Installation

and Assembly Manual

Flexi Tank – timber work

Flexi Tank with auger delivery system

Special design **fleXILO –Plus** with vibration plate „execution R“

Flexi Tank with vacuum suction system

Special design **fleXILO –Plus** with vibration plate execution „N“

Please read carefully prior to installation and servicing

Save these instructions!

ÖkoFEN PELLET HEATING

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A: GENERAL NOTES

1. Types of safety warnings

There are 4 categories of safety warnings:

1. Danger

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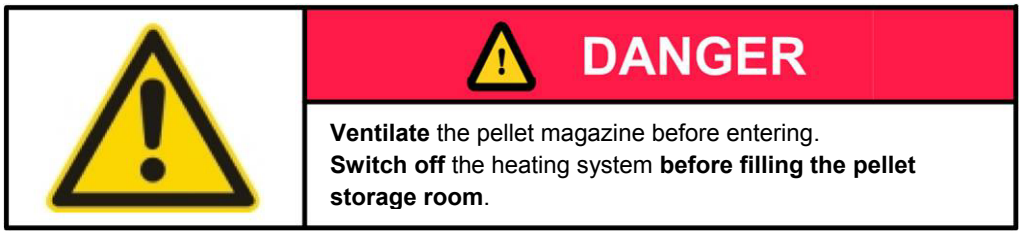
2. Entering the storage room



3. The Flexi Tank

The Flexi Tank unit consists of a pellet tank, suspended on a wooden rack. The Flexi Tank includes a integrated filling unit with tube clamp (part no. 9, page 10)

The necessary pellet amount is dose supplied to the heating system with the extraction unit.

For more information on the fuel pellets see the Pellematic Manual or consult our Homepage www.okofen-usa.com

B: PLANNING

This chapter describes the prerequisites and requirements to set up a Flexi Tank. Work through the chapter carefully! With its help you'll have an undisturbed operation.

1. Inspection - Dimension of the Room

The necessary dimension of the room is calculated according to the dimension of the Flexi Tank. Please check the necessary dimension of the room with the help of the natural dimensions in the room. You can calculate the necessary minimum size with help of the following list.

Pellet tank fleXILO without vibration plate Min. Height of room: 85 inches

Pellet tank - square	S160	S190	S220	S280
filling capacity [lbs] **	**4500 – 5500**	**6000 – 7000**	**7000 – 8000**	**10000 – 11000**
Dimensions L x B x H [inches]	66x66x77	77x77x77	90x90x77	113x113x77

Pellet tank - rectangular	S2219	S2819	S2822
Filling capacity [lbs] **	**6500 - 7500**	**7500 – 9000**	**9000 – 10500**
Dimensions L x B x H [inches]	90x77x77	113x77x77	113x90x77

** minimum filling capacity by Height of the room 85in
** maximum filling capacity by Height of the room 95in

Pellet tank fleXILO - Plus with vibration plate Min. Height of room: 84.65in

Pellet tank	S280R	S2822R	S2819R
Filling capacity **	**13500 – 15500**	**11500 – 13000**	**10000 11000**
Dimensions L x B x H [inches]	113x113x77	113x90x77	113x77x77

** minimum filling capacity by Height of the room 85in
** maximum filling capacity by Height of the room 95in

Pellet tank fleXILO - Plus with vibration plate Min. Height of room: 70.87in

Pellet tank	S280N	S2822N	S2819N
Filling capacity **	**9000 – 11000**	**8000 – 10000**	**7000 – 8000**
Dimensions L x B x H [inches]	113x113x70	113x90x70	113x77x70

** minimum filling capacity by Height of the room 70.87in
** maximum filling capacity by Height of the room 82.68in

Dimension of the room:

Ground plan dimensions:

The tank room must be at least 3 inches wider than the tank itself.

For example: S190 – tank width 77in – minimum room width = 80 inches

For installation reasons, on the side of the tank where the loading unit is fitted, the room must be 12in longer than the minimum requested.

For example, S190 – minimum room length = 80 + 12 = 92in.

Check the minimum dimension of the room! The minimum required height of the room 84.65in or 70.87in is essential.

NOTICE

Please check the dimensions of the room before starting the assembling.

2. Installed Equipments in the Tank Room

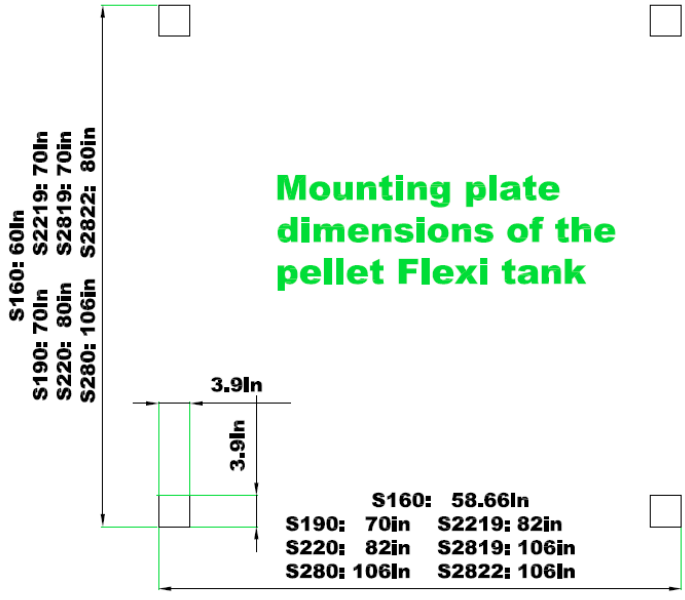
Installation equipments (e.g. waste pipes, water pipes, ceiling hooks) must be removed for the set up of the pellet textile tank. Sharp or sharp-edged objects are not allowed to be placed next to the Flexi Tank. They must be covered if they are not removable.

3. Constitution of the Tank Room

The floor must be horizontal. If it isn't you have to correct it with washers (wood boards or metal plates).

The load capacity must be suitable for a point load (load of one stayer) of 4409 lbs.

Normal damp walls are no problem, but it must not come to formation of condensed water.



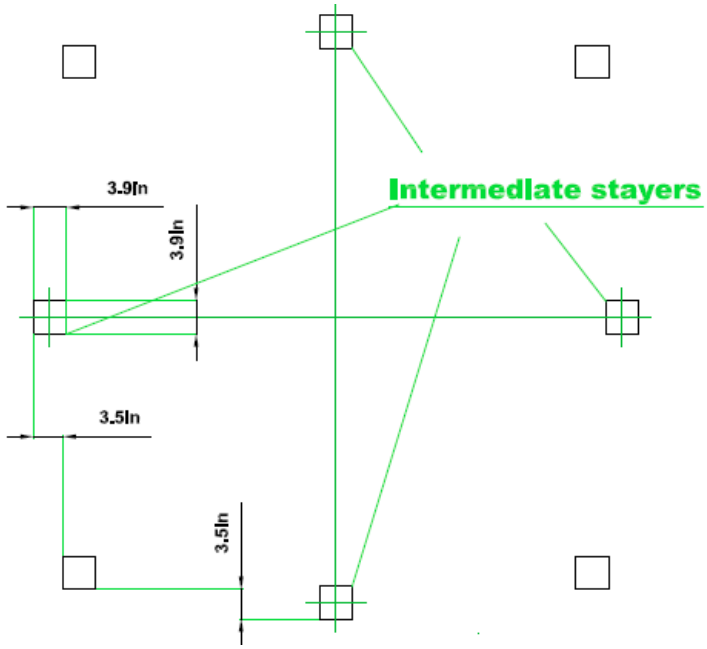
3.1 Special dimensions

Some pellet tanks with special heights have 2 or 4 intermediate stayers for support.

After assembly of the textile tank these intermediate stayers are placed under the cross beams with support angle and screws.

Pellet tank	Dimension of intermediate stayers
S220 + 60in	z=4
S280 + 20in	z=4
S280 + 40in	z=4
S280 + 60in	z=4
S2219 + 60in	z=2 *
S2819 + 40in	z=2 *
S2819 + 60in	z=4
S2822 + 20in	z=2 *
S2822 + 40in	z=4
S2822 + 60in	z=4

* intermediate stayers only on the longer side of the pellet tank.



Positon of the intermediate stayers

Measures by external installation

In the case of outdoor installation you must protect the textile tank against rain and UV radiation (side and upper covers). To bear the weight, you must provide a concrete foundation base of size 20x20x20in. To protect the tank against wind damage, anchor the fillers to this base.

4. Air aspiration of the Tank Room

The air, with which the pellets are blown into the Flexi Tank, has to escape.

The room where the Flexi Tank is installed must have an adequate breather opening (window or similar) with a section of at least 26.25 square inches.

The Flexi Tank consists of textile fibres – it doesn't come to any dust load.

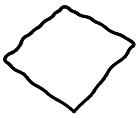
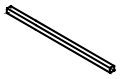
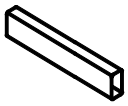
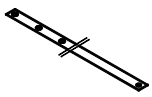
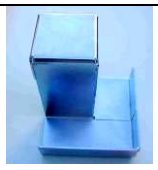
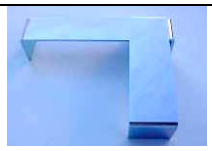
An aspiration of the injected air isn't necessary.

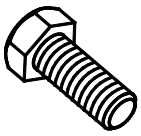
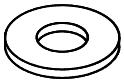
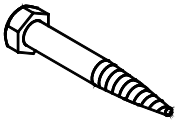
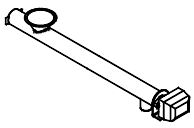
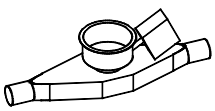
5. Fire Protection

For detailed information call your authorized local sales representative.

C: COMPONENTS OF A FLEXI TANK fleXILO

The components of a Flexi Tank are transported in a wooden crate and in a cardboard box.
In the cardboard box you can find the Flexi Tank and the assembly foil.
In the wooden crate you can find the frames of the pellet tank, the filling system and the extraction unit.
The screw conveyor channel or the suction switch is in the wooden crate too.
In the case of a pellet tank unit S280, S2819 or S2822 the cross beams with a length of L = 109.45in are packed separately, because the beams are too long.
In the case of a screw conveyor system the conveyor screw is mounted in the conveyor channel.

Part-No.	Parts	Quantity	Presentation	Packed in :
1	Flexi Tank	1		cardboard box
2	Assembly foil	1		cardboard box
3	Stayer	4		wooden crate
4	Protection cover for humidity protection	4		wooden crate
5	Cross beams	4		In wooden crate, by S280 on the wooden crate
6	Struts	16		wooden crate
7	Supports for cross beam	4		wooden crate
8	Clamp for cross beams	4		wooden crate

Part-No.	Parts	Quantity	Presentation	Packed in :
9	Filling unit with tube clamp 3.53 – 4.22in	1o.2 piece accord. to position of the filling systems		wooden crate
10	Extraction unit	1		wooden crate
11	Screws M8x25	16		screw box in wooden crate.
12	Screws M8x35	4		screw box in wooden crate.
13	Nuts M8	20		screw box in wooden crate.
14	Washers M8	36		screw box in wooden crate.
15	Screws M8x50	16		screw box in wooden crate.
16	Clamping slide for extraction unit	1		mounted on extraction unit
17	Screw conveyor	1		alternative to suction switch
18	Suction switch	1		alternative to screw conveyor

D: ASSEMBLY FLEXI TANK

After integrity check you can start with the assembly of the Flexi Tank.

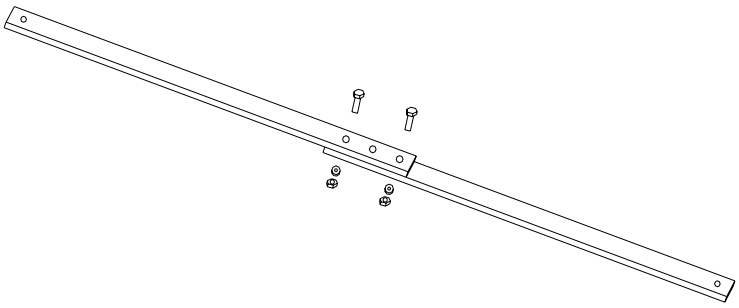
1. Assembly Flexi Tank

NOTICE

Before touching the wooden parts make sure that your hands are clean!

1.1. Struts

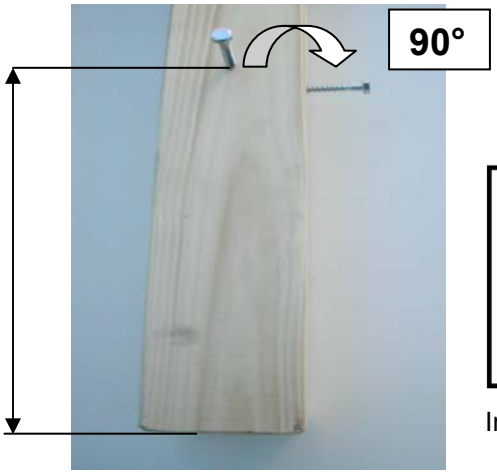
- Take 16 pieces of struts (part 6) out of the wooden box and assemble two and two. (please regard the different lengths in the case of a rectangular FlexiTank)
- Put the M8x25 screws (part 11) into the outer two holes
- Fix the screws with the M8 washers (part 14) and the M8 nuts (part 13)



The next individual operations can be started when all struts are screwed.

1.2. Stayers and protection cover for humidity protection

a) Advanced bore-holes



CAUTION

The dimension 13.4in can vary for special Flexi Tanks.

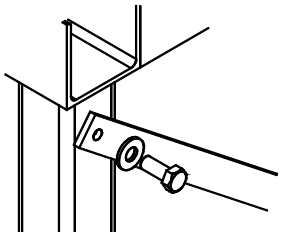
In the stayers are 4 boreholes with a diameter of 0.2in.

b) Mounting of the protection covers on the stayers

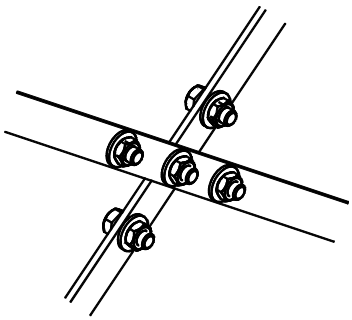
Attach the protection covers on the stayers.

1.3. Mounting of the struts

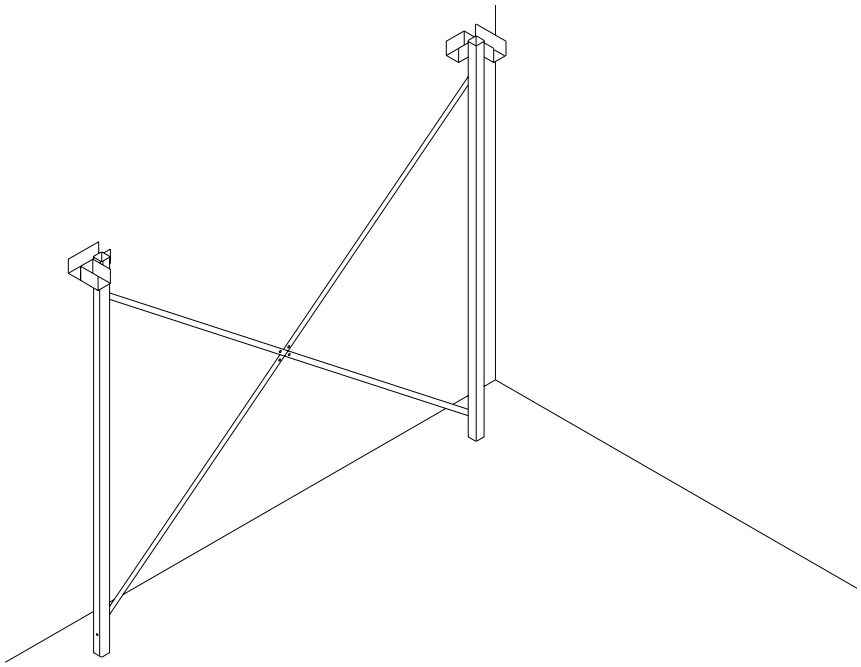
Now screw 2 stayers (part 3) with 2 connected struts (2x part 6). The struts (2x part 6) are screwed on the threaded bush at one stayer (part 3) above and at one stayer (part 3) below. Here the struts (2x part 6) are screwed on crosswise.



Turn in the screw M8x35 (part 12) in the centre of the 3 bore holes and screw it with the washers (part 14) and nut (part 13).
The 2 finished struts (4x part 6) are fixed together in the middle with this screws.



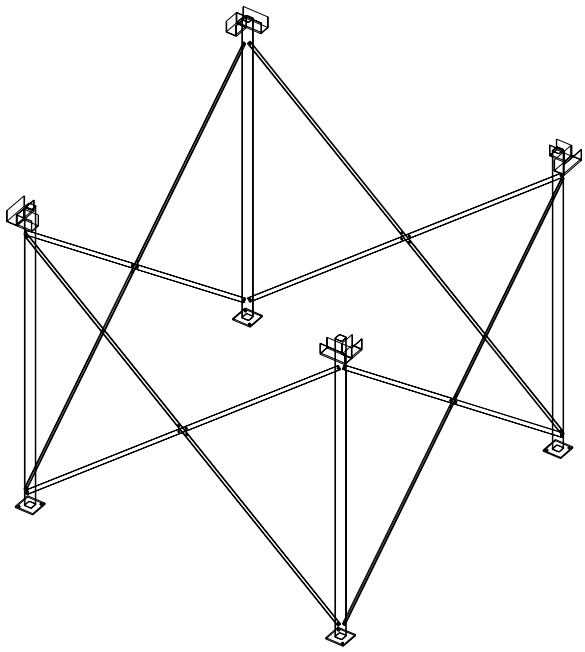
When all screws are tightened, the screwed stayer unit (2x part 3 + 4x part 6) can be put up and leaned against the wall.



Also assemble the other two stayers (part 3) on the opposite wall.

1.4. Connection of the stayer units

Screw crosswise in the same way both screwed stayer units with the two complete struts as the several stayers (part 3). The stayer unit should now be free standing.



Next the 4 supports (part 7) for cross beams are mounted on the stayers.
Both supports for the cross beams must be placed outside of the stayers.

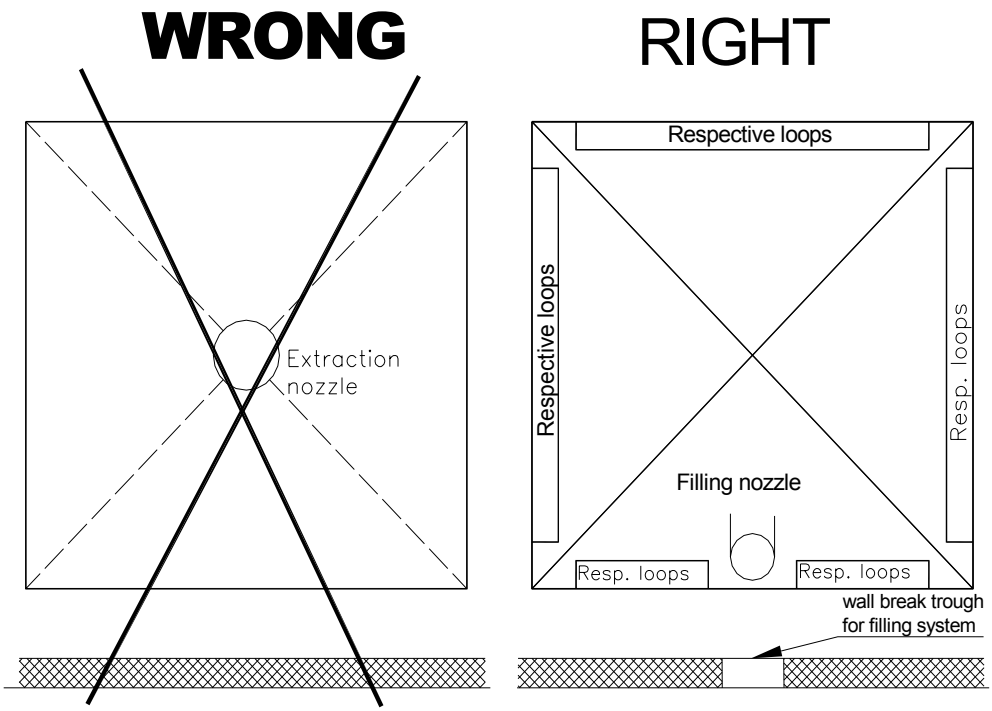
1.5. Prepare the textile tank

Lay the assembly foil (packed in the box where the pellet textile tank is transported) in the middle of the stayer unit.

NOTICE

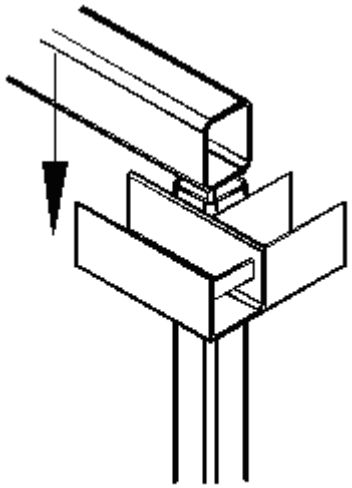
The foil is meant to keep the textile tank cleaner.
Avoid stepping on the foil!

Now the textile tank will be unpacked and laid on the mounting foil. Turn the textile until the extraction nozzle is on the bottom. Than turn the textile tank by 90° until the filling nozzle is at the same position as the filling system for the FlexiTank has to be mounted.
(See picture on the next page))



1.6. Threading the cross beams in the Flexi Tank.

The Flexi Tank is now in the right position.
Move the cross beams through the respective loops and put them on the stayers (see figure).



The Pellet Tank Frame and the textile material assembly are now complete and standing as one unit.

2. Filling System Assembly

The filling system consists of an injection nozzle with holding device (part 9), the necessary pipes and pipe elbows and a filling coupling with filler cap.

2.1. Injection nozzle Assembly

Filling connection may be planned with one or two injection nozzles.

Rectangular pellet textile tanks require filling nozzles to be securely fastened.

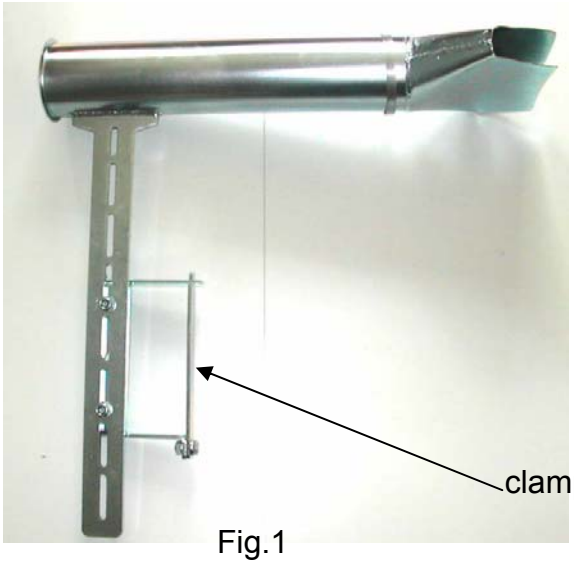


Fig.1

Fig.2

- Move the ready-to install filling unit in the filling nozzle of flexible tank after loosening from the clamping plate (Fig. 1).
- Attach filing unit to the cross beam and fastened with the clamping plate and the screw. Fix the filling opening on the textile tank with the seat belt and a hose clip.
- Fix the injection nozzle on the cross beam with 2 screws M8x50 (Fig.2)

2.2. Mounting filling system

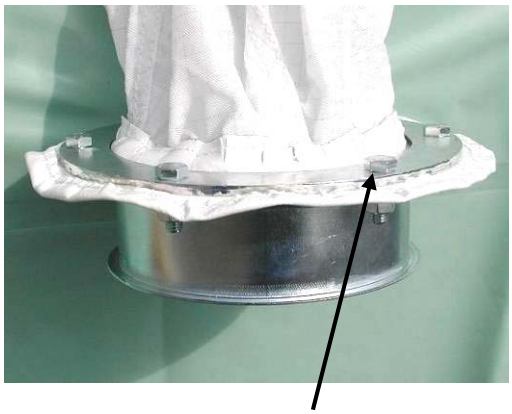
Mount the parts for the filling system last.
The filling system is assembled like a modular design system.
The system consists of elbows, pipes and clamping rings.

The pipes and elbows will be fixed with clamping rings.
The filling unit should be accessible from outside.
Please take care, that the filling system isn't too long.
Do not install unnecessary elbows.

3. Assembly Extraction System

3.1. Assembly extraction unit

The extraction unit (part 10) with sliding plate is in the wooden crate.



flange plate

Assembly:

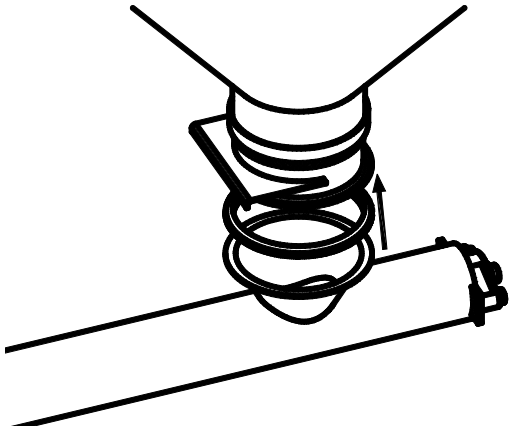
Remove the flange plate from the ready-to install extraction unit.

Put the flange plate over the extraction flange form the textile tank and attach with bolts.

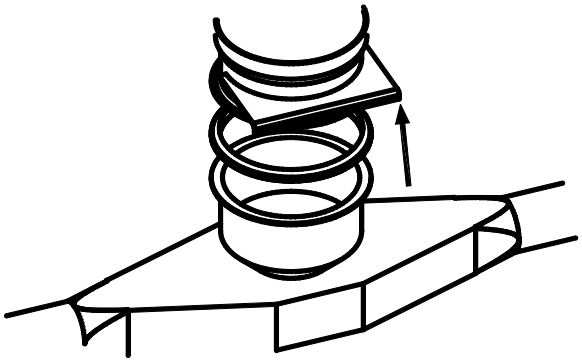
3.2. Assembly extraction system

A screw conveyor system or suction system can be fitted as an extraction system.

Both systems are connected with the Clamping slide for extraction units (part 16) on the extraction unit (see next figures).



Attachment to screw conveyor system



Attachment to vacuum suction system

CAUTION

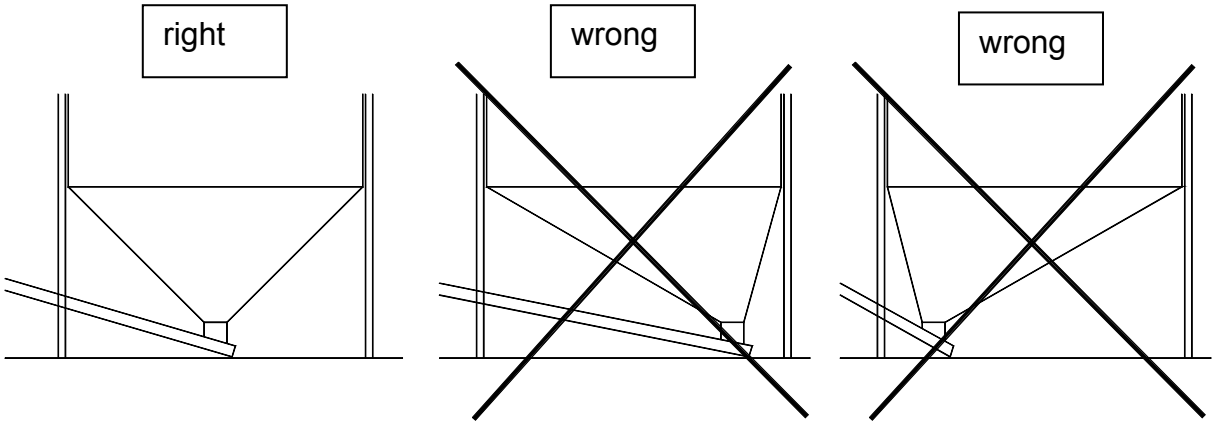
The supporting leg of the screw conveyer system has to be mounted as near as possible to the boiler. (Exeption: If there is a fire protecting wall the supporting leg has to be mounted as near as possible to this wall).

NOTICE

The screw conveyor unit bobs slightly during the filling and the extraction from the pellet textile tank.

4. Completion

Please check, if the extraction nozzle is positioned in the middle of the pellet textile tank.
If this isn't the case, the pellet textile tank must be moved.



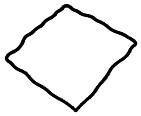
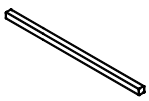
The cross beams and the stayers must be checked for horizontal assembly. If the cross beams and stayers are not horizontal mounted, the stayers must be equalized with metal/wood shims. Check all screw connections for tightness.
Check the connections to the screw conveyor system and the suction system

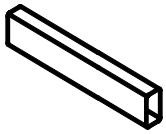
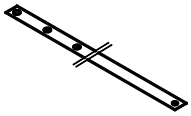
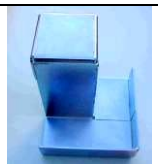
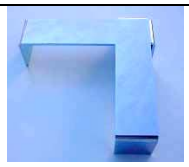
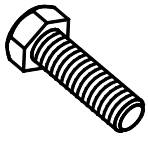
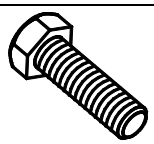
5. Final Control:

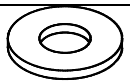
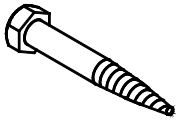
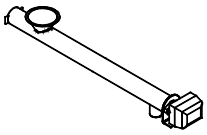
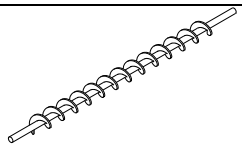
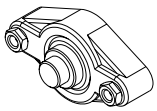
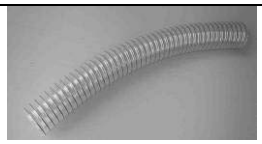
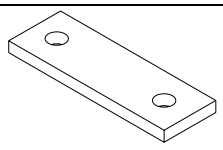
Check-up:

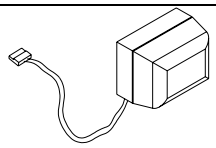
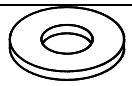
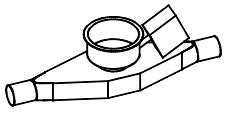
- Appropriate securing of the screws on the Flexi Tank frame!
- Appropriate securing of the Flexi Tank frame on the floor!
- Check the horizontal position of the stayers and cross beams with a spirit level!
- Check the stability of the whole Flexi Tank frame!
- Check if the nooses are positioned in the middle of the Flexi Tank frame!
- Check if the filling nozzles on the Flexi Tank that are not used are correct closed!
- Check the securing of the fillers and the filling unit!
- Check the appropriate securing of the filling nozzle on the filling pipe!
- Check the appropriate securing of the filling unit!

E: SPARE PARTS fleXILO

Part No.	Parts	Quantity	Presentation
SP160 SP190, SP2219 SP220, SP2819 SP280, SP2822	Flexi Tank	1	
S110	Assembly foil	1	
S100	Stayer	4	

S101	Protection cover for humidity protection	4	
GT160 GT190 GT220 GT280	Cross beam	4	
SR160 SR190 SR220 SR 280	Struts	16 or 8 (S160)	
S106	Filling unit with tube clamp 3.54-4.33in	1 o.2 piece	
S104	Extraction unit with clip ZS150	1	
S135	Supports for cross beam	4	
S134	Clamp for cross beams	4	
121155	Screw M8x35	4	
121051	Screw M8x25	16	

121039	Hexagon nut M8	20	
121038	Washer M8	36	
121078	Screw M8x50	16	
SK 178 SK 220 SK 260 SK 330	Conveyor channel	1	
SST178 SST220 SST260 SST330	Conveyor screw	1	
041290	Bearing flange - motor	1	
121010	End bearing	1	
121001	Hose clip 2-2.8in	2	
B134	Spiral hose DN60, 19.7in long	1	
SF	Supporting leg	1	
121064	Supporting rubber 5.5x1.6x0.2in for supporting leg	1	

FKAE-B FKAE -L	Driving motor with cable	1	
121139	Screw M8x20	4	
121083	Nut M8	6	
121068	Washer M8	6	
SWS-M	Suction switch alternative by suction system	1	

F: COMPONENTS OF fleXILO PLUS

The components of the Flexi Tank will be transported in a wooden box and in a cardboard.
In the cardboard there are the Flexi Tank and the assembly foil.
In the wooden box there are the frames of the pellet tank, the filling system and the extraction unit.
There is also the screw conveyor channel or the suction switch in the wooden box.
By delivery of pellet tank unit S280, S2819 u. S2822 the cross beams with a length of L = 109. 5in are packed on the wooden cardboard, because the beams are to long for the box.
By screw conveyor system the conveyor screw will be mounted in the conveyor channel by **Ökofen**.
Delivery of ST 260 or ST 330 is happening in own packing.

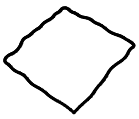
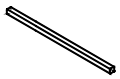
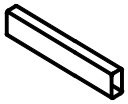
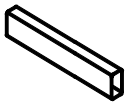
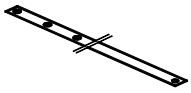
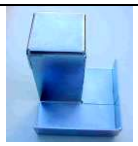
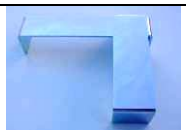
When you assemble the Flexi Tank you have to differ between 2 executions!

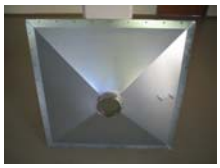
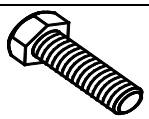
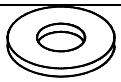
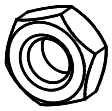
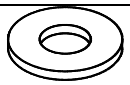
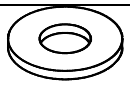
a) Execution „R“ with standard room height 84.65-94.49in

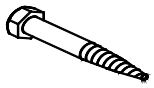
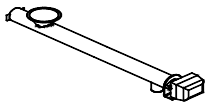
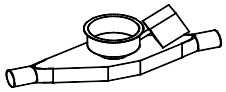
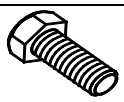
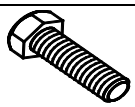
With intermediate cross beams (part 6), wooden struts (part 7), support for wooden struts (part 8) and struts (part 7a)

b) Execution „N“ with room height 70.87 – 82.68in

With struts (part 7a)

Part-No.	Parts	Quantity	Presentation	Packed in :
1	Flexi Tank	1		cardboard
2	Assembly foil	1		cardboard
3	Stayer	4		wooden box
4	Protection cover for humidity protection	4		wooden box
5	Cross beams	4		In wooden box, by S280 on the wooden box
6	Intermediate cross beams (not used by execution „N“)	4		In wooden box, by S280 on the wooden box
7	Wooden struts (not used by execution „N“)	4		wooden box
7a	Struts	16		wooden box
8	Supports for wooden struts (not used by execution „N“)	4		wooden box
9	Supports for cross beam	4		wooden box
10	Clamp for cross beams	4		wooden box

Part-No.	Parts	Quantity	Presentation	Packed in :
11	Vibration plate	1		wooden box
12	Steel plates for vibration plate	4		wooden box
13	Hexagon screw M8x25	36		screw box in wooden box.
14	Hexagon nut M8	36		screw box in wooden box.
15	Washer M8	36		screw box in wooden box.
16	Vibration damper	4		wooden box
17	Vibration motor	1		wooden box
18	Hexagon nut selflocking M8	2		wooden box
19	Washer M8	2		wooden box
20	Hexagon screw M8x100	8		wooden box
21	Hexagon nut M8	28		wooden box
22	Washer M8	28		wooden box
23	Emergency sliding plate	1		wooden box

Part-No.	Parts	Quantity	Presentation	Packed in :
24	Screw M8x50	16		screw box in wooden box
25	Clamping ring extraction unit	2		wooden box
26	Elbow 15° (auger) or pipe (suction s.)	1	 	wooden box
27	Extension cable cap. sensor 24V	1		supplied by screw conveyor
28	Cap.sensor M30 24V	2		supplied by screw conveyor
29	Screw conveyor	1		supplied by screw conveyor
30	Suction switch	1		**supplied by vacuum suction**
31	Cap. sensor M30, 230V	1		**supplied by vacuum suction**
32	Connection box	1		**supplied by vacuum suction**
33	Screws M8x25	16		screw box in wooden box
34	Screws M8x35	4		screw box in wooden box

G: ASSEMBLY fleXILO PLUS

After integrity check you can start with the assembly of the Flexi Tank Plus.

1. Assembly Flexi Tank Execution "R" for height 84.65-94.49in

NOTICE

Before touching the wooden parts make sure that your hands are clean!

1.1. Stayers

a) Manufacturing of the 4 holes for mounting of the supports - wooden struts

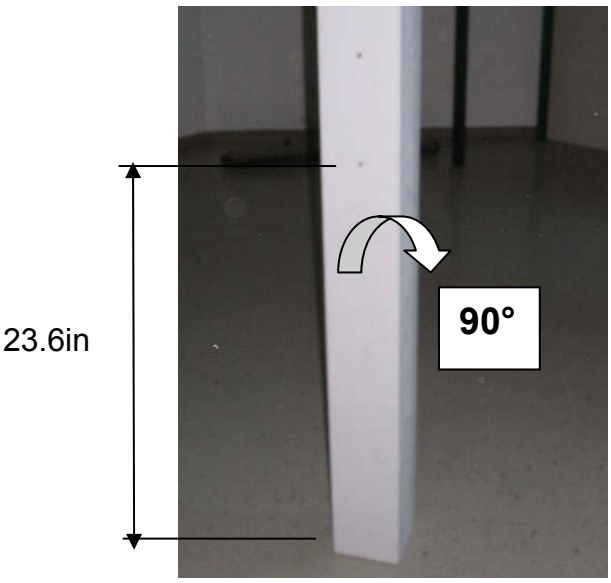


Fig. 1

Fig. 2

Drill 4 holes with diameter of 0.2in and a depth of 1.6in in each stayer (part 3).

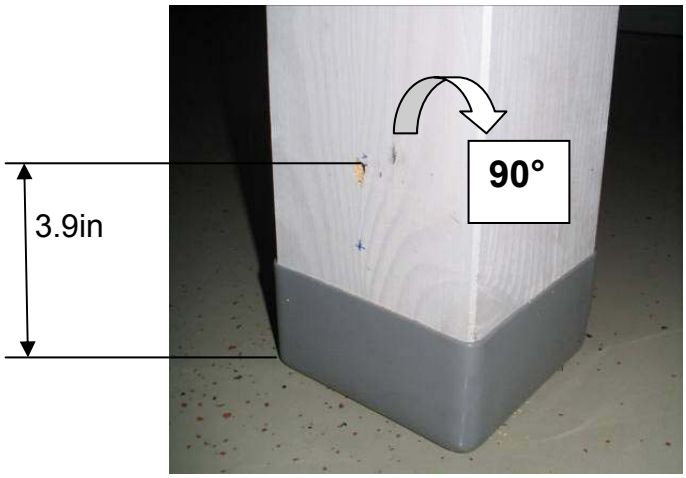
The distance of the first hole (Fig.1) is in each case 23.6in from the bottom of the stayer.

The second upper drilling is manufactured by means of the mounting plate – wooden struts.

The lateral distance of the drilling amounts to 2in (half width of a stayer)

When drilling holes for second bracket on stayer, please ensure holes are the same distance from bottom of stayer.

b) Manufacturing of the 4 holes for mounting of the struts (part 7a)
(only by execution „R“ room height 84.65 – 94.49in



Drill 4 holes with a diameter of 0.2in and a depth of 1.6in in each stayer (part 3).
The distance of the first hole is in each case 3.9in from the bottom of the stayer.
The second upper drilling is centered in a distance of 35.4in from the first hole.
The lateral distance of the drilling amounts to 2in (half width of a stayer).
When drilling holes for second bracket on stayer, please ensure holes are the same distance from bottom of stayer.

1.2. Mounting of the protection covers on the stayers

Attach the protection covers (part 4) on the stayers.

1.3. Mounting of the wooden struts

Put two stayers (2x part 3) on the floor.
Screw two pieces of the supports (part 8) on each of the stayers (with screws M8x50, part 24).
Then take one of the wooden struts (part 7) and screw the strut on the supports (2x part 20 – 22)

Make this assembly also with the other 2 stayers.

1.4. Connection of the stayer units

Screw crosswise in the same way the both screwed stayer units with the two complete struts as the several stayers. The stayer unit is staying now on its own. Next the 4 supports for cross beams are mounted on the stayers. Both supports for the cross beams must be placed outside of the stayers.

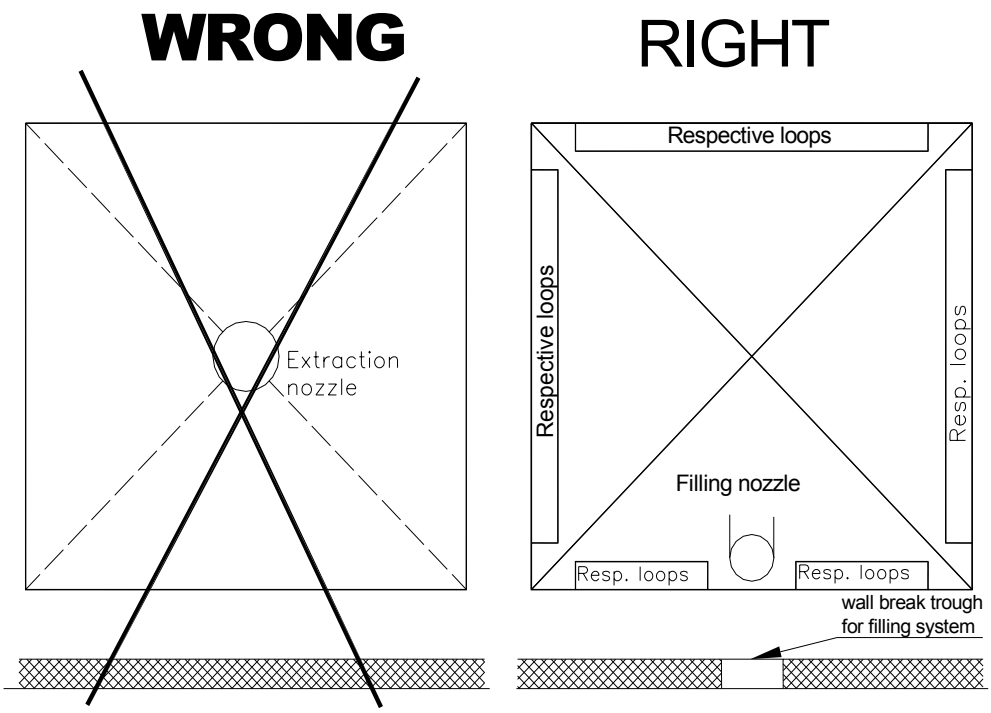
1.5. Prepare the textile tank

Lay the assembly foil (packed in the box there the pellet textile tank is transported) in the middle of the stayer unit.

NOTICE

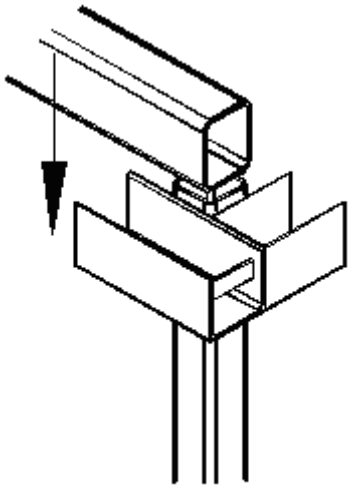
The foil is meant to keep the textile tank cleaner.
Avoid stepping on the foil!

Now the textile tank will be unpacked and laid on the mounting foil. Turn the textile tank as long as the extraction nozzle is on the bottom. Than turn the textile tank by 90° as long as the filling nozzle is at the same position as the filling system for the Flexi Tank will be mounted.



1.6. Threading the cross beams in the Flexi Tank.

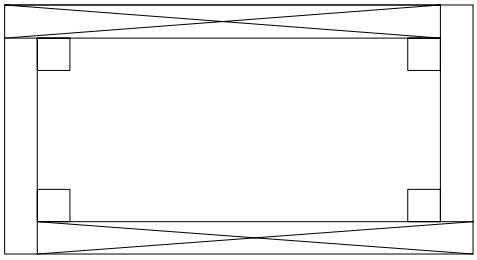
The Flexi Tank is now in the right position.
Move the cross beams (part 5) through the respective loops and put them on the stayers (see figure).



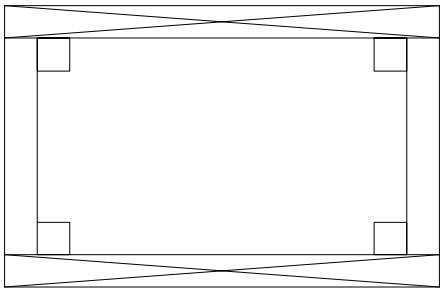
The Pellet Tank Frame and the textile material assembly are now complete and standing as one unit.

CAUTION

Consider the right position of the cross beams!



RIGHT

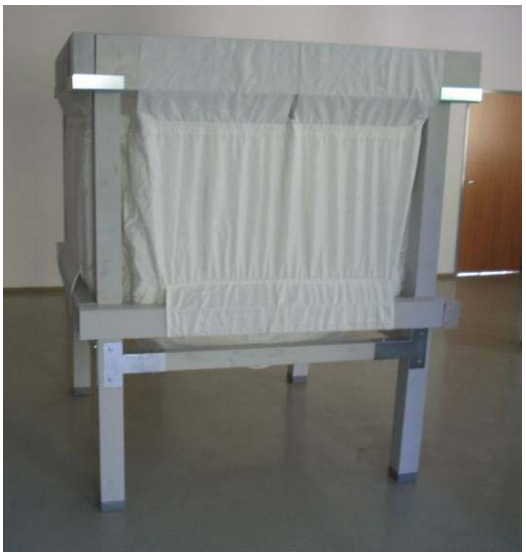


WRONG

1.7. Replacing of the supports – cross beams

As next step the 4 mounting plates for the cross beams (part 10) are hung up. In each case 1 stayer and 2 cross beams are connected above with the plates.

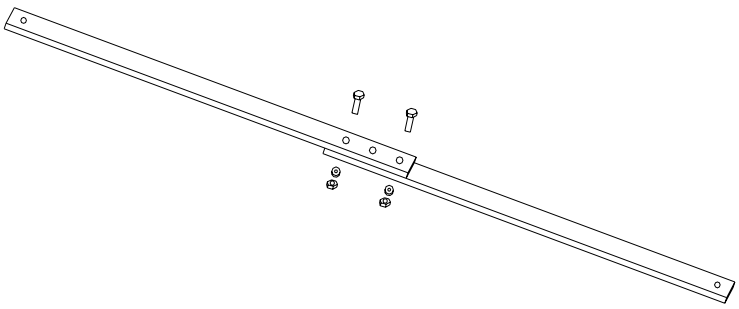
1.8. Replacing of the intermediate cross beams



As next step the four intermediate cross beams (part 6) were replaced in the loops of the textile tank. The intermediate cross beams were mounted in the same position as the cross beams.

1.9. Struts

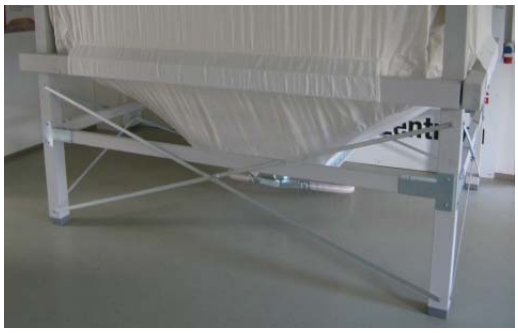
- Take 16 pieces of struts (part 7a) out of the wooden crate and assemble two and two. (please regard the different lengths in the case of a rectangular FlexiTank)
- Put the M8x25 screws (part 13) into the outer two holes
- Fix the screws with the M8 washers (part 15) and the M8 nuts (part 14)

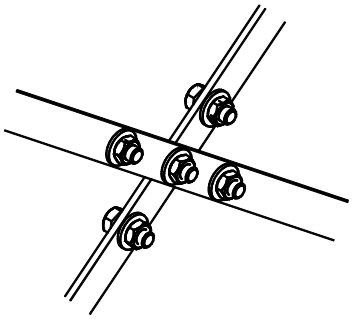


The next individual operations can be started when all struts are assembled.

1.10. Mounting of the struts

Now screw 2 stayers (part 3) with 2 connected struts (2x part 7a). The struts (2x part 6) are screwed on the threaded bushing by one stayer (part 3) above and by one stayer (part 3) below. Where the struts (2x part 7a) were screwed on crosswise.





Attach the screw M8x35 (part 34) in the centre of the 3 bore holes and screw it with the washers (part 22) und nut (part 21).
The two finished struts (4x part 7a) will be held together in the middle with these screws.
When all screws are tightened, the screwed stayer unit (2x part 3 + 4x part 7a) may be leaned against the wall.

1.11. Assembling of the vibration damper

After positioning of the pellet tank you put one vibration damper (part 16) under each stayer after positioning of the pellet tank

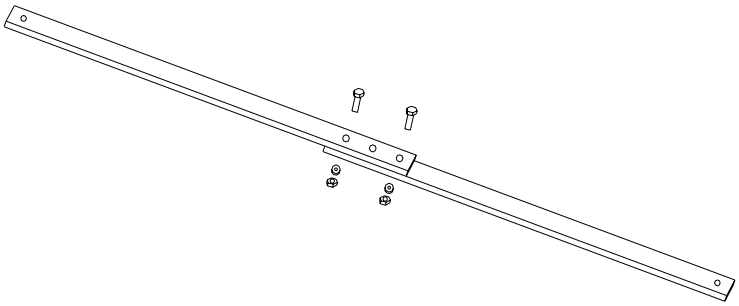
1a. Assembly Flexi Tank Execution “R” for height 70.87 -82.68 inch

NOTICE

Before touching the wooden parts make sure that your hands are clean!

1.1a. Struts

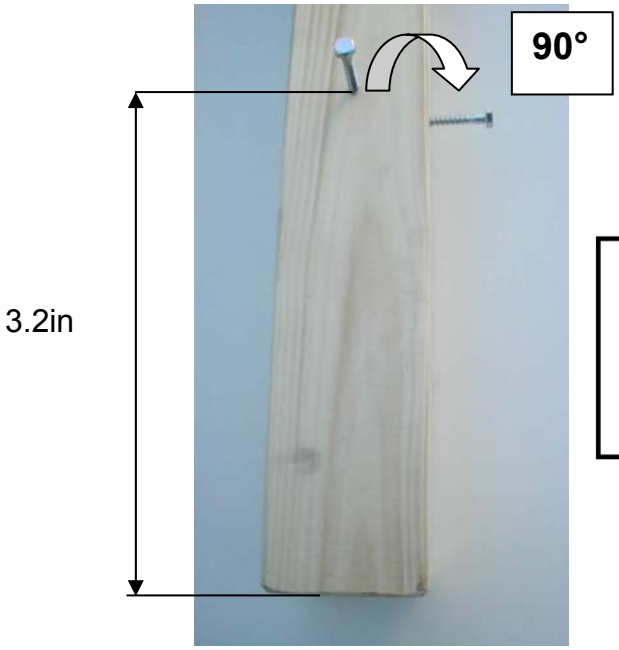
- Take 16 pieces of struts (part 7a) out of the wooden crate and assemble two and two. (please regard the different lengths in the case of a rectangular FlexiTank)
- Put the M8x25 screws (part 33) into the outer two holes
- Fix the screws with the M8 washers (part 22) and the M8 nuts (part 21)



The next individual operations can be started when all struts are assembled.

1.2a. Stayers and protection cover for humidity protection

a) Advanced bore-holes



CAUTION

The dimension 3.2 in can vary for special Flexi Tanks.

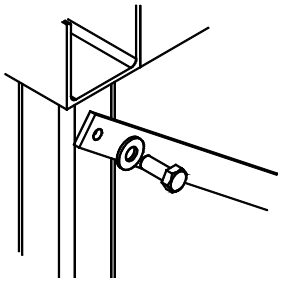
In the stayers are 4 boreholes with a diameter of 0.2in.

b) Mounting of the protection covers on the stayers

Attach the protection covers on the stayers.

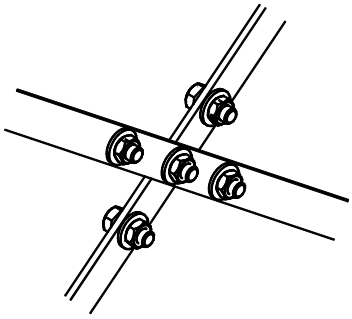
1.3a. Mounting of the struts

Now screw 2 stayers (part 3) with 2 connected struts (2x part 7a). The struts (2x part 7a) are screwed on the threaded bushing at one stayer (part 3) above and at one stayer (part 3) below.

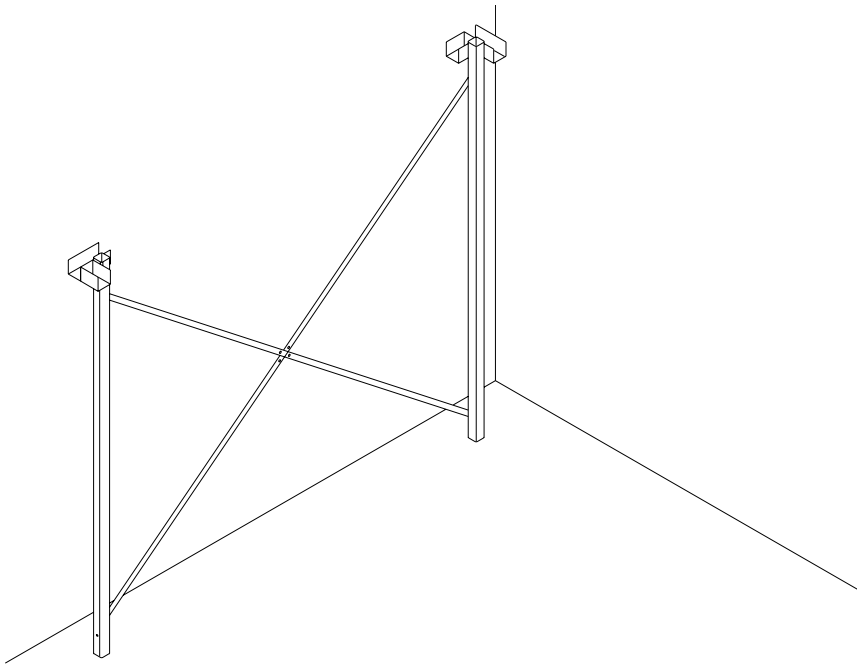


When the struts (2x part 7a) were screwing on crosswise.

Turn in the screw M10x35 (part 10) in the centre of the 3 bore holes and screw it with the washers (part 12) and nut (part 11). The two finished struts (4x part 7a) will be hold together in the middle with this screws.



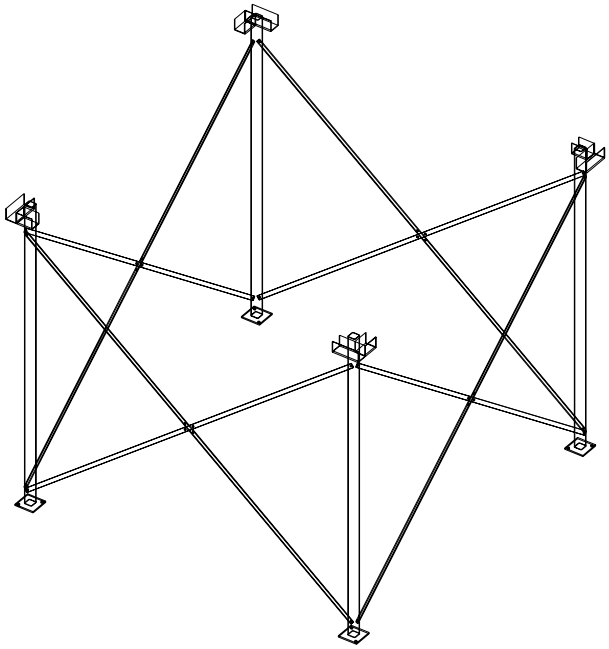
When all screws are tightened, the screwed stayer unit (2x part 3 + 4x part 7a) can be put up and lean against the wall.



Also assembly the other two stayers (part 3) on the opposite wall.

1.4a. Connection of the stayer units

Screw crosswise, in the same fashion the two assembled units with four complete struts form a free standing unit. (see picture next page)



Next the 4 supports for cross beams are mounted on the stayers.
Both supports for the cross beams must be placed outside of the stayers.

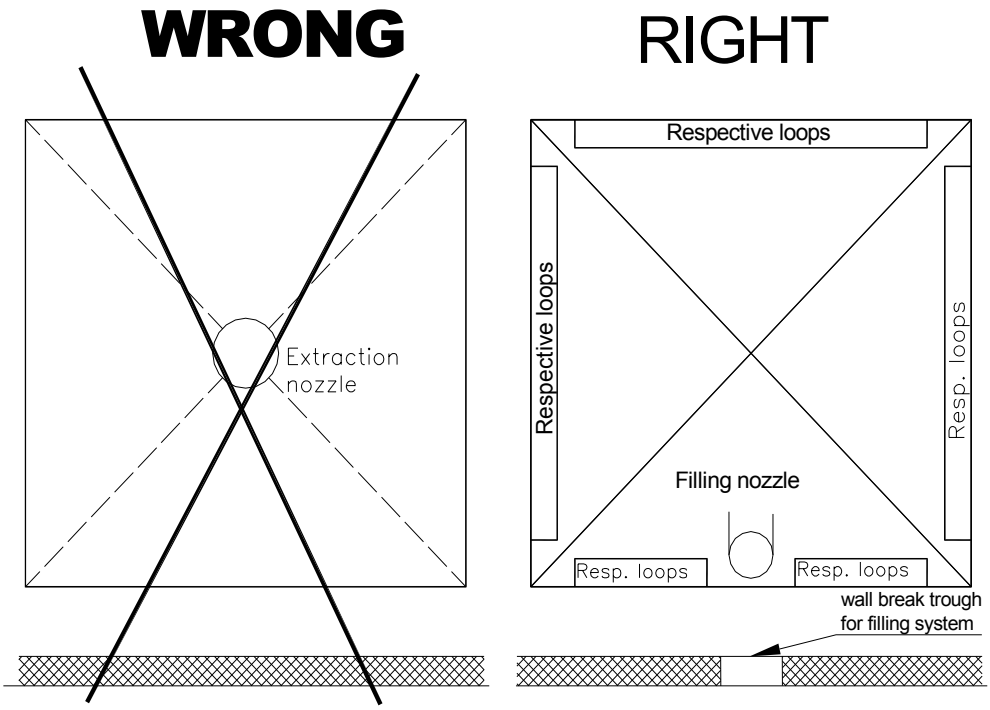
1.5a. Prepare the textile tank

Lay the assembly foil (packed in the box there the pellet textile tank is transported) in the middle of the stayer unit.

NOTICE

The foil is meant to keep the textile tank cleaner.
Avoid stepping on the foil!

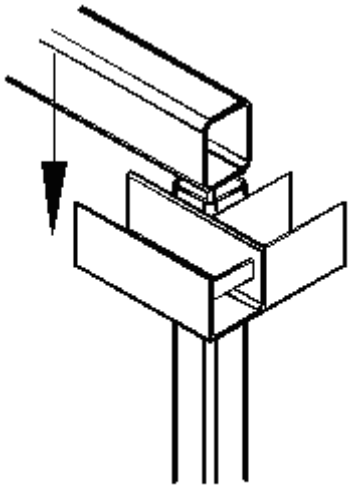
Now unpack the textile tank and lay it on the mounting foil. Turn round the textile tank as long as the extraction nozzle is on the bottom. Then turn the textile tank by 90° as long as the filling nozzle is at the same position as where the filling system for the FlexiTank will be mounted.



1.6a. Threading the cross beams in the Flexi Tank.

The Flexi Tank is now in the right position.

Move the cross beams (part 5) through the respective loops and put them on the stayers (see figure).

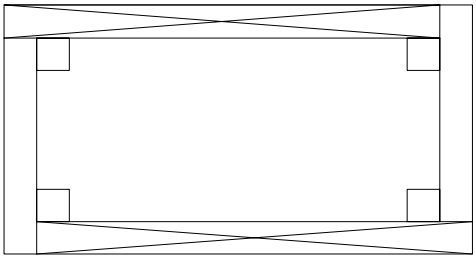


Herewith the pellet tank frame is staying itself.

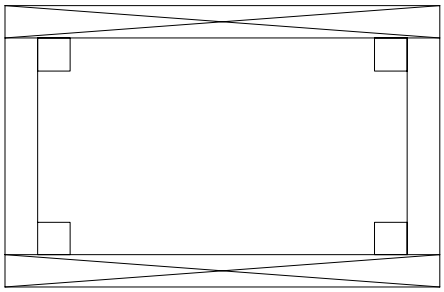
The flexible tank is hanging on its right position.

CAUTION

Consider the right position of the cross beams!



RIGHT



WRONG

1.7a. Replacing of the supports – cross beams

As next step the 4 mounting plates for the cross beams (part 10) are hung up. In each case 1 stayer and 2 cross beams are connected above with this plates.

From point 1.9 the assembly instruction is valid for execution „R“ and „N“

1.9. Monting of the vibration plate

After Point 1.7 following works for assembling the vibration plate have to be done:

a) Assembly of the vibration plate (part 11): with 4 pieces of steel plates (part 12), 36 pieces of hexagon screws M10x25 DIN933 verz., 36 pieces of discs M10 DIN125verz. and 36 pieces of hexagon nuts M10 DIN934verz. (part 13-15)

NOTICE
a) Tighten fast the hexagon screws b) You may not form folds on the corners of the textile tank (tear danger) c) Steel plates at the corners must be absolutely aligned.

b)

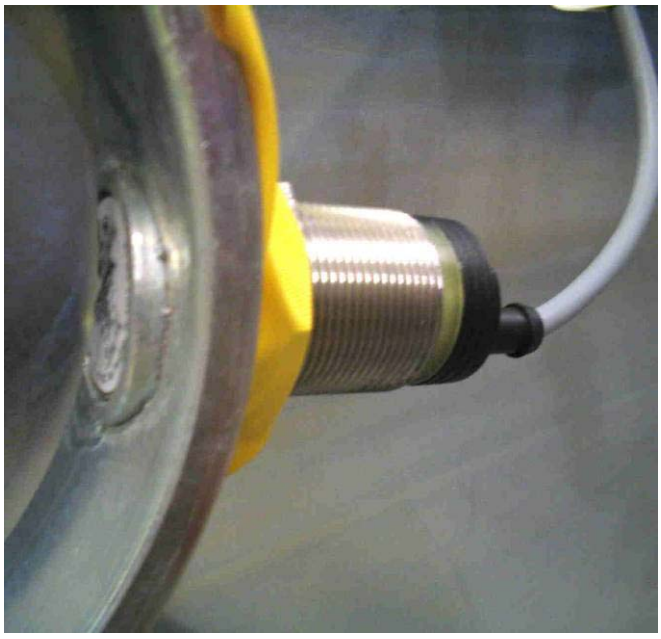
Assembly of the vibration motor and cap. sensor – vibration motor.

Assembly of the motor (part 17) with:

2 pieces hexagon nut M8 self locking
2 pieces washers M8 DIN125

c) Assembly of the cap. sensor – vibration motor.

Screw in the cap. sensor up to the end of the screwing and secure it with the counter nut. (see below)



d) Assembly of the 15° -elbow or 2in pipe with the clamping ring

With the 15° - elbow you are able to adjust the angle of the transport auger between 0° and 30°.
The 2in pipe will be needed as a spacer for the suction switch.

For Auger Systems please mount the 15° Elbow as seen on the following picture

Elbow 15°

For Vacuum Systems please mount the 2 in pipe as seen on the following picture

pipe L= 2in

1.10. Function of the vibration plate:

To ensure proper function of the vibration motor the following points must be followed:

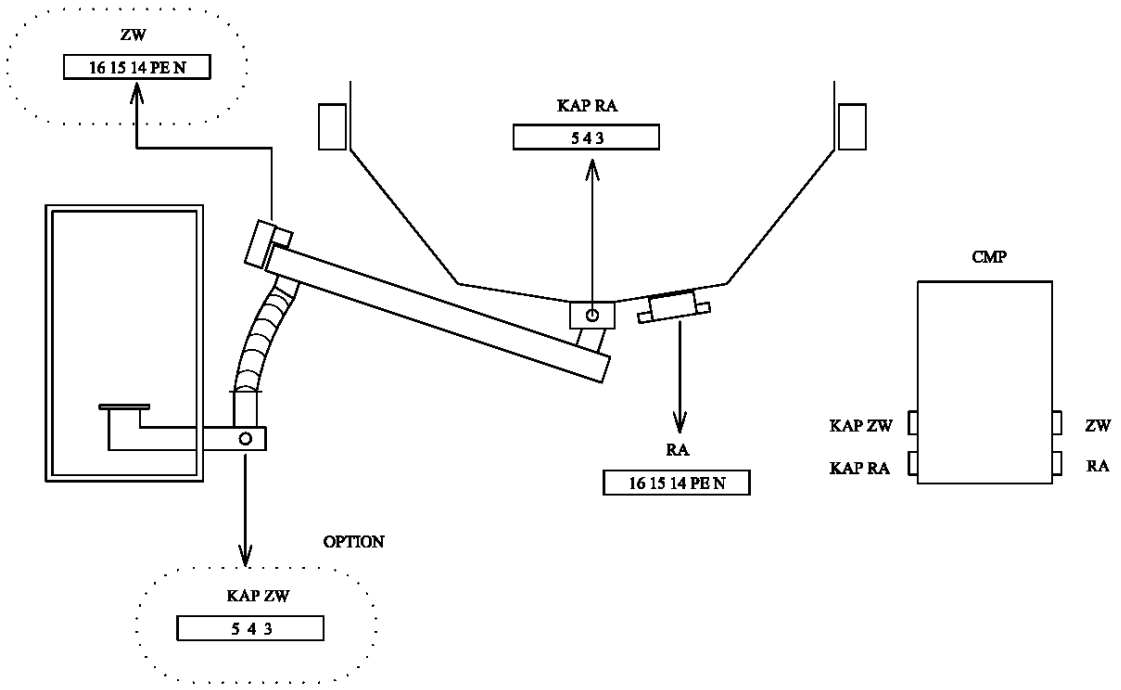
a) Controller: at least CMP 1.4 , Version V2.25c

b) Screw conveyor system::

- **Vibration motor and cap. sensor of vibrations motor** (incl. extension cable (part 27) have to be connected on clamping connection **RA resp. KAP. RA – position main card**
- **Assembly of the cap. sensor - burner**:
  For right function of the vibration motor you have to assembly the second cap sensor M30 24 V (part 28) on the burner.
- **Fuel transport drive motor and cap. sensor – burner** have to be connected on clamping connection ZW **resp. KAP. ZW – position main card**
- **cable from cap sensor and vibration motor** have to be fixed on screw conveyor by cable ties.
- **Activization of the cap. sensors:**
  Attention: Before starting the plant you have to activate the cap. sensors in parameter P210 + P211

The following picture explains how the sensors and motors have to be connected with the boiler controller board. The controller board is called CMP and is situated under the coloured front panel of the Pellematic boiler (see “Installation and assembly manual Pellematic”). There you can find the following plugs you need for connecting the sensors and motors of the Flexi Tank to the boiler.

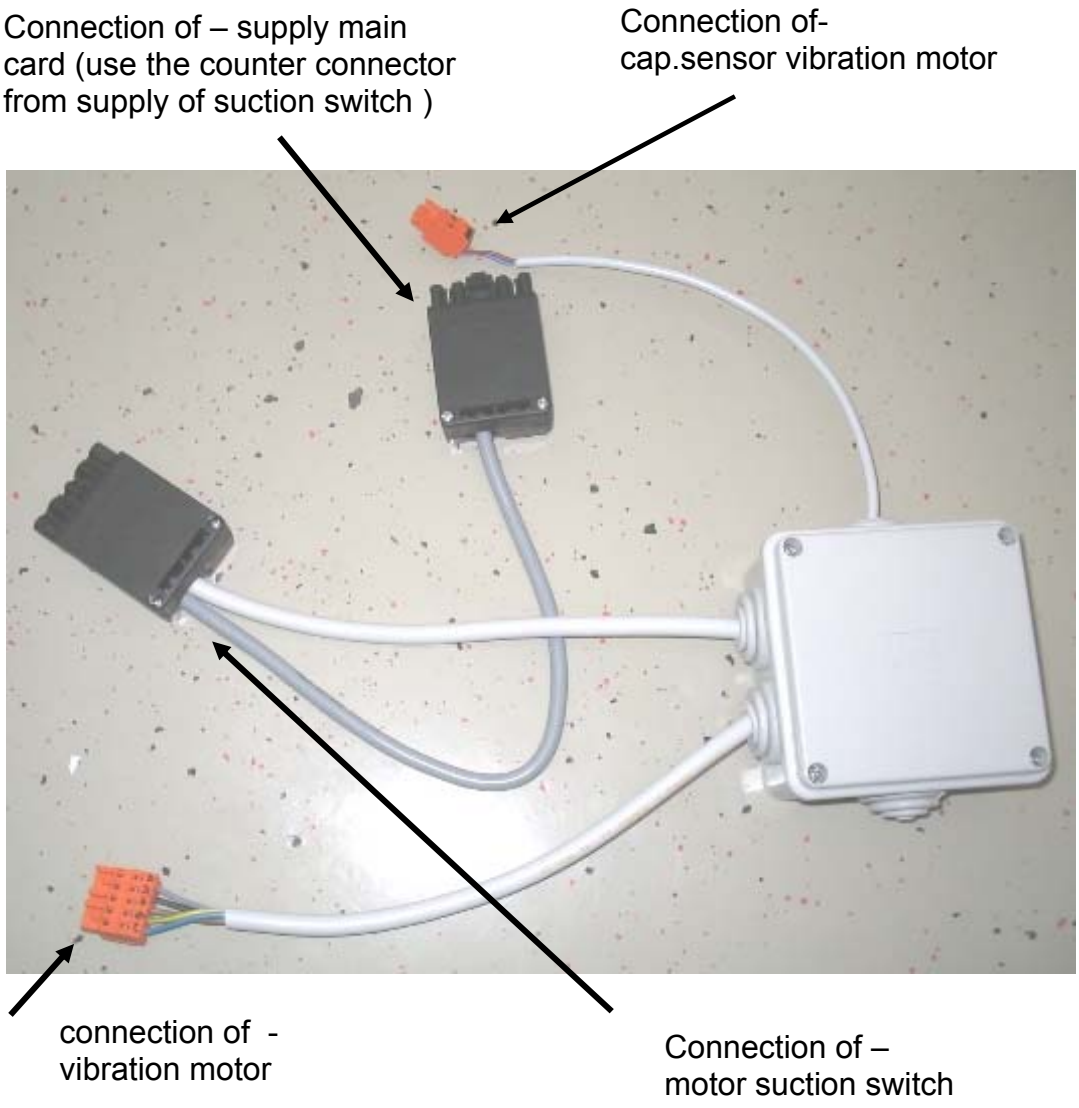
- ZW (16 15 14 PE N) for the motor of the auger screw
- KAP ZW (5 4 3) for the cap. sensor of the auger screw (part 27)
- KAP RA (5 4 3) for the ca. sensor of the Flexi Tank (part 31)
- RA (16 15 14 PE N) for the vibration motor of the Flexi Tank (part 17)



c) Vacuum suction system:

- Assembly of connection box:

The connection box for vibration motor (part17) , cap. sensor (part31) and suction switch can be mounted on the pellet tank unit near these components.



CAUTION

Cable connections and connection box mustn't be located directly on the floor. Install console (not in our scope of supply).

d) Adjustment Vibration Motor:

Unbalanced disc TYP XL:

We have two possibilities for changing the unbalance of the vibration motor.

1.) The adjustment of the unbalance takes place through rotation of the discs for each side around 180° on the wave. (Adjustment = 50% of the max. centrifugal force = standard adjustment, see picture)

With this variant you also can adjust the centrifugal power to 75% or 100% of the max. centrifugal force.

2.) If you want to reset the centrifugal force to 25% of the max. centrifugal force, you have to remove one unbalanced disc on each side. These unbalanced discs must be replaced by a disc with same thickness.

2. Assembly Filling System

The filling system consists of an injection nozzle with holding device, the necessary pipes and pipe elbows and a filling coupling with filler cap.

2.1. Assembly Injection nozzle

The filling connection plan may call for one or two injection nozzles.

Rectangular pellet textile tanks require that the remaining filling nozzles are securely fastened.

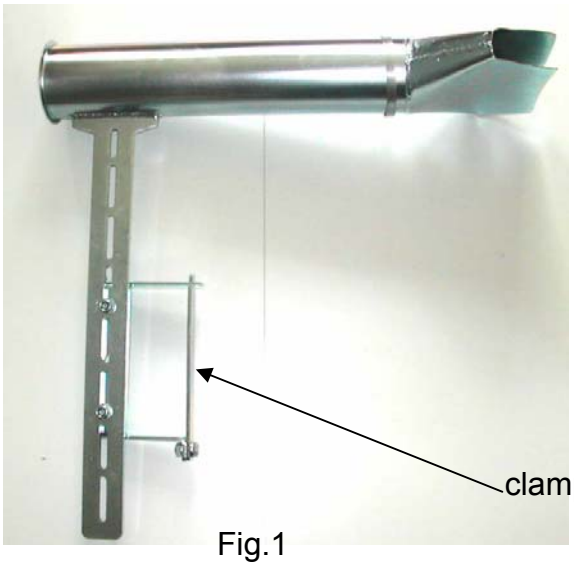


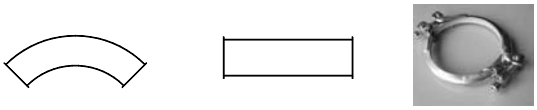
Fig.1

Fig.2

- Move the ready-to install filling unit in the filling nozzle of flexible tank after loosening from the clamping plate (Fig. 1).
- Attach filing unit to the cross beam and fastened with the clamping plate and the screw. Fix the filling opening on the textile tank with the seat belt and a hose clip.
- Fix the injection nozzle on the cross beam with 2 screws M8x50 (Fig.2)

2.2. Mounting filling system

The rest over parts of the filling system will be mounted at last. The filling system is assembled like a modular design system. The system consists of elbows, pipes and clamping rings.



The pipes and elbows will be fixed with clamping rings. The filling unit should be accessible from outside. Please take care, that the filling system isn't too long. Don't install unnecessary elbows.

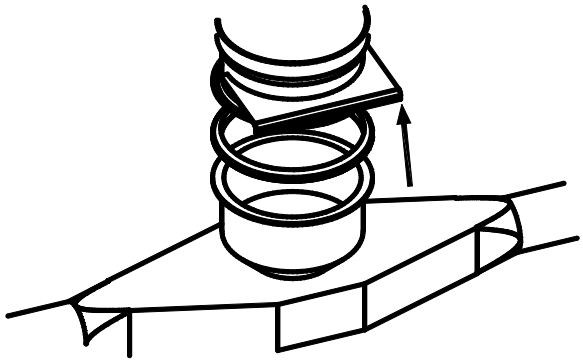
3. Assembly Extraction System

3.1. Assembly extraction system

A screw conveyor system or suction system can be fitted as an extraction system.

Both systems are connected with the extraction unit clip (part 25) on the extraction unit (see next figure).

Attachment to screw conveyor system



Attachment to vacuum suction system

CAUTION

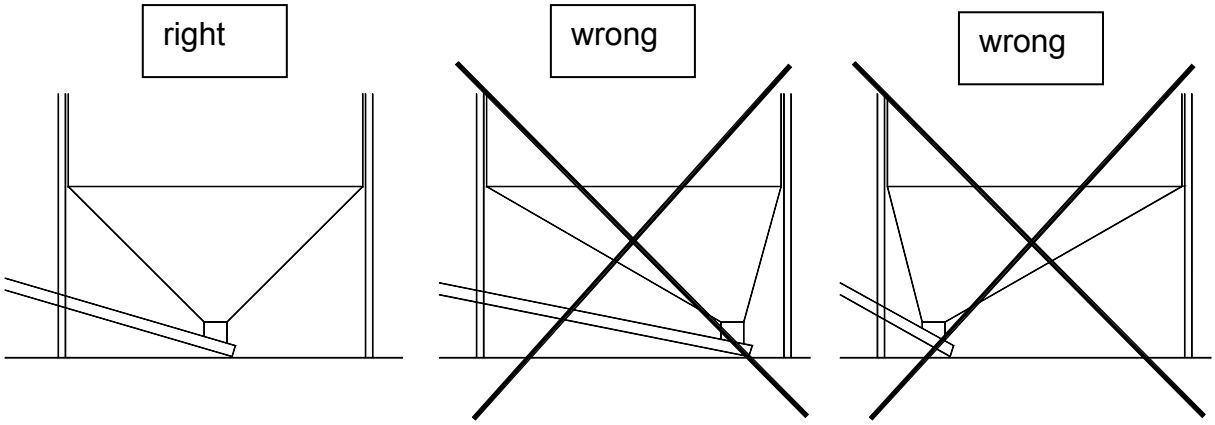
The supporting leg has to be mounted as near as possible to the boiler. (Exception: If there is a fire protecting wall the supporting leg has to be mounted as near as possible to this wall).

NOTICE

The screw conveyor unit bobs slightly during the filling and the extraction from the pellet textile tank.

4. Completion

Please check, if the extraction nozzle is positioned in the middle of the pellet textile tank.
If this isn't the case, the pellet textile tank must be moved.



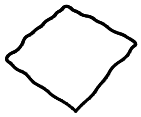
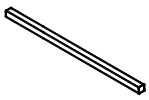
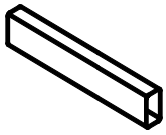
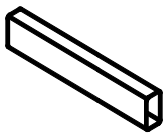
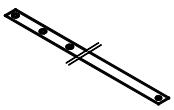
The cross beams and the stayers must be checked for horizontal assembly. If the cross beams and stayers are not horizontal mounted, the stayers must be equalized with metal wood boards or metal plates. Check all screw connections for correct location. Check also the connections to the screw conveyor system and the suction system.

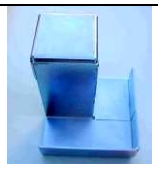
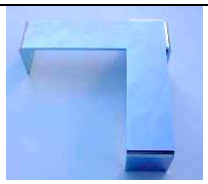
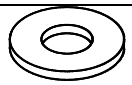
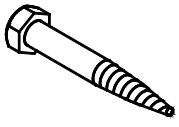
5. Final Control:

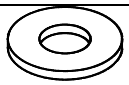
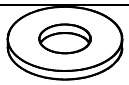
Check-up:

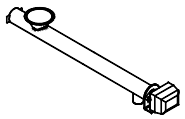
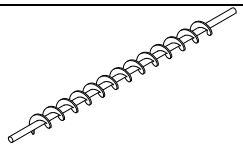
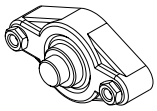
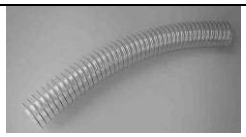
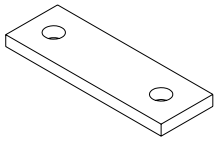
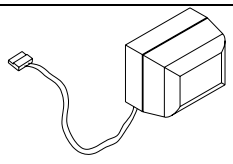
- Appropriate securing of the screws on the Flexi Tank frame!
- Appropriate securing of the Flexi Tank frame on the floor!
- Check the horizontal position of the stayers and cross beams with a spirit level!
- Check the stability of the whole Flexi Tank frame!
- Check if the nooses are positioned in the middle of the Flexi Tank frame!
- Check if the filling nozzles on the Flexi Tank that are not used are correct closed!
- Check the securing of the fillers and the filling unit!
- Check the appropriate securing of the filling nozzle on the filling pipe!
- Check the appropriate securing of the filling unit!

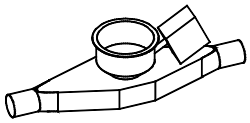
H: SPARE PARTS fleXILO PLUS

Part No.	Parts	Quantity	Presentation
SP190 R / N SP 220 R/ N SP280 R / N SP2219 R / N SP2822 R / N SP 2819 R / N	Flexi Tank	1	
S110	Assembly foil	1	
S100	Stayer	4	
S101	Protection cover for humidity protection	4	
GT190 GT220 GT280	Cross beam	4	
GT190Z GT220Z GT280Z	Intermediate cross beam (not used by execution “N)	4	
SH190 SH220 SH280	Wooden struts (not used by execution “N)	4	
SR190/220/280H (execution. „N“) SR190/220/280R (execution. „R“)	Straits	16	

S106	Filling unit with tube clamp 3.5-4.3in	1 o.2 piece	
S105	Emergency sliding plate	1	
S135	Supports for cross beam	4	
S134	Clamp for cross beams	4	
S147	Support for wooden struts not used by Exec. “N”	4	
S141	Vibration plate	1	
S142	Steel plates for vibration plate	4	
121139	Screw M10x25	36	
121083	Nut M10	36	
121029	Washer M10	36	
121078	Screw M8x50	16	

121206	Vibration damper	4	
E1212	Vibration motor	1	
121045	Hexagon nut self locking M8	2	
121038	Washer M8	2	
121211	Hexagon screw M8x100	8	
121009	Hexagon nut M8	28	
121038	Washer M8	28	
ZS150	Clamping ring	2	
121200 or 121242	Elbow 15° (auger) or pipe 2in (suction system.)	1	 
E1215	Extension cable cap. sensor 24V	1	
041290	Cap. sensor M30 24V	2	
E1109	Cap. sensor M30 230V	1	

E1216	Connection box	1	
SK 178 SK 220 SK 260 SK 330	Conveyor channel	1	
SST178 SST220 SST260 SST330	Conveyor screw	1	
041290	Bearing flange - motor	1	
121010	End bearing	1	
121001	Hose clip 2-2.8in	2	
B134	Spiral hose DN60, 19.7in long	1	
SF	Supporting leg	1	
121064	Supporting rubber 5.5x1.6x0.2in for supporting leg	1	
FKAE-B FKAE -L	Driving motor with cable	1	

SWS-M	Suction switch alternative by suction system	1	
121155	Screw M8x35	4	
121051	Screw M8x25	16	

I: TERMS OF GUARANTEE

For boiler assembly and associated parts that become demonstrably unusable due to faulty materials or production, the following terms of guarantee apply as from the date of start-up:

- **Boiler** **15.000 operating hours*/ max. 5 years**
- **Timber container incl. flue system and fixed parts of the system** **max. 5 years**
- **Multi express storage tank** **max. 5 years**
- **Solar collectors** **max. 10 years**
- **Bearings, chain pinions, chains and all moving parts** **6.000 op. hours /max. 2 years**
- **Motorised gear boxes and pumps** **6.000 op. hours /max. 2 years**
- **Electronic control, measuring, switching and adjustment devices** **6.000 op. hours /max. 2 years**
- **Burner plate and fire tube** **6.000 op. hours /max. 2 years**

* Operating hours according to the operating time of the boiler.

Warranty- and guarantee claims can only be occupied, when from Maine Eco Pellet Heating LLC delivered goods are used under from Maine Eco Pellet Heating LLC predetermined, foreseen operation and normal use.

Manufacturer:

Maine Eco Pellet Heating LLC

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Bethel, Maine 04217
USA

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