	135	32X34	M16X24	285	34		55	8	130		F14. 140	30	255	35.3	31.8	28	36	89	2	30	224	45	48	1222	

Dimensions in mm



## ACTUATORS

### Pneumatic Actuators-AT-Series

AT pneumatic actuator adapted to control butterfly valves, ball valves and two-way diverter valve open and closed

#### Pneumatic Actuators

#### Performance-characteristics

- Use medium: dry and clean without corrosive gas
- Angle of rotation:  $90^{\circ} \pm 5^{\circ}$
- Operating temperature:  $-10 \sim +80^{\circ}\text{C}$
- Working form: double-acting, single-acting (spring return)



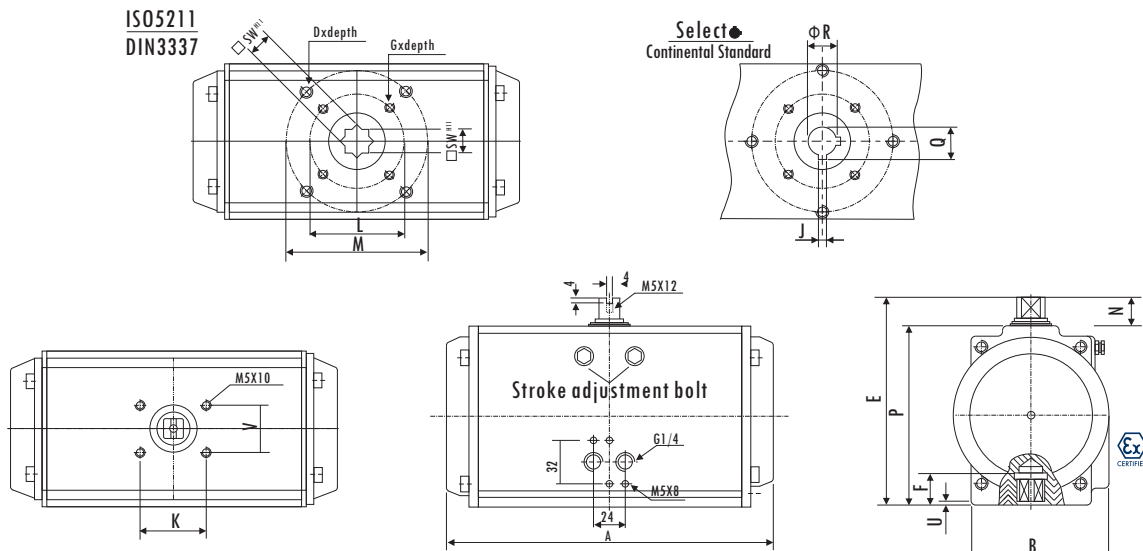
#### Options & Accessories

- Switch box: APL ITS
- 5/2Solenoid valve: VM 520 4M310
- Solenoid Coils: 24-48-110-220 V DC & 50 Hz AC

#### How To Order

AT	127	DA	05	
Type	Bore size	Drive form	Spring quantity	Shaft
AT	32-270	DA = Double SR = Single	05-12	= D = W =

#### Appearance and connection size chart



#### CONNECTION SIZE

TYPE	A	B	D	E	F	G	J	K	L	M	N	P	Q	R	SW	U	V	Nm <sub>Sbar_DA</sub>	Nm <sub>Sbar_SR</sub>
AT32DA/SR	110	45	M6X10	65	14			80		F04.φ42	20	45			11	1	30	8	4
AT52DA/SR	143	71	M6X10	92	15	M5X8	3	80	F05.φ36	F05.φ50	20	72	14.2	φ12.7	11	1	30	21	9
AT63DA/SR	190	80	M8X12	108	15	M6X10	3	80	F05.φ50	F07.φ70	20	88	14.2	φ12.7	14	1	30	37	20
AT75DA/SR	207	91	M8X12	120	17	M6X10	5	80	F05.φ50	F07.φ70	20	100	18.4	φ12.7	17	1	30	60	27
AT83DA/SR	213	99	M8X12	129	17	M6X10	5	80	F05.φ50	F07.φ70	20	109	18.4	φ15.9	17	1	30	74	37
AT92DA/SR	258	111	M8X12	137	25	M6X10	5	80	F05.φ50	F07.φ70	20	117	21.6	φ19.1	17	1	30	114	51
AT105DA/SR	267	121	M10X16	153	25	M8X12	5	80	F07.φ70	F10.φ102	20	133	21.6	φ19.1	22	1	30	170	76
AT125DA/SR	340	138	M10X16	175	25	M8X12	5	80	F07.φ70	F10.φ102	20	155	24.8	φ22.3	22	1	30	295	125
AT140DA/SR	414	151	M12X20	192	30	M10X16	8	130	F07.φ70	F10.φ102	30	172	32.1	φ28.6	27	2	30	440	200
AT160DA/SR	476	175	M12X20	217	30	M10X16	8	130	F10.φ102	F12.φ125	30	197	32.1	φ28.6	27	2	30	670	300
AT190DA/SR	515	204	M16X24	260	34		8	130		F14.φ140	30	230	32.1	φ28.6	36	2	30	1100	500
AT210DA/SR	580	226	M16X24	285	34		8	130		F14.φ140	30	255	35.3	φ31.8	36	2	30	1500	722
AT240DA/SR	654	260	M20X26	320	52		10	130		F16.φ165	30	290	37.4	φ33.4	46	2	30	2030	1037
AT270DA/SR	725	294	M20X26	350	52		12	130		F16.φ165	30	320	45.3	φ41.3	46	2	30	3260	15000

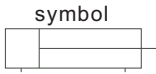
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER

### Air Cylinder-SC-Series

#### Air Cylinder

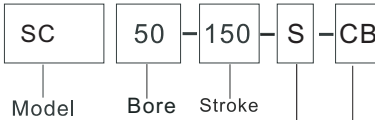


#### Common specifications

Bore (mm)	32	40	50	63	80	100
Fluid	Clean Air					
Action	Double Acting					
Proof Press.	1.5MPa(15kgf/cm					
Max. Press.	0.99MPa(9.9kgf/cm					
Min. Press.	0.05MPa(0.5kgf/cm					
Amb.Temp.	0~60°C					
Piston Speed	50 ~ 500mm/s					
Cushion	Air Cushion					
Stroke Tolerance	~ 250: <sup>+1.0</sup> <sub>0</sub> 251 ~ 1000: <sup>+1.4</sup> <sub>0</sub> 1000 ~ 1500: <sup>+1.8</sup> <sub>0</sub>					
*Lubrication	Lube Type(STD) Non-Lube(Option)					
Pipe Size	Rc 1/8"	1/4"	3/8"	1/2"		

\*Please Use Turbine Oil 1st-Grade ISO VG32#,if required.

#### How To Order



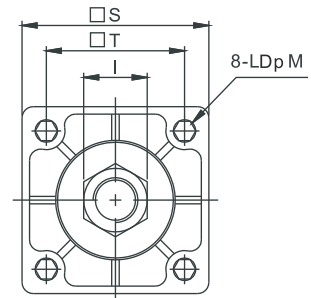
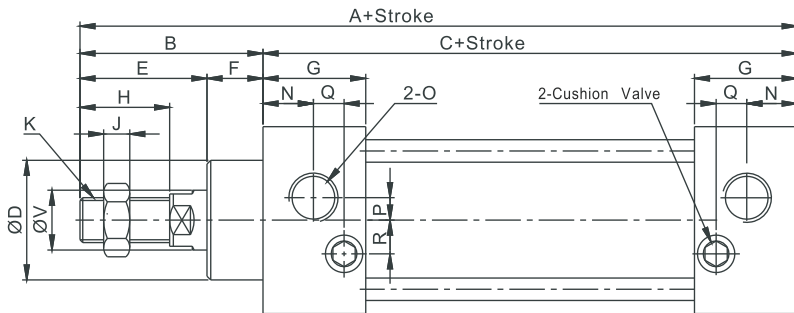
Magnet  
S:Built-in

Mounting	Installation type	For
Basic		SC
LB		SCD SCJ
FA		
FB		
CA		SC
CB		
TC		SC SCD SCJ    Use with TCM1

#### Dimensions(mm)

##### Basic Type : SC

Lube,Non-Lube



Bore (mm)	Stroke Range (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O (Rc)	P	Q	R	S	T	V
32	~ 500	140	47	93	28	32	15	27.5	22	17	6	M10×1.25	M6×1	9.5	13.7	1/8"	3.5	7.5	7	45	33	12
40	~ 500	142	49	93	32	34	15	27.5	24	17	7	M12×1.25	M6×1	9.5	13.5	1/4"	6	7.5	9	50	37	16
50	~ 600	150	57	93	38	42	15	27.5	32	23	8	M16×1.5	M6×1	9.5	13.5	1/4"	8.5	7.5	9	62	47	20
63	~ 600	153	57	96	38	42	15	27.5	32	23	8	M16×1.5	M8×1.25	9.5	13.5	3/8"	7	7.5	8.5	75	56	20
80	~ 800	182	75	107	47	54	21	33	40	26	10	M20×1.5	M10×1.5	11.5	16.5	3/8"	10	8.5	14	94	70	25
100	~ 800	188	75	113	47	54	21	33	40	26	10	M20×1.5	M10×1.5	11.5	16.5	1/2"	11	8.5	14	112	84	25

Note:The size of the with magnet type is as same the standard type

Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER ACCESSORIES

### Air Cylinder Accessories Series

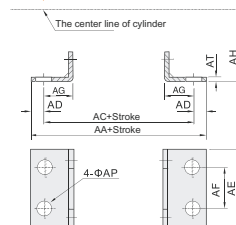


#### Dimension of Mounting Accessories



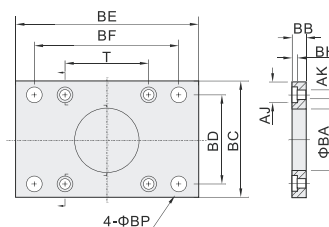
LB Dimension

Model	Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-32LB		153	134	10.5	50	33	19.5	28	9	3
FJ-40LB		169	140	14.5	57	36	23.5	30	12	3
FJ-50LB		173	149	11.5	68	47	28.5	36.5	12	3
FJ-63LB		184	158	13	80	56	32	41	12	3
FJ-80LB		199	167	16	97	70	29	49	14	4
FJ-100LB		209	173	18	112.5	84	30	57	14	4



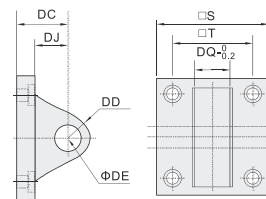
FA/FB Dimension

Model	Sign	BA	BB	BC	BD	BE	BF	BH	AJ	AK	BP	T
FJ-32FA		29	10	48	33	73	58	7	11	7	7	33
FJ-40FA		32	11	52	36	84	70	8	11	7	7	37
FJ-50FA		39	10	64	47	105	86	5.5	11	7	9	47
FJ-63FA		39	12	73	56	116	98	8.5	14	9	9	56
FJ-80FA		48	16	92.5	70	143	119	11	17	11	11	70
FJ-100FA		49	15	113.5	84	162	138	10.5	17.5	11	11	84



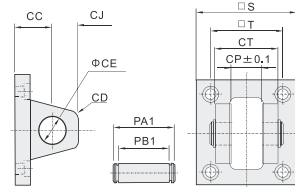
CA Dimension

Model	Sign	S	T	DC	DD	DE	DJ	DQ
FJ-32CA		48	33	34	14	12	24	16
FJ-40CA		49.5	37	34	14	14	23.5	20
FJ-50CA		62	47	33.5	15	14	22	20
FJ-63CA		74	56	34	14	14	24	20
FJ-80CA		93	70	48	18	20	34.5	32
FJ-100CA		110	84	48	19	20	33	32



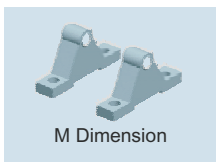
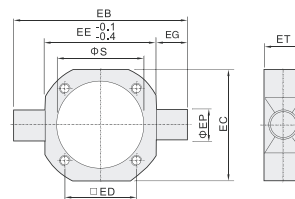
CB Dimension

Model	Sign	CC	CD	CE	CJ	CP	CT	S	T
FJ-32CB		19	5	12	13	16.3	31	46.5	33
FJ-40CB		19	5	14	13	20.3	44	50	37
FJ-50CB		19	3	14	15	20.3	52	62	47
FJ-63CB		19	3	14	11.5	20.3	52	73	56
FJ-80CB		32	8	20	18.5	32.3	64	93	70
FJ-100CB		32	8	20	19.5	32.3	64	110.5	84



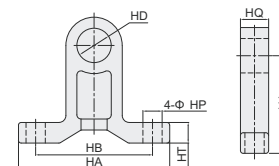
TC Dimension

Model	Sign	EB	EC	ED	EE	EG	EP	ET	S
FJ-32TC		88.5	53	33	55	16	16	30.5	38
FJ-40TC		113	63	37	63	25	25	32	45.5
FJ-50TC		127	76	47	75	26	25	30	56.5
FJ-63TC		141	89	56	88	26	25	32	69.5
FJ-80TC		164	105	70	113	25	25	35	88
FJ-100TC		182	131	84	132	25	25	42	107.5
FJ-125TC		210.5	154	110	154	28	30	40	134.5
FJ-160TC		270	202	140	202	33	32	38	172
FJ-200TC		320	251	175	251	36	32	49	218



M Dimension

Model	Sign	HA	HB	HD	HP	HT	HQ	HJ
FJ-32M		110.5	80	16	12	13	21.5	51
FJ-40/50/63M		111.5	80	25.5	12	10.5	21	50.5
FJ-80/100M		110	85	25.5	14	15	20.5	71
FJ-125M		148	110	30	14	28.5	28.5	83.5
FJ-160M		190	140	32	22	24	32	109
FJ-200M		201	150	32	22	29	34	156.5



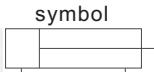
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER

### Air Cylinder-SI-Series

#### Air Cylinder

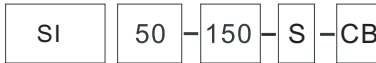


#### Common specifications

Bore (mm)	32	40	50	63	80	100
Fluid	Clean Air					
Action	Double Acting					
Proof Press.	1.5MPa(15kgf/cm)					
Max. Press.	0.99MPa(9.9kgf/cm)					
Min. Press.	0.05MPa(0.5kgf/cm)					
Amb.Temp.	0~60°C					
Piston Speed	50 ~ 500mm/s					
Cushion	Air Cushion					
Stroke Tolerance	~ 250: <sup>+1.0</sup> <sub>0</sub> 251 ~ 1000: <sup>+1.4</sup> <sub>0</sub> 1000 ~ 1500: <sup>+1.8</sup> <sub>0</sub>					
*Lubrication	Lube Type(STD) Non-Lube(Option)					
Pipe Size	Rc 1/8"	1/4"	3/8"	1/2"		

\*Please Use Turbine Oil 1st-Grade ISO VG32#, if required.

#### How To Order



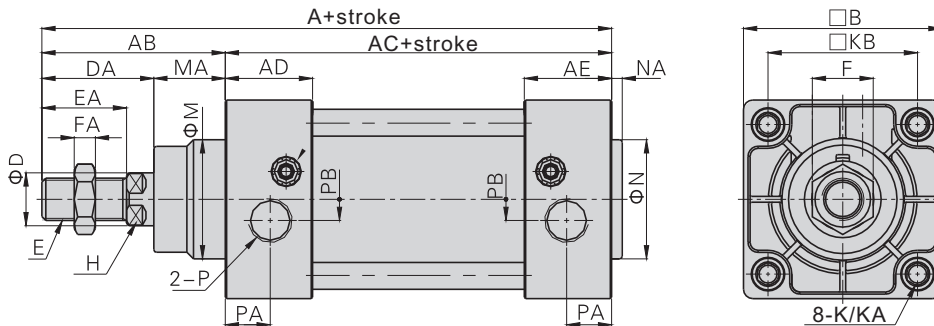
Magnet  
S: Built-in

Basic		SI	
LB		SID SIJ	
FA			
FB			
CA		SI	
CB			
CR			Use with CB
FTC		SI SID SIJ	Use with TCM1/TCM2
TC			

#### Dimensions(mm)

Basic Type : SI

Lube, Non-Lube



#### Stroke/Auto Switch

Bore (mm)	STD Stroke (mm)	Auto Switch	Mount Part No.
32, 40	25, 50, 75, 100, 125, 175, 200, 250, 300, 350, 400, 450, 500	E: CS1-F F: CS1-U	BC-04
			BC-04
50	25, 50, 75, 100, 125, 175, 200, 250, 300, 350, 400, 450, 500, 600		BC-04
			BC-06
80	25, 50, 75, 125, 150, 175, 200, 250,		BC-08
100	300, 350, 400, 450, 500, 600, 700		BC-08

Note: Other Stroke Available

Bore	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	M	MA	K	KB	N	NA	P	PA	PB
32	142	48	94	27.5	27.5	47	12	29	M10 × 1.25	22	17	6	30	19	M6	32.5	30	3	PT1/8	13	5.5
40	159	54	105	32	32	53	16	33	M12 × 1.25	24	17	7	35	21	M6	38	35	3.5	PT1/4	17	6
50	175	69	106	31	31	65	20	42	M16 × 1.5	32	23	8	40	27	M8	46.5	40	3.5	PT1/4	15.5	7.5
63	190	69	121	33	33	75	20	42	M16 × 1.5	32	23	8	45	27	M8	56.5	45	4	PT3/8	16.5	7.5
80	214	86	128	33	33	95	25	53	M20 × 1.5	40	26	10	45	33	M10	72	45	4	PT3/8	16.5	9
100	229	91	138	37	37	115	25	55	M20 × 1.5	40	26	10	55	36	M10	89	55	4	PT1/2	18.5	9.5
125	279	119	160	46	46	140	32	74	M27 × 2.0	54	41	13.5	60	45	M12	110	60	4	PT1/2	23	14
160	332	152	180	50	50	180	40	94	M36 × 2.0	72	55	18	65	58	M16	140	65	4	PT3/4	25	15
200	347	167	180	50	50	220	40	100	M36 × 2.0	72	55	18	75	67	M16	175	75	5	PT3/4	25	15

Dimensions in mm

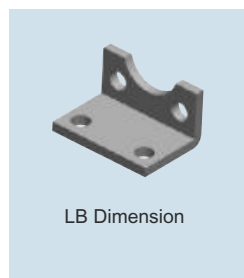
# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER ACCESSORIES

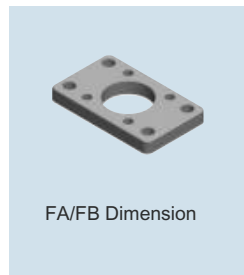
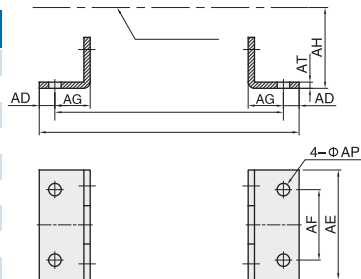
### Air Cylinder Accessories Series



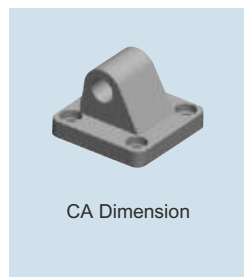
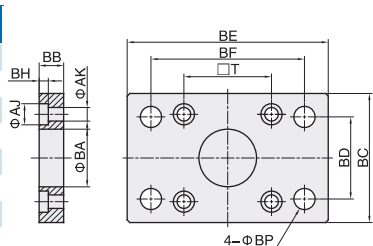
#### Dimension of Mounting Accessories



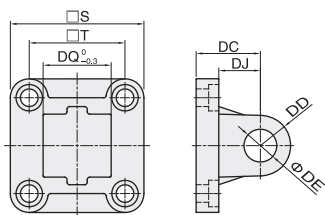
Model	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ-SI 32LB	158	142	8	47	32	24	32	7	4
FJ-SI 40LB	179	161	9	53	36	28	36	9	4
FJ-SI 50LB	190	170	10	65	45	32	45	9	5
FJ-SI 63LB	209	185	12	75	50	32	50	9	5
FJ-SI 80LB	248	210	19	95	63	41	63	12.5	6
FJ-SI 100LB	258	220	19	115	75	41	71	14.5	6
FJ-SI 125LB	290	250	20	140	90	45	90	16.5	8
FJ-SI 160LB	340	300	20	180	115	60	115	18.5	10
FJ-SI 200LB	380	320	30	220	135	70	135	24	12



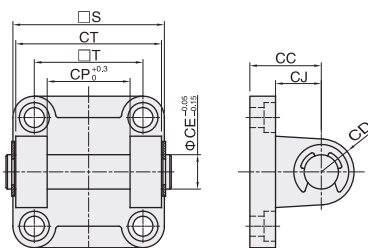
Model	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ-SI 32FA	11	7	30.5	10	47	32	80	64	4.5	7	32.5
FJ-SI 40FA	11	7	35.5	10	53	36	90	72	4.5	9	38
FJ-SI 50FA	14	9	40.5	12	65	45	110	90	5.5	9	46.5
FJ-SI 63FA	14	9	45.5	12	75	50	125	100	5.5	9	56.5
FJ-SI 80FA	17	11	45.5	16	95	63	154	126	7	12.5	72
FJ-SI 100FA	17	11	55.5	16	115	75	186	150	7	14.5	89
FJ-SI 125FA	19	13	60.5	20	140	90	224	180	8	16.5	110
FJ-SI 160FA	25	17	65.5	20	180	115	280	230	10.5	18.5	140
FJ-SI 200FA	25	17	75.5	25	220	135	320	270	10.5	24	175



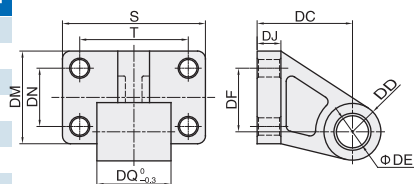
Model	S	T	DC	DD	DE	DJ	DQ
FJ-SI 32CA	47	32.5	22	9	10	13	25.8
FJ-SI 40CA	53	38	25	12	12	16	27.8
FJ-SI 50CA	65	46.5	27	12	12	17	31.8
FJ-SI 63CA	75	56.5	32	15	16	22	39.7
FJ-SI 80CA	95	72	36	15	16	22	49.7
FJ-SI 100CA	115	89	41	20	20	27	59.7
FJ-SI 125CA	140	110	50	25	25	33	69.7
FJ-SI 160CA	180	140	55	30	30	35.5	89.7
FJ-SI 200CA	220	175	60	30	30	36	89.7



Model	CC	CD	CE	CJ	CP	CT	S	T
FJ-SI 32CB	22	9	10	13	26	45	47	32.5
FJ-SI 40CB	25	12	12	16	28	52	53	38
FJ-SI 50CB	27	12	12	17	32	60	65	46.5
FJ-SI 63CB	32	15	16	22	40	70	75	56.5
FJ-SI 80CB	36	15	16	22	50	90	95	72
FJ-SI 100CB	41	20	20	27	60	110	115	89
FJ-SI 125CB	50	25	25	31	70	130	140	110
FJ-SI 160CB	55	30	30	35.5	90	170	180	140
FJ-SI 200CB	60	30	30	36	90	170	220	175



Model	S	T	DC	DD	DE	DF	DJ	DQ	DM	DN
FJ-SI 32CR	51	38	32	10	10	21	8	25.8	31	18
FJ-SI 40CR	54	41	36	11	12	24	10	27.8	35	22
FJ-SI 50CR	65	50	45	13	12	33	12	31.8	45	30
FJ-SI 63CR	67	52	50	15	16	37	12	39.7	50	35
FJ-SI 80CR	86	66	63	15	16	47	14	49.7	60	40
FJ-SI 100CR	96	76	71	19	20	55	15	59.7	70	50
FJ-SI 125CR	124	94	90	22.5	25	70	20	69.7	90	60



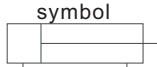
Dimensions in mm

# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER

### Air Cylinder-DNC-Series

#### Air Cylinder

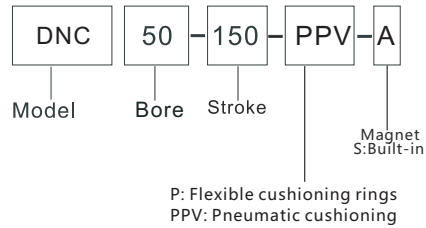


#### Common specifications

Bore (mm)	32	40	50	63	80	100
Fluid	Clean Air					
Action	Double Acting					
Proof Press.	1.5MPa(15kgf/cm					
Max. Press.	0.99MPa(9.9kgf/cm					
Min. Press.	0.05MPa(0.5kgf/cm					
Amb.Temp.	0~60°C					
Piston Speed	50 ~ 500mm/s					
Cushion	Air Cushion					
Stroke Tolerance	~ 250: <sup>+1.0</sup> <sub>0</sub> 251 ~ 1000: <sup>+1.4</sup> <sub>0</sub> 1000 ~ 1500: <sup>+1.8</sup> <sub>0</sub>					
*Lubrication	Lube Type(STD) Non-Lube(Option)					
Pipo Size	Rc 1/8"	1/4"	3/8"	1/2"		

\*Please Use Turbine Oil 1st-Grade ISO VG32#, if required.

#### How To Order



#### Stroke/Auto Switch

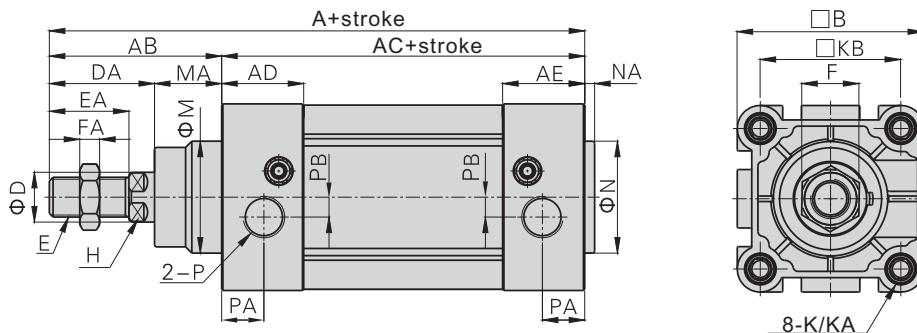
Bore (mm)	STD Stroke (mm)	Auto Switch	Mount Part No.
32, 40	25, 50, 75, 100, 125, 175, 200, 250, 300, 350, 400, 450, 500		
50	25, 50, 75, 100, 125, 175, 200, 250, 300, 350, 400, 450, 500, 600		
63	250, 300, 350, 400, 450, 500, 600		
80	25, 50, 75, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700		
100	300, 350, 400, 450, 500, 600, 700		

Note: Other Stroke Available

#### Dimensions(mm)

##### Basic Type : DNC

Lube, Non-Lube



Bore	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KA	KB	M	MA	NA	N	P	PA	PB
32	142	48	94	27.5	27.5	46.5	12	29	M10 × 1.25	22	17	6	10	M6	16	32.5	30	19	3	30	PT1/8	13.5	6
40	159	54	105	32	32	54	16	33	M12 × 1.25	24	17	7	13	M6	16	38	35	21	3.5	35	PT1/4	17.5	6
50	175	69	106	31	31	64	20	42	M16 × 1.5	32	23	8	17	M8	16	46.5	40	27	3.5	40	PT1/4	14	8
63	190	69	121	33	33	75	20	42	M16 × 1.5	32	23	8	17	M8	16	56.5	45	27	4	45	PT3/8	17	8
80	214	86	128	33	33	93	25	53	M20 × 1.5	40	26	10	22	M10	17	72	45	33	4	45	PT3/8	16.5	8
100	229	91	138	37	37	110	25	55	M20 × 1.5	40	26	10	22	M10	17	89	55	36	4	55	PT1/2	19.5	10
125	279	119	160	46	46	134	32	74	M27 × 2	54	41	13.5	27	M12	20	110	60	45	4	60	PT1/2	23	11

Dimensions in mm

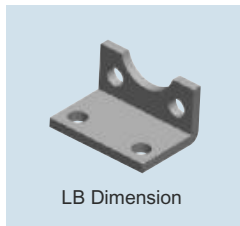
# BULK SOLIDS HANDLING EQUIPMENT

## AIR CYLINDER ACCESSORIES

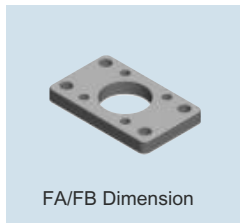
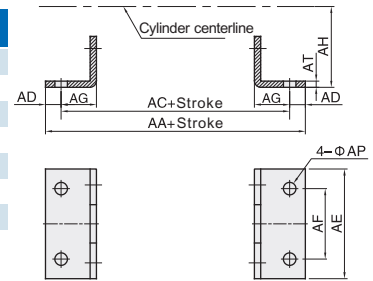
### Air Cylinder Accessories Series

#### Accessories

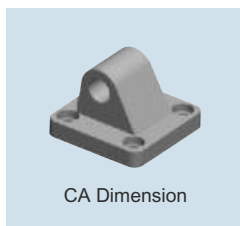
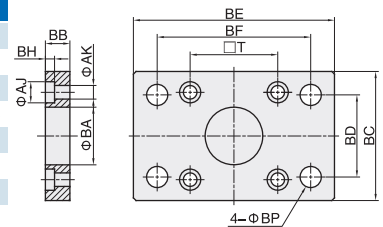
#### Dimension of Mounting Accessories



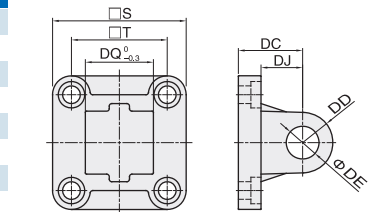
Model	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ- DNC32LB	158	142	8	47	32	24	32	7	4
FJ- DNC40LB	179	161	9	53	36	28	36	9	4
FJ- DNC50LB	190	170	10	65	45	32	45	9	5
FJ- DNC63LB	209	185	12	75	50	32	50	9	5
FJ- DNC80LB	248	210	19	95	63	41	63	12.5	6
FJ- DNC100LB	258	220	19	115	75	41	71	14.5	6
FJ- DNC125LB	290	250	20	140	90	45	90	16.5	8



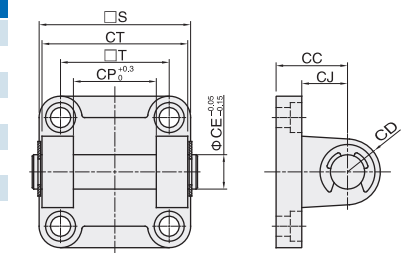
Model	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ- DNC32FA	11	7	30.5	10	47	32	80	64	4.5	7	32.5
FJ- DNC40FA	11	7	35.5	10	53	36	90	72	4.5	9	38
FJ- DNC50FA	14	9	40.5	12	65	45	110	90	5.5	9	46.5
FJ- DNC63FA	14	9	45.5	12	75	50	125	100	5.5	9	56.5
FJ- DNC80FA	17	11	45.5	16	95	63	154	126	7	12.5	72
FJ- DNC100FA	17	11	55.5	16	115	75	186	150	7	14.5	89
FJ- DNC125FA	19	13	60.5	20	140	90	224	180	8	16.5	110



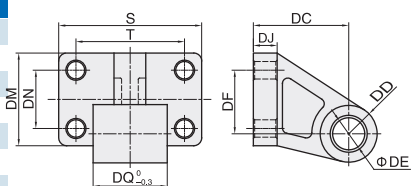
Model	S	T	DC	DD	DE	DJ	DQ
FJ- DNC32CA	47	32.5	22	9	10	13	25.8
FJ- DNC40CA	53	38	25	12	12	16	27.8
FJ- DNC50CA	65	46.5	27	12	12	17	31.8
FJ- DNC63CA	75	56.5	32	15	16	22	39.7
FJ- DNC80CA	95	72	36	15	16	22	49.7
FJ- DNC100CA	115	89	41	20	20	27	59.7
FJ- DNC125CA	140	110	50	25	25	33	69.7



Model	CC	CD	CE	CJ	CP	CT	S	T
FJ- DNC32CB	22	9	10	13	26	45	47	32.5
FJ- DNC40CB	25	12	12	16	28	52	53	38
FJ- DNC50CB	27	12	12	17	32	60	65	46.5
FJ- DNC63CB	32	15	16	22	40	70	75	56.5
FJ- DNC80CB	36	15	16	22	50	90	95	72
FJ- DNC100CB	41	20	20	27	60	110	115	89
FJ- DNC125CB	50	25	25	31	70	130	140	110



Model	S	T	DC	DD	DE	DF	DJ	DQ	DM	DN
FJ- DNC32CR	51	38	32	10	10	21	8	25.8	31	18
FJ- DNC40CR	54	41	36	11	12	24	10	27.8	35	22
FJ- DNC50CR	65	50	45	13	12	33	12	31.8	45	30
FJ- DNC63CR	67	52	50	15	16	37	12	39.7	50	35
FJ- DNC80CR	86	66	63	15	16	47	14	49.7	60	40
FJ- DNC100CR	96	76	71	19	20	55	15	59.7	70	50
FJ- DNC125CR	124	94	90	22.5	25	70	20	69.7	90	60



Dimensions in mm



## 1、 Pressure unit:

1psi=6.89KPa	1kgf/cm <sup>2</sup> =98.07KPa	1bar=100KPa
1bar=14.5psi	1atmosphere=98.1KPa	1cm water=97.89Pa
1mm mercury=133.3Pa	1in mercury=3.39KPa	1Torr=133.3Pa
1ft Water=0.0298bar	1bar=33.33ft Water	

## 2、 Length unit:

1in=25.4mm	1ft=0.3048m	Mile=1609.3m
1micron=10 <sup>-6</sup> m		

## 3、 Weight unit:

1lb=453.6g	1cwt=50.8kg	1ton(imp)=1016kg
1ton(us)=907.2kg	1tonne=1000kg	

## 4、 Torque unit:

1in-lb=0.113 N-m	1ft-lb=1.356N-m	1kg-m=9.807N-m
1ft.poundal=0.0421N-m		

## 5、 Temperature unit:

(OF-32)×5/9=°C	K-273.15 = °C	
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## 6、 Area uni:

1in <sup>2</sup> =6.45 cm <sup>2</sup>	1in <sup>2</sup> =0.093m <sup>2</sup>	
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## 7、 Volume unit:

1litre=0.001 m <sup>3</sup>	1cu.ft=0.0283 m <sup>3</sup>	1cu.in=16.39 cm <sup>3</sup>
1gal(imp)=4.546 L	1gal(us)=3.79 L	
1fluid oz(us)=29.57mL		

## 8、 Force unit:

1lbf=4.45N	1kgf=9.81N	1kp(kilopond)=9.81N
1poundal=138.3mN		

## 9、 Power unit:

1lb-ft/sec=1.356W	1kg-m/sec=9.807W	1N-m/sec=1W
1H.P(imp)=745.7W		

## 10、 Energy unit:

1lb.ft=1.356 J	1N.m=1 J	1kg.m=9.807 J
1kw.hr=3.6Mj		



# BULK SOLIDS HANDLING EQUIPMENT

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