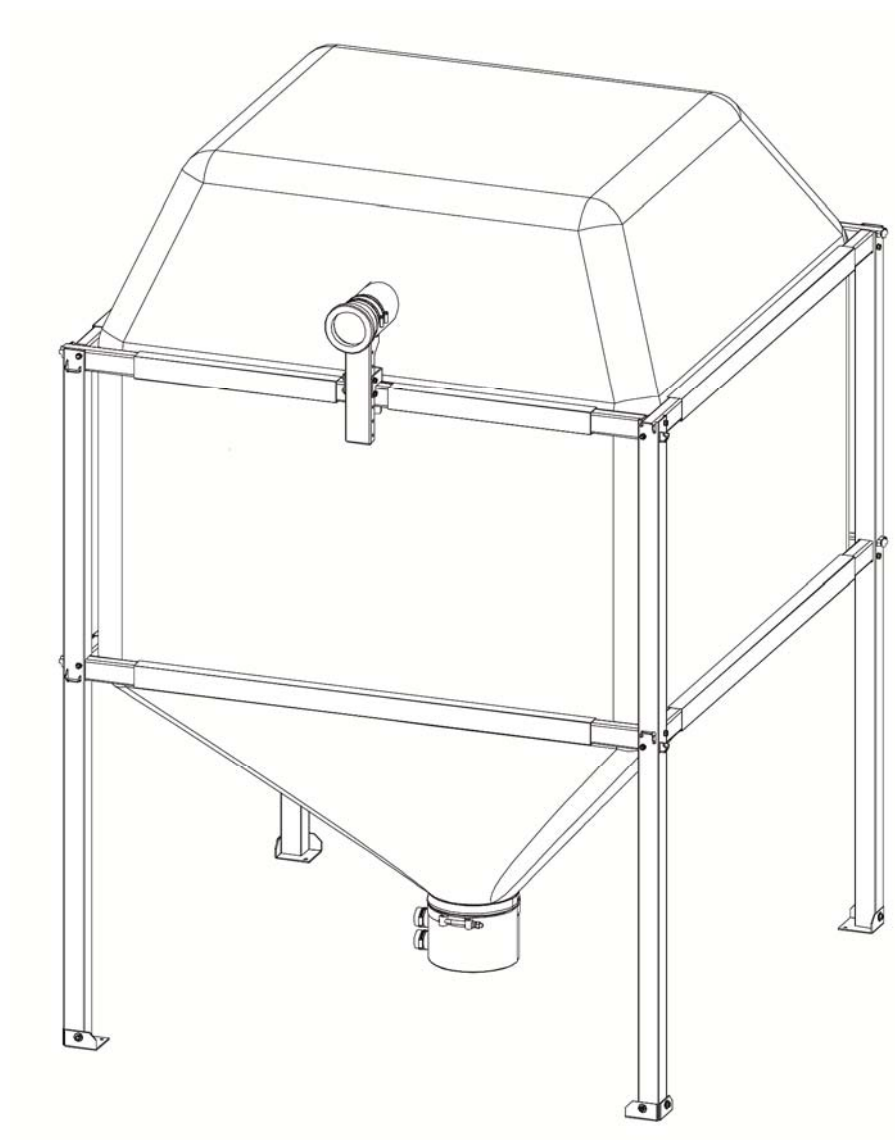


INSTALLATION AND OPERATING INSTRUCTIONS

→ SILO



DOMUSA
T E K N I K

Thank you for choosing a **DOMUSA TEKNIK** product. From the range of **DOMUSA TEKNIK** products you have chosen the **Silo**. With a suitable installation and connected to a pellet boiler, this Silo will provide the ideal level of comfort for your home.

This manual forms an essential part of the product and it must be given to the user. Read the warnings and recommendations in the manual carefully, as they contain important information on the safety, use and maintenance of the installation.

This accessory must be installed by qualified personnel only, in accordance with the legislation in force and following the manufacturer's instructions.

Start-up of these products and any maintenance operations must only be carried out by the **DOMUSA TEKNIK** Official Technical Assistance Service.

Incorrect installation of this appliance could result in damage or injury to people, animals or property, and the manufacturer will hold no liability in such cases.

DOMUSA TEKNIK informs all parties concerned that, in compliance with section 1 of the first additional provision of Law 11/1997, the responsibility for delivering packaging waste or used packaging for its proper environmental management will be that of the final owner of the product (Article 18.1 Royal Decree 782/1998). At the end of its useful life, the product must be taken to a selected collection point for electrical and electronic equipment or must be returned to the distributor at the time of purchasing a new equivalent appliance. For more detailed information on the collection schemes available, contact either the collection facilities of the local authority or the distributor where the purchase was made.

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Silo

1 WARNINGS AND SAFETY INSTRUCTIONS

Read this instruction manual carefully and keep it in a safe, easily-accessible place. **DOMUSA TEKNIK** will not be liable for any damages caused by failure to follow these instructions.

To guarantee optimum functioning of this kit and a long lifetime, the installation and maintenance must be carried out by qualified personnel authorised by **DOMUSA TEKNIK**. The installer is responsible for the functioning of any devices or controls not supplied with the **Silo**.

This appliance must only be used for the purpose for which it has been expressly designed. Any other use is considered unsuitable and therefore hazardous. The manufacturer shall not be considered liable under any circumstances for damage caused by unsuitable, erroneous or irrational use.

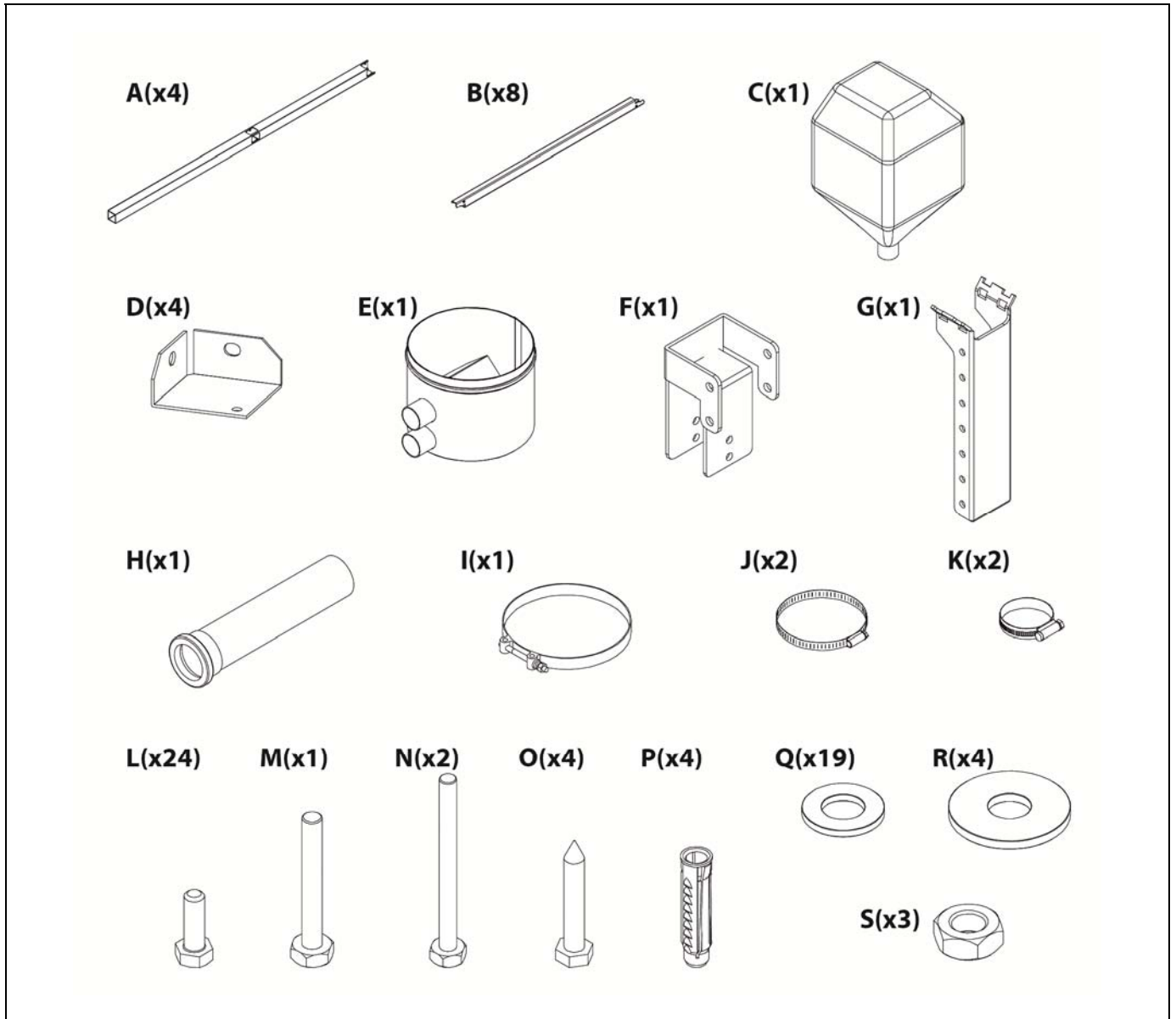
The **Silo** is specifically designed to store 6 mm diameter wood pellets, installed together with a **DOMUSA TEKNIK CVS suction system** pneumatic conveyance system.

During installation or before any servicing, the following indications must be complied with to prevent personal injury or material damage:

- Remove all the packaging and check the contents are all there. In the event of any doubt, do not use the product. Contact your supplier. Keep the packaging elements out of reach of children, as they can be dangerous. Keep children away while you are working in the pellet store.
- The **Silo** withstands UV rays but it should not be exposed directly to rain, and so it should not be installed outdoors, unless it is in a sheltered place. Neither should it be placed in direct contact with a damp wall, particularly the canvas.
- The applicable fire protection regulations must be observed.
- Ensure there are no sharp objects close to the Silo which could damage the **Silo**. Any damage caused by insects, rodents and sharp objects or similar is not covered by the guarantee.
- To prevent electrostatic charge accumulating during the Silo filling process, the filling nozzle must be earthed. The filling hose must be totally covered by the opening in the **Silo**. We recommend switching off the boiler before filling the Silo.
- Fix the vertical bar bases to the ground with metal bolts and fixing blocks. Do not forget to check that all the bolts have been correctly tightened, that the **Silo** is level and that the clamps have been fitted to the suction unit and a clamp to the filling nozzle.

2 LIST OF COMPONENTS

Read these instructions carefully before beginning the assembly process.



3 INSTALLATION INSTRUCTIONS

The **DOMUSA TEKNIK Silo** must be installed and assembled by sufficiently qualified personnel, observing the relevant personal safety regulations and the warnings given in the "Warnings and Safety Instructions" section of this manual and complying with the applicable national, regional and local regulations in force at the time and place of installation. **In particular, the relevant building construction and fire protection codes, standards and regulations must be observed.**

3.1 Location and ventilation of the premises

For correct storage and durability, we recommend installing the **Silo** in covered premises expressly provided for it, inside a building. If it is installed outdoors, it must be sheltered and protected from the weather, particularly from rain, as if the pellets become wet they will be unusable.

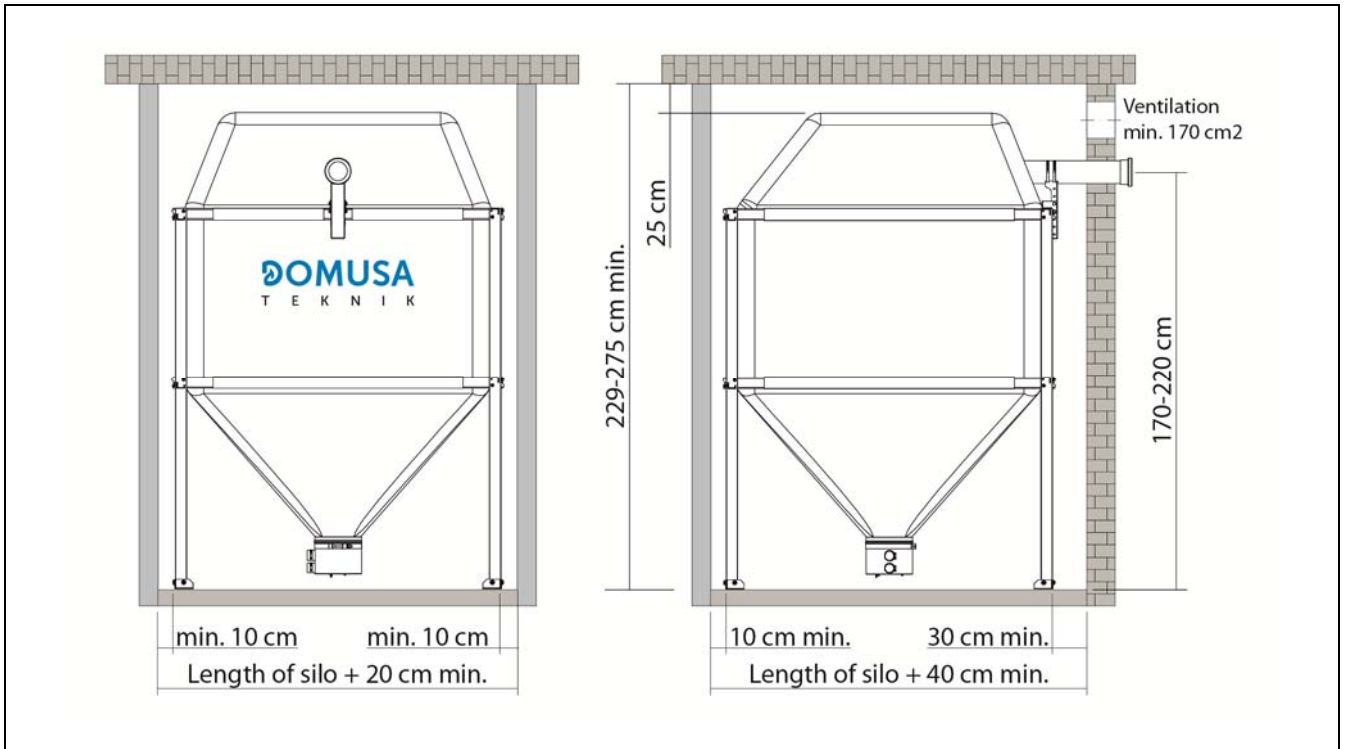
Both the construction and the fire protection of the walls, roof and door of the premises used for the **Silo** and the boiler room must comply with the applicable local building and fire protection regulations. The base or floor the Silo stands on must be built to withstand at least 1600 kg at each point of support.

The premises in which the **Silo** is located must have sufficient ventilation, with at least one direct ventilation outlet to the outside of the building with a minimum surface area of 170 cm², preferably at the highest part of the premises. If the canvas Silo is located inside a building, both the Silo filling hose and the ventilation system of the premises must lead to the outside, complying with the minimum dimensions throughout their entire run. Also, the room in which the pellet boiler is located must have direct ventilation to the outside with a surface area of at least 200 cm². Therefore, if the **Silo** is installed in the same premises as the boiler, the minimum ventilation area required will be 200 cm².

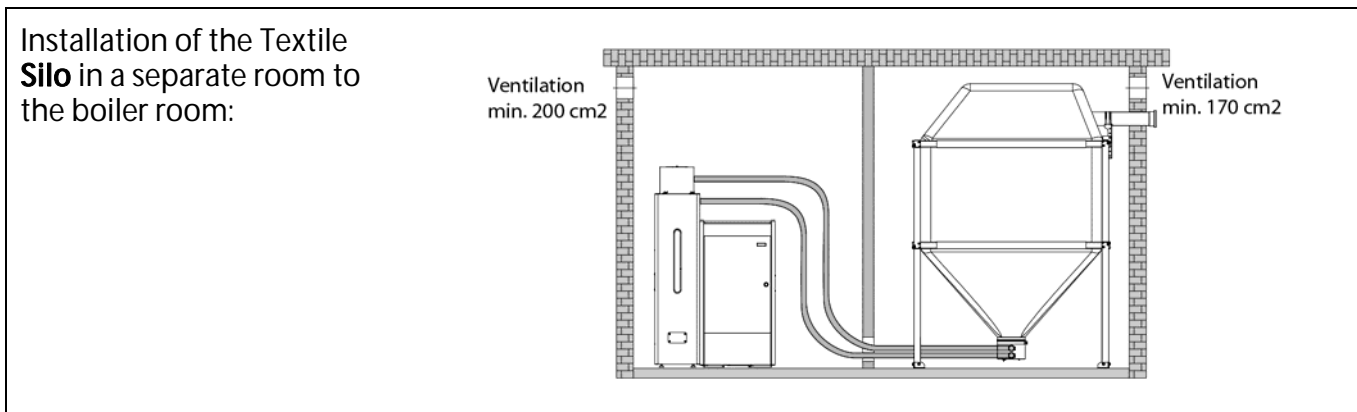
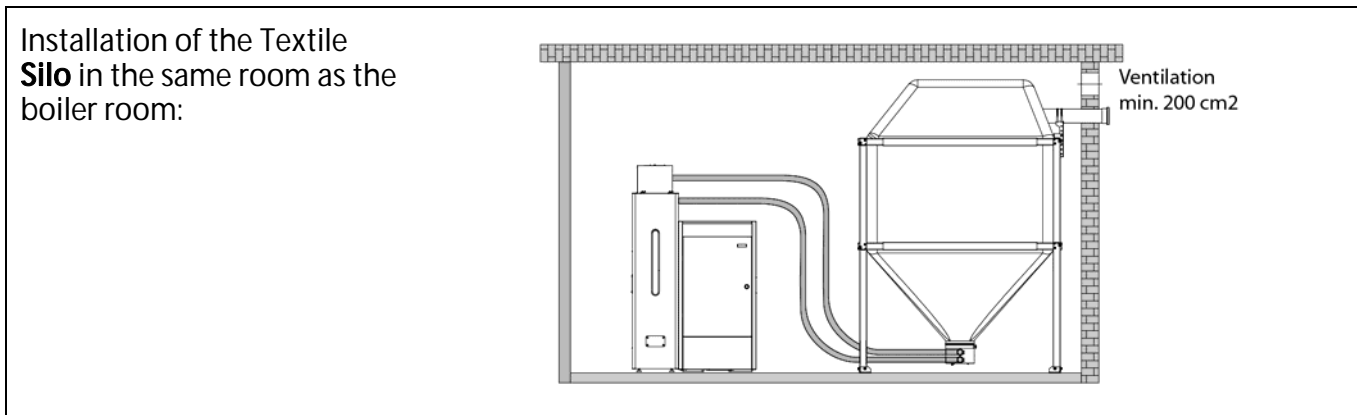
Although a normal degree of damp on the walls of cellars, basements and the type of premises habitually used for pellet Silos will pose no problems for optimum pellet storage, you should prevent the canvas walls of the **Silo** from remaining in permanent contact with the walls of the premises. Excessive damp or water dripping into the **Silo** will cause the pellets to swell and decompose, making them unusable as Bioclass boiler fuel.

The premises must be of a sufficient size to enable assembly, dismantling and maintenance of the Silo. We recommend leaving a free space of at least 10 cm around the **Silo** for this purpose. A free space of at least 30 cm should also be left on the filling nozzle side. The height of the premises should be at least 25 cm higher than the minimum height of the **Silo**.

Minimum dimensions of the premises:



Example of installation of the Textile Silo in the same room of the boiler room:



Silo

3.2 Fuel quality

The **Silo** is exclusively designed and intended for storage of wood pellets with a diameter of 6 mm and a length of up to 40 mm.

The wood pellets used must comply with the EN 14961-2 standard, class A1, at least, and be certified with one of the following quality marks: **ENplus-A1**, **DINplus**, **NF Bois** or equivalent.



IMPORTANT: The pellets are highly hygroscopic. In case of contact with water or damp walls they will swell and rot and will be **unfit for use**.

3.3 Installing the suction hose

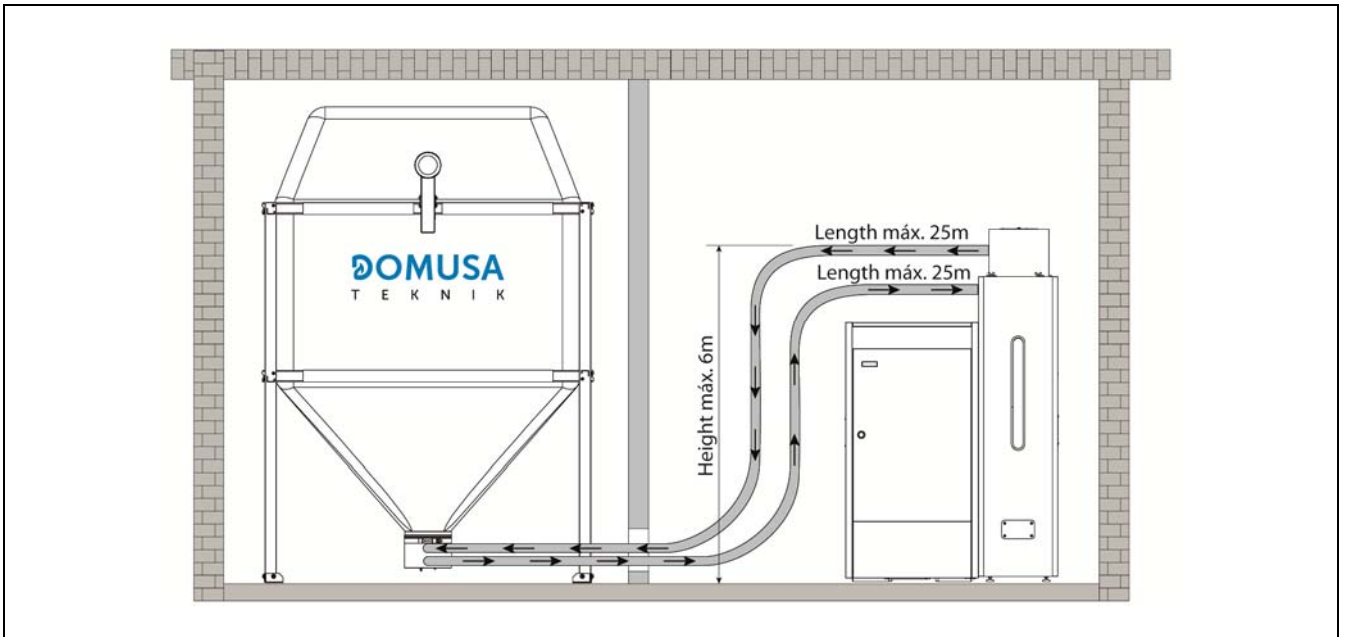
The **Silo** is specially designed to function with the **DOMUSA TEKNIK CVS suction system**, installed together with a plastic hose with an interior diameter of 50 mm. This hose must have a static electricity discharge system, preferably a copper wire wound around its entire length. This copper wire must be earthed at all the hose joints and ends.

Whatever the type of hose used, it must be made of a suitable material for wood pellet transport and it must always have an interior diameter of 50 mm. The following recommendations must also be complied with for correct installation:

- The **maximum** permitted hose **length** is 25 metres for conveyance from the main Silo to the suction unit (**CVS suction system** pot) and 25 metres for return.
- Bend angles of over 45° must be avoided wherever possible. If these cannot be avoided, any **curves** with angles of over 45° must have a radius of curvature greater than 125 mm.
- **If rigid plastic tubing is used, do not use standard 90° elbows. If elbows are necessary, the curves constructed must have a minimum radius of 125 mm.**
- The **maximum height** difference permitted for the installation is 6 metres.
- Avoid any splicing or coupling in the hose installation wherever possible, as this may narrow the circuit, which can cause clogging of the pellets conveyed and could block the system. Most importantly, avoid any joints in the hose section leading from the main Silo to the boiler reserve tank suction unit (suction pot), as the pellets are conveyed through this section.
- If there is no alternative to splicing and extending the installation, straight rigid tubing with an interior diameter of 50 mm must be used. It is preferable for any splicing and joining of the hose to be made in the pneumatic suction system return section, as only air is conveyed in this section. **All the hose sections must be earthed at all joints and at the ends of the hose.**
- The most vital factor for ensuring maximum suction power for the system is the airtightness of the **CVS suction system** installation, and great care must therefore be taken on installing the hoses. All joints in the installation must be secured with clamps, taking special care to prevent leakage.
- We recommend avoiding hose crossover in the installation wherever possible. The flow and return hoses of the pneumatic installation should run parallel to each other.
- For correct assembly of the hoses, they should be fixed to the walls and/or floor using suitable flanges throughout the entire installation, to ensure stability. The recommended maximum distance between the fixing points is 80 -110 cm.

Some of these recommendations are illustrated in the figure below:

Silo



IMPORTANT: At each end of the pellet suction and air return hose, the copper cables must be connected to the earth connection terminals provided on the **Silo** for this purpose.

IMPORTANT: **DOMUSA TEKNİK** will hold no liability for malfunctioning of the **Silo** in combination with the **CVS suction system** if the installation does not comply with the above recommendations.

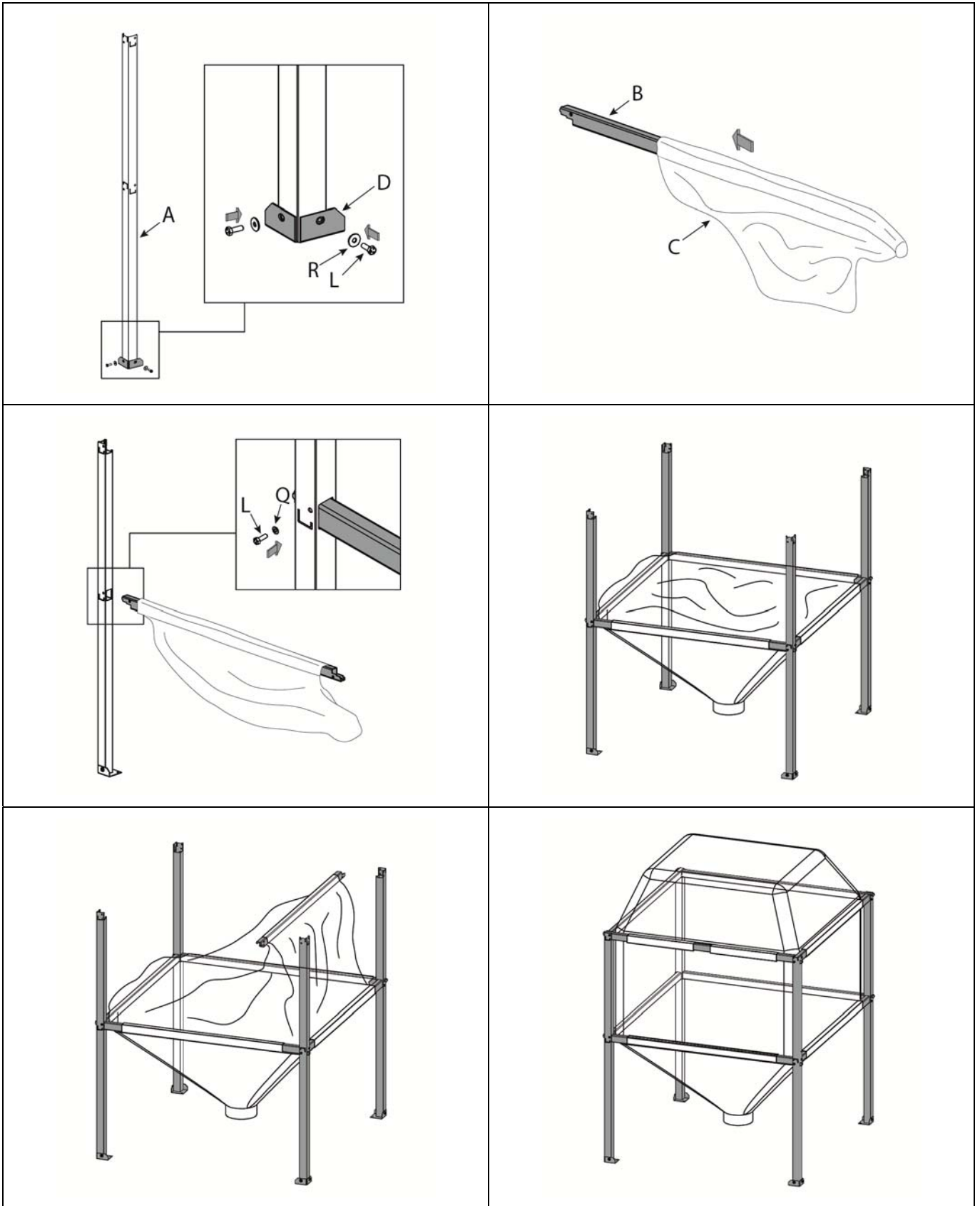
3.4 Earth connection

For safety reasons, the suction pot, **CVS suction system** nozzle and metal structure of the **Silo** must be earthed, to prevent danger of the pellets or **Silo** catching fire due to sparks generated by electrostatic charge accumulation during functioning of the automatic loading **CVS suction system**.

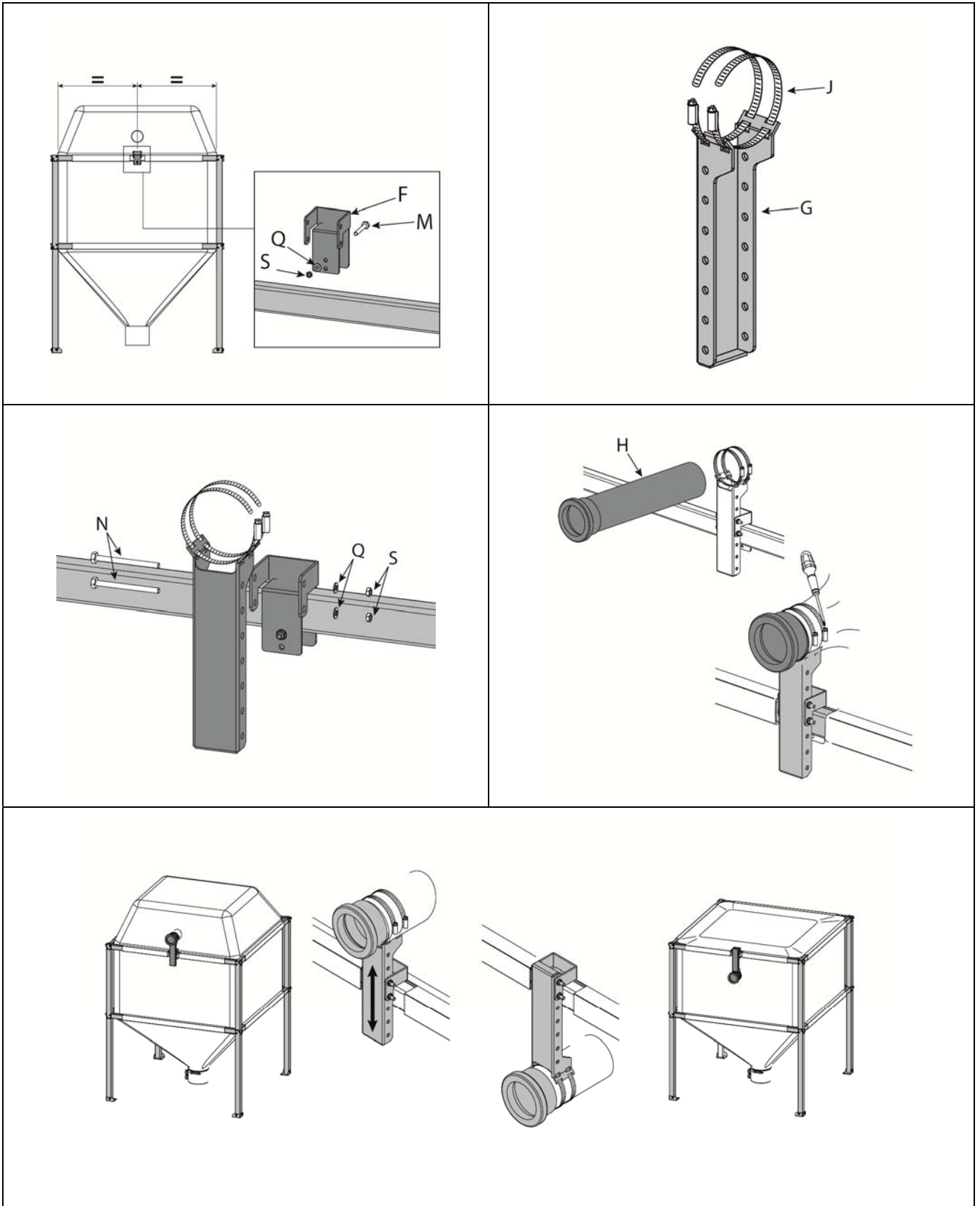
The **Silo** is specially designed to work as part of an installation with a plastic hose with an interior diameter of 50 mm. This hose must have a static electricity discharge system, preferably a copper wire wound around its entire length. **This copper wire must be earthed at all the hose joints and ends.**

There is an earthing socket on the underside of the suction pot of the **CVS suction system**, to which the earth cables of the pneumatic installation tubes should be connected. These tubes are then connected to the earth at the other end of the installation (see the section "*Assembling the suction pot*").

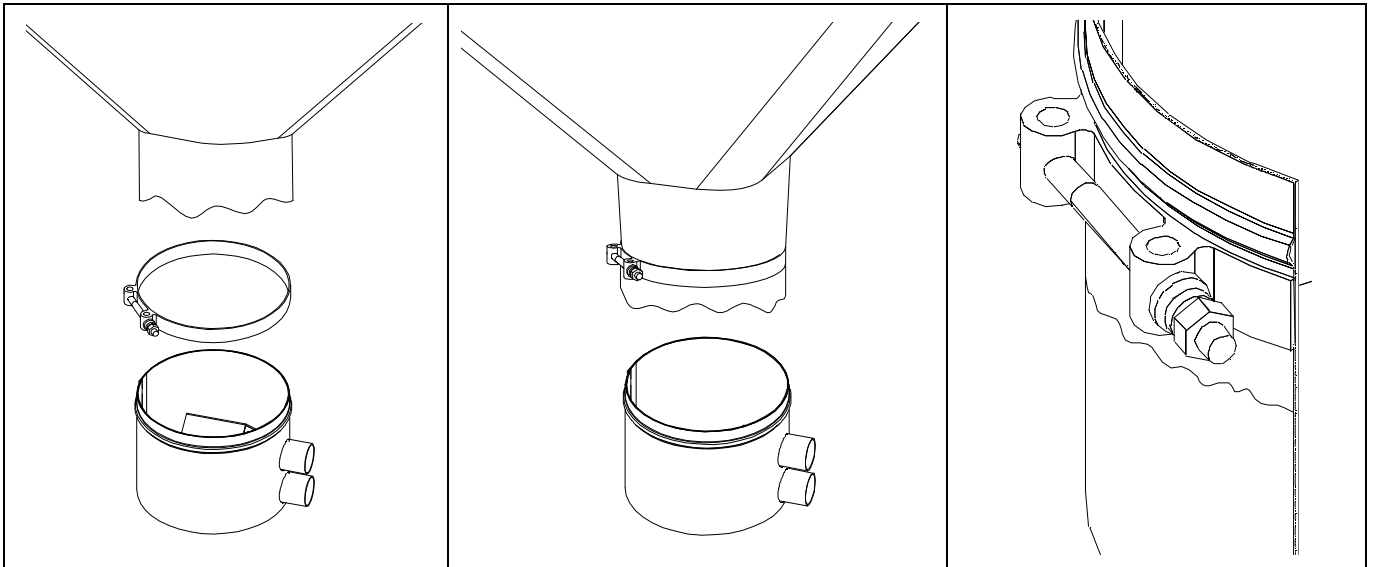
4 ASSEMBLY INSTRUCTIONS



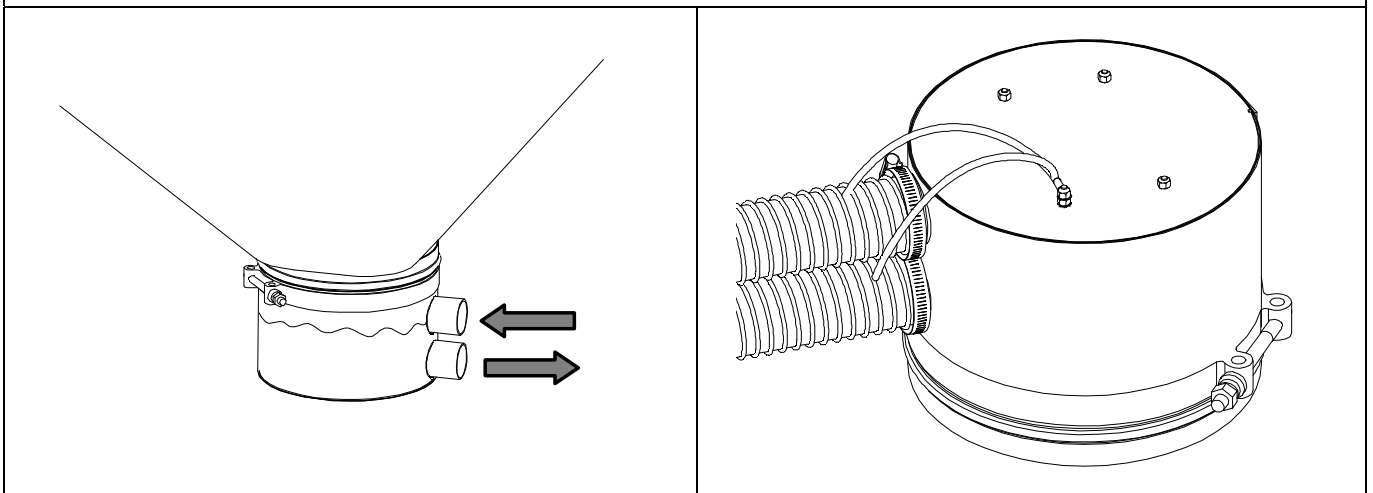
5 FITTING THE FILLING NOZZLE



6 ASSEMBLING THE SUCTION POT



Place the canvas around the outside of the suction pot and fix the clamp to the upper part of the pot, as shown in the figure.



Connect the pneumatic suction system hoses as shown in the figure and fix them in place with the clamps supplied with the Silo.

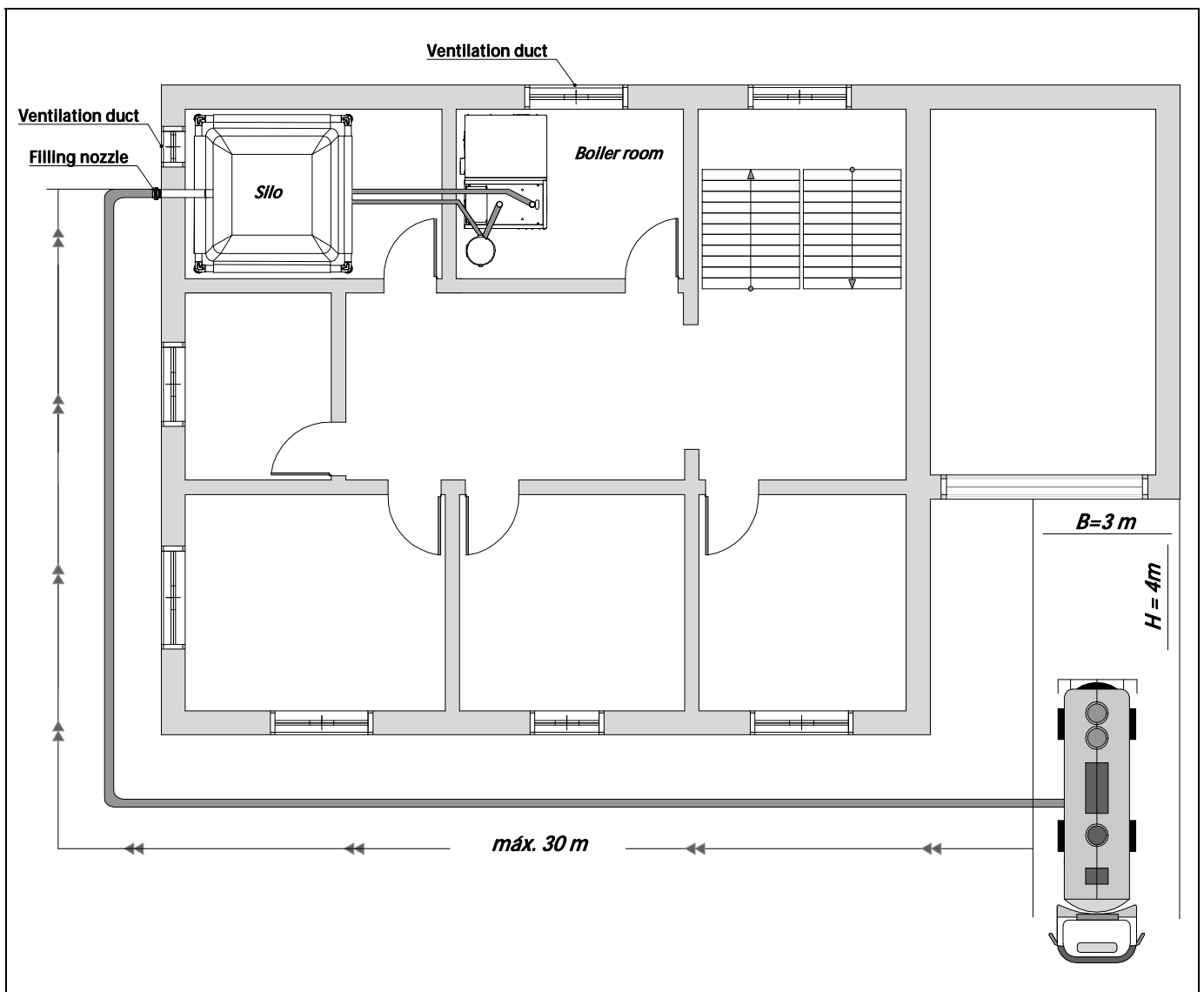
Both the suction pot and the suction system hoses must be earthed. The underside of the suction pot is designed for an earth connection terminal to be bolted to it.

Silo

7 SILO FILLING INSTRUCTIONS

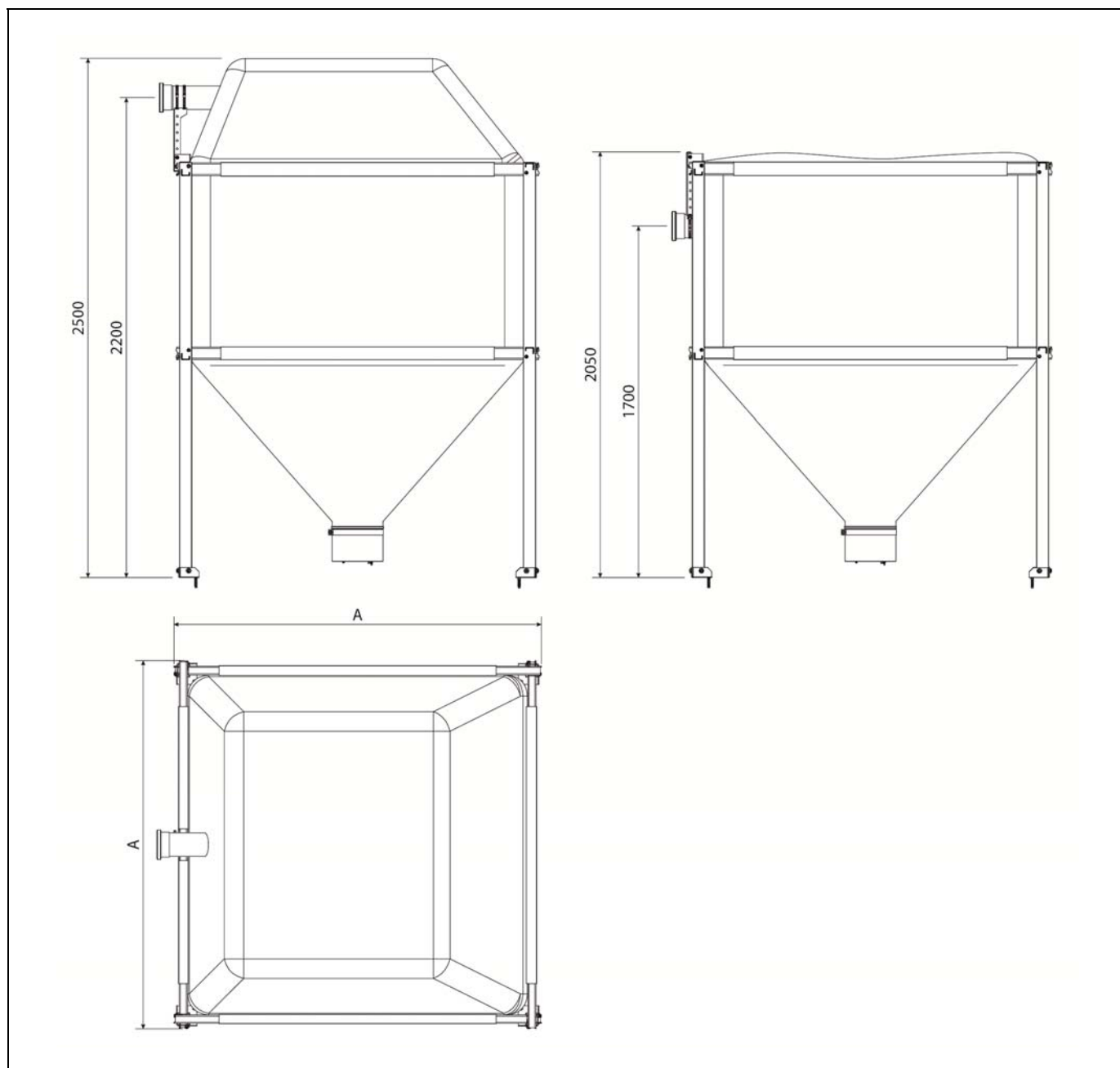
The **DOMUSA TEKNIK Silo** is designed to be filled by a tank truck, through a flexible hose that pumps the pellets into the **Silo**. Tank trucks for pellet supply usually have a flexible hose of up to 30 metres, and the **Silo** should therefore be installed at a maximum distance of 30 metres from the nearest truck access point (if a longer distance is required, check with the pellet supplier whether longer hoses are available). The truck access area must also have a minimum width of $B = 3\text{ m}$ and a minimum clearance of $H = 4\text{ m}$.

The filling nozzle must be accessible from outside the building, and so the premises in which the Silo is installed must have at least one exterior wall. If this is not possible, the filling hose must be run to the outside.



IMPORTANT: For safe Silo filling it is essential for the filling nozzle and supply hose to be earthed during the filling process.

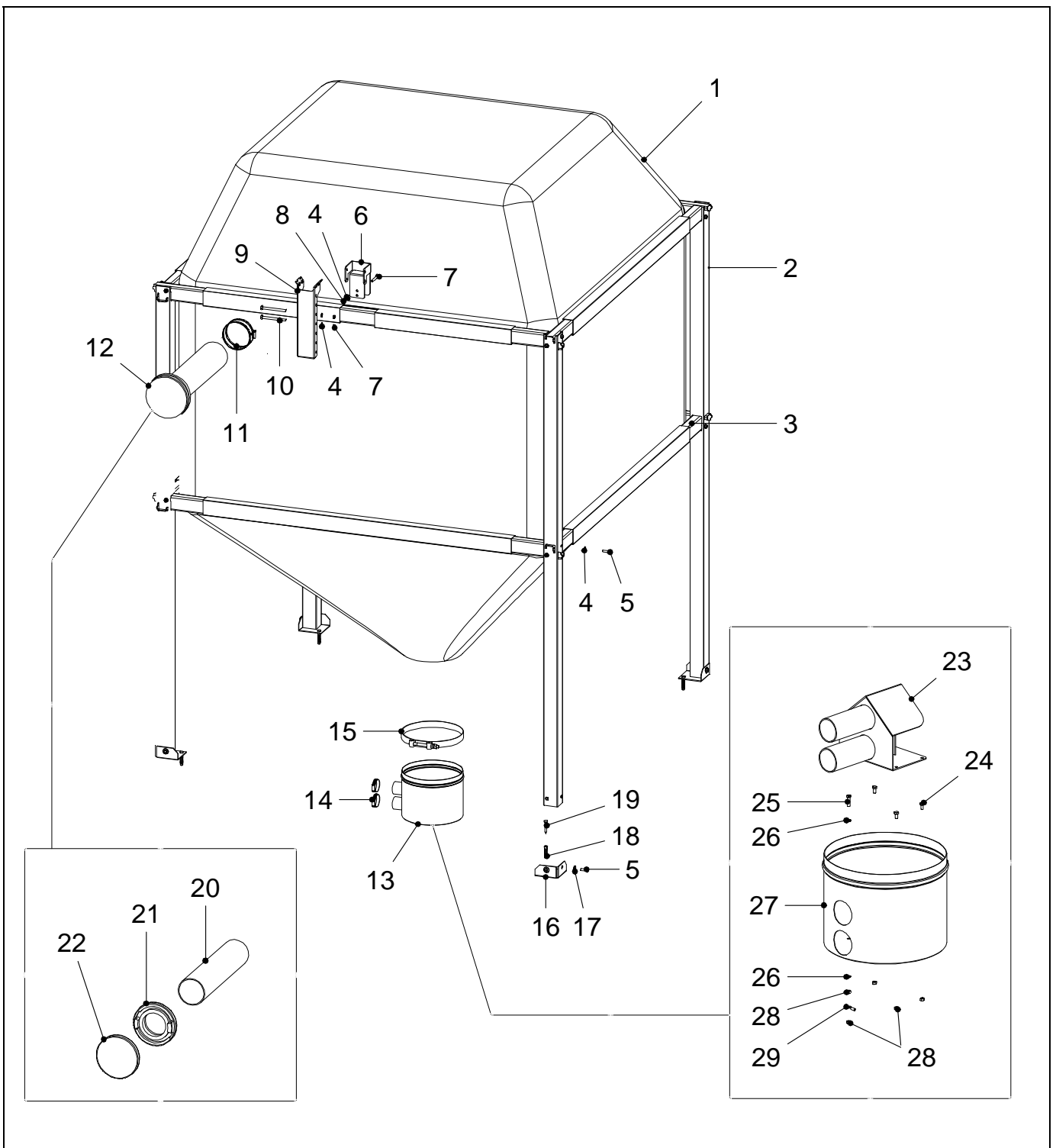
8 DIAGRAMS AND MEASUREMENTS



Model	Length A (mm)	Volume (m ³)	Capacity ^(*) (tons)
Silo 2.0	1450	3,2 – 3,8	1,8 – 2,5
Silo 3.0	1750	3,8 - 4,7	2,2 - 3,0
Silo 4.0	2050	5,1 – 6,4	3,0 – 4,1
Silo 5.0	2250	6,2 - 8	3,7 – 5,2

(*)The Silo's storage capacity will depend on the type, density and quality of the pellets used, and on the height of the premises.

9 SPARES LIST



Nº.	Código	Descripción
1	COTR000081	CANVAS SILO 2.0
	COTR000082	CANVAS SILO 3.0
	COTR000083	CANVAS SILO 4.0
	COTR000084	CANVAS SILO 5.0
2	SEPO002877	PILLAR SILO SMALL (SILO 2.0/3.0)
	SEPO002878	PILLAR SILO BIG (SILO 4.0/5.0)
3	SEPO002879	BEAM SILO 2.0
	SEPO002880	BEAM SILO 3.0
	SEPO002881	BEAM SILO 4.0
	SEPO002882	BEAM SILO 5.0
4	CTOR000103	FLAT WASHER DIN-125 A M8 ZINCED
5	CTOR000075	HEX. HEAD SCREW DIN-993 M8X25 ZINCED
6	SEPO002869	FILLING NOZZLE SUPPORT
7	CTOR000295	HEXAGONAL SCREW DIN-931 8.8 M8X60
8	CTOR000076	AUTOBLOCKING HEX. NUT DIN-985 M8 ZCDA.
9	SEPO002870	FULL FIT ADJUSTMENT
10	CTOR000296	HEXAGONAL SCREW 931 8.8 M-8X100
11	CFER000170	CLAMP S/F DIAMETER 100-120
12	SCON001688	SET FILLING NOZZLE STORZ
	SCON001690	SET FILLING NOZZLE GUILLEMIN
13	SCON001603	SUBTION POT SUB-UNIT
14	CFER000163	CLAMP S/F-S DIAMETER 40-60 NZ SW1
15	CFER000157	CLAMP SUPER 240-252
16	SEPO002862	BASE FOR PILLAR SILO
17	COTR000080	WIDE FLAT WASHER M8
18	CFER000223	WAD FISCHER MODELS S 10x50
19	CFER000225	SCREW BARRAQUERO THREAD WOOD DIN-571
20	CTUR000013	FILLING TUBE
21	COTR000085	FILLING NOZZLE STORZ 110-A FEMALE 4"
	COTR000087	FILLING NOZZLE GUILLEMIN DN-100 4"
22	COTR000086	COVER STORZ 110-A
	COTR000088	COVER GUILLEMIN DN-100
23	SEPO001559	INTERIOR POT
24	CTOR000239	HEXAGONAL SCREW DIN-933 M5X10
25	CTOR000240	HEXAGONAL SCREW DIN-933 M5X20
26	CTOR000108	WASHER DIN 6978-A M5
27	SEPO001558	POT
28	CTOR000083	HEXAGONAL NUT. DIN-934 M5
29	CELC000448	ROUND TERMINAL 5,3

Silo

NOTES:

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DOMUSA TEKNIK reserves the right to make modifications of any kind to its product characteristics without prior notice.



CDOC001698

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