

Automatic animal identification Walk-through identification (ear)

- Identification frame
- Entrance area

Instruction Manual / Installation Instructions / Parts List
(Translation of the original operating instructions)

7160-9001-422
09-2012

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1 Preface

1.1 Information on the instructions



Note!

The instructions contain general information on all topics relevant to the identification frame.

The following sections are structured differently based on the barn components used:

- Installing the walk-through
- Fitting the identification frame

The manufacturer reserves the right to make changes due to technical developments in the data and images given in this manual.

Reproductions, translations and copies of any kind, even of extracts, require written authorization from the manufacturer.

The abbreviations, units, technical terms, special names or industry-specific terminology used in this manual are explained in more detail in the "Appendix".

These instructions are part of the supply.

- They should be kept close at hand and remain with the equipment even if the equipment is sold.
- This manual is not subject to an amendment service. The most recent version at any time can be obtained through the technical dealer or directly from the manufacturer.
- They are designed modular and are only in relation to the mentioned product.

More information on the product and components associated with the product may also be given in the corresponding documents and manuals. This applies especially to safety information!

Necessary documents:

- This manual is only part of the product documentation.
The complete documentation consists of the following manuals:

Part No.	Description	
Animal identification		
7160-90 . . -426	Transceiver	Single / Twin
7160-90 . . -422	Identification frame	Ear identification
7160-90 . . -423		Neck/leg identification
7160-90 . . -533	Responder/rescounter	

- Instructions for components related to the product:
(not a complete list)

Part No.	Description		
7056-90 . . -047	Rotary milking parlour	AutoRotor Magnum 40 / Global 90 / PerFormer	
7056-90 . . -055		AutoRotor Magnum 90	
7065-90 . . -013	Milking parlour	AutoTandem	
7071-90 . . -036		Europa 1200	
7071-90 . . -055		EuroClass 1200	
7071-90 . . -056		EuroClass 800 / 850	
7071-90 . . -058		EuroClass 800 RE	
7071-90 . . -059		EuroClass 1200 RE	
7071-90 . . -060		Challenger 45	
7071-90 . . -065		Global 45	
7123-90 . . -002		Comfort Top	
7123-90 . . -009		Global 90	
7159-90 . . -102		Sort Gate	FeedSelect
7159-90 . . -103		Animal sorting	AutoSelect 5000
7159-90 . . -105	AutoSelect 3000		
7159-90 . . -012	Animal scales	Taxatron 5000	
7160-90 . . -165	Feed station	DairyFeed C8000	
7163-90 . . -039		DairyFeed J1100	
7801-90 . . -000	Automatic milking system	MIone (AutoSelect MI)	



Instructions for other subsystems used.

- Foundation plans

Pictograms used



This pictogram indicates information that will help towards better understanding of a procedure or operation.



This pictogram indicates a special tool required for installation.



Ein Korrekturbalken am Blattrand kennzeichnet Änderungen zur vorherigen Ausgabe.



This pictogram refers to another document or another section of this manual.

If a manual number is given, the middle 4 figures indicate the language, as follows:

	Language		Language		Language
-9000-	German	-9013-	Dutch	-9032-	Serbian
-9001-	English (United Kingdom)	-9015-	English (America)	-9034-	Slovakian
-9002-	French (France)	-9016-	Polish	-9036-	Litauisch
-9003-	Italian	-9021-	Danish	-9038-	Portuguese (Brazil)
-9004-	Romanian	-9022-	Hungarian	-9039-	French (Canada)
-9005-	Spanish	-9023-	Czech	-9040-	Latvian
-9007-	Swedish	-9024-	Finnish	-9041-	Estonian
-9008-	Norwegian	-9025-	Croatian	-9043-	Spanish (North America)
-9009-	Russian	-9027-	Bulgarisch		
-9010-	Griechisch	-9029-	Slovene		

Possibly not all above-mentioned languages are available.

1.2 Manufacturer's address

GEA Farm Technologies GmbH
Siemensstraße 25-27
D-59199 Bönen

 +49 (0) 2383 / 93-70
 +49 (0) 2383 / 93-80
 contact@gea.com
 www.gea-farmtechnologies.com

1.3 Customer services

Authorised Technical Dealer

If necessary, please contact your nearest authorized technical dealer.

There is a comprehensive dealer Internet search function on our website at the following address:

- www.gea-farmtechnologies.com

European contact information:

GEA Farm Technologies GmbH
Siemensstraße 25-27
D-59199 Bönen

 +49 (0) 2383 / 93-70
 +49 (0) 2383 / 93-80
 contact@gea.com
 www.gea-farmtechnologies.com

US contact information:

GEA Farm Technologies, Inc.
1880 Country Farm Dr.
Naperville, IL 60563

 +1 630 369 - 8100
 +1 630 369 - 9875
 contact_us@gea.com
 www.gea-farmtechnologies.com

2 Safety**2.1 Owner's obligation of care**

The product has been designed and constructed while taking account of a potential risk analysis and after careful selection of the harmonized standards and other technical specifications to be complied with. It therefore guarantees a maximum level of safety.

This safety can only be achieved in practice on the farm however when all of the necessary measures have been taken. It is part of the farmer's obligation of care to plan these measures and check that they are carried out.

In particular, the owner must ensure that

- Anyone who performs work or activities relating to the machine must carefully read the manual and sign to confirm that they have understood it and will act accordingly!
- The manual must always be available, in a legible and complete condition, at the place where the product is used.
- Everyone who has to perform activities on the product must be able to view the manual at any time.
- The instructions given in the section "Basic safety instructions" must be observed.
- The legal requirements must be observed.
- The farmer must produce special operating instructions for his farm, that are appropriate to the conditions on that farm and which, once again, expressly take account of the safety aspects.
- The product may only be used for its intended purpose.
- The product may only be used if it is in perfect working condition. The safety devices especially must be checked regularly to ensure they are working.
- The work to be carried out may only be performed by a suitably qualified person.
- The personnel is regularly instructed in all relevant matters of safety at work and protection of the environment and is familiar with the manual, particularly the safety instructions it contains.
- Safety signs, plates and decals, which are attached to the product, must be replaced immediately if they become illegible or lost!

2.2 Explanation of the safety symbols used

Safety symbols draw attention to the importance of the adjacent text.

The design of the warnings is based on ISO 3864-2 and ANSI535.6.

Safety symbols and key words



Warning!

The signal word "Warning" indicates a danger to the lives or health of personnel.

Death or serious injury may result if the danger is not avoided.



Attention!

The signal word "Attention" indicates important information and risks to the product or the environment.

2.3 Basic safety instructions



Note!

There are warnings about specific residual dangers in the relevant sections!

- There are risks involved in the operation and maintenance of equipment for dairy farms. For your own safety, read and follow the operating manual carefully!
- The chapter on "Technical data" gives the permissible working conditions (pressure ranges, temperature ranges, airflow quantities etc.) and these must be observed!
- Protect live and high-voltage components against moisture. Under no circumstances may water jets or high-pressure cleaners be directed at these!

2.4 Personnel qualification

All personnel who perform work on or with the product must carefully read and understand the instructions and act in accordance with them!

- All work on pneumatic equipment should only be performed by technicians trained for this purpose.
- In principle, all welding work should only be performed by trained welders.

In addition, special qualifications are required for the following activities:

- Operating



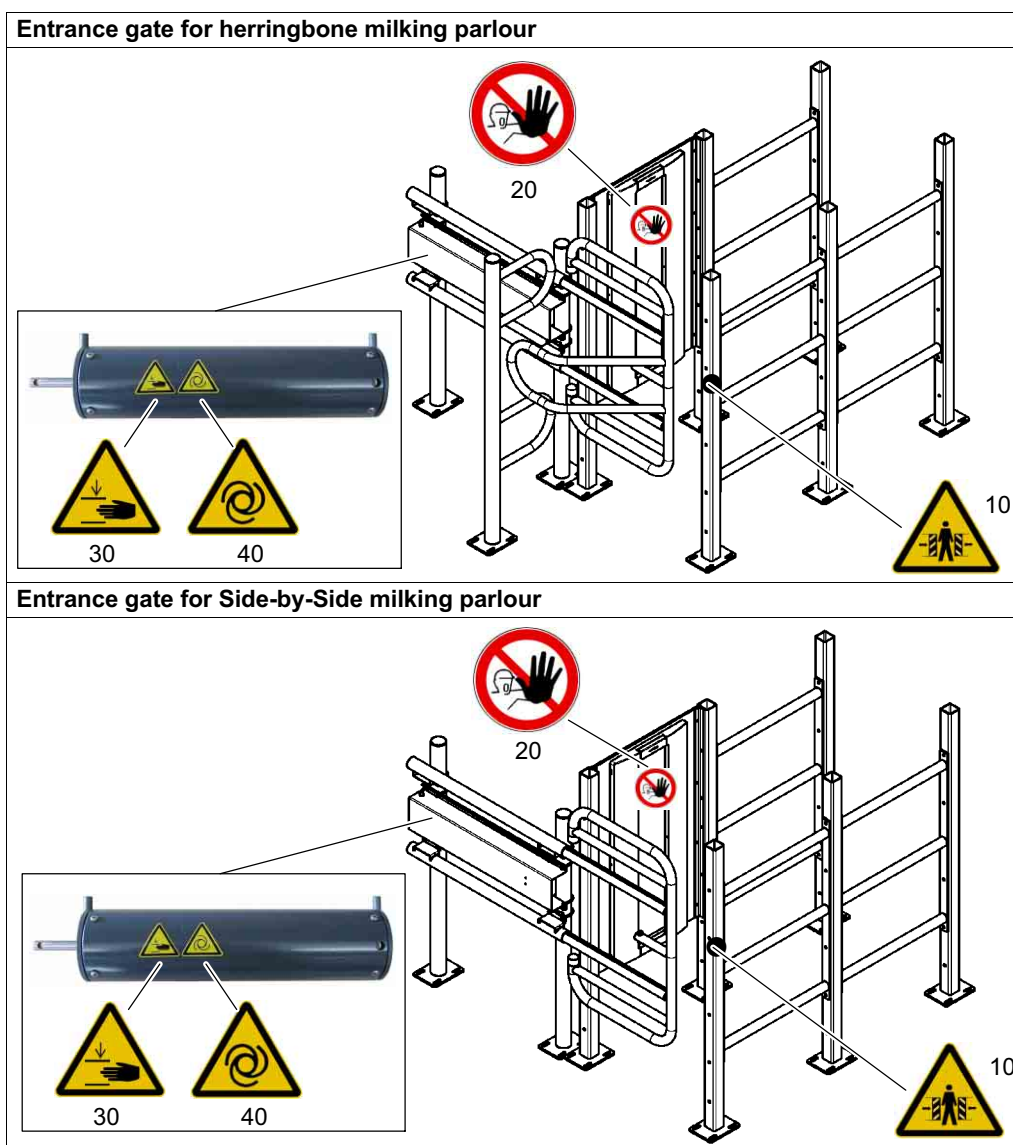
Note!

If the work requires special qualifications, these are described in the relevant sections!

2.5 Protective devices

Safety signs

Safety signs, plates and decals, which are attached to the product, must be replaced immediately if they become illegible or lost!



Pos.	Part No.		Description	
			Set of small parts	
0010	0024-6062-000		Warning sign	You run the risk of injury
0020	0024-6535-000		Warning sign	No entrance
			Pneumatic gate opening set	
0030	0024-6063-000		Warning sign	Injury to hands
0040	0024-6060-000		Warning sign	Automatic start!

3 Description

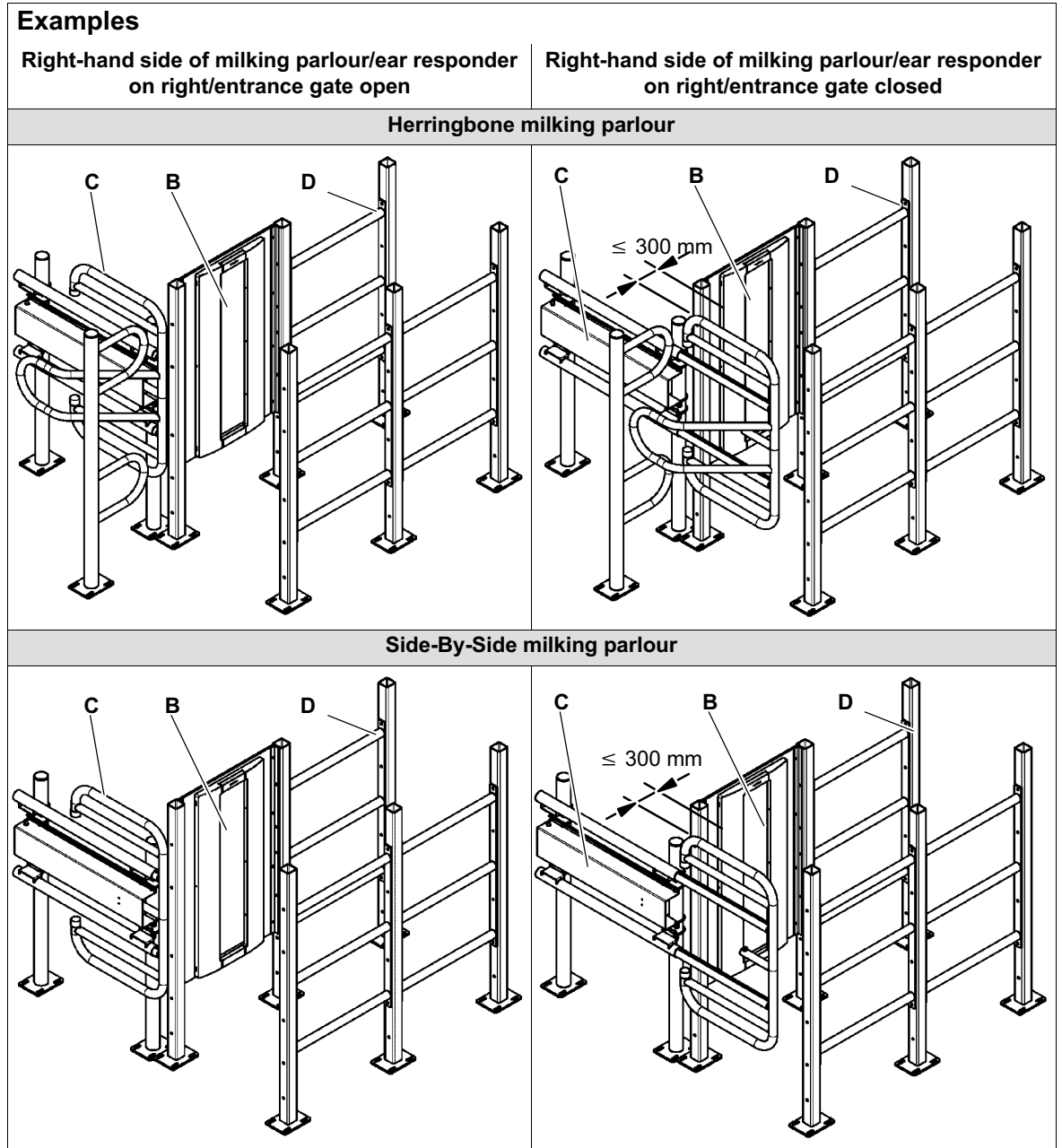
3.1 Changes to the product

For safety reasons, do not carry out any unauthorized changes!
Any changes to the product must be approved in writing, by the manufacturer.
Any unauthorised changes to the product will invalidate the warranty.




3.2 Structure and functions

Automatic animal identification - walk-through identification (ear-)



Components

Pos.	Identification system components	
A	Transceiver	not shown Corresponding manual: 7160-90..-426
B	Identification frame DMS 21 ID HDX/FDX <ul style="list-style-type: none"> • Internal antenna transformer 	
C	Entrance gate The entrance gate ensures the place assignment of the animals in the milking parlour. When the entrance gate is closed, the ear responder of the first animal is safely in the detection field.	Only in group milking parlours (SbS / HB)
D	Walk-through <ul style="list-style-type: none"> • Installation position of the identification frame • Segregates animals for identification • Prevents identified animals from being pushed out 	
E	Shielding The unwanted identification of animals outside the passageway (e.g. in the waiting yard or in a segregation bay) must be prevented by suitable measures (shielding!) when the identification frames are installed!	Option not shown
	HF booster Amplifies the identification field	Option not shown
	Dual antenna tuner AutoRotor (external)	not shown

3.3 Technical data

Entrance gate (vacuum)

Electrical data

Control valve input voltage	22 - 30 V DC
Control valve current consumption	0,03 A

Pneumatic/hydraulic data

Vacuum level	38 -42 kPa
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Entrance gate (compressed air)

Pneumatic/hydraulic data

Service pressure	6 bar
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HF-booster

Input voltage	25 VDC, +20%, -20%
Protection class	IP65

4 Transport

4.1 Safety instructions for transport

To prevent damage to property and/or life-threatening injury to personnel always observe the following:



Also read the chapter on Safety.

Special transport hazards:

- Projecting sharp edges may cause injury.
- Suspended loads may fall, in which case there is a danger of death - do not stand under suspended loads.
- Parts which are stacked too high can collapse.
- The highly inflammable packaging material represents a fire hazard - naked flames and smoking prohibited!

4.2 Product Package Includes

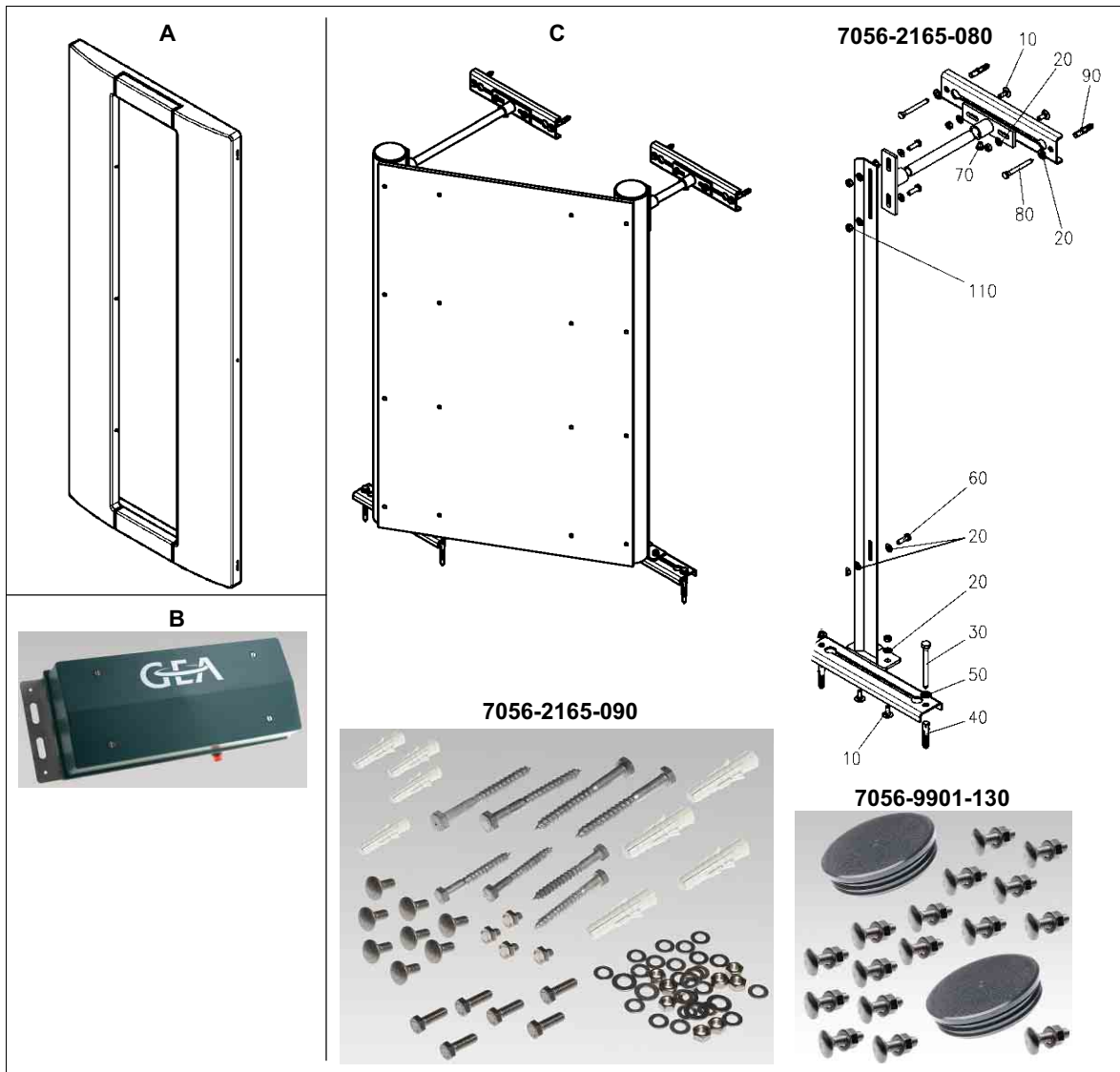
Check the product package against the following lists to ensure that the delivery is complete and nothing has been damaged.



Note!

- If there is a lot of installation work, the installation material supplied should be stored, as far as possible by the installation personnel, in the order in which it will be installed.
 - The amount of time spent looking for individual parts during installation can be thus kept to a minimum.
 - It also gives the installation personnel an idea of any parts that might be missing as soon as the individual parts are delivered so that they can be re-ordered without delay.

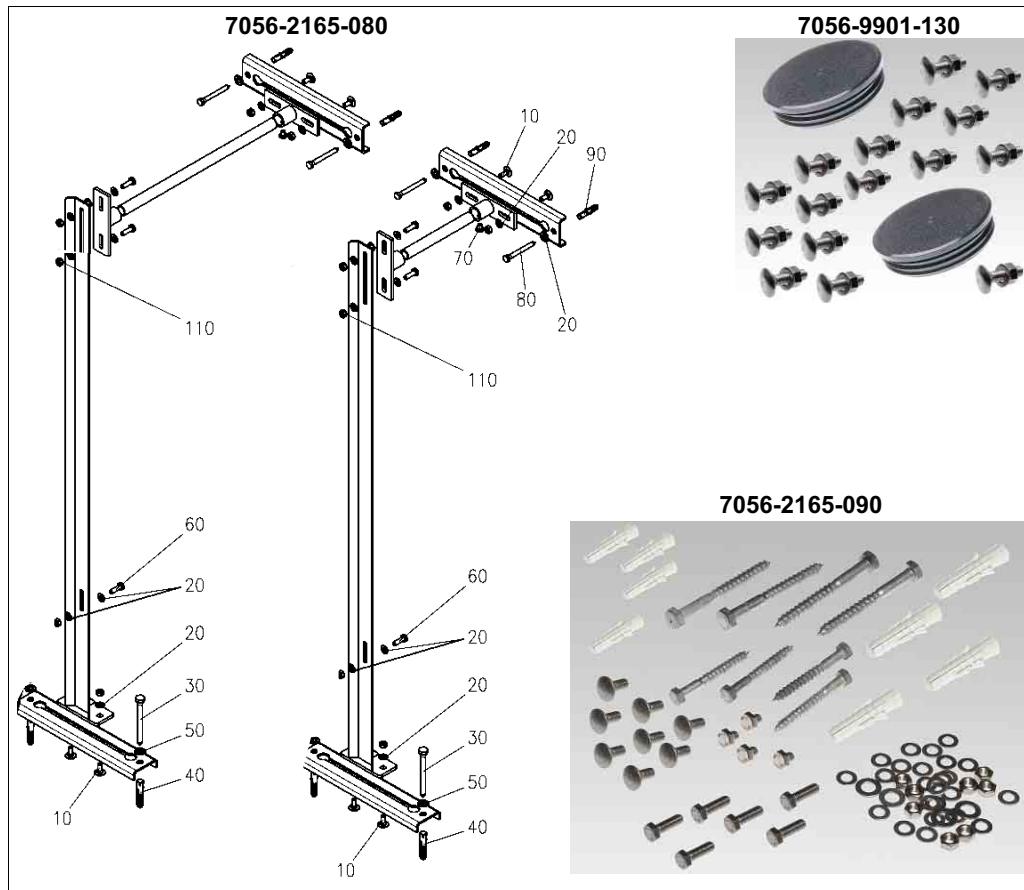
4.2.1 Identification frame



Pos.	Part No.	Description		Quantity *
A	7160-5530-320	Identification frame	SF4/TF	1
B		Transceiver (complete)		1
C	7056-2165-110	Set of fasteners	Magnum 40 EE	
* Quantity per side of milking parlour				

Set of fasteners (Magnum 40 EE)

Pos.	Part No.	Description		Quantity
C	7056-2165-110	Set of fasteners	Magnum 40 EE	
0010	7123-5467-150	Plate	725x1225x12	1
0020	7056-5627-030	Tube		2
0030	7056-2165-080	Set of fasteners		1
0040	7056-9901-130	Set of accessories		1



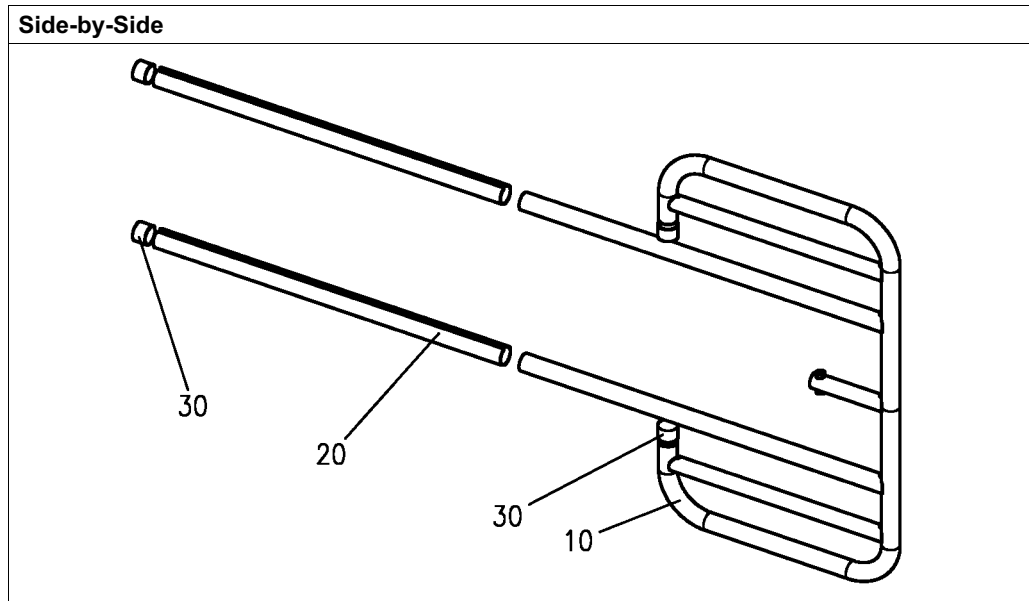
Pos.	Part No.	Description	Quantity
	7056-9901-130	Set of accessories	
0010	0003-0503-800	Plug	90
0020	0019-5576-300	Saucer-head screw	M8x30-MU
0030	0026-1345-300	Disk	8,4

Pos.	Part No.	Description	Quantity
	7056-2165-080	Set of fasteners	
0010	7056-5470-000	Support, welded	2
0020	7056-5653-020	Guide rail	4
0030	6919-0014-050	Threaded pipe	1/2 in
0040	7015-2155-020	Stand off bracket	1/2 in
0050	7056-2165-090	Set of fasteners	1

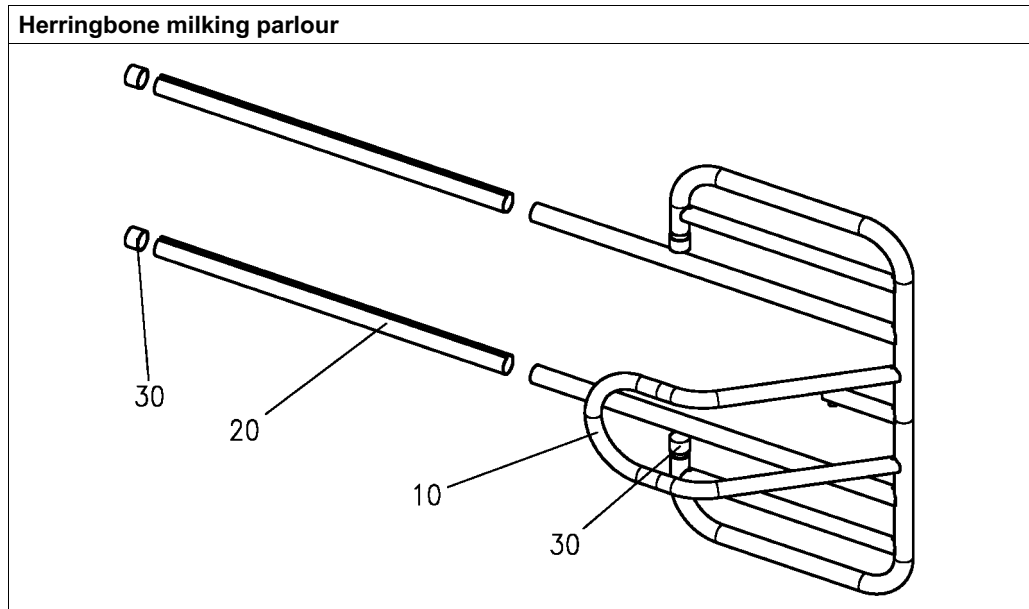
Pos.	Part No.	Description	Quantity
	7056-2165-090	Set of fasteners	
0010	0019-5574-300	Saucer-head screw	M8x20-MU
0020	0026-1345-300	Disk	8,4
0030	0019-5329-050	Wood screw	10x100
0040	0026-2305-890	Rawlplug	12x60
0050	0026-1348-300	Disk	10,5
0060	0019-6906-300	Hexagon head bolt	M8x25
0070	0019-6897-300	Hexagon head bolt	M8x8
0080	0019-5311-050	Wood screw	8x70
0090	0026-2304-890	Rawlplug	10x50
0110	0013-0278-300	Hexagon Nut	M8

4.2.2 Entrance gate

Gate

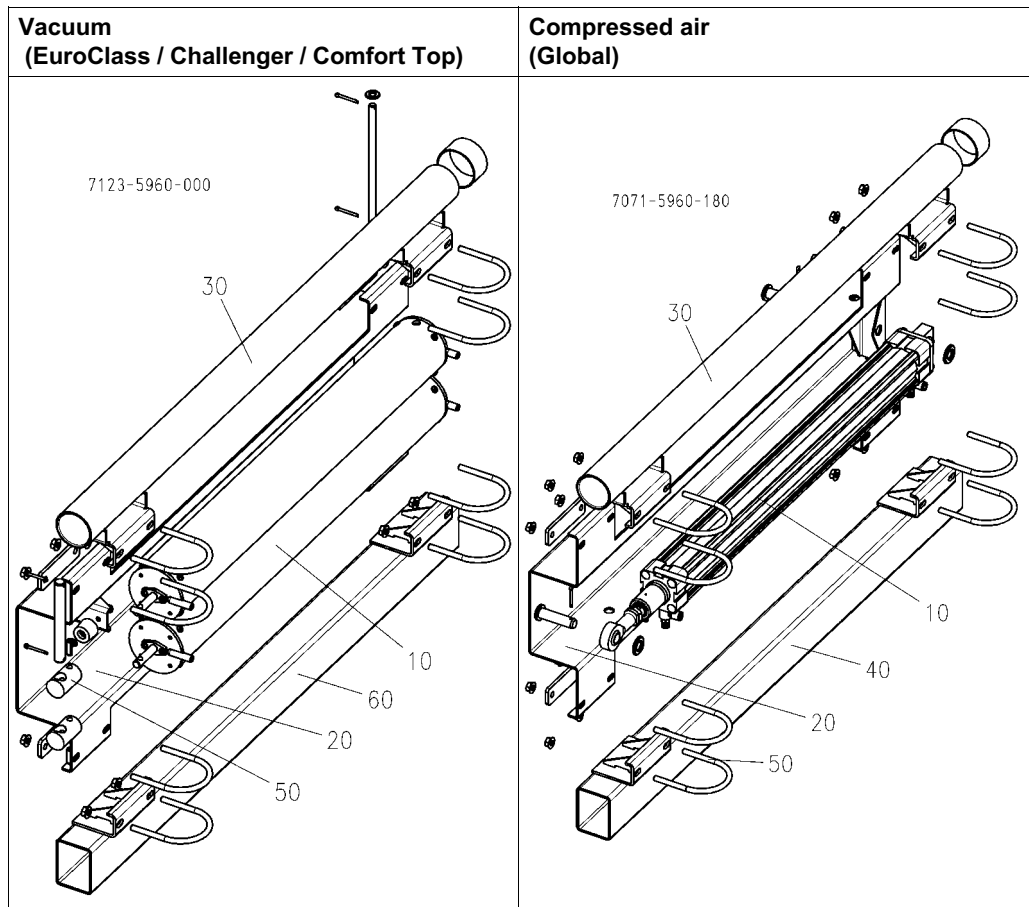


Pos.	Part No.	Description		Quantity
	7123-5545-050	Gate (complete)	SbS	
0010	7123-5546-120	Welded door frame	SbS	1
0020	7123-5026-030	Bushing	50x1,8x1035	2
0030	0026-2132-890	Cap	52x37	4



Pos.	Part No.	Description		Quantity
	7071-5545-220	Gate (complete)	HB	
0010	7071-5546-390	Welded door frame	HB	1
0020	7123-5026-030	Bushing	50x1,8x1035	2
0030	0026-2132-890	Cap	52x37	4

Gate opening set

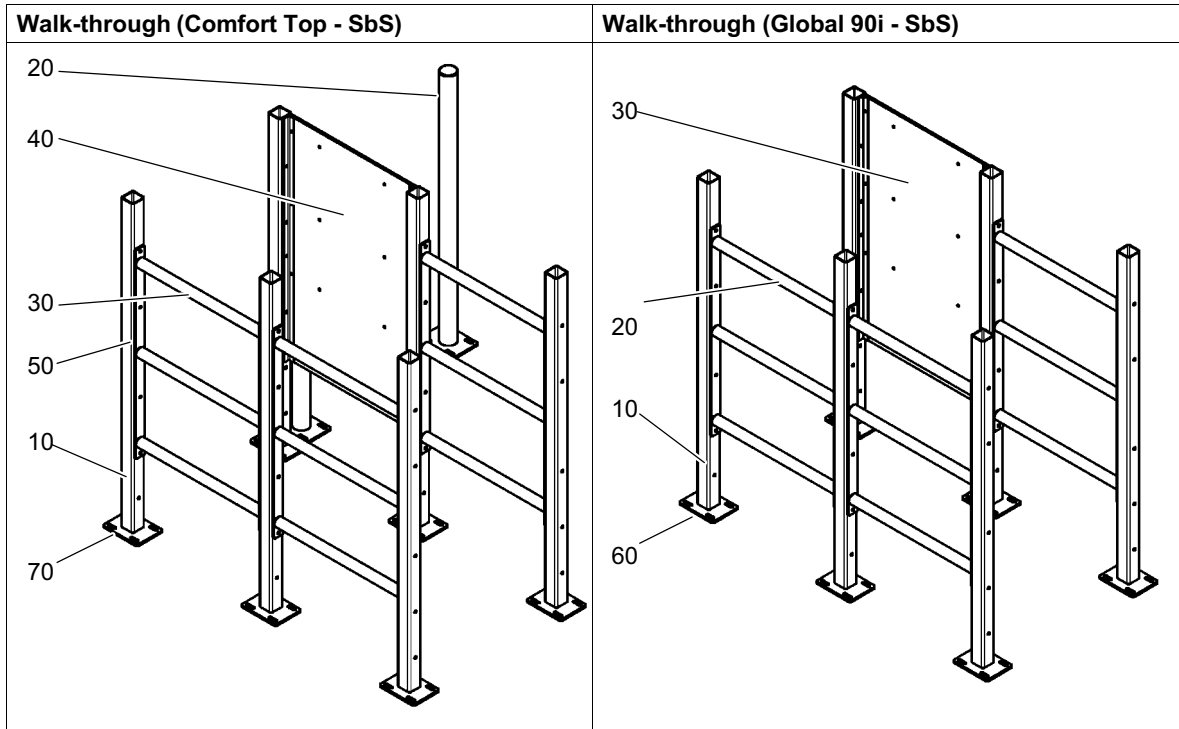


Pos.	Part No.	Description		Quantity
	7123-5960-000	Manual gate opening set	Vacuum	
0010	7065-1011-000	Vacuum cylinder (complete)	ø81x655	2
0020	7123-5597-010	Guard plate		1
0030	7123-5551-000	Pipe, welded	60,3x3,6x1050	1
0040	7065-6638-010	hose	9x3x12000	1
0050	7123-9926-000	Set of small parts		1
0060	7123-5551-010	Pipe, welded	80x60x1050	1

Pos.	Part No.	Description		Quantity
	7071-5960-180	Manual gate opening set	Compressed air	
0010	7123-1970-070	Lifting cylinder (complete)	ø50 / H=650	1
0020	7071-5597-020	Guard plate		1
0030	7123-5551-000	Pipe, welded	60,3x3,6x1050	1
0040	7123-5551-010	Pipe, welded	80x60x1050	1
0050	7071-9926-170	Set of small parts		1

4.2.3 Walk-through

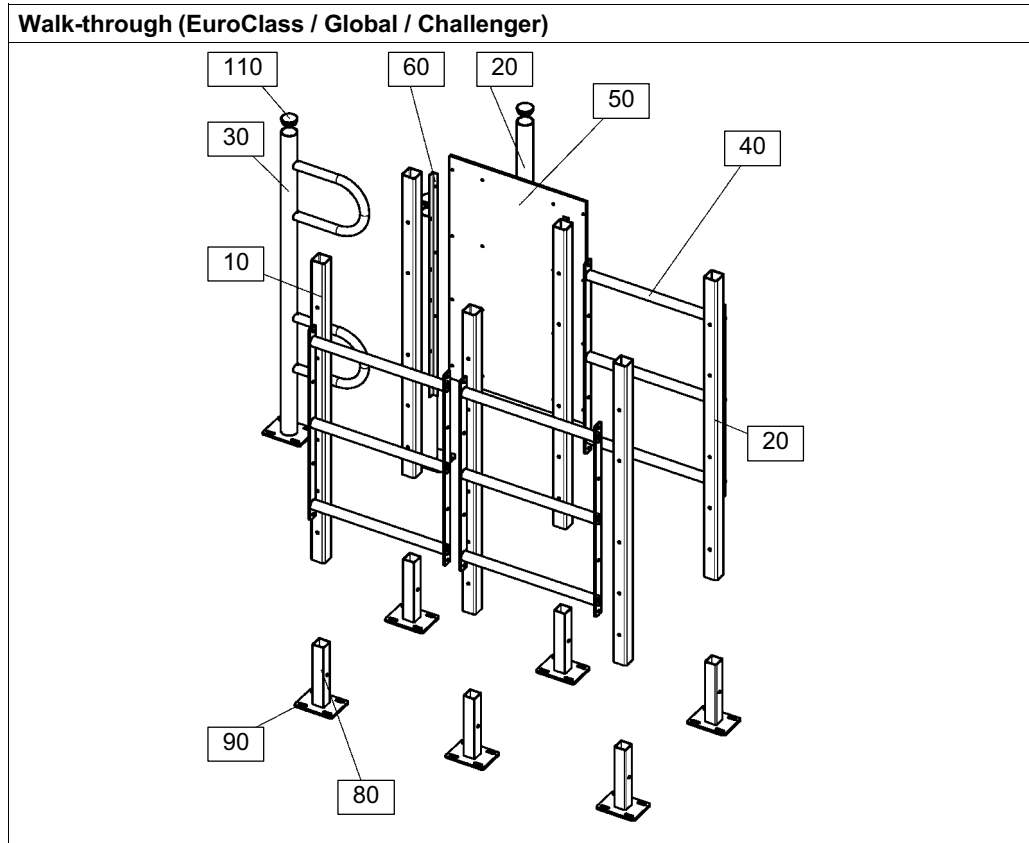
Walk-through (Comfort Top / Global 90i - SbS)



Pos.	Part No.	Description		Quantity
	7123-5545-060	Walk-through	SbS ComfortTop	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5572-020	Gatepost, welded		2
0030	7123-5537-000	Frame welded	730x1050	3
0040	7123-5467-150	Plate	725x1225x12	1
0050	7123-5490-640	Steel angle	L30x4x1225	2
0060	7123-2165-010	Set of fasteners		1
0070	7123-5470-000	Support, welded		6
0080	0019-1589-400	Threaded bolt	M12x160	32
0090	0003-0728-800	Plug	76x17	2
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

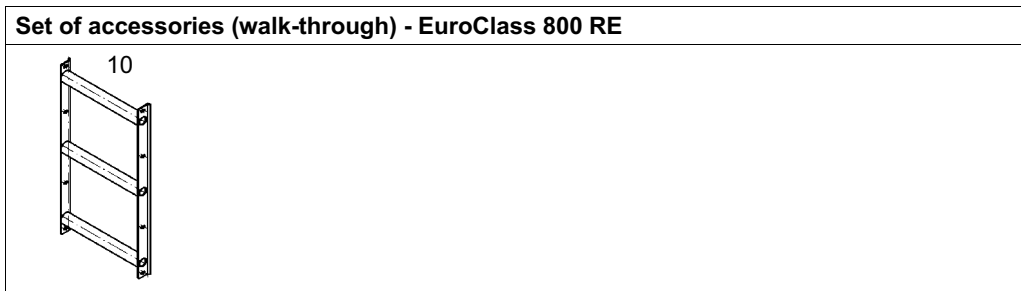
Pos.	Part No.	Description		Quantity
	7123-5545-070	Walk-through	SbS Global 90i	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5537-000	Frame welded	730x1050	3
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7123-2165-010	Set of fasteners		1
0060	7123-5470-000	Support, welded		6
0070	0019-1697-300	Threaded bolt	M12x160	24
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

Walk-through (EuroClass / Global / Challenger - HB)

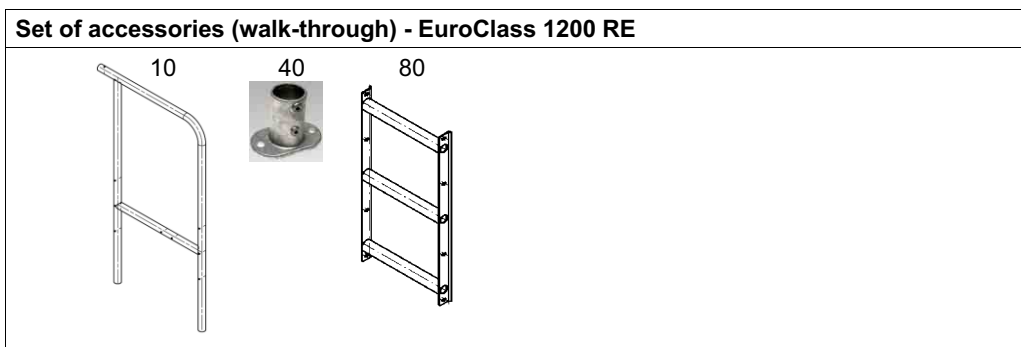


Pos.	Part No.	Description	Quantity	
	7071-5545-230	Walk-through	HB	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5572-020	Gatepost, welded		2
0030	7071-5572-030	Upright, welded	76,1x3,65x1660	1
0040	7123-5537-000	Frame welded	730x1050	3
0050	7123-5467-150	Plate	725x1225x12	1
0060	7123-5490-640	Steel angle	L30x4x1225	2
0070	7123-2165-010	Set of fasteners		1
0080	7123-5470-000	Support, welded		6
0090	0019-1697-300	Threaded bolt	M12x160	36
0110	0003-0728-800	Plug	76x17	3
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

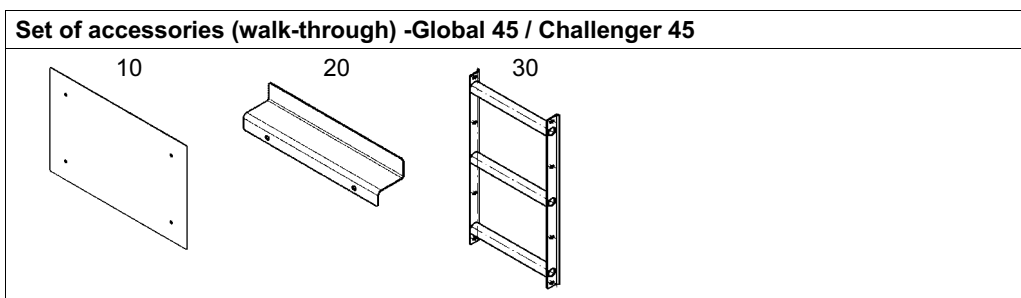
Set of accessories (walk-through) (EuroClass / Global / Challenger)



Pos.	Part No.	Description		Quantity
	7071-9901-970	Set of accessories	EuroClass 800 RE	
0010	7071-5537-470	Frame welded	EuroClass 800 RE	1

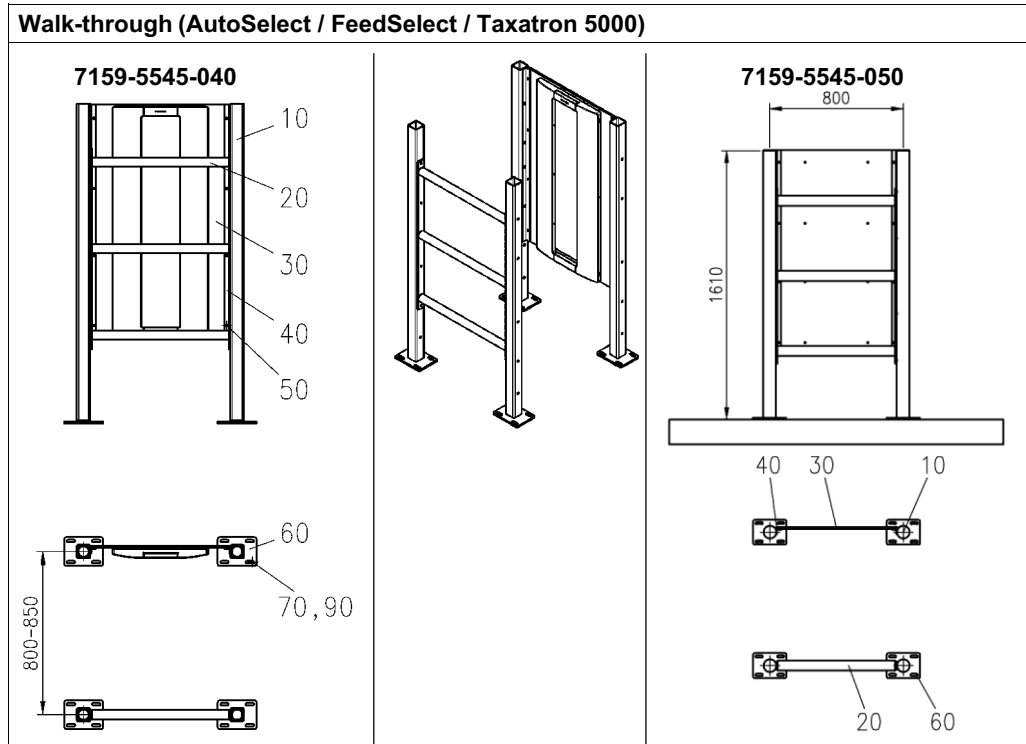


Pos.	Part No.	Description		Quantity
	7071-9901-960	Set of accessories	EuroClass 1200 RE	
0010	7750-0113-268	Frame welded	EC RE 1200	1
0020	0019-6518-300	Hexagon head bolt	M10x70	1
0030	0013-0171-300	Hexagon Nut	M10	1
0040	7071-2483-110	Clamp, compl.	2 in	2
0050	0019-5325-050	Wood screw	10x70	4
0060	0026-1348-300	Disk	10,5	4
0070	0026-2305-890	Rawlplug	12x60	4
0080	7071-5537-460	Frame welded	EuroClass 1200 RE	1



Pos.	Part No.	Description		Quantity
	7071-9901-950	Set of accessories	Global 45 / Challenger 45	
0010	7071-5453-790	Cover plate	474x310x1,5	1
0020	7071-5453-800	Sheet	310x118x1,5	2
0030	7071-5537-450	Frame welded	Global 45 / Challenger 45	1
0040	0019-1258-300	Saucer-head screw	M6x16	4
0050	0013-0276-300	Hexagon Nut	M6	4

Walk-through (AutoSelect / FeedSelect / Taxatron 5000)



Pos.	Part No.	Description	Quantity	
	7159-5545-040	Walk-through	Concrete floor	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	4
0020	7123-5537-000	Frame welded	730x1050	1
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7159-2165-030	Set of fasteners		1
0060	7123-5470-000	Support, welded		4
0070	0019-1697-300	Threaded bolt	M12x160	16
0090	0013-0172-300	Hexagon Nut		16

Pos.	Part No.	Description	Quantity	
	7159-5545-050	Walk-through	Slatted floor	
0010	7159-5572-010	Upright, welded	70x70x4x1660	4
0020	7123-5537-000	Frame welded	730x1050	1
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7159-2165-030	Set of fasteners		1
0060	7160-6165-010	Set of fasteners	Slatted floor	8

4.2.4 Optional components

Booster



Pos.	Part No.	Description	
	7160-2689-000	Booster	FDX/HDX
0010	7160-9067-000	PCB	ISO FDX/HDX

Dual antenna tuner



Part No.	Description
7160-2675-130	Dual antenna tuner

4.3 Storage conditions

- Storage temperature: -25 to +70 degrees Celsius

When storing the goods supplied, the location must provide protection against:

- Moisture
- Frost
- External damage (jolts, knocks, rodents, insects, . . .)
- Direct sunlight
- Remove the heat-shrink film and adhesive tape if the product is to be stored for any length of time.

4.4 Information on disposing of packing material

After unpacking, the packing material is to be handled properly and disposed of carefully in accordance with the valid local regulations on waste disposal and utilisation.

5 Installation

If necessary, please contact your nearest authorized technical dealer.

5.1 Special personnel qualifications required for installation

Installation may only be carried out by specially qualified personnel in accordance with the safety instructions.



See also the section on "Personnel qualification".

5.2 Safety instructions for installation

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Observe applicable national standards and requirements during installation!
Example:
Carry out electrical installation work in accordance with the following standards and requirements:
 - EN 60204, Point 14 (Electrical equipment of machines).
 - VDE 0100 (Regulations on the erection of power installations)
- Before installation, look for any damage caused during transport. Do not use damaged components!
- All electrically conductive parts with which the animals might come into contact must be connected to each other and to the installation's protective earth conductor by an additional equipotential bond.
- In the case of devices with 24 V direct voltage, the power supplies stipulated by the manufacturer and approved for the devices must be used, otherwise the safety of personnel and of the building cannot be ensured!



Also read the chapter on Safety.

Special hazards during installation:

- Lines which are not laid properly (e.g. bending radius too small) can cause scorching and electrical fires.
If a bending radius is too small, it should be removed.
- Electrostatic processes can cause damage to electronic components.



Attention!

Only touch the edge of the printed circuit board and avoid static caused, for example, by clothing.

- Before working on electrical installations or equipment (components, housings, etc.), they are to be disconnected from the mains.
Any on/off or emergency stop switches are to be fitted with a lock to immobilize them in the open position and a warning sign is to be put up.
- Welding work constitutes a fire hazard.
- Components which have been incorrectly set down or which have not been fastened properly may fall off or twist.
- Parts loosely placed on top of each other can slip and fall down.
- Components with sharp edges which are still open and accessible represent a source of injury.
- Depressurize hydraulic/pneumatic components before working on them!





5.3 Preparations before installation

Necessary documents



See section on:
Information on the instructions

Special tools

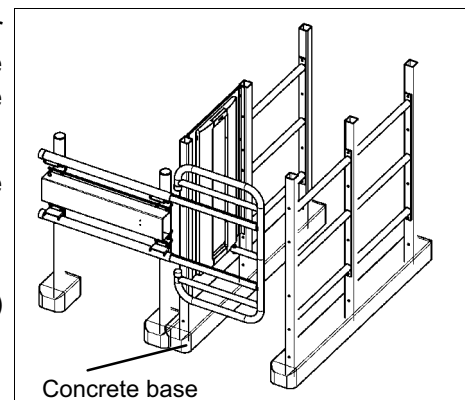
	Part No.	Description/Use	
		Torx screwdriver for installing the antenna	T20
	7059-9847-010	Cartridge press	
	Two-component epoxy resin for fixing threaded bolts in concrete		
	6960-0204-150	(cartridge with mixing nozzle)	1 x 380 ml
	7000-6960-060	(cartridge with two mixing nozzles)	1 x 380 ml
	7000-6960-050	10 mixing nozzles for two-component epoxy resin	

To be provided by the customer

- An adequate amount of concrete should be made ready for concreting work.

If the fastening plates on the uprights or supports are to be concreted in, the following amounts of concrete are required:

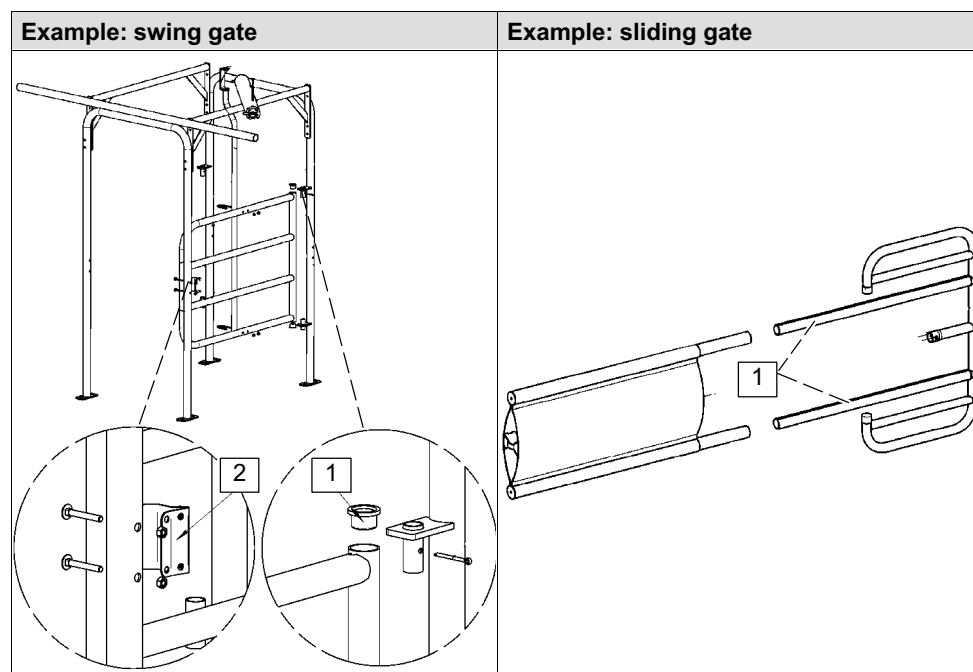
- for each milking parlour entrance (length 1.6 m)
~ 130 dm³
- for each walk-through (length 0.8 m)
~ 60 dm³



5.4 Environmental prerequisites for setting up

- The foundation must be produced in accordance with the foundation plans provided by the manufacturer.
- The milking or barn installation must be installed according to the relevant mounting instructions!
- The DMS 21 ID HDX/FDX identification system requires a low-interference environment to function correctly.
 - It is particularly important to ensure that interference suppression is performed on frequency converters, switched-mode power supplies and generalised phase controllers.
 - The manufacturer specifications and the applicable standards should be observed when performing interference suppression on these devices. (e.g. screened motor cable, filter, à)
 - It may be necessary to replace older devices with current devices.
- The identification field may not be diverted by the gates when they are closed (use insulated gate stops!).

When installing in an existing system, particular attention should be paid to ensuring that no interference is caused to the identification system when the entrance gate is opened.



1	Bushing	Plastic
2	Gate stop	Kunststoff

Herringbone milking parlour (EuroClass 800 / EuroClass 1200)

- A recess should be provided in the milking parlour wall for fitting the entrance gate (see relevant foundation plans)

5.5 Notes on installation

Working with stainless steel



Attention!

All screws and nuts made of stainless steel must be greased thoroughly to prevent them seizing during tightening!



Attention!

Always avoid sparks flying onto special steel surfaces or other sensitive components!
Metal dust on stainless steel surfaces can lead to corrosion!



5.6 Installing the walk-through

5.6.1 Notes on installation

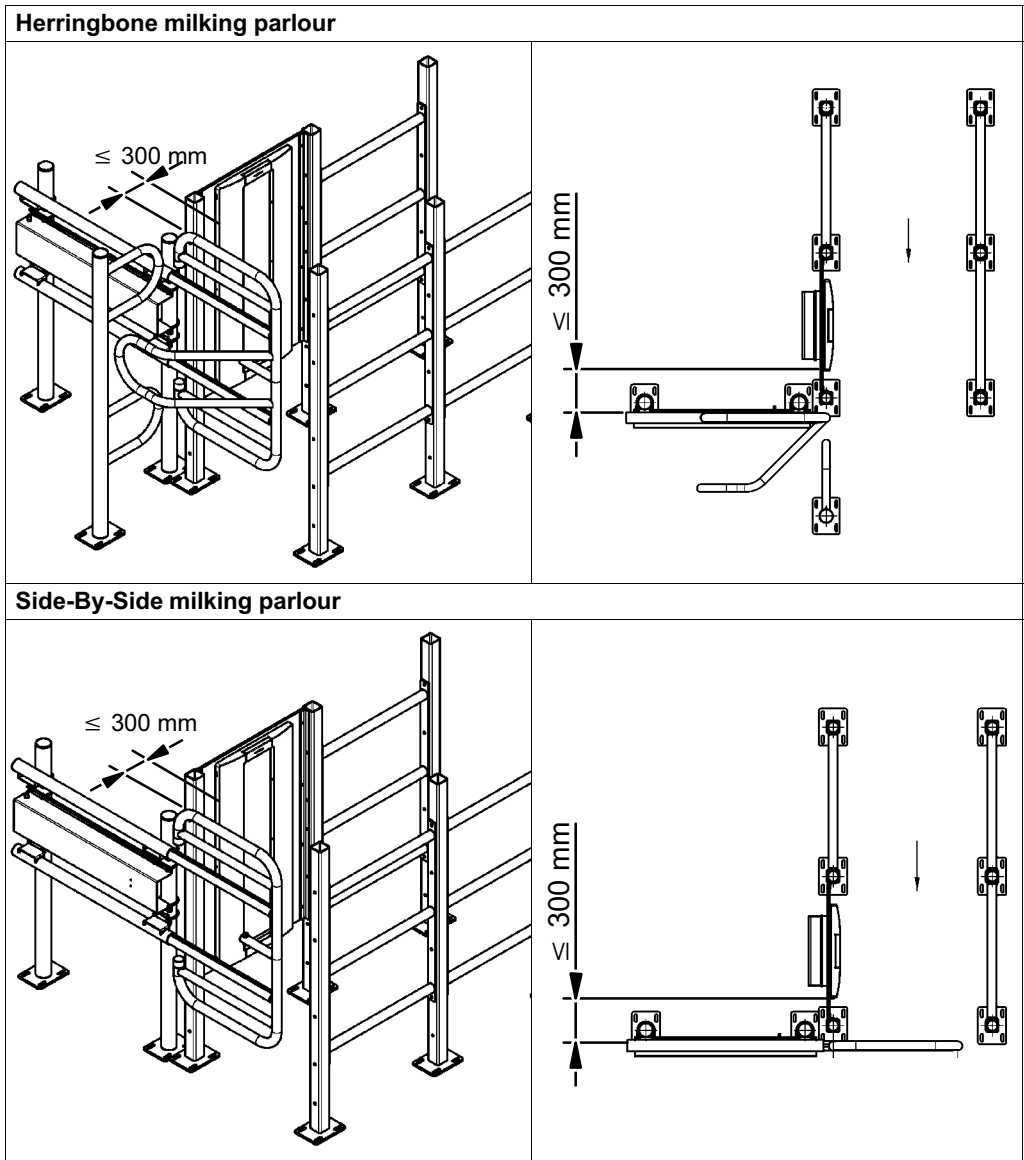
Distance between entrance gate and identification frame (< 300 mm)



Attention!

The distance between antenna and entrance gate must not be more than 300 mm.

Bear this distance in mind when installing the walk-through!

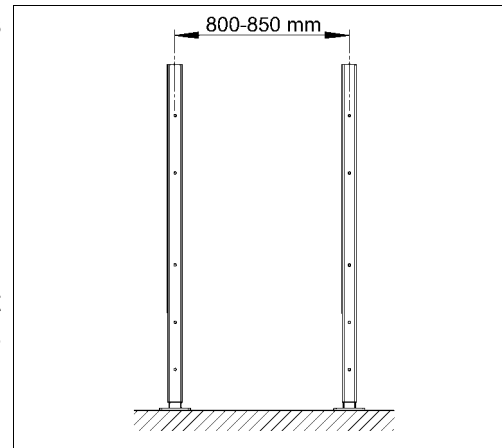


Walk-through

- Select a passageway width that is as narrow as possible. The centre distance between uprights should be between 800 mm and 850 mm.

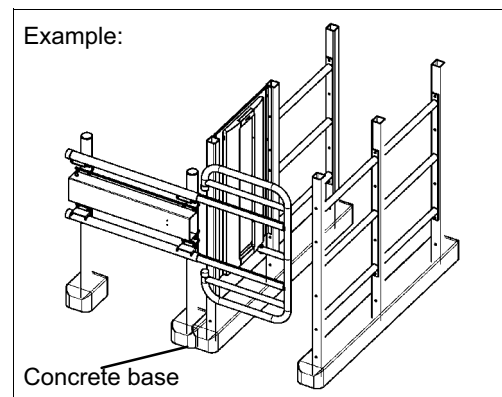
Attention!

If the passageway is too wide more than one ear responder may get within range of the antenna and this may result in incorrect identification.

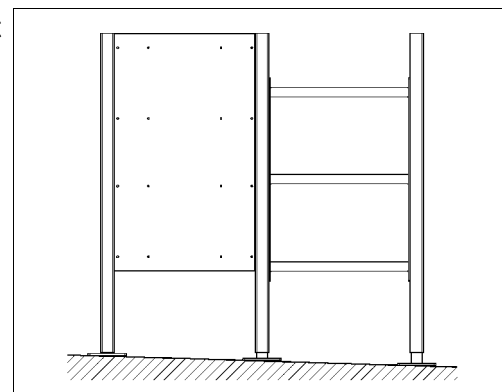


The width of the passageway means that the animals can only get into the identification area one by one and are therefore protected against being pushed out by other animals.

- Select the length of the passageway so that identified animals cannot be pushed out again.
The passageway should not be shorter.
- If mounted on concrete, the fastening plate area can be surrounded by a concrete base.



- The passageway uprights are height adjustable.
It is therefore possible to compensate for any sloping of the ground; for example, from the milking parlour to the waiting yard.

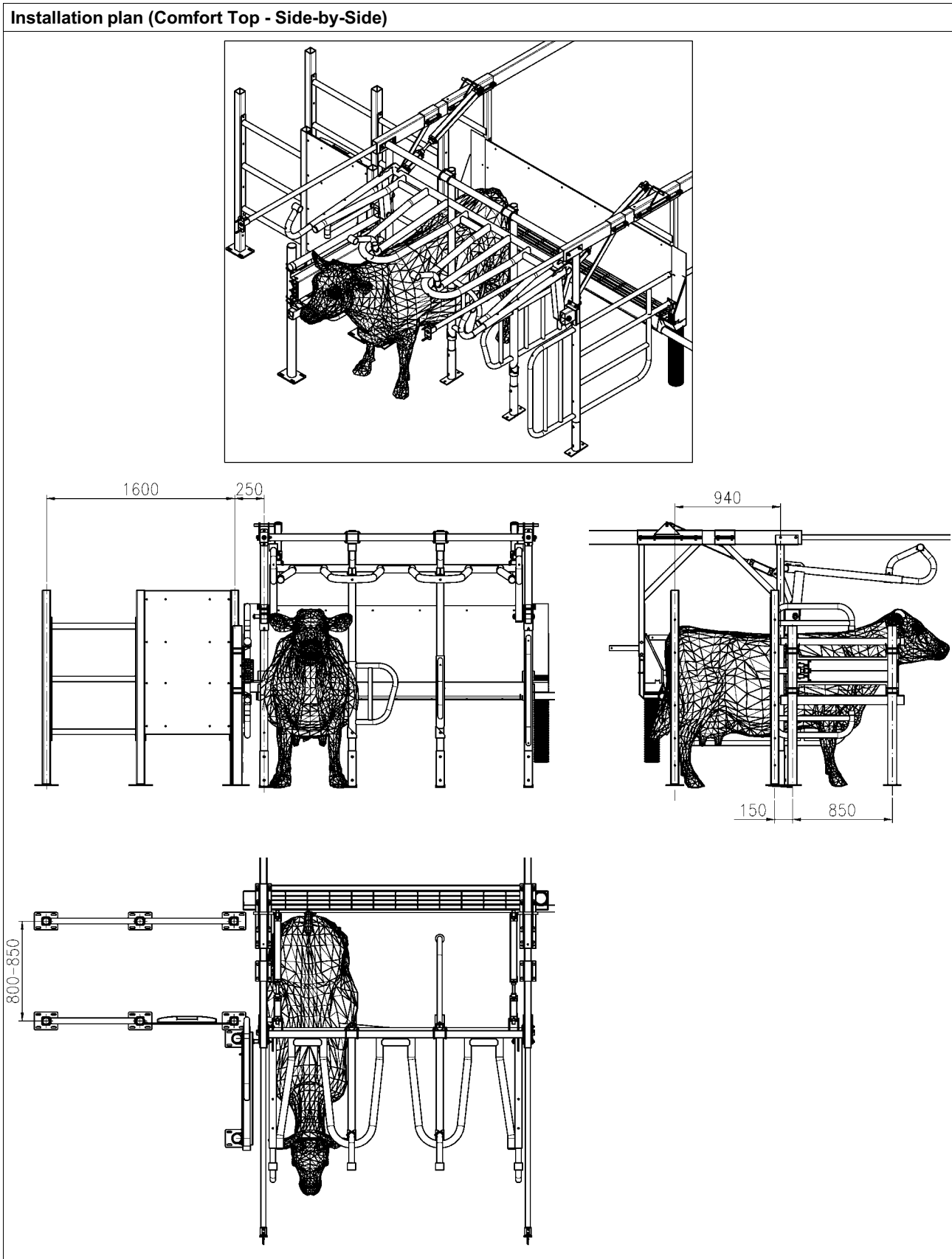


- The frame parts and the antenna should always be horizontal.

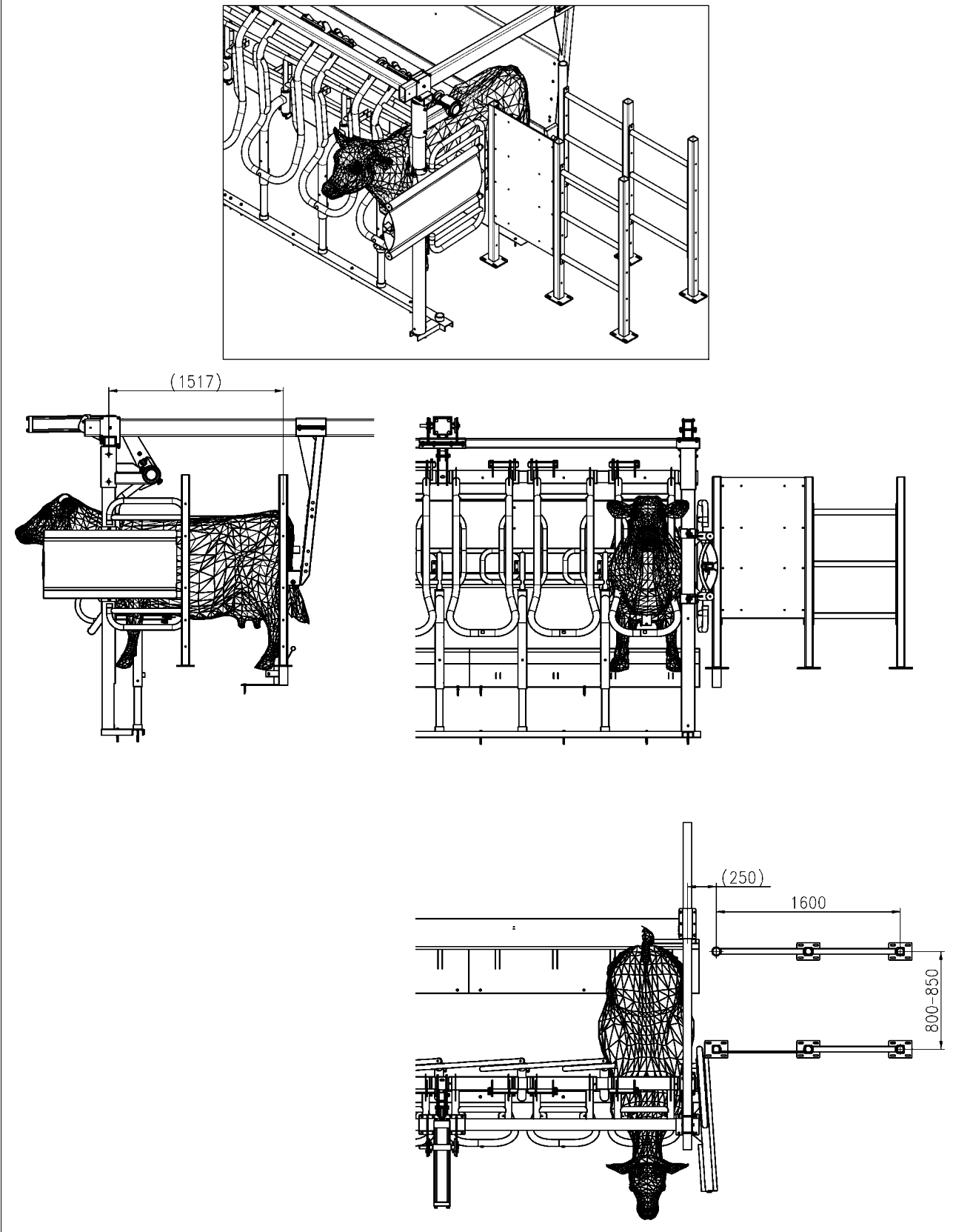
5.6.2 Installing the walk-through (Comfort Top / Global 90i - Side-by-Side)

Installation plans

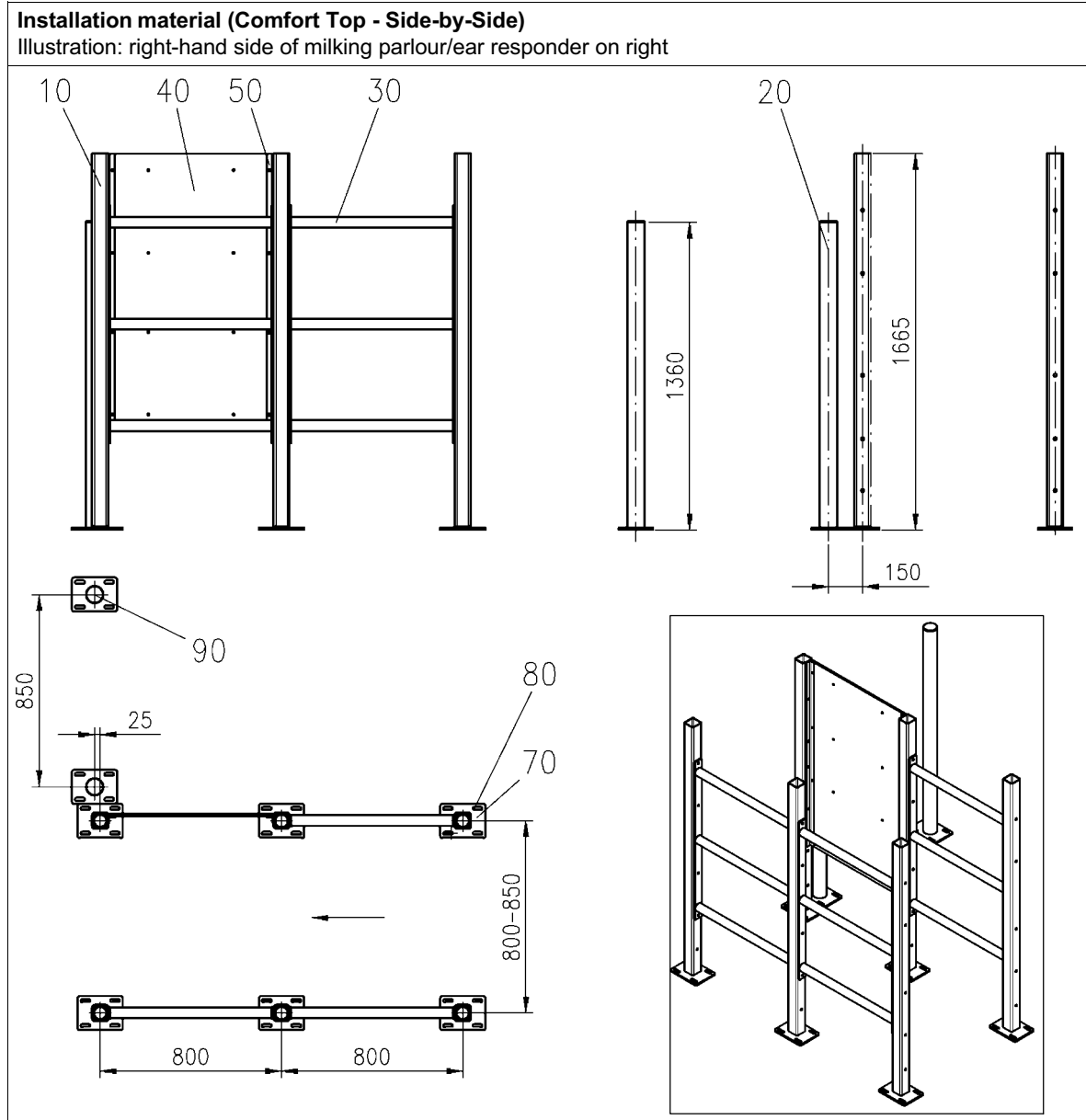
Installation plan (Comfort Top - Side-by-Side)



Installation plan (Global 90i - Side-by-Side)

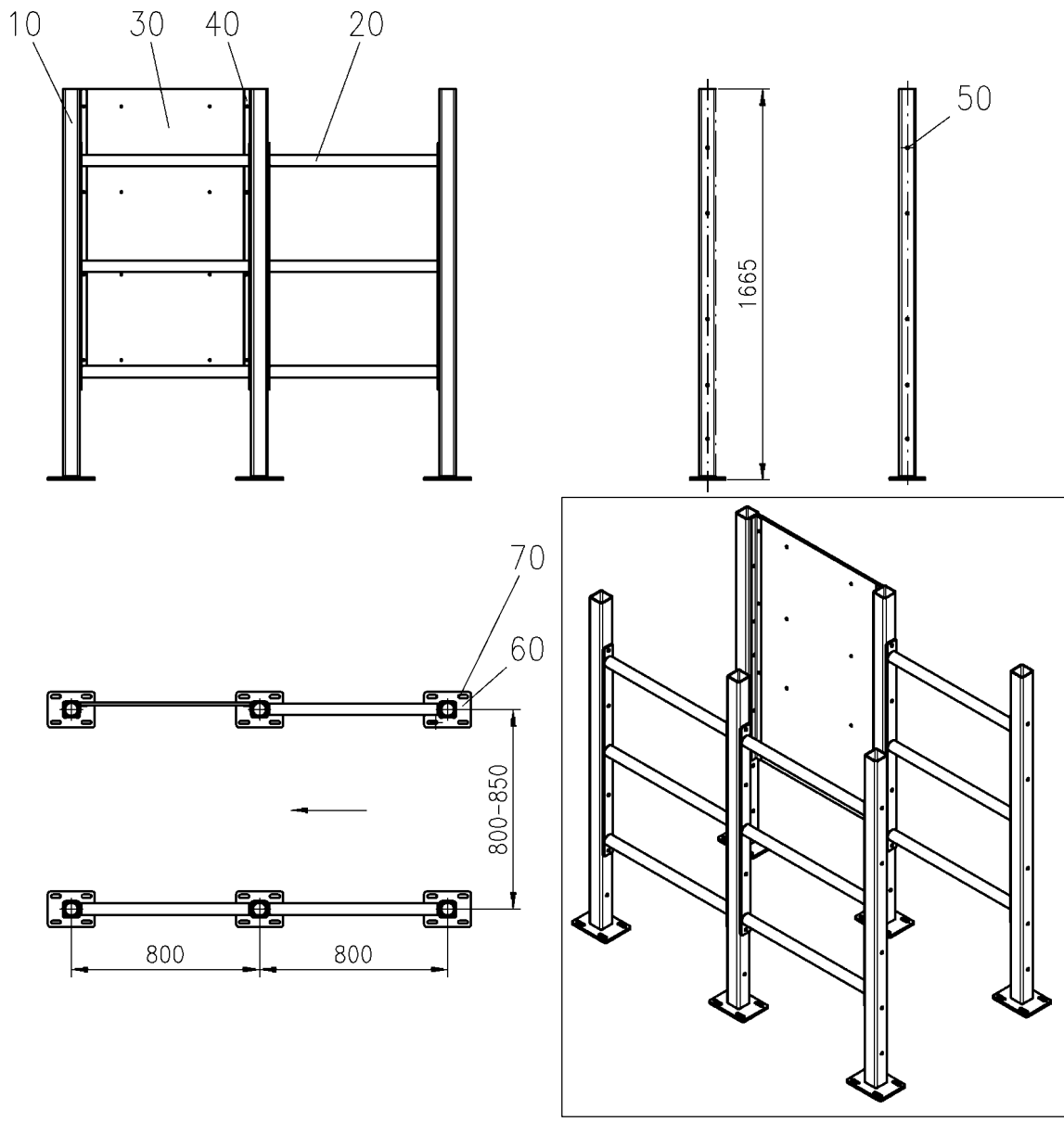


Installation material



Pos.	Part No.	Description	Quantity	
	7123-5545-060	Walk-through	SbS ComfortTop	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5572-020	Gatepost, welded		2
0030	7123-5537-000	Frame welded	730x1050	3
0040	7123-5467-150	Plate	725x1225x12	1
0050	7123-5490-640	Steel angle	L30x4x1225	2
0060	7123-2165-010	Set of fasteners		1
0070	7123-5470-000	Support, welded		6
0080	0019-1589-400	Threaded bolt	M12x160	32
0090	0003-0728-800	Plug	76x17	2
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

Installation material (Global 90i - Side-by-Side)
Illustration: ear responder on right



Pos.	Part No.	Description		Quantity
	7123-5545-070	Walk-through	SbS Global 90i	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5537-000	Frame welded	730x1050	3
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7123-2165-010	Set of fasteners		1
0060	7123-5470-000	Support, welded		6
0070	0019-1697-300	Threaded bolt	M12x160	24
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

Assembly procedure

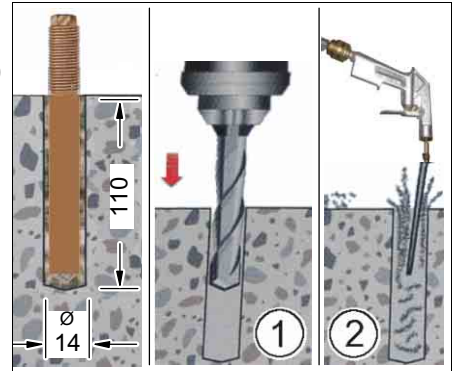


Attention!

Observe installation notes!
See section: Notes on installation

Position threaded rods

- Mark drill holes according to installation plan.
- Drill holes. (1)
- Blow compressed air down the holes! (2)
In addition, feed a thin tube down to the bottom of the hole in order to remove all the boring dust.



- Fill holes with epoxy resin.
Fill level: approximately 1/3 of the depth of the hole.



Attention!

The threaded rods are fixed in the concrete with two-component resin.

- The concrete must have set before resin can be poured into the holes!
- Always follow the instructions on the box or cartridge!
- In the case of cartridges which have just been opened, keep spraying out the product to start with until resin which is obviously mixed comes out of the mixing tube.



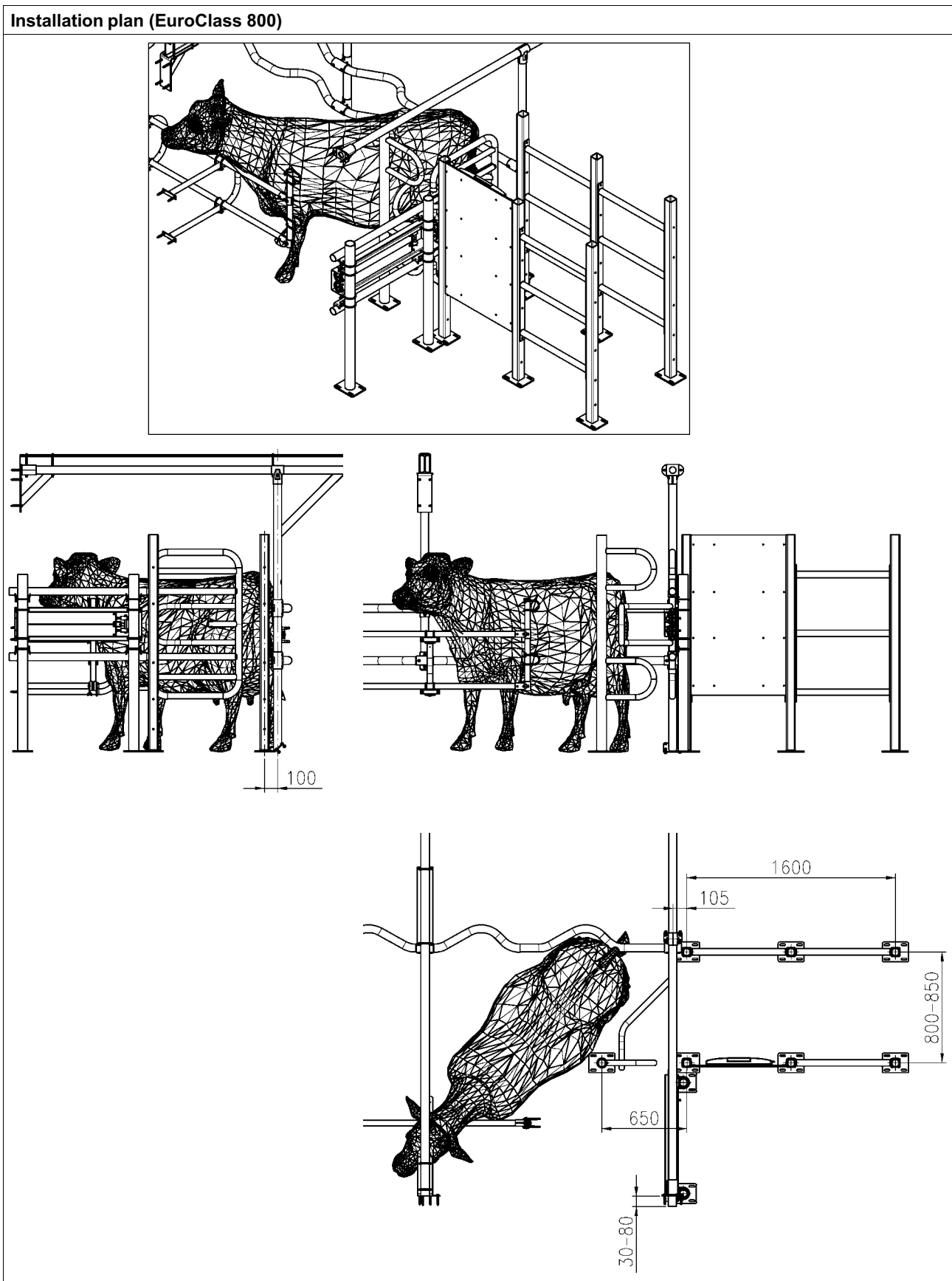
	7000-6960-060	Epoxy resin	
	7059-9847-010	Cartridge gun	

- Then immediately push the threaded rod into the hole.
 - Rotate gently to create an effective bond between the thread and the artificial resin.
 - Direction of rotation:
Counter-clockwise
- Allow adhesive to harden according to the instructions on the packaging.
 - Do not place any load on the threaded rods while the adhesive is hardening.
 - Hardening time below 0 degrees Celsius: at least 6 hours.
- Install walk-through according to the installation plan

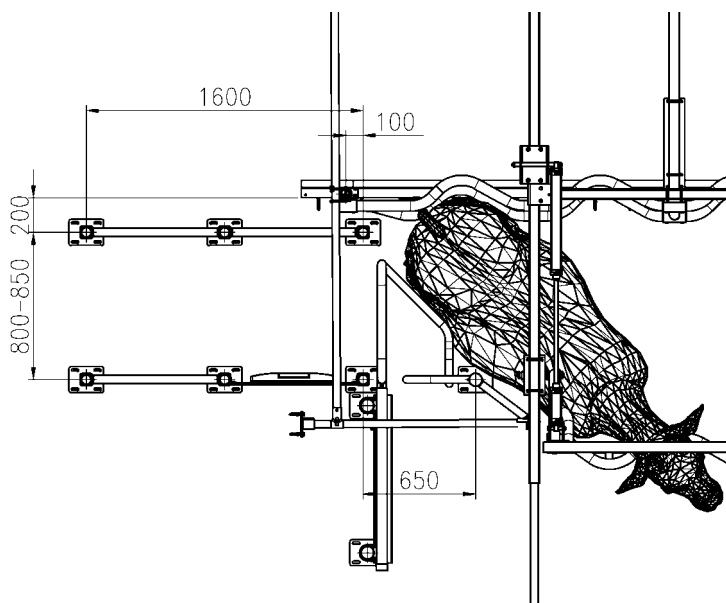
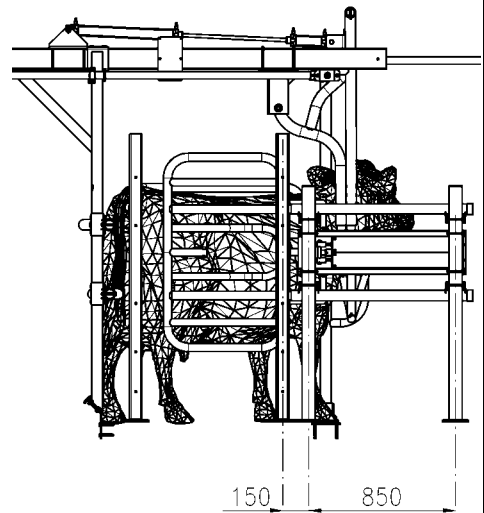
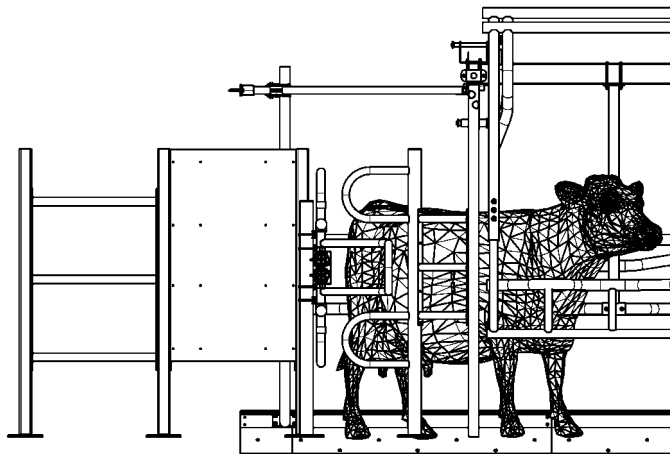
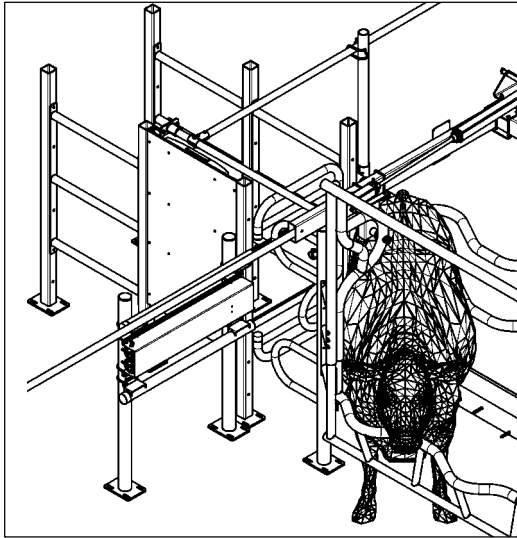


5.6.3 Installing the walk-through (EuroClass / Challenger 45 / Global 45 - HB)

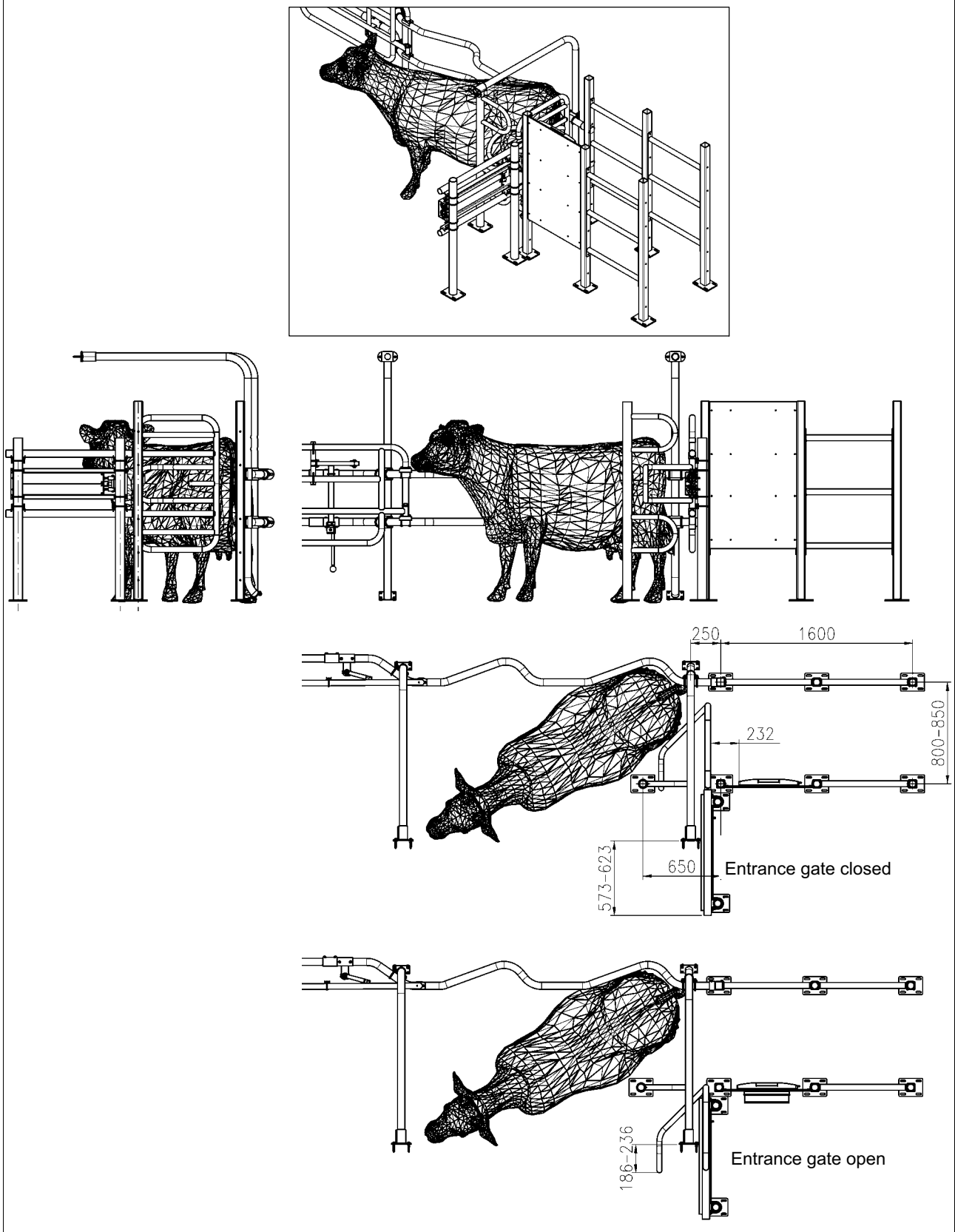
Installation plan (EuroClass)



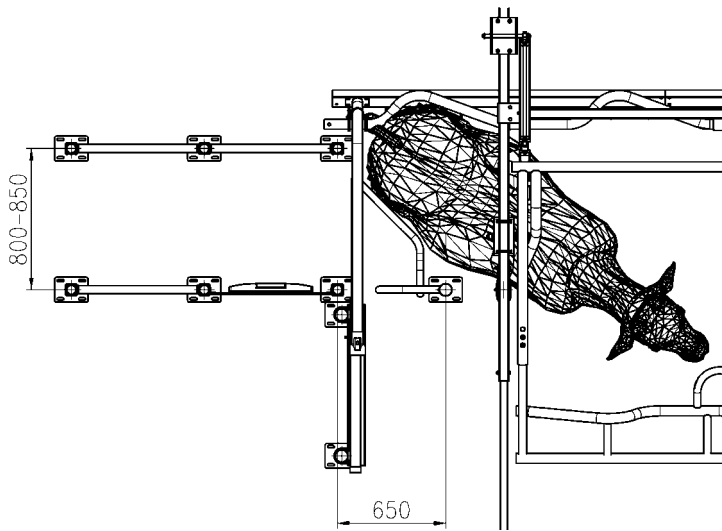
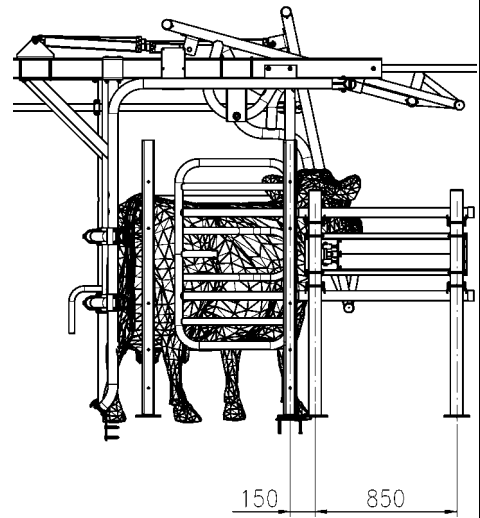
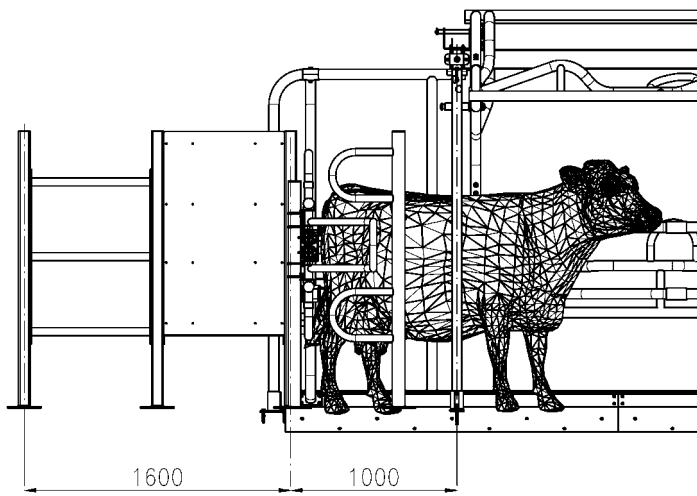
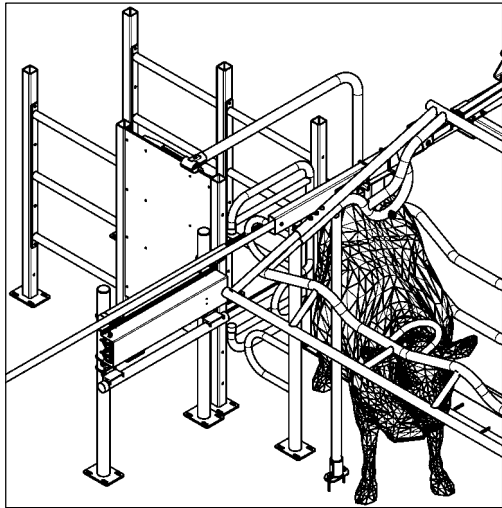
Installation plan (EuroClass 800 RE)



Installation plan (EuroClass 1200)

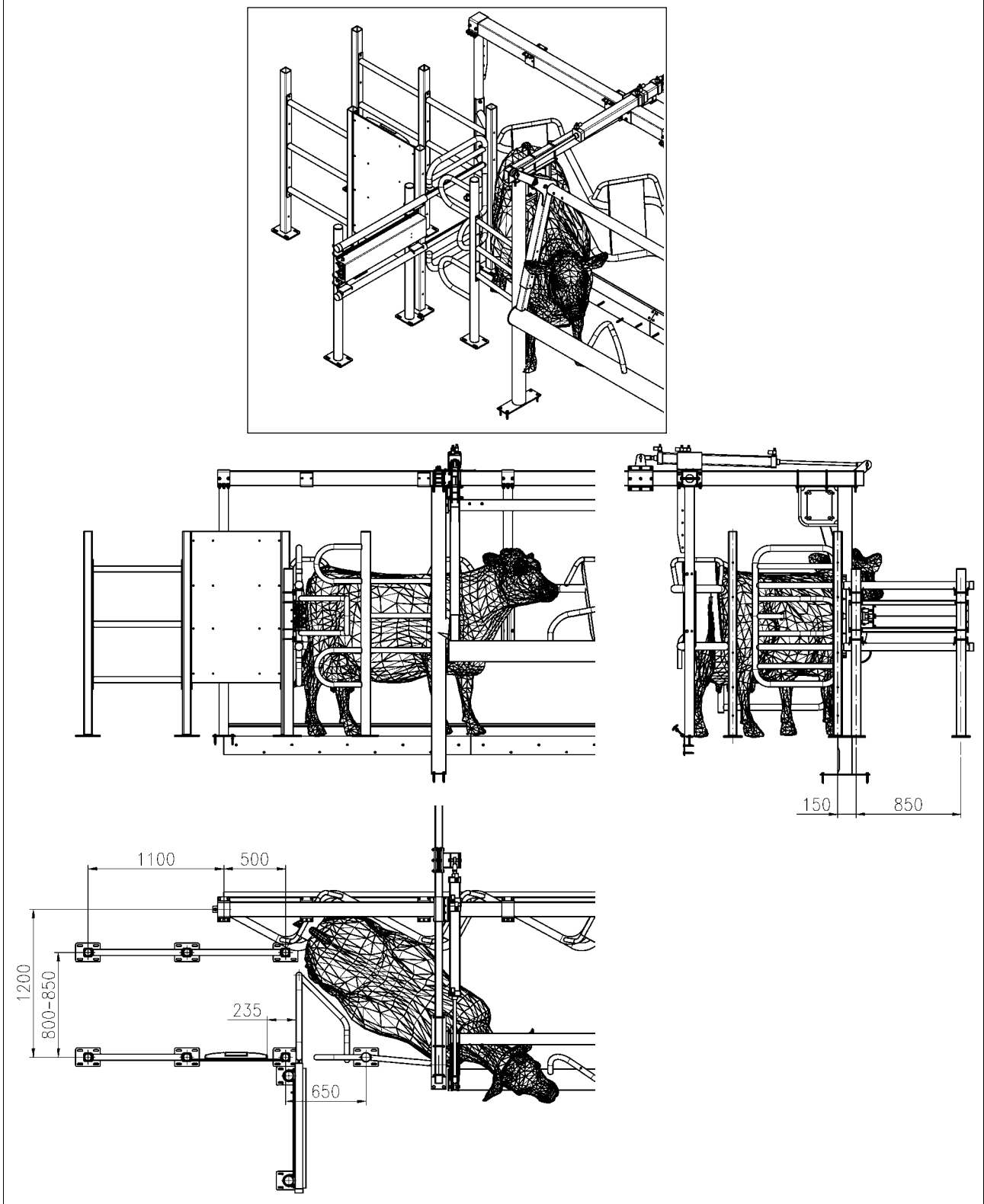


Installation plan (EuroClass 1200 RE)

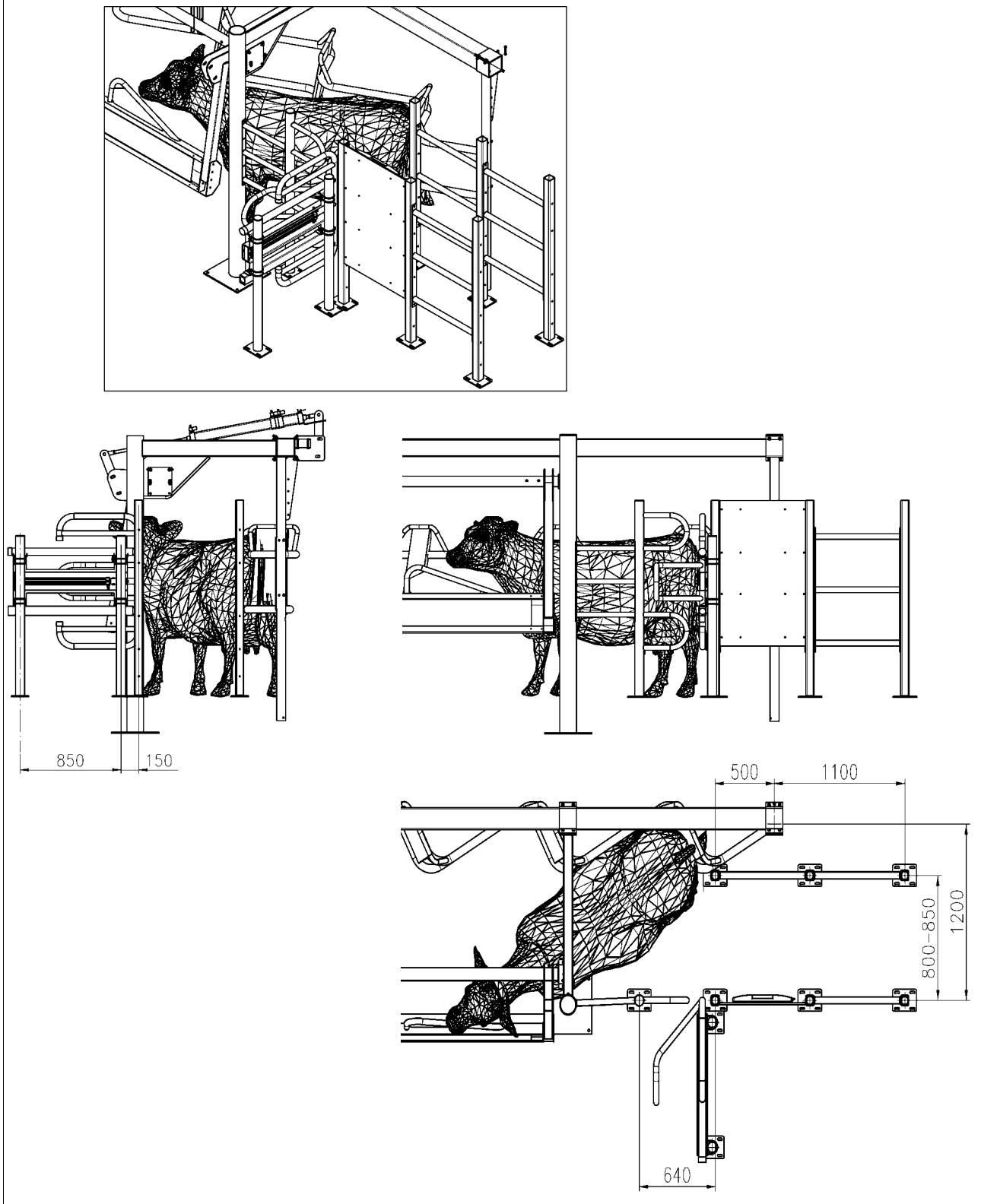


Assembly drawings (Challenger 45 / Global 45)

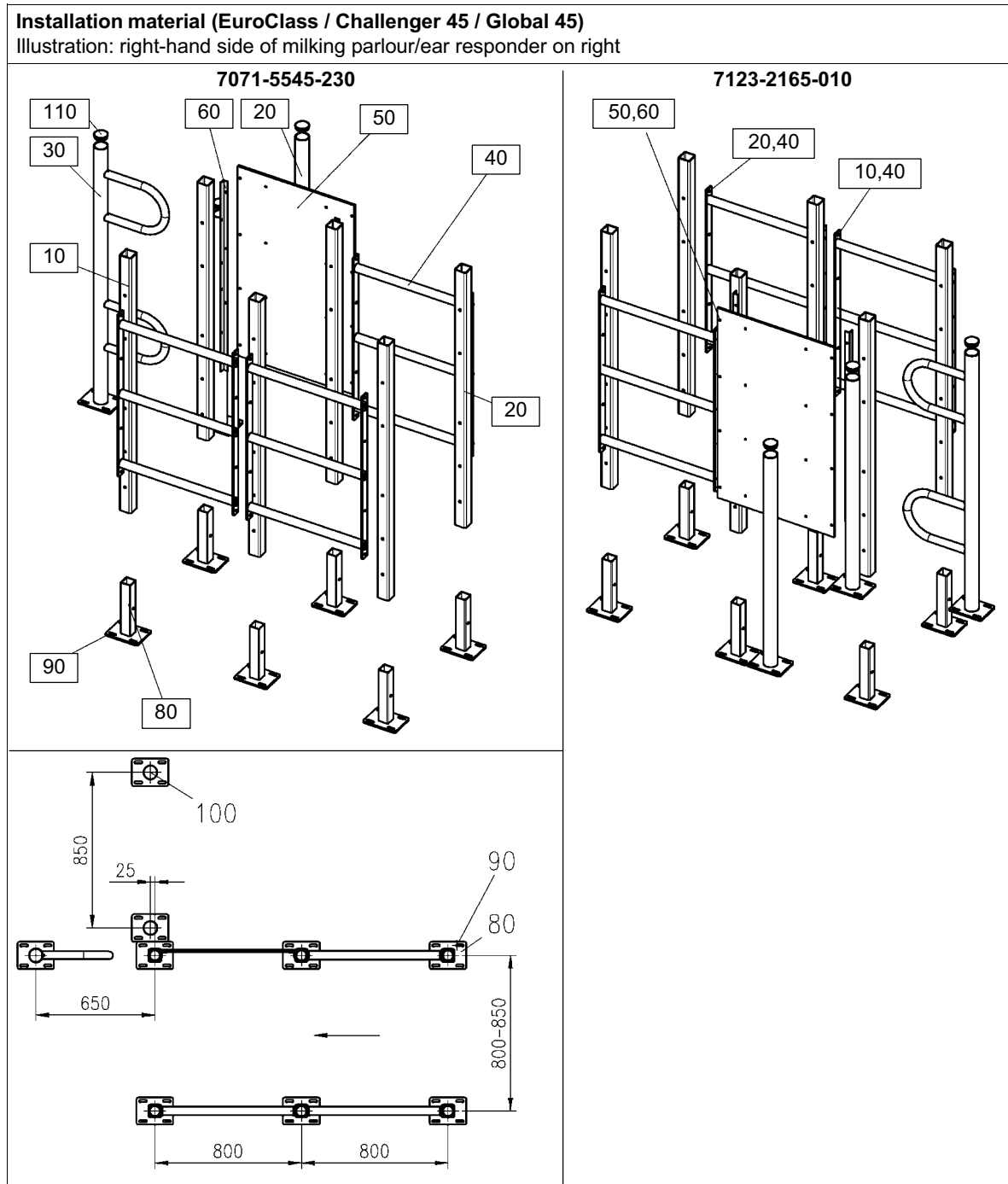
Installation plan (Challenger 45)



Installation plan (Global 45)



Installation material (EuroClass / Challenger 45 / Global 45)

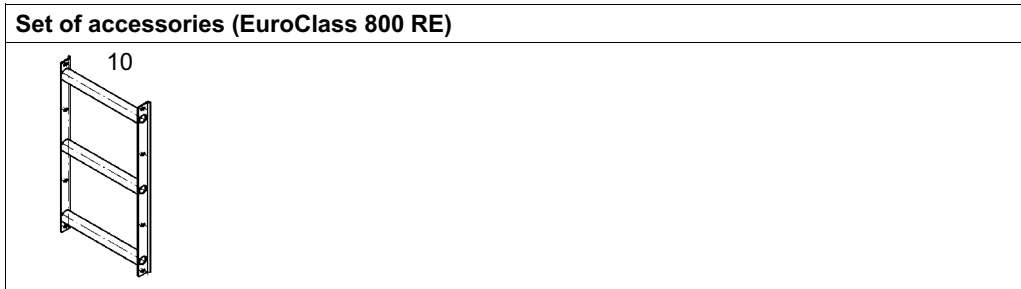


Pos.	Part No.	Description	Quantity	
	7071-5545-230	Walk-through	Herringbone	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	6
0020	7123-5572-020	Gatepost, welded		2
0030	7071-5572-030	Upright, welded	76,1x3,65x1660	1
0040	7123-5537-000	Frame welded	730x1050	3
0050	7123-5467-150	Plate	725x1225x12	1
0060	7123-5490-640	Steel angle	L30x4x1225	2
0070	7123-2165-010	Set of fasteners		1
0080	7123-5470-000	Support, welded		6
0090	0019-1697-300	Threaded bolt	M12x160	36

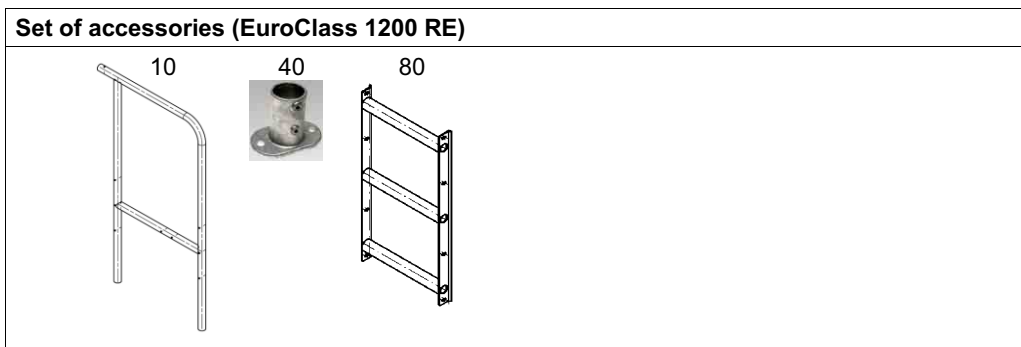
0110	0003-0728-800	Plug	76x17	3
0120	0013-0172-300	Hexagon Nut	M12 w. Flange	32

Pos.	Part No.	Description		Quantity
	7123-2165-010	Set of fasteners		
0010	0019-6525-400	Hexagon head bolt	M10x110	8
0020	0019-6951-300	Hexagon head bolt	M10x100	22
0030	0019-9269-150	Drilling screw	ST6,3x19-K	8
0040	0013-0171-300	Hexagon Nut	M10	30
0050	0019-5576-300	Saucer-head screw	M8x30-MU	16
0060	0026-1345-300	Disk	8,4	16

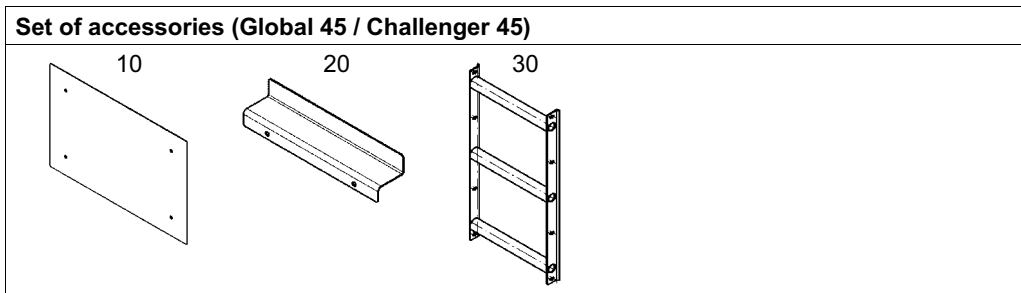
Set of accessories



Pos.	Part No.	Description		Quantity
	7071-9901-970	Set of accessories	EuroClass 800 RE	
0010	7071-5537-470	Frame welded	EuroClass 800 RE	1



Pos.	Part No.	Description		Quantity
	7071-9901-960	Set of accessories	EuroClass 1200 RE	
0010	7750-0113-268	Frame welded	EC RE 1200	1
0020	0019-6518-300	Hexagon head bolt	M10x70	1
0030	0013-0171-300	Hexagon Nut	M10	1
0040	7071-2483-110	Clamp, compl.	2 in	2
0050	0019-5325-050	Wood screw	10x70	4
0060	0026-1348-300	Disk	10,5	4
0070	0026-2305-890	Rawlplug	12x60	4
0080	7071-5537-460	Frame welded	EuroClass 1200 RE	1



Pos.	Part No.	Description		Quantity
	7071-9901-950	Set of accessories	Global 45 / Challenger 45	
0010	7071-5453-790	Cover plate	474x310x1,5	1
0020	7071-5453-800	Sheet	310x118x1,5	2
0030	7071-5537-450	Frame welded	Global 45 / Challenger 45	1
0040	0019-1258-300	Saucer-head screw	M6x16	4
0050	0013-0276-300	Hexagon Nut	M6	4

Assembly procedure



Attention!

Observe installation notes!
See section: Notes on installation

- Mark drill holes according to installation plan
 - Position threaded rods
-

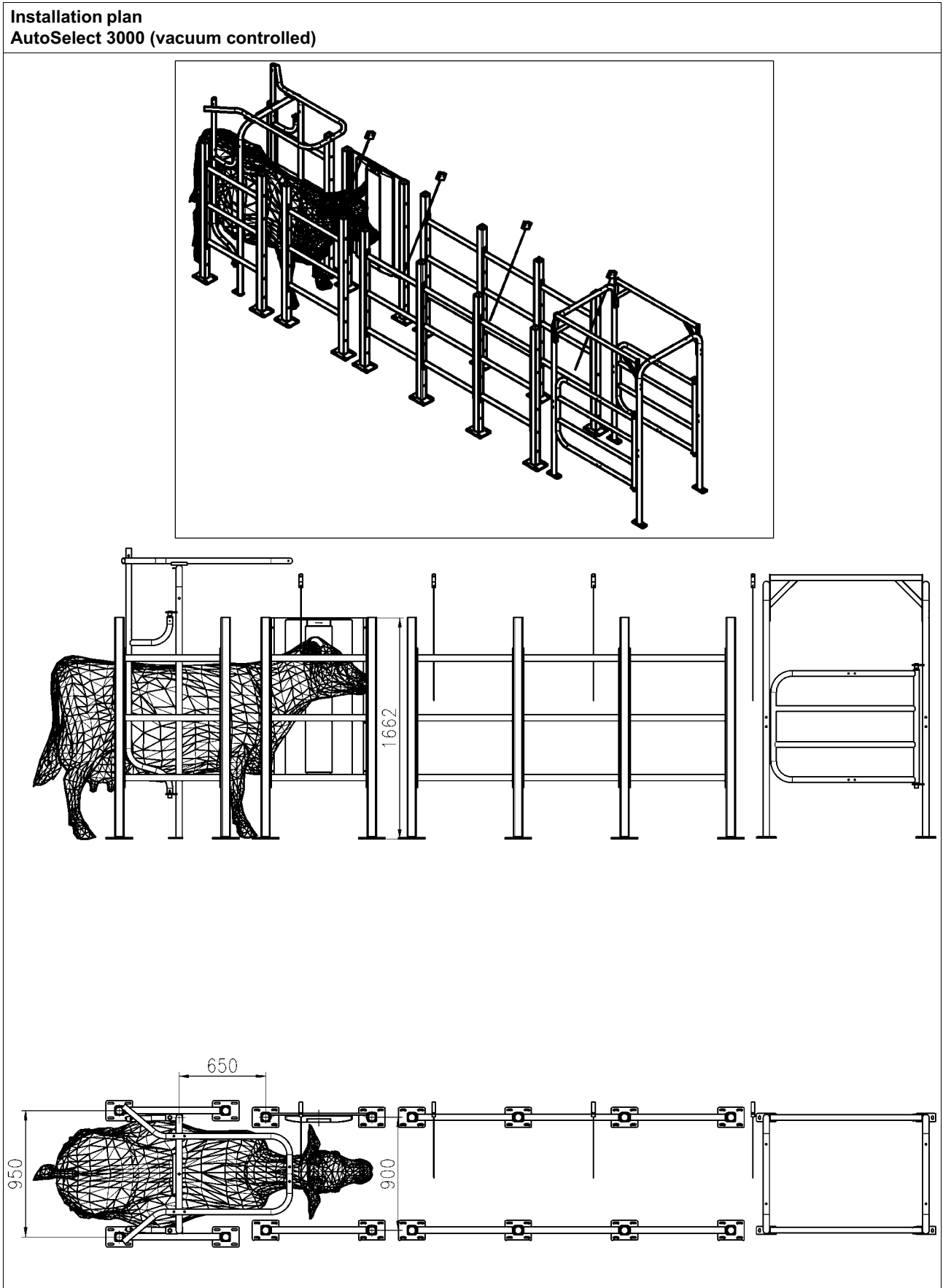


For assembly procedure, see section:
Installing the walk-through (Comfort Top / Global 90i -
Side-by-Side)

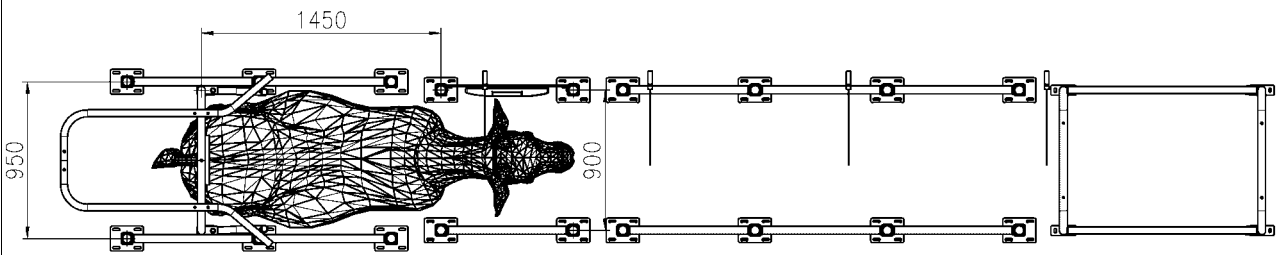
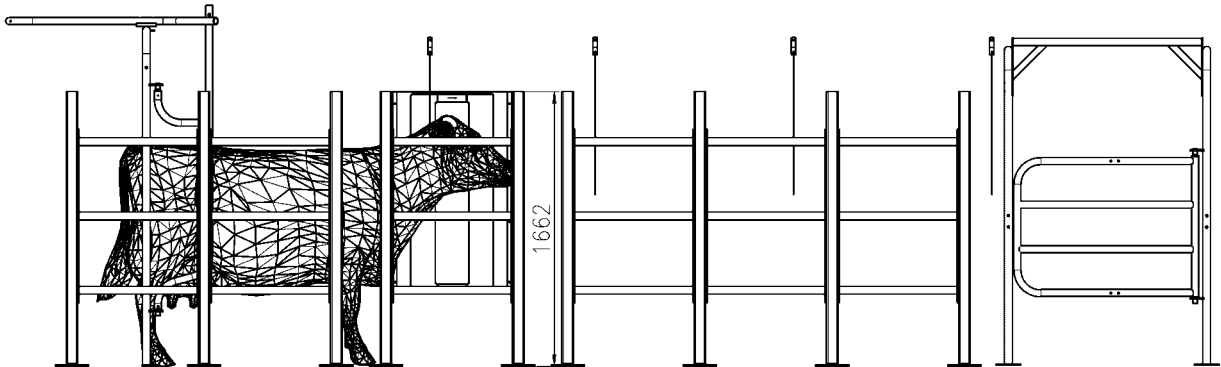
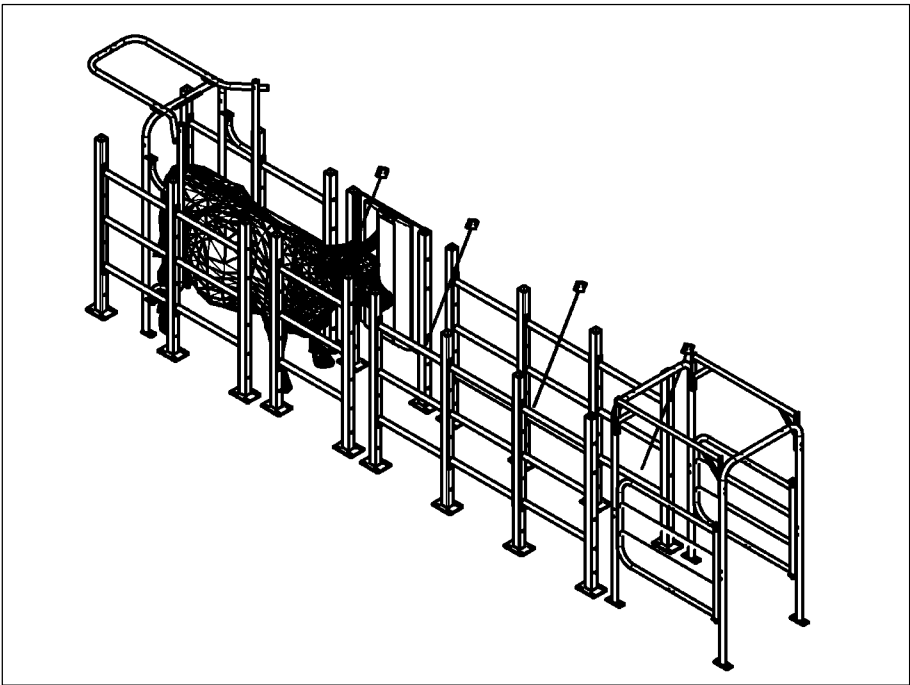
- Install walk-through according to the installation plan

5.6.4 Installing the walk-through (AutoSelect / FeedSelect / Taxatron 5000 / AutoTandem)

Assembly drawings (AutoSelect)



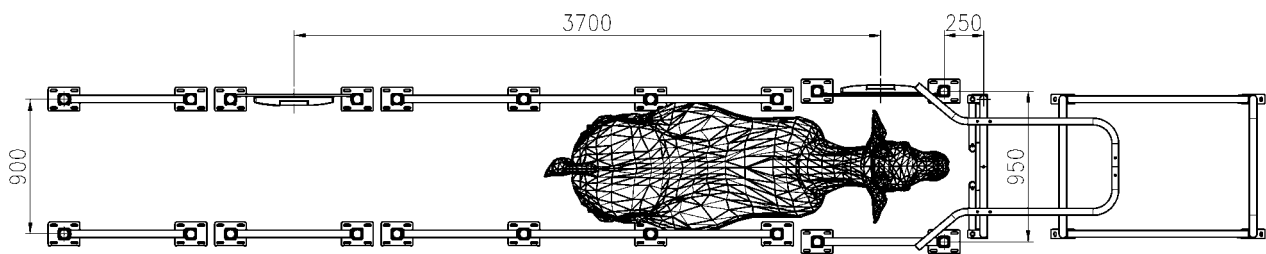
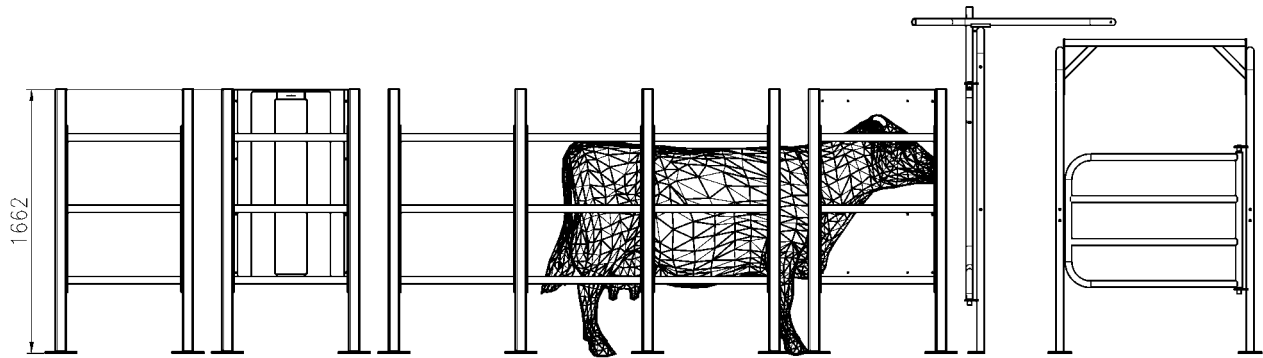
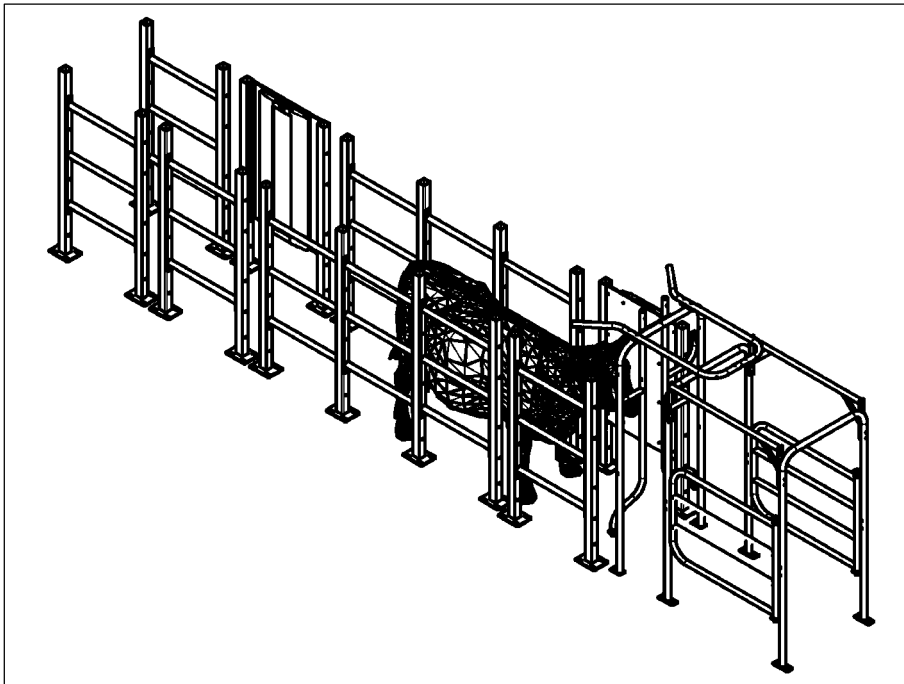
Installation plan
AutoSelect 3000 (compressed air controlled)



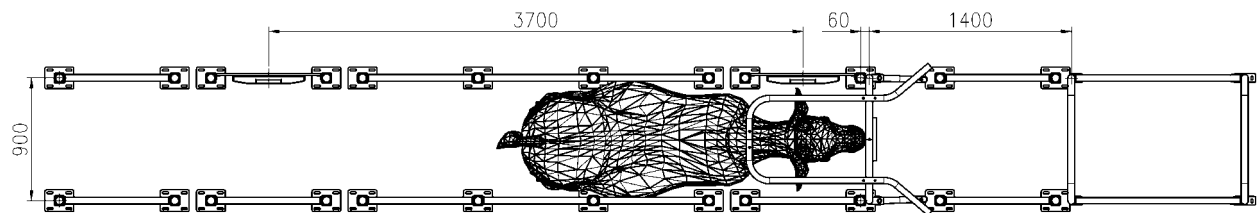
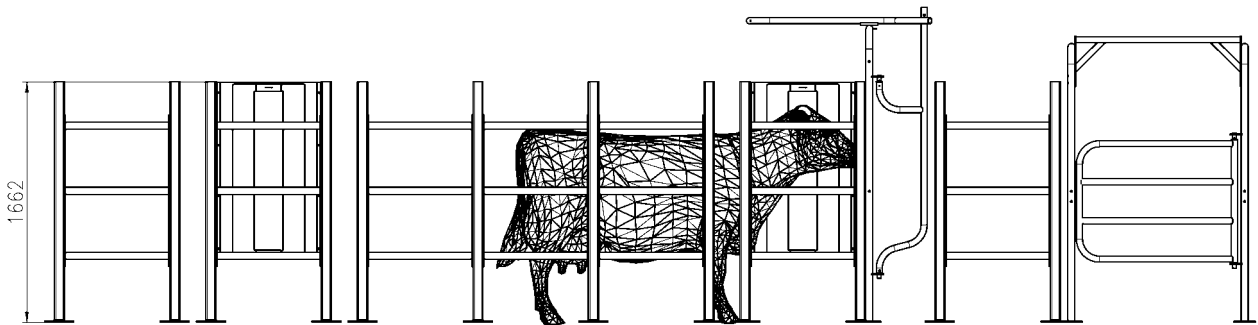
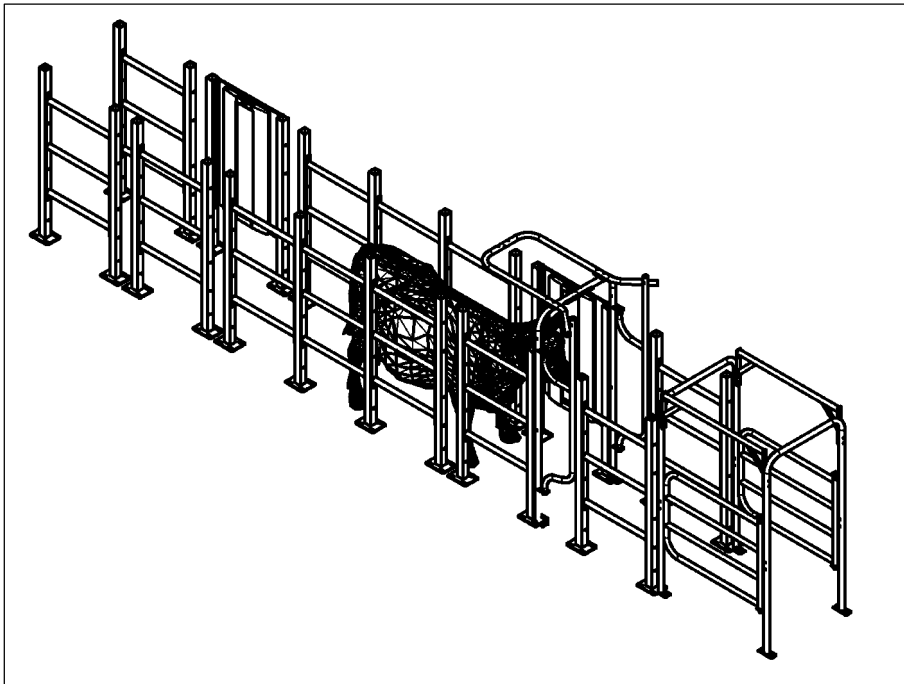
Installation

Installing the walk-through

Installation plan
AutoSelect 5000 (vacuum controlled)

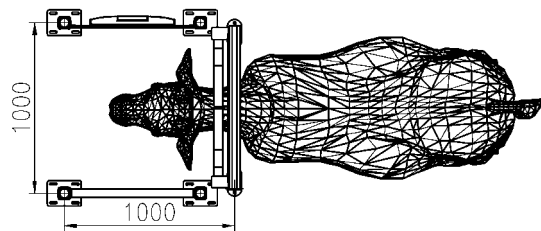
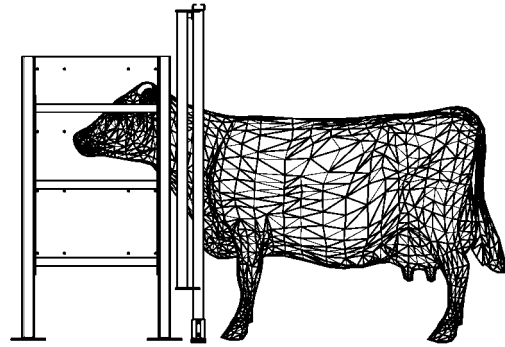
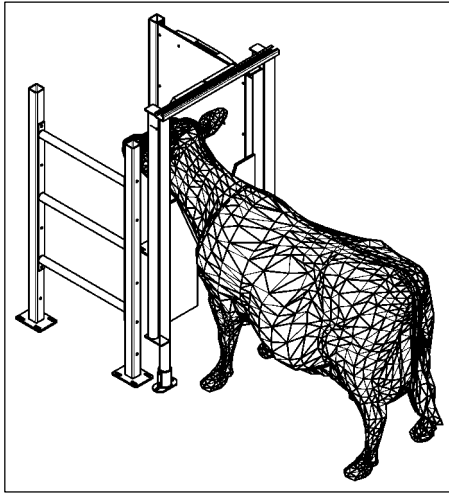


Installation plan
AutoSelect 5000 (compressed air controlled)

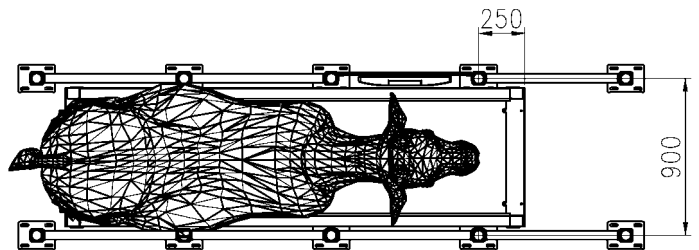
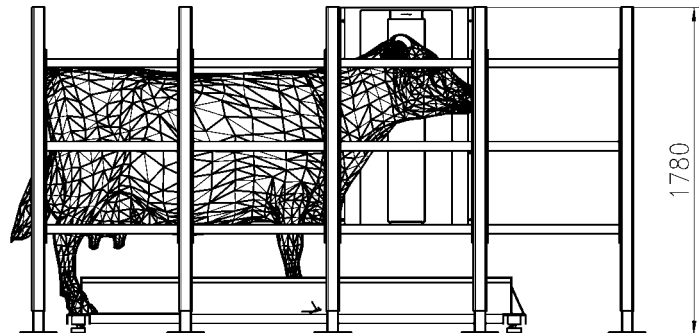
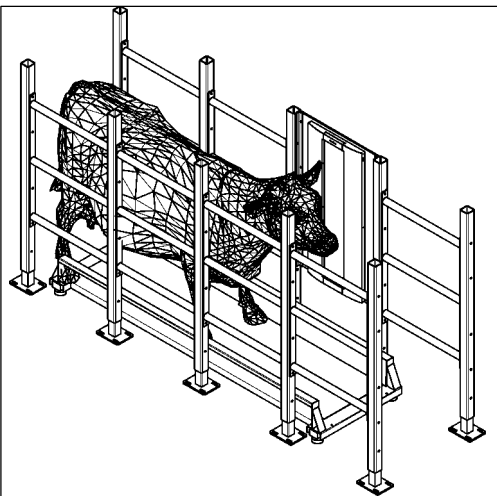


Assembly drawings (FeedSelect / Taxatron / AutoTandem)

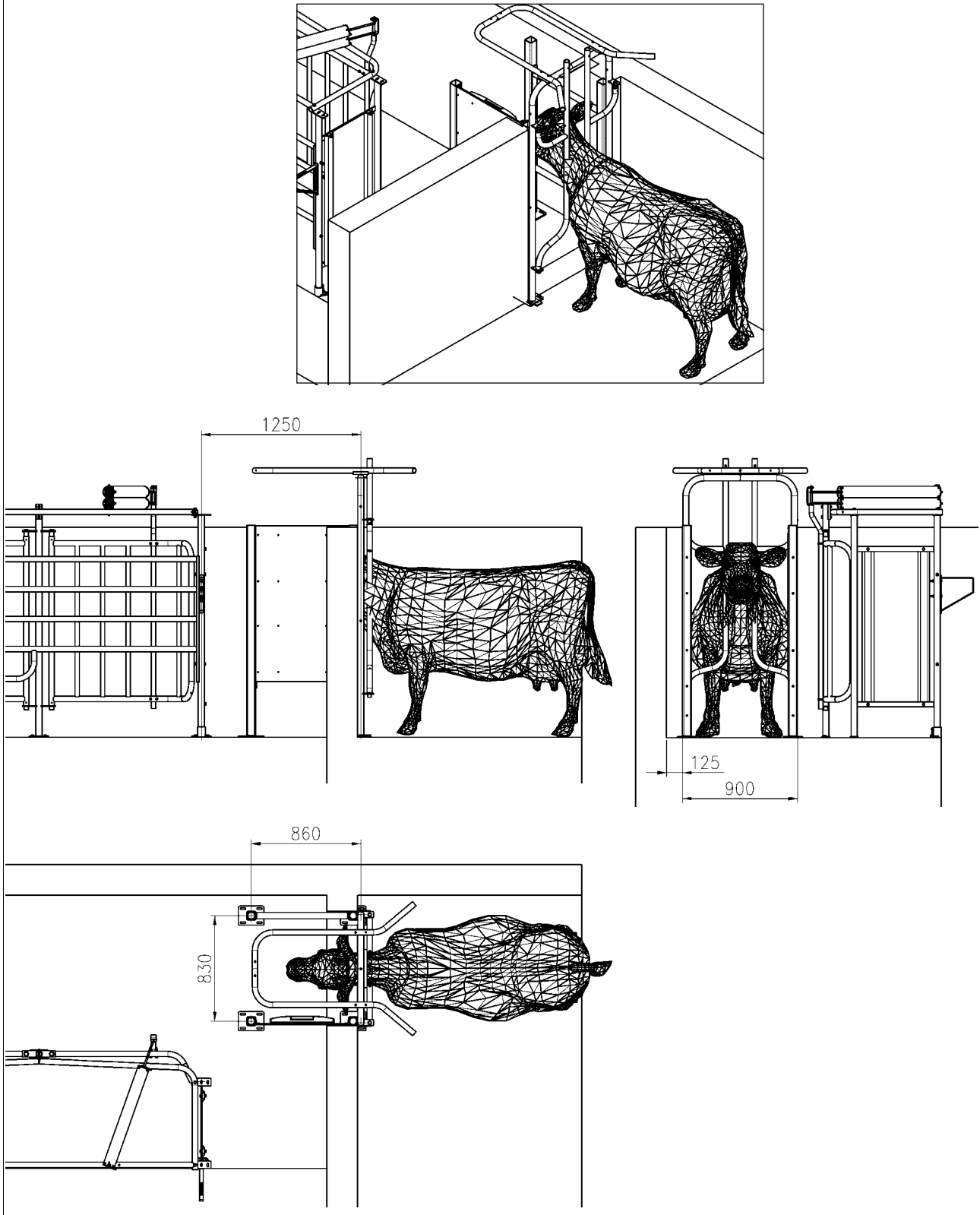
Installation plan (FeedSelect)



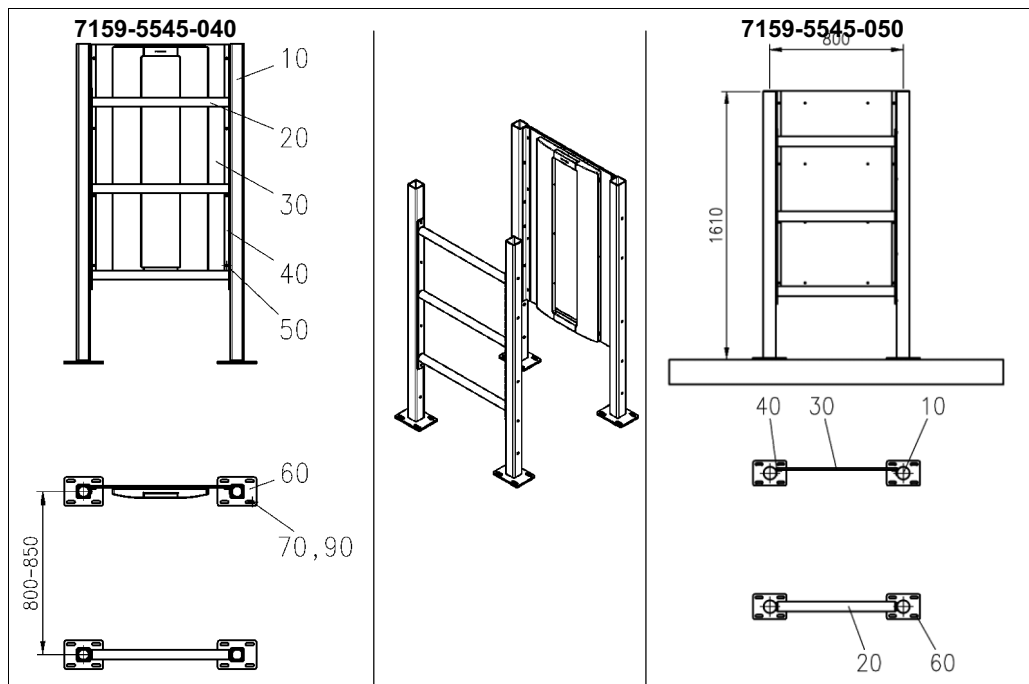
Installation plan (Taxatron)



Installation plan (AutoTandem)



Installation material (AutoSelect / FeedSelect / Taxatron 5000 / AutoTandem)



Pos.	Part No.	Description		Quantity
	7159-5545-040	Walk-through	Concrete floor	
0010	7123-5490-650	Rectangular pipe	70x70x4x1650	4
0020	7123-5537-000	Frame welded	730x1050	1
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7159-2165-030	Set of fasteners		1
0060	7123-5470-000	Support, welded		4
0070	0019-1697-300	Threaded bolt	M12x160	16
0090	0013-0172-300	Hexagon Nut		16

Pos.	Part No.	Description		Quantity
	7159-5545-050	Walk-through	Slatted floor	
0010	7159-5572-010	Upright, welded	70x70x4x1660	4
0020	7123-5537-000	Frame welded	730x1050	1
0030	7123-5467-150	Plate	725x1225x12	1
0040	7123-5490-640	Steel angle	L30x4x1225	2
0050	7159-2165-030	Set of fasteners		1
0060	7160-6165-010	Set of fasteners	Slatted floor	8

Pos.	Part No.	Description		Quantity
	7159-2165-030	Set of fasteners		
0020	0019-6951-300	Hexagon head bolt	M10x100	20
0030	0013-0171-300	Hexagon Nut	M10 w. Flange	20
0040	0019-5576-300	Saucer-head screw	M8x30-Mu	16
0050	0026-1345-300	Disk	8,4	16

Pos.	Part No.	Description		Quantity
	7160-6165-010	Set of fasteners	Slatted floor	
0010	7160-5467-020	Plate	200x80	8
0020	7160-5216-070	Stand off bracket		8
0030	0013-0280-300	Hexagon Nut	M12	8
0050	0026-1371-300	Disk	13	8

Assembly procedure



Attention!

Observe installation notes!
See section: Notes on installation

- Mark drill holes according to installation plan
 - Position threaded rods
-



For assembly procedure, see section:
Installing the walk-through (Comfort Top / Global 90i -
Side-by-Side)

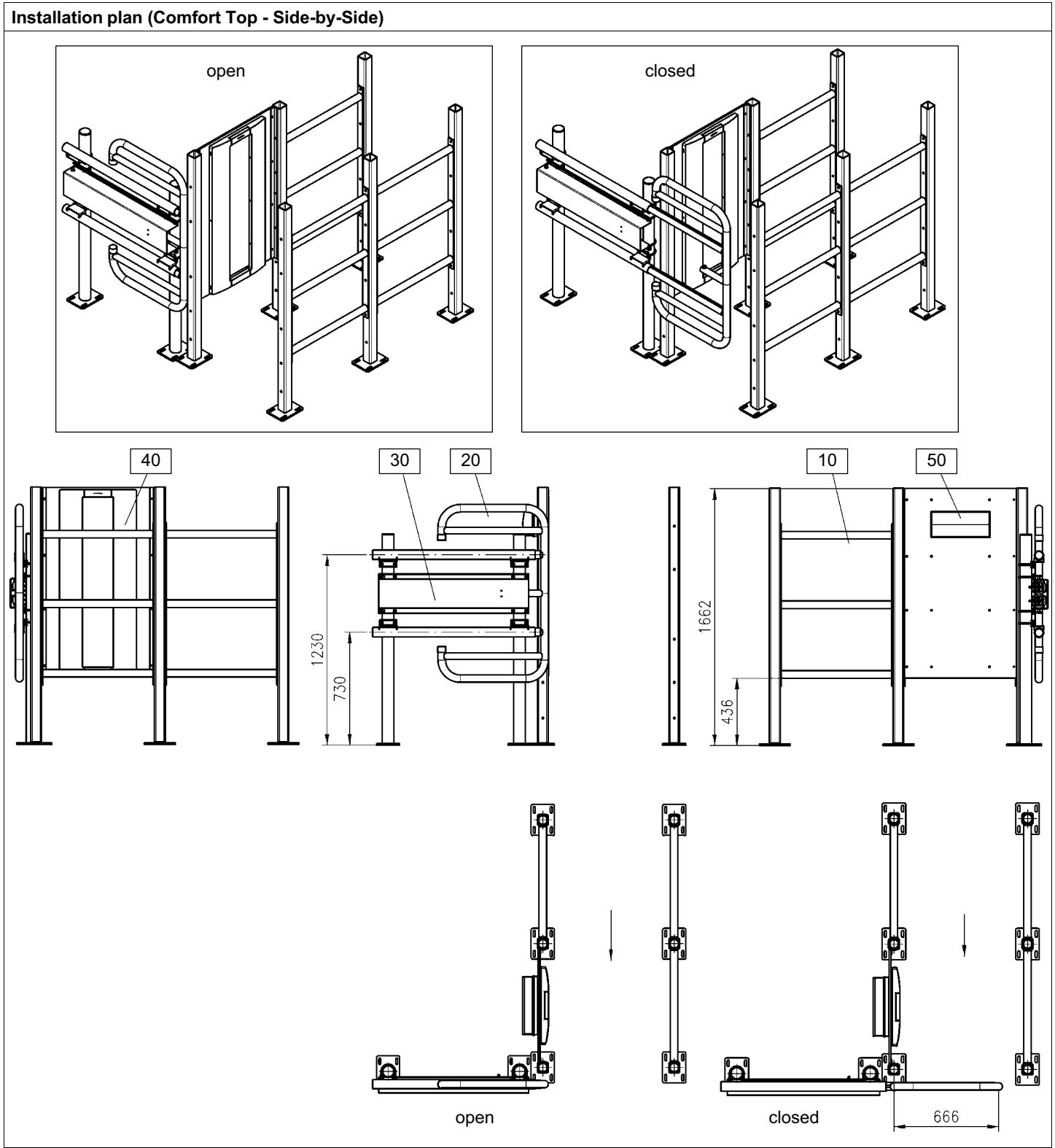
- Install walk-through according to the installation plan

Installation

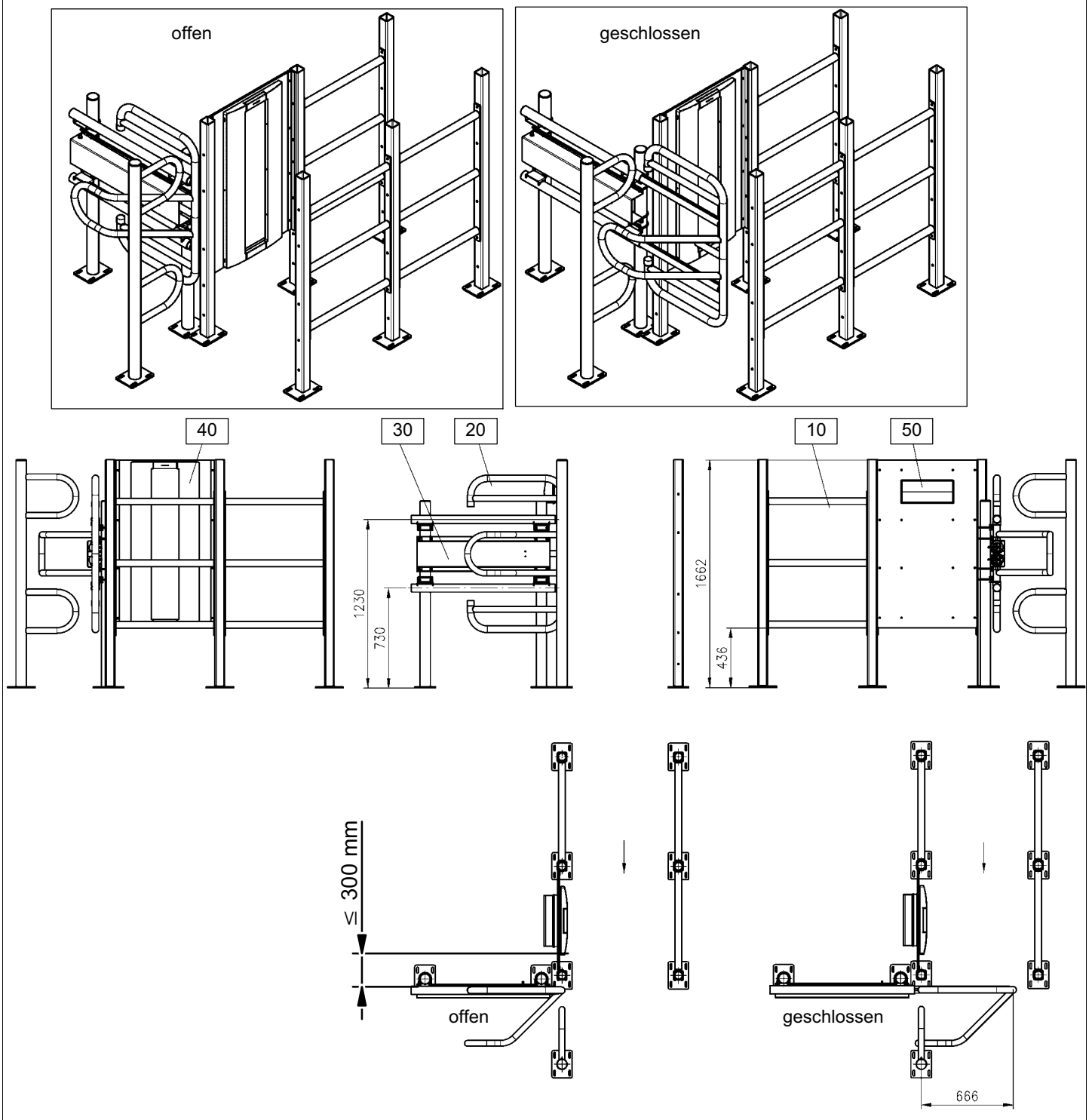
Fitting the gate (Comfort Top - Side-by-Side / HB)

5.7 Fitting the gate (Comfort Top - Side-by-Side / HB)

Assembly drawings



Assembly drawings (herringbone milking parlour)



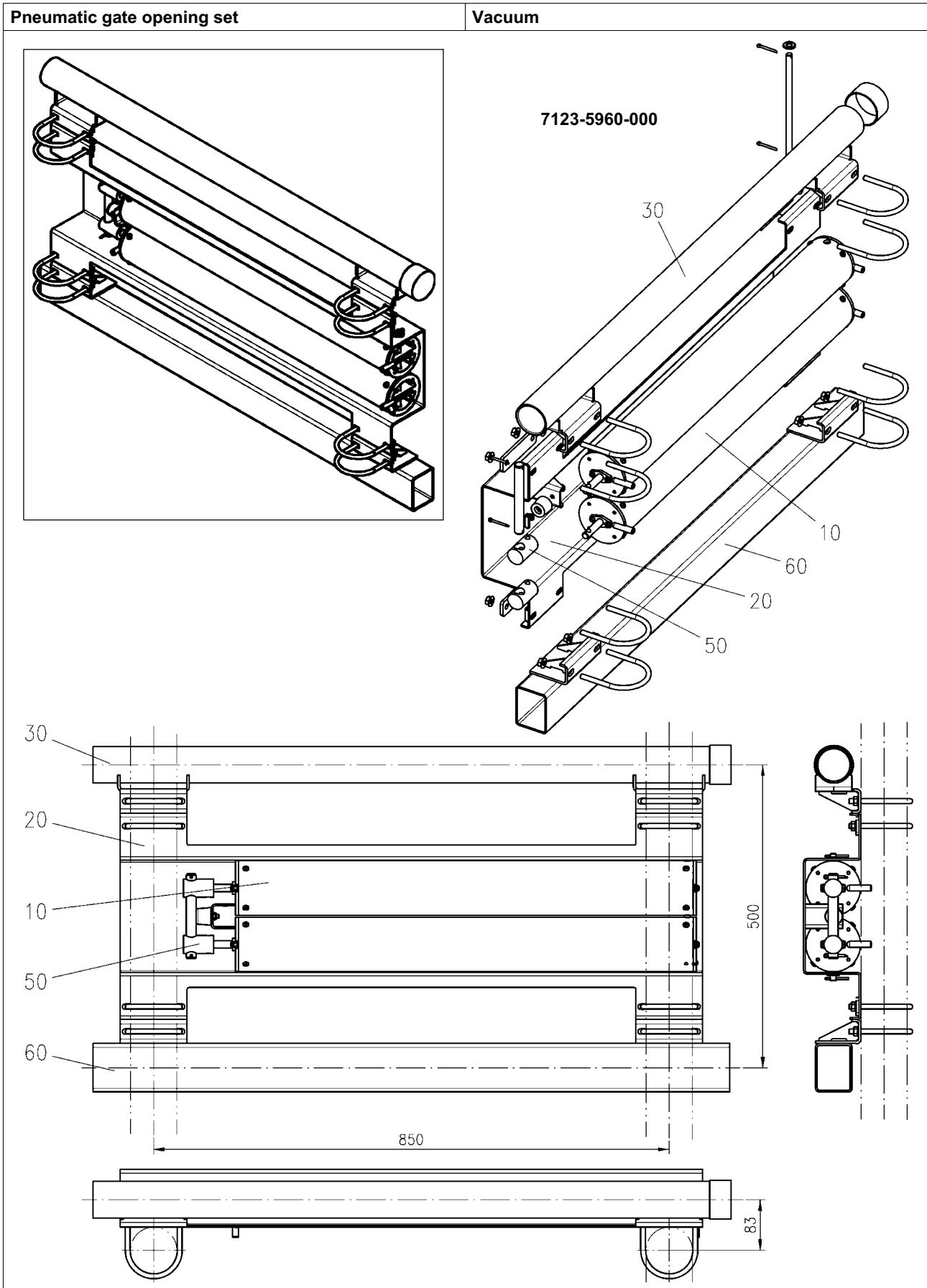
Pos.	Part No.	Description	
0010		Identification frame	
0020	7123-5545-050	Gate (complete)	Side-by-Side
	7071-5545-220		Herringbone milking parlour
0030	7123-5960-000	Pneumatic gate opening set	Vacuum
	7071-5960-180	Manual gate opening set	Compressed air (Global 45)
0040		Walk-through	
0050		Transceiver	

Installation

Fitting the gate (Comfort Top - Side-by-Side / HB)

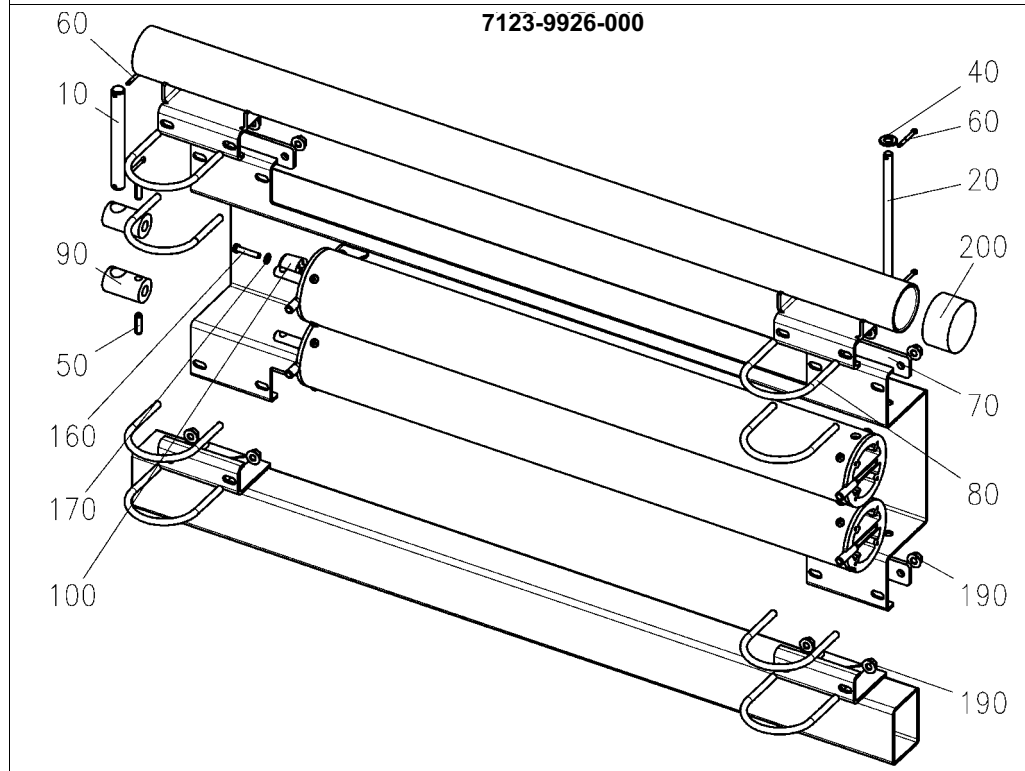
Installation material

Pneumatic gate opening set



Pos.	Part No.	Description		Quantity
	7123-5960-000	Pneumatic gate opening set		
0010	7065-1011-000	Vacuum cylinder (complete)	ø81x655	2
0020	7123-5597-010	Guard plate		1
0030	7123-5551-000	Pipe, welded	60,3x3,6x1050	1
0040	7065-6638-010	hose	9x3x12000	1
0050	7123-9926-000	Set of small parts		1
0060	7123-5551-010	Pipe, welded	80x60x1050	1

Set of small parts

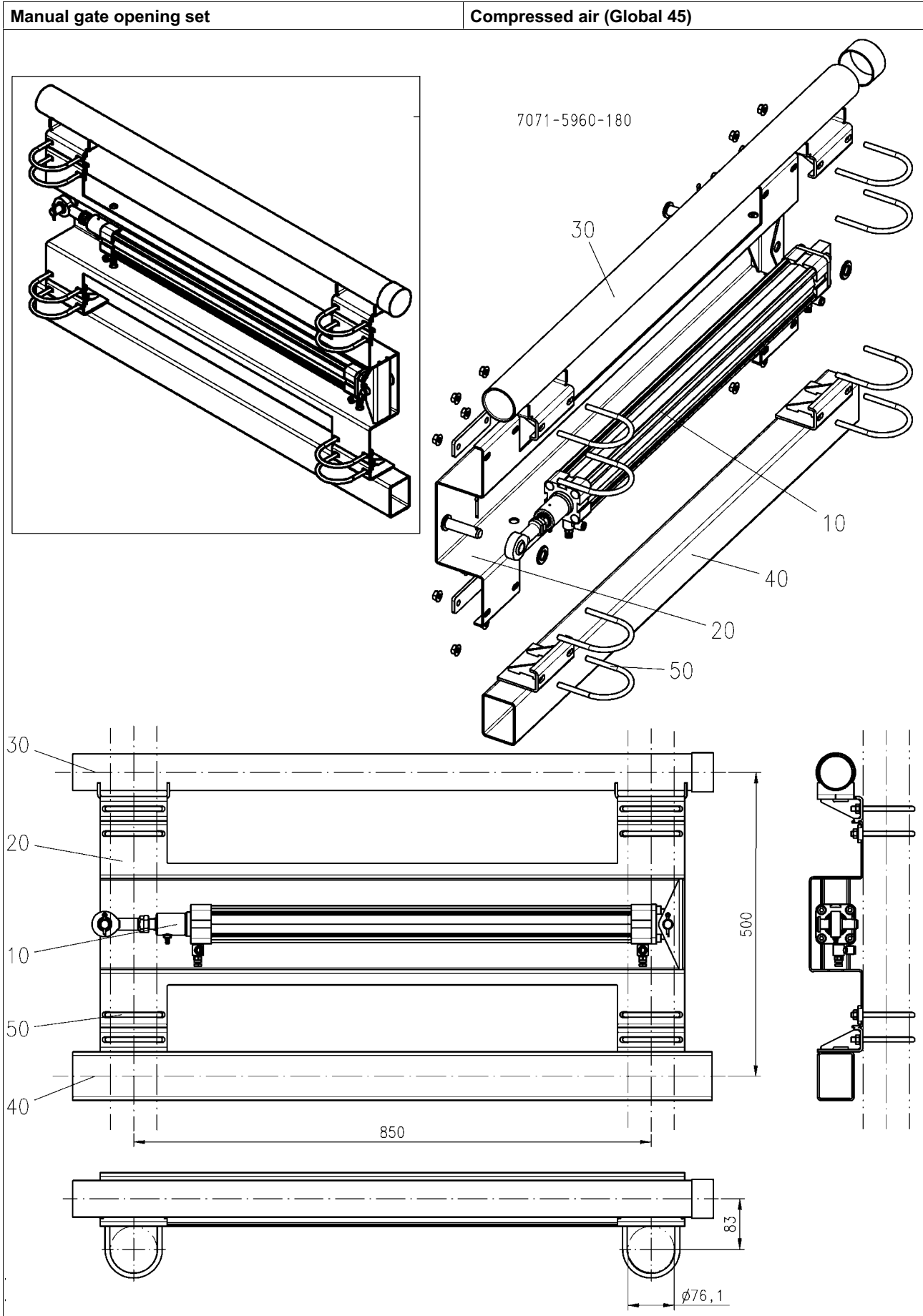


Pos.	Part No.	Description		Quantity
	7123-9926-000	Set of small parts		
0010	7123-5051-090	Bolt	ø16x140	1
0020	7123-5051-100	Shaft bolt	ø10x210	1
0030	0024-6535-000	Warning sign	No entrance	1
0040	0026-1348-300	Disk	10,5	2
0050	0026-0317-170	Tensioning pin	8x26	2
0060	0026-0998-300	Split pin	4x28	4
0070	7123-5271-070	Centering tabs	2 1/2 in	4
0080	0019-1870-300	U-bolt	M8 - 2 1/2 in	8
0090	7071-2283-000	Fitting Union		2
0100	7160-1207-020	Buffer	29x25x6,5	1
0110	0018-3050-820	Y-hose connector	8	2
0120	7071-2780-070	Control valve, compl.		1
0130	7009-3270-050	Tapping pipe clip	2in / G0,5in	1
0140	0007-2216-750	Gasket	19x27x4	1
0150	0018-3749-170	Hose clip	RSF 17	4
0160	0019-2255-300	Cheese head screw	M6x30	1
0170	0026-1382-300	Disk	6,4	1
0180	0013-0294-300	Hexagon Nut	M6 with nylon insert	1
0190	0013-0122-300	Hexagon Nut	M8	16
0200	0026-2446-890	Cap	64,3x35	1
0230	0024-6062-000	Warning sign	Swivel range	1

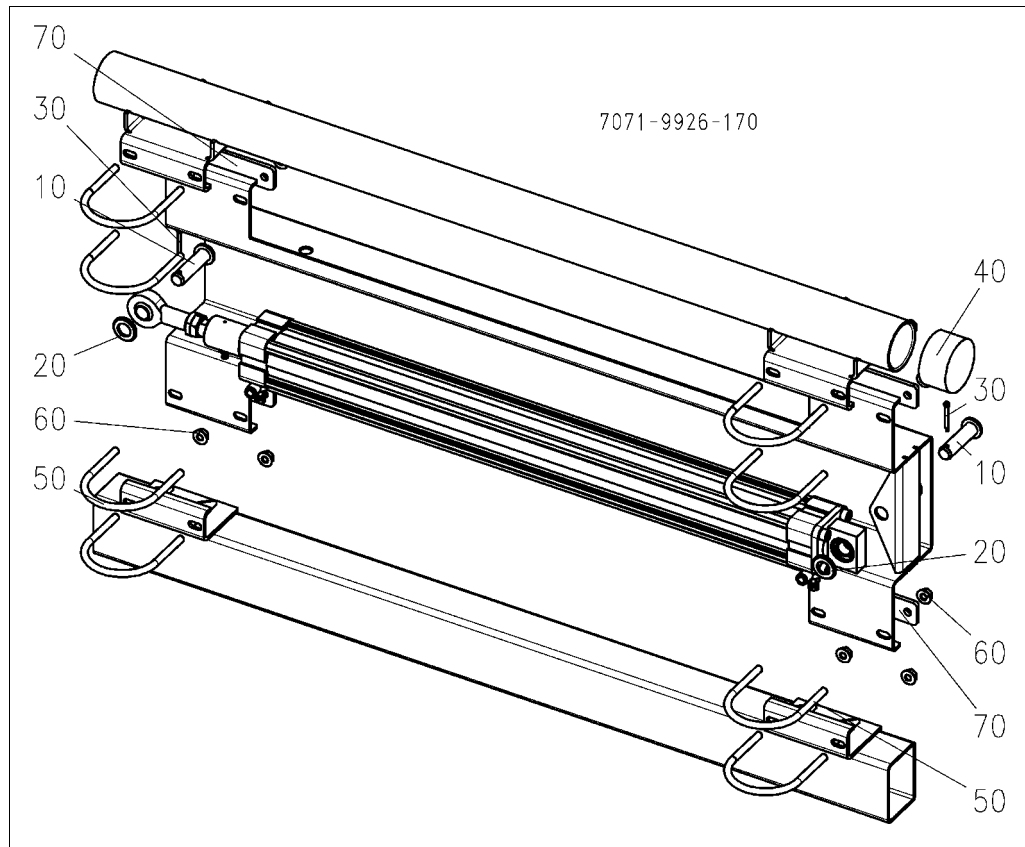
Installation

Fitting the gate (Comfort Top - Side-by-Side / HB)

Manual gate opening set (Global 45)



Pos.	Part No.	Description		Quantity
	7071-5960-180	Manual gate opening set	Global 45	
0010	7123-1970-070	Vacuum cylinder (complete)	ø50 / H=650	1
010b	0018-6729-860	One-way restrictor connection	screw 6-G1/4 in	2
0020	7071-5597-020	Guard plate		1
0030	7123-5551-000	Pipe, welded	60,3x3,6x1050	1
0040	7123-5551-010	Pipe, welded	80x60x1050	1
0050	7071-9926-170	Set of small parts		1

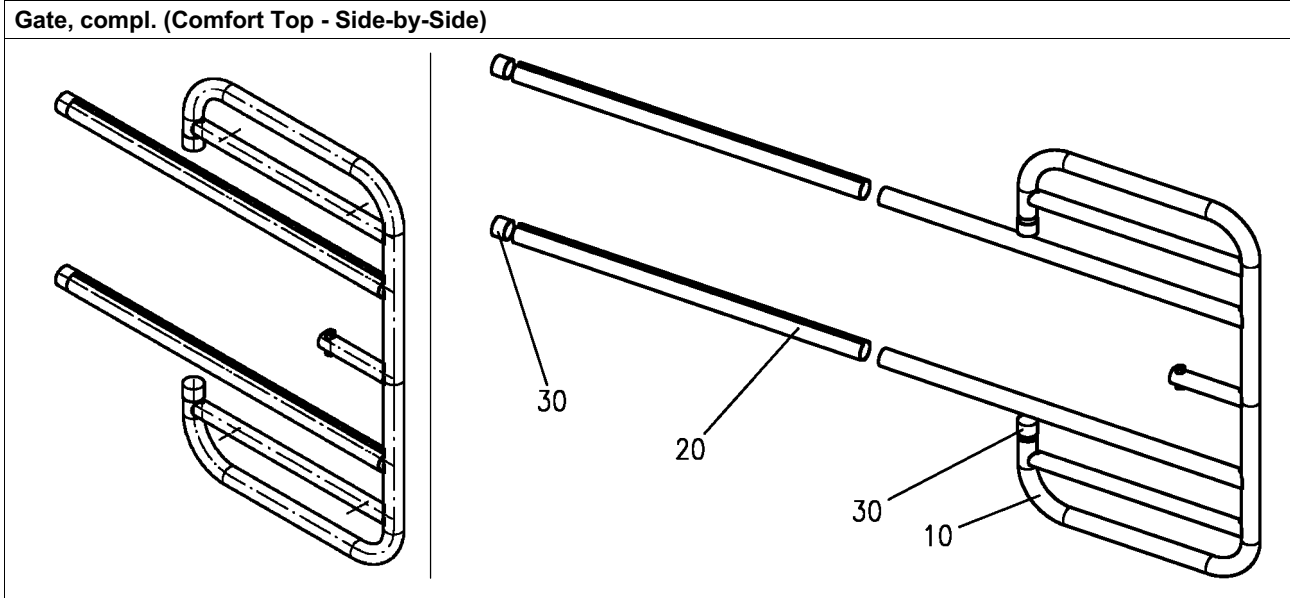


Pos.	Part No.	Description		Quantity
	7071-9926-170	Set of small parts		
0010	0026-0803-300	Bolt	ø16x60	2
0020	0026-1335-300	Disk	17	2
0030	0026-0998-300	Split pin	4x28	2
0040	0003-0653-830	Plug	76x71,5x7,5	1
0050	0019-1870-300	U-bolt	M8 - 2 1/2 in	8
0060	0013-0122-300	Hexagon Nut	M8	16
0070	7123-5271-070	Centering tabs	2 1/2 in	4
0080	0024-6535-000	Warning sign	No entrance	1

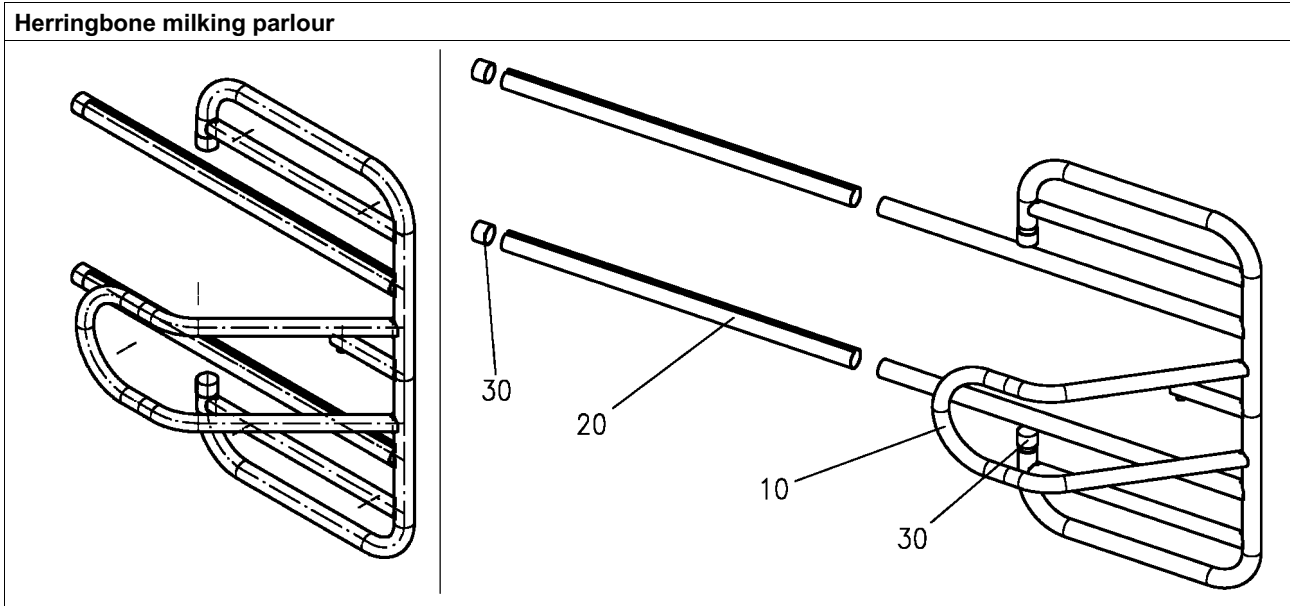
Installation

Fitting the gate (Comfort Top - Side-by-Side / HB)

Gate, compl.



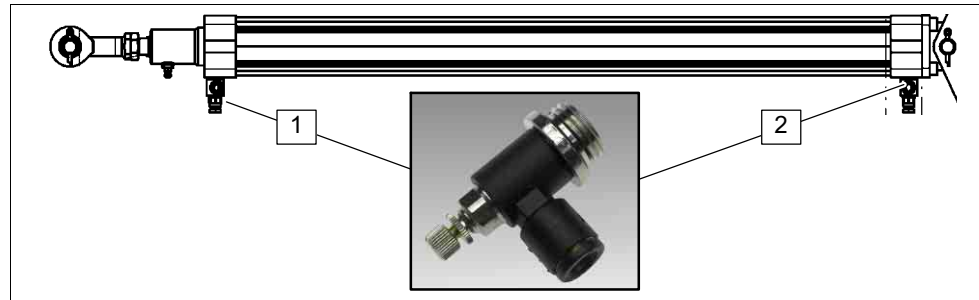
Pos.	Part No.	Description		Quantity
	7123-5545-050	Gate, compl.	Side-by-Side	
0010	7123-5546-120	Welded door frame	SbS	1
0020	7123-5026-030	Bushing	50x1,8x1035	2
0030	0026-2132-890	Cap	52x37	4



Pos.	Part No.	Description		Quantity
	7071-5545-220	Gate (complete)	Herringbone milking parlour	
0010	7071-5546-390	Welded door frame	HB	1
0020	7123-5026-030	Bushing	50x1,8x1035	2
0030	0026-2132-890	Cap	52x37	4

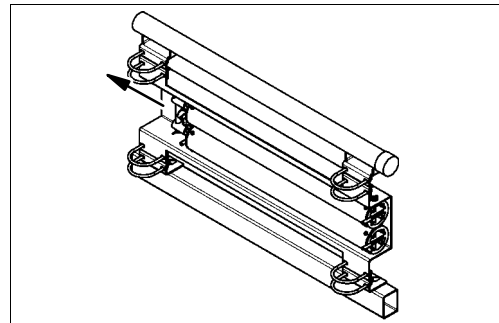
Assembly procedure

- Assemble one-way restrictor screw connections
Only applies to compressed air

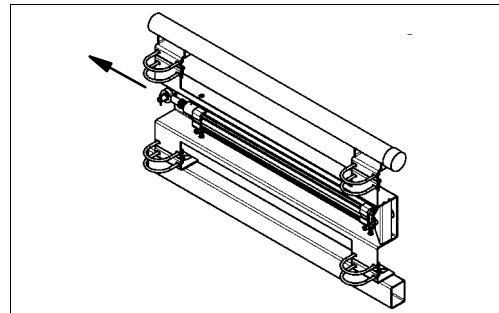


- Install gate opening set according to the installation plan.

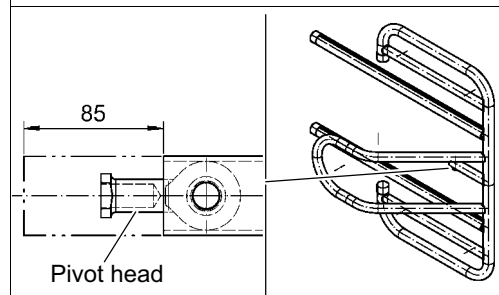
Installing vacuum control



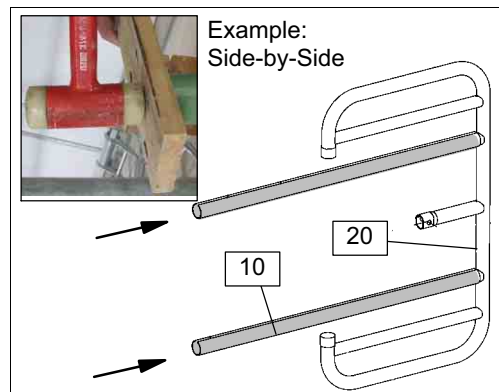
Installation of compressed air control (Global 45 only)



- Shorten tube as shown
The entrance gate tube must be shortened by 85 mm so that the pivot head of the compressed air cylinder can be fastened to the gate.



- Drive bushings onto the tubes with a plastic hammer.
- Slide the gate into the gate opening.



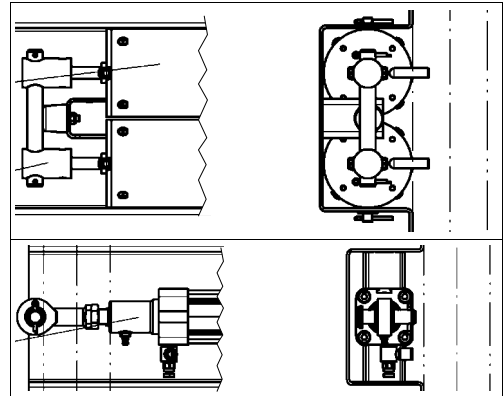
Installation

Fitting the gate (Comfort Top - Side-by-Side / HB)

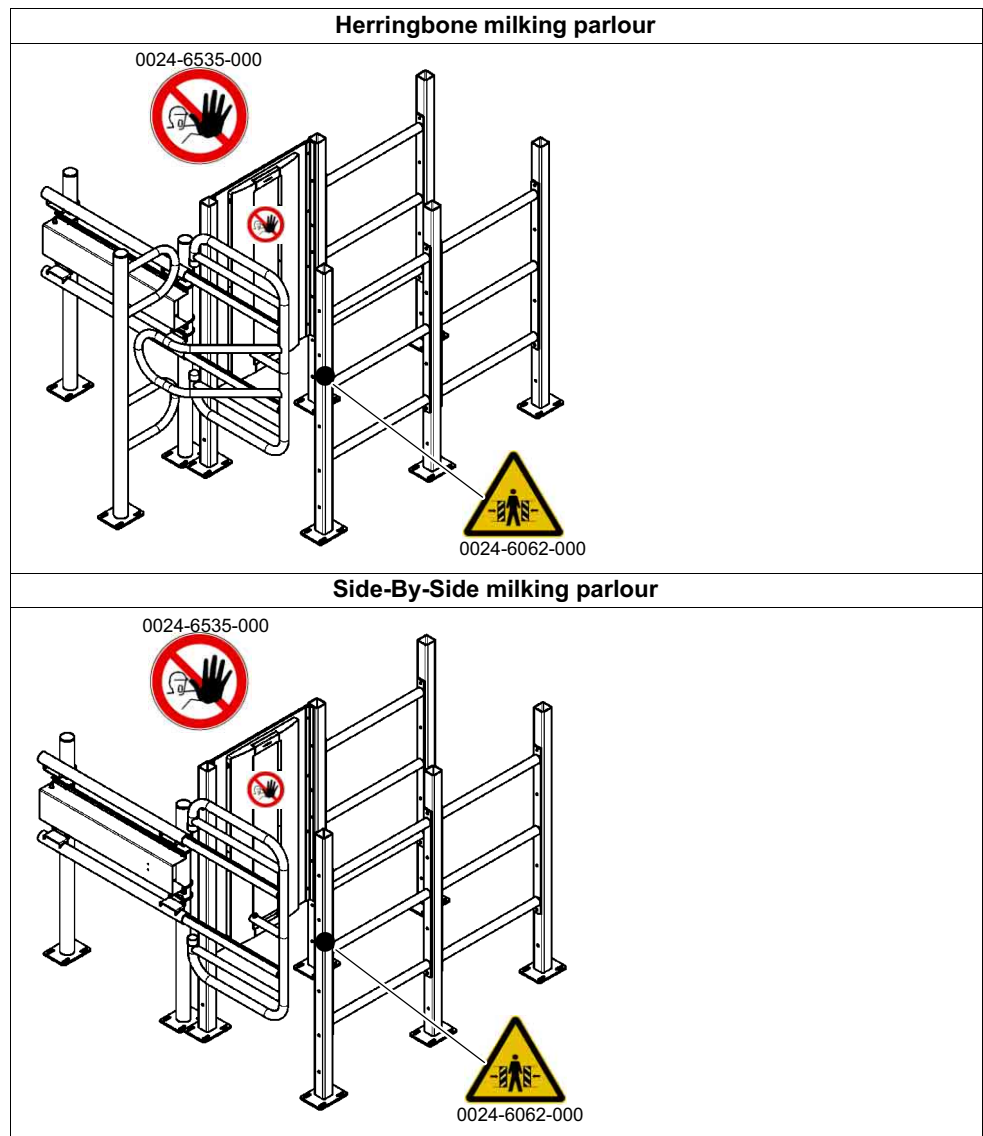
- Connect gate to cylinder.

- Vacuum

- Compressed air

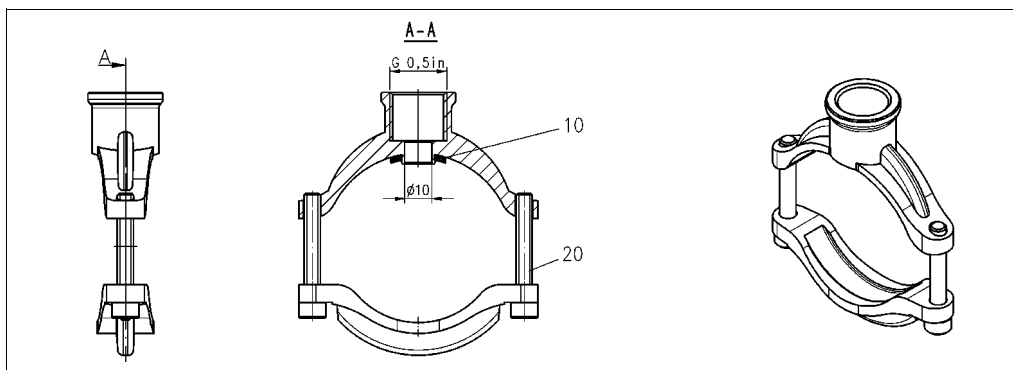


- Attach the warning sign where it can be clearly seen.



Part-No.	Description	
0024-6062-000	Warning sign	You run the risk of injury
0024-6535-000		No entrance

Installing the control valve (vacuum)



Pos.	Part No.	Description	
	7009-3270-050	Tapping pipe clip, compl.	2in / G0,5in
0010	0004-5259-880	Seal	12x18x2
0010	0004-5259-880	Seal	12x18x2
0020	0019-6113-300	Cheese head screw	DIN EN ISO 4762 M 6x40

- Mount the control valve on the vacuum line, close to the vacuum cylinder, using a pipe clip and gasket. (170, 180, 190)



Note!

Observe the control valve's installation position!



- Run vacuum hoses from the vacuum cylinder to the control valve and connect.



Refer to the relevant instructions for further information on this topic:

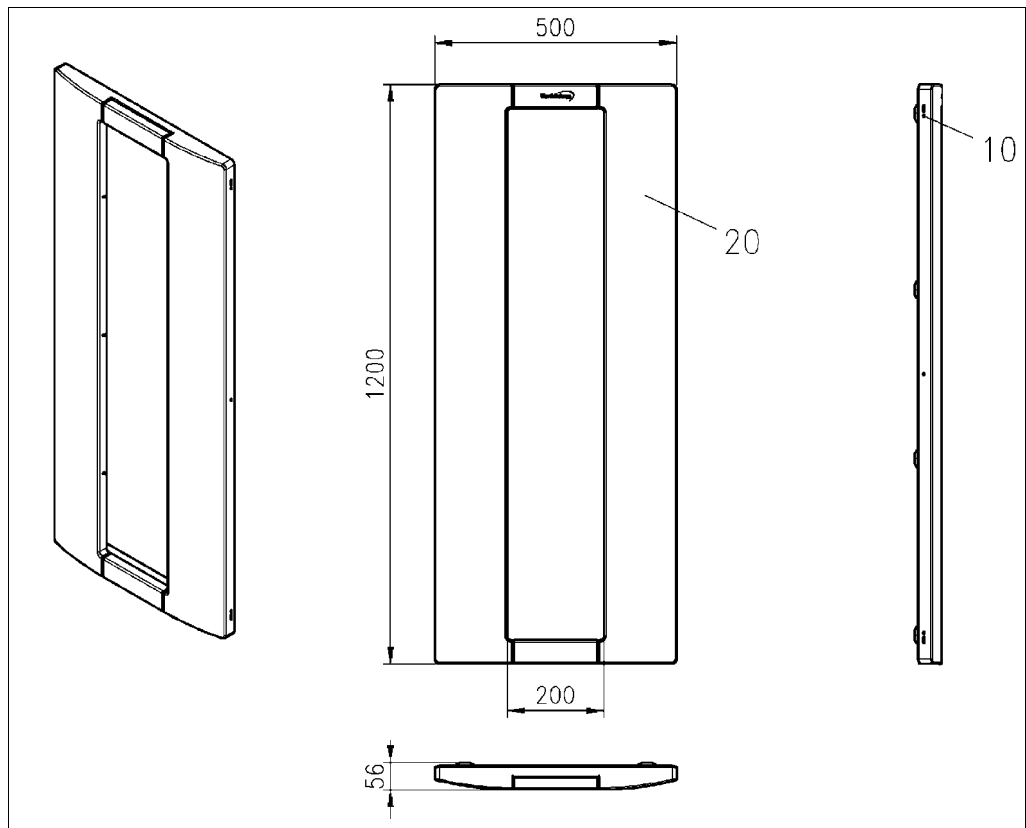
7071-90 .. -036	Milking parlour	Europa 1200
7071-90 .. -055		EuroClass 1200
7071-90 .. -056		EuroClass 800 / 850
7071-90 .. -058		EuroClass 800 RE
7071-90 .. -059		EuroClass 1200 RE
7071-90 .. -060		Challenger 45
7123-90 .. -002		Comfort Top

5.8 Installing the identification frame

Notes on installation

- When the identification system is installed in group milking parlours and segregation systems, it is important to ensure that there are no closed metal structures forming a ring behind the antenna. (reinforcements, frame parts,...)
- Installation close to electrically conductive materials running parallel to the identification frame must be avoided!

Installation material



Pos.	Part No.	Description		Quantity
	7160-5530-320	Identification frame	SF4/TF	
0010	0019-0928-300	Oval-head screw	A4x16	20
0020	7160-2457-260	Lid	HP 500mm x 1200mm	1

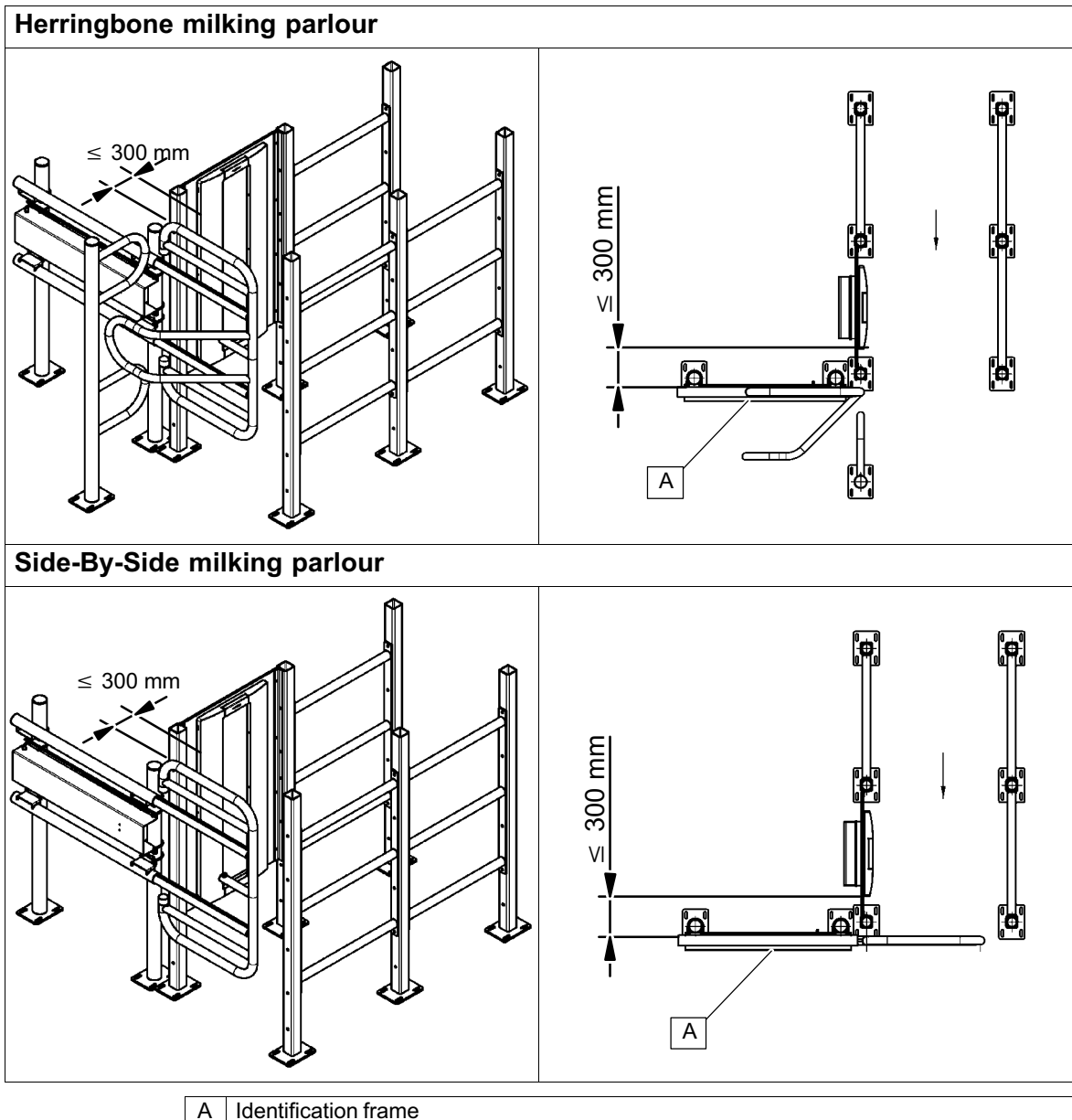
5.8.1 Installing the identification frame (Europa / EuroClass / ... / Global)

- Install identification frame according to the installation plan



Attention!

The distance between antenna and entrance gate must not be more than 300 mm.



- Installing shielding (if required)

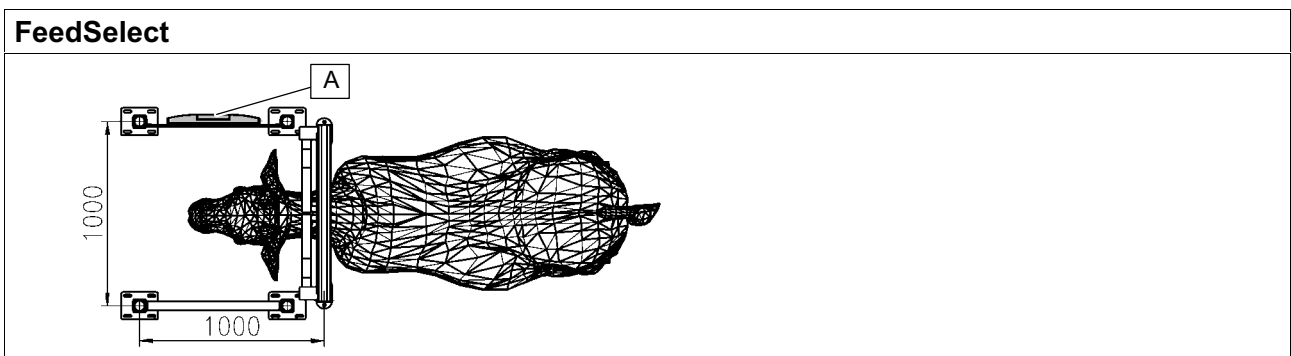
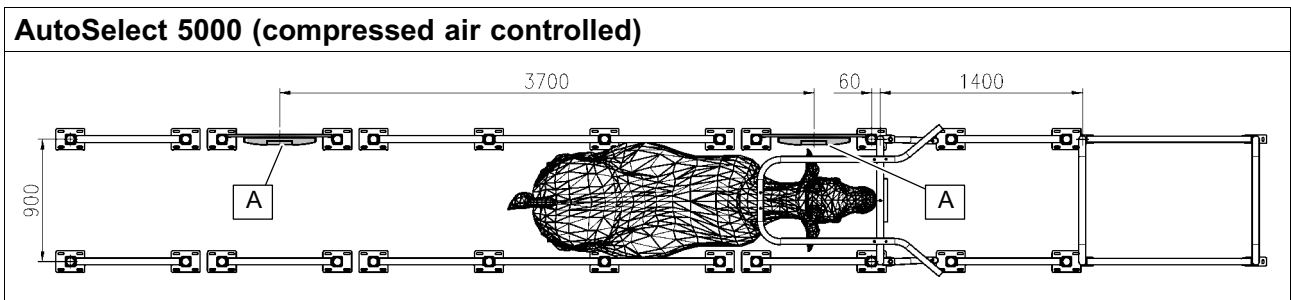
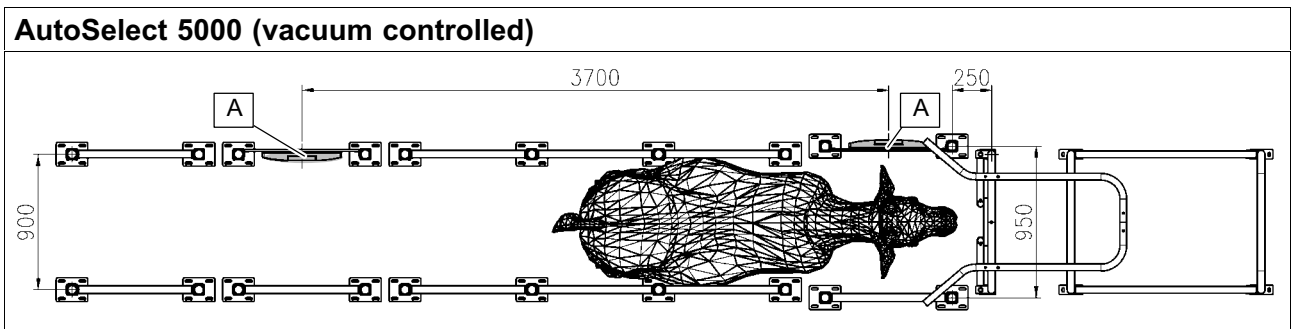
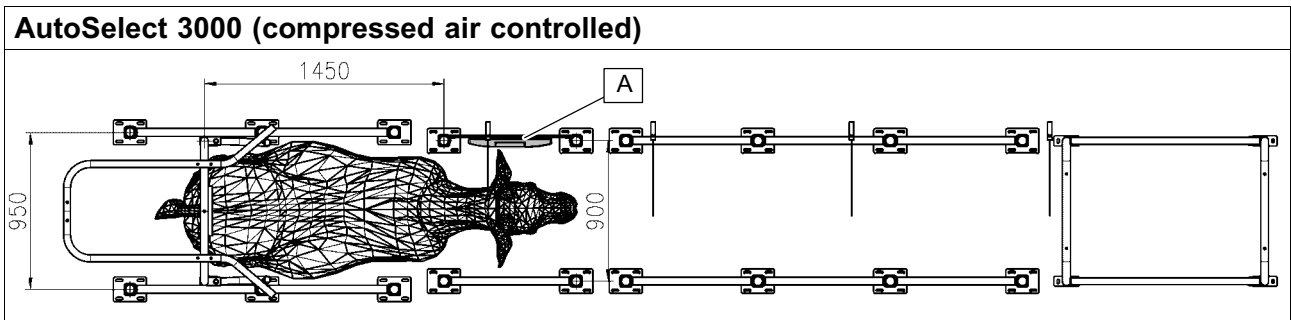
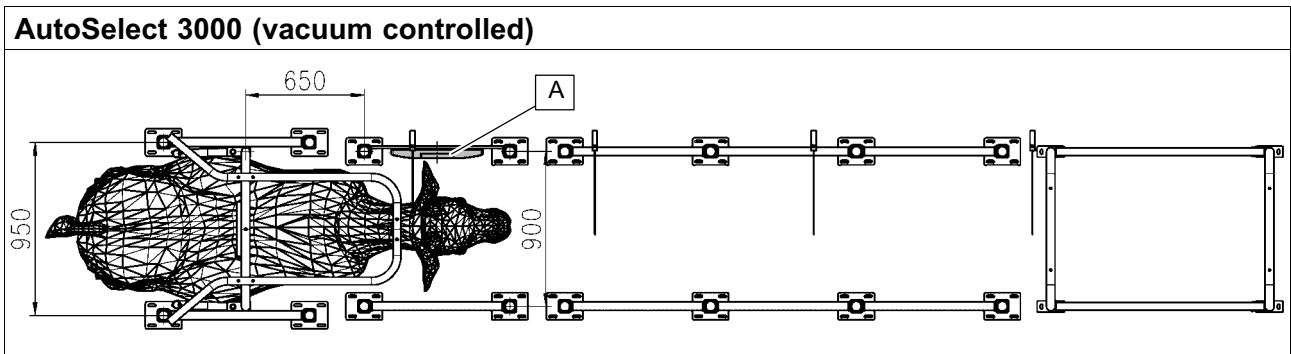


See section on:
Installing shielding

Installation

Installing the identification frame


5.8.2 Installing the identification frame (AutoSelect 3000 / AutoSelect 5000 / FeedSelect)




A Identification frame

Assembly procedure


- Install identification frame according to the installation plan
- Installing the booster (if required)

 See section on:
Installing the booster

- Installing shielding (if required)

 See section on:
Installing shielding

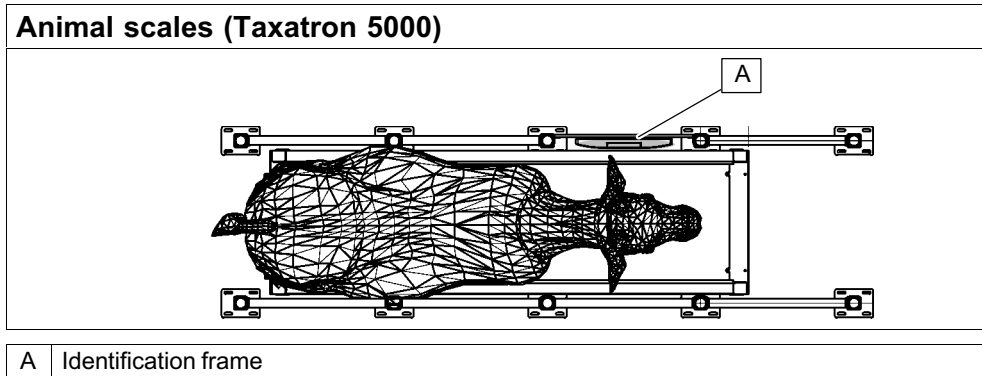
- Fitting the light scanner (AutoSelect 3000 / AutoSelect 5000)

 See instructions:


7159-90 . . . -103	Animal segregation	AutoSelect 5000
7159-90 . . . -105	Animal segregation	AutoSelect 3000

5.8.3 Installing the identification frame (Taxatron 5000)


- Install identification frame according to the installation plan



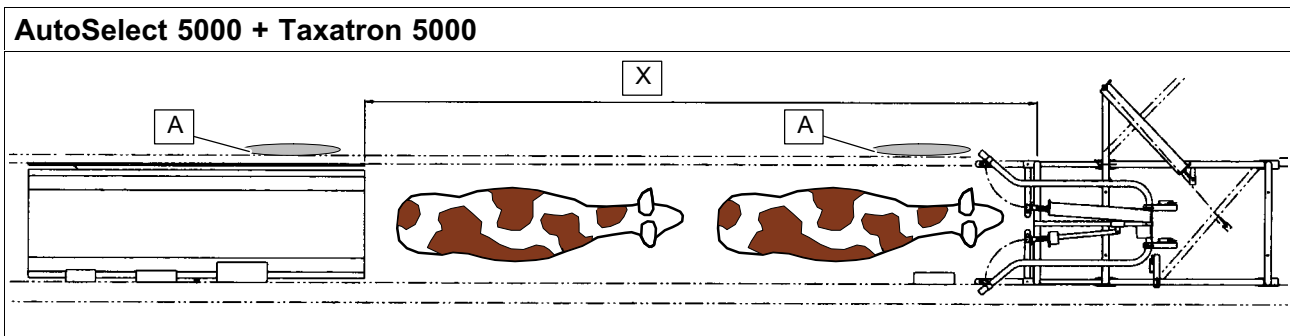
- Installing the booster (if required)

 See section on:
Installing the booster

- Installing shielding (if required)

 See section on:
Installing shielding

5.8.4 Installing the identification frame (AutoSelect 5000 + Taxatron 5000)



A	Identification frame
X	Minimum distance

- Install identification frame according to the installation plan
- Installing the booster (if required)



See section on:
Installing the booster

- Installing shielding (if required)



See section on:
Installing shielding

5.8.5 Installing the identification frame (DairyFeed C8000)



Note! (DairyFeed)

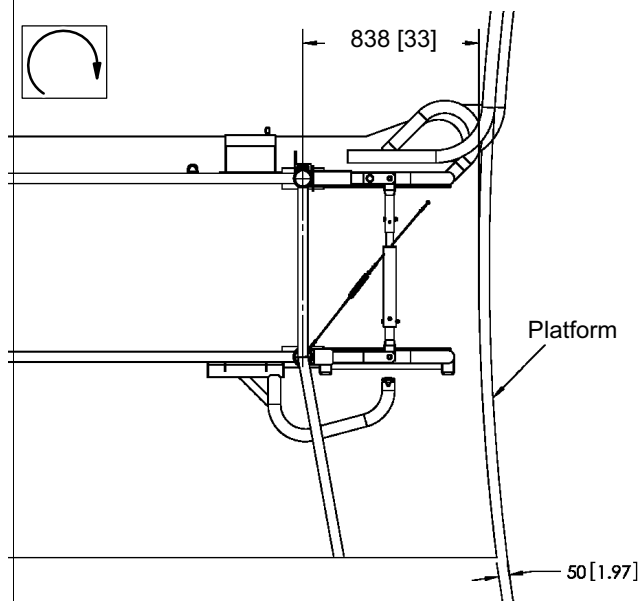
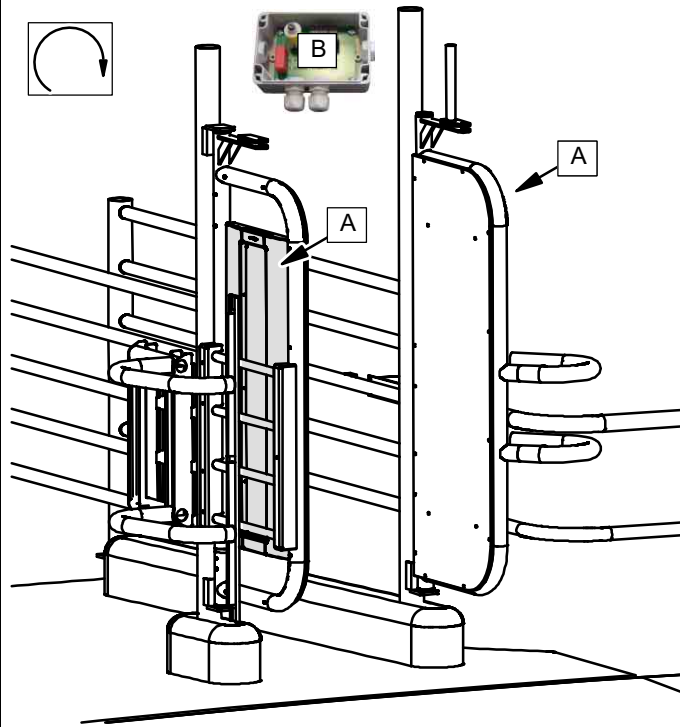
Installation not required.
The transceiver has a built-in antenna.



5.8.6 Installing the identification frame (AutoRotor Glob90 / PerF / Mag90)

Global 90 / PerFormer / Magnum 90 (AutoRotor external)

AutoRotor rotary milking parlours have two antennas at the entrance area.

Identification frame with an internal antenna transformer



A	Identification frame
	Clockwise (CW)
	counter-clockwise (CCW)

Assembly procedure

- Install identification frame according to the installation plan
- Installing the booster (if required)



See section on:
Installing the booster

- Installing the dual antenna tuner
 - Installing the tuner above the entrance
 - Make sure that the connecting cables cannot be damaged by animals.
 - Keep connecting cables as short as possible.



Pos.	Part No.	Description	
B	7160-2675-130	Dual antenna tuner	
		Fasteners	Local purchase

- Installing shielding (if required)



See section on:
Installing shielding

- Fitting the light scanner

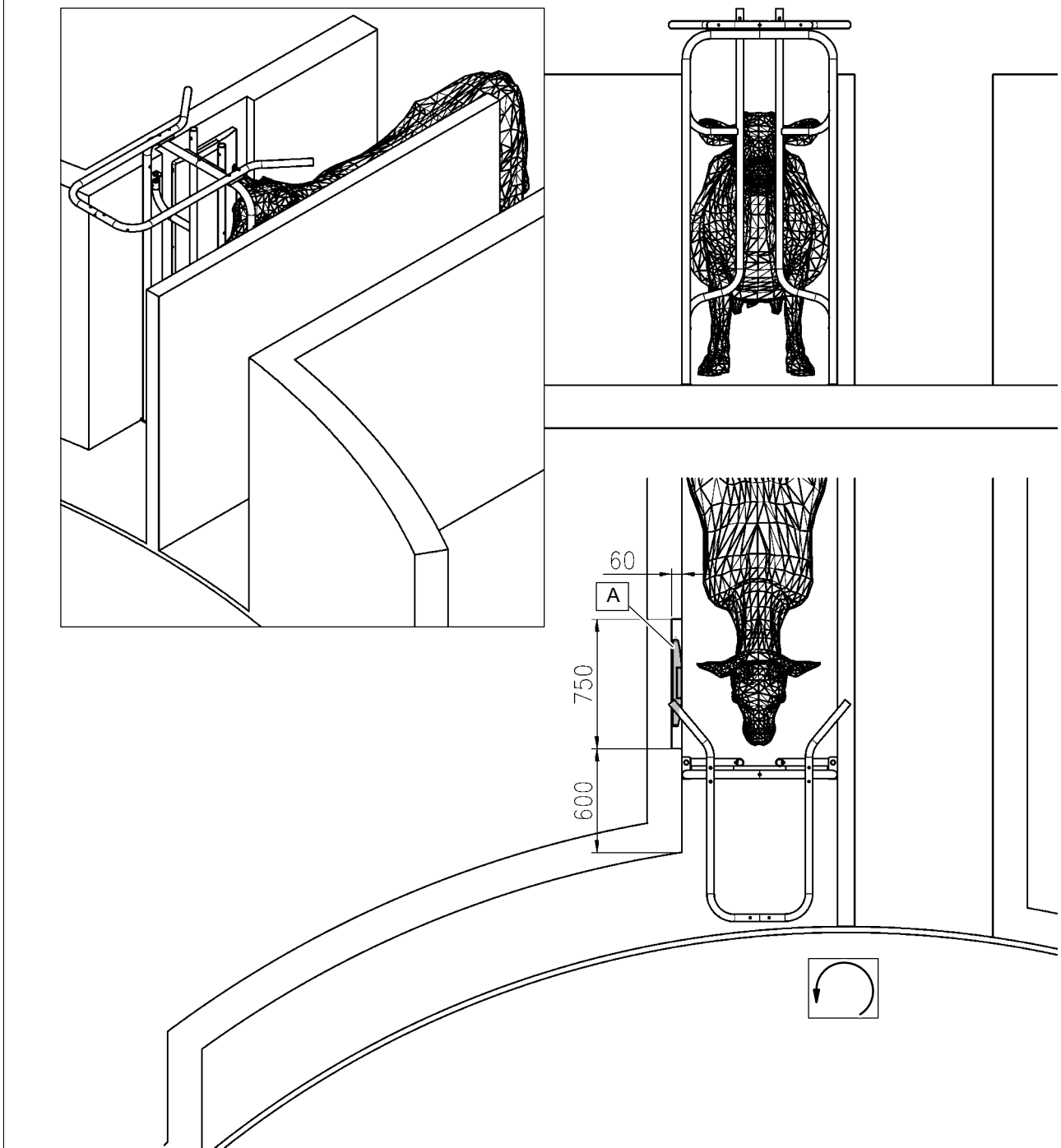




See instructions:

7056-90 . . -047	Electronic control unit for rotary milking parlours	Magnum 40 / Global 90 / PerFormer
7056-90 . . -055	AutoRotor	Magnum 90

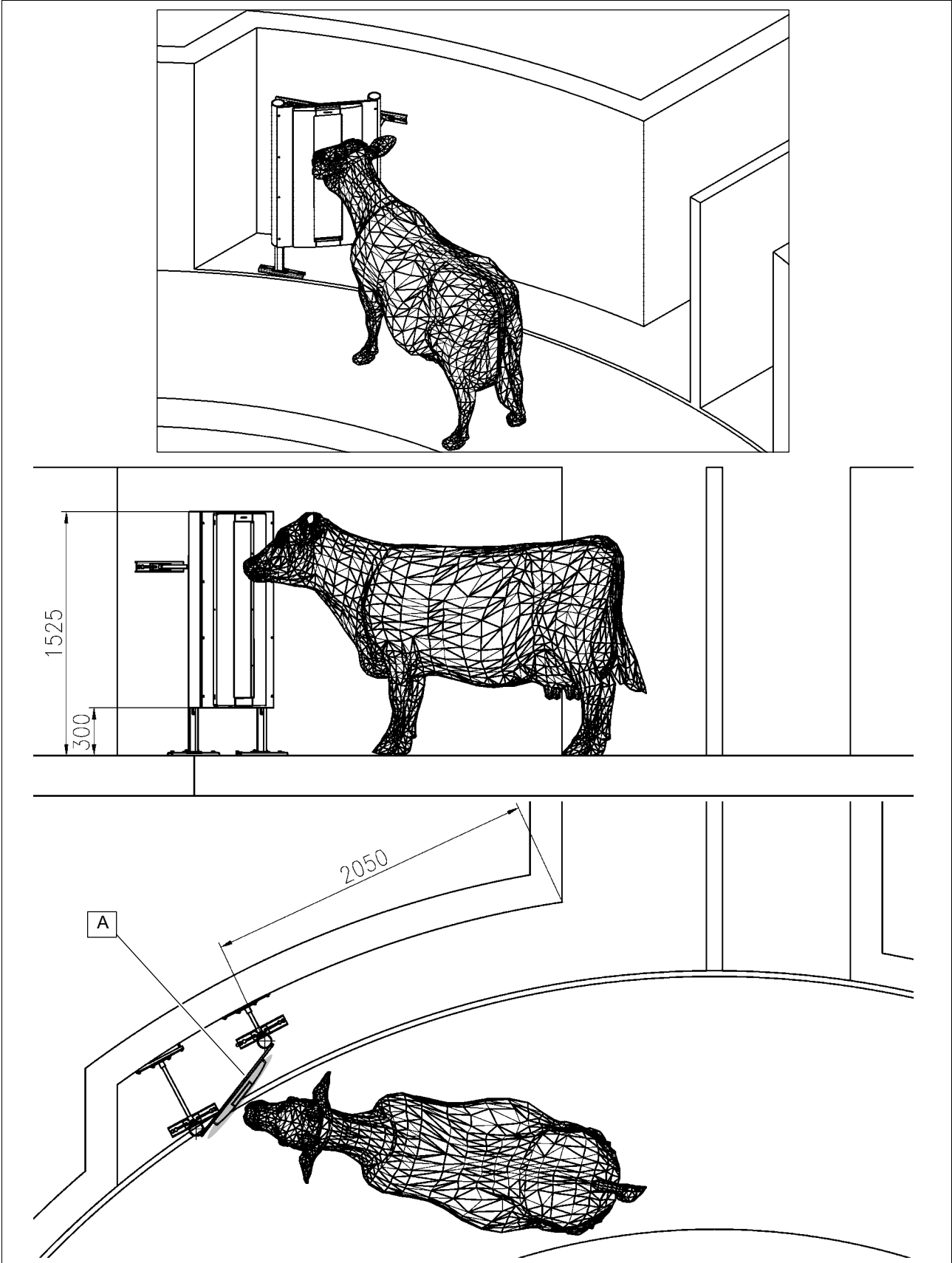
5.8.7 Installing the identification frame (AutoRotor Magnum 40)

Rotary milking parlour with entrance gate (Magnum 40 SF / Magnum 40 F)

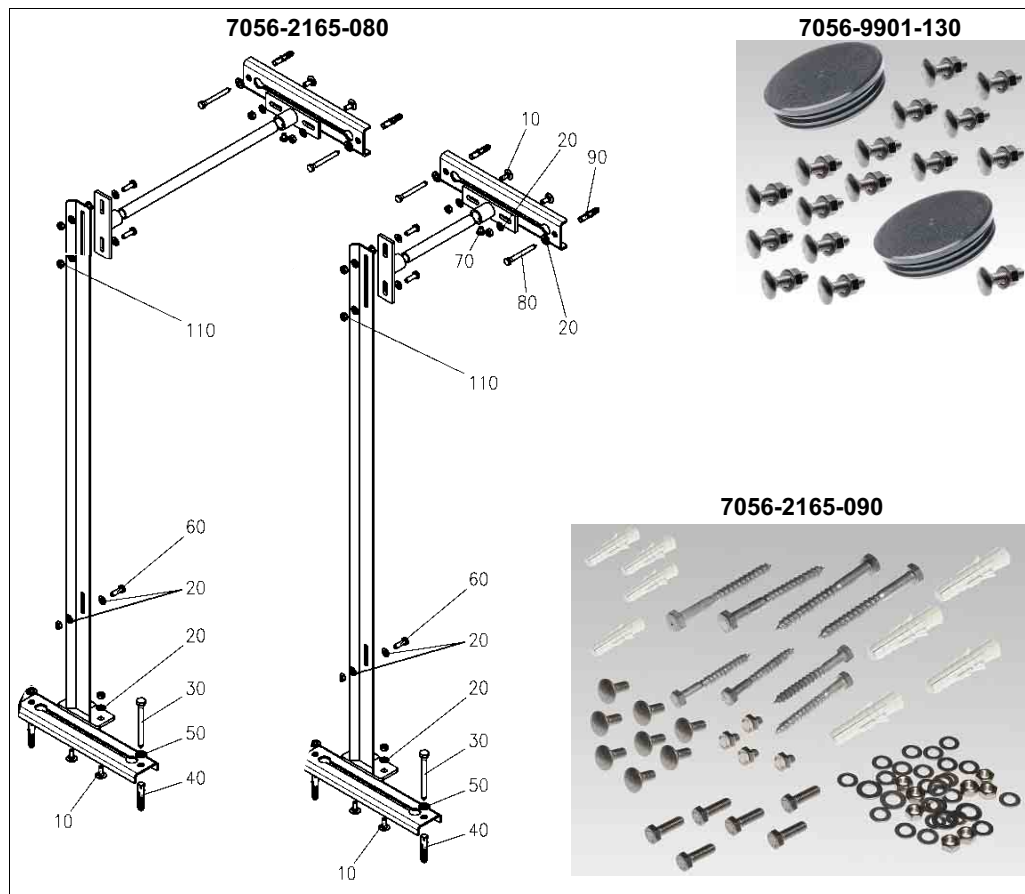


AutoRotor	Item	
	Identification frame (in entrance)	Label (ear)
Mag40 SF/F	<ul style="list-style-type: none"> • CW • CCW 	<ul style="list-style-type: none"> left-hand right-hand
	CW	Clockwise
	CCW	counter-clockwise
A	Identification frame	

Rotary milking parlour without entrance gate (Magnum 40 EE)



Installation material (Magnum 40 EE)




Pos.	Part No.	Description	Quantity
	7056-9901-130	Set of accessories	
0010	0003-0503-800	Plug	90
0020	0019-5576-300	Saucer-head screw	M8x30-MU
0030	0026-1345-300	Disk	8,4

Pos.	Part No.	Description	Quantity
	7056-2165-080	Set of fasteners	
0010	7056-5470-000	Support, welded	2
0020	7056-5653-020	Guide rail	4
0030	6919-0014-050	Threaded pipe	1/2 in
0040	7015-2155-020	Stand off bracket	1/2 in
0050	7056-2165-090	Set of fasteners	1


Pos.	Part No.	Description	Quantity
	7056-2165-090	Set of fasteners	
0010	0019-5574-300	Saucer-head screw	M8x20-MU
0020	0026-1345-300	Disk	8,4
0030	0019-5329-050	Wood screw	10x100
0040	0026-2305-890	Rawlplug	12x60
0050	0026-1348-300	Disk	10,5
0060	0019-6906-300	Hexagon head bolt	M8x25
0070	0019-6897-300	Hexagon head bolt	M8x8
0080	0019-5311-050	Wood screw	8x70
0090	0026-2304-890	Rawlplug	10x50
0110	0013-0278-300	Hexagon Nut	M8

Assembly procedure


- Install identification frame according to the installation plan
- Installing the booster (if required)

 See section on:
Installing the booster

- Installing shielding (if required)

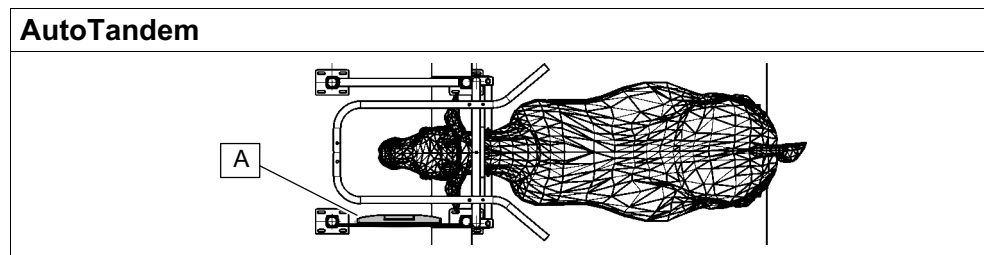
 See section on:
Installing shielding

- Fitting the light scanner

 See instructions:
7056-90 . . -047 Electronic control unit for rotary milking parlours AutoRotor Magnum 40 / Global 90 / PerFormer


5.8.8 Installing the identification frame (AutoTandem)

- Install identification frame according to the installation plan




A	Identification frame
---	----------------------

- Installing the booster (if required)

 See section on:
Installing the booster

- Installing shielding (if required)

 See section on:
Installing shielding

5.9 Installing the booster (optional)

If the transceiver is not powerful enough or the power is being absorbed by metal, the booster amplifies the transceiver's HF field. This provides more power for the ear responder. The identification range is increased.



Note!

The booster does not compensate for interference on the signal path.



Attention!

The booster may not be combined with the specified antenna transformer.

- Antenna transformer (7160-2675-140)



Assembly procedure

- Install the booster in a dry location away from the animals.
 - The booster is connected between the transceiver and the antenna.
 - Make sure that the connecting cables cannot be damaged by animals.
 - Keep connecting cables as short as possible.



Pos.	Part No.	Description	
	7160-2689-000	Booster	FDX/HDX
0010	7160-9067-000	PCB	ISO FDX/HDX
		Fasteners	Local purchase

5.10 Installing shielding



Note!

The shielding must be provided by the client!

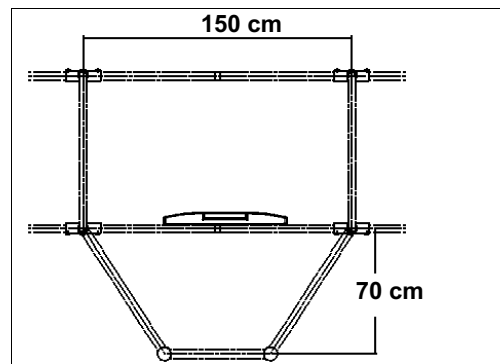
To ensure perfect operation of the identification system there may not be any animals with ear responders within identification range behind the antenna (approx. 1 m).

Action

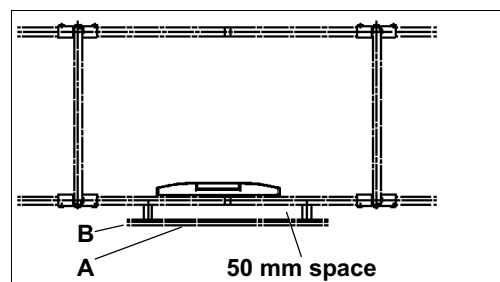
- **Base plate**
Provide shielding for the antenna frames by thin hot galvanised steel sheets which are screwed to a support plate to increase stability.
To ensure that the identification field is not weakened, the distance between plate and identification frame must be at least 50 mm!
- **Frame parts**
If there is enough space available, the animals can be kept at a distance from the identification frame by structural measures such as parts of the frame or a personnel passageway, so that shielding with a steel sheet is not necessary.

Installation examples

- Tiere außerhalb des Ganges können durch Gerüstteile vom Erkennungsrahmen fern gehalten werden.



- **Stahlblech**
A: Base plate
- plastic / Wood
- 1500x2000x12
B: Steel sheet
- 1500x2000



Installation

Information on disposing of installation material after installation is finished.

5.11 Installing the transceiver

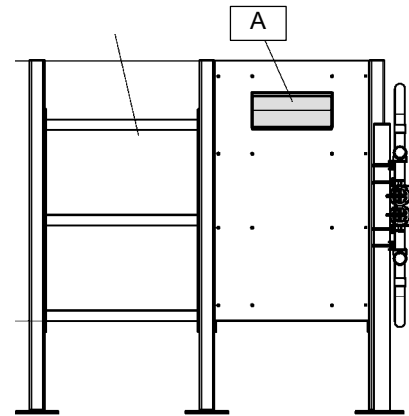
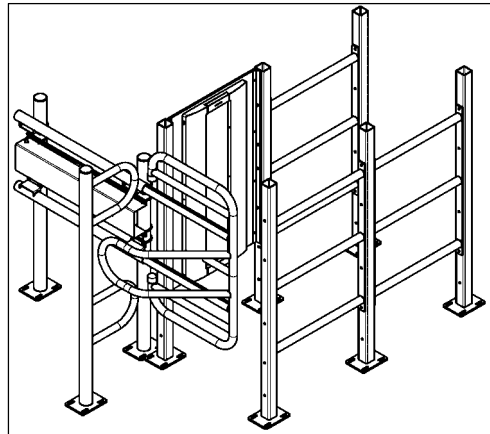
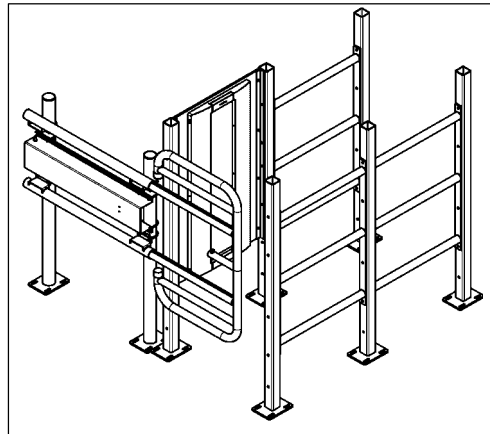


Installation as described in instructions:

7160-90 . . -426 Transceiver

Single / Twin

Installation example



A Transceiver

5.12 Electrical Connection

- Transceiver
- Identification frame
- Antenna transformer
- HF booster (Booster)
- Dual antenna tuner



Electrical connection as described in instructions:

7160-90 . . -426 Transceiver

Single / Twin

5.13 Information on disposing of installation material after installation is finished.

Handle any installation material that is not required properly, and dispose of it correctly in accordance with local requirements on the disposal of recycling of waste.

6 Starting for the first time

Commissioning is carried out during commissioning of the transceiver.



For more information on this subject, please see instructions:
7160-90 . . -426 Transceiver Single / Twin

6.1 Special personnel qualification required for initial commissioning

Initial commissioning may only be carried out by specially qualified personnel in accordance with the safety instructions.

Any settings that have to be made (e.g. on control units) must always be made by personnel who have been suitably instructed/trained by the manufacturer.



See also the section on "Personnel qualification".

6.2 Safety Instructions for Initial Commissioning

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Before starting for the first time check that all tools and other parts have been removed from the danger area.
- Before commissioning, check the direction in which the entrance gates move.
- Are all of the operating media suitable, present and connected?



Also read the chapter on Safety.

Special risks involved in initial commissioning:

- Incorrectly wired connections may destroy electrical/electronic components.
- Defective connections can cause the product to start up unexpectedly or make uncontrolled movements.
- Check all pressure areas for leaks.
- Electrostatic processes/interference may endanger electronic components and also lead to software faults and data loss. Always back up data regularly.

6.3 Setting the opening speed

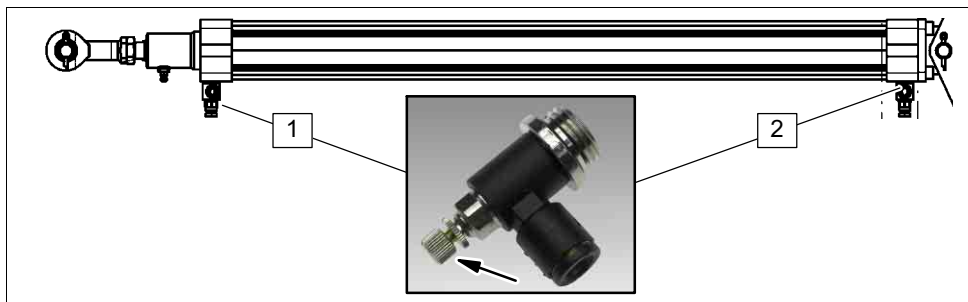
Entrance gate (vacuum)

- The speed is set on the threaded pin of the control valve.
 - Screw out: higher speed
 - Screw in: lower speed




Entrance gate (compressed air)

- Setting the speed using the setting screw of the one-way restrictor screw connection.
 - Screw out: higher speed
 - Screw in: lower speed




1	One-way restrictor screw connection	open
2		close

6.4 Settings in DairyPlan

 Settings according to the instructions:
 7160-90 . . -426 Transceiver Single / Twin

6.5 Transceiver settings (Single 4)

 Settings according to the instructions:
 7160-90 . . -426 Transceiver Single / Twin

7 Farm

Entrance gate

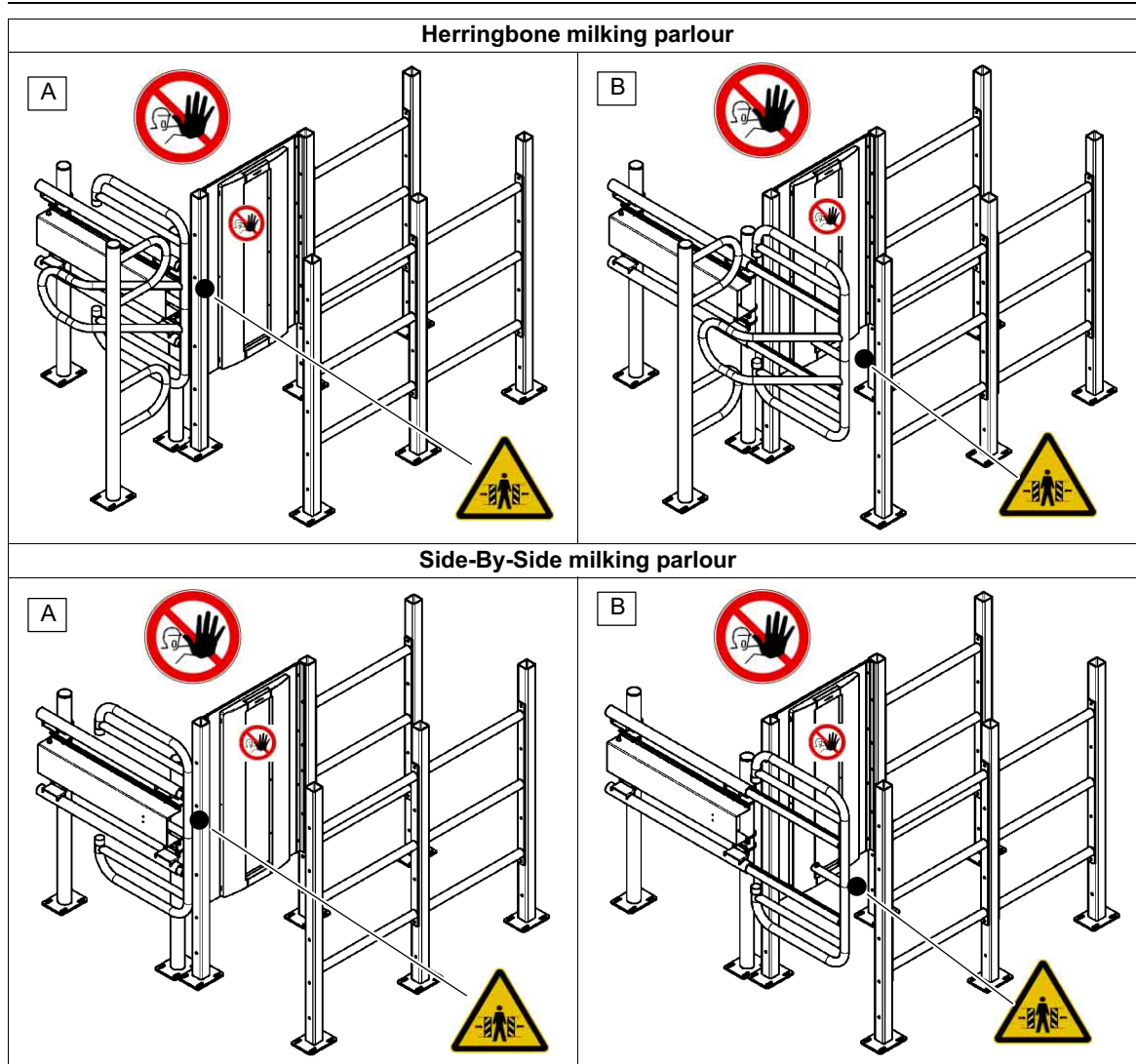
**Warning!**

The automatic entrance gate poses a risk of injury during operation!



- There is a 50 mm gap when the entrance gate is open. There is a risk of crushing between the gate and stationary components. (A)
- There is a risk of crushing when the entrance gate is closed. For functional reasons the gap that remains may not be greater than 150 mm. Otherwise cows can stick their heads through and identification can no longer be guaranteed. (B)

Do not enter the danger zone during operation!



Barn components



Warning!



There is a risk of being crushed between moving and stationary parts.
It is strictly forbidden to stand in the danger zone.



For more information on this subject, please see the instructions for the corresponding milking parlour, animal segregation system, ...

8 Operating the entrance gate of the group milking parlour

Functional sequence of a group milking parlour



Note!

The functional sequence depends on the transceiver program chip.

- Program chip (CWS3WHS)
 - Walk-through identification (VC3)
- Program chip (CWS3ILS)
 - Walk-through identification (DPNet-ID)

Example of a functional sequence: CWS3WHS

Basic setting: entrance gate closed
(animal is waiting before the entrance gate)

- Preparation of milking places

Animal identification

- Open gate manually
(milking control unit)
- Animal identification activated
 - Green indicator light (constant light)
- Animal is identified (red indicating light on the transceiver flashes)
- Animals enter the milking parlour
(until all milking places are occupied)
- Close gate manually
(milking control unit)
- Animal identification deactivated
 - Green indicator light (off)

Milking

- Start of milking
- End of milking

Animals released

- Animals released

Operating

The system is operated using the milking control unit:

- Metatron P21



For information on operation, see instructions:

7071-90 . . -062 Control unit for group milking parlours

DPNet

9 Operating Faults

If necessary, please contact your nearest authorized technical dealer.

9.1 Special personnel qualification required for troubleshooting

Troubleshooting may only be performed by specially qualified personnel in accordance with the safety instructions.



See also the section on "Personnel qualification".

9.2 Safety Instructions for Troubleshooting

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- First of all, ensure that the product is not restarted accidentally.
- Ensure that safe disconnection can be carried out by a second person at any time.
- Secure the operating range of the moving parts of the equipment.



Also read the chapter on Safety.

Special dangers involved in troubleshooting:

- Switching the power supply on unintentionally may cause serious damage to property or life-threatening injury to persons.
- Unsecured manual operation means a higher risk of injury due to crushing/shearing/being pulled in/...
- There are special risks from direct contact with the animal (crushing, risk of kicking or knocking).

9.3 Transceiver malfunction



For more information on this subject, please see manual:

7160-90 . . -426 Transceiver

Single / Twin

9.4 Troubleshooting possible faults

Symptom	Possible cause	Solution/Action
Gate is not opening/closing	Reverse valve or solenoid valve defective	Replace the reverse valve or solenoid valve
	Vacuum pump or compressor is not working	Start vacuum pump or compressor
	Vacuum or compressed air hose has slipped off	Push on vacuum or compressed air hose
Gate is opening/closing too slowly	The gate guide tubes are not parallel	Realign the guide tubes with the gate
	The threaded pin in the vacuum reverse valve is not unscrewed enough.	Unscrew the threaded pin in the vacuum reverse valve further.
	Incorrect reversing valve has been used (slide too small)	Replace reversing valve
	Valve is not switching (pressure set below 2.5 bar)	Set higher pressure on the pressure regulator.
	Throttle screws on the cylinder are completely screwed in.	Loosen throttle screws.
	Gate bearings defective	Replace and grease defective parts
	Sleeve in the vacuum cylinder is dry	Grease sleeve
	Air leak in the vacuum cylinder	Replace leaking part
	Vacuum or compressed air hoses are kinked or pinched	Re-run vacuum or compressed air hoses.
Animal is not being identified	Antenna transformer is not set correctly	Set antenna transformer correctly
	Transceiver is not set correctly	Set transceiver correctly
	Interfering antenna (e.g. closed metal ring) near the identification frame	Open or isolate the interfering antenna.
	Frequency converter fault.	Install the filter in accordance with the instructions from the frequency converter manufacturer. Check earth. Shield cable from the motor to the frequency converter. Earth shield on both sides. Earth the control cabinet for the frequency converter separately on the equipotential busbar. Install the frequency converter at a greater distance.

10 Maintenance

If necessary, please contact your nearest authorized technical dealer.

10.1 Special personnel qualification required for maintenance work

Maintenance work may only be performed by specially qualified personnel in accordance with the safety instructions.



See also the section on "Personnel qualification".

10.2 Safety Instructions for Maintenance

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Only use original spare parts / original wearing parts / original accessories. In the case of products by other manufacturers it cannot be ensured that they have been designed and produced from the point of view of loads and safety.
- The maintenance work specified in the instructions (adjustment, cleaning, lubrication, inspection, etc.) must be performed at the times specified.
- Maintenance work should only be performed with the tools envisaged for this purpose.
- Also note the special information in this manual for the individual components.
- Only use the media specified.
- All warnings and warning signs must be present and legible.
- Immediately replace any components that are not in perfect condition.



Also read the chapter on Safety.

Before carrying out any maintenance work, make sure of the following:

- The area for the maintenance work and access to the working area should be secured over a wide area and there should not be any unauthorised people in the working area.
- Before performing any work on electrical installations or equipment (components, housing, etc.) switch off all power supplies and make sure they cannot be switched back on again. Put up a sign warning against switching them back on again.
Observe the safety rules:
 - Isolate.
 - Ensure devices cannot be switched back on again
 - Verify safe isolation from supply.
 - Earth and short circuit if necessary.
 - Cover or enclose any nearby live parts.
- disconnect all pressure units from the pressure source and make sure they cannot be switched back on again unintentionally

Special risks involved in maintenance work:

- Serious damage to property might occur if wrong replacement or wearing parts are installed.
- If energy sources are switched on unintentionally, this may lead to serious bodily injury or damage to property.
- There is a risk of injury from components/tools... with accessible sharp edges.
- Welding work constitutes a fire hazard.
- Lines which are not laid properly (e.g. bending radius too small) can cause scorching and electrical fires
- Reversed connections cause the entrance gates to move in the wrong direction; this can cause serious damage and/or life-threatening injury.
- Direct contact with live parts or parts which have become live as a result of a fault
- Incorrectly wired connections may destroy electrical/electronic components.
- Unsecured manual operation means a higher risk of injury due to crushing/shearing/being pulled in/...

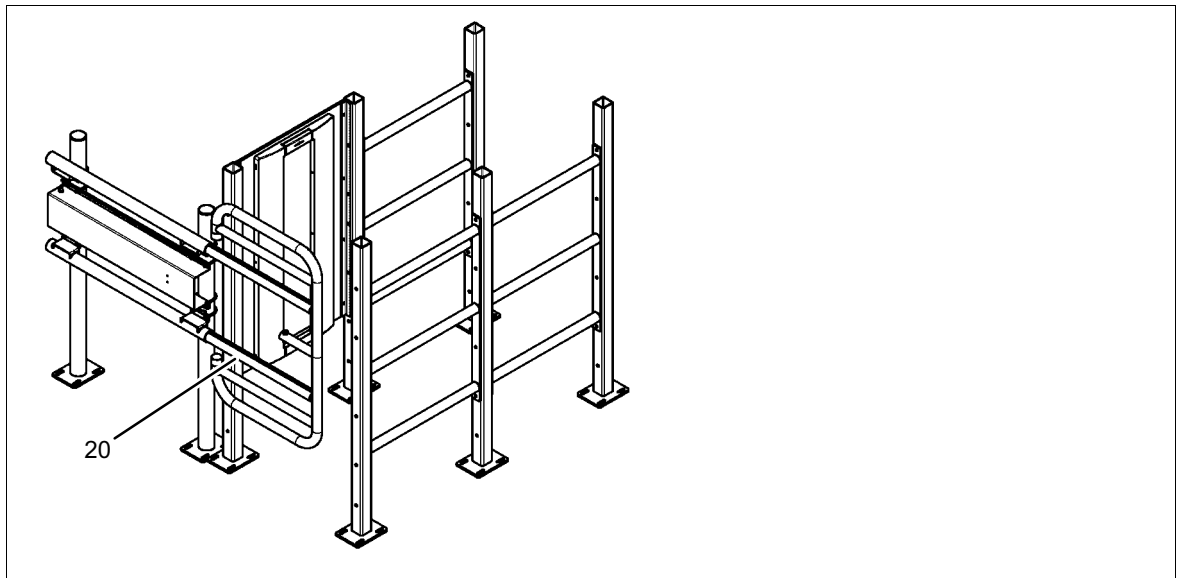
On completion of the maintenance work, check that:

- The system values set before the work have not been reset as a result of the work.
- All screwed connections that were loosened earlier have been tightened.
- Any guards, cover, lids, sieves, filters, ... that were removed earlier have been put back again correctly.
- All safety equipment is working perfectly again.
- Any tools, materials and other equipment used have been taken back out of the working area.
- The working area has been cleaned.
(possibly to remove any fluids or similar substances that came out of the machine)
- Operation has been checked after maintenance work has been completed or parts replaced. Produce a full test report if necessary.

10.3 Inspections and preventive maintenance

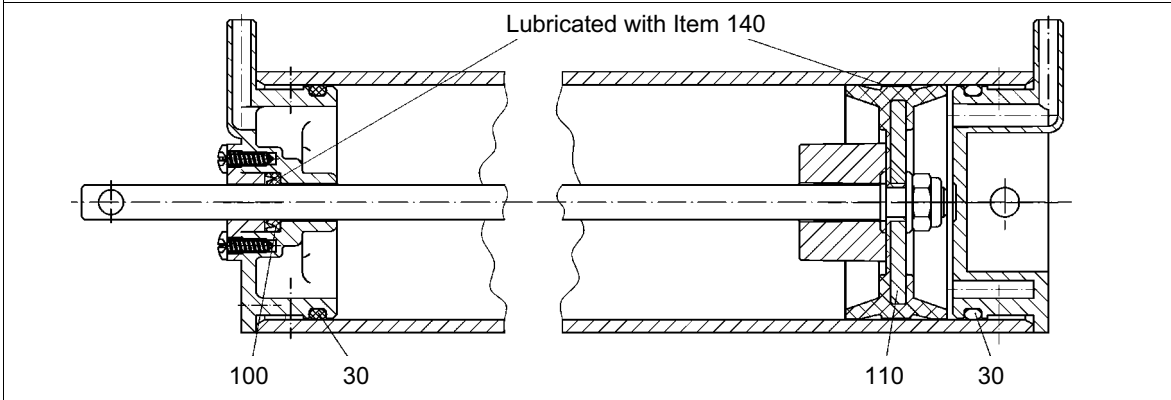
Interval	Part No.	Description	Action (by)
50 operating hours		Check all fastening screws to ensure they are tight!	check (operator)
once a year		Carry out regular checks on electrical equipment:	<ul style="list-style-type: none"> • Re-tighten any loose connections • Replace damaged lines or cables immediately • Close off any cable openings that are not being used (operator)

10.3.1 Entrance gate



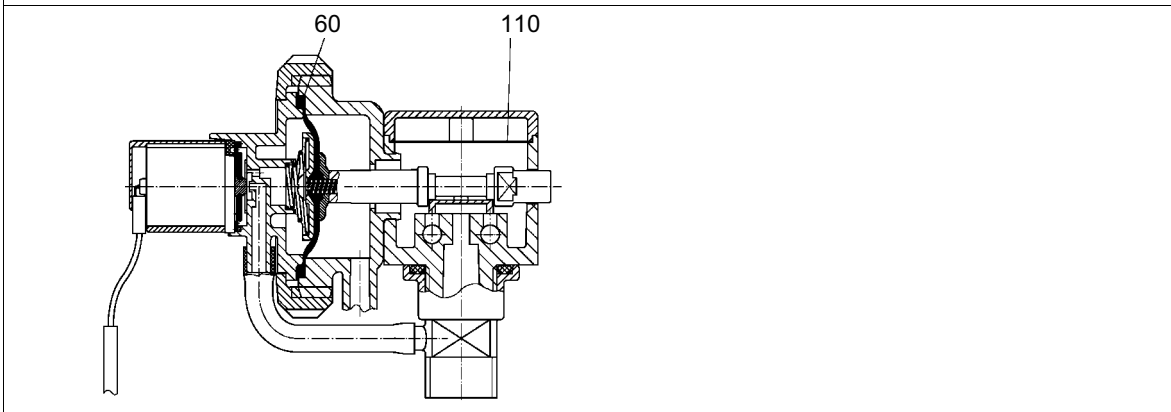
Interval	Pos.	Part No.	Description	Action (by)
Every three months	0020	7123-5026-030	Bushing	clean and grease (operator)

Vacuum cylinder (complete)



Interval	Pos.	Part No.	Description	Action (by)
1500 hours of operation, at least 1 x every year	0030	0007-2481-750	Gasket	check and, if necessary, replace / exchange (customer service)
	0100	0004-5865-840	Slotted ring	
	0110	0004-2675-750	Double-cup leather	check and, if necessary, replace / exchange (customer service) grease (customer service)
	0140	7311-0081-099	Lubricating grease	

Control valve, compl.



Interval	Pos.	Part No.	Description	Action (by)
1500 hours of operation, at least 1 x every year	0110	7053-2794-000	Filter disk	replace/exchange (customer service)
3000 hours of operation, at least every 2 years	0060	7161-1702-040	Diaphragm	

11 Shut-down

11.1 Safety Instructions for Decommissioning

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- First of all, make the operating area for decommissioning completely safe.
- Make sure that operating media are disposed of without harming the environment.



Also read the chapter on Safety.

Special dangers involved in decommissioning:

- Components which have not been set down correctly may fall off or twist.
- There is a risk of injury from open components/tools /.... with sharp edges.

11.2 Final decommissioning/disposal

After final decommissioning, handle all components properly and dispose of them in accordance with valid local regulations on waste disposal and utilization.

12 Spare parts

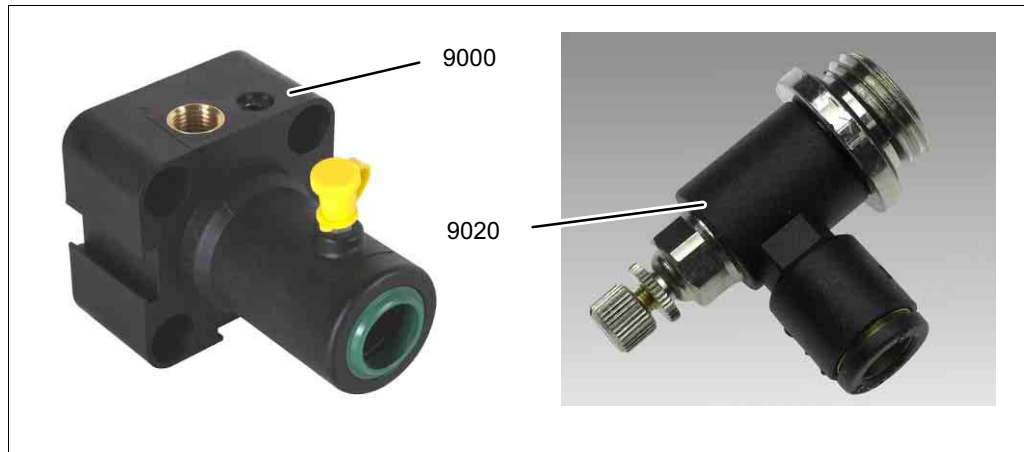


Note!

See also the installation material indicated in the section on "Installation".

12.1 Automatic gate opening set (compressed air)

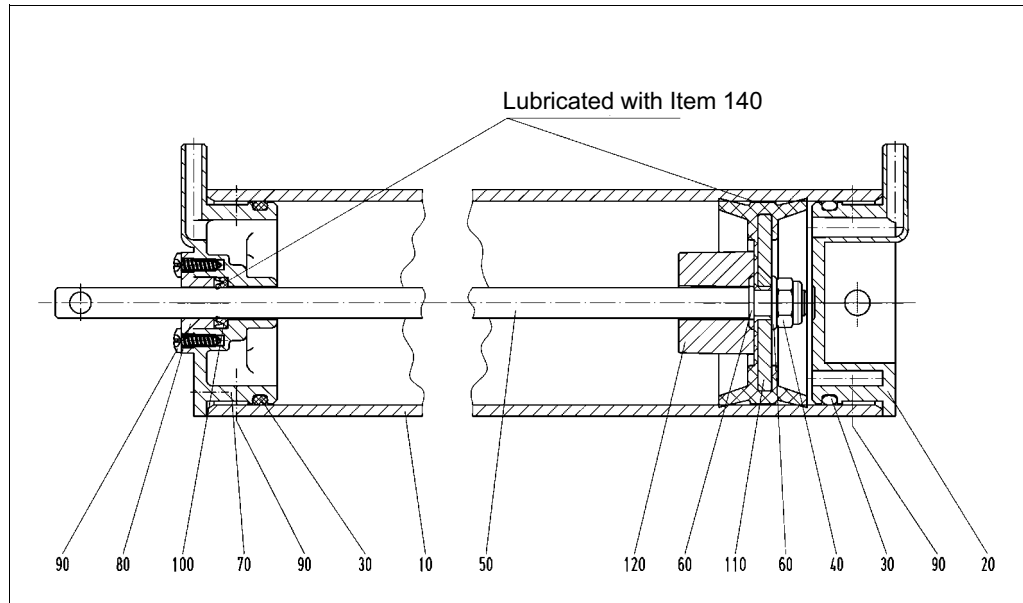
Lifting cylinder



Pos.	Part No.	Description	
	7123-1970-070	Lifting cylinder	
9000	7123-9926-010	Set of repair parts	Lubrimaster Ø50 mm
9020	0018-6729-860	One-way restrictor screw connection	6-G1/4 in

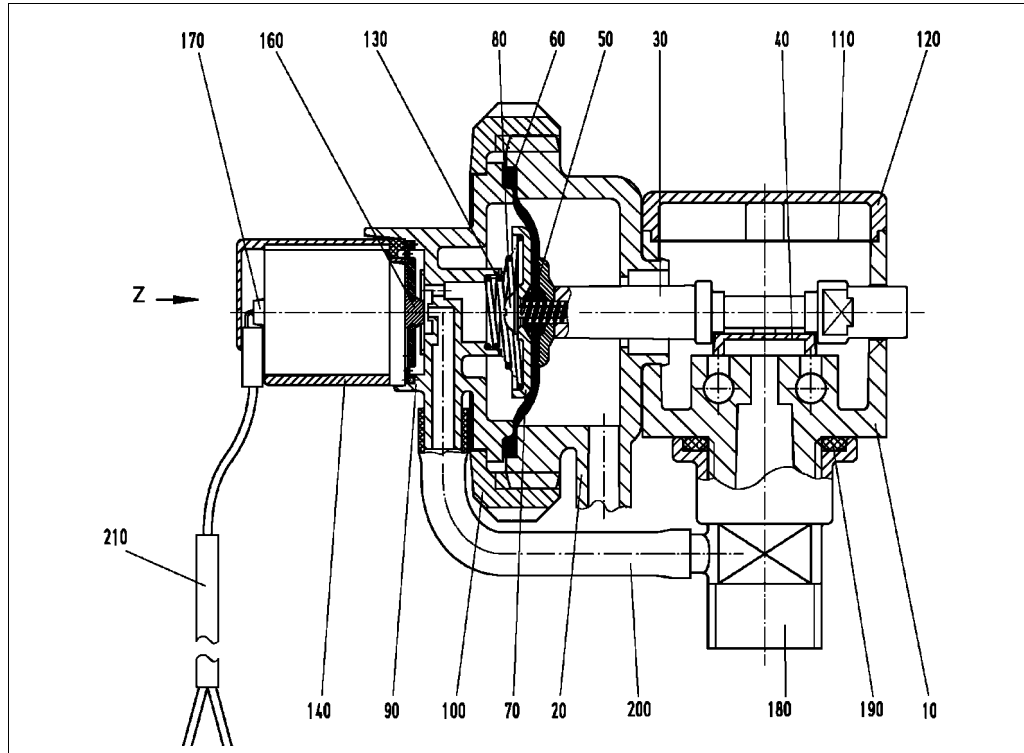
12.2 Automatic gate opening set (vacuum)

Vacuum cylinder (complete)



Pos.	Part No.	Description	
	7065-1011-000	Vacuum cylinder (complete)	ø81x655
0010	7065-5002-000	Cylinder	
0020	7071-1159-000	Lid	
0030	0007-2481-750	x Gasket	70 x 5
0040	0013-0292-300	Hexagon Nut	M10 w. Nylon insert
0050	7065-2717-000	Piston rod	
0060	0026-1348-300	Disk	10,5
0070	7071-1159-010	Lid	
0080	7071-1094-030	Disk	
0090	0019-9362-300	Self-tapping screw	St4,8x16-C-H
0100	0004-5865-840	x Slotted ring	12x20x5,5
0110	0004-2675-750	x Double-cup leather	80x10,2
0120	7065-1018-000	Shim	
0140	7311-0081-099	Lubricating grease	DIN 51825 K-L2KEP
0160	0024-6063-000	Warning sign	Injury to hands
0170	0024-6060-000	Warning sign	Automatic start!
x - Wear part, see section on "Maintenance" for maintenance interval			

Control valve, compl.



Pos.	Part No.	Description	
	7071-2780-070	Control valve, compl.	5/2 14-14R Apex 24 V DC
0010	7065-2617-000	Housing	
0020	7161-4444-040	Housing	
0030	7161-2474-010	Slide rod	
0040	7053-2712-030	Spool valve	14/14
0050	7161-1094-020	Disk	ø20xø4,2x3
0060	7161-1702-040 0004-8000-015	x Diaphragm Set of diaphragms	53,5x8,6 (20x)
0070	7038-5462-000	Centering disk	31x5
0080	0019-0928-300	Oval-head screw	A4x16
0090	7053-1457-150	Valve cover	
0100	7053-2643-010	Threaded ring	M65
0110	7053-2794-000 7053-2794-010	x Filter disk Set of filter disks	(10x)
0120	7053-2999-000	Cowling	
0130	0006-4039-300	Conical spring	29x14x1,25x14-4,5
0140	7053-2280-210	Magnetic holder	Apex
0150	0019-6326-400	Threaded pin	M10 x 16
0160	7051-1703-000	Diaphragm (complete)	ø25,6x3,5
0170	7051-2689-030	Valve magnet	24V, Apex/2
0180	7053-2626-000	Connector	Apex Valve
0190	0007-3475-820	Gasket	20 x 4
0200	0018-4802-818	Hose	5x1,5
0210	7071-6933-020	Cable (complete)	2x0,5 3m
x - Wear part, see section on "Maintenance" for maintenance interval			

12.3 Transceiver



For more information on this subject, please see manual:
7160-90 . . -426 Transceiver Single / Twin

12.4 Identification frame



Note!

See installation material indicated in the section on "Installation".

13 Appendix

13.1 Abbreviations

Term	Explanation
∅	Diameter
HB	Herringbone milking parlour (Herringbone)
SbS	Side-By-Side milking parlour
Units	
°	Degrees (angles)
°C	Degrees Celsius
s	Second
min	Minute
" (in)	Inch (= 25.4 mm)
mm	millimetres
cm	centimetres
m	metres
mm ²	Square millimetre
mm ³	Cubic millimetre
dm ³	Cubic decimetre
g	Gram
kg	Kilograms
kPa	kilo Pascal
kW	Kilowatts
A	Amp (current)
V	Volt (voltage)
Ω	Ohm (resistance)



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