



MIX S.r.l.

MIXING SYSTEMS AND
COMPONENTS FOR PLANTS

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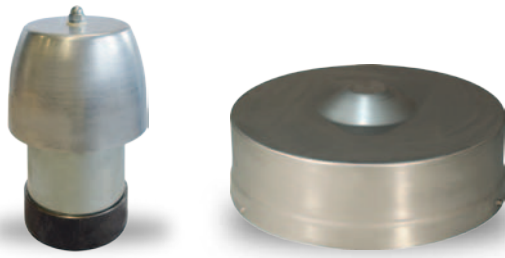
Extraction and Aeration system

Silo accessories



 **ATEX RANGE AVAILABLE**

Quality and Innovation



1 VALVE PRESSURE CONTROL (SSM100 - SSM250)

The MIX pressure control valves SSM100 and SSM250 are used to ventilate overpressure, in order to prevent damage to the vessel. Additionally the SSM250 can also take up air from the surrounding, in order to prevent damage to the vessel from implosion, in case of underpressure.



2 THE BASE SPIGOT (SFU)

The base spigot can be welded on the tank or other equipment. The pressure relief valve SSM250 is screwed on the base spigot.



3 MANHOLE PROVES (SSA - SSB)

MIX S.R.L. manufactures inspection, maintenance, monitoring for silos and containers as a range.



4 LEVEL GAUGES

The level gauges, with electromechanical working, are components signalling the presence / absence of dusty or granulate products in plants of every field of application.



9



5 CONNECTING KIT BETWEEN SILO AND TRUCK (SST)

kit is used for connecting between the discharge pipe on the truck and the silo inlet pipe.



6 PAD, DISC AND AERATION NOZZLES

Suitable for tanks and silos used in different industries.



7 PRESSURE REGULATOR (SAK)

Suitable for the regulation, treatment, control of the aerated fluid and used for the connection of the different aerated elements.



FILTER 8, BUTTERFLY VALVES 9 AND PINCH VALVE 10

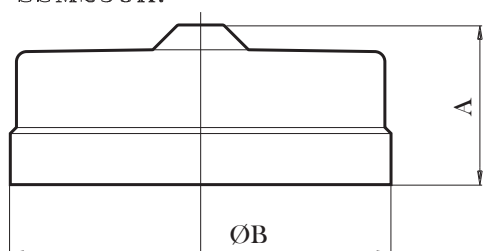
See specific catalogs

Pressure control

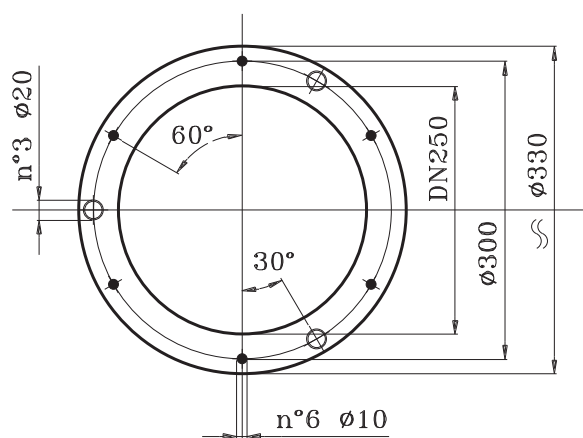
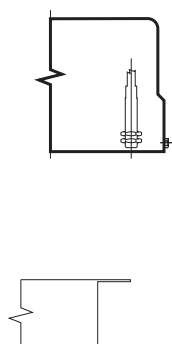
PRESSURE CONTROL VALVE - SSM250



SSM250K.



SSM250L.



SFU250E.

COMBINATION TABLE

SSM

250



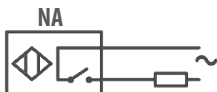
Material of construction

- 1: Parts in contact with the product in galvanised mild steel with cover in aluminium
- 4: All the metallic parts are in Stainless steel AISI 304

K: With predisposition for No.2 inductive limit-switches

L: Complete with No. 2 inductive limit-switches

V = 20÷240 V AC
I min. = 5 mA
I nom. = 500 mA



Working temperature
-25°C ÷ +70°C

TYPE	MATERIAL	A	Ø B	Kg
SSM250K1	Carbon Steel	156	372	7
SSM250L1	Carbon Steel	156	372	7
SSM250K4	AISI 304	136	372	7
SSM250L4	AISI 304	136	372	7

FOR EXPLOSIVE ENVIRONMENT

CODE	FINECORSA	MATERIAL OF CONSTRUCTION
20000065	With predisposition for No.2 inductive limit-switches	All the metallic parts are in Stainless steel AISI 304
20000066		Parts in contact with the product in galvanised mild steel with cover in aluminium
20000067		

Because the risk assessment does not envisage peculiar trigger sources, capable of triggering a potentially explosive atmosphere, the pressure relief valve SSM250.. does not fall within the objective of the 2014/34/EU Directive and therefore it is suitable for exploitation in a potentially explosive atmosphere Z20-Z21-Z22-non classified zone.

Operating overpressure

from +250 to +500 mm H₂O
factory set at +400 mm H₂O

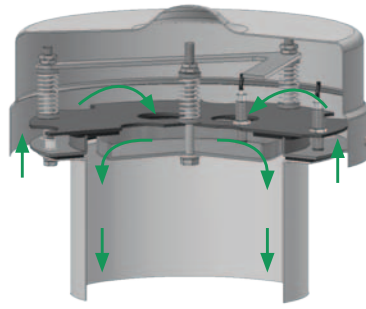
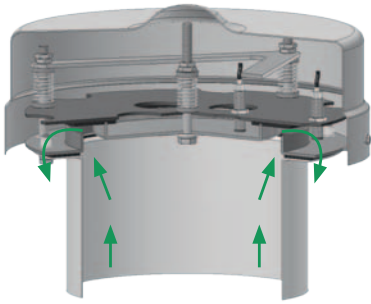
Operating underpressure

from -50 to -300 mm H₂O
factory set at -100 mm H₂O

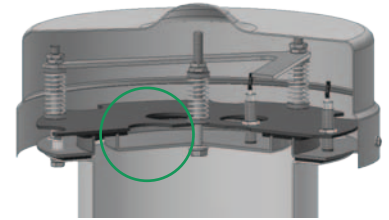
A ± 60 mm H₂O
B ± 50 mm H₂O
C ± 70 mm H₂O

WORKING TOLERANCE

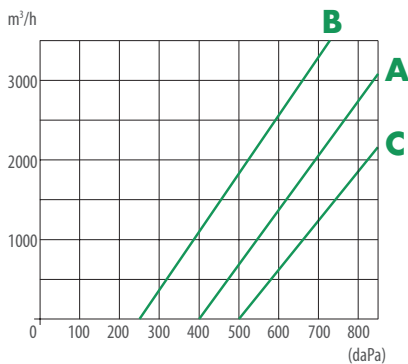
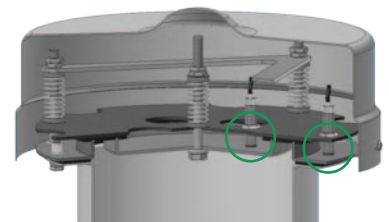
A ± 30 mm H₂O
B ± 20 mm H₂O
C ± 50 mm H₂O



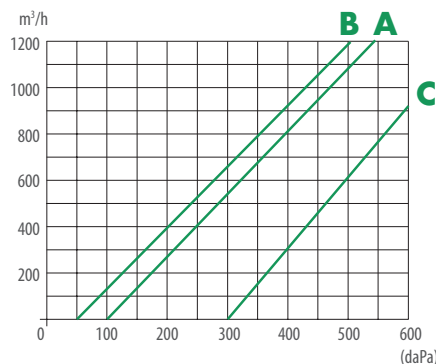
The seal is made over a reduced surface, to avoid the possible product deposit, so allowing a long life time.



The inductive limit switches (optional) allow to check possible excessive overpressure / underpressure inside the silo.



1mmH₂O = 1dapa = 0,1mbar



1mmH₂O = 1dapa = 0,1mbar

A = Standard supply calibration / B = Minimum calibration / C = Maximum calibration

SSM 250 K .



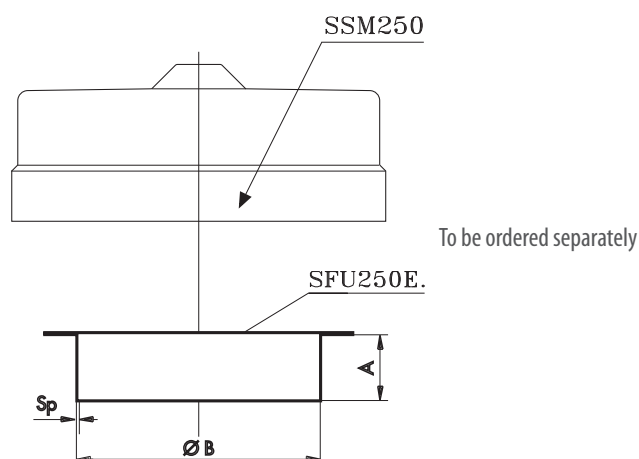
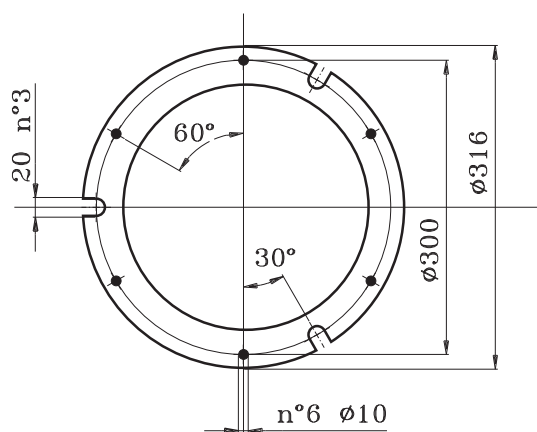
SSM 250 L .



Our pressure-relief valve has been designed to open when an abnormal pressure occurs inside a vessel. If the plant is correctly designed, and receives correct maintenance, our valve should never vent, if the pressure inside the vessel does not exceed the valve's calibration. This valve must never be considered a venting device.

Pressure control

THE BASE SPIGOT - SFU



COMBINATION TABLE



Material of construction

- 1: Carbon steel (complete with bolts and nuts in carbon steel)
- 4: Stainless steel AISI 304 (complete with bolts and nuts in Stainless steel AISI 304)
- 8: Aluminium (complete with bolts and nuts in carbon steel)

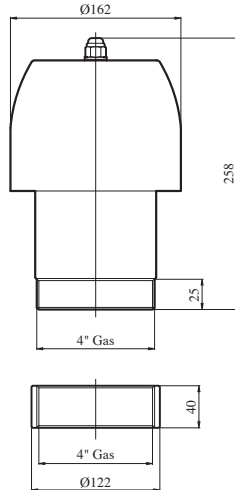
TYPE	MATERIAL	A	ϕB	Sp	Kg
SFU250E1	Carbon Steel	150	247	2	1,8
SFU250E4	AISI 304	150	247	2	1,8
SFU250E8	Aluminium	150	248	2,5	0,7

FOR EXPLOSIVE ENVIRONMENT

CODE	MATERIAL OF CONSTRUCTION
20000025	Stainless steel AISI 304 (complete with bolts and nuts in Stainless steel AISI 304)
20000027	Carbon steel (complete with bolts and nuts in carbon steel)

PRESSURE CONTROL VALVE - SSM100

The SSM 100 is an over-pressure valve used on small tanks and trucks that are not subject to special legislation. The valve reduces the risk of explosion by releasing excess pressure during charging. The SSM 100 will protect equipment from possible over-pressure damage.



Operating overpressure:

da +200 a +700 mmH2O

Supplied already set: +400mmH2O

Working temperature: -10°C +80°C

TYPE	MATERIAL	kg
SSM100E1	Carbon Steel	3,6

CONNECTING KIT BETWEEN SILO AND TRUCK - SST

This kit is used for connecting between the discharge pipe on the truck and the silo inlet pipe.

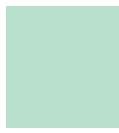
SST



Nominal diameter
080 = 80 mm
100 = 100 mm



Connected truck
A = (standard) NFE 29-572 - GUILLEMIN
B = DIN - STORZ



Material of construction
1 = Carbon steel
2 = AISI 304



INDICATION OF CONNECTED TRUCK - SSF

This system, featuring a mechanical limit stop, signals when the truck's discharge pipe is connected to the silo's inlet pipe (SST), located before the pinch valve.

SSF01A



Material of construction
1 = Carbon steel
2 = AISI 304

SST + SSF



SSF



TECHNICAL DATA		
Protection level	Working temperature	Voltage
IP65	-25°C +80°C	MAX 250V AC

Manhole

MANHOLE SSA - SSB

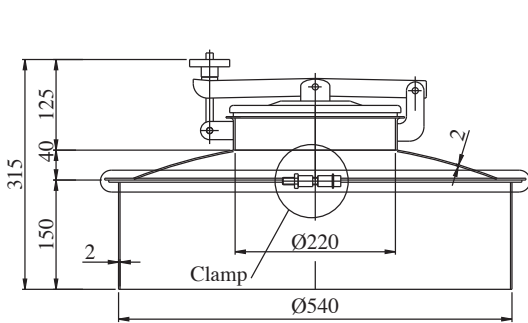
MIX S.R.L. manufactures inspection, maintenance, monitoring for silos and containers as a range. Two different type of valves are available with two different diameter option: DN 540 mm and DN 790 mm. Manhole can be also supplied in the version with the pre-arrangement to a pressure relief valve type SSM250.



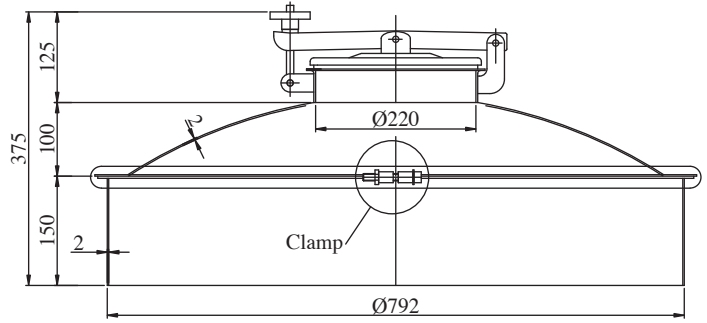
MIX manhole proves advantageous in the following respects:

- The inspection door that set on the top cover provides easy and quick inspection of the stocked product and inside the silo conditions; no inside grid hinders the visibility range;
- It provides easy maintenance access into the silo when the cover disassembled (through screwed clamps). It is very simple and practical also do not require any further safety grid;
- As no protection grid is provided by safety regulations for such a system with clamps, the manhole is screws or bolts free, that prevents to fall into the silo;
- The version complete with pressure relief valve type SSM250 can avoid explosions that caused by overpressure or implosions that caused by depressions inside the container, also the valve provides protection for unequal pressure damages on the other silo components. If the valve assembled with inductive limit switches, it enables to check the product loading and discharge while keeping their pressure quite low. Also provides monitoring for dust collector efficiency;

SSA

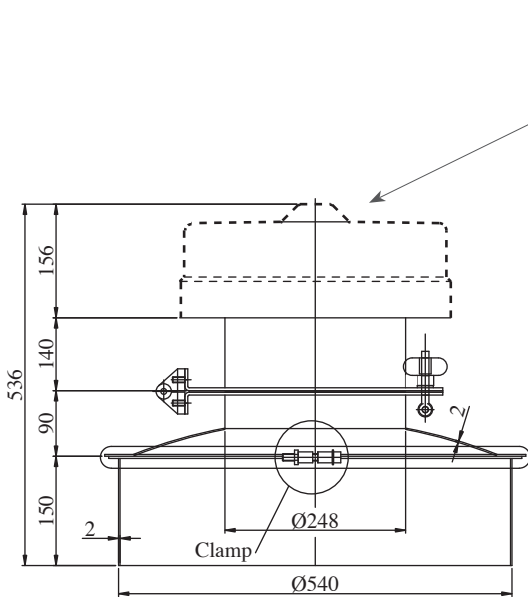


SSA540A.



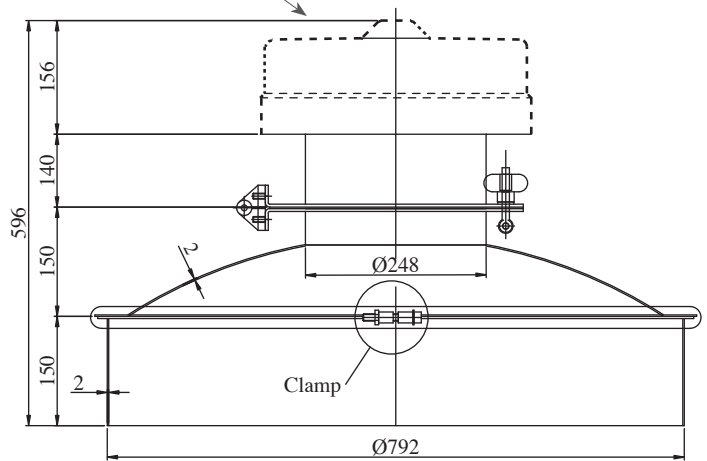
SSA790A.

SSB



SSB540A.

SSM to be ordered separately



SSB790A.

COMBINATION TABLE



Size
540: DN 540
790: DN 790

Material of construction
1: Carbon Steel RAL 1013
(complete with clips, bolts and nuts in mild steel)
2: Stainless Steel AISI 304
(complete with clips, bolts and nuts in mild steel)
4: Contact parts and external parts in AISI 304*.

Complete with:

A: Inspection door

B: Inspection door with predisposition for the pressure relief valve (base spigot type SFU250E., included in the supply)

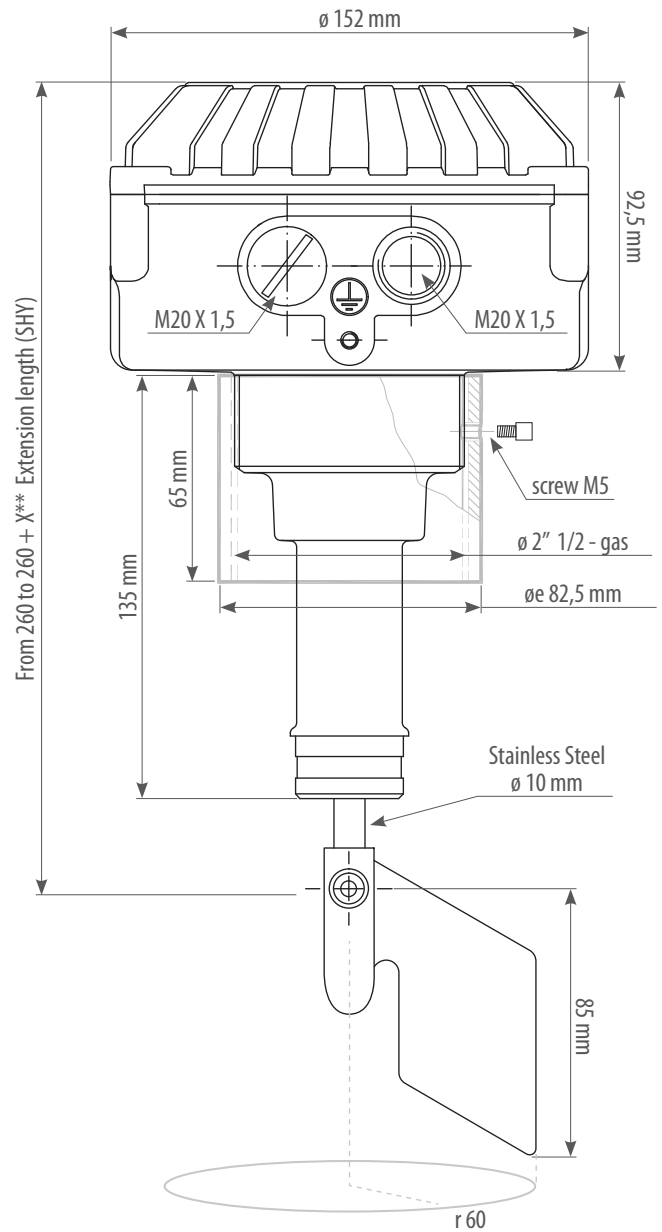
TYPE	MATERIAL	Kg
SSA540A1	Carbon Steel	15
SSA540A2	Stainless Steel AISI 304	15
SSA540A4	Stainless Steel AISI 304 (*)	15
SSA790A1	Carbon Steel	22
SSA790A2	Stainless Steel AISI 304	22
SSA790A4	Stainless Steel AISI 304 (*)	22
SSB540A1	Carbon Steel	20
SSB540A2	Stainless Steel AISI 304	20
SSB540A4	Stainless Steel AISI 304 (*)	20
SSB790A1	Carbon Steel	27
SSB790A2	Stainless Steel AISI 304	27
SSB790A4	Stainless Steel AISI 304 (*)	27

*See the combination table

Level gauges Atex

LEVEL GAUGES

The level indicators with rotating paddle are all marked ATEX and are actuated electromechanically. They signal the presence or absence of powder or granule product with a specific weight greater than 0,6 kg/l.



TECHNICAL DATA

Code	Voltage	Absorption	Capacity of the contacts	RPM	Casing	Attack	Sleeve	Propeller	Working temp
41FC0008	24 - 48 V AC	4 Watts	N.O. N.C. 10A/250 V AC	1	Die-cast aluminium Ral 7031 IP65	2" 1/2 GAS	Carbon Steel Galvanized	N° 1 Plastic blade	-20°C +70°C
41FC0010	110 - 220 V AC								
41FC0012	24 V DC								

MARKING : II 1/2 D Ex ta/tb IIIC T85°C IP65 Da/Db

On demand there are special versions available:

- high temperatures (SHA)
- parts in contact with the product in stainless steel
- shaft without protection sleeve (SHU)

OPTIONALS

OPTIONAL	
41FA0212	41FA0326
Sleeve for welding in stainless steel AISI 304	Flange to screw on in aluminium



PADDLES OPTIONAL		
41FA0304	41FA0310	41FA0314
Propeller with 3 paddles in plastic	Single propeller in stainless steel	Stainless steel quad propeller

EXTENSION (optional)

For special applications, the gauge can be supplied complete with an extension. The length must be specified in the order (see Key code).

COMBINATION TABLE

SHY	1		
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Accessory

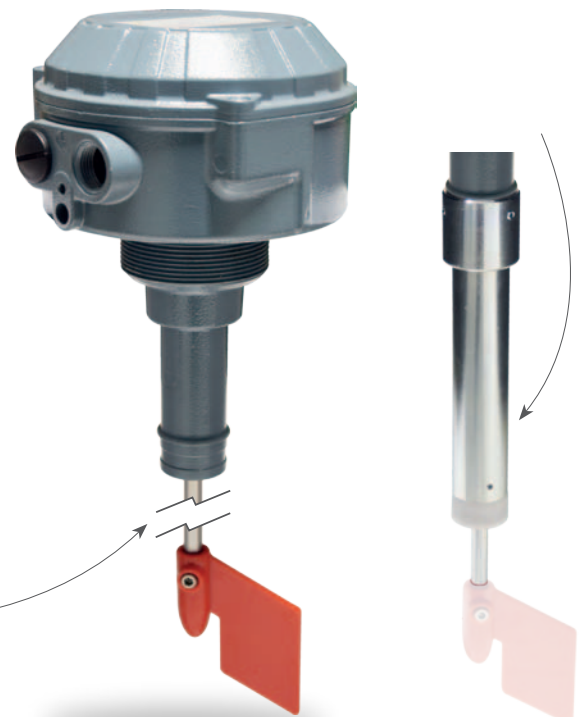
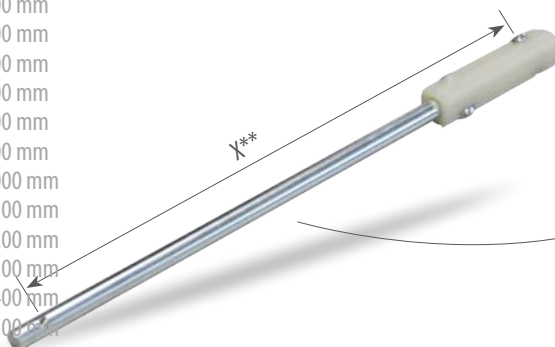
Extension

Conformity

Extension length X**

- 0300 - 300 mm
- 0400 - 400 mm
- 0500 - 500 mm
- 0600 - 600 mm
- 0700 - 700 mm
- 0800 - 800 mm
- 0900 - 900 mm
- 1000 - 1000 mm
- 1100 - 1100 mm
- 1200 - 1200 mm
- 1300 - 1300 mm
- 1400 - 1400 mm
- 1500 - 1500 mm

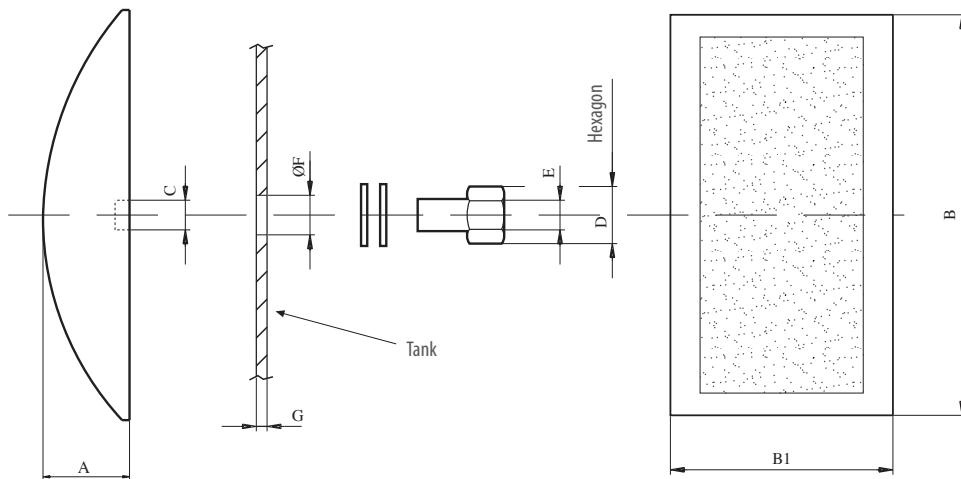
- 1 - Carbon steel without protection
- 2 - Carbon-steel with protection
- 3 - Stainless steel without protection
- 4 - Stainless steel with protection



Aeration system

AERATION PAD SAA - SAB

Suitable for tanks and silos used in different industries, in particular in heavy situations or with high temperature. Body in stainless steel AISI 304.



COMBINATION TABLE

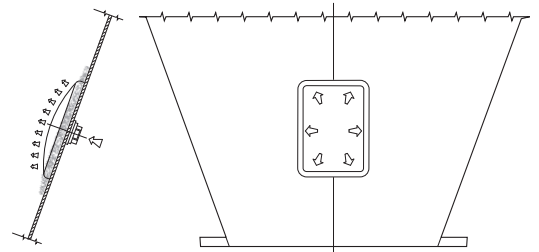


Surface in cm²

Quantity of each box:
006: Box with 6 pieces
060: Box with 60 pieces
120: Box with 120 pieces
600: Box with 600 pieces

Type:

- A:** Aeration pad with body in stainless steel AISI 304 and fittings in stainless steel AISI 303
- B:** Aeration pad with body in stainless steel AISI 304 and fittings in zinc plated mild steel



Note: The quantity and the position of the aeration plates depend on the product to be aerated, on the dimensions of the tank and on the cone's corner. For further information, please take contact with the Sales Department.

TYPE	A	B	B1	C	D	E	Ø F	G mm	Nm ³ /h*	Kg**	Min °C	Max °C
SAA120C...	35	162	90	1/4" Gas	20	1/4" Gas	14	0,5÷6	6	2,2	-10	+120
SAB120C...	35	162	90	1/4" Gas	20	1/4" Gas	14	0,5÷6	6	2,2	-10	+120

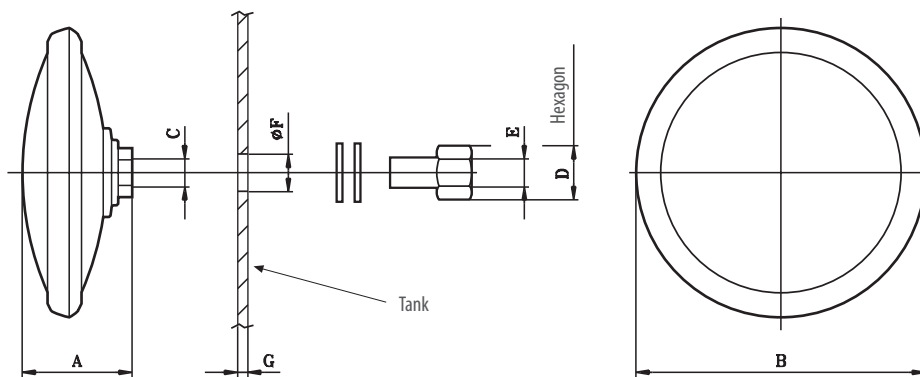
* Air consumption in Nm³/h for mean use of 6 aeration pads fed with SAK6 at 0,5 bar pressure.

** Weight referred to a box with 6 pieces.

AERATION TRIDIMENTIONAL DISC SAD - SAE

suitable for tanks and silos used in different industries, in particular where a very good cleaning is necessary.

Product protected by Patent registered in Italy.



COMBINATION TABLE

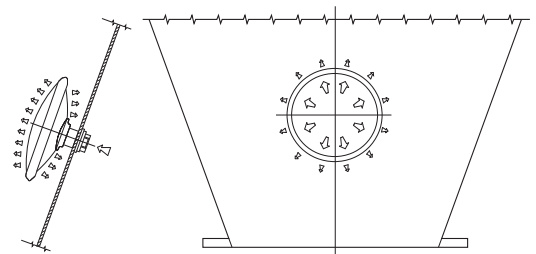


Type:

- D: Fittings in brass /zinc plated mild steel
- E: Fittings in brass/stainless steel AISI 303

Surface in cm²

- Quantity of each box:**
- 006: Box with 6 pieces
 - 060: Box with 60 pieces
 - 120: Box with 120 pieces
 - 300: Box with 300 pieces
 - 600: Box with 600 pieces



Note: The quantity and the position of the aeration discs depend on the product to be aerated, on the dimensions of the tank and on the cone's corner. For further information, please take contact with the Sales Department.

TYPE	A	B	C	D	E	Ø F	G mm	Nm ³ /h*	Kg**	Min °C	Max °C
SAD180C...	47	125	1/4" Gas	20	1/4" Gas	14	0,5÷6	9	1,5	-10	+70
SAE180C...	47	125	1/4" Gas	20	1/4" Gas	14	0,5÷6	9	1,5	-10	+70

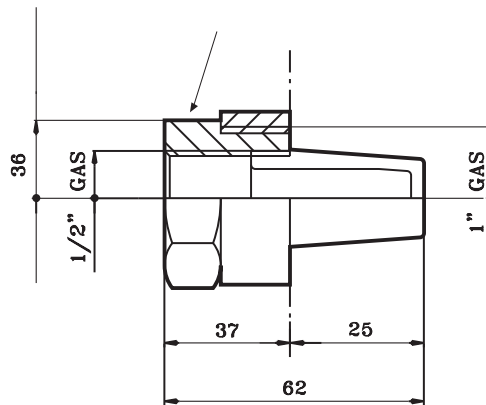
* Air consumption in Nm³/h for mean use with 6 discs fed with SAK6 at 0,5 bar pressure.

** Weight referred to a box with 6 pieces.

Aeration system

AERATION NOZZLES - SUF

Suitable for small tanks or pipes, easy to mount even on existing equipments.



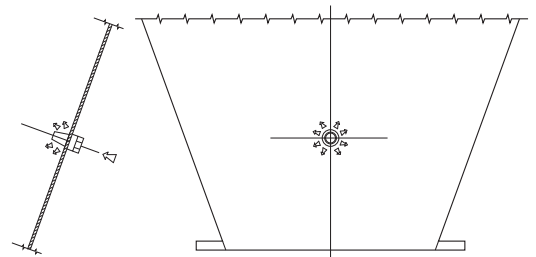
COMBINATION TABLE



Quantity of each box:
010: Box with 10 pieces
100: Box with 100 pieces
500: Box with 500 pieces

Material of construction

A: Fittings in brass/zinc plated mild steel
B: Fittings in brass/stainless steel AISI 316



Note: The quantity and the position of the aeration nozzles SUF depend on the product to be aerated, on the dimensions of the tank and on the cone's corner. For further informations, please take contact with the Sales Department

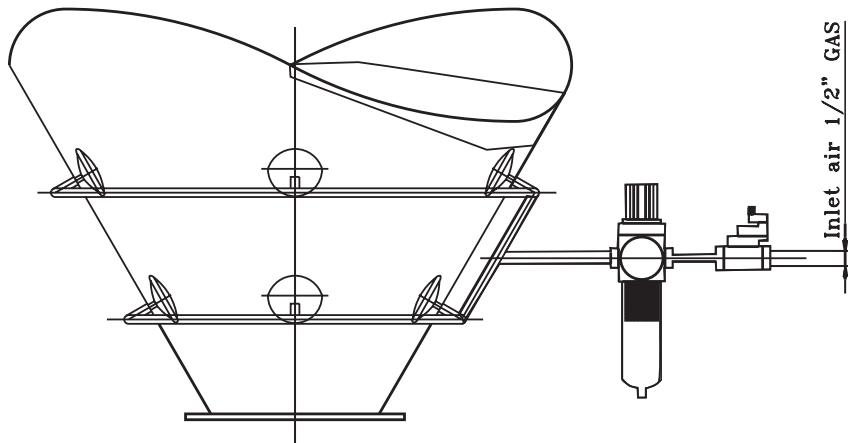
TYPE	Material of construction	Nm ³ /h*	Kg**	Min °C	Max °C
SUF100AC...	Carbon steel	6	3	-20	+120
SUF100BC...	AISI 316	6	3	-10	+120

* Air consumption in Nm³/h for mean use with 10 nozzles fed with SAK10B at 0,5 bar pressure.

** Weight referred to a box with 10 pieces.

PRESSURE REGULATOR - SAK

suitable for the regulation, treatment, control of the aerated fluid and used for the connection of the different aerated elements.



COMBINATION TABLE

SAK



Combination:
6: SAA - SAB
SAD - SAE
10B: SUF



Voltage:
024: 24 V
048: 48 V
110: 110 V
230: 230 V



Frequency:
DC: Direct current D.C.
AC: Alternating current A.C. 50/60Hz

COMBINATION TABLE

024 DC	Circa 8 W	024 AC
048 DC		048 AC
		110 AC
		230 AC

TYPE	N*	**	Nm ³ /h [°]	Kg ^{°°}
SAK 6...	6	1/4" Gas	9	1,5
SAK 10B...	10	1/4" Gas	6	1,5

* Number of aeration elements which can be mounted.
** Connection foreseen.

[°]Total air consumption in Nm³/h for use of N* aeration elements. Feeding pressure 6 bar, outlet 0,5 bar.
^{°°}Weight with packing included.

EXTRACTION SYSTEMS AND COMPONENTS FOR PLANTS

QUALITY
SERVICE
TECHNOLOGY
INNOVATION

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