

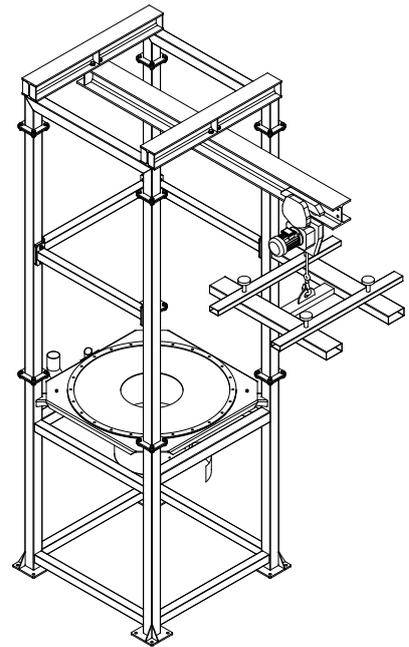
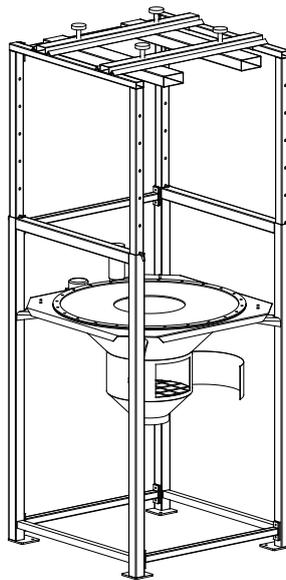


SBB

*FLEXIBLE INTERMEDIATE
BULK CONTAINER
UNLOADER*

1

TECHNICAL CATALOG



Manual No. EXT.096.--.T.EN Issue: A
Latest Update: September 2012

ORIGINAL INSTRUCTIONS IN ENGLISH





All the products described in this catalogue are manufactured according to **WAMGROUP S.p.A. Quality System procedures**. The Company's Quality System, certified in July 1994 according to International Standards **UNI EN ISO 9002** and extended to the latest release of **UNI EN ISO 9001**, ensures that the entire production process, starting from the processing of the order to the technical service after delivery, is carried out in a controlled manner that guarantees the quality standard of the product.

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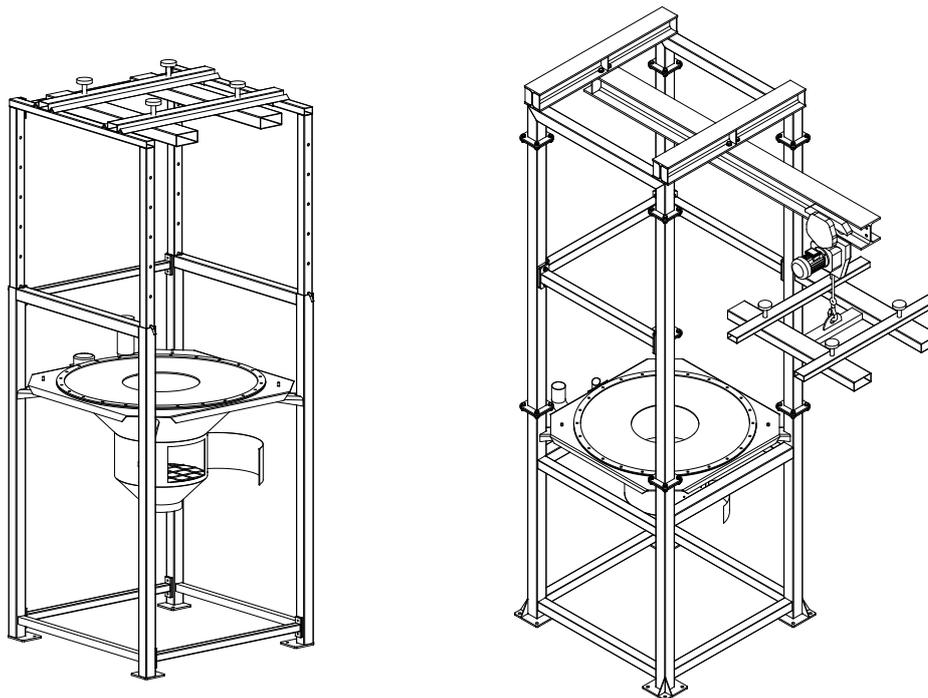


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1.1 Description

SBB-type **FIBC** Dischargers consist of a steel frame complete with a material discharge hopper and an upper mobile cross bar for lifting of the filled up bag by forklift truck into the Discharger.



1.2 Function

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

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

2.1 Main features

The **FIBCs**, (code **SBB**) are devices suitable for discharging bulk bags of different shapes and sizes.

They are manufactured from shot-blasted, painted carbon steel; on request, they may be supplied in 304 stainless steel, entirely or only the parts in contact with the product to prevent its contamination.

The numerous models and sizes of **SBB** available, together with the complete range of accessories make these machines suitable for use in virtually all applications in various industrial sectors and with different types of **FIBCs**: in fact, the hopper, which can also be supplied alone, is specially designed for optimising the bulk material flow.

MACHINE CODE

- **SBB**

MACHINE TYPE

- FLEXIBLE INTERMEDIATE BULK CONTAINER UNLOADER

USE

- Emptying **FIBCs** of various sizes containing product in powder or granular form.

ADVANTAGES

- Equipment which can be assembled according to requirements.
- The model with hoist does not require the use of a forklift truck.
- The removable frame makes it possible to empty **FIBCs** 600 to 1800 mm in height.
- The operator is protected from falling **FIBCs** by the four posts of the frame.
- The **FIBC** valve can be accessed through the hatch.
- The pneumatic activators optimise the emptying of **FIBCs**.
- Product storage capacity in the hopper up to 330 l (model 125 and 510 l model 150).

2.2 Indications for use

The **FIBC** discharger is NOT designed for operating in potentially explosive atmospheres or with materials that could be hazardous by contact and/or inhalation, or else dangerous from a bacteriological or viral viewpoint.



Danger - Warning

If the machine has to match similar requirements, please contact the Manufacturer.

3.1 Models available

MODEL T:

UNLOADING HOPPER

- **SBB._.125.T**
- **SBB._.150.T**

Supplied separately, in two sizes, it is carefully designed to optimize the flowability of materials.

It comprises:

- seals made of material suitable for the type of use.
- adjustable weight motorvibrator.
- vent pipe with filter bag.
- finger mesh.
- inspection hatch with seal.
- damper supports.

MODEL C:

HOPPER WITH FEET

- **SBB._.125.C**
- **SBB._.150.C**

Thanks to its structure, there is plenty of space for using different systems for loading the **FIBCs**.

It comprises:

- a unloading hopper.
- supporting frame made of tubular elements having suitable size and thickness to ensure sturdiness and solidity.
- cross with pegs for hooking **FIBC** harness, lifting hooks and tubular elements for lift truck forks

MODEL S:

HOPPER WITH REMOVABLE FRAME

- **SBB._.125.S**
- **SBB._.150.S**

Although it is identical as regards design and use, the difference lies in the size of the **FIBCs** which can be accepted.

These comprise:

- an unloading hopper.
- a supporting tubular frame having size and thickness suitable to ensure sturdiness and solidity.
- a removable frame which makes it possible to adapt the Unloader for use with **FIBCs** of different heights.
- cross with pegs for hooking **FIBC** harness, lifting hooks and tubular elements for lift truck forks

MODEL M:

FRAME WITH MONORAIL

- SBB._125.M

The special feature of this equipment lies in the fact that it does not require the use of a fork lift truck for external loading of **FIBCs**, as it is designed for use with its own hoist (not supplied) which makes it possible to operate independently during the various phases.

The equipment comprises:

- an unloading hopper.
- a supporting frame made of suitably sized tubular elements thick enough to ensure the required sturdiness and solidity.
- a monorail for the hoist (hoist excluded).
- cross with pegs for hooking the **FIBC** harness, lifting hooks and tubular elements for using a lift truck if necessary for handling **FIBCs**.

ACCESSORIES

- Hopper seal made of food- grade material.
- Pneumatic activators.

Materials featuring poor flowability do not flow out of the **FIBC** easily. It is therefore necessary to use pneumatic activators. These devices act directly at the bottom of the **FIBC**, causing lifting and lowering of the opposite corners to stimulate the flow of material compacted at the bottom.

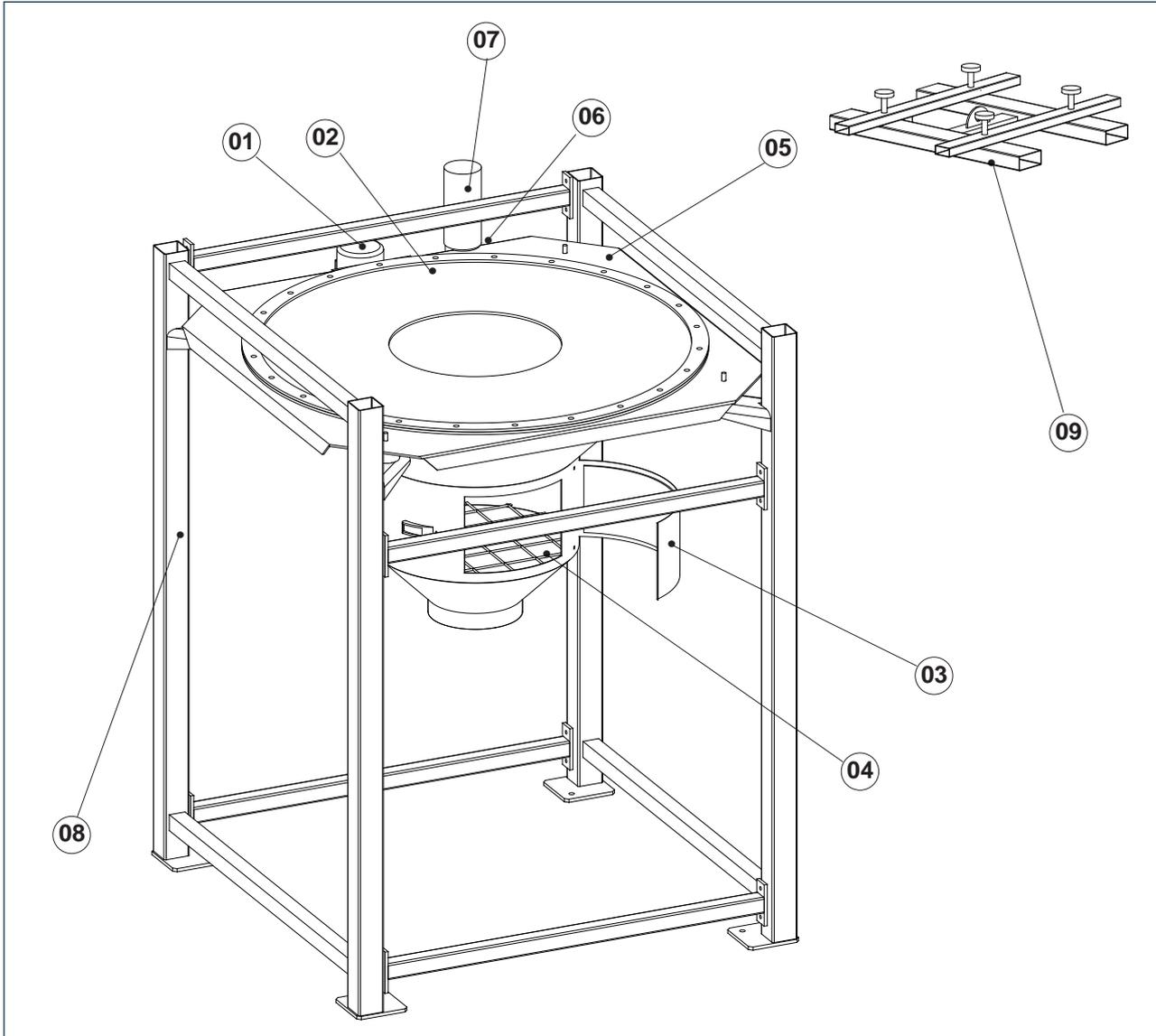
The gradual movement of the activators makes the **FIBC** assume a "V" shape, to eliminate the deadlock points.

For more information, see Technical Catalogue - Maintenance KSC.

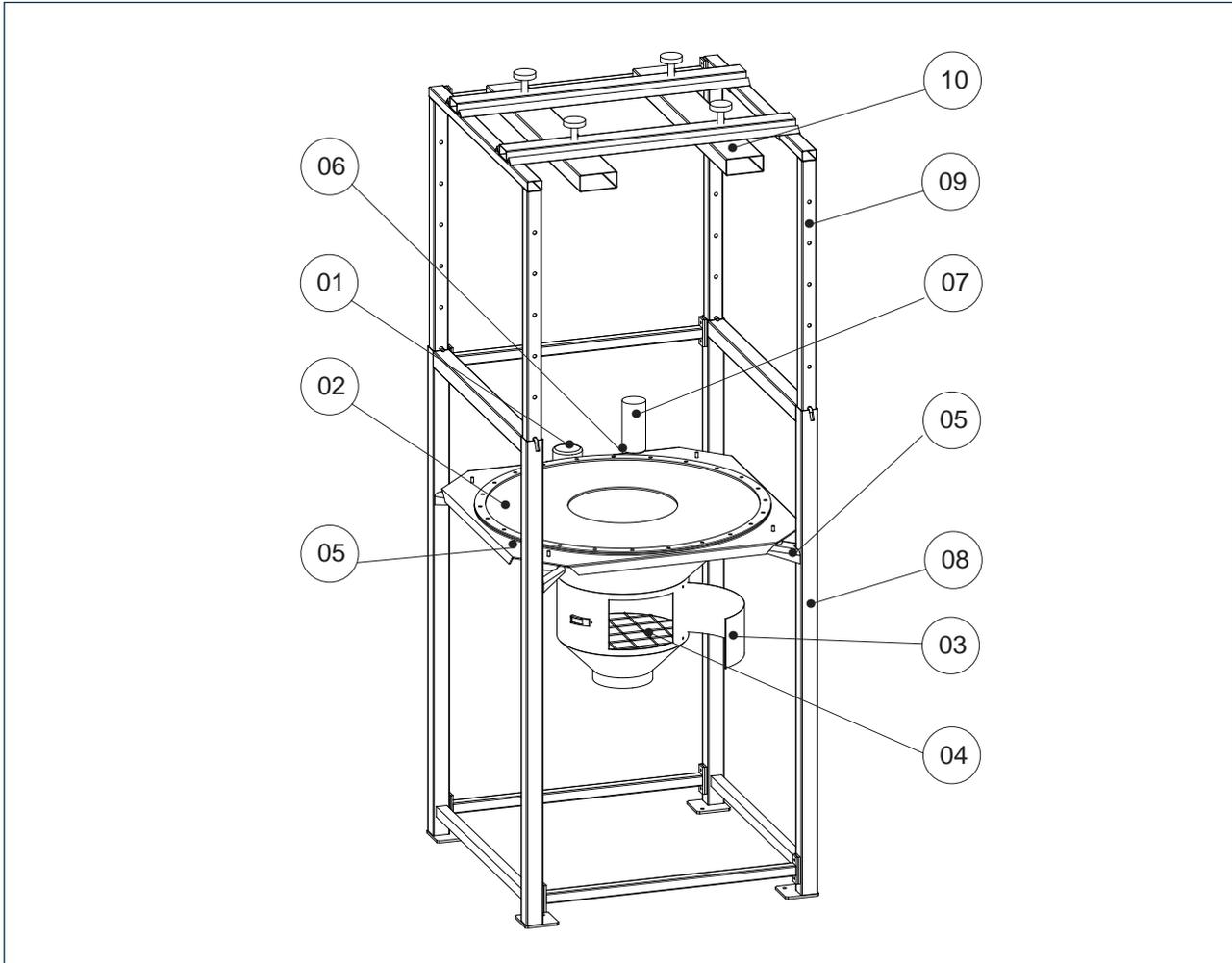
- Cutting device.

It is used for cutting **FIBCs** without valves which cannot be recycled after emptying.

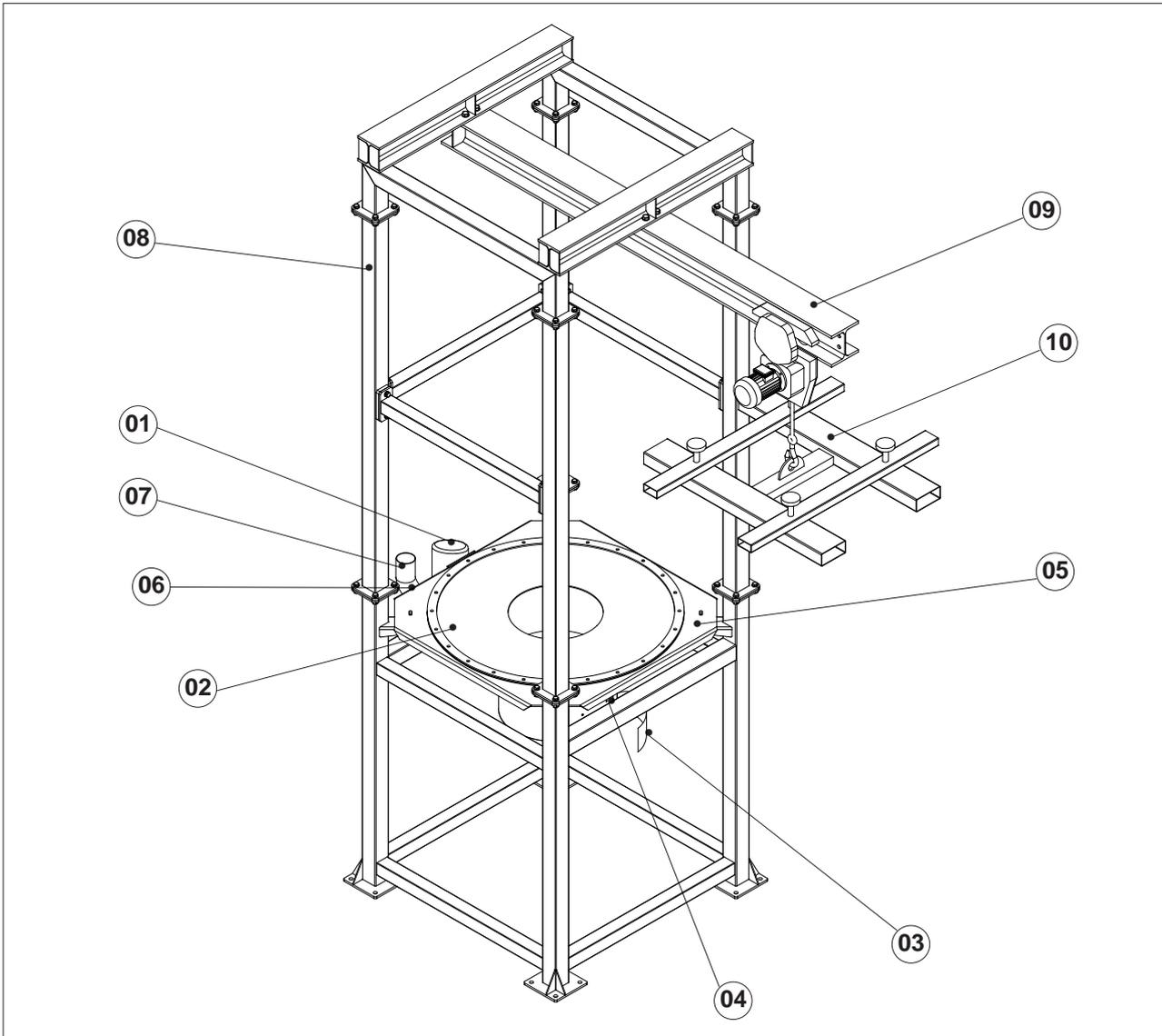
- Hose connector kit available in black or white food- grade rubber.
- Round or square flange for hopper.
- Raised feet for lifting the entire structure.
- Mechanical limit stop for signalling door open status.
- Manual gate valve at outlet.

3.2 Basic machine description
SBB._125.C
SBB._150.C


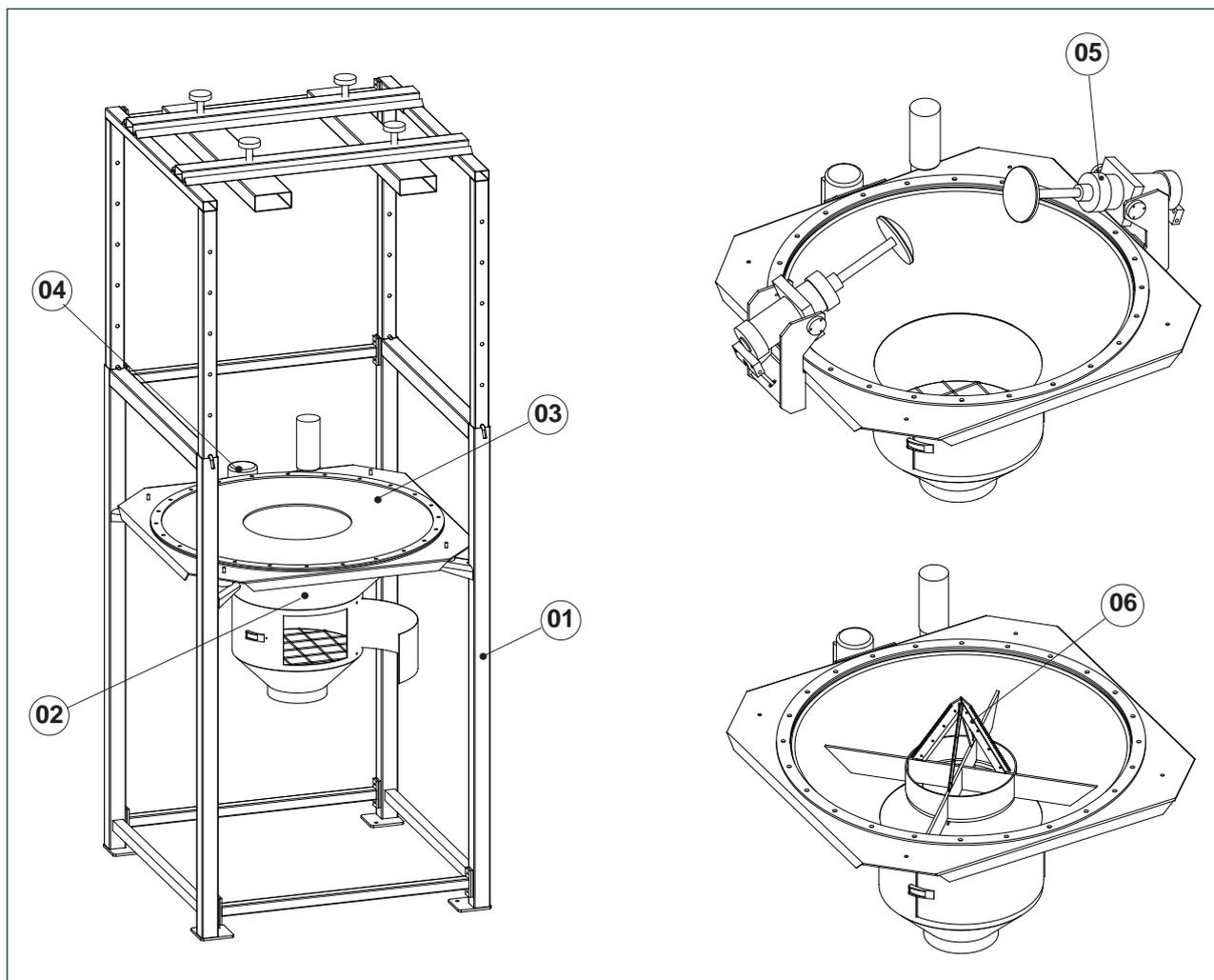
| ITEM POS. | DESCRIPTION | MATERIAL | FINISHING |
|-----------|------------------|--------------|-----------|
| 1 | Motovibrator | - | RAL 2004 |
| 2 | Seal | SBR | black |
| 3 | Access door | Carbon steel | RAL 7001 |
| 4 | Grille | 304 SS | - |
| 5 | Vibrating hopper | Carbon steel | RAL 7001 |
| 6 | Venting pipe | Carbon steel | RAL 7001 |
| 7 | Filter bag | Felt | - |
| 8 | Frame | Carbon steel | RAL 7001 |
| 9 | Lifting cross | Carbon steel | RAL 7001 |

SBB._.125.S
SBB._.150.S


| ITEM POS. | DESCRIPTION | MATERIAL | FINISHING |
|-----------|------------------|--------------|-----------|
| 1 | Motovibrator | - | RAL 2004 |
| 2 | Seal | SBR | black |
| 3 | Access door | Carbon steel | RAL 7001 |
| 4 | Grille | 304 SS | - |
| 5 | Vibrating hopper | Carbon steel | RAL 7001 |
| 6 | Venting pipe | Carbon steel | RAL 7001 |
| 7 | Filter bag | Felt - Filz | - |
| 8 | Frame | Carbon steel | RAL 7001 |
| 9 | Monorail | Carbon steel | RAL 7001 |
| 10 | Lifting cross | Carbon steel | RAL 7001 |



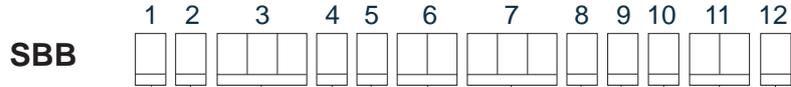
| ITEM POS. | DESCRIPTION | MATERIAL | FINISHING |
|-----------|------------------|--------------|-----------|
| 1 | Motovibrator | - | RAL 2004 |
| 2 | Seal | SBR | black |
| 3 | Access door | Carbon steel | RAL 7001 |
| 4 | Grille | 304 SS | - |
| 5 | Vibrating hopper | Carbon steel | RAL 7001 |
| 6 | Venting pipe | Carbon steel | RAL 7001 |
| 7 | Filter bag | Felt - Filz | - |
| 8 | Frame | Carbon steel | RAL 7001 |
| 9 | Monorail | Carbon steel | RAL 7001 |
| 10 | Lifting cross | Carbon steel | RAL 7001 |



| ITEM POS. | DESCRIPTION | MATERIAL | FINISHING |
|-----------|--------------------------|--------------|--------------|
| 1 | Supporting frame | 304L SS. | Mesc buffing |
| 2 | Vibrating hopper | 304L SS. | Mesc buffing |
| 3 | Seal | NBR | white |
| | | food-grade | |
| 4 | Larger vibrator | - | RAL 2004 |
| 5 | Pneumatic activators Kit | Carbon steel | RAL 7001 |
| | | 304L SS | Mesc buffing |
| 6 | Cutting Kit | Carbon steel | RAL 7001 |
| | | 304L SS | Mesc buffing |

*According to UNI-EN 10088 (1997)/AISI (1974) / DIN 17440 (1985)

3.3 Range - Modular code



MATERIAL

- 1 = Entirely in Mild Steel
- 2 = Hopper Stainless Steel 304L, Frame in Mild Steel
- 3 = Hopper Stainless Steel 316L, Frame in Mild Steel
- 4 = Entirely in AISI 304L
- 5 = Entirely in AISI 316L

COUNTERFLANGE MATERIAL

- 1 = Mild Steel
- 2 = 304L Stainless Steel
- 3 = 316L Stainless Steel

HOPPER DIAMETER

- 125 = 1250 mm
- 150 = 1500 mm

FRAME TYPE

- T = Hopper Without Frame
- C = Short
- S = Extensible
- M = Hoist Rail

HOPPER POSITION

- A = Std Level Discharging
- B = Intermediate Discharging Level
- C = Floor Level Discharging

OUTLET TYPE

- ST = STD
- SR = with manual slide gate

OUTLET DIAMETER (mm)

- 219 = Ø219
- 273 = Ø273
- 600 = Ø600

FLANGE

- + = Without
- A = XKF3 Round Flange
- B = XKF7 Square Flange
- C = PN10 Flange

FLEXIBLE SLEEVE

- + = Without
- B = Black Rubber
- W = White Food Rubber

SEAL TYPE

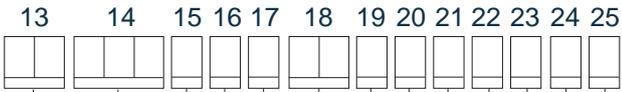
- N = Black Rubber
- B = White Food Grade Rubber

VIBRATOR SIZE

- ++ = None
- 10 = 0,10 kW
- 18 = 0,18 kW

VIBRATOR VOLTAGES

- 1 = 220-240/380-415V 50 Hz
- O = 220-277/380-480V 60 Hz
- + = None



SBB

PACKING

B = Base (Pallet)
P = Stacking Wood Crate for container

EXTERNAL COLOR

0 = NONE
B = RAL1013
C = RAL 1015
D = RAL 5010
E = RAL 5015
I = RAL 7001
H = RAL 7032
G = RAL 7035
N = RAL 9010
V = Others

EXTERNAL TREATMENT

0 = None
1 = 1 Primer coat (Alkyd)
3 = 1 Primer coat + 1 Paint coat (Alkyd)
Q = Silking 240

INTERNAL COLOR

0 = None

INTERNAL TREATMENT

0 = SA 2,5 raw (No primer)
1 = 1 Primer coat (Alkyd)
9 = 1 Primer coat (Food Epoxy)
Q = Silking 240

FINISHING

4 = Accurate (Mild Steel)
A = Accurate (Stainless Steel)

SCREW SUPPORT

+ = Without
S = Included for TX 168

SUPPORT FEET

++ = Without
10 = 100 mm
15 = 150 mm
20 = 200 mm
25 = 250 mm
30 = 300 mm

FIBC CLOSURE VALVE

+ = Without
P = Predisposition (Valve Excluded)

DOOR MICROSWITCH

+ = Without
M = Included

LEVEL INDICATOR

+ = Without
1 = Predisposition for level indicator 1 1/2"

PNEUMATIC ACTIVATORS

+++ = Without
KSP = Predisposition Only
KSC = Pneumatic Actuators without control panel
KSQ = Pneumatic Actuators with control panel

CUTTING KIT

++ = Without
KT = Included

3.4 Options

 2

COUNTERFLANGE MATERIAL

- 1** = Mild Steel
2 = 304L Stainless Steel
3 = 316L Stainless Steel

| HOPPER CONSTRUCTION MATERIAL | INTERNAL NUTS AND BOLTS | EXTERNAL NUTS AND BOLTS |
|---|-------------------------|-------------------------|
| | Grille | Flange |
| Fe | zinc plated | zinc plated |
| Parts in contact with the product made of 304L SS | 304L SS | zinc plated |
| All made from 304L SS | 304L SS | 304L SS |

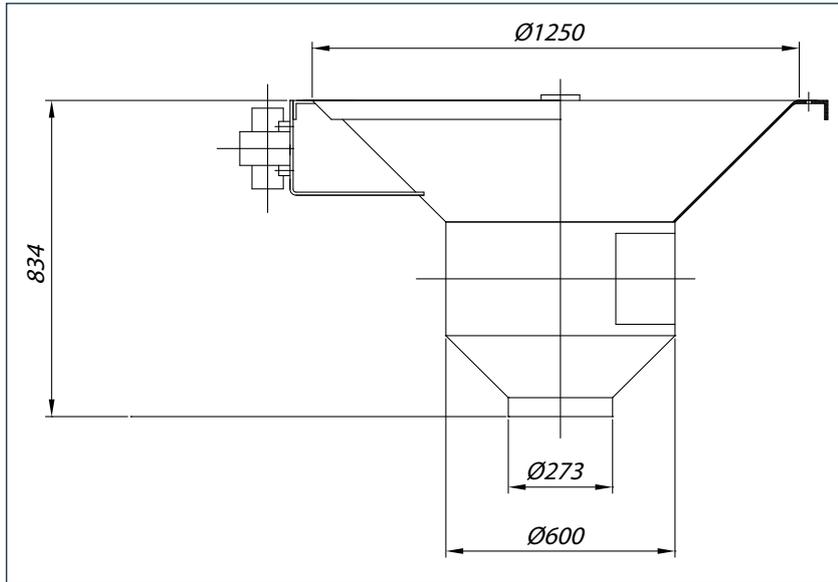
| FRAME MATERIAL | EXTERNAL NUTS AND BOLTS |
|----------------|-------------------------|
| Fe | zinc plated |
| 304L SS | 304L SS |

3

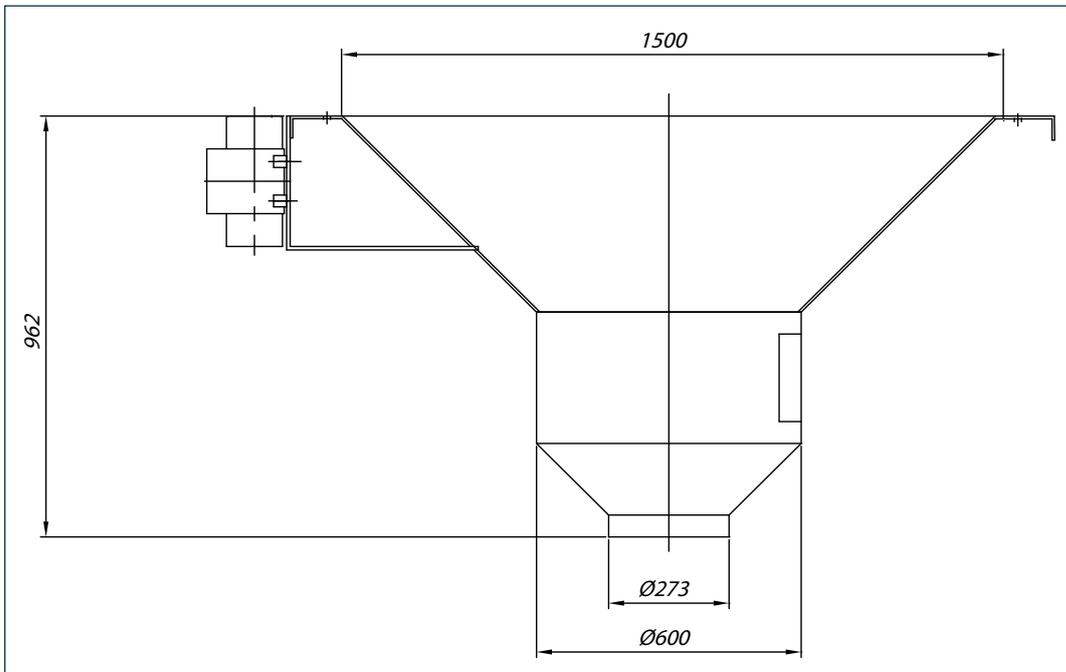


HOPPER DIAMETER

125 = 1250 mm



150 = 1500 mm

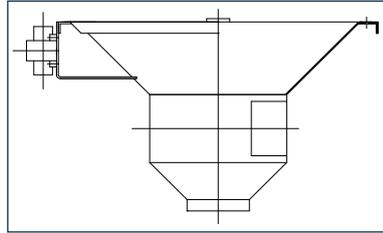


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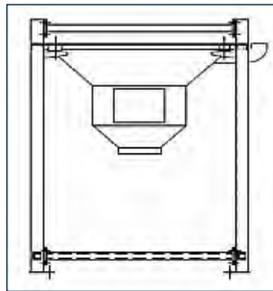


FRAME TYPE

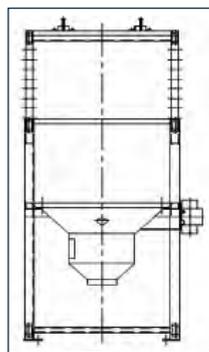
T = Hopper Without Frame



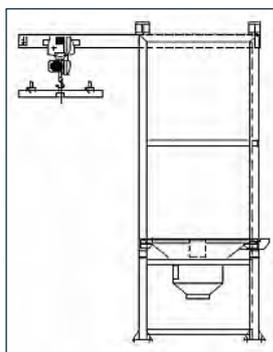
C = Short



S = Extensible



M = Hoist Rail





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HOPPER POSITION

- A = Std Level Discharging
- B = Intermediate Discharging Level
- C = Floor Level Discharging

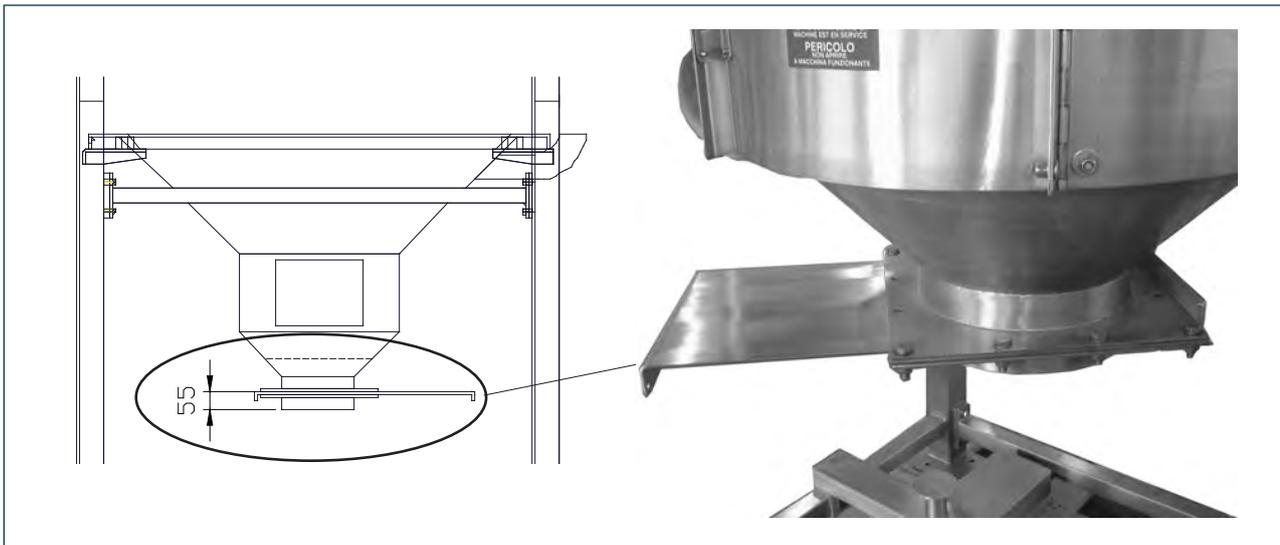


OUTLET TYPE

ST = STD

SR = with Manual Slide Gate

MANUAL GATE VALVE



| MATERIAL | Code |
|--------------|--------------------|
| Carbon steel | KSMSBB2731A |
| 304L SS | KSMSBB2732A |

7



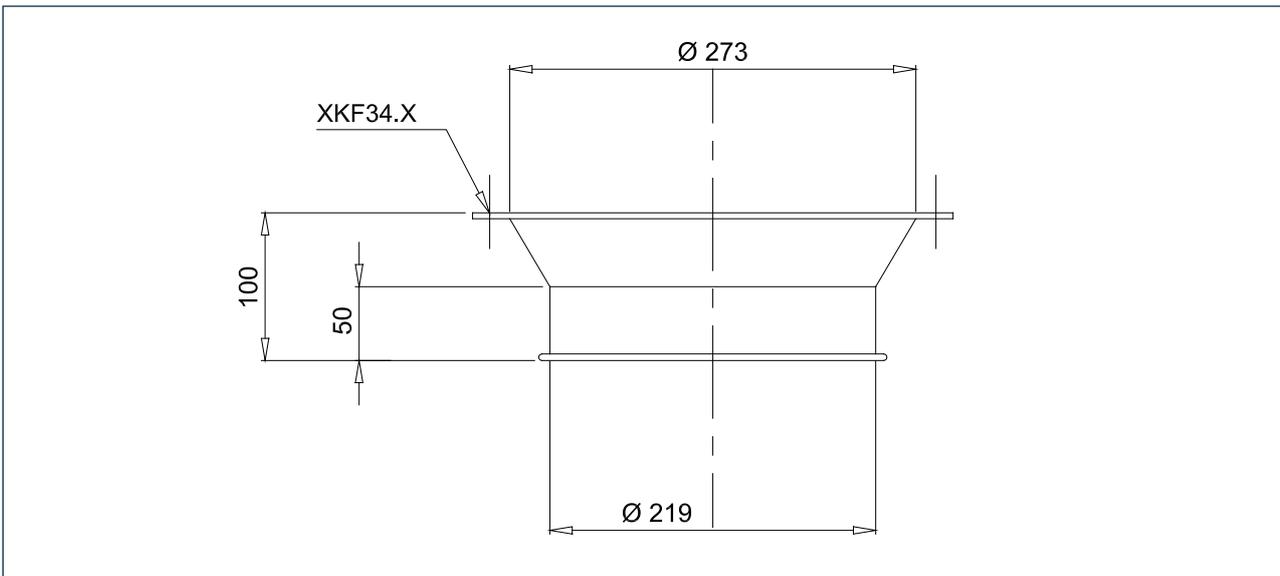
OUTLET DIAMETER (mm)

219 = Ø219

273 = Ø273

600 = Ø600

REDUCTION SECTION FOR OUTLET SPOUT



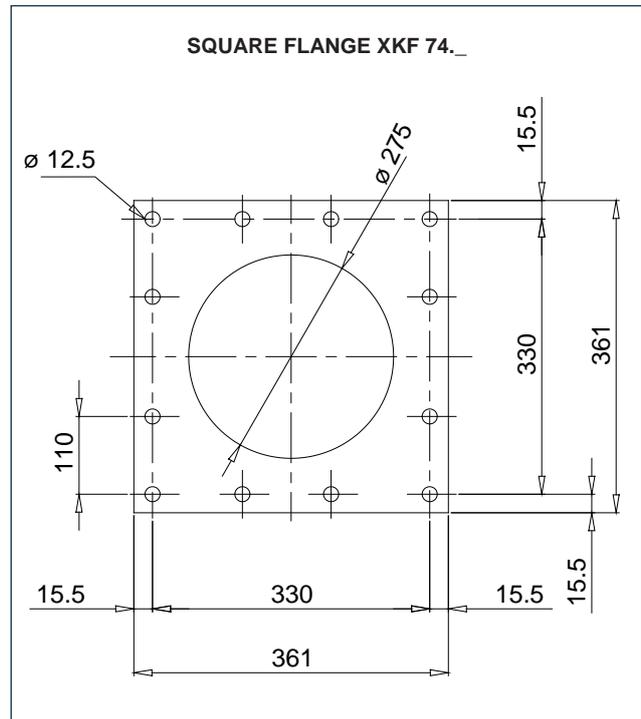
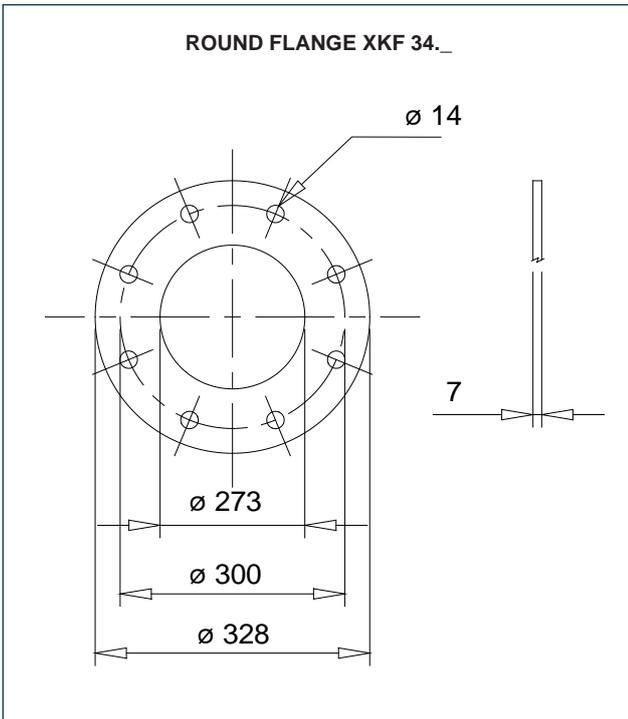
| MATERIAL | Code |
|--------------|---------------|
| Carbon steel | KMR2732191001 |
| 304 SS | KMR2732191002 |

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FLANGE

- + = Without
- A = XKF3 Round Flange
- B = XKF7 Square Flange
- C = PN10 Flange



9



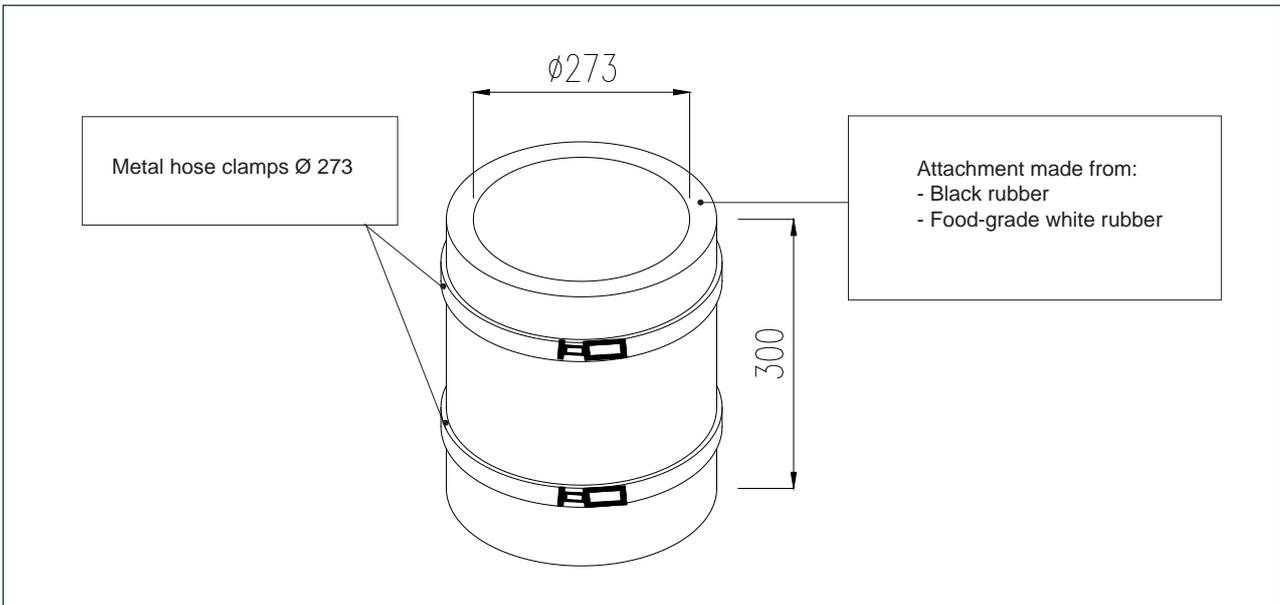
FLEXIBLE SLEEVE

+ = Without

B = Black Rubber

W = White Food Rubber

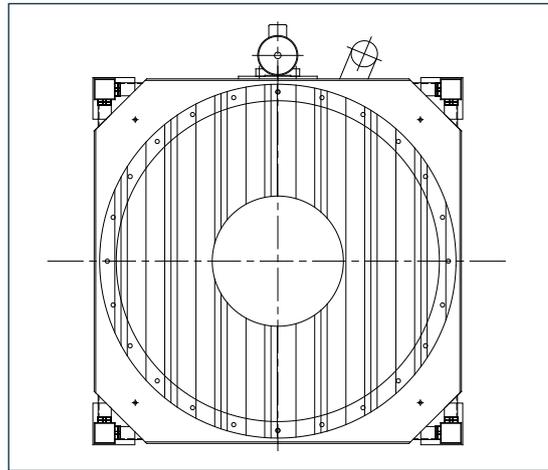
FLEXIBLE ATTACHMENT KIT



10


SEAL TYPE

| CODE BLACK RUBBER | CODE WHITE RUBBER | 0 | L |
|----------------------|----------------------|-----|-----|
| XJN 273236 | XJN 273136 | 273 | 300 |



In field 8 of the order code it is possible to select the type of hopper gasket required, depending on the product to be handled; the following options are possible:

N: gasket made of black SBR.

B: gasket made of white NBR for food-grade use.

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ELECTRIC VIBRATOR

Each **SBB** model is provided with an electric vibrator to activate and facilitate descent of the product; the vibrating mass on each vibrator can be adjusted in a simple manner (see use and maintenance catalogue) to increase or decrease the centrifugal force.

For the **SBB_.125** model it is possible to mount a bigger electrical vibrator, as shown in the Table below.

In field 7 of the order code it is possible to select from the following options:

+ + = without vibrator

10 = electrical vibrator 0.10 kW (std for **SBB 125**)

18 = electrical vibrator 0.18 kW (std for **SBB 150**)

| SBB | TYPE | VIBRATOR MECHANICAL FEATURES | | | | ELECTRICAL FEATURES | | | | | |
|----------------|------------------|------------------------------|------|-------------------|------|---------------------|------|--------------|------|--------------|------|
| | | rpm/min | | CENTRIFUGAL FORCE | | kW | | A max. 50 Hz | | A max. 60 Hz | |
| | | 50Hz | 60Hz | 50Hz | 60Hz | 50Hz | 60Hz | 230V | 400V | 267V | 460V |
| | | | | kg | | | | | | | |
| 125 | MVE 100/3 | 3000 | 3600 | 99 | 107 | 0.1 | 0.11 | 0.33 | 0.19 | 0.32 | 0.18 |
| 125-150 | MVE 200/3 | 3000 | 3600 | 198 | 190 | 0.18 | 0.21 | 0.6 | 0.35 | 0.62 | 0.35 |

TECHNICAL DATA:

- Standard power supply:
 - 230/400 V 50 Hz
 - 264/470 V 60 Hz
- Protection degree IP 65.
- Standard tropicalization.
- Continuous running.
- Operating temperature:
 - from -30° to +40°C
- Standard applicable:
 - IEC 34.1 - CEI 2/3 ; 73/72/CEE - EN 292-89/CCE - EMC 89/336/CE
- Electric vibrators with voltages and frequencies different from the standard production can be supplied on request.

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**VIBRATOR VOLTAGES**

In field 9 of the order code it is possible to select the voltage and frequency of the electric electric vibrator from the following options:

+: without vibrator

1: 220-240/380 - 415V 50Hz (STD)

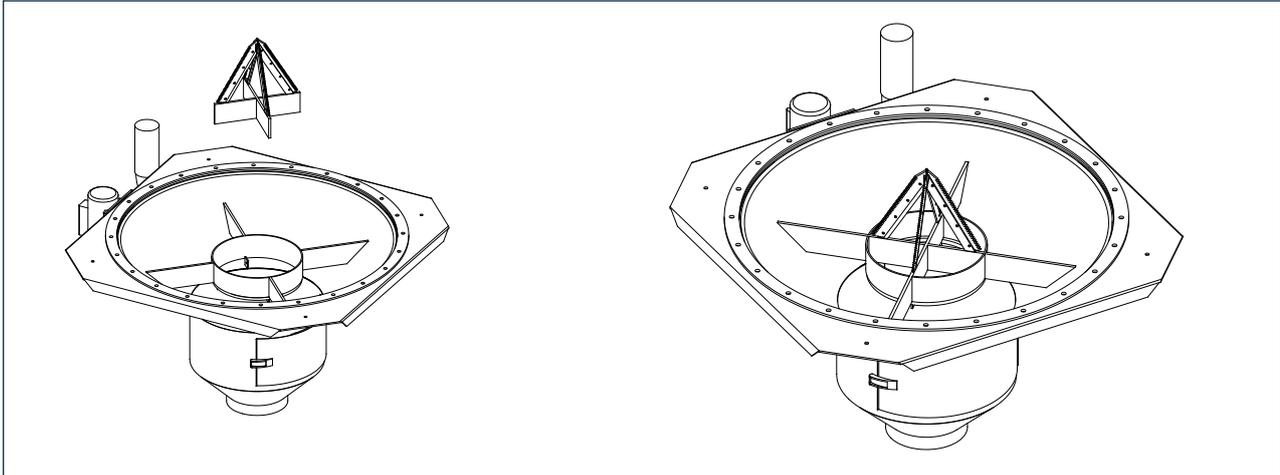
0: 220 - 277/380 - 480V 60Hz

Electric vibrator with special voltages and frequencies are available on request.

SAFETY CABLE

Each vibrator is provided with a safety cable, which connects the vibrator to the **FIBC** cone in order to prevent accidental falling in the event of breakage of the fixing feet.

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**CUTTING KIT**

Its function is to cut valveless **FIBCs** which cannot be recycled.

N.B.: The blades can be removed so as to enable use also with **FIBCs** having valves.

Accessory applicable on all **SBB** models. The knife blade is always made of AISI 420 stainless steel, while the supporting frame is made of the same material as the **FIBC**.

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KIT PNEUMATIC ACTIVATORS

Materials featuring poor flowability do not flow out of the **FIBC** easily. It is therefore necessary to use pneumatic activators. These devices act directly at the bottom of the **FIBC**, causing lifting and lowering of the opposite corners to stimulate the flow of material compacted at the bottom. The gradual movement of the activators makes the **FIBC** assume a “V” shape, to eliminate the deadlock points.

In field 6 of the order code, select from the following options:

+++ = **SBB** without actuators

KSC = Actuators Kit without control panel

KSQ = Actuators Kit with electro-pneumatic control panel

KSP = provision for actuators kit (in the latter case, the actuators are not supplied)

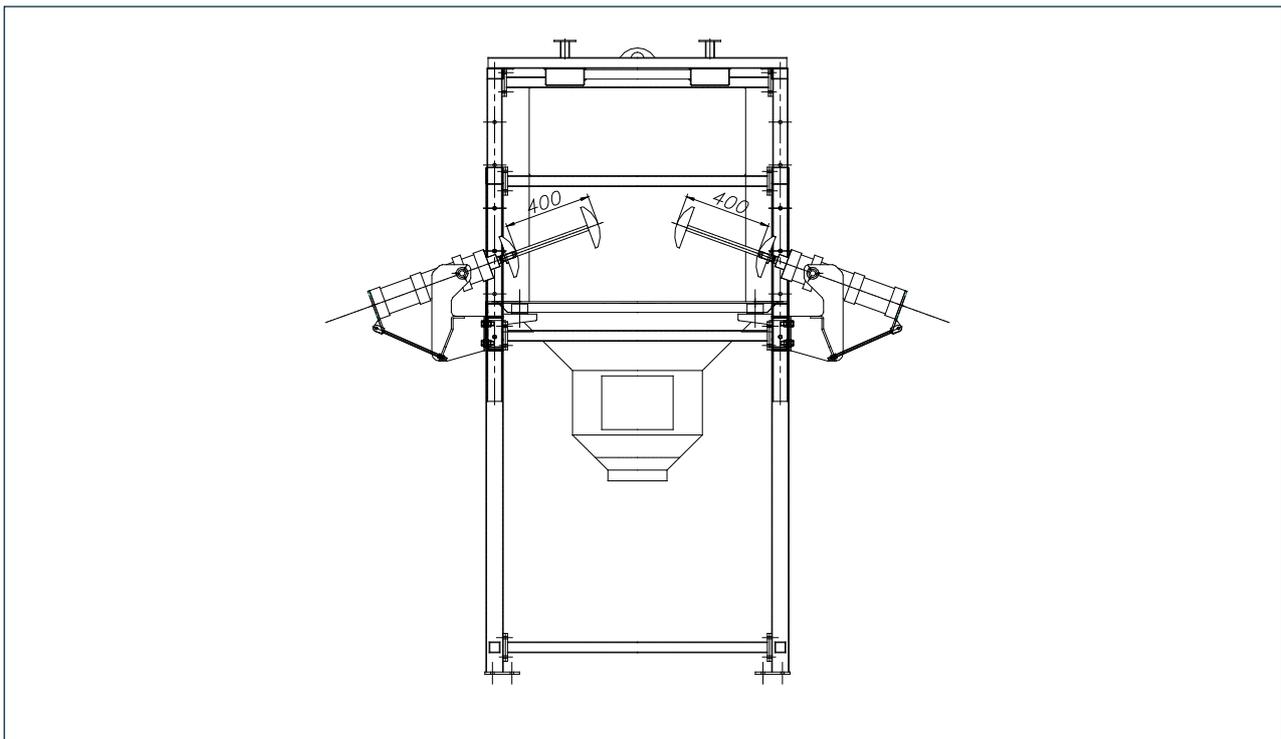
N.B.: The pneumatic activators can be installed on **SBB ONLY** if provision has been made on the latter during the order phase. The weight of the pneumatic actuators is approximately 80 kg.

ADVANTAGES:

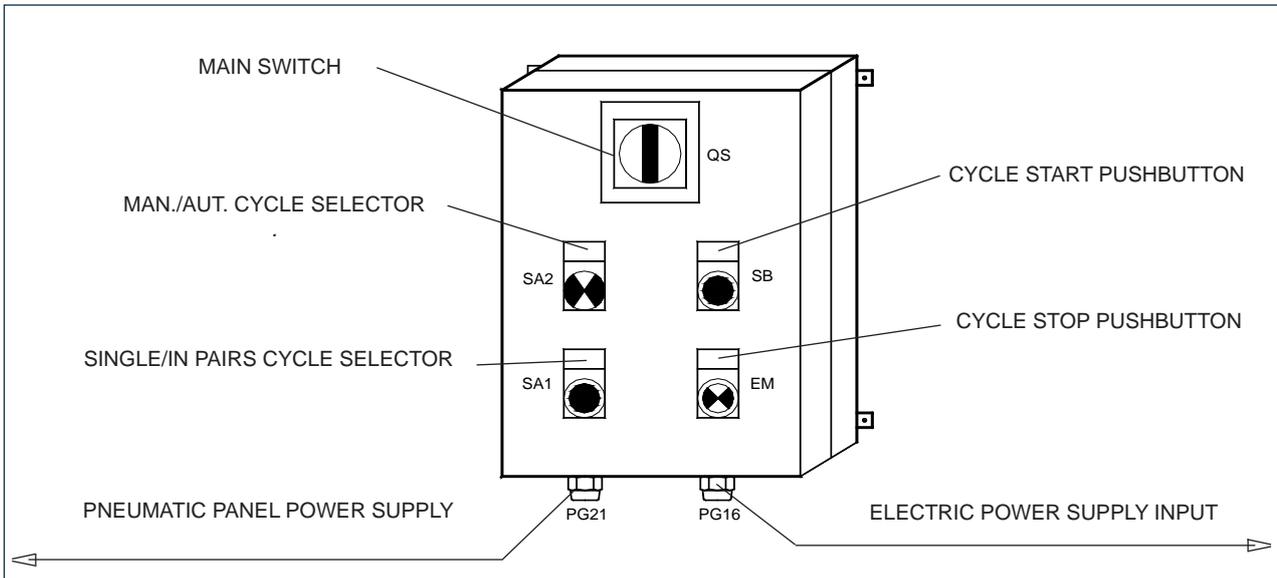
- 1) System functional and easy to install.
- 2) Possibility of adjustment to optimize operation.

EXECUTION:

- 1) Carbon steel
- 2) 304L SS depending on the material used for constructing the **SBB** frame.



NOTE: For more information, see specific Catalogue **KSC**. Accessory applicable on all **SBB** models.

ELECTRIC CONTROL PANEL


| ITEM | DESCRIPTION | COLOUR |
|------|--------------------------------|--------------|
| QS | MAIN SWITCH | RED - YELLOW |
| SB | CYCLE START PUSHBUTTON | BLACK |
| EM | CYCLE STOP PUSHBUTTON | RED |
| SA1 | SINGLE/IN PAIRS CYCLE SELECTOR | BLACK |
| SA2 | MAN./AUT. CYCLE SELECTOR | BLACK |

The control board comprises a box with front door on which the controls and operation indicators are fitted.

Description of controls and indicators:

SB/EM = PUSHBUTTONS: controls with single operating mode;

SA = SELECTORS: double-function switches;

QS = SWITCHES: controls with two possible positions.

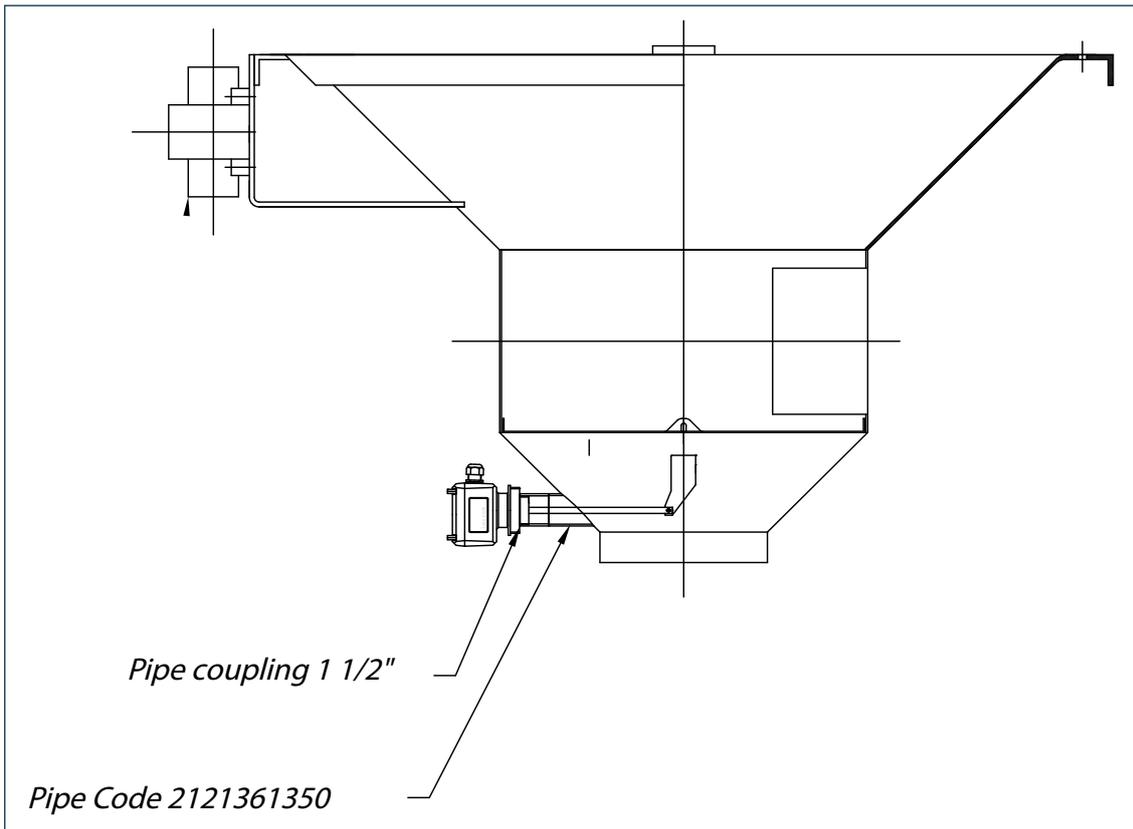
15



LEVEL INDICATOR

+ = Without

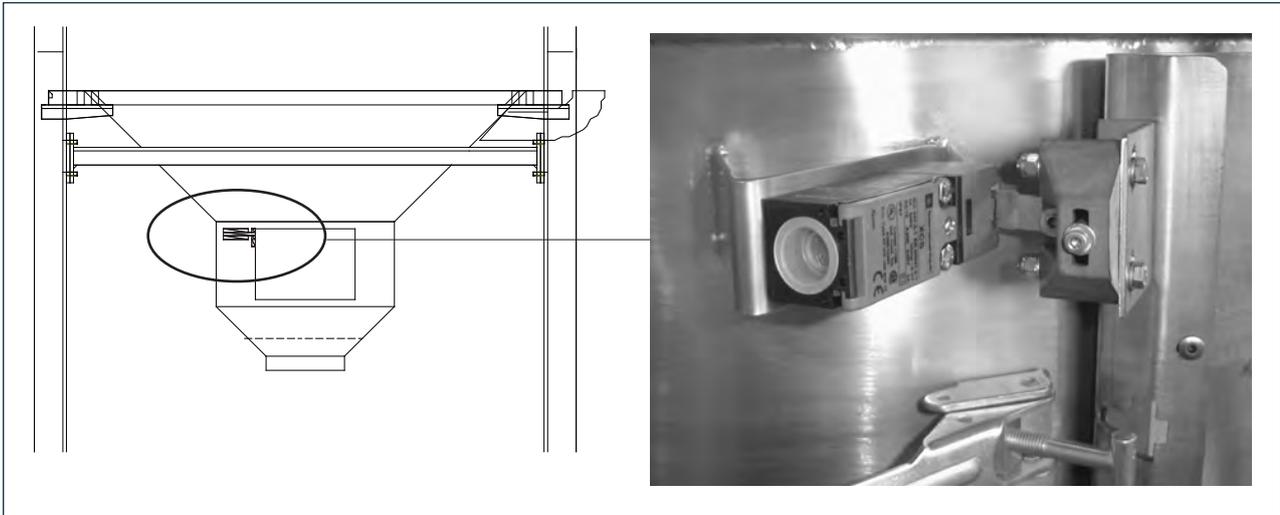
1 = Predisposition for level indicator 1 1/2"



16


DOOR MICROSWITCH

+ = Without
M = Included

DOOR OPEN MECHANICAL LIMIT STOP


| MATERIAL | Code |
|--------------|-----------------|
| Carbon steel | KFMSBB1A |
| 304L SS | KFMSBB2A |

Useful for preventing activation of the vibrator if the valve is not closed correctly.

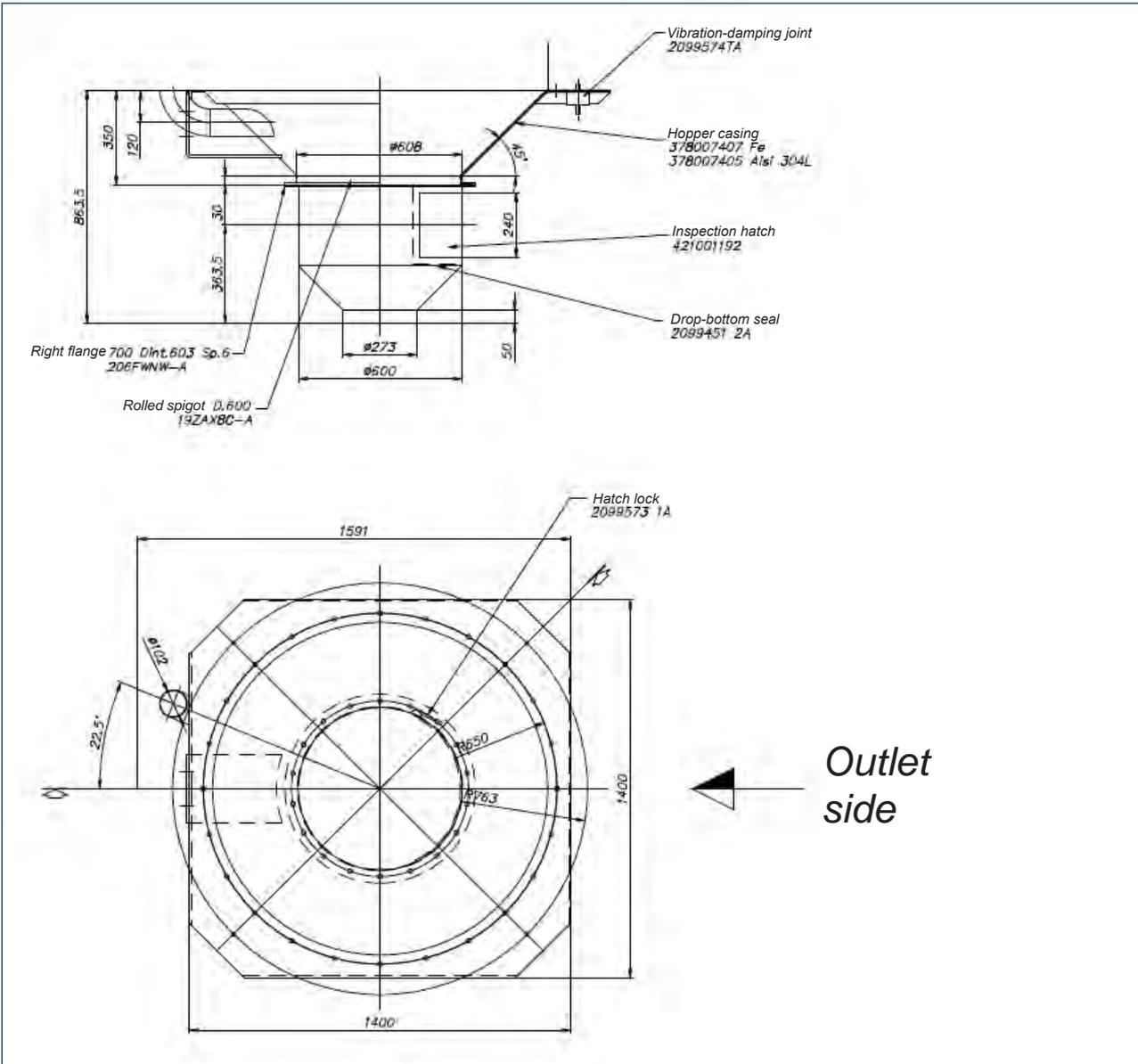
17



FIBC CLOSURE VALVE

+ = Without

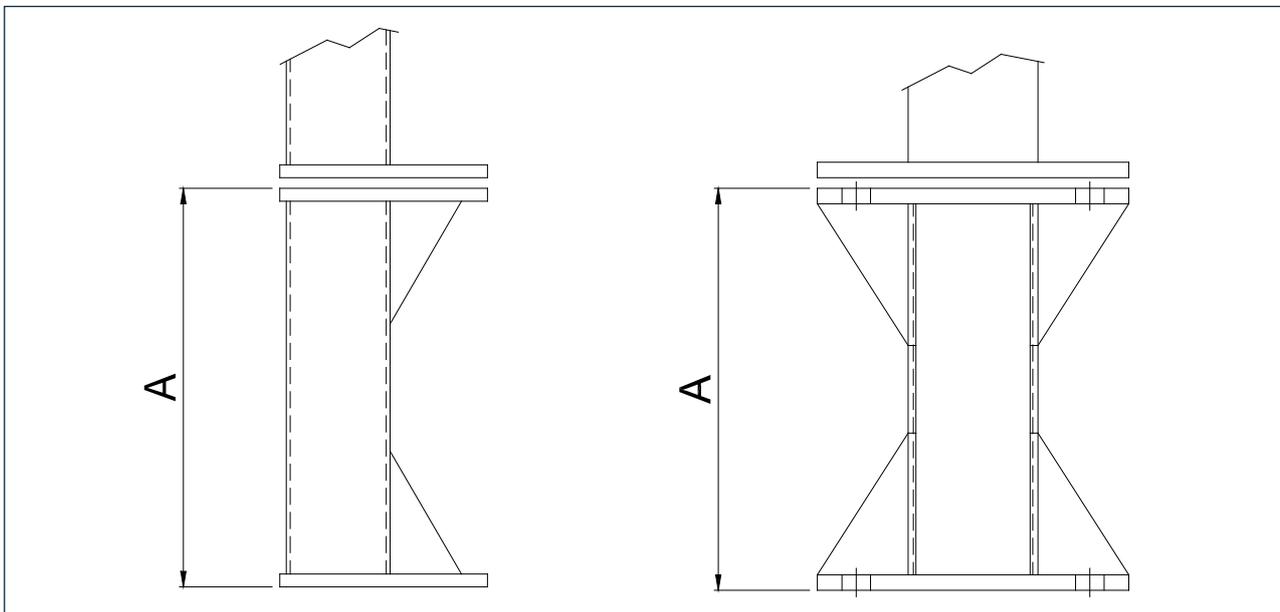
P = Prearranged (Valve Excluded)



18


SUPPORT FEET

- ++ = Without
- 10 = 100 mm
- 15 = 150 mm
- 20 = 200 mm
- 25 = 250 mm
- 30 = 300 mm

FEET EXTENSIONS


| SBB125C - SBB125S | SBB150C - SBB125M - SBB150S | A mm |
|-------------------|-----------------------------|---------|
| Code | Code | |
| KF_SBB12510 | KF_SBB15010 | 100 |
| KF_SBB12515 | KF_SBB15015 | 150 |
| KF_SBB12520 | KF_SBB15020 | 200 |
| KF_SBB12525 | KF_SBB15025 | 250 |
| KF_SBB12530 | KF_SBB15030 | 300 |

NOTE: The kit comprises four feet.

THE FOUNDATION PLAN REMAINS UNCHANGED

Materials available:

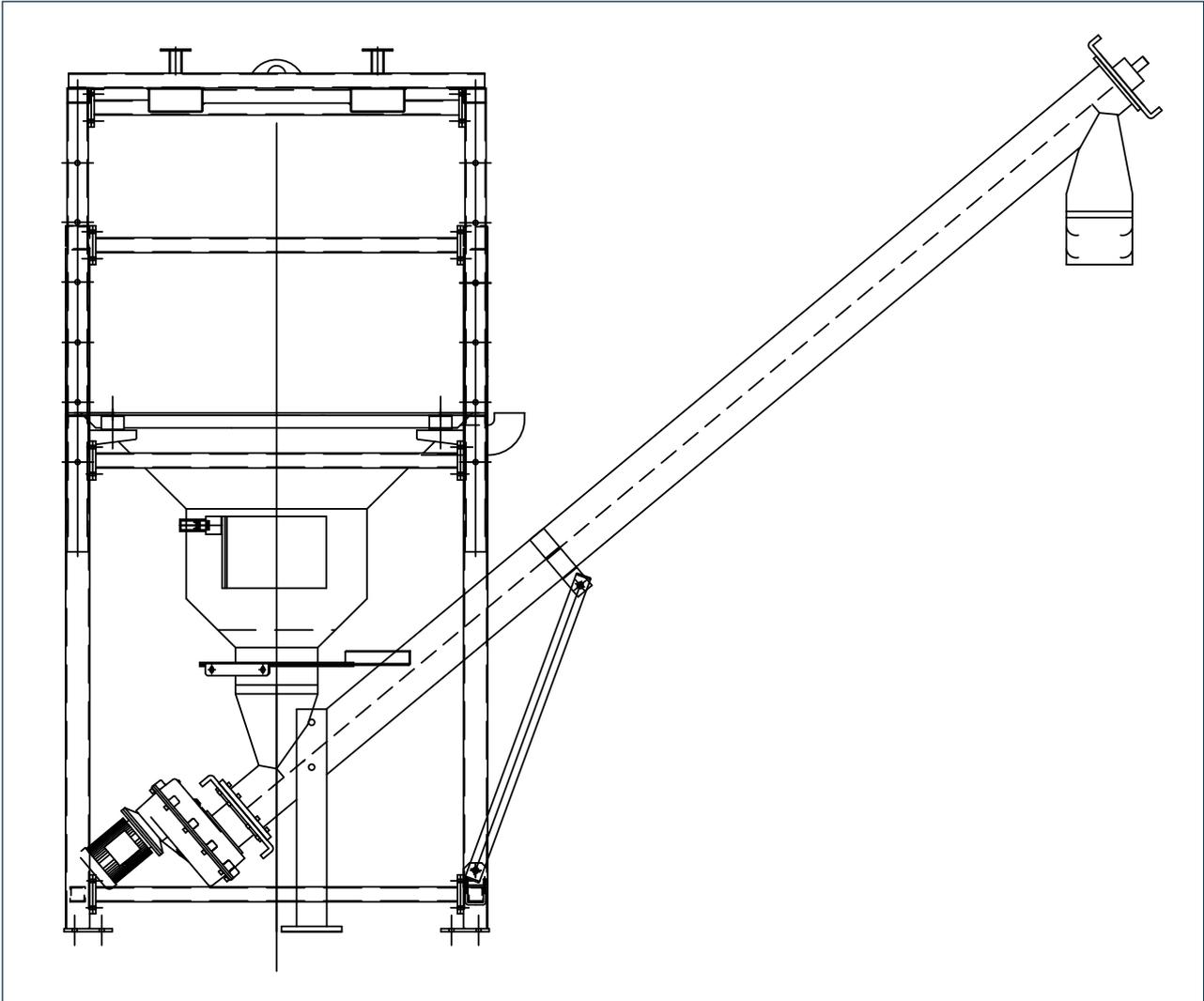
- Carbon steel.
- 304L SS

19



SCREW SUPPORT

+ = Without
S = Included for TX 168



20


FINISHING
Finishing SSB made from carbon steel

The term “finishing” includes the sequence and the operations necessary for machining and finishing a material. The finishing provided for the internal and external surfaces of the feeders is classified as:

“4” (ACCURATE)
“4” FINISHING (ACCURATE)

| MATERIALS |
|-----------|
| Plates |

| OPERATION | FEATURES |
|-------------------------|--|
| Plasma/Laser cut | In normal mode, with attention to linearity and precision |
| Welding | Continuous, on all edges, MAG type, with attention to linearity |
| Trimming | Removal of rags and sharp edges by grinding and sanding |
| Cleaning welds | Mechanical cleaning of welding slag by grinding |
| Sand blasting | Internal and external sand blasting to prepare the surfaces for painting; there must be no ruffles or projections; extreme care to create continuity |
| Painting | See treatments and shades of internal and external surfaces page T11 |

Finishing SSB made from 304L SS

The term “finishing” includes the sequence and the operations necessary for machining and finishing a material. The finishing provided for the internal and external surfaces of the feeders is classified as:

A (ACCURATE)

| MATERIALS |
|-----------|
| Plates |

| OPERATION | FEATURES |
|-----------------------------|--|
| Plasma/Laser cut | In normal mode, with attention to linearity and precision |
| Satin finishing | Carried out on the inner surface of the cone after turning, using grinder SA80 |
| Welding | Continuous, on all edges, type: TIG with facing for BA (040-100), MIG with flux cored wire BA (125-300) |
| Trimming | Removal of rags and sharp edges by grinding and sanding |
| Cleaning welds | Carried out with micro shot blasting or satin finishing SA240, depending on the selected finish |
| Micro shoot blasting | Internal and external micro shot blasting, depending the finish selected, there must be no ruffles or projections; extreme care to create continuity |
| Satin finishing | SA240, in successive passes, passing from SA80 to SA240 |

21


INTERNAL TREATMENT

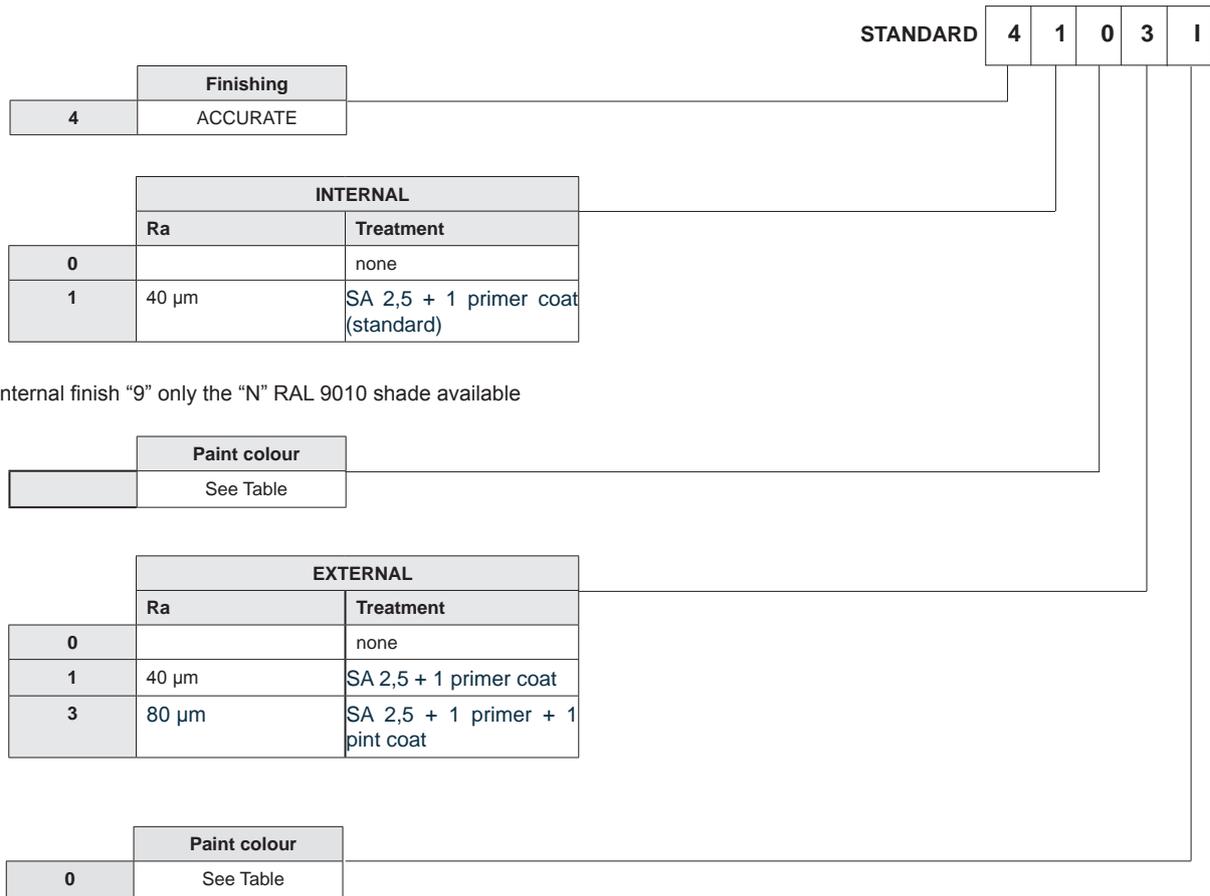
22


INTERNAL COLOUR

23


EXTERNAL TREATMENT

 Finishing **SBB** made from carbon steel

INTERNAL AND EXTERNAL SURFACE TREATMENT

PAINT COLOUR INSIDE AND OUTSIDE

24


External colour

 STANDARD **4 1 0 3 I**

| | RAL | Paint colour |
|----------|--------------|------------------------|
| B | RAL 1013 | pearl white |
| C | RAL 1015 | light ivory |
| D | RAL 5010 | gentian blue |
| E | RAL 5015 | sky blue |
| G | RAL 7035 | light grey |
| H | RAL 7032 | pebble grey |
| I | RAL 7001 | silver grey * |
| N | RAL 9010 | pure white |
| V | - | others |
| 0 | - / RAL 8023 | none / primer "beaver" |

N.B.: Finishing electric vibrators RAL 2004

Ra = THICKNESS IN MICRONMETRES (tolerance for 15 µm for each coat)

* = standard

21 **INTERNAL TREATMENT**

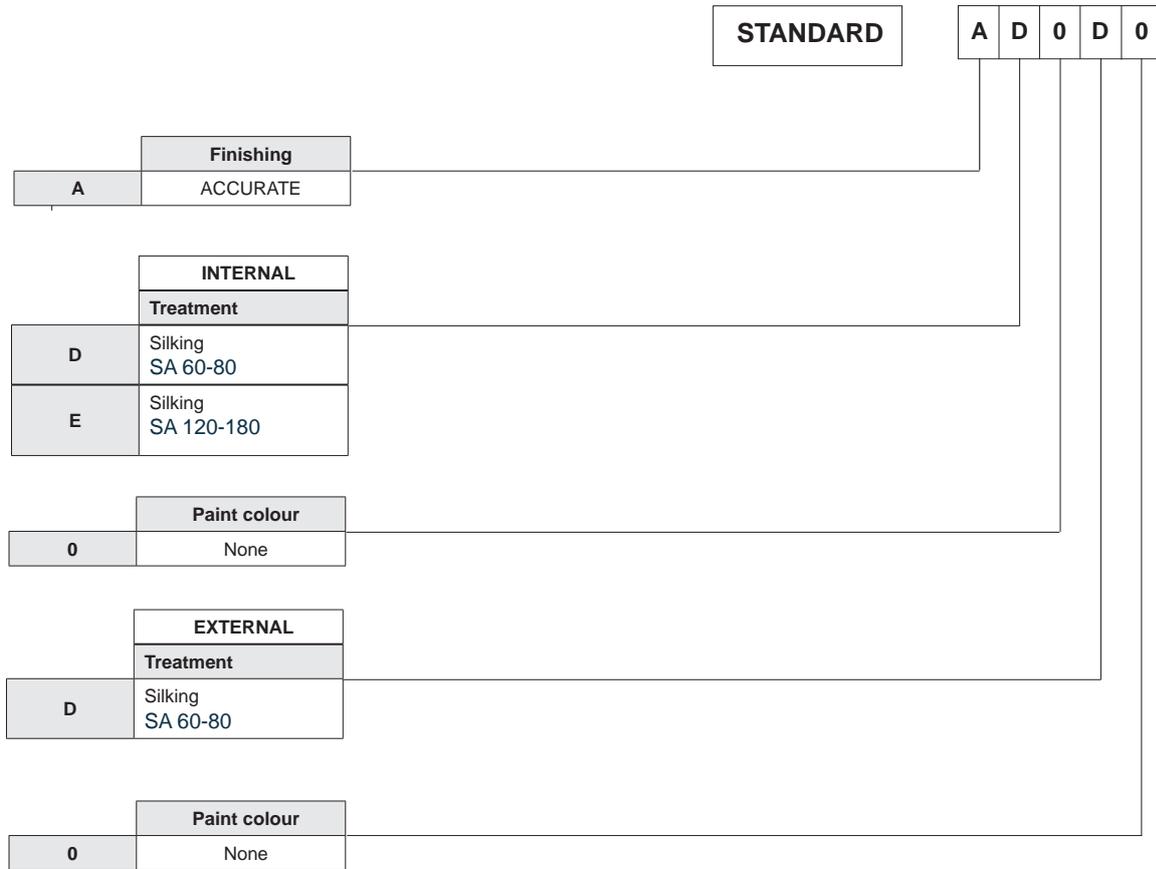
22 **INTERNAL COLOUR**

23 **EXTERNAL TREATMENT**

SBB finishing 304L / 316L SS

INTERNAL AND EXTERNAL SURFACE TREATMENT

HOPPER SURFACE TREATMENT INSIDE AND OUTSIDE



VERSION WITH CONTACT PARTS IN SS
FRAME OUTSIDE SURFACE TREATMENT: POWDER (RAL 7001)

VERSION ENTIRELY IN SS
FRAME OUTSIDE SURFACE TREATMENT: Glass bead blasted

ELECTRIC VIBRATOR: RAL 2004

25

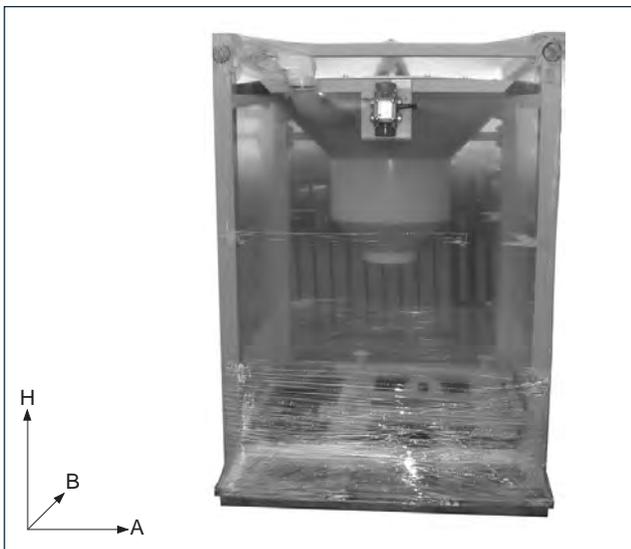
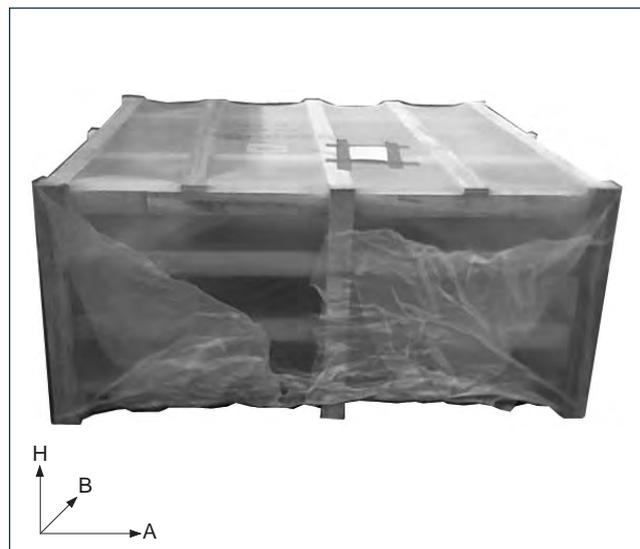

PACKAGING

In field 10 of the order code it is possible to select the following options:

P = Pallet + shrink wrap (base)

G = WOODEN CRATE / HOLZKISTE

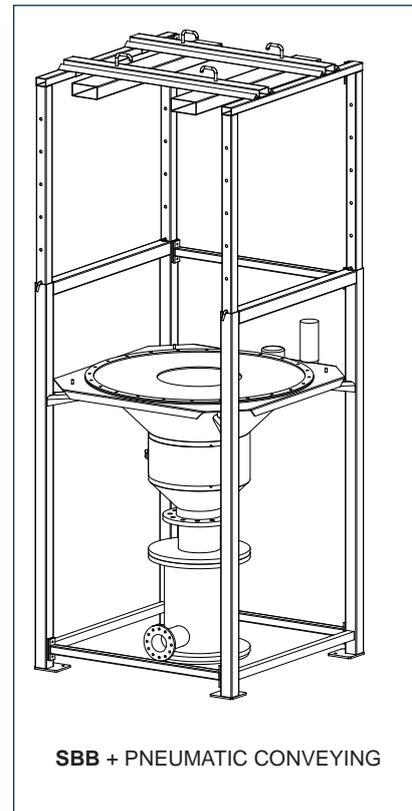
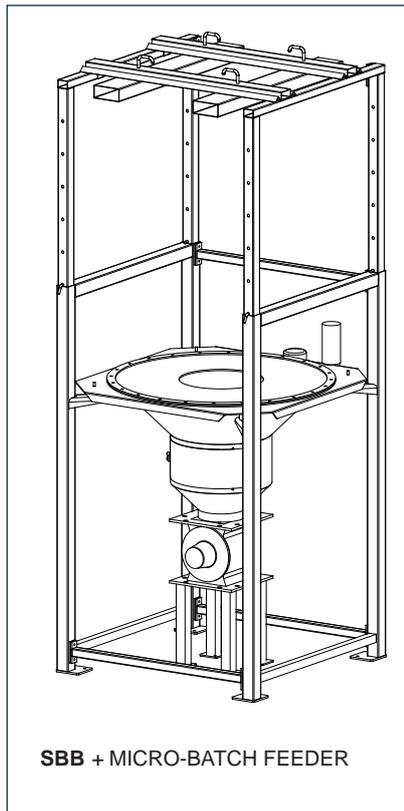
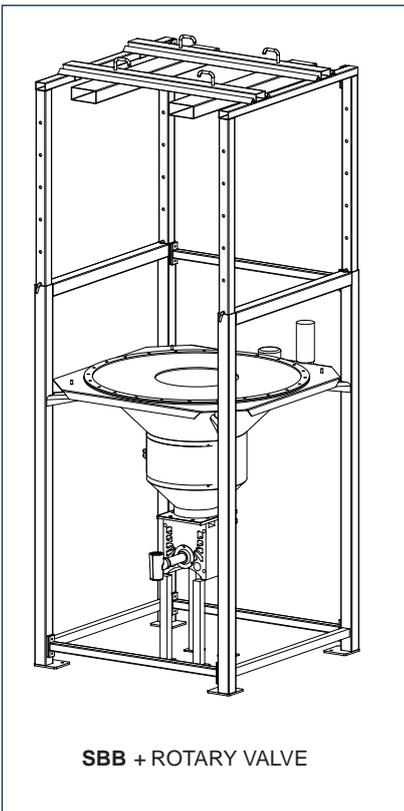
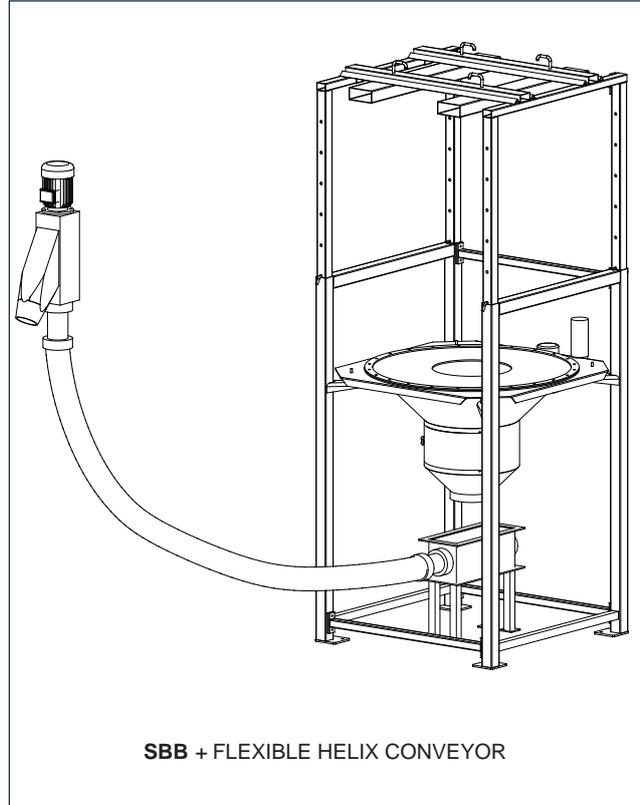
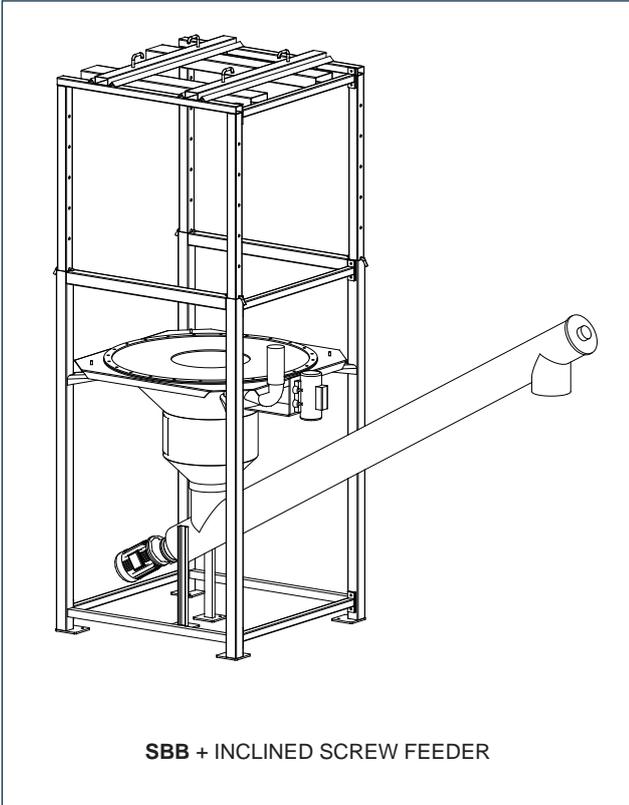
The FIBC is basically supplied on a pallet of suitable dimensions, protected with a heat-shrink polythene cover.

STANDARD PACKAGING

WOODEN CRATE PACKAGING (FOR T,C,S VERSIONS)


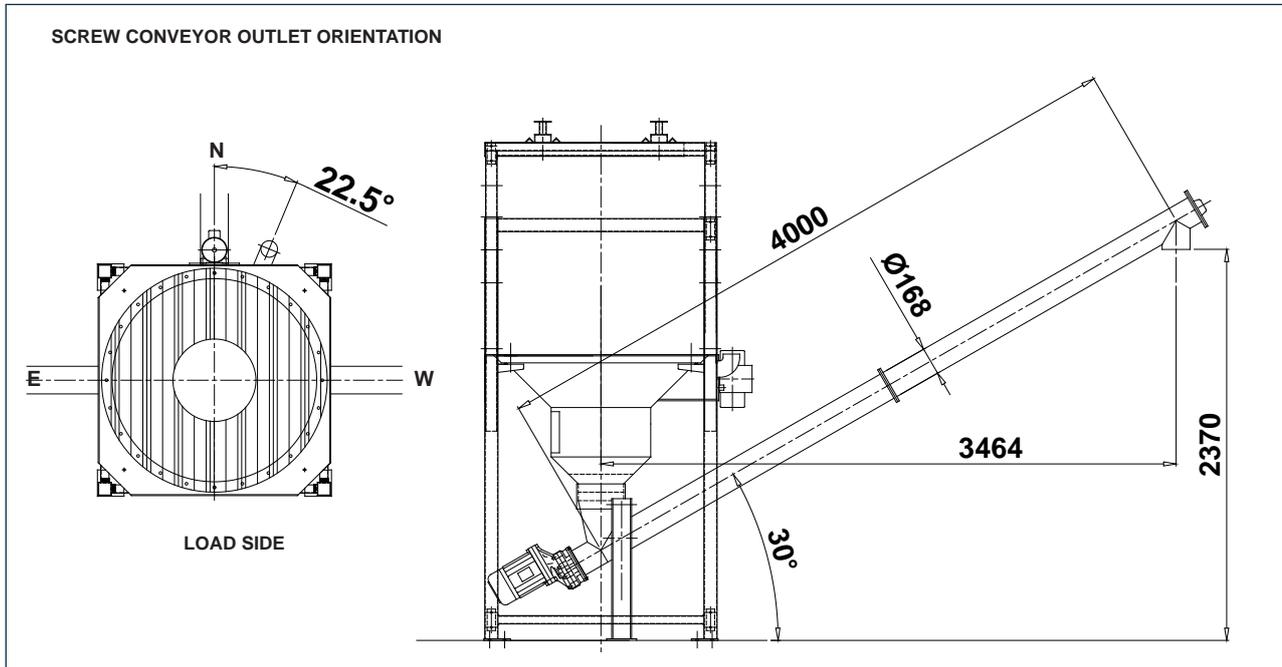
| Packing code | TYPE | A | B | H | Equipment weight kg | Packing weight kg | Total weight kg |
|-------------------|-------------|------|------|------|---------------------|-------------------|-----------------|
| IME.SBB.125.T.P00 | SBB.x.125.T | 1684 | 1584 | 1102 | 125 | 53 | 178 |
| IME.SBB.150.T.P00 | SBB.x.150.T | 1984 | 1834 | 1152 | 214 | 70 | 284 |
| IME.SBB.125.C.P00 | SBB.x.125.C | 2034 | 1534 | 1102 | 321 | 60 | 381 |
| IME.SBB.150.C.P00 | SBB.x.150.C | 2134 | 2034 | 1152 | 498 | 82 | 580 |
| IME.SBB.125.S.P00 | SBB.x.125.S | 1684 | 2394 | 1102 | 400 | 84 | 484 |
| IME.SBB.150.S.P00 | SBB.x.150.S | 2034 | 2584 | 1152 | 703 | 101 | 804 |
| IME.SBB.125.M.P00 | SBB.x.125.M | 1684 | 1684 | 552 | 750 | 25 | 775 |

| | | | | | | | |
|-------------------|-------------|------|------|------|-----|-----|-----|
| IME.SBB.125.T.G00 | SBB.x.125.T | 1718 | 1568 | 1102 | 125 | 89 | 214 |
| IME.SBB.150.T.G00 | SBB.x.150.T | 2018 | 1868 | 1152 | 214 | 111 | 325 |
| IME.SBB.125.C.G00 | SBB.x.125.C | 2068 | 1568 | 1102 | 321 | 98 | 419 |
| IME.SBB.150.C.G00 | SBB.x.150.C | 2168 | 2068 | 1152 | 498 | 124 | 622 |
| IME.SBB.125.S.G00 | SBB.x.125.S | 1718 | 2468 | 1102 | 400 | 124 | 524 |
| IME.SBB.150.S.G00 | SBB.x.150.S | 2068 | 2618 | 1152 | 703 | 146 | 849 |
| IME.SBB.125.M.G00 | SBB.x.125.M | - | - | - | - | - | - |

3.5 Applications



SBB with \varnothing 168 tubular screw conveyor



INCLINED SCREW FEEDER

For this application it is advisable to use:

\varnothing 168 tubular screw conveyor complete with:

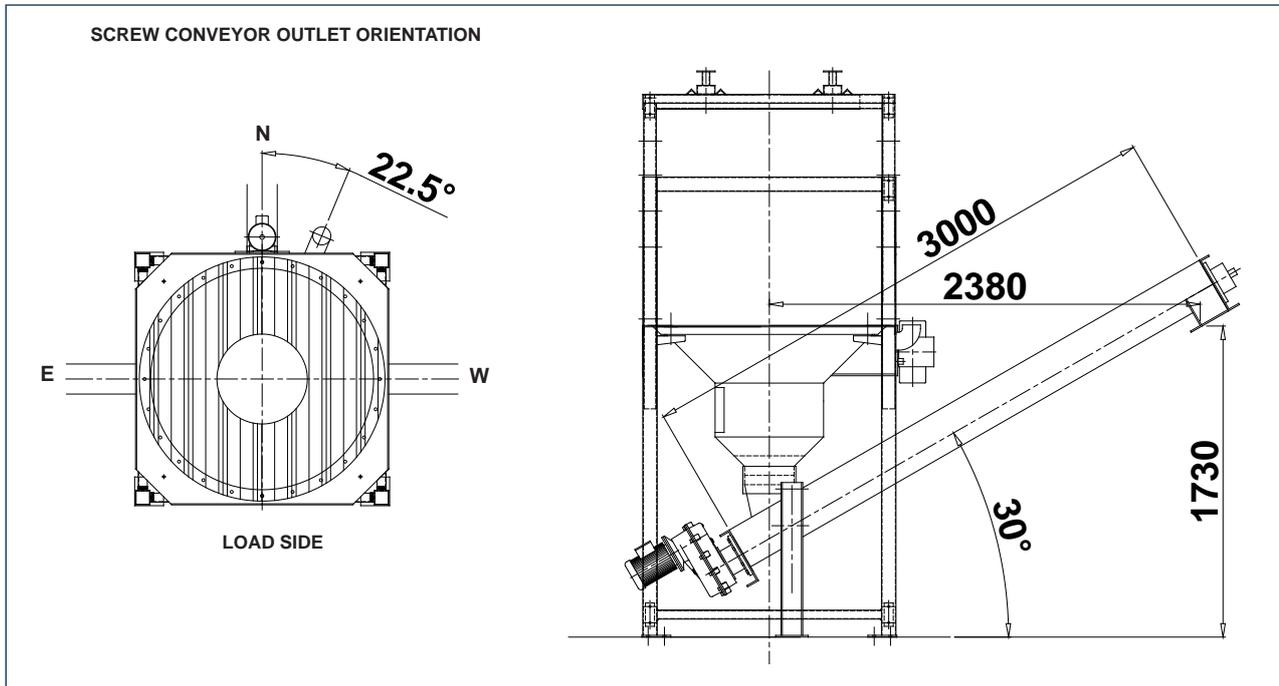
- tapered inlet spout \varnothing 168/ \varnothing 273.
- drive unit at inlet end.
- supporting base XJP168031.
- \varnothing 273 flexible rubber sleeve 300mm long complete with hose clamp.

The length of the screw conveyor must be defined on the basis of the plant requirements, with maximum inclination angle of 30° (to be specified in the order phase).

The drawing represents an example of a 4000mm long screw conveyor.

However, it is the customer's responsibility to fix the final part of the screw conveyor rigidly.

SBB with Ø 150 trough screw conveyor



INCLINED SCREW FEEDER

For this application it is advisable to use:

Ø150 trough screw conveyor complete with:

- tapered inlet spout Ø150/Ø 273.
- drive unit at inlet end.
- supporting base XJP168031.
- Ø 273 flexible rubber sleeve 300 mm long complete with hose clamps.

The length of the screw must be defined on the basis of the plant requirements, with maximum inclination angle of 30° (to be specified in the order phase).

The drawing represents an example of a 3000mm long screw conveyor, with outlet spout.

However, it is the Customer's responsibility to fix the final part of the screw conveyor rigidly.

The **SBB**-type **FIBC**s are designed and constructed for carrying out their function in compliance with the following limits of use:

Maximum operating temperature:

+40°C in continuous mode.

Minimum operating temperature:

- 20°C.

Height of **FIBC**:

- Min. 600mm;
- Max. 1800 mm. (for models S and M)
- Any.(for models T and C)

Hopper maximum capacity:

- **SBB125**: 330 l;
- **SBB150**: 510 l. l

Operation noise

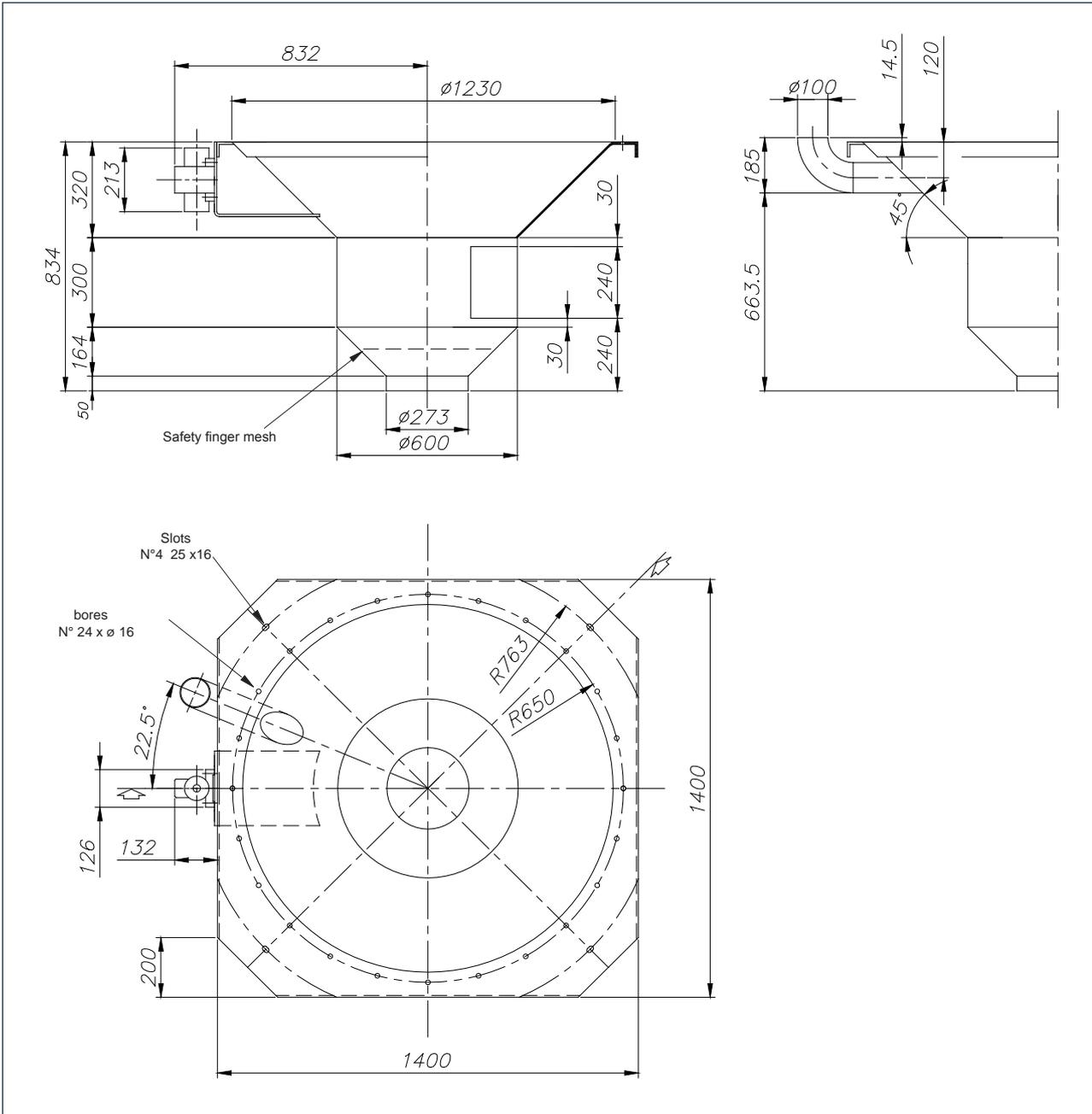
The noise levels of the **SBB** with electric vibrator supplied by **WAM**[®] expressed in dB(A) are obtained by readings in a free field, at maximum performance, at four cardinal points at a distance of 1.5 m from the machine.

The value measured is **75 dB(A)**.

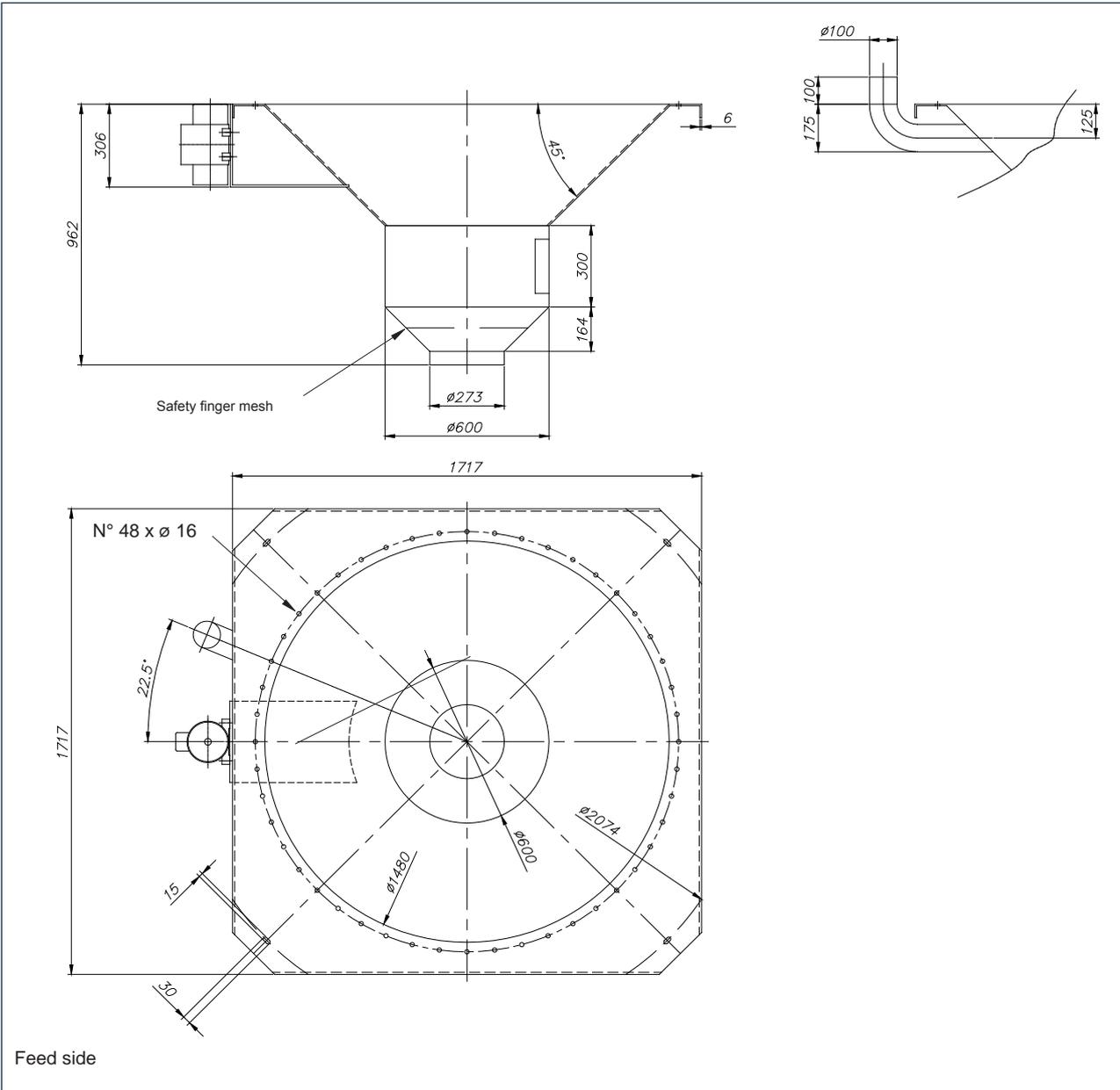
The user may obtain values different from those indicated depending on the location.

It shall be the responsibility of the installer to have noise level checkings carried out on the machine applied to a silo filled with material (in operating conditions).

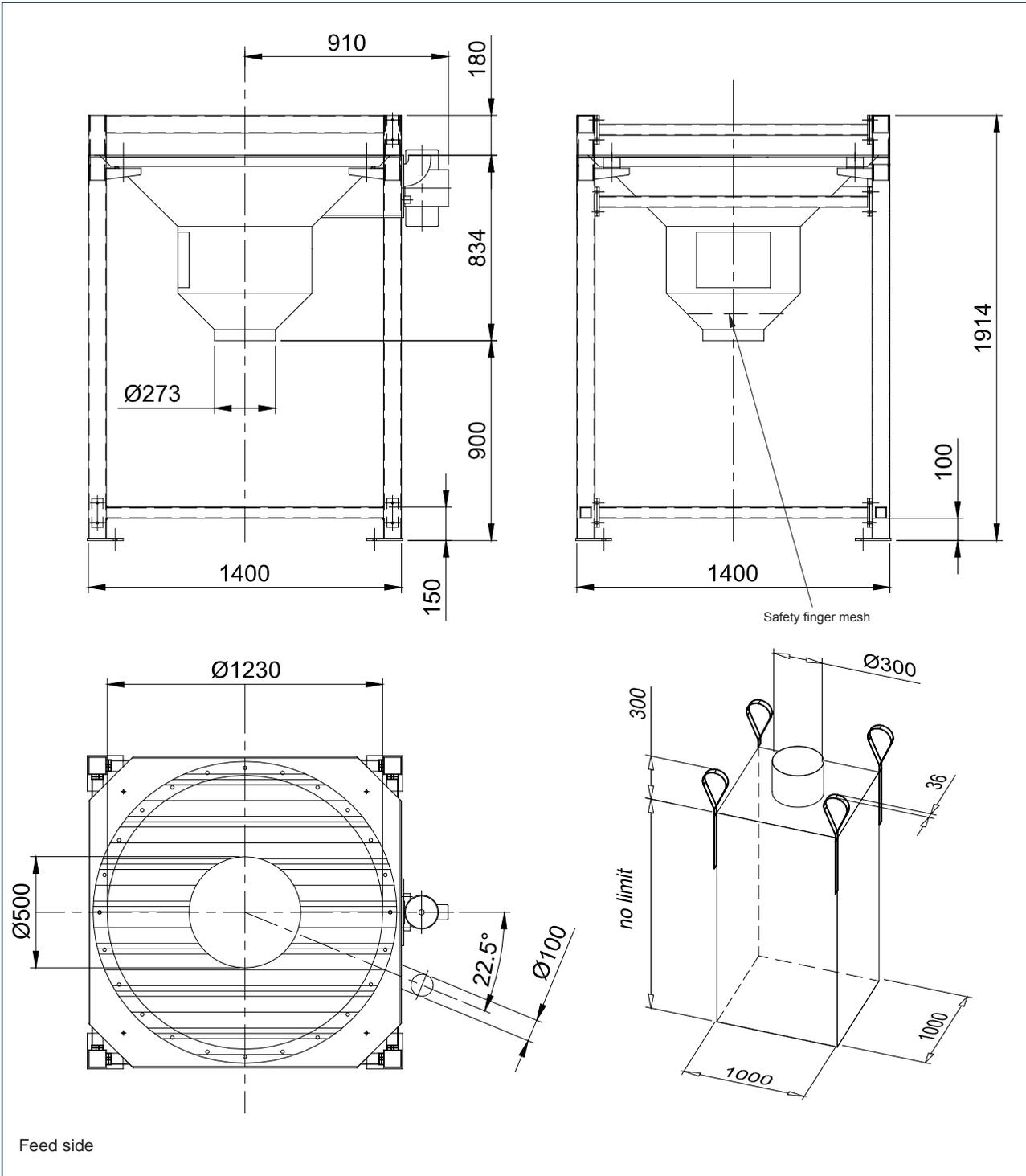
SBB_125.T



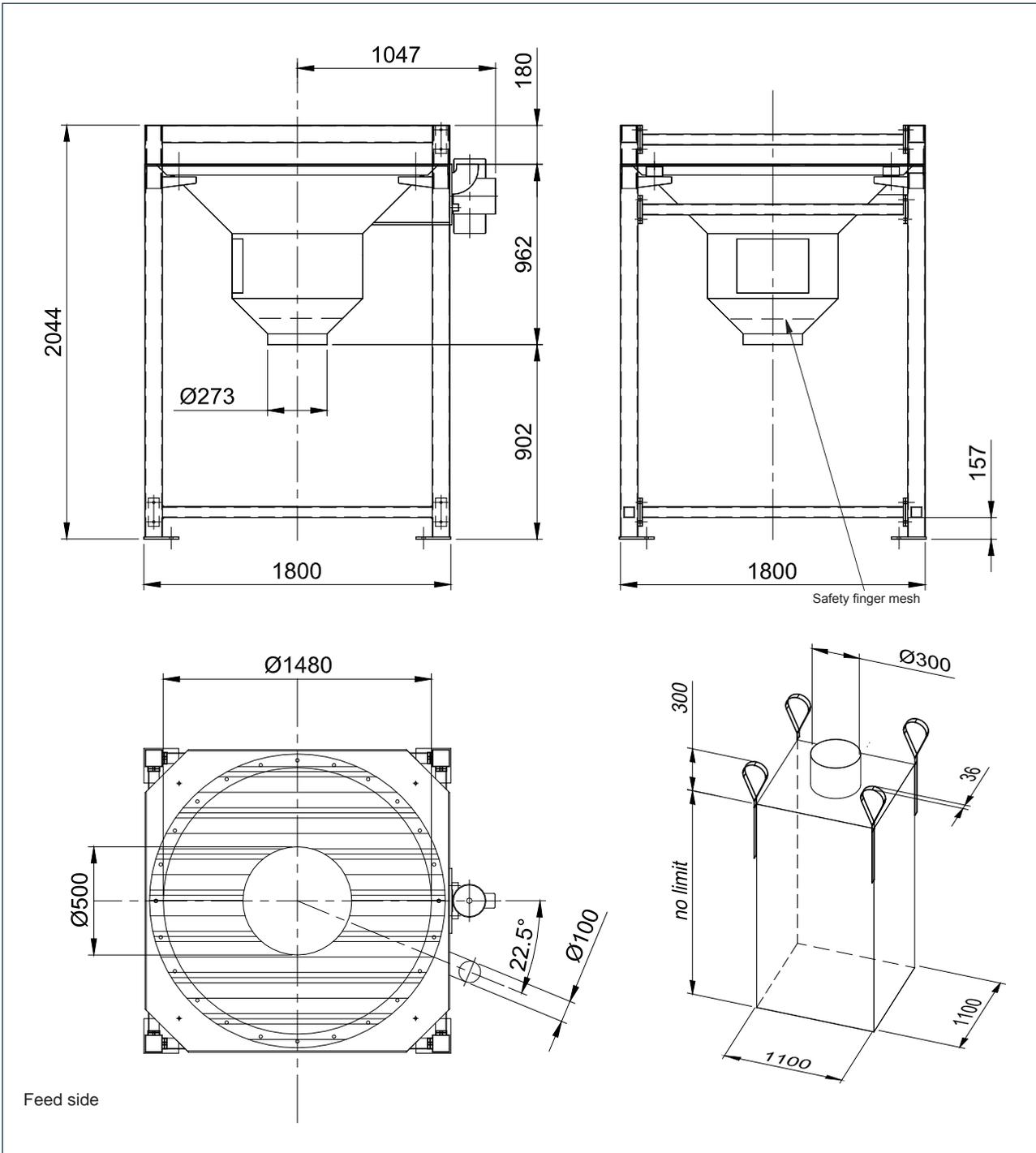
SBB_.150.T



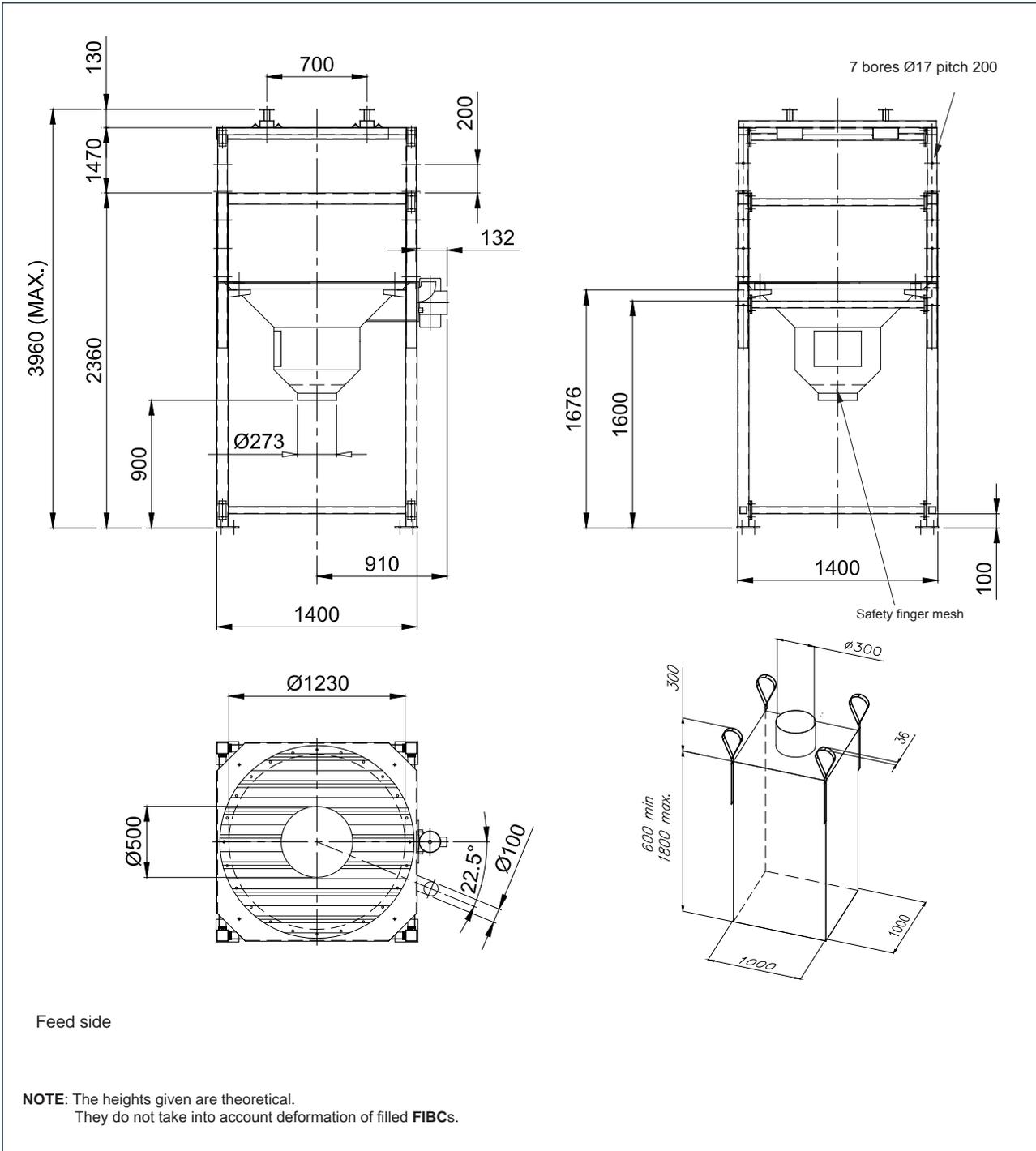
SBB._125.C



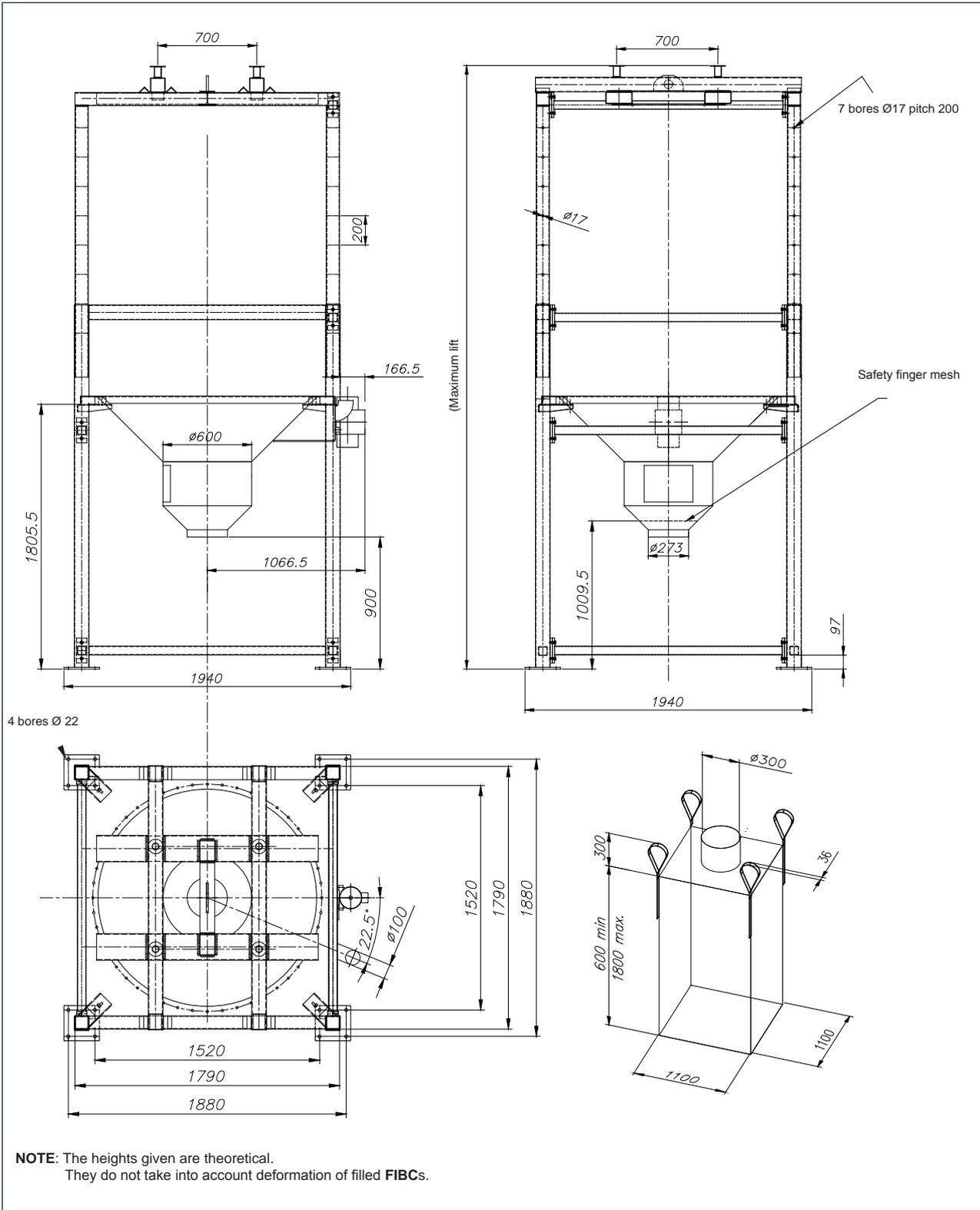
SBB._.150.C



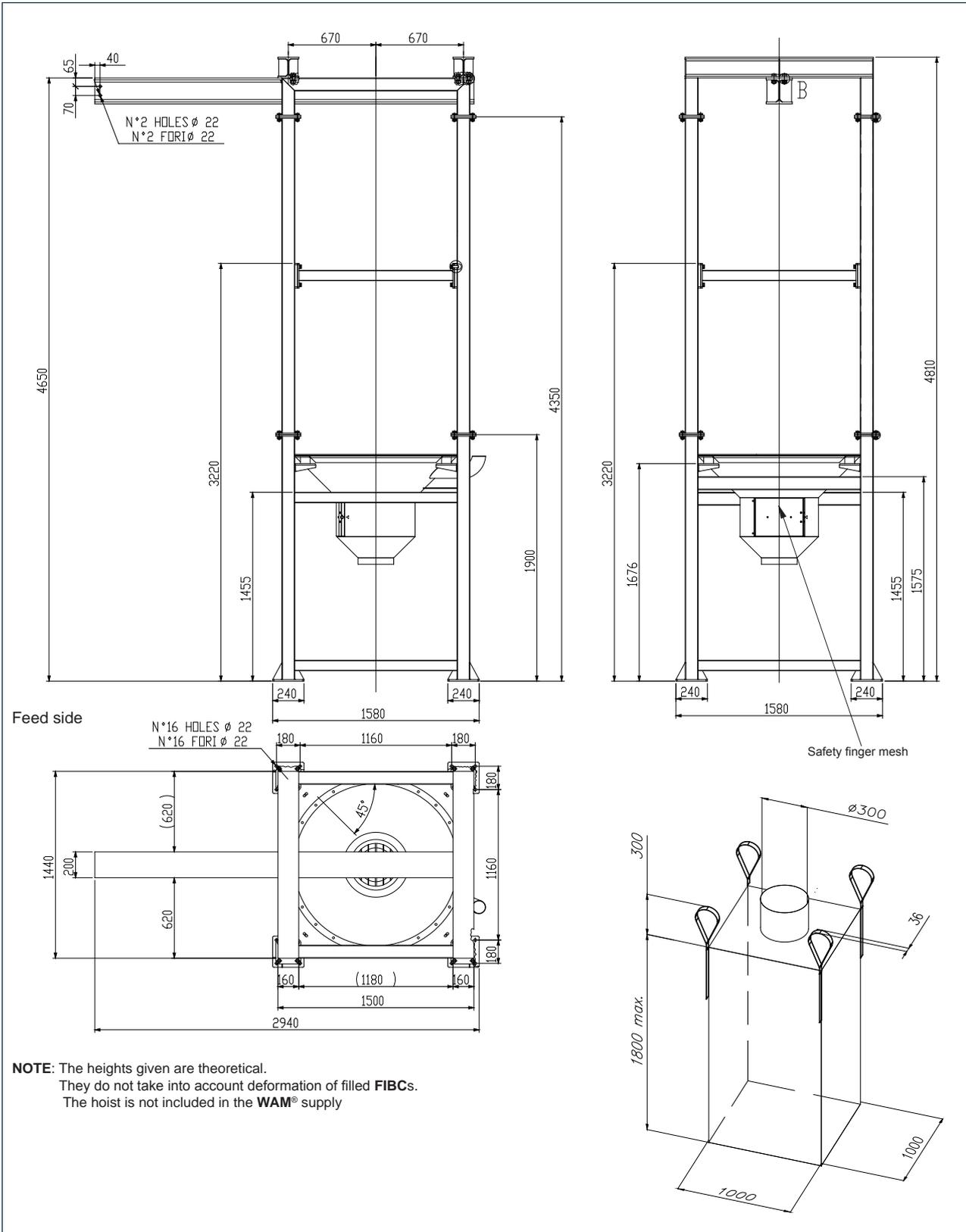
SBB._125.S



SBB_150.S



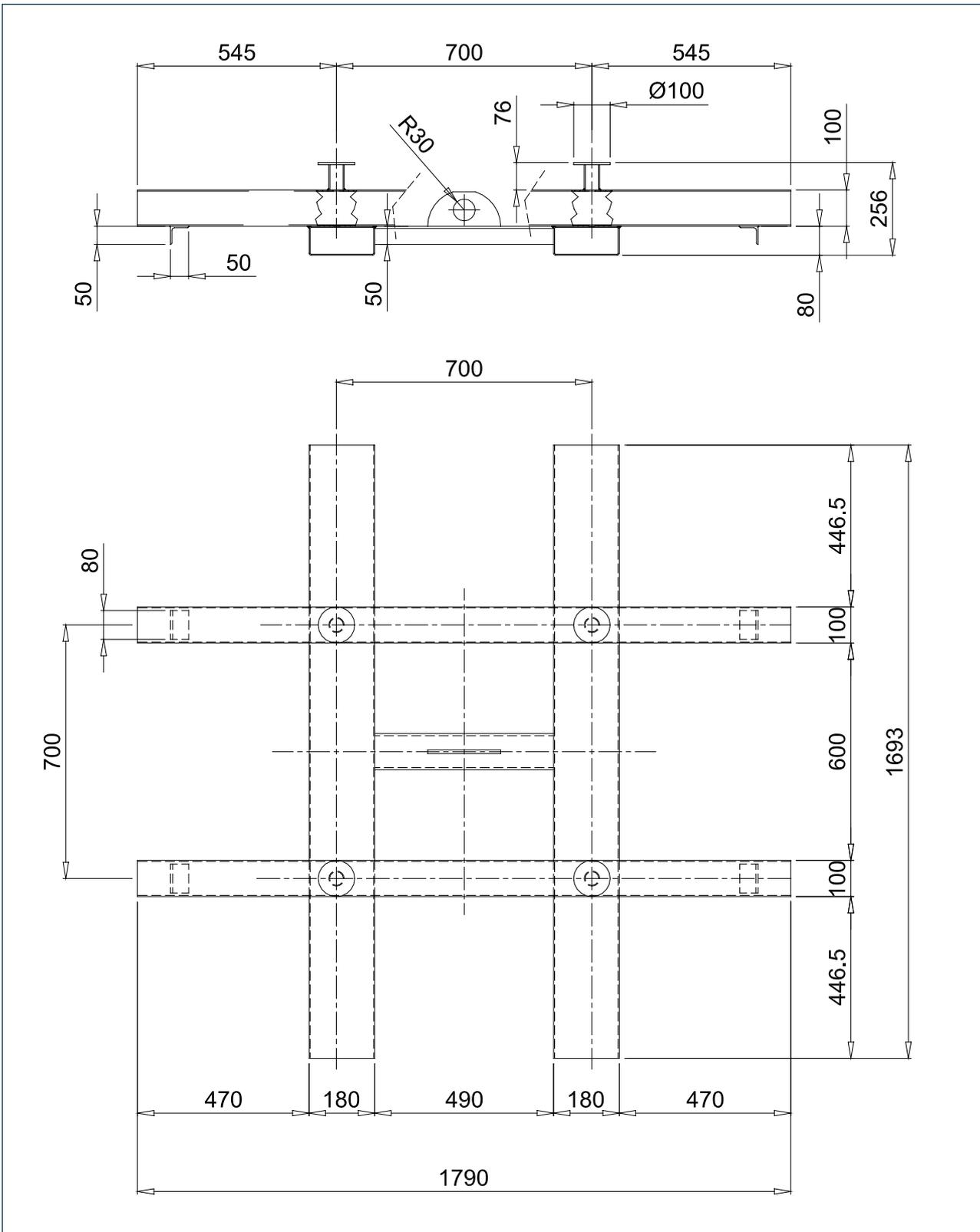
SBB_125.M



NOTE: The heights given are theoretical.
 They do not take into account deformation of filled FIBCs.
 The hoist is not included in the WAM® supply

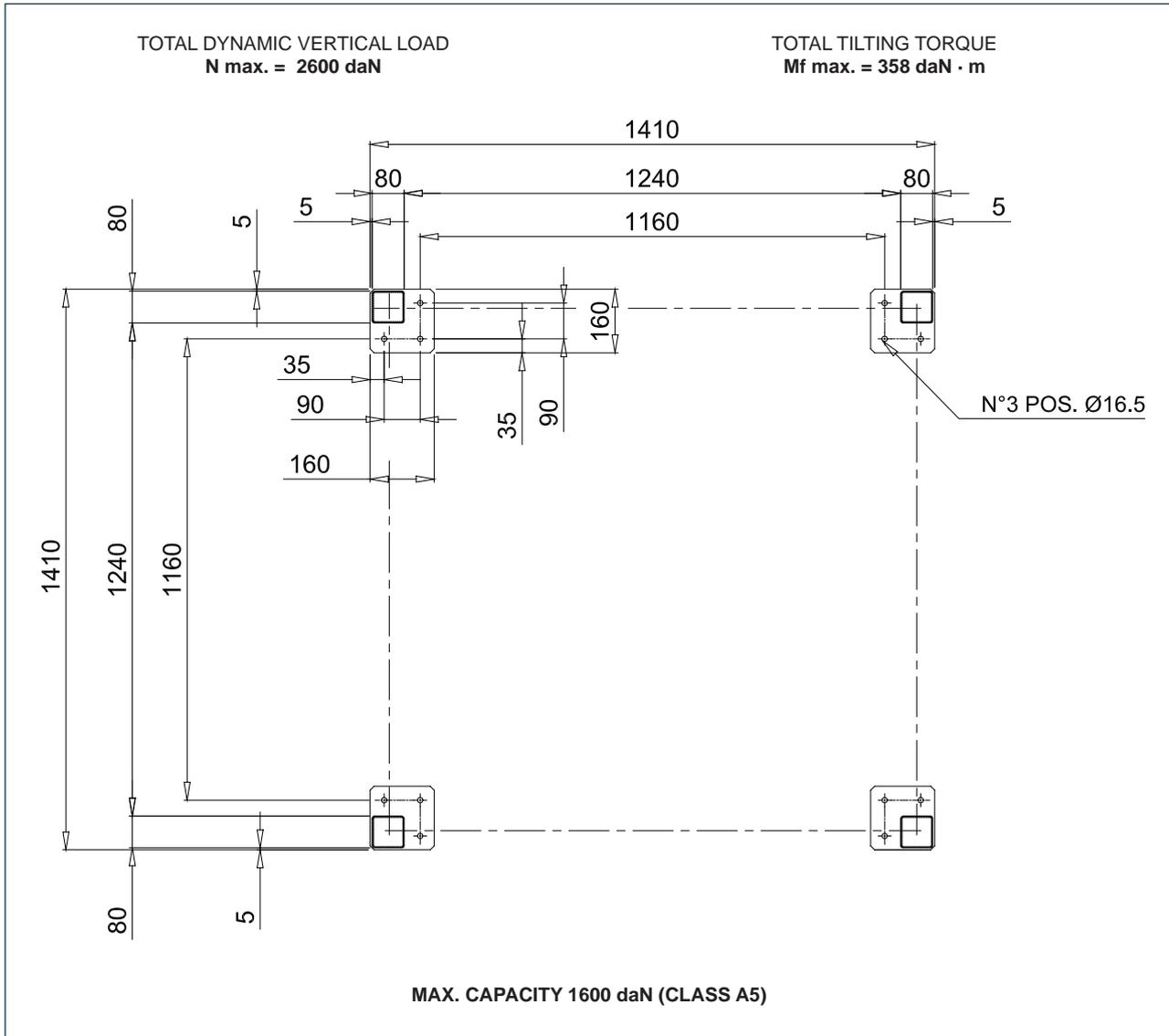
SBB._.150.S

MAX. CAPACITY 2500 daN (CLASS A5)



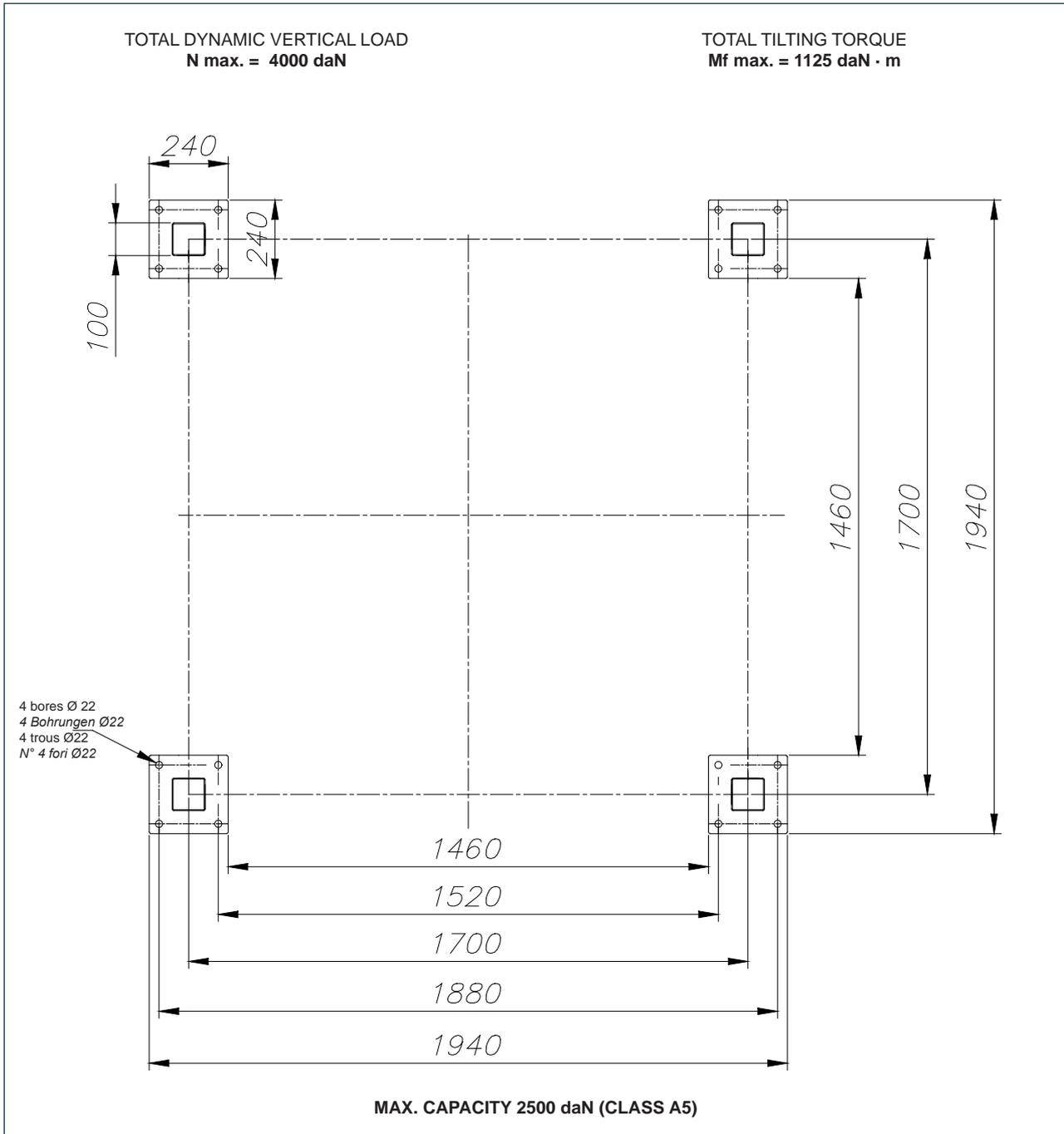
SBB_.125.C

SBB_.125.S

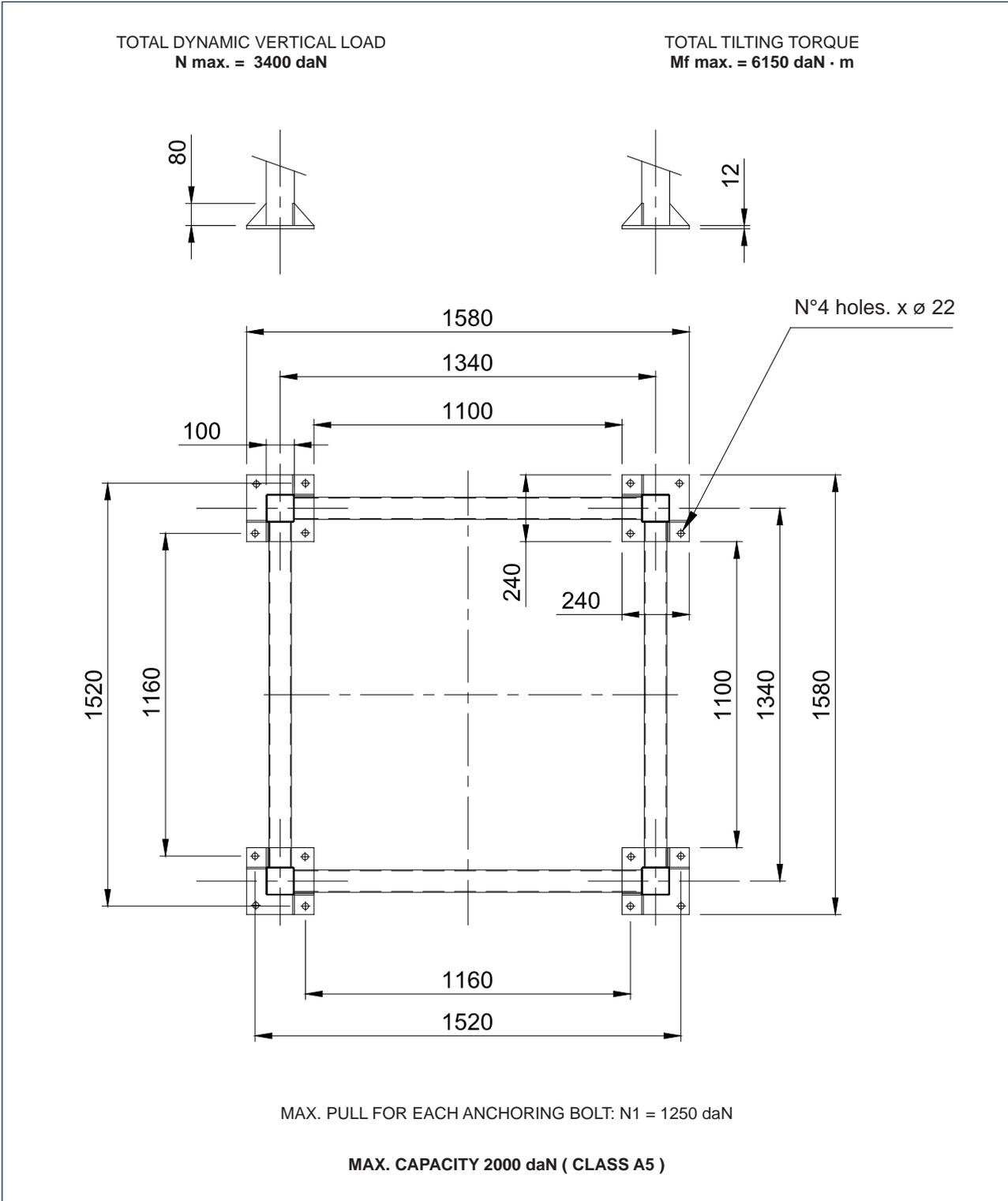


SBB._150.C

SBB._150.S



SBB._.125.M





6.0 INFORMATION REQUIRED FOR SIZING THE EQUIPMENT

Refer to the chart below for all information necessary.

FEATURES OF PRODUCT TO BE FEEDED

Name of products.....

Specific weight..... kg/dm³ or T/m³ WAM® Code.....

| PARTICLE SIZE | | | | | | | |
|---------------|-----------|---------|-------|--------|---------|----------|-------|
| micron | 0.1 - 0.5 | 0.5 - 1 | 1 - 5 | 5 - 10 | 10 - 50 | 50 - 100 | > 100 |
| % | | | | | | | |

Otherwise provide particle size graph

| | | | |
|--|-----------------------------------|--|---------------------------------------|
| Flowability | | | |
| highly flowable <input type="checkbox"/> | flowable <input type="checkbox"/> | slightly flowable <input type="checkbox"/> | Not flowable <input type="checkbox"/> |

| | | |
|--|--|--|
| Abrasivity | | |
| slightly abrasive <input type="checkbox"/> | moderat. abrasive <input type="checkbox"/> | highly abrasive <input type="checkbox"/> |

| | | | | | |
|---|--|---|--|--|--|
| Features of products | | | | | |
| generates static el. (G) <input type="checkbox"/> | explosive (N) <input type="checkbox"/> | highly corrosive (T) <input type="checkbox"/> | | | |
| alredy decomposes during storage (H) <input type="checkbox"/> | hygroscopic (U) <input type="checkbox"/> | has oils (W) <input type="checkbox"/> | | | |
| inflammable (J) <input type="checkbox"/> | viscous (O) <input type="checkbox"/> | compacted under pressure (X) <input type="checkbox"/> | | | |
| becomes plastic and soft (K) <input type="checkbox"/> | contaminant (P) <input type="checkbox"/> | very light and soft (Y) <input type="checkbox"/> | | | |
| very dusty (L) <input type="checkbox"/> | degradable (Q) <input type="checkbox"/> | high temperatures (Z) <input type="checkbox"/> | | | |
| becomes gas or fluid (M) <input type="checkbox"/> | harmful on falling, produces gas, fumes (R) <input type="checkbox"/> | | | | |
| moderately corrosive (S) <input type="checkbox"/> | becomes granular, twists, agglomerates (V) <input type="checkbox"/> | | | | |



6.0 INFORMATION REQUIRED FOR SIZING THE EQUIPMENT

SSB SIZING

Flow rate required.....m³/h

Construction: Parts in contact: 304L SS 316L SS

Completely made from: 304L SS 316L SS

FINISH

Fe 4.10.31 (RAL 7001) (std)

304L / 316L SS **AG0.G0** (std)

304L / 316L SS **AQ0.G0** (std) (on request)

Internal finishing:.....RAL:.....

External finishing:.....RAL:.....

Electric vibrator finishing: **WAM® Std: RAL 2004**

ELECTRICAL FEATURES

Electric vibrator: Supply voltage:.....V Phases:..... Frequency:.....Hz

ACCESSORIES

Flexible attachment kit:.....

Round flange XKF 34.....

Square flange XKF 74.....

Feet extensions.....

Reduction section for outlet spout.....

Manual gate valve:.....

Door open mechanical limit stop:.....