

CARGO FLOOR[®]

Assembly instructions

CF500 SLC LR series (Leak Resist)*

*** Import remark!**

The LR-serie = leak resist and is NOT granted to be 100% Leak proof because of the “under mount” construction. Any leakage that may occur will only be possible and centrated at the connection area between the drive system and the floor profiles. A collector bin could avoid any spilling on the floor.

INTRODUCTION

The assembly instructions outlined in this book will enable you to assemble the Cargo Floor system you have purchased correctly. Every effort has been made, by means of diagrams and text, to ensure a clear and simple installation. To ensure the durability and reliability of this revolutionary loading and unloading system, it is important that you follow the assembly instructions as outlined in this book completely, and use quality materials in accordance with the specifications. Please note that the guarantee is only valid if the Cargo Floor system has been assembled in accordance with these assembly instructions. The latest available version can always be found on our internet site: www.cargofloor.com

The measurements given in this instruction start with the metric system after which between brackets [0] the imperial measurement is mentioned.

(ADDITIONAL) INSTRUCTIONS

The following (additional) instructions are available next to these instructions:

- Assembly CF100 SLL system
- Assembly CF500 SLC Power Speed system
- Assembly CF500 SLC Leak Resist Centre drive
- Assembly CF3 LP-2 15-160
- Assembly CF800 system
- Assembly Semi Leak Proof (SLP) system
- Assembly steel C-vloer

The latest available version can always be found in the downloads section on our internet site:

www.cargofloor.com

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IDENTIFICATION PLATE

General extended identification plate

Next to the system number the Cargo Floor order number will be mentioned and a field with 9 digits has been added in which we can, if required, put your identification or order number.

Numbers are automatically provided with a barcode; this makes it possible for you to scan the required data.

Short small identification plate

An extra identification plate has been mounted near the standard supplied pressure filter so the system number can be read simply and swiftly at the outside of the trailer.

Paint and dirt protection

The identification plates are specially fitted with a double layer of transparent protective foil. The first protective foil has a lip with remains visible when the Cargo Floor system has gotten painted or exceptional dirty. This protective foil can simply be removed so the data is readable again and the second protective foil remains intact so the data remains protected.

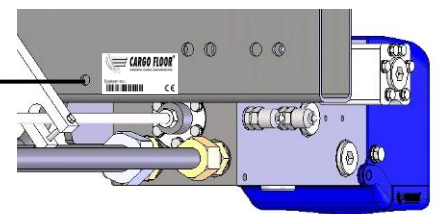
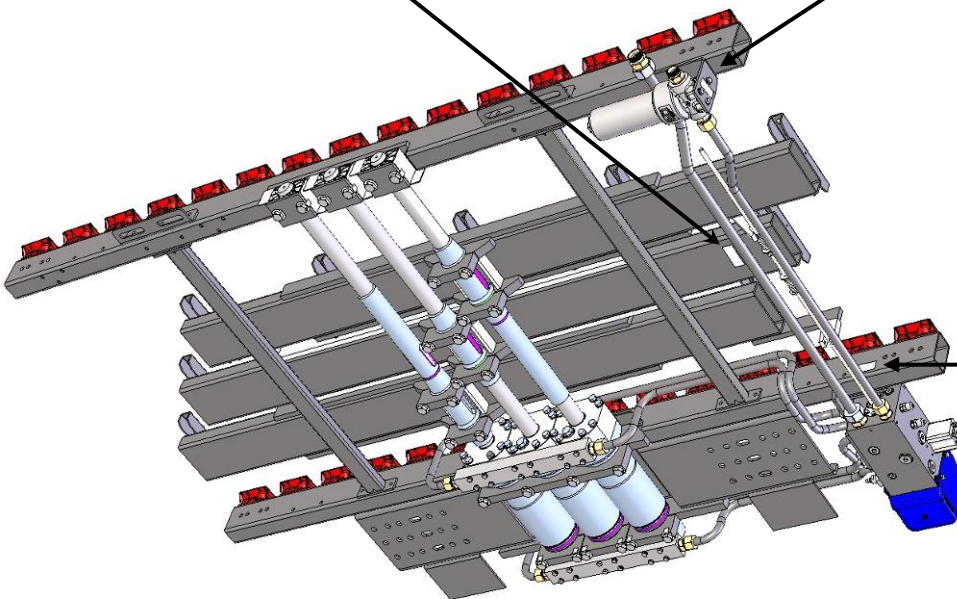
 CARGO FLOOR® HORIZONTAL LOADING-/UNLOADINGSYSTEM		Cargo Floor B.V. Byte 14, NL-7741 MK Coevorden www.cargofloor.com	
Type	CF500 SL-C	Max.WP.	225bar [3,300 psi]
Product	MOVING FLOOR®	Max.CAP.	40t [88,000lbs]
System no.			
CF SO.			
Client PO.			
Manufacturers of the CARGO FLOOR® selfloader and self-unloader World wide PATENTS pending!			







 CARGO FLOOR® HORIZONTAL LOADING-/UNLOADINGSYSTEM	
System no.:	
	



STICKERS

This WARNING STICKER/DECAL has been supplied with the drive unit in two fold. It should be attached near the control box and on the rear door in such a way that it is easy to read.



Stickers/decals on the trailer:

A



CAUTION CAUTION

Eng Important tips before the Cargo Floor system can be put into operation:

- Always consult the operation manual first.
- Always determine and check the direction of transport.
- People must always maintain a distance of at least 10 metres from a working Cargo Floor system.
- After use, always switch the Cargo Floor system back to the non-activated neutral (0) position.
- By maintenance work, switch off everything and disconnect the Hydraulics.

D Wichtige Anweisung vor der Inbetriebnahme des Cargo Floor Systems:

- Immer erst die Bedienungsanleitung lesen.
- Zuerst immer die gewünschte Transportrichtung bestimmen und kontrollieren.
- Vom aktivierten Cargo Floor System müssen Personen mindestens 10 Meter Abstand halten.
- Nach dem Einsatz das Cargo Floor System in die nicht aktivierte, neutrale Null-Stellung (0) zurücksetzen.
- Bei Wartungsarbeiten, alles ausschalten und die Hydraulik abkoppeln.

NL Belangrijke aanwijzing voordat het Cargo Floor-systeem in gebruik mag worden genomen:

- altijd eerst de bedieningshandleiding raadplegen.
- altijd eerst de gewenste transport richting bepalen en controleren.
- Personen moeten altijd tenminste 10 meter afstand houden van een werkend Cargo Floor systeem.
- Na gebruik altijd het Cargo Floor systeem in de niet geactiveerde neutrale (0) positie terugzetten.
- Bij onderhoudswerkzaamheden, alles uitschakelen en de hydrauliek loskoppelen.

KEEP CLEAR AT ALL TIMES !!

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CAUTION CAUTION

Fr Indications importantes avant de pouvoir utiliser le système Cargo Floor:

- Commencez toujours par consulter le manuel d'utilisation.
- Commencez toujours par déterminer et contrôler la direction de transport souhaitée.
- Tenez-vous toujours à au moins 10 mètres de distance d'un système Cargo Floor en fonctionnement.
- Après utilisation, remettez toujours le système Cargo Floor en position neutre (0) non activée.
- Pour tous travaux de maintenance, tout déconnecter et débrancher l'hydraulique.

Esp Instrucciones importantes a seguir antes de poner en funcionamiento el sistema Cargo Floor:

- Siempre consulte primero el manual de instrucciones.
- Siempre determine y controle primero el sentido de transporte deseado.
- Cuidé de que las personas siempre se mantengan a por lo menos 10 metros de distancia de un sistema Cargo Floor en movimiento.
- Una vez concluida la operación, siempre retorne el sistema Cargo Floor a las posiciones neutras no activadas (0).
- Por trabajos de mantenimiento, apagar todo y desconectar los hidráulicos.

It Istruzioni importanti a seguir prima di mettere in funzione il sistema Cargo Floor:

- Sempre consulte prima il manuale di istruzioni.
- Sempre determine e controlli prima il senso di trasporto desiderato.
- Cuidé de que las personas siempre se mantengan a por lo menos 10 metros de distancia de un sistema Cargo Floor en movimiento.
- Una vez concluida la operación, siempre retorne el sistema Cargo Floor a las posiciones neutras no activadas (0).
- Por trabajos de mantenimiento, apagar todo y desconectar los hidráulicos.

KEEP CLEAR AT ALL TIMES !!

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B

White/transparent

Black/ transparent



or



C

Stickers/decals on the control box, only with B- and E-control:

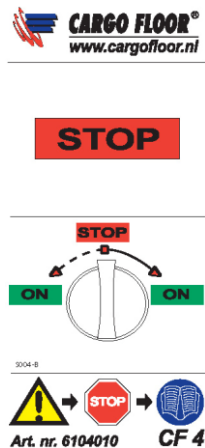


Stickers/decals On the Switches

Switch B-control



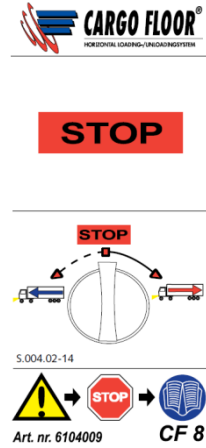
Switch B-control



Switch E-control

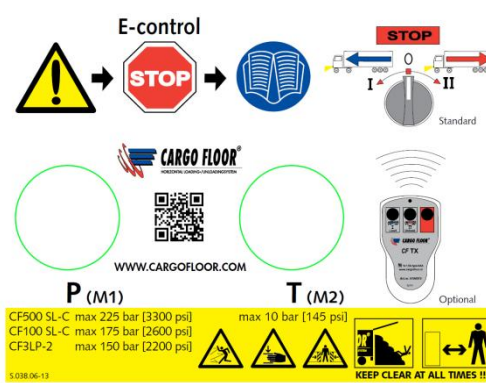
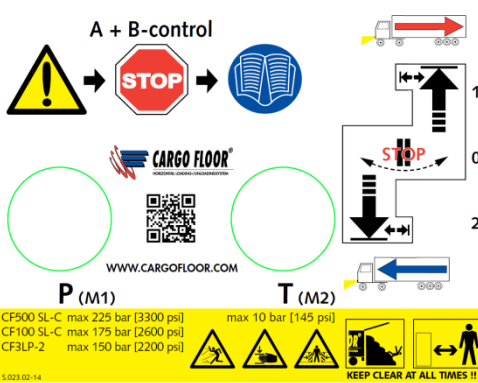


Switch E-control



D

Stickers/decals On the side of the trailer, near the drive unit



Only A + B-control



IMPORTANT RECOMMENDATIONS AND GUIDELINES FOR THE COMMISSIONING

Before putting the Cargo Floor loading and unloading system into operation, follow the recommendations provided below and check the specified checkpoints to avoid damage to the Cargo Floor system and the vehicle.

Please review the important instructions before operating the Cargo Floor system and loading cargo into the vehicle. Likewise, before loading cargo, check the operation of the various control switches/valves to familiarise yourself with how the system works. We strongly recommend that you perform these checks when picking up the vehicle from the dealer so that your skilled supplier can answer your questions and provide you with any necessary advice or guidance you may require.

Important:

- Always check that the selected loading or unloading direction is actually activated and occurring!!
- If the system fails to start, turn off the Cargo Floor system and the hydraulic pump and follow the recommendations and guidelines provided below. Do not repeatedly try to start the system as this may result in damage to your Cargo Floor system and/or vehicle.
- After use, turn off the Cargo Floor system and hydraulic pump. Set switches to the "0" position and the lever in neutral.

In case of doubt or uncertainty about these recommendations and guidelines, always contact your dealer or an official workshop.

The Cargo Floor system comes standard with an operating manual, but if this has not been supplied, please contact your dealer or download it from the official Cargo Floor website: www.cargofloor.com

- A) Always open the vehicle's doors before turning on the hydraulic pump. Note! Build-up of pressure against the doors can open them with force. Also some of the cargo can fall out of the vehicle by itself after opening the doors, therefore KEEP CLEAR AT ALL TIMES, product could fall on top of you! Both could result in damages and/or injuries! It is always advisable to use the pneumatic door lock, if provided.
- B) 1. Check that the vehicle's (quick-detachable) couplings are properly connected to the P (Pressure line) and the T (tank/return line). Also check that the couplings are fully tightened or slid completely into each other.
IMPORTANT: the pressure and return line connectors may not be reversed or exchanged to prevent dirt or water from entering the lines when connecting them!
2. Before connecting, check that the non-return valves can open easily (check: the non-return valves should open easily when pressed with the finger, if not, potential pressure build-up in the hydraulic lines may be preventing the system from starting).
NOTE: Incorrectly connected or unopened hydraulic couplings will cause serious damage to the Cargo Floor system and the vehicle.
- C) The vehicle (pump) must be fitted with a pressure relief valve that is set at the maximum pressure according to the system, see the technical specs. If fitted, check that the dual-function lever (function: tipper/Cargo Floor) is in the Cargo Floor position. Pressure may not exceed the maximum adjusted and allowable operating pressure of the Cargo Floor system. An incorrectly adjusted pressure relief valve can cause damage to the Cargo Floor system and the vehicle.
- D) During operation, the (hand)brake of the vehicle must always be applied. You must, however, move the vehicle forward on time to unload it quickly in order to prevent unnecessary strain and wear to the floor and the vehicle.
- E) Use of a wireless remote control is permitted only if it is fully tested before the start of each loading or unloading operation. Always check if the function you have selected is actually activated and taking place. If, for example, you have accidentally pressed the load function when you actually meant to press the unload function, irreversible damage may occur to the Cargo Floor system and the vehicle.
- F) During operation of the Cargo Floor system, all existing STOP and control knobs/levers must be freely accessible.

- G) The pressure filter element needs to be replaced at least once a year. If the couplings between the vehicle and the Cargo Floor system are regularly removed, it is advisable to check the pressure filter for dirt build-up and replace the pressure filter element more often, if necessary. If provided, also check the return filter (not supplied with the Cargo Floor). Failure to replace a filter element on time may cause damage to or malfunctions in the Cargo Floor system and the vehicle.
- H) Moving parts must be shielded. Always maintain at least 10 meter [30'] distance from the Cargo Floor system when it is in operation.
- I) In the event of malfunctions/maintenance work, you may approach the Cargo Floor system only if all equipment, including the hydraulic pump, have been shut off, and the Cargo Floor system and the electro-hydraulic aggregate have been disconnected from the power supply and pump.
- J) Regularly check and, if necessary, tighten any loose bolts that secure the aluminium floor profiles to the Cargo Floor system. All such checks can simply be performed inside the vehicle itself by qualified personnel. The Cargo Floor system must, however, be turned on in unloaded condition and the person performing the check must place his finger half on the floor profile and half on the bolt. There should be no appreciable movement/space between the floor profile and bolt. Failure to check these bolts may lead to damage to the Cargo Floor system. During this check, a second person must also be present to switch off the Cargo Floor system.
- K) Check that the minimum required amount of oil is present 150 liter [40 US gallon]. Too little oil in the hydraulic tank will cause damage to both the pump and the Cargo Floor system.
- L) Do not allow the number of strokes to exceed the maximum allowable 16 power strokes per minute. Only a CF500 SLC Power Speed Cargo Floor system may deliver up to 23 beats per minute. A higher number of power strokes can cause damage to the Cargo Floor system and the vehicle.
- M) Hydraulic lines, couplings and hoses with very small diameters will cause damage.
- N) If the Cargo Floor system fails to start or operates incorrectly, the Cargo Floor system and the hydraulic pump must be shut down immediately. Subsequently, check all the checkpoints before switching the pump and the Cargo Floor system back on. To prevent the oil from overheating, regularly check the oil temperature by CAREFULLY and CAUTIOUSLY touching the line and or oil tank. If either is too hot to the touch, stop touching them right away. **WARNING: TOUCHING OVERHEATED OIL AND COMPONENTS CAN CAUSE BURNS!**
- O) The cause of failure or malfunctioning of the Cargo Floor system may also be due to other hydraulic components that may or may not be connected to the same hydraulic circuit of the Cargo Floor system.
- P) Jamming of the floor profiles caused by the transport of abnormal loads and or the freezing of the floor or of the product to the floor may result in damage to the Cargo Floor system and the vehicle.
Recommendation: in the event of freezing, stop the system and try to find a hall (heated area) to allow the product to thaw.
- Q) Because the electrical power supply of the Cargo Floor system is often connected to the lighting circuit of the vehicle, it is advisable to turn on the lighting throughout the operation of the system.
- R) Maintenance and repairs to the Cargo Floor system may be only performed by qualified personnel. Use only original Cargo Floor components to ensure maximum reliability and long service life.
- S) Maximum cargo weight is subject to the limits set by law and applicable regulations. Even if the system can transport heavier loads, the law determines the maximum limit. Excessively heavy cargo can cause damage to the Cargo Floor system and the vehicle.
- T) Check that the correct type and quality of hydraulic oil is used. The use of incorrect oil type may cause damage to the Cargo Floor system and the pump.
- U) Check the vehicle for correct voltage. Make sure there are no open electrical connections. A faulty electrical system can cause damage to the Cargo Floor system and the vehicle.
- V) Check that the bulkhead, if present, is functioning smoothly and properly. A properly functioning bulkhead ensures that the product is unloaded in a clean and quick fashion. A malfunctioning bulkhead may extend the unloading time and cause damage to the vehicle.
- W) Use of the Cargo Floor system by unqualified personnel can cause damage to the Cargo Floor system and the vehicle.
- X) Excessively high oil temperatures will cause damage to the Cargo Floor system and other hydraulic components, such as the pump.

- Y) It is at all times advisable to stop the Cargo Floor system when all the piston rods are retracted. This is usually the case when the floor profiles are positioned towards the unloading end (vehicle doors). Unretracted piston rods may cause damage to the Cargo Floor system.
- Z) To prevent damage to the floor profiles, exercise caution and limit the dump height as much as possible. The transport of unauthorised goods, such as aggressive, corrosive, hot, hard, sharp and viscous materials may cause damage to the Cargo Floor system and the vehicle. Avoid loading and unloading sharp objects. Loads that are softer than the hardness of the floor profiles will extend the service life of your system; if in doubt, use a protective cloth or consult your dealer.
- AA) Forklift trafficable. In principle, the floors are completely trafficable and can be driven over by forklifts, but always consult your dealer for advice on the maximum loads allowed on your vehicle. Overloading will cause damage to the Cargo Floor system and the vehicle.
- BB) Always return emergency control(s) to their original non-activated position after use.
- CC) During the operation of the system, test the temperature of the oil by touching the side of the tank. If the oil is so hot that you cannot continue to touch the tank, switch off the pump to allow the oil to cool off and determine what is causing the overheating. Stop loading or unloading if the oil is too hot, as this will irreversibly cause damage to the Cargo Floor system and the other hydraulic components.
WARNING: TOUCHING OVERHEATED OIL AND COMPONENTS CAN CAUSE BURNS AND INJURIES!
- DD) During loading and unloading operations, the load should be spread to give an even weight distribution over the floor area, otherwise the load may stall. Tip: when transporting pallets, place softwood boards of 300 x 18 x 2350 mm. [12" x 0.75" x 92.5"] to distribute the pressure more evenly.
- EE) The constant pressing of the load against the head board or the doors can lead to extra wear of the complete system. Also the construction can be damaged. Please consult you supplier about the optimizing possibilities or in order to prevent problems occurring.
- FF) The user/operator/driver that is operating the Cargo Floor system is compelled to remain a safe distance from the Cargo Floor system at all times, from the time of switching on the hydraulic pump until turning it off. He should ensure that no dangerous situations can occur. When the process malfunctions or if other people are present he should shut down the Cargo Floor system, or hydraulic pump, immediately.
- GG) No unauthorized alterations/modifications/changes/adjustments may be made to any part of the Cargo Floor drive unit and system.

WARRANTY

Warranty is subject to prior approval by Cargo Floor B.V.! To request warranty coverage, visit www.cargofloor.com to fill out and submit the warranty application form provided there; do not forget to include your Cargo Floor system number on the form.

EMERGENCY STOP

In the event of an EMERGENCY, operation of the Cargo Floor system can be halted as follows:

- ◆ By pressing the red stop button on one of the control switches;
- ◆ By turning all switches to position “0”;
- ◆ By putting the handle of the control valve in the middle “0” position (only B and A control);
- ◆ Turning off the PTO pump/engine;
- ◆ Turning off the main switch of the power supply;
- ◆ Turning off the motor of the electro-hydraulic aggregate;

 **If the indications in this manual, as well as those stated in the user manual, are not followed this could result in damages and/or injuries.**

 **If your customer had any specific wishes we advise you to contact Cargo Floor B.V. This especially when what is wished for differs from the so-called normal use.**

The warning sticker/decals, as pictured below, is supplied in twofold with the drive unit. These need to be stuck near the control box and the rear door in such a way that these can simply be read.



CAUTION CAUTION

Eng Important tips before the Cargo Floor system can be put into operation:

- Always consult the operation manual first.
- Always determine and check the direction of transport.
- People must always maintain a distance of at least 10 metres from a working Cargo Floor system.
- After use, always switch the Cargo Floor system back to the non-activated neutral (0) position.
- By maintenance work, switch off everything and disconnect the Hydraulics.

D Wichtige Anweisung vor der Inbetriebnahme des Cargo Floor Systems:

- Immer erst die Bedienungsanleitung lesen.
- Zuerst immer die gewünschte Transportrichtung bestimmen und kontrollieren.
- Vom aktivierten Cargo Floor System müssen Personen mindestens 10 Meter Abstand halten.
- Nach dem Einsatz das Cargo Floor System in die nicht aktivierten, neutralen Null-Stellungen (0) zurücksetzen.
- Bei Wartungsarbeiten, alles ausschalten und die Hydraulik abkuppeln

NL Belangrijke aanwijzing voordat het Cargo Floor-systeem in gebruik mag worden genomen:

- altijd eerst de bedieningshandleiding raadplegen.
- altijd eerst de gewenste transport richting bepalen en controleren.
- Personen moeten altijd tenminste 10 meter afstand houden van een werkend Cargo Floor systeem.
- Na gebruik altijd het Cargo Floor systeem in de niet geactiveerde neutrale (0) posities terugzetten
- Bij onderhoudswerkzaamheden; alles uitschakelen en de hydrauliek loskoppelen

KEEP CLEAR AT ALL TIMES !!

STOP

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5.036.02-14

HOISTING INSTRUCTIONS

The Cargo floor system is supplied to you on durable pallets, see figure 1A, or in the specially designed transport racks (optional, figure 1B).

FIG. 1A

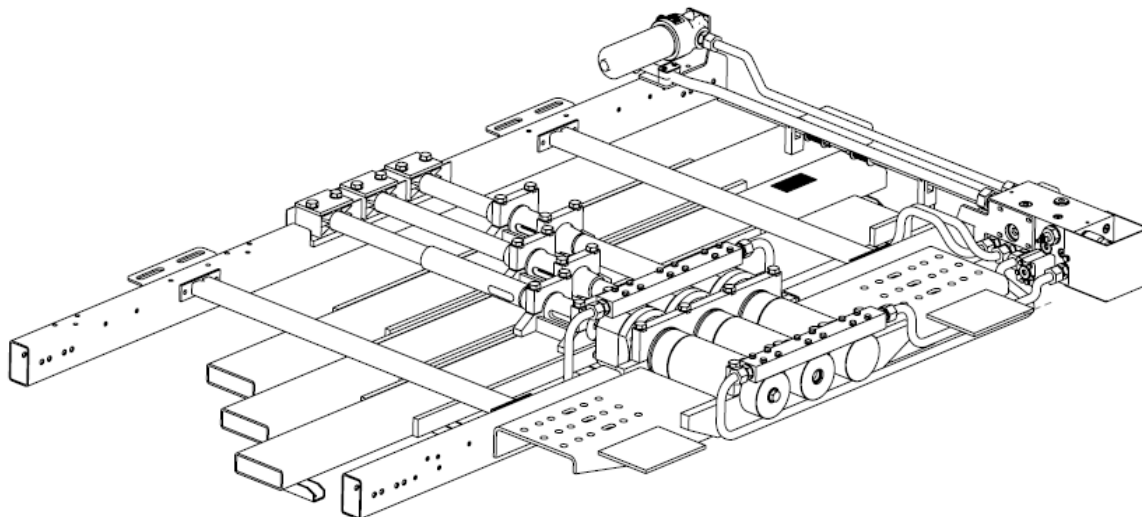
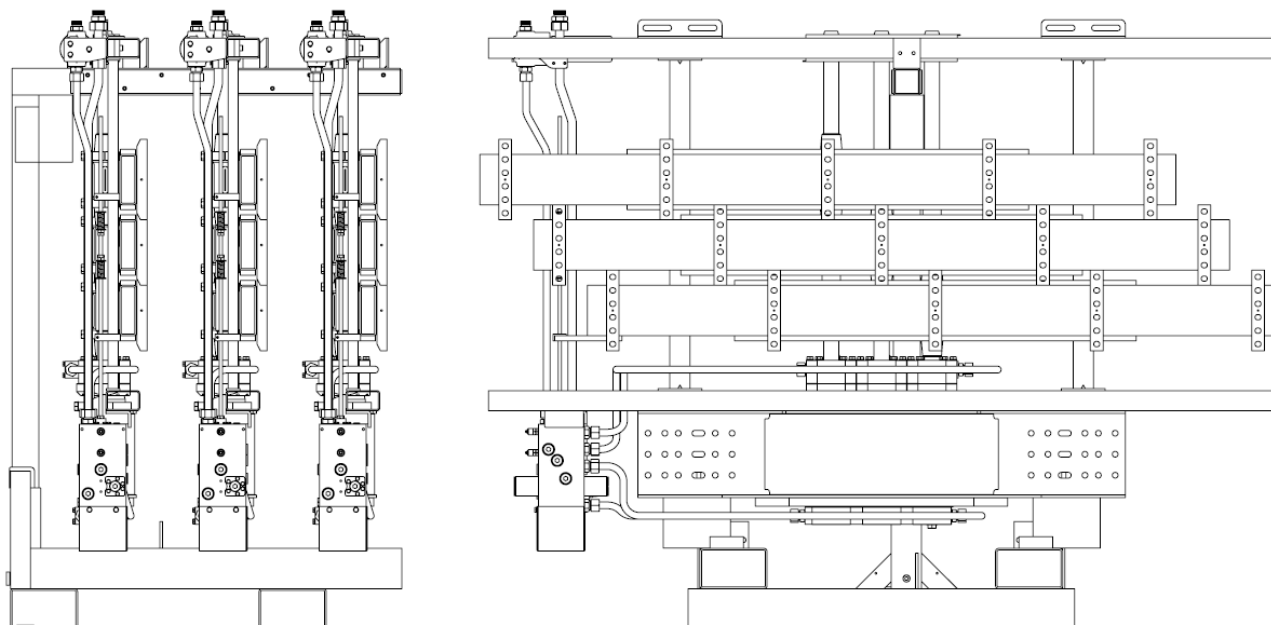


FIG. 1B



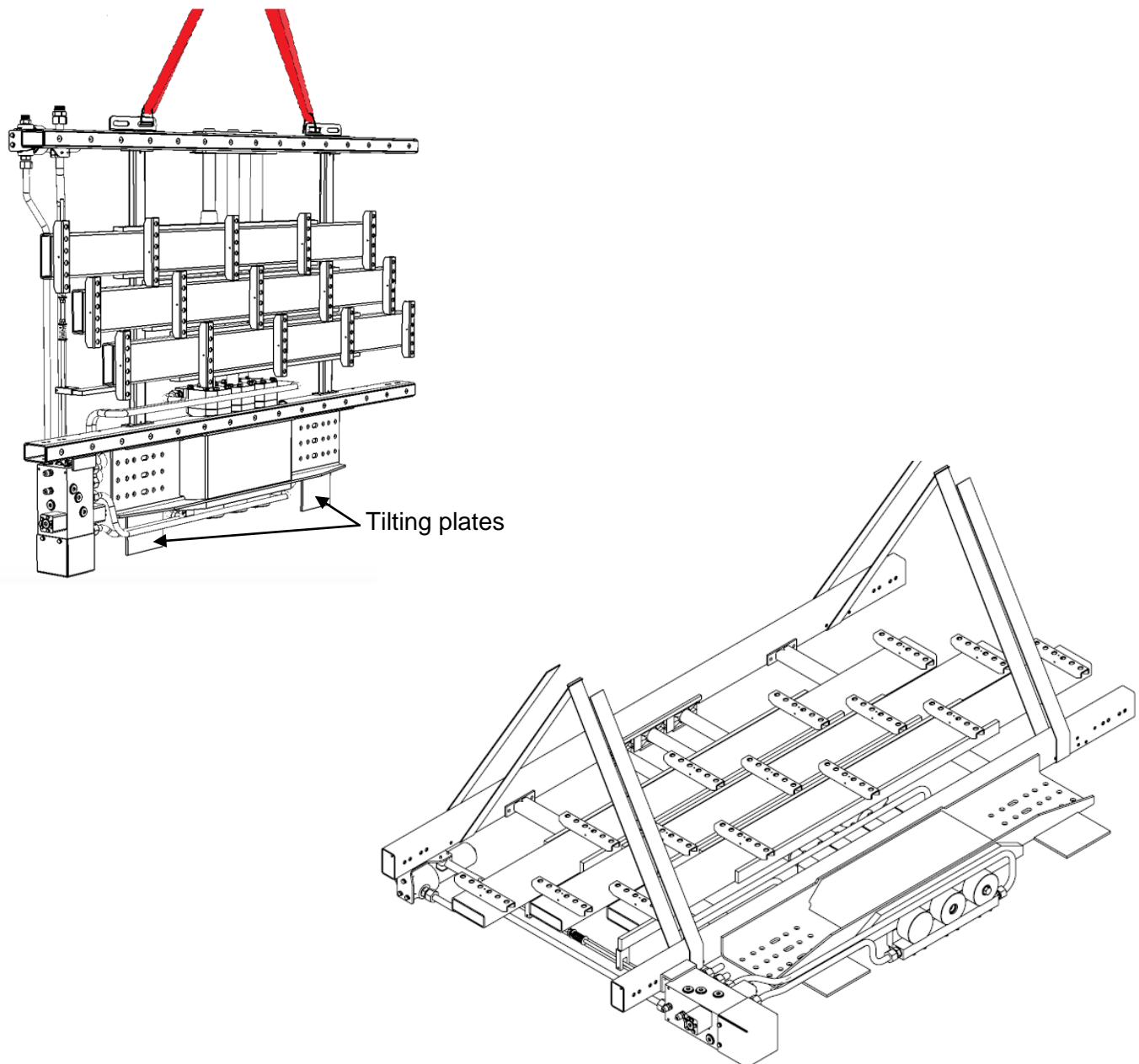
IMPORTANT

It is not permitted to lift the Cargo Floor system by the cylinders, valves or pipes. You must use the hoisting points when lifting the Cargo Floor system (as shown in figure 2). You need to pay particular attention that you use the right set of hoisting tools during lifting so that the cam guide and conduits do not get damaged. The tilting plates mounted at the rear bridge are designed in such a way that they prevent damages occurring to the cylinder bottoms, conduits and valve when tilting the system onto blocks or directly onto the chassis.

The Cargo Floor system can be mounted directly on the chassis. Great care must be taken while placing or tilting the Cargo Floor system to ensure that the system can not slide away and cause danger and that there is absolutely no damage caused to the system.

 **Warning: do not lift by the cylinders!**

FIG. 2



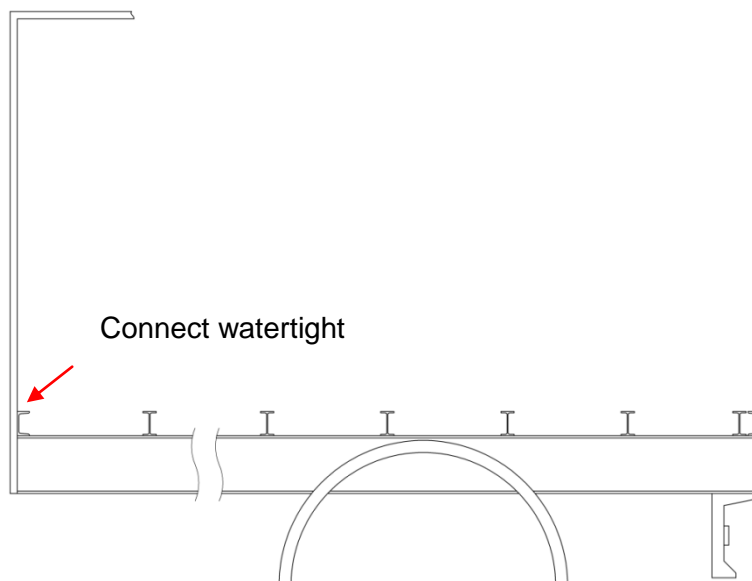
THE CHASSIS

For the assembly of the **CF500 SLC Leak Resist* "Centre Drive"** system we will advise you in chronological order how you, in our opinion, could do this the best way. The build of the chassis and the assembly of the **CF500 SLC Leak Resist* "Centre Drive"** system is almost done the same way as the standard CF500 SLC system.

It's very important to ensure that, during the installation of the Cargo Floor system, the crossbeams on the chassis are flat. There must be no difference in height between the crossbeams, as this would hinder the installation of the system and adversely affect the operation and the lifetime of the Cargo Floor system.

⚠ Attention: the u-profile needs to be connected to the front wall side with a watertight connection at the head board side.

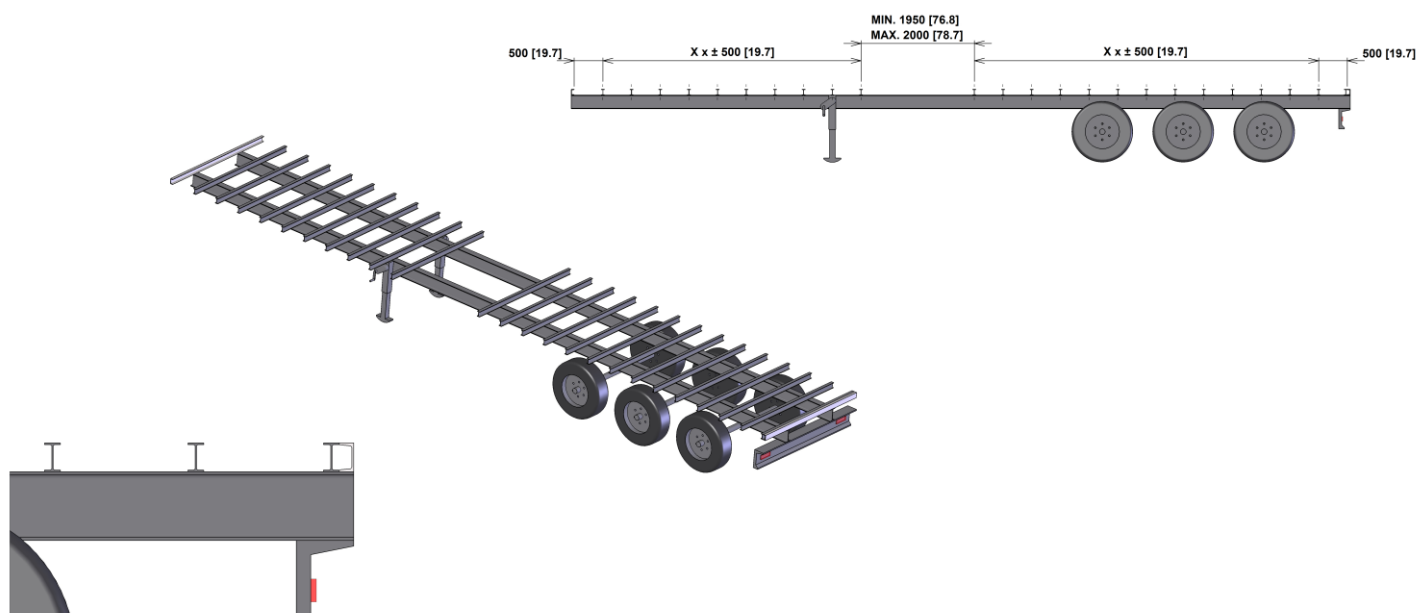
FIG. 3



We refer you to figure 4 for the positions of the crossbeams. Make sure that there is space free in the middle of the chassis for the Cargo Floor system.

On the chassis the distribution of the remaining cross members must be done so sufficient support from the floor is there and the wall can be supported. The minimal distribution we advise is mentioned in fig. 4.

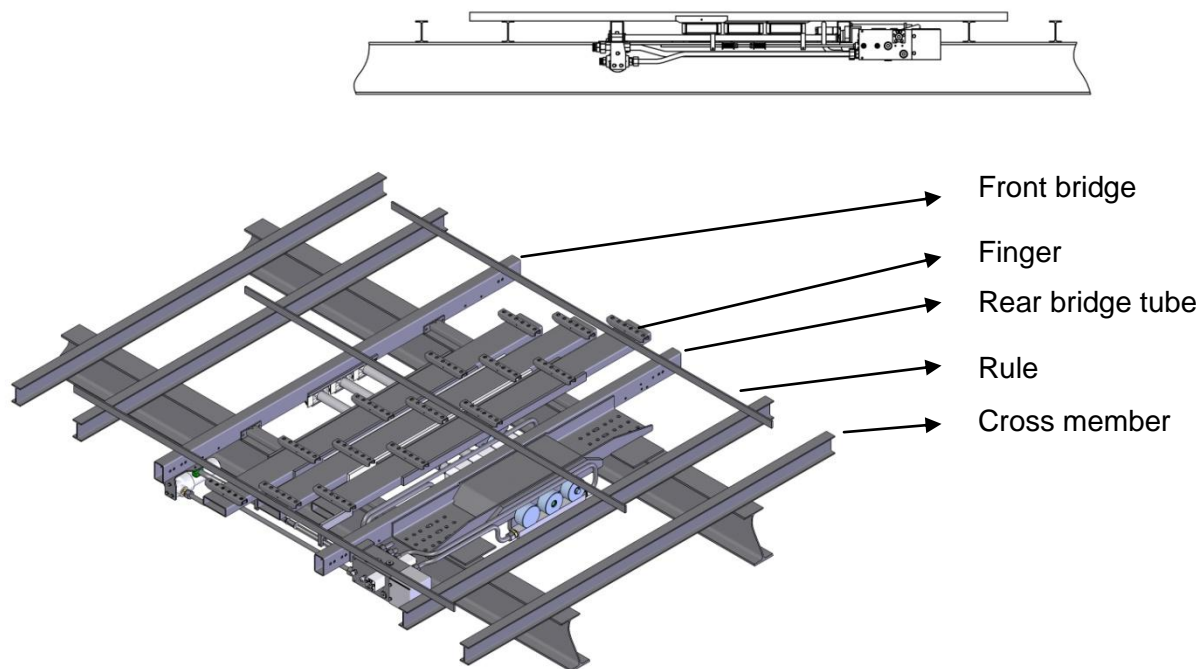
FIG. 4



POSITIONING THE SYSTEM

The hoisting procedures, as described in fig 1 and 2, need to be studied before placing the Cargo Floor system. The Cargo Floor system can now be laid in the appropriate opening on the chassis (see figures 4 & 5), **noting that the piston rods must always point in the head board direction.**

FIG. 5



HEIGHT CHECK AND ALIGNMENT OF THE CARGO FLOOR SYSTEM

Height check

The Cargo Floor system needs to be made to the right height. You need to check the height at three places with the help of a rule between the fingers and over the cross members. The height of the top sides of the front and rear bridge tube of the Cargo Floor system is the same as the height of the cross members of the trailer itself.

Any spaces that have arisen between the chassis / frame and the underside of the Cargo Floor system should be filled.

Alignment

It is extremely important that the system later on gets exactly lined up with the plastic profile bearing. In order to place the system in the middle and straight the piston rod of the middle cylinder is used as reference.

The centre line of the middle cylinder (and also at the same time the middle finger of a 15 profile system) should run parallel with the centre line of the trailer itself. Tighten a string as reference for this centre line

It is advisable to clamp the Cargo Floor system securely once it is correctly positioned.

SECURING THE SYSTEM

After the Cargo Floor system has been correctly positioned it can be secured to the chassis / frame by welding or by bolting.

Bolting (see fig. 7 and 8)

The Cargo Floor system can, if desired, be bolted to the chassis / frame. The holes in the chassis / frame need to be concentrically aligned with the holes in the Cargo Floor system. 6 Bolts per side need to be used on the rear bridge (see figure 7) and 1 bolt per side in the so-called front bridge. This results in a total of 14 bolt connections. Each bolt needs to be secured with a spacer and two self-locking nuts. (See figure 7.)

All bolts must conform to the following specification:

14 pieces M16x80 ELVZ (DIN931-10.9) [5/8"x3.25"]. Quality 10.9. [grade 8].

14 pieces nut M16 [5/8"]

14 pieces lock/nut M16 [5/8"]

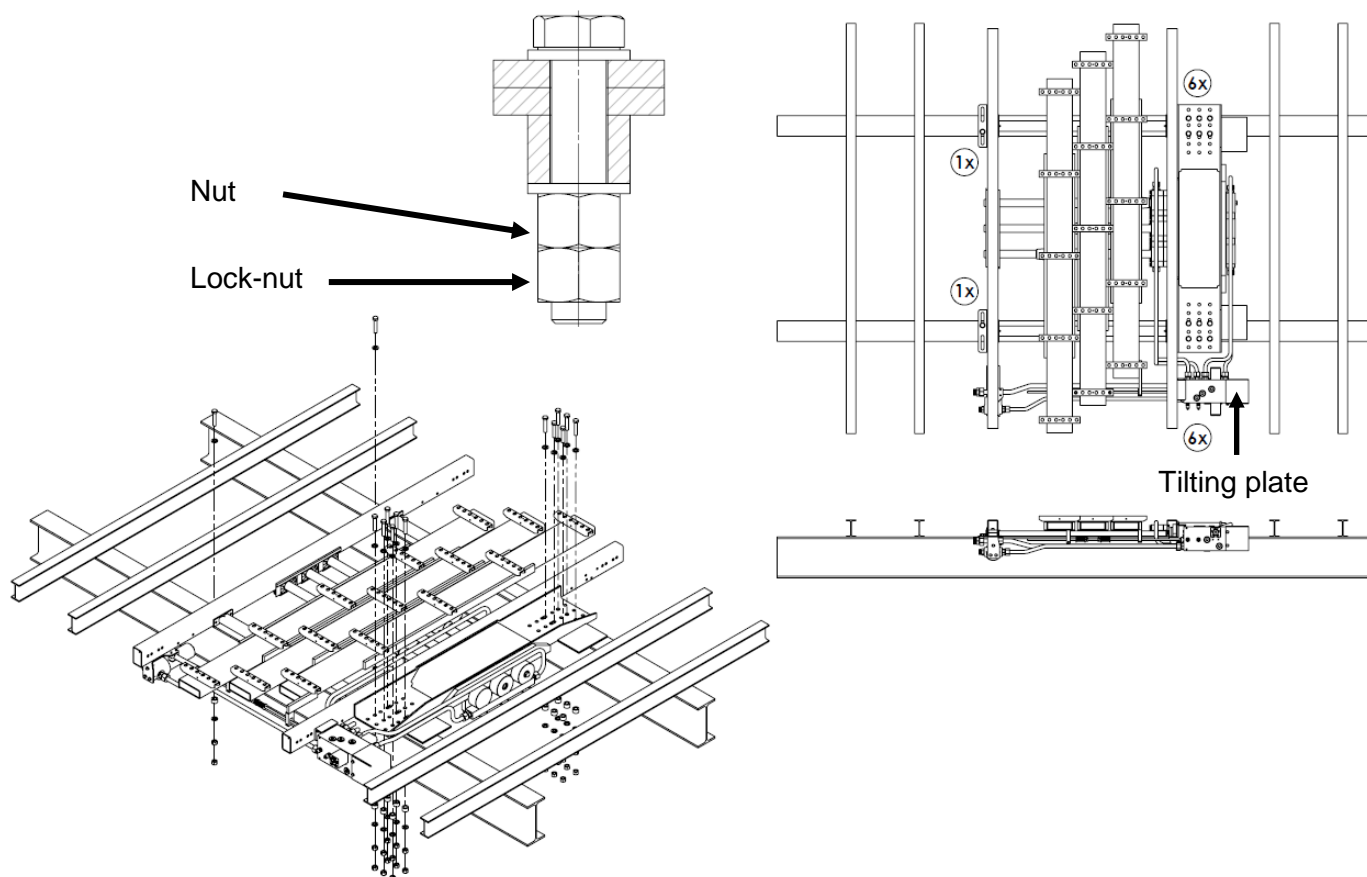
28 pieces washer Ø 30 / Ø 17, thick 3 mm (DIN125) [Ø 1.25" / Ø 0.75", thick 0.12"]

14 pieces spacer ST52-3 Ø 30 / Ø 17, length 20 mm [Ø 1.25" / Ø 0.75", length 0.79"]. Parts no. 5451005

Torque of the M16 nuts is 300 Nm [215 lbf.ft]

For an aluminium chassis we can advise, as an alternative, to use a strip (thickness 20 mm. [0.79"]) with corresponding hole pattern.

FIG. 7



Welding (see fig. 8B)

Good quality welds, of the appropriate lengths, need to be made at the points indicated in the drawing (figure 8).

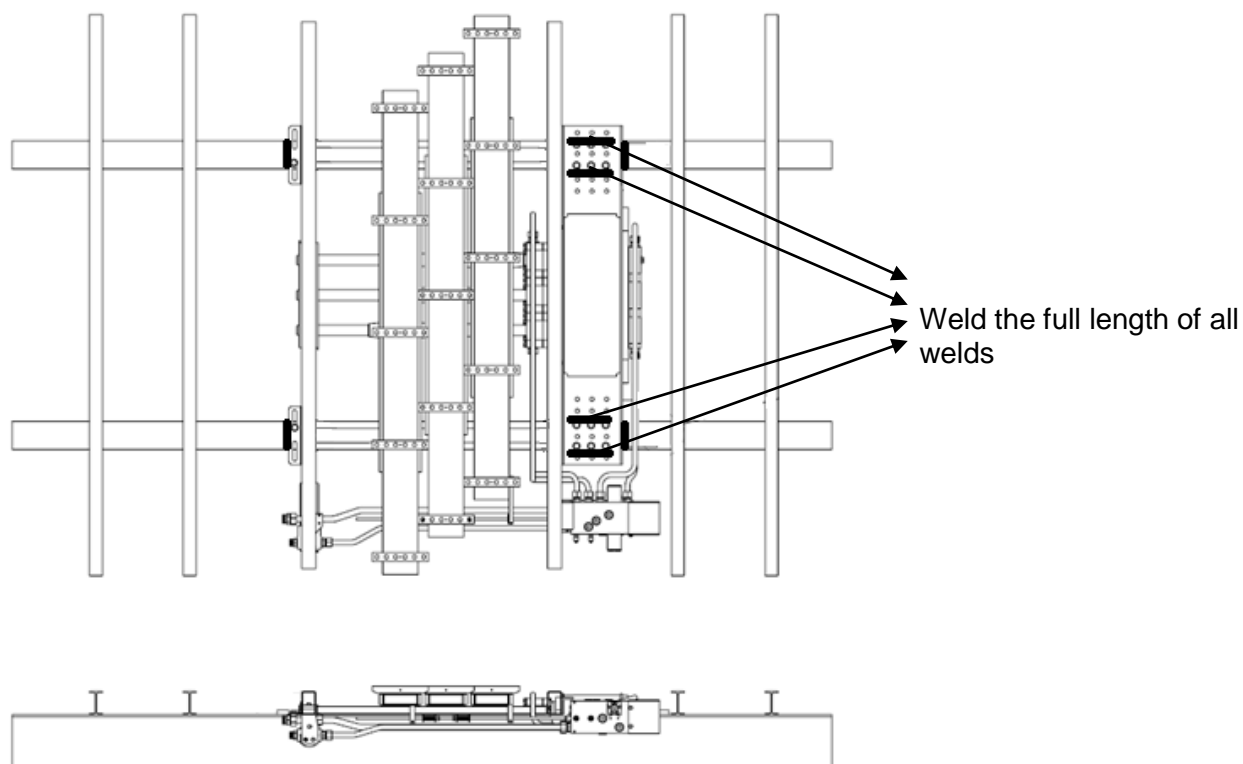
The tilting plates at the rear side of the rear bridge need to be removed before welding the rear bridge to the chassis (figure 7).

Use a weld width of min. $a = 10$ [$a = 0.5''$].

Bracing of the Cargo Floor system is not necessary.

Pay attention to that if the sub frame is zinced (as option with at SLC system) the spots that need to be welded are cleaned of the zinc coating.

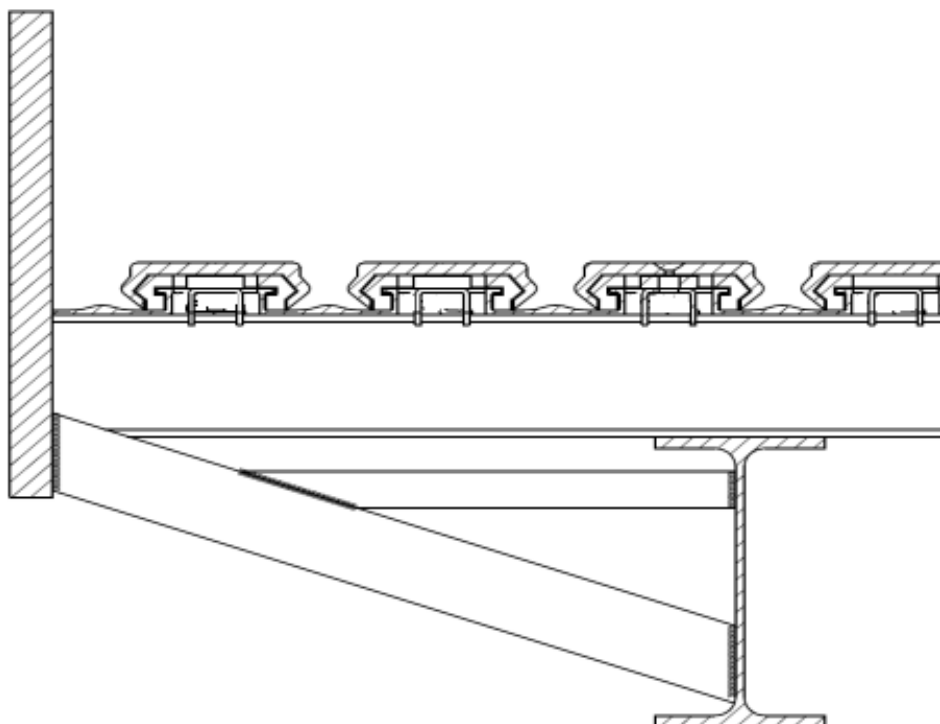
FIG. 8

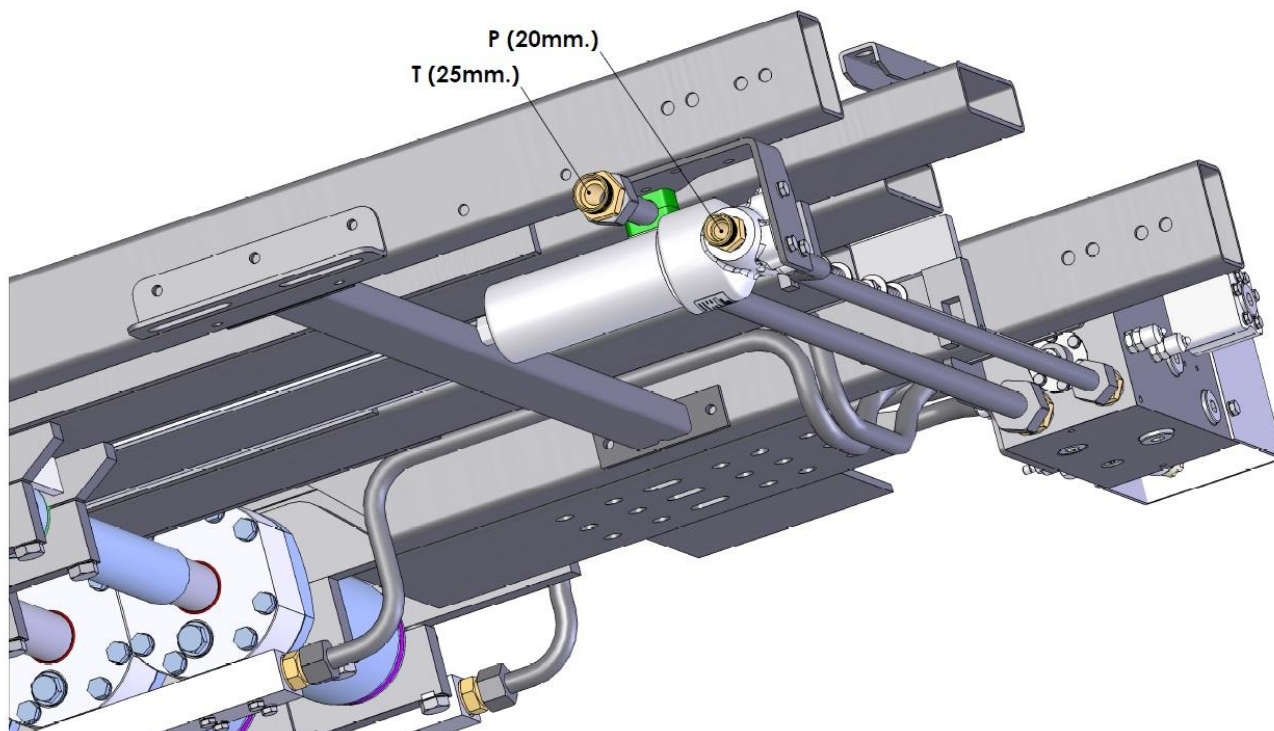


BRACING THE SIDE WALLS

The sidewalls of the Cargo Floor system are not supported since no crossbeams are used. This can lead to buckling of the sidewalls when the system is heavily loaded. This can be avoided by fastening the sidewalls to the chassis. Figure 9 shows how this can be done.

FIG. 9



CONNECTING THE HYDRAULICS
FIG. 10


The Cargo Floor system is supplied as standard with a pressure filter already mounted on the front bridge, see figure 10. There is a hydraulic pressure pipe (20 x 2 mm) already mounted from the control valve to the pressure filter. The 'in' channel of the pressure filter is provided with a straight screw-in coupling 1"x20 mm. Next to this is a hydraulic return pipe (25 x 2,5 mm) mounted from the control valve to the front bridge, ending in a straight connecting coupling 25x25 mm. You can connect the required hydraulic hoses (not included in delivered package) directly to these connectors (the supplied turnbuckles and cutting rings are not required then). If you mount a hydraulic pipe instead of hydraulic hoses then you can use the turnbuckles and cutting rings.

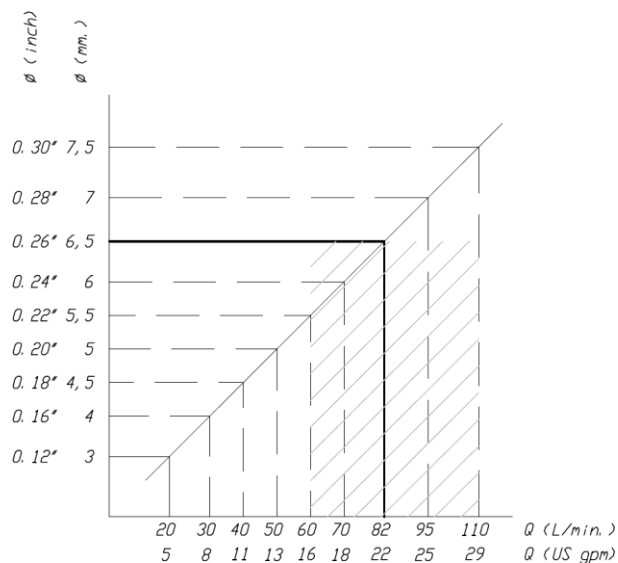
⚠ Important: connecting pressure and return wrongly will cause a malfunction, and damage to, the system.

All hydraulic components need to be carefully cleaned before being connected, making sure that no sealing caps / cleaning wads are left behind.

Try to use as few (square-)angled couplings as possible (as these cause pressure loss, or build-up of return pressure).

After connecting the system it may not be operated. Operation may only be done at the moment that the trailer and floor have been fully built!!!!

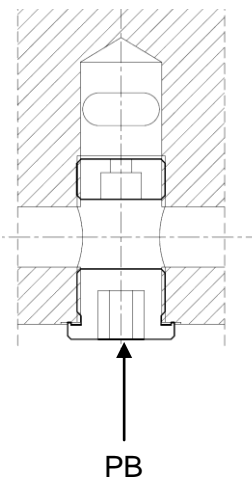
If the E-controlled Cargo Floor system will be operated by different types of pumps or a pump with a low oil flow, it could be that you have to pay attention to mount another type of choke.

FIG. 11


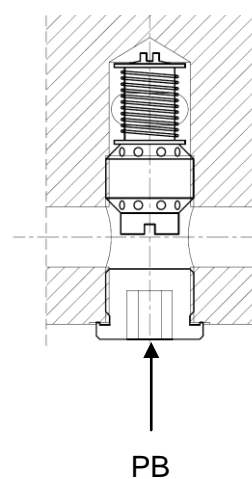
The shading points out the reach of the standard choke. Does only apply with an E-control!

FIG. 12

Standaard choke
DIN 906-5.8-3/4"



Flow indep.
choke Art. no.
7370106



Choke (only with E operated systems!!!!):

There is a standard 6,5 mm [0.26"] choke mounted as standard in the PB channel of the E control valve. This allows the E control valve to function correctly. This standard choke is suitable for an oil flow level of 60 to 110 litres per minute [16 to 29 gpm]. The function of the control valve can be affected by a deviation from this oil flow level. The oil flow diagram (figure 11) shows which level of oil flow is required by which opening. Adjustment of this is possible by simply changing the diameter of the choke.

Known consequences of a wrong choke diameter are:

- Oil flow too low: load/unload operational plunger is not switching, system gets pressure less;
- Oil flow too high: noise in system, high heat dissipation and capacity loss.

Flow independent choke

As an option a flow independent choke can be supplied (variable choke parts no. [7370106](#)). The standard mounted choke can simply be changed with these. You remove the socket plug out of channel PB (Allen key 12 mm) Figure 12. After this you screw the choke out of the channel with allen key 12 mm. Screw the new variable choke in the channel and fasten these by hand (about 15 Nm [11 lbf.ft.]). Screw the socket plug back into channel PB (allen key 12 mm) and fasten these by hand (about 15 Nm [11 lbf.ft.]). Let the floor run (loading and unloading) in order to check if everything is functioning well and no leakage occur. The variable choke has a flow range of 20-110 ltr./min [5 – 31 gpm] ± 10% when using a VG32 and is suitable for a maximal work pressure of 225 bar [3,300 psi].

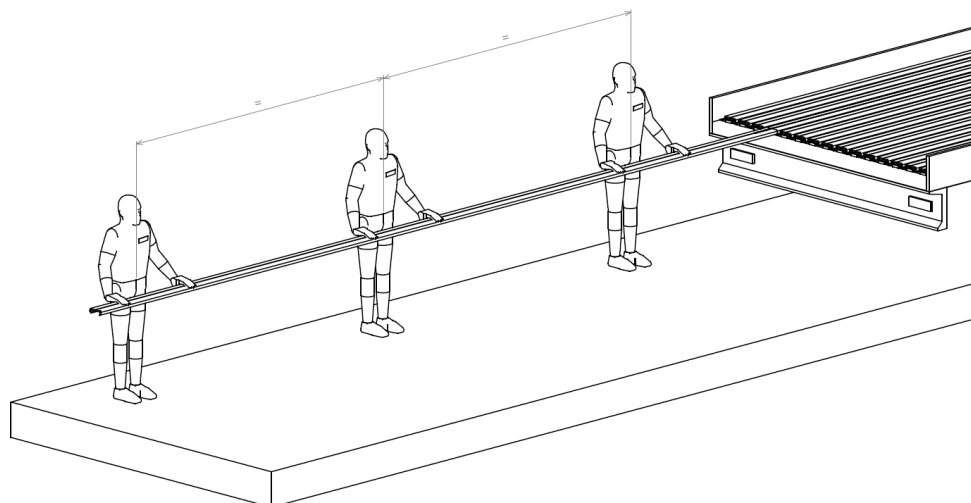


Important: connecting pressure and return wrongly will cause a malfunction, and damage to, the system.

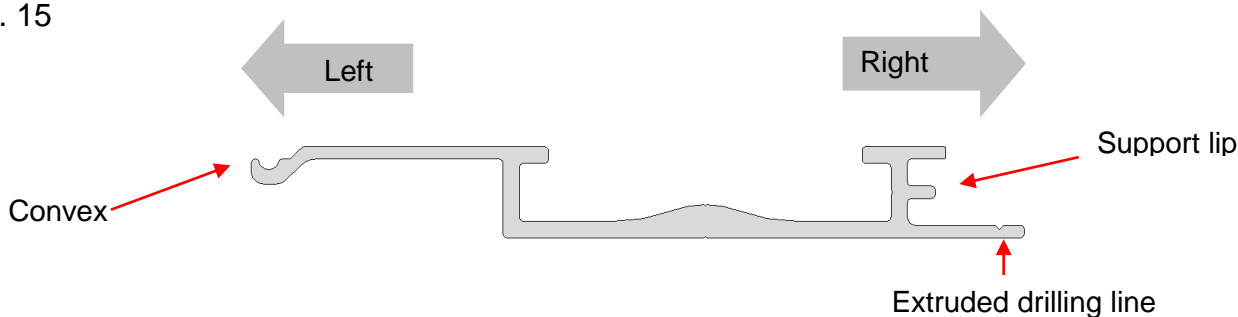
B- control

Another possibility to be independent from a variable oil flow is using a B-control. With this the loading/unloading direction is determined by a handle

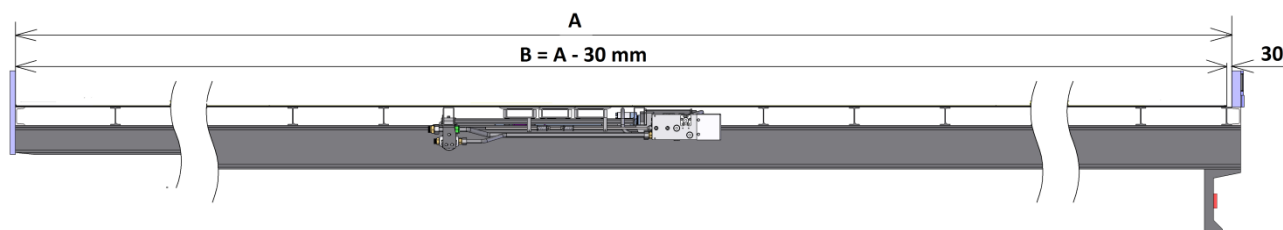
PREPARING THE PROFILES

FIG. 14


During the following activities and preparations you must take into account that the underprofiles as well as the top profiles are handled in such a way that the profile will not bend or be damaged in any other way. We advise to move or tilt the profiles with the help of at least three people.

FIG. 15


DETERMINING THE LEAK PROOF SUBDECK LENGTH

FIG. 16


The length of the T subdeck is determined by the space in the trailer. If possible the measurement from the inside of the head board till the inside of the doors will be leading. We call this measurement **A**. 30 mm. [1.2"] will be deducted from this measurement in order to leave room free at the doors. This we call measurement **B**.

⚠ Attention: If you have anything protruding on the head board or on the doors at the height of the subdeck you need to take this into account with the determining of the length.

CUTTING OUT THE OPENINGS IN THE LEAK PROOF SUBDECK

At the place of the system parts will have to be cut out of the Leak Proof subdeck profiles through which the fingers will protrude.

Assembly of the floor should be done from left to right.

! It therefore is extremely important to take care that the Leak Proof t subdeck profiles are positioned in such a way that at the future rear side of the floor the convex is left of the driver side and the support lip is on the right.



FIG. 17

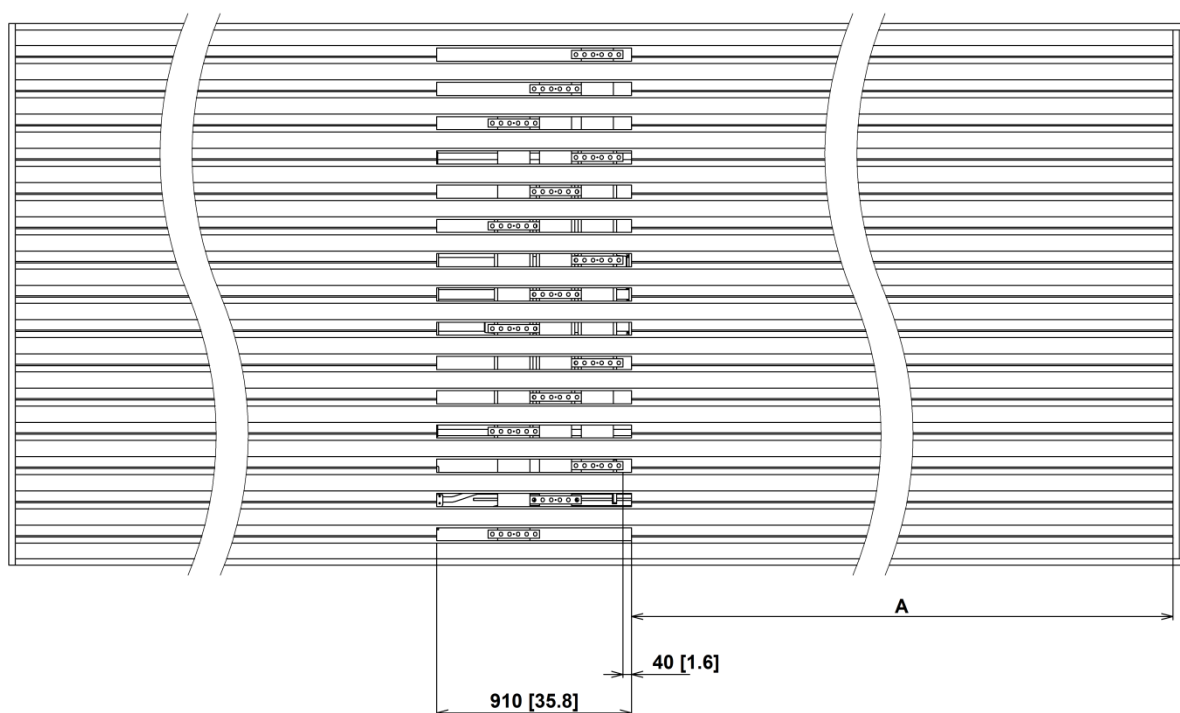


FIG. 18

The opening will be in total about 62 mm. [2.4"] wide

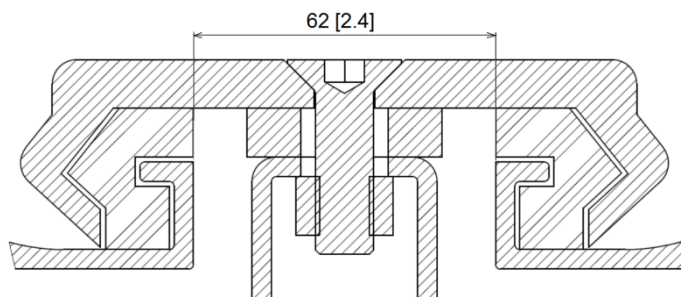
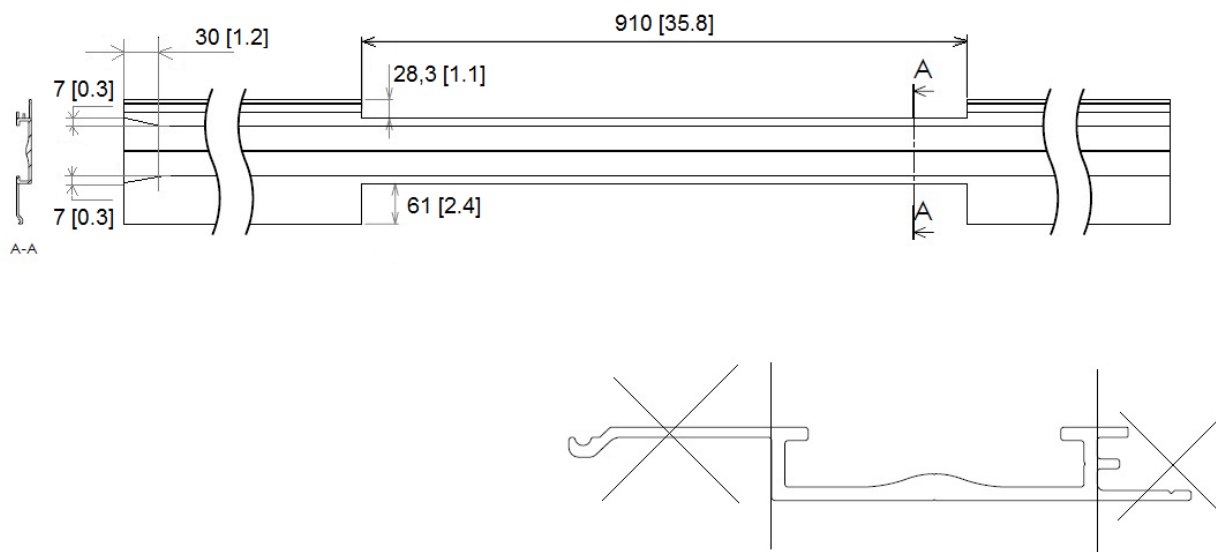


FIG. 19


For the position of these openings in the Leak Proof subdeck profile you can use the measurements in fig. 19. With the left **side** profile a cut away only needs to be made on the right side and with the right **side** profile a cut away only needs to be made on the left side. All the other profiles need a cut away on both sides. Position and length of the cut away are the same for every under profile.

In order to simplify the sealing or welding to the headboard at a later stage we advice to remove pieces of the T-shape at the head board side of the profiles (fig. 19).

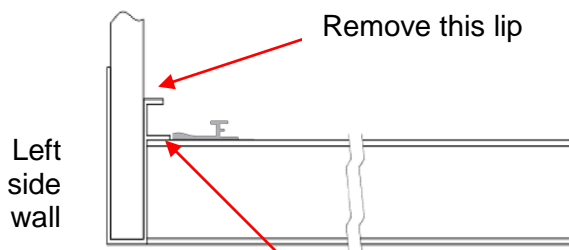
⚠ Attention: after taking out the parts that were cut out of the profiles, the profiles will be weaker at this point, pay attention to [fig. 14](#) in order to prevent bending.

DETERMINING THE RIGHT WIDTH OF THE SIDE PROFILES

Now the width of the **left** side profiles need to be determined. The method to do this is displayed in fig. 21 A. Pay attention to your under wall profile, this could possibly be an obstacle when determining the width, see fig. 20.

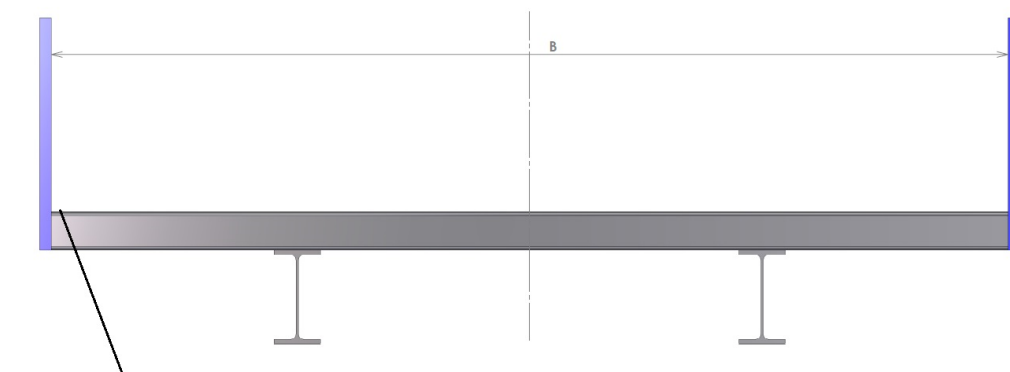
⚠ For the calculation it is important to determine beforehand if one will use sealant or weld the borders to the walls. The choice can affect the width of the seam to the wall. It is further important to realize that the seam between under floor and wall needs to be watertight. The method you pick is not determined by Cargo Floor.

FIG. 20



This lip needs to be taken into account with the width and the length of the subdeck profiles!!!

FIG. 21 A



Start with mounting on the left side

FIG. 21 B

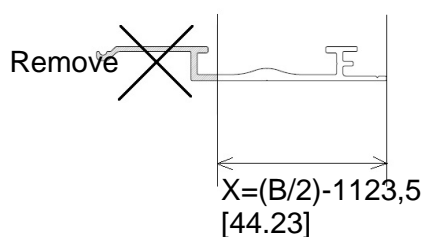
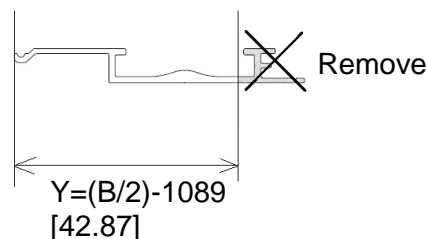


FIG. 21 C



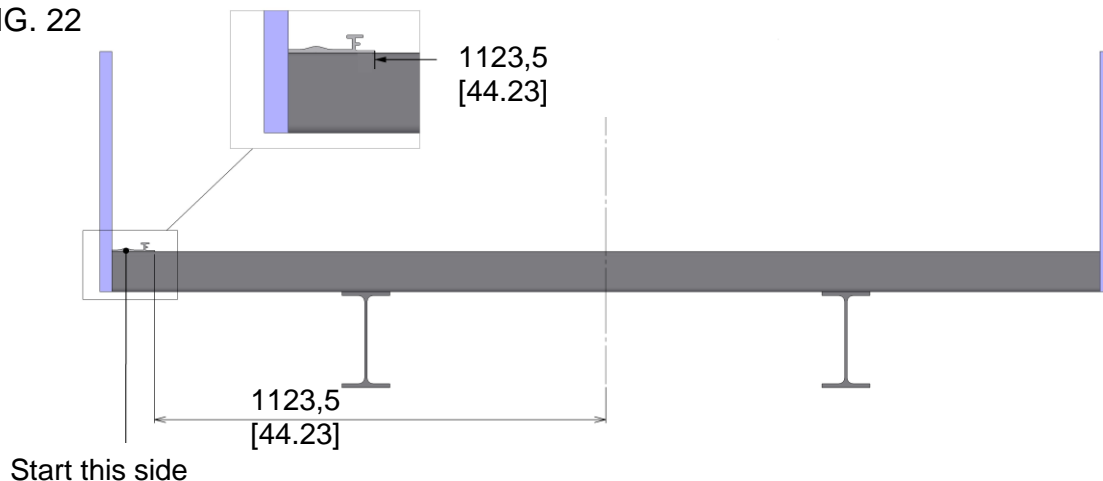
You divide the available room (pay attention to the obstacles and the chosen seam width) between the walls by two and deduct for the left profile 1123,5 mm. [44.23"] from this value. The value that remains is the width of the left side profile.

The best thing to do with determining the width of the right side profile is to do this after mounting all the other floor parts. By doing this you prevent that the actual size is different from the theoretical due to the application of various tolerances. We did however put a theoretical measurement in fig. 21 C.

PLACING AND MOUNTING THE FIRST UNDER FLOOR PROFILE

The first profile that needs to be mounted is the lengthwise sawed through side profile. These should be mounted at the 1.123,5 mm. [44.23"] measurement from the centre line of the trailer. Do check this measurement very meticulously at various places before fixating the profile. If this profile is not positioned properly it will affect all the other profiles as well.

FIG. 22



After placing the side profile it can be fixated. In order to prevent moving of the profile during fastening you can fixate the profile temporarily at several places by using glue clamps.

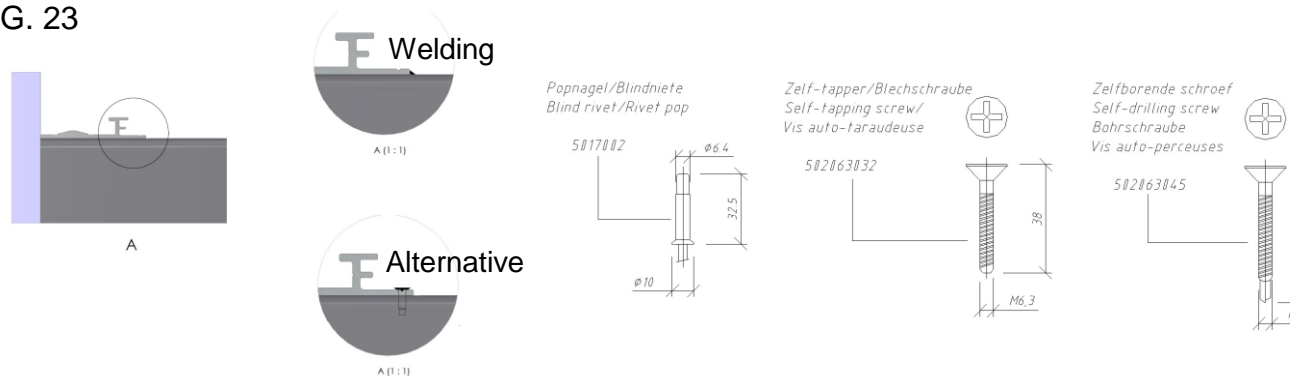
Now you can fasten the side profile to the crossmembers. You can do this with self drilling bolts, monobolts, nails for a nail gun or welding (see fig. 23). Ask your supplier of fastening materials for advice of possible alternatives. We do not advice rivets fully made of aluminium, these are not strong enough. Only rivets with a steel core are suitable (so called monobolts).

In the profile a drilling line has been extruded so you easily can determine the centre of the hole that needs to be drilled. Fasten the profile to every cross member.

Welding the profile needs to be done with a weld with a length of minimal 30 mm. [1.2"] and with an a=3.

⚠ The fixation of these under profiles will be under greater strain as the chassis is more flexible. Please take this into account when fastening.

FIG. 23



Check after fixation of this profile the measurement to the centre of the trailer again. The position of this profile is very important because is the reference for all the other under floor profiles. Now the other profiles can be mounted.

SECURE THE OTHER UNDER FLOOR PROFILES

The next under floor profile can now be mounted with the convex in the support lip as shown in fig. 25 & 26. The convex to needs to be provided with a weld of sealant that comes well above the cavity and is done over the full length, except the first 50 mm. [2"] on the head board side and the last 50 mm. [2"] at the door side (fig. 24). (The first and last 50 mm. [2"] should be welded shut.)

After this the profile can be slid into the already present profile. Check if the profile is placed correctly with the help of the positioning jigs.

When this profile is placed at the correct place, then this profile also can be fastened to the crossmembers. You can do this with self drilling bolts, monobolts, nails for a nail gun or welding (see fig. 23). Level of the protruding sealant and if necessary refill so the top V groove is filled. Both ends should be sealed after the V groove is welded shut at the front and backside over a length of 50 mm. [2].

FIG. 24



FIG. 25



FIG. 26



The next profiles can be placed and mounted in exact the same way. Check every time after mounting the profiles the measurements as shown in fig. 27 & 28.

FIG. 27

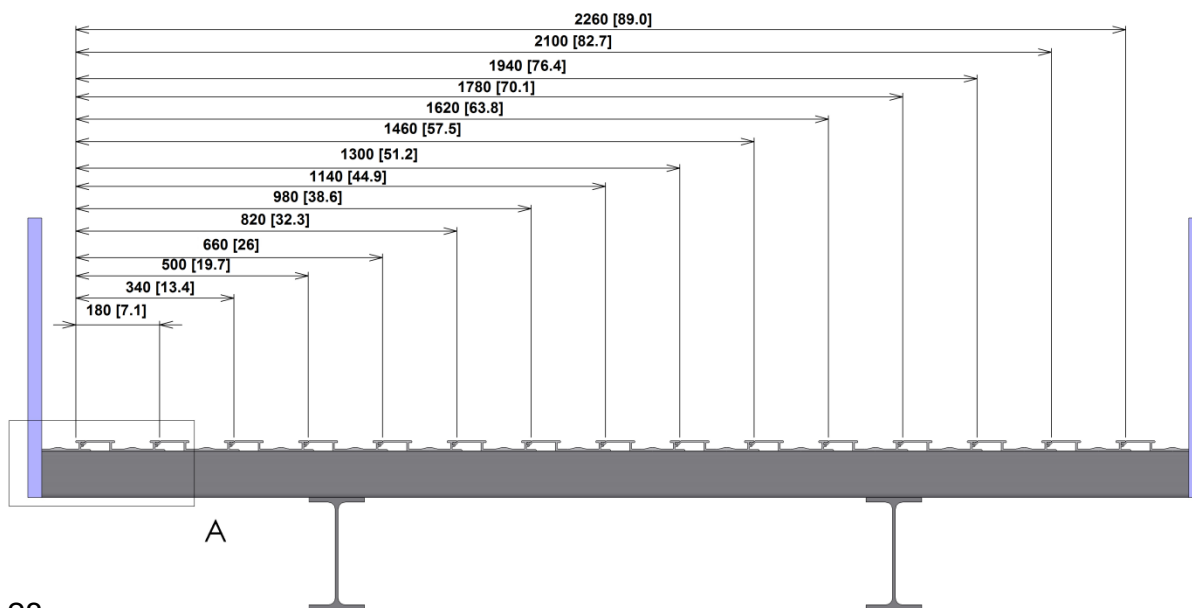
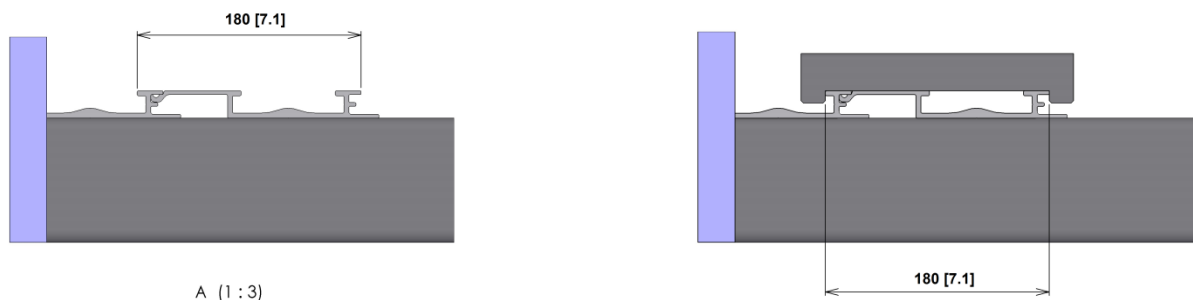
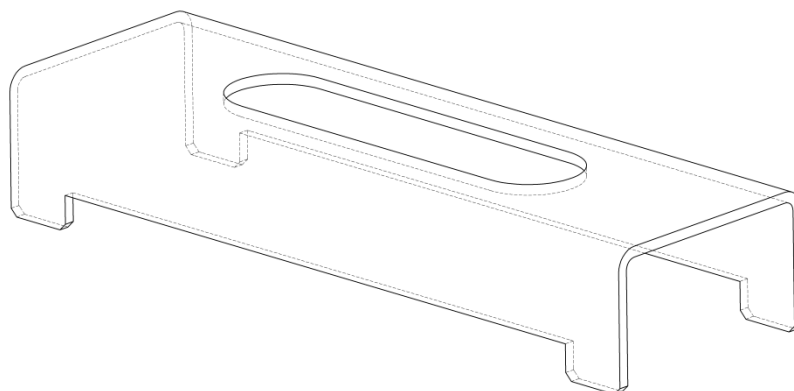


FIG. 28



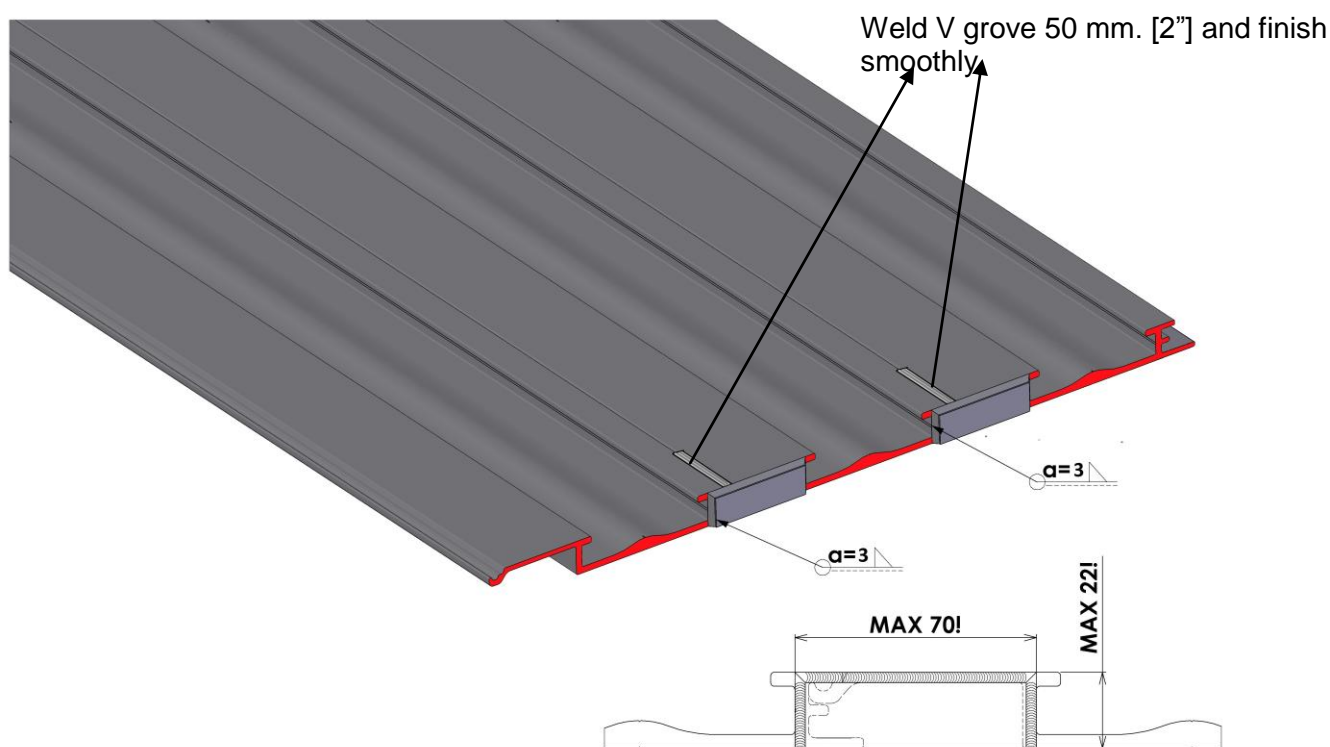
With the three positioning jigs (parts no. 9111205) with an internal measurement of 180 mm. [7.1"] one can, at various places, check if the convex and the support lip have gone into each other in good order.



When the complete mounting of the under floor has been done one needs to take care of making a watertight connection all around the floor between the under floor and the other components of the trailer. All seams and openings need to be closed by using sealant or welded shut.

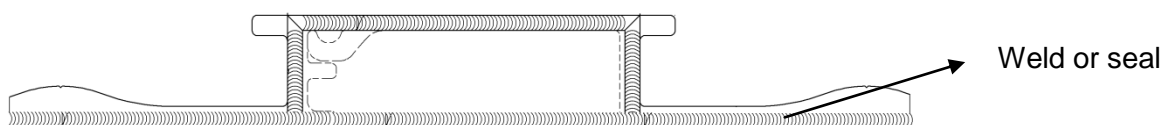
- ⚠ **You start at the rear side by welding a plate (measurements aluminium plate 60x20x3 [2.35"x0.8"x0.12"]) over the opening of the T-shape as mentioned in fig. 29 A. The weld may not stick out of the T-shape.**
- Also you weld the first 50 mm. [2"] of the v groove shut; afterwards this weld needs to given a smooth finishing.**

FIG. 29 A



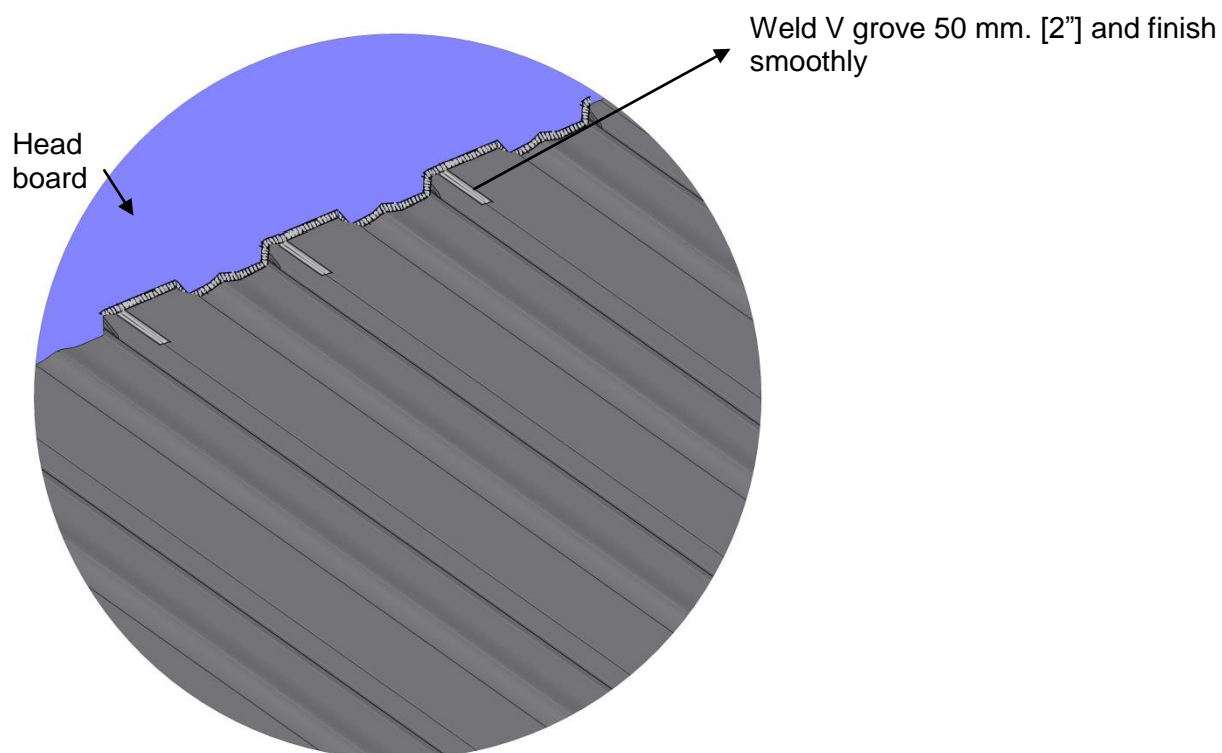
After the sealing of the T-Profile the complete rear seam can be welded or sealed from the under floor to the rear beam (fig. 29 B).

FIG. 29 B



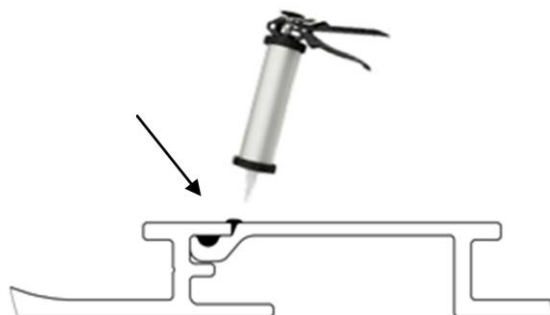
At the head board side the under floor can be welded or sealed by following the outline (fig. 29 C). Also the v groove needs to be welded shut the first 50 mm. [2"] at the head board side and has to be given a smooth finishing.

FIG. 29 C



Now the seam between the side profiles and the walls can be sealed or welded. After sealing all around all the under floor profiles the seam on top of the convex needs to be checked if the is sealing sufficiently. It could be possible that at a number of places the seam needs to be sealed further (fig. 30).

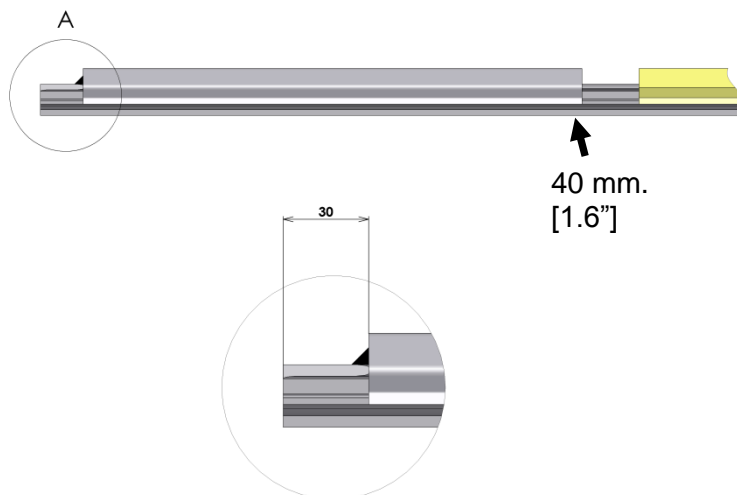
FIG. 30



MOUNTING THE PLASTIC BEARING PROFILES

After mounting and finishing the aluminium T subdeck floor a start can be made with the assembly of the plastic bearing profiles and the aluminium endstops t subdeck LP floor (350 mm. [13.8"]). The aluminium endstops are mounted at the head board side and the door side. First an aluminium endstop of 350 mm. [13.8"] is mounted near the head board, this end stop is fully pushed to the front until 30 mm. [1.2"] in front the head board. Because of this there will be room to weld it to the under floor. The endstop at the head board side needs to be welded to the T subdeck with a weld a=6 (fig. 31).

FIG. 31



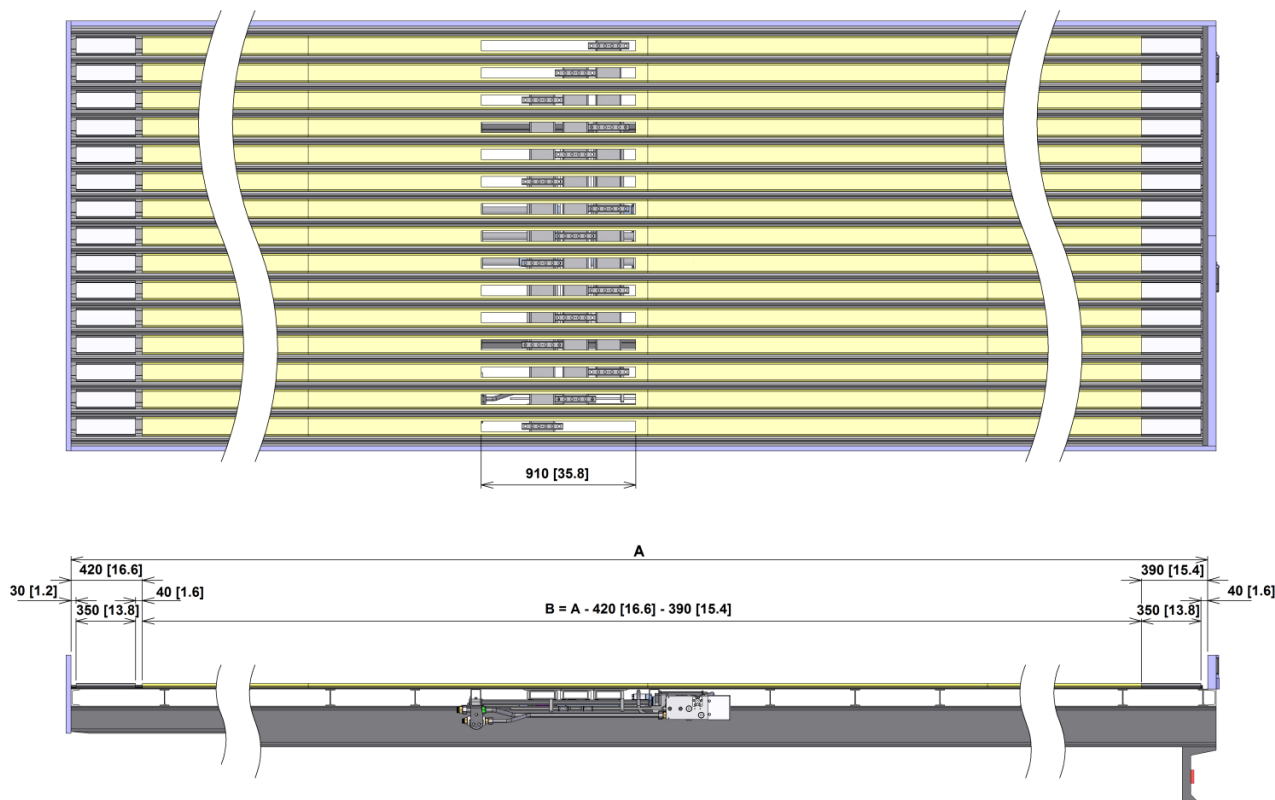
Next you can simply slide the plastic bearing profiles (parts no. [4107022](#)) over the T-profile of the subdeck floor. The aluminium endstop and the plastic profiles can be slid over the fingers of the system.

By placing multiple plastic profiles after each other next the place for the opening of the fingers can be determined.



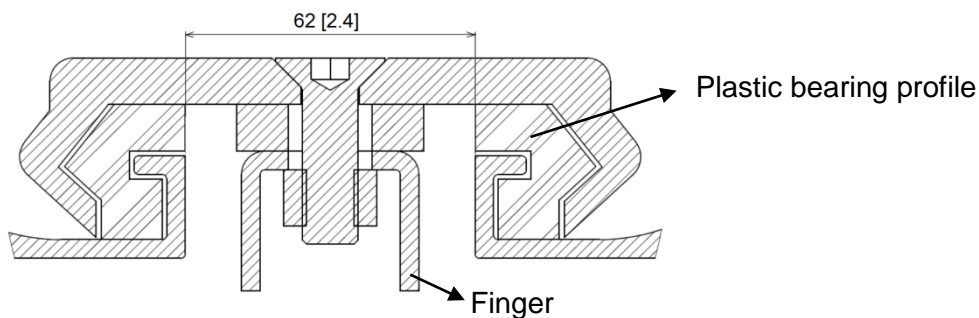
Pay attention to that a room of 40 mm. [1.6\"] remains at the head board side between the endstop and the plastic bearing profile.

FIG. 32 A



Near the finger an opening in the plastic needs to be cut of 910 x 62 mm. [35.8" x 2.4"] (fig. 32 A & B). Fill the full length further with plastic bearing profile until the door side.

FIG. 32 B



The plastic will be closed in at the door side by an aluminium endblock that needs to be welded with a wide weld at the top side of the T of the t subdeck floor. **The aluminium endblock is placed 10 mm. [0.4"] from the end of the t subdeck floor (fig. 33 B).**

FIG. 33 A

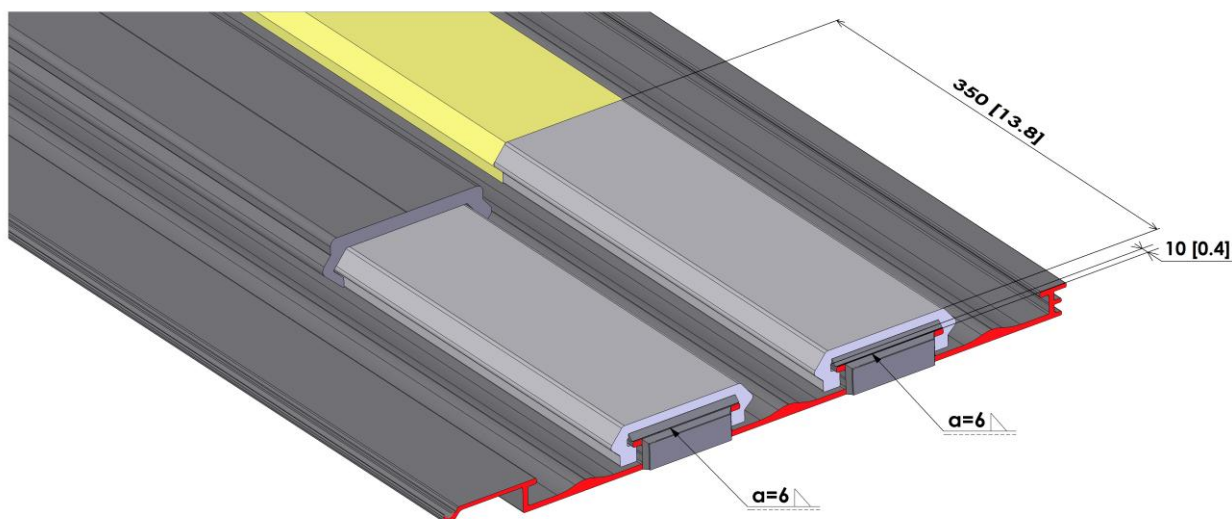
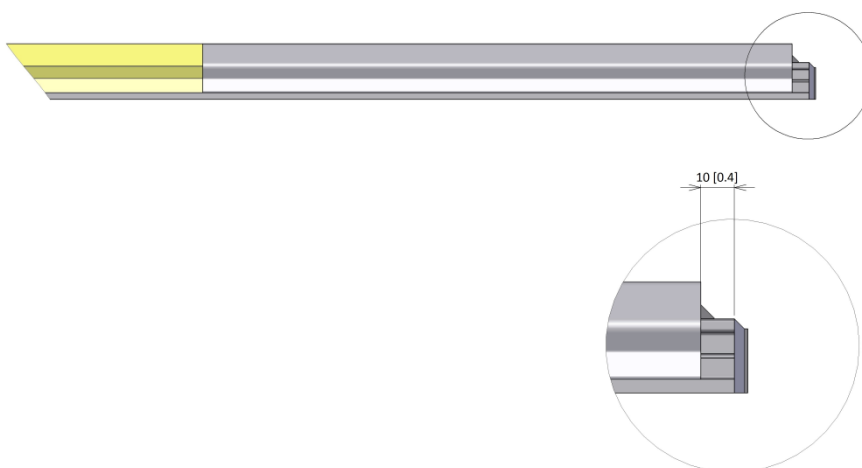


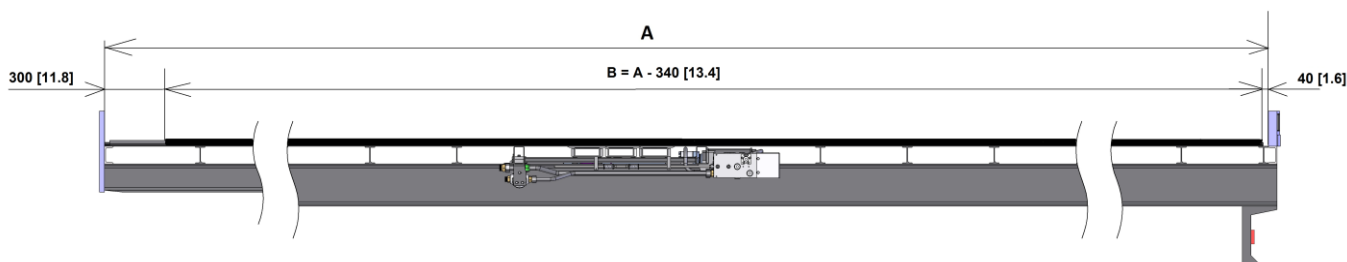
FIG. 33 B



DETERMINING THE LENGTH OF THE TOP PROFILE

When calculating the length of the Leak proof deckslat floor profile you need to use the following calculation. You measure again the inner length of the trailer (length A). Deduct the stroke length of the cylinders (-200 mm. [7.9"]). Next to this a space of 100 mm. [3.9"] in the direction of the head board must be kept clear (in order to prevent material getting squeezed). The space to the doors needs to be 40 mm. [1.6"] This results in the following equation: $A - 200 - 100 - 40 = A - 340$ mm. [$A - 7.9'' - 3.9'' - 1.6'' = A - 13.4''$]

FIG. 34

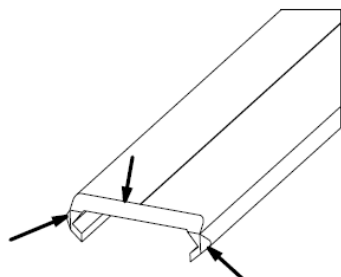


⚠ Before the deckslat profiles are mounted into the trailer these will have to be rounded-off (beveled) at the head board side (fig. 35).

FIG. 35



Alleen deze zijde
Only this side
Nur diese Seite



TRANSFER EXECUTION

We are talking about a transfer execution if the trailer is build in such a way that the trailer is loaded at the same place (usually the rear side) and the load is distributed over the full length of the trailer (to the front) using the Cargo Floor system.

With this there are a number of differences with regards to the regular transport which should be taken into account: loading with the doors closed, longer switching on of the system, the loading function is used more often, pushing against the head board with possible an application with an electro hydraulic unit and multiple loads / unloads per day.

When mounting the system to the chassis long term and changing large forces should be taken into account. Also a strengthened headboard needs to be used where the load is pushed against.

Mount wedges at the inside of the doors, so the load does not get in-between the end of the profiles and the door and the material does not get compacted. The profiles should remain under the wedges of the doors in the stroke (fig. 36 A).

Alternatively the wedge can be omitted, but then the following guideline needs to be executed:

The profiles need to be bevelled at the rear as well as the front side. If no wedged is used at the door side the profiles also need to be shortened with 100 mm. [3.9"] at the door side, identical to the head board side (fig. 36 B).

If a running head board is present the tarpaulin needs be hung before the loading starts. The head board in this case can not be used.

FIG. 36 A

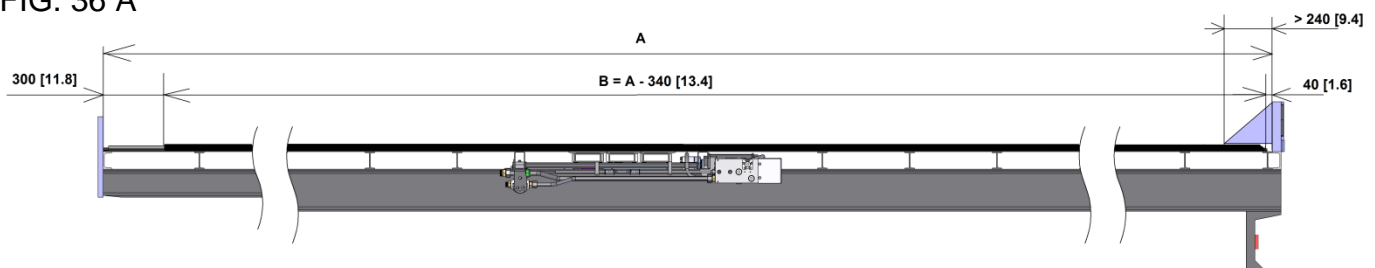
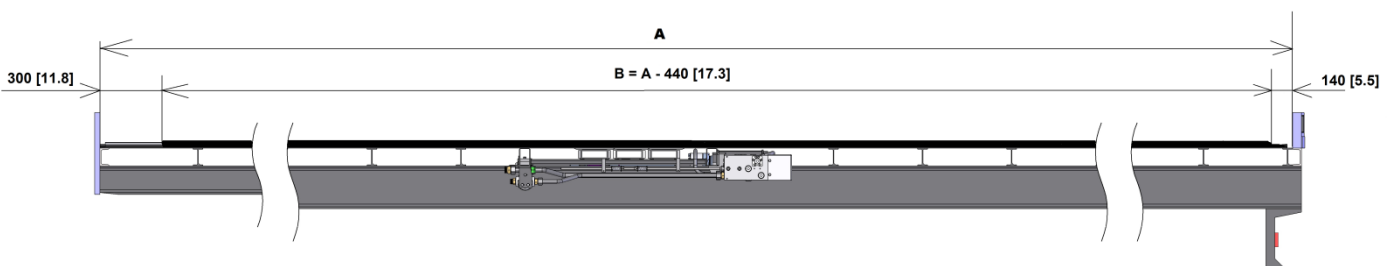


FIG.36 B

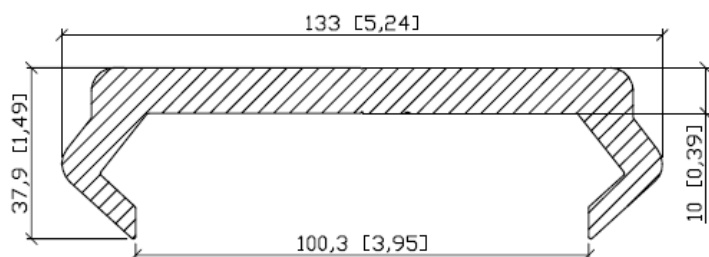


Attention!!! With specific or exceptional use a larger oil supply needs to be present than the normally advised 150 litre [39.6 US gallon].

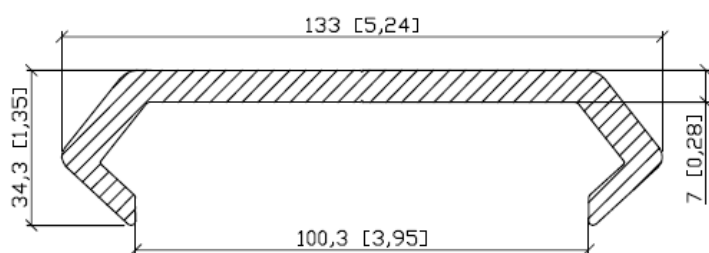
Other points of attention with regard to the system are:

- Use HD cylinders and massive rod bearing;
- Brace the system and fasten it extra;
- Mount the profiles with 6 screws.

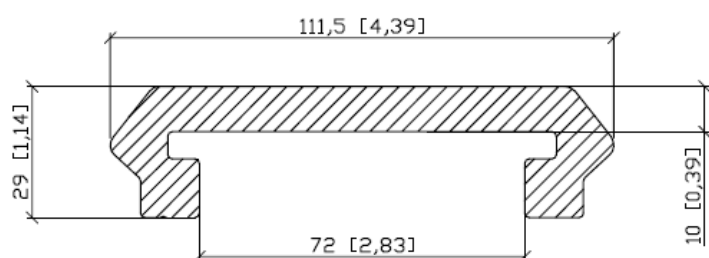
PROFILES



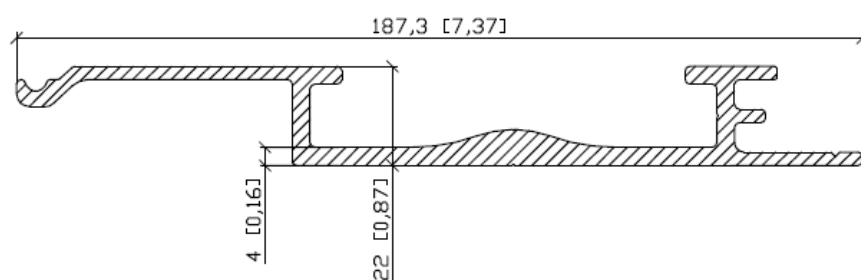
10/133 Leak Proof Deckslat HD (Heavy Duty)
Artikelnr. : 89.3497



7/133 Leak Proof Deckslat Standaard
Artikelnr. : 891.4460



Aluminium eindstop T-subdeck LP vloer
Artikelnr. : 5448006
L=350mm

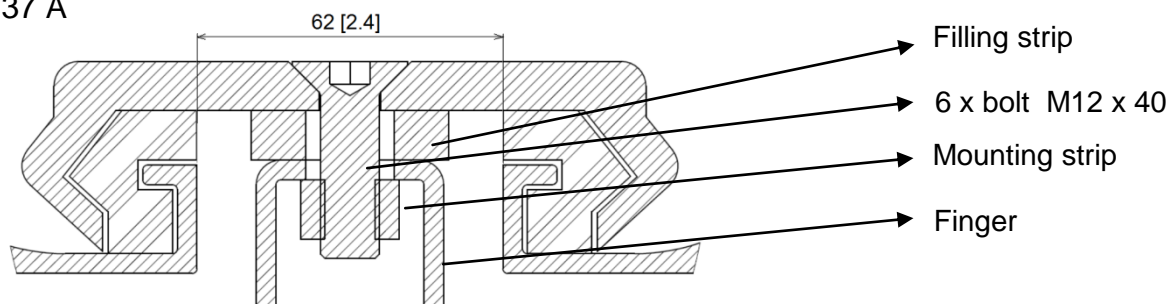


Alu 8/160 Leak Proof T subdeck (Slide-in)
Artikelnr. : 871.5177

DRILL MOUNTING HOLES IN THE PROFILES

The profiles need to be fastened with **6 bolts**.

FIG. 37 A



First you need to determine the holes in the profiles, see fig. 37.

Check if all the cylinder are completely pulled in. You can check this as following: the piston rods may not protrude more than 5-10 mm. [0.20-0.39"] out of the plastic bearing block.

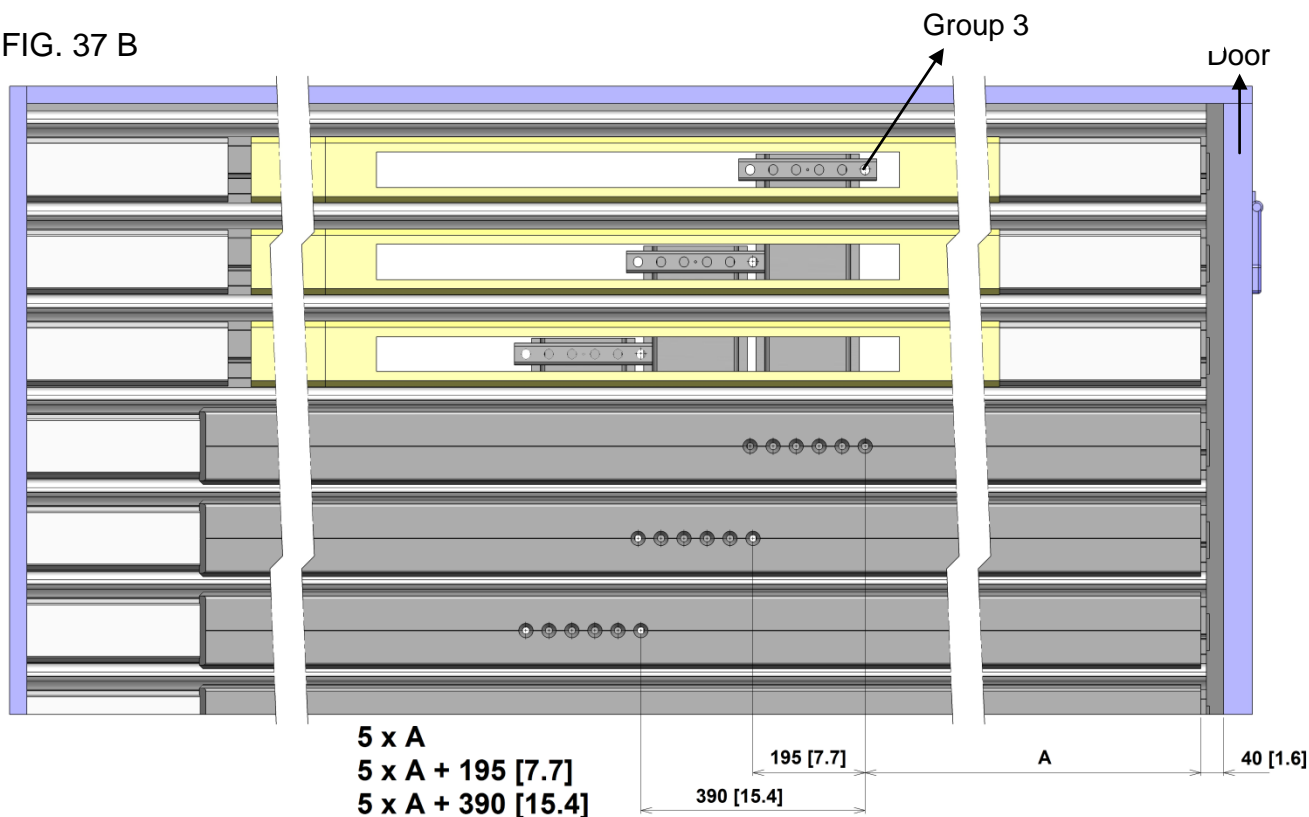
The position is determined by measuring from the inside of the door till the first hole of the fingers for the third group. Deduct this measurement with 40 mm. [1.6"] and you have determined measurement A. Mark on the 5 profiles of the third group the spot of this first hole on the top side of the profile.

The five profiles of group 3 will have the hole patten on distance A.

The five profiles of group 2 will have the measurment A + 195 mm. [7.7"]

The five profiles of group 1 will have measurement A + 390 mm. [15.4"]

FIG. 37 B



Cylinders should be fully pulled in

DRILLING THE HOLES IN THE FLOOR PROFILES

The holes in the floor parts need to be drilled before these are placed. One needs to pay attention to the fact that the holes must be drilled staggered due to the differing distances of the moving frame feet in the drive system (see figure 37).

- Drill 6 holes of $\varnothing 4.5 \text{ mm.}$ [0.18"] with the aid of the drill jig (fig. 38) on the top side of the floor profile ensuring the centre of the holes line up with the reference line. Then bore out the holes, from the same direction, to about $\varnothing 12.5 \text{ mm.}$ [0.5"]
- Next the holes need to be countersunk from the top side using a good countersink bit according to the specification G136 HSS DIN 335 C, code 13628.0 (figure 39) Make sure that the hole is countersunk to the right depth; the bolt head must not stick out above or under the floor profile. See figure 40.

FIG. 38

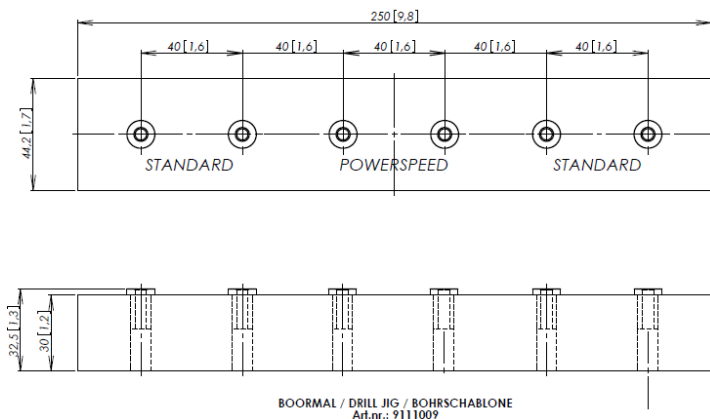


FIG. 39

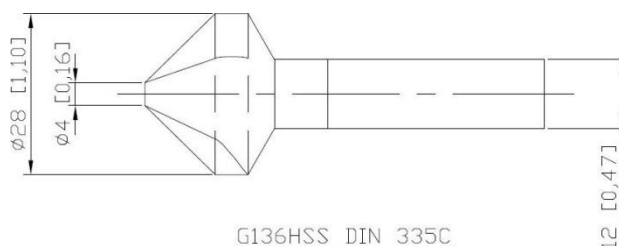


FIG. 40

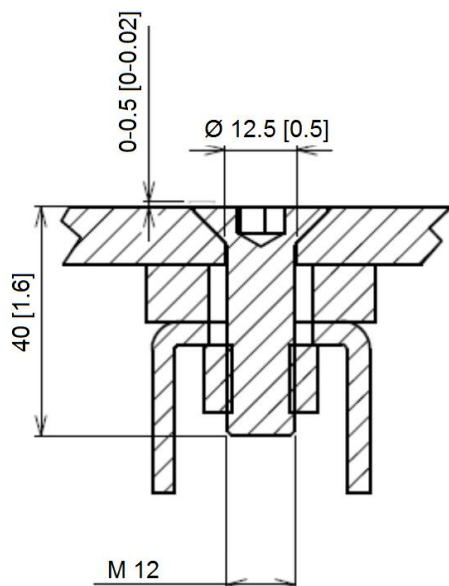
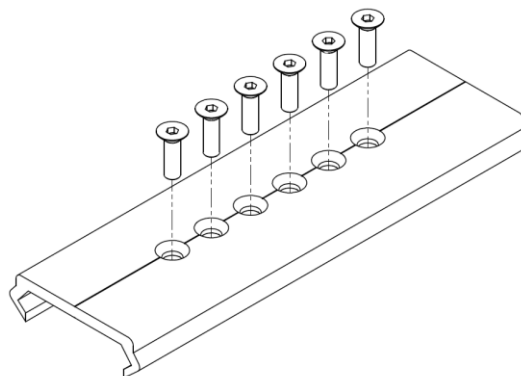


FIG. 41



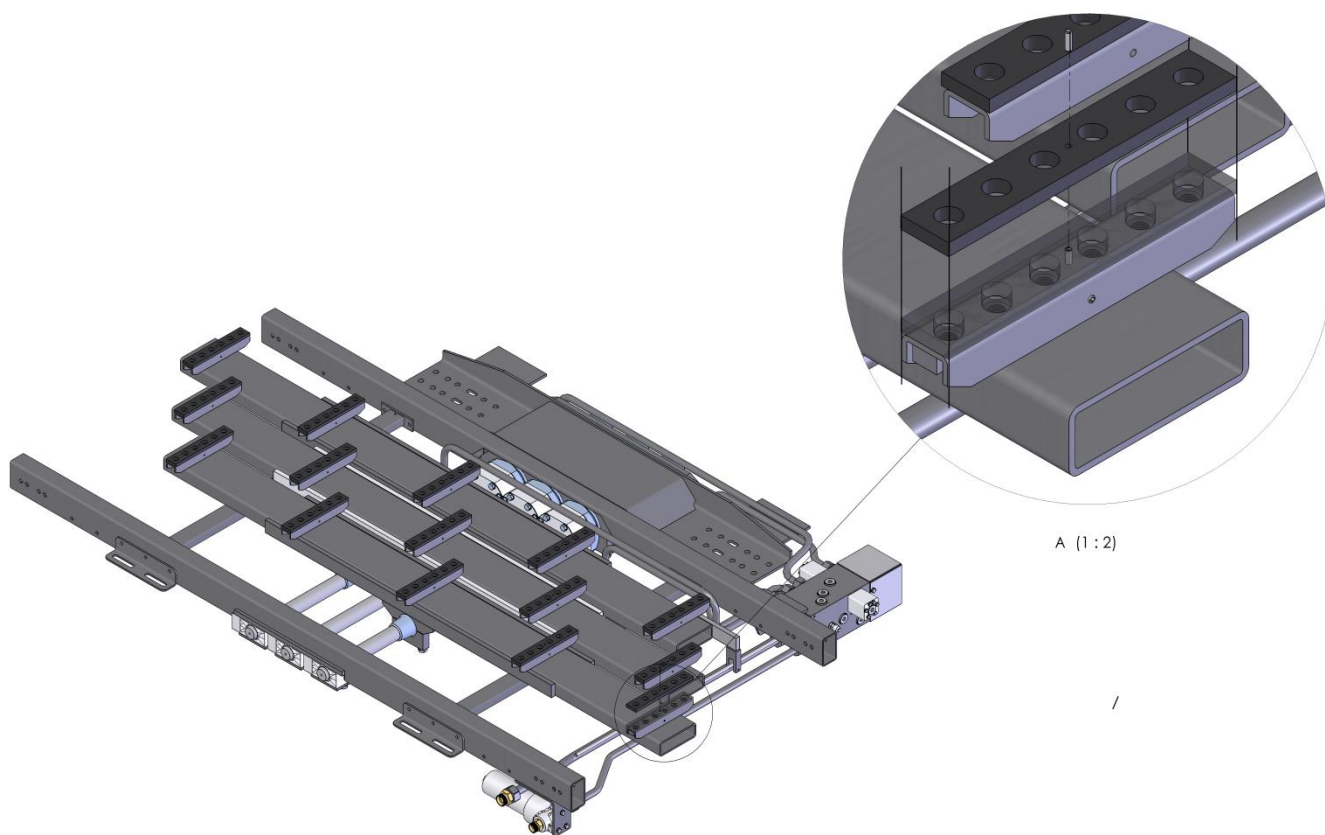
SECURING THE FLOOR PROFILES TO THE DRIVE UNIT

15 filling strips have been supplied with this **CF500 SLC Leak Resist* “Centre Drive”** system, which, with help of the roll pin, should be mounted on the finger before the profiles are mounted in the trailer. See fig. 42.

After this the profiles can be slid over the plastic bearing. You need to carefully guide the floor profiles during the mounting procedure. Next, mount the provided M12x40 bolts with countersunk head using (Allen No. 8). Each profile needs to be fastened with 6 bolts and a torque of 100 – 140 Nm [72 – 105 lbf.ft.] should be used to tighten the bolts. One person can do this from above, and the bolts need to be well tightened.

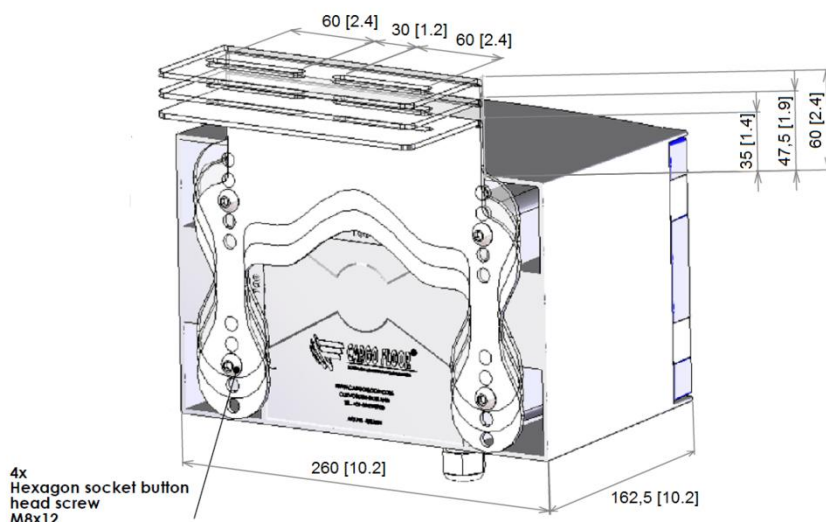
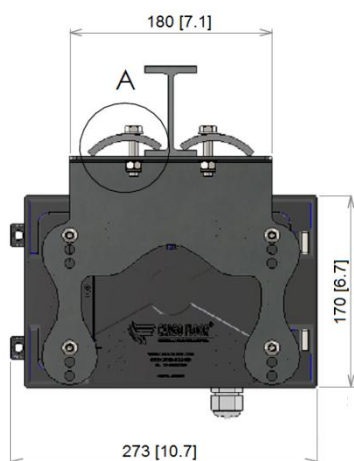
⚠ Every bolt should be fitted with Loctite (Loc-tite 243 cat.o. 23286 screw thread locker).

FIG. 42



MOUNTING THE CONTROL BOX AND THE ELECTRICS

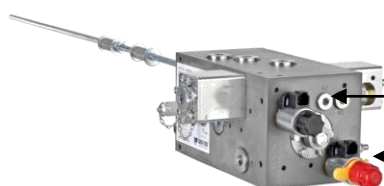
The control box can simply be mounted, without drilling holes, to your own mounting construction or on the mounting bracket that can be supplied as an option. This mounting bracket can, depending on the shape of the cross members, be mounted without drilling holes with the supplied clamping plates. The mounting bracket has three heights for mounting the control box. Also the, optional, wireless remote control RX/TX can simply be mounted into the control box, with the E-control as well as the E-control.



E-CONTROL

With the E-control the controlbox CF7 is provided with 3 electrical cables:

- 1x 2 core connection cable for the power supply. The brown cable needs to be connected to the 24V+ and the bleu cable to the 24V-.
- 1x 2 core cable with premounted black plug Deutsch for solenoid GS02 on/off;
- 1x 2 core cable with premounted grey plug Deutsch for solenoid G02 unloading/loading;



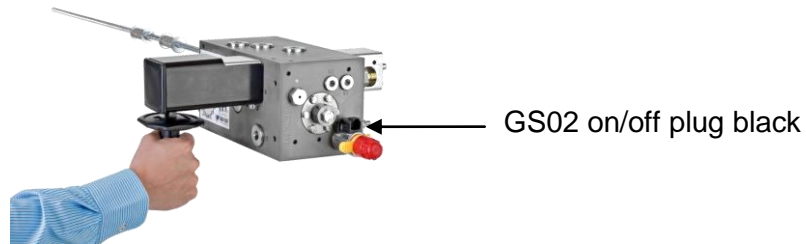
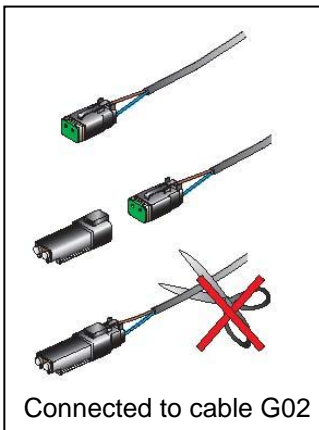
→ G02 unloading/loading plug grey

→ GS02 on/off plug black

B-CONTROL

With the B-control the controlbox CF3 is provided with 3 electrical cables:

- 1x 2 core connection cable for the power supply. The brown cable needs to be connected to the 24V+ and the bleu cable to the 24V-.
- 1x 2 core cable with premounted black plug Deutsch for solenoid GS02 on/off;
- 1x 2 core cable with premounted grey plug Deutsch G02 equipped with a wattertight end cap and sticker "do not cut".



It is important that the watertight plugged cable with plug is mounted, but not can nor needs to be connected. This cable and plug need to be fastened somewhere near the control valve. The mounted watertight plug may not be removed.

THE MOVING HEADBOARD

The moving headboard can be made from sidewall profiles reinforced by an edge profile. It is also possible to use a frame with a tarpaulin as a moving headboard. It is the best to hang the headboard on two Cargo Rollers, Heavy Duty, 6 wheels with bi-directional cleaning device in the rails (parts no. [5165003](#)), see figure 31, mounted on the top edge of the trailer. Many aluminium top edges have this rail already integrated. Mount the rails at the same width as the width of the trailer.

The moving headboard needs to be fastened to the Cargo Roller with at least 3 lengths of chains and take care that the hanging point is directly under the roller, so that the headboard can move freely and the Cargo Rollers won't jam.

The moving headboard needs to run free on both sides of the side walls, about 25-30 mm [1"-1.25"].

Brushes or rubber flaps can be mounted between the headboard and the sidewalls to avoid leakage and to keep the sidewalls clean.

The side walls need to have a smooth surface to the headboard won't get caught.

FIG. 30

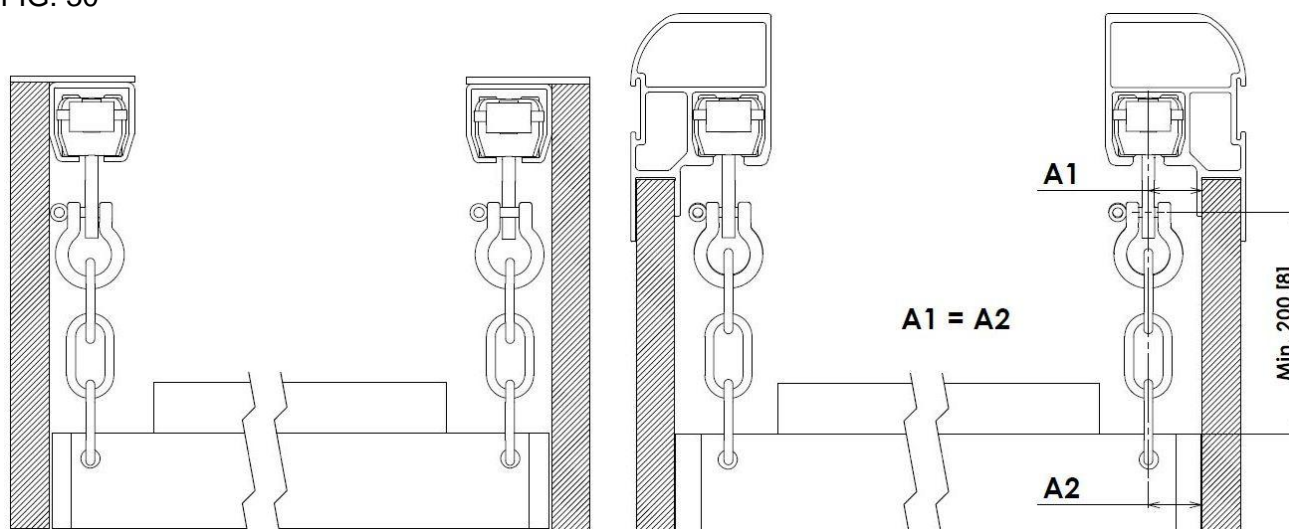
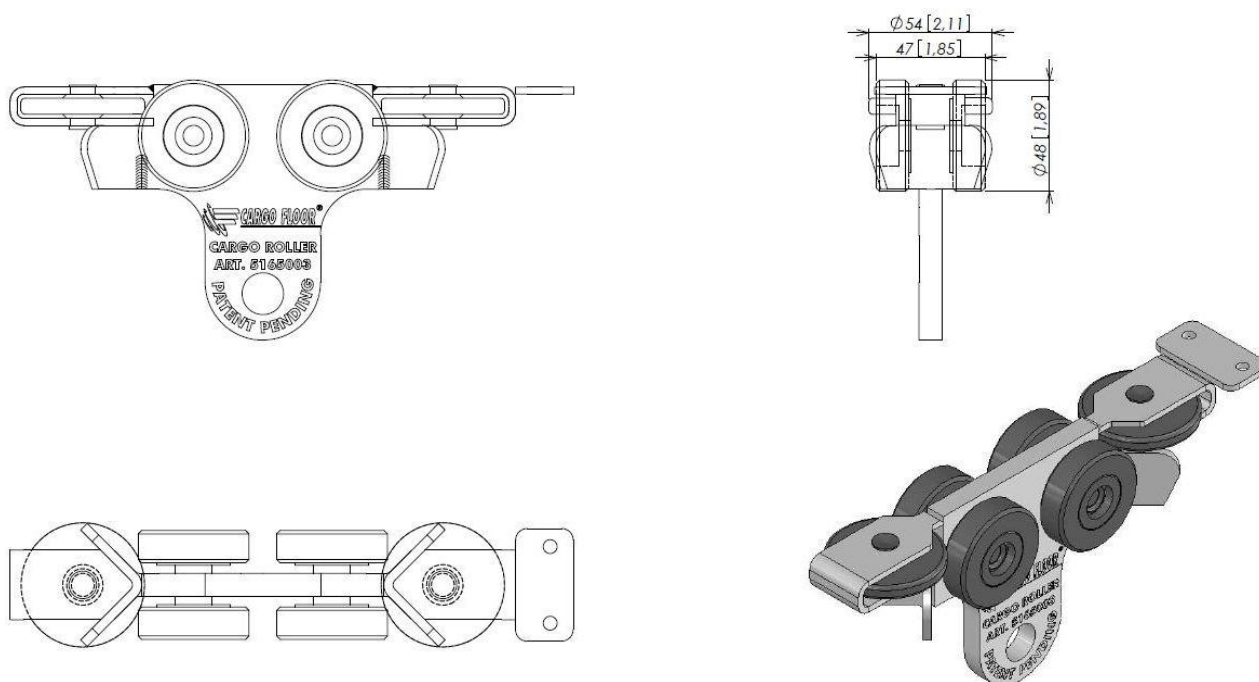


FIG. 31

Cargo Roller, Heavy Duty, 6 wheels with bi-directional cleaning device (parts no. [5165003](#)).



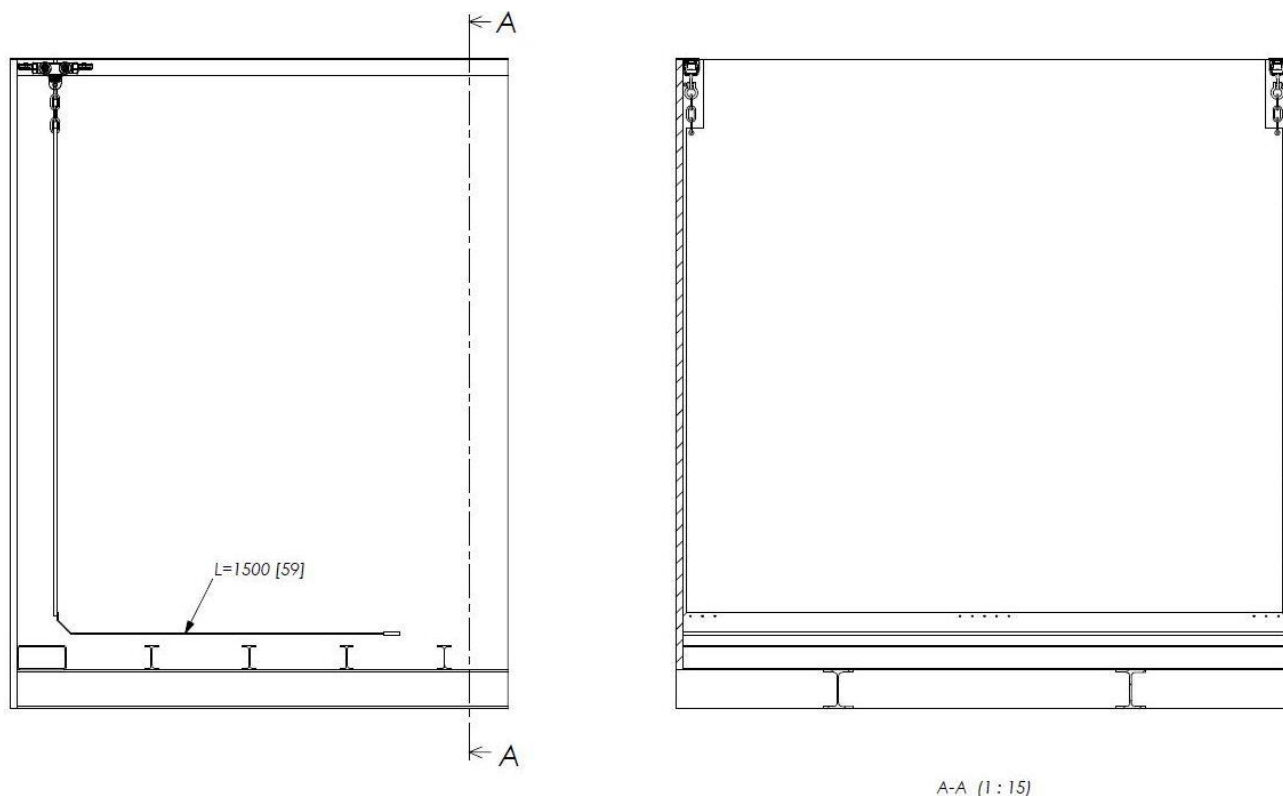
THE MOVING HEADBOARD TARPULIN

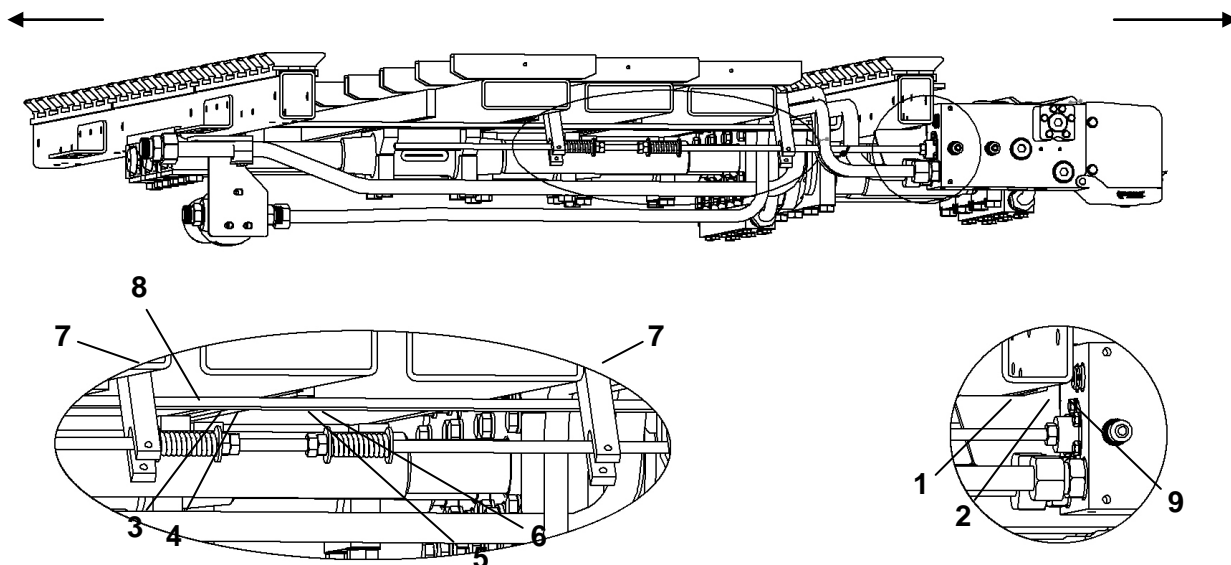
In order to allow the headboard to move with the load, a tarpaulin is fastened to the underside of the moving headboard, see figure 32. A section of this tarpaulin (about 1250 mm [4']) needs to lie on the floor. This section of the tarpaulin needs to be fitted with one or more pine (wood) planks. The planks are located in loops of the tarpaulin or the tarpaulin is fastened between the planks.

The tarpaulin is clamped between these planks. The fastening bolts/screws need to be well countersunk so as to ensure that they do not come in contact with the moving floor.

Attention: These planks are about 20 mm. [0.79"] shorter than the smallest internal width of the loading space of the container.

FIG. 32



ADJUSTMENT OF THE THREADED ROD OF THE STEERING VALVE
FIG. 33
Front side trailer
Rear side trailer


All Cargo Floor systems have the threaded rod set and are fully tested. You therefore do not need to adjust the threaded rod, but in certain circumstances (f.e. certain repairs) it may be necessary to check or adjust the setting of the threaded rod. If switching spontaneously doesn't go normally anymore, then please make a good assessment first why this has happened before changing the adjustment.

Attention: when adjusting the threaded rod take care only to touch the rod when the pump is turned off. It not the risk of entrapment arises!!!

Necessary tools:

- 2x spanner 17;
- High viscosity oil;
- Copper grease;
- Steel brush.

Check that the threaded rod (1) is fastened securely to the switching valve, with pressing and pulling the stroke is exactly 12 mm. [0.5"].

If not, then screw the threaded rod (1) as far as possible into the plunger and secure this with the contra nut (2) (spanner size 17). Loosen nuts (3 and 4, spanner size 17) and move these about 3 cm [1.25"] in the direction of the rear of the trailer.

Now switch the pump on while you are at a safe distance. The system will start to move and stops automatically at the point where the command lip (7) no longer operates the switching valve, because the spring (8) is no longer pushed. Switch off the pump immediately.

Now push the threaded rod (1) in the direction of the front side of the trailer until the spacer ring (9) touches the control valve.

Tighten nuts (3 and 4) so far in the direction of the front side of the trailer that the spring is fully pushed in, and secure them by tightening them against one another. Repeat this procedure for the other side (nuts 5 and 6) by doing everything in opposite directions.

N.B. It is worthwhile spreading some copper grease on the threaded rod (1).

TECHNICAL SPECIFICATIONS

- System operation** : completely hydraulic, with three double-action cylinders.
System control : completely hydraulic mechanical.
Operation control : fully automatic loading – stop - unloading.

	CF500 SLC
Bore (mm)	100 [4"]
Piston rod diameter (mm)	45 [1.77"]
Stroke (mm)	200 [8"]
Cylinder volume (ltr)	2.82 [0.75 us gal]
Oil volume per cycle (ltr)	8.46 [2.25 us gal]
Over pressure valve threshold, max. operational pressure (bar)	225 [3,300 psi]
Strokes per minute with advised pump capacity	13
Speed (mtr./min.) with advised pump capacity	2.6 [8.5 ft./min]
Advised pump capacity:	
Flow (ltr./min.)	110 [29 gpm]
Pressure (bar)	250 [3,625 psi]
Max. pump capacity:	
Flow (ltr./min.)	130 [34.5 gpm]
Pressure (bar)	250 [3,625 psi]
Speed at maximum pump capacity (mtr./min.)	3.1 [10 ft./min]

- Control valves** : 24V DC
Throughput variation: Completely variable speed by use of oil flow determined by the revs of the motor or by various pumps. Pay attention to the diameter of the choke, see chapter [connecting the hydraulics](#).
Drive : use of the PTO/pump on the truck; an electro-hydraulic aggregate or a hydraulic aggregate with an external combustion engine.
Filter : pressure filter type: high-pressure 10 micron (parts no. [7372005](#)).
Pressure piping : Ø 20 x 2 feed through 16 mm.
Return piping : Ø 25 x 2 feed through 20 mm.
Oil ISO VG 32 : Shell Tellus T32 or BP HL2-32 or ESSO Unavis 32 (or equivalent).
Only use biological oil after agreement by Cargo Floor
Biological oil : A biological oil of the type synthetic ester (HEES) can be used as standard with the Cargo Floor system. **We advise you not to use other types of biological oil.**
Oil temperature : max. 70 °C [158 °F]

Floor

- Aluminium profiles** : profile length negotiable
Extrusion alloy : high quality Aluminium-alloy, weldable, very wear-proof and tensile
Bearing : The aluminium floor profiles are borne by wear-free plastic bearing
Under floor : length negotiable

OPTIONS:

- Cargo Roller, HD, 6 wheels with bi-directional cleaning device, parts no. [5165003](#)
- Various protective covers:
For the control valve: rear, parts no. [7371051](#) / top, parts no. [7371054](#)
For the cylinders: underneath, parts no. [7371053](#) / rod side, parts no. [7371052](#)
- Toolbox, parts no. [6415106](#) and tools and parts “first aid”, parts no. [6415105](#)
- Variable stroke from 10 mm to 200 mm [0.5”to 8”]
- Solenoids 12 V or 220 V (24 V=standard)
- Floor width and length in consultation, can be any width required
- Wireless remote control with on/off and/or loading/unloading functions (parts no. 6104006);
- Stationary applications in all versions
- Electro- / hydraulic aggregates
- Diesel hydraulic aggregates
- Termically zincd sub frame

MAINTENANCE INSTRUCTIONS

When handing over the trailer to the end user always give an extended instruction with regards to operation, maintenance and use of the Cargo Floor system. At the handing over always give a user manual. When works require turning on the floor you should take care of that the floor can be shut down immediately at any time. Places where clamping/clasping of body parts is possible may not be approached when the system is moving.

For more detailed explanation of the execution of various works we would like to refer you to our website:

www.cargofloor.com

Downloads

Check for the end user after receipt of the new trailer:

Check the join between the aluminium floor profiles and the Cargo Floor system. You do this by placing your finger half on the bolt and half on the floor profile when the floor is operating. If you feel movement in the bolt connection then you need to check the moving crossmember of the loose profile if it is slanted. If it is all the profiles of the same group will need to have their bolts replaced. If it is not slanted then only the bolts of the loose profile need to be replaced. Every zinc hole needs to be cleaned, the thread of the new bolts need to be fitted with Loctite and then the bolts can be mounted. (Do not simply just tighten the bolts, the Loctite connection will be broken.)

Check this a couple of days after receipt of the trailer, after 10 loads / unloads and after one month.

Specifications of the screws:

M12 x 30 countersunk screws with hexagon socket, class 10.9, galvanized. DIN 7991 (Dacromet).

The torque is 100 – 140 Nm [72 – 105 lbf.ft.].

Regular checks for the end-user:

To ensure that your Cargo Floor system operates reliably and has a long life, it is important that you regularly perform careful checks on the following aspects:

- The quality of the oil; this must be cleaned regularly (check every ½ year);
- Replace the filter element every year;
- Change the oil every 2 years, or more frequently if required;
- The level of oil in the tank. In order to prevent heat developing it is required to have at least 100 litres [26 gallons] of oil in the tank. Out of practical experience (high flow, frequently loading and unloading) we advise you to have at least 150 litres [40 gallons] of oil available. Use a good quality, hydraulic oil in accordance with the ISO VG 32 [directives].

Check and, if necessary clean the following components:

- Check the ducts and joints of all hydraulic components, and adjust if necessary!
- Oil tank: by taking the lid off the tank, you can remove any remains (condensation, dirt etc.) from the bottom.
- Return-/pressure filter: by removing the filter lid/ chamber you can check the filter element, or after one year replace it.
- Check the seal between the two fixated floor profiles and the moving profiles. If a margin exist in between, then adjust the fixated floor profiles, in order for the sealing to be optimal and leakage via the side walls is prevented.

This is all necessary to avoid internal wear (of the pump/cylinders etc., for example).

New filter parts are available at your system builder. For the right type we refer you to our “exploded views” which you can find on our website www.cargofloor.com

Downloads

We want to emphasize that the minimal costs of replacing dirty parts or oil do not match the costs and discomfort that can proceed out of this.

- Adjusting the threaded rod of the control valve;
It is important that the control valve is correctly adjusted and that the switchover moment occurs according to the procedures. See chapter [adjustment of the threaded rod of the control valve](#).

Cleaning the floor parts with a steam cleaner is also part of the regular preventative maintenance, especially with the so called SLP profiles this is mandatory to clean the large gully regularly.

IMPORTANT INSTRUCTIONS

- Avoid letting dirt and water get into the hydraulic system when disconnecting the connectors or when topping up/cleaning the oil tank.
- Adjust the work speed when, for example, heavy massive products are being loaded or unloaded with which the system needs the maximum power ([see chapter technical specifications](#)), so as to avoid overloading.
- It is not permitted to exceed the maximum operational pressure ([see chapter technical specifications](#)).
- Avoid loading and unloading sharp objects such as glass without a protective roll-up cover mechanism. This causes unnecessary wear of the seal/floor profiles. If you would like to transport such materials safely, we advise you to use a protective roll-up cover mechanism.
- Never exceed the maximum number of strokes per minute when using the full stroke ([see chapter technical specifications](#)). A greater number of strokes causes enormous forces in the system and chassis, and causes a lot of heat to be generated in the hydraulic system.
- When loading and unloading packed goods it is important that a good equal weight distribution is realized on the floor. If this is not the case there is the possibility that the goods won't move. When using pallets, if necessary, place a wooden plank (of about 300x18x2350 mm [12"x 0.75"x92.5"]) multiplex underneath.

TROUBLESHOOTING

In the event of the failure of the Cargo Floor system to operate (in the correct manner) when used in accordance with the operating instructions carry out the following checks:

Malfunction system	Concerns part	Cause	Solution
1. Does not operate No oil flow control valve	PTO	Not switched on	Switch on PTO
	Quick coupling	Blockade	Check couplings / mount correctly
2. Does not operate There is oil flow control valve	Remote control	Emergency switch operated	De-activate emergency switch
	Solenoid valve GS02 on/off	Interruption wiring Interruption in coil	Activate emergency switch GS02 temporarily and/or repair power supply
	Pressure control valve	Polluted	Clean / replace, attention: do not open the pressure control valve in parts
	Operation plunjer in the middle position	Flow <60 l/m [16 gpm] See chapter: choke	Increase pump number of revolutions Install another pump Adjust choke
		Hoses connected reversed	Check filter first, then connect pressure and return correctly.
		Plunjer moves with difficulty due to molten seal	Replace seals operation plunjer
3. Starts immediately after switching on the PTO	Switch CF7	Switch movement blocked in the on position	Remove blockade
	GS02 on/of	Emergency control activated	Turn out the button, put yellow fork in-between
	Hoses connected reversed	Pressure and return hoses where swapped	Check filter first, then connect pressure and return correctly.
4. Individual movement is difficult and/or incorrect with a full trailer	Pressure control valve	Tipper valve	Turn tipper valve in correct position
		Pressure control valve pulling vehicle max pressure to low	Measure max. pressure/ adjust pulling vehicle
		Return oil has restrictions	Measure pressure M2, remove restrictions
	Capacity of the system is insufficient.	To much load	Unload part of load with crane
		Pollution between the Floor profiles	Clean
		Frost	Thaw
5. Individual movement is incorrect when unloading With a full and empty trailer	Valve in cylinder head 1 or 2	Pollution prevents a good connection	Remove pollution
		Broken valve spring	Replace spring
	Valve seat in cylinder head 1 or 2	Valve seat has loosened	*Replace / fasten valve seat
	Common rail cylinder rod side	Stop in the common rail has loosened	Fasten stop / replace common rail
		Common rail mounted the wrong way around	Mount common rail correctly

* Contact us for the right repair advice.

TROUBLESHOOTING

6. Switching is difficult or goes not at all. 3 Cylinders are fully retracted or fully out.	a. Threaded rod	Adjustment incorrect	Adjust correctly, attention: determine cause. See: b. and c.
		Switching spring broken	Replace spring, attention: determine cause. See: b. and c..
	b. Switching plunjer	Stroke > 12 mm. [0.5"] -> threaded rod loose, spacer loose	Screw in Threaded rod / bolt fully.
	c. Moving cross member	Slanting caused by loose profiles	*Replace screws and provide them with a thread locking product and check the rod bearing.
	d. Switching choke	Polluted	* Clean choke
7. Floor unloads when choosing loading and unloading	Solenoid valve G02 loading / unloading	Interruption wiring Interruption in coil	Activate emergency switch GS02 temporarily and/or repair power supply
8. Floor loads when choosing loading and unloading	Solenoid valve G02 loading / unloading	Emergency control G02 is activated	De-activate emergency control
9. Other malfunctions	Please contact your trailer builder or Cargo Floor, keep the system number at hand.		

* Contact us for the right repair advice.

GUARANTEE CONDITIONS

Guarantee shall only be given with the prior consent of Cargo Floor B.V.! With guarantee requests always fill in and send a guarantee request form to Cargo Floor B.V. beforehand. You can fill in a request for guarantee simply on our website: www.cargofloor.com Downloads

The guarantee conditions, as specified in the most recent “Metaalunie” conditions, filed with the registrar of the District Court of Rotterdam, are applicable in unabbreviated form. On request available.

A short extract of these conditions follows:

A guarantee period of 12 months (starting directly after installation) applies for all Cargo Floor system materials supplied by us. In the case of malfunction and/or manufacturing faults we are only responsible for the costless supply of replacement parts, if:

- The Cargo Floor system is installed by your trailer builder according to our installation procedures.
- Our maintenance and control procedures have been followed.
- In the case of a malfunction, the system builder, or Cargo Floor have been informed

The following components are not covered by the guarantee:

- Malfunction of equipment, or caused by equipment, which was not supplied by Cargo Floor.
- Malfunction caused by the use of dirty oil, or oil of the wrong type.
- Malfunction caused by overheated oil, T. max. ≤ 70 °C [158 °F]
- Malfunction caused by overloading or injudicious use.
- Malfunction caused by repair work, which is carried out by third parties.
- Filter elements and components, which are subject to wear-and-tear.
- Defects in electrical components due to incorrect connection and/or incorrect voltage levels.
- Resulting damages

The guarantee is void if:

- The system is used for purposes, which have not been recommended by Cargo Floor.
- The Cargo Floor system has not constructed correctly by your trailer builder, insofar as this has a negative influence on the operation of the system.

CONTACT DATA

Postal and visiting address:

Cargo Floor B.V.
Byte 14
7741 MK Coevorden
Nederland

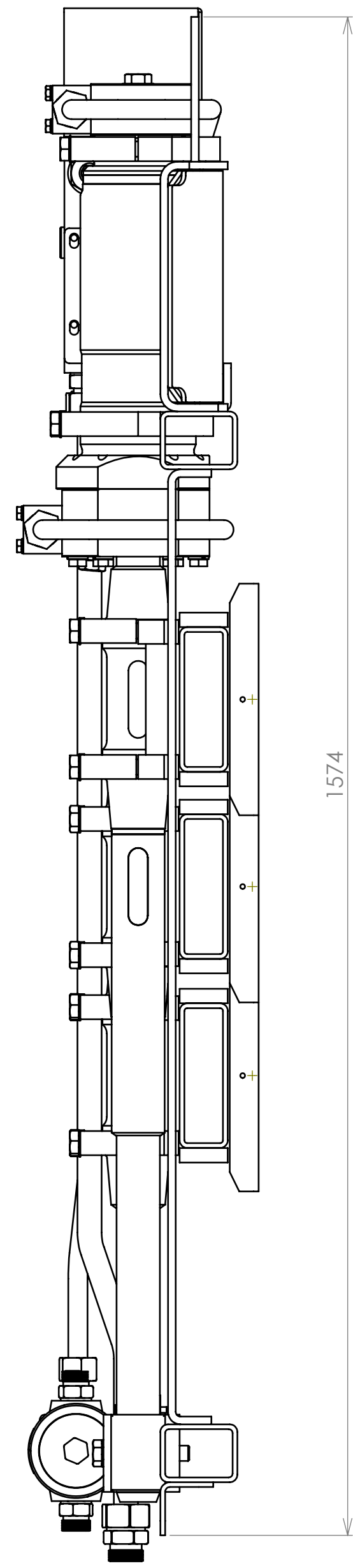
Phone number: +31 524 593 900
E-mail: info@cargofloor.com
Website: www.cargofloor.com

Order spare parts:

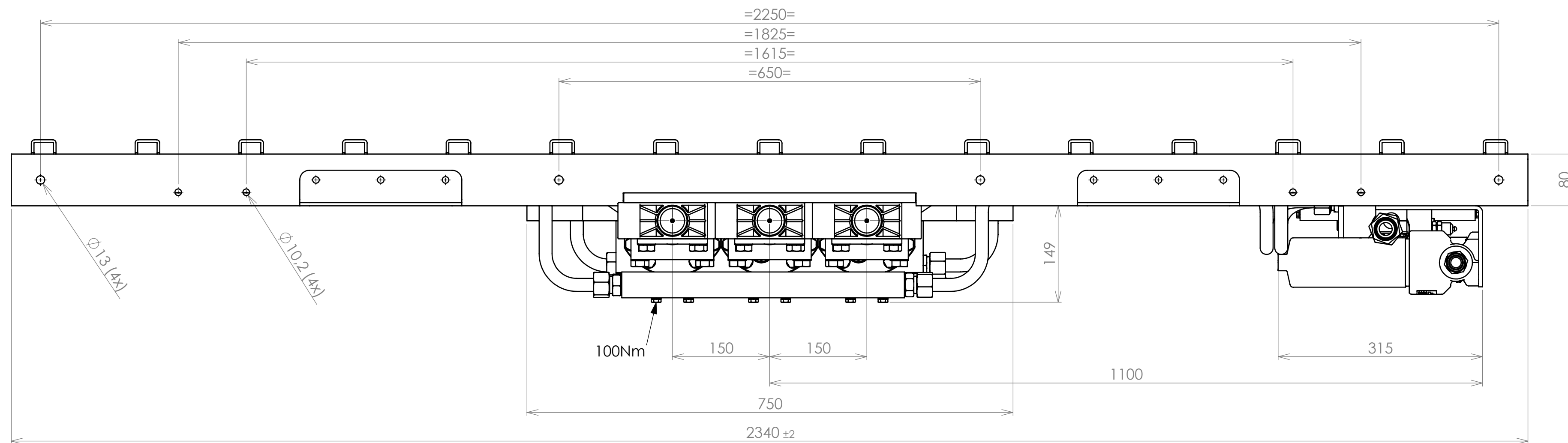
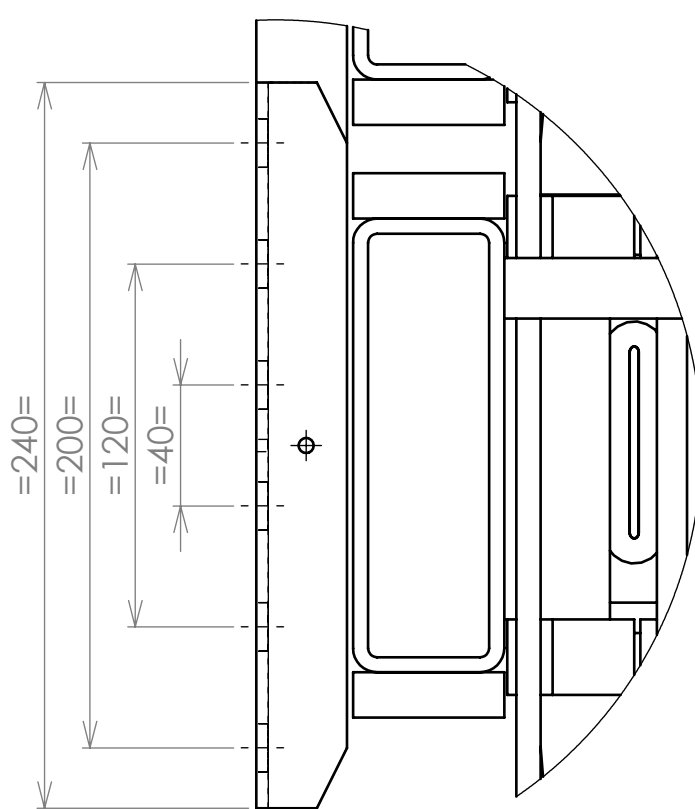
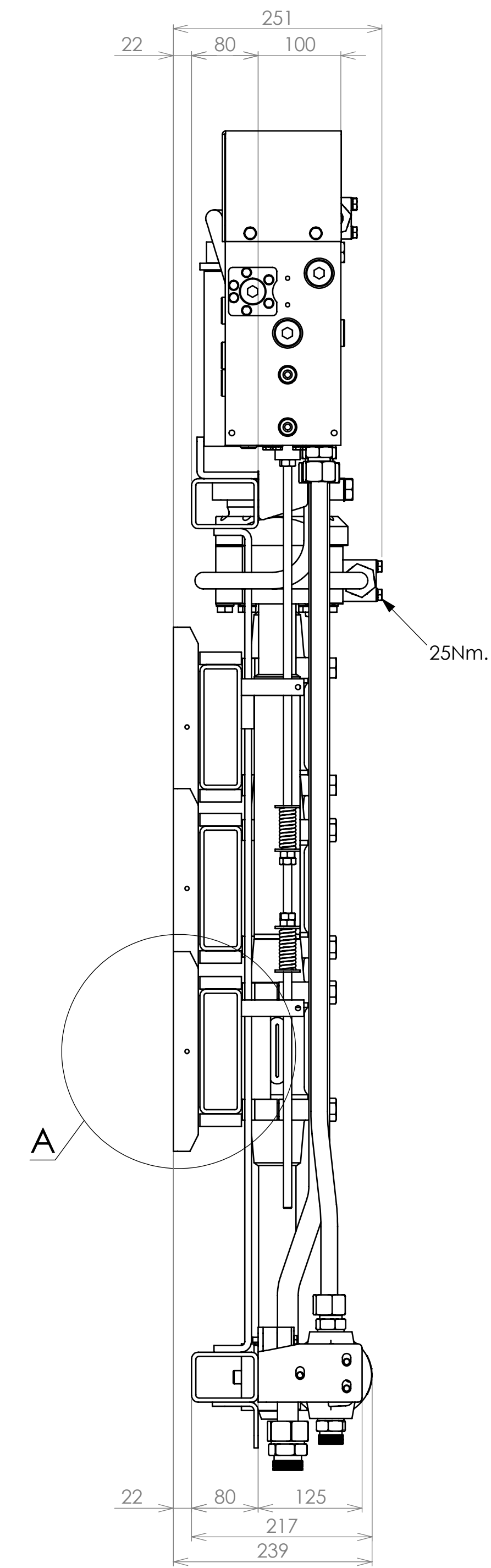
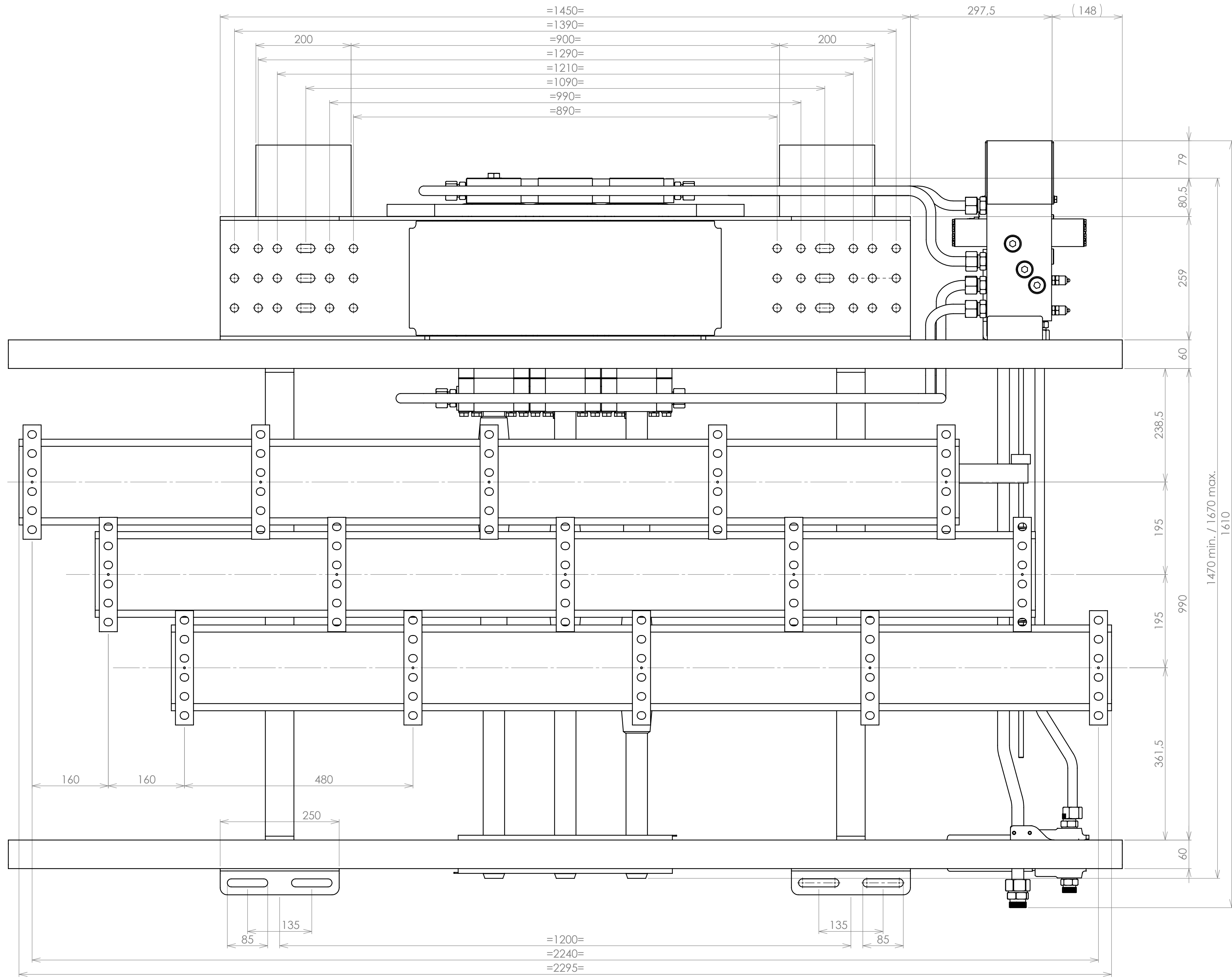
E-mail address: sales2@cargofloor.nl
DID number: +31 524 593 922

After Sales (technical questions and malfunctions)

E-mail address: as2@cargofloor.com
DID number: +31 524 593 991



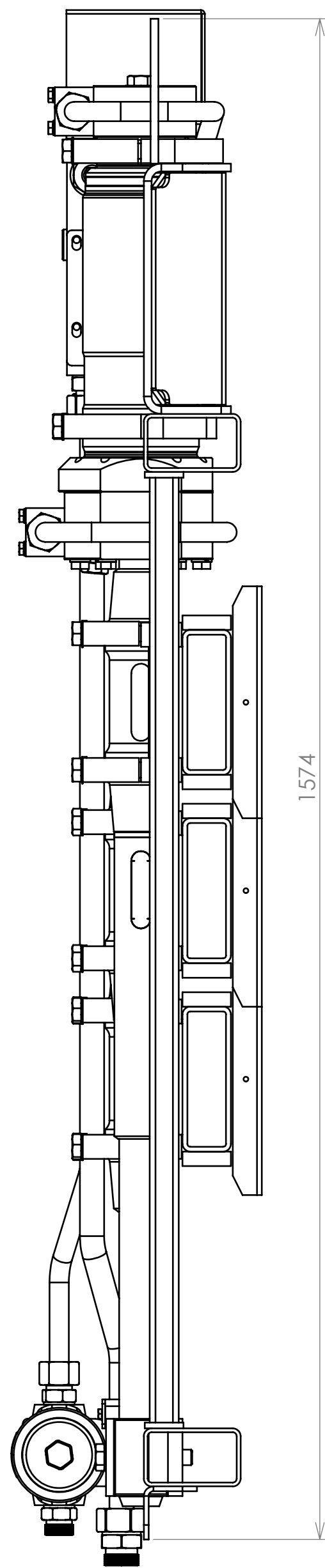
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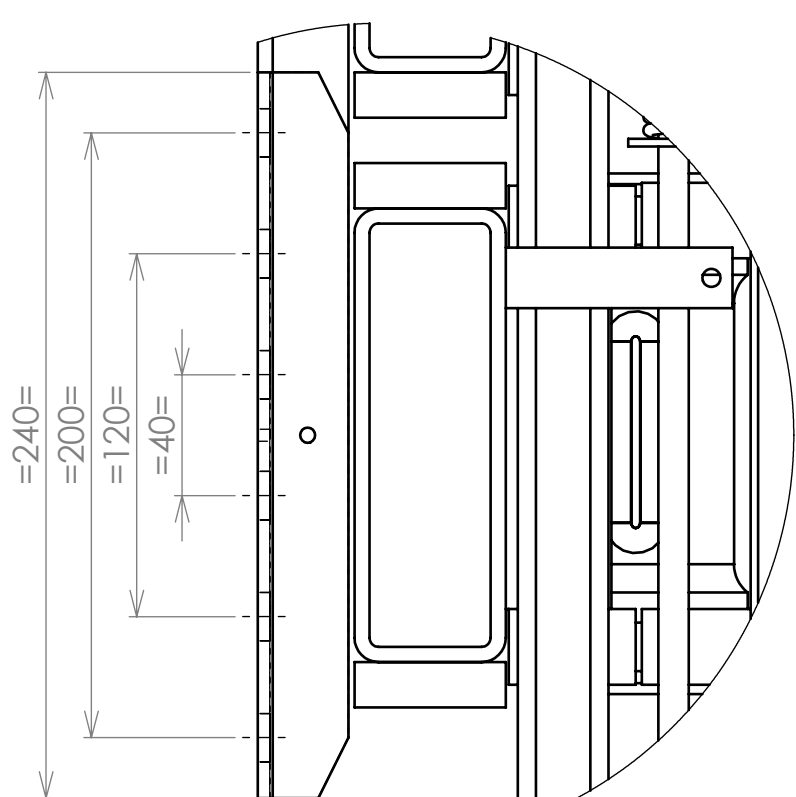
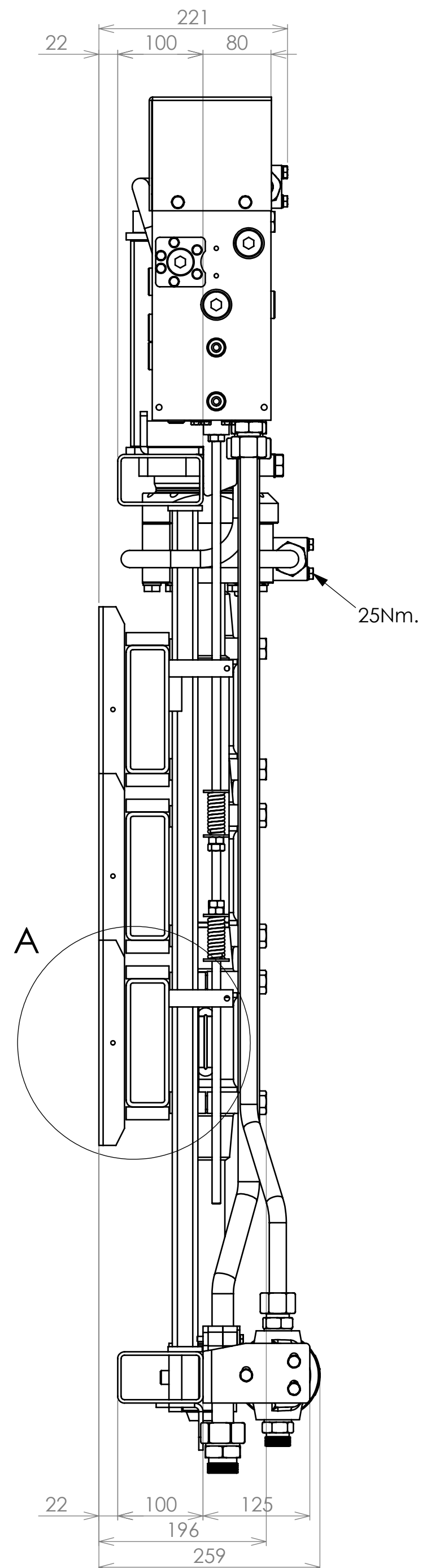
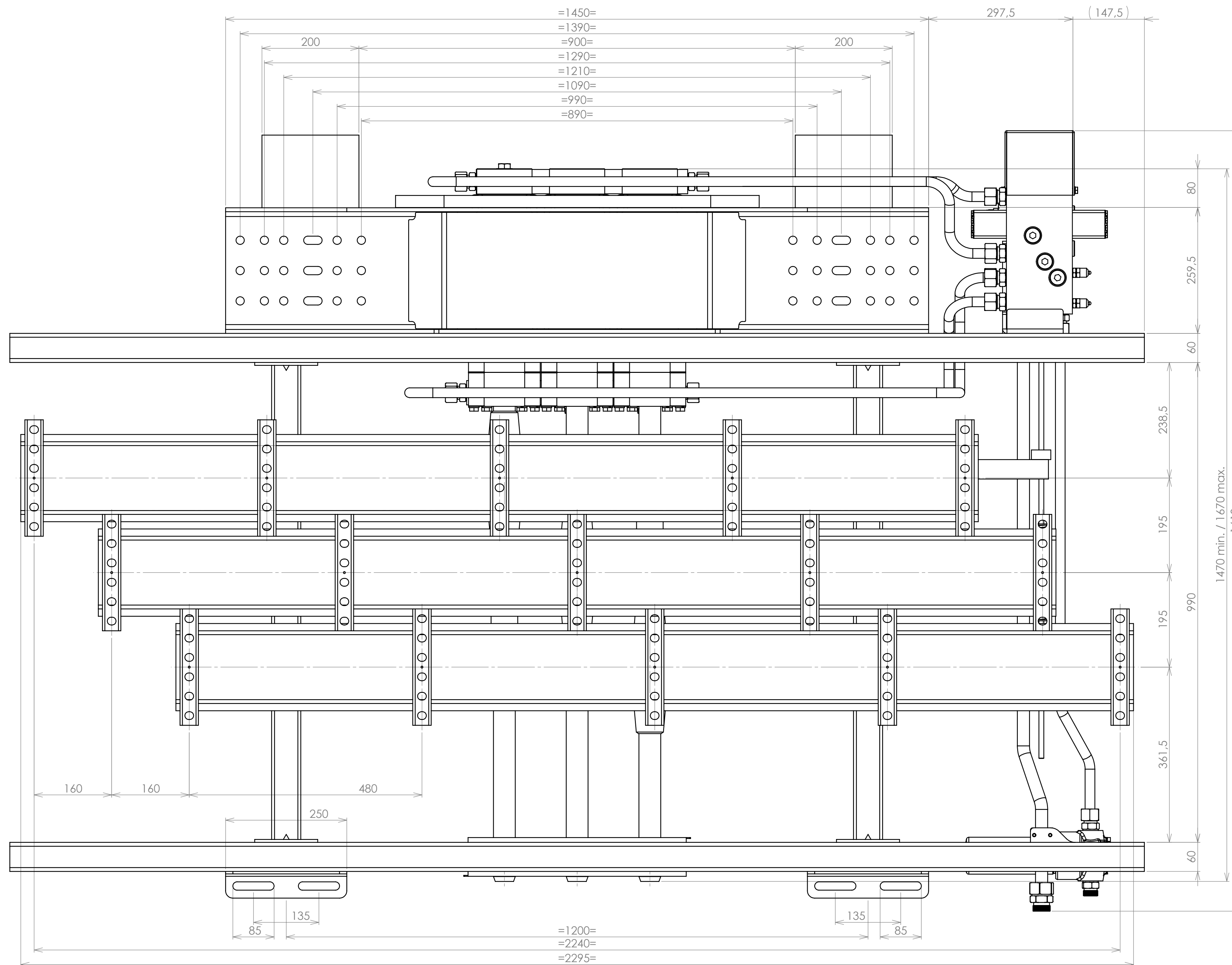
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 Max. working pressure in return pipe : 10 bar
 Qmax. : 110 L/min.
 Qmin. : 15 L/min.
 V/Cyclust : 8,5 L
 Preservative : Primer
 Mass : not measured
 Tightening moment for all bolts M16 = 150 Nm, unless otherwise stated.

Cylinder no. 1 : VDW 100/45 x 200 -Drw. 001-001-957
 Cylinder no. 2 : VDW 100/45 x 200 -Drw. 001-001-964
 Cylinder no. 3 : VDW 100/45 x 200 -Drw. 001-001-966
 Control valve : E-control -Drw. D1750
 Hydraulic diagram -Drw. 90150

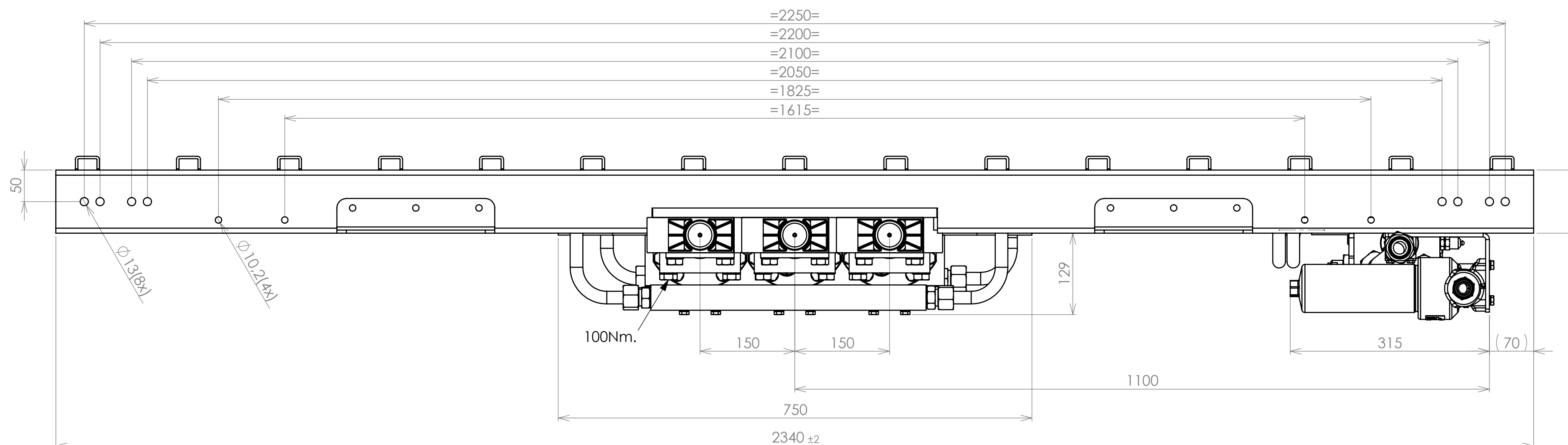
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A (2:5)



Max. working pressure in pressure pipe : 225 bar
 Max. working pressure in return pipe : 10 bar
 Qmax : 110 L/min.
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 V/Cyclust : 8,5 L
 Preservative : Primer
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 Cylinder no. 3 : VDW 100/45 x 200 -Drw. 001-001-966
 Control valve : E-control -Drw. D1750
 Hydraulic diagram -Drw. 90150

SUBJECT: **CF500 SL-C H100 15/160 LP**

REV.: 0 DATE: 01-06-12

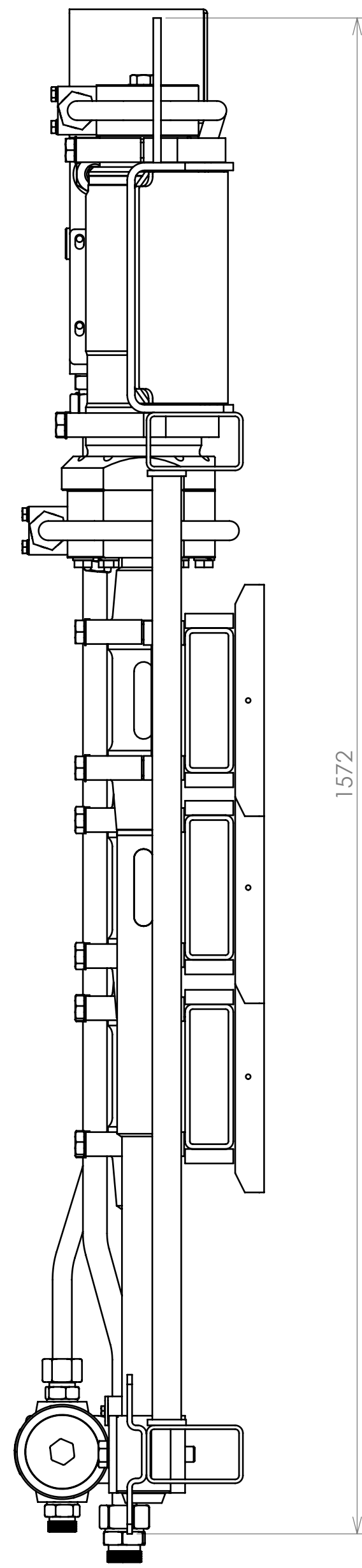
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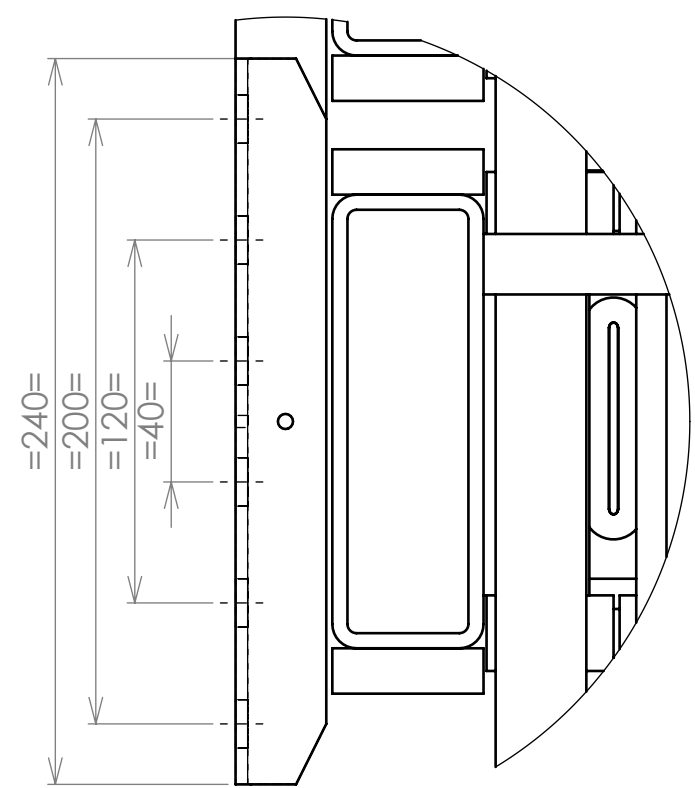
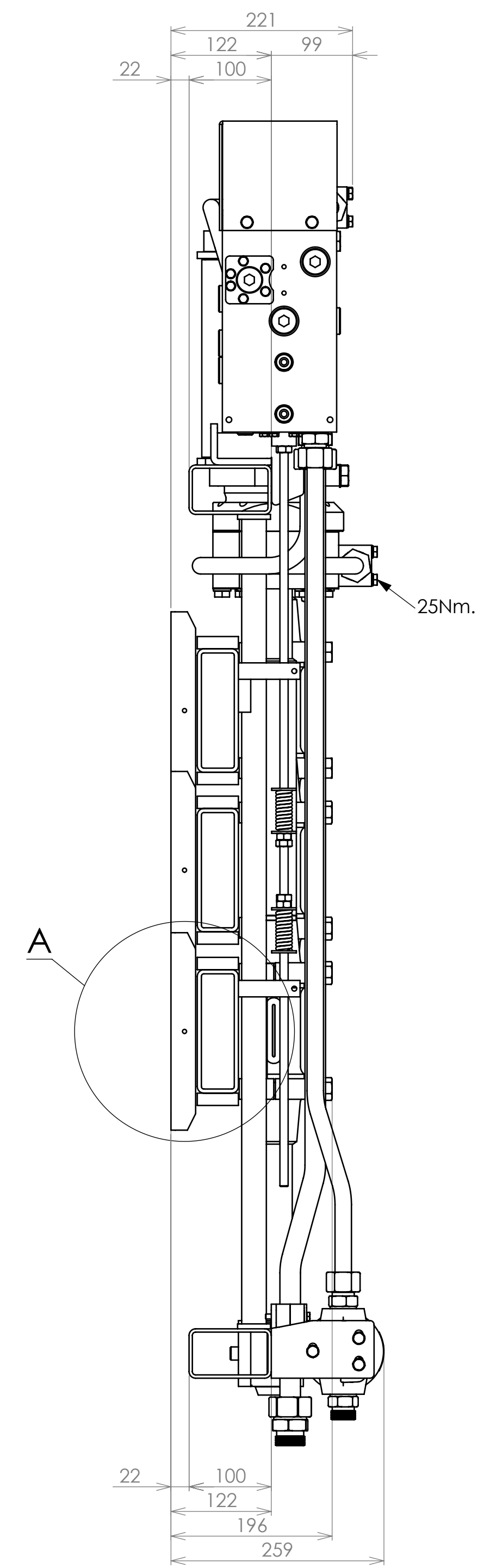
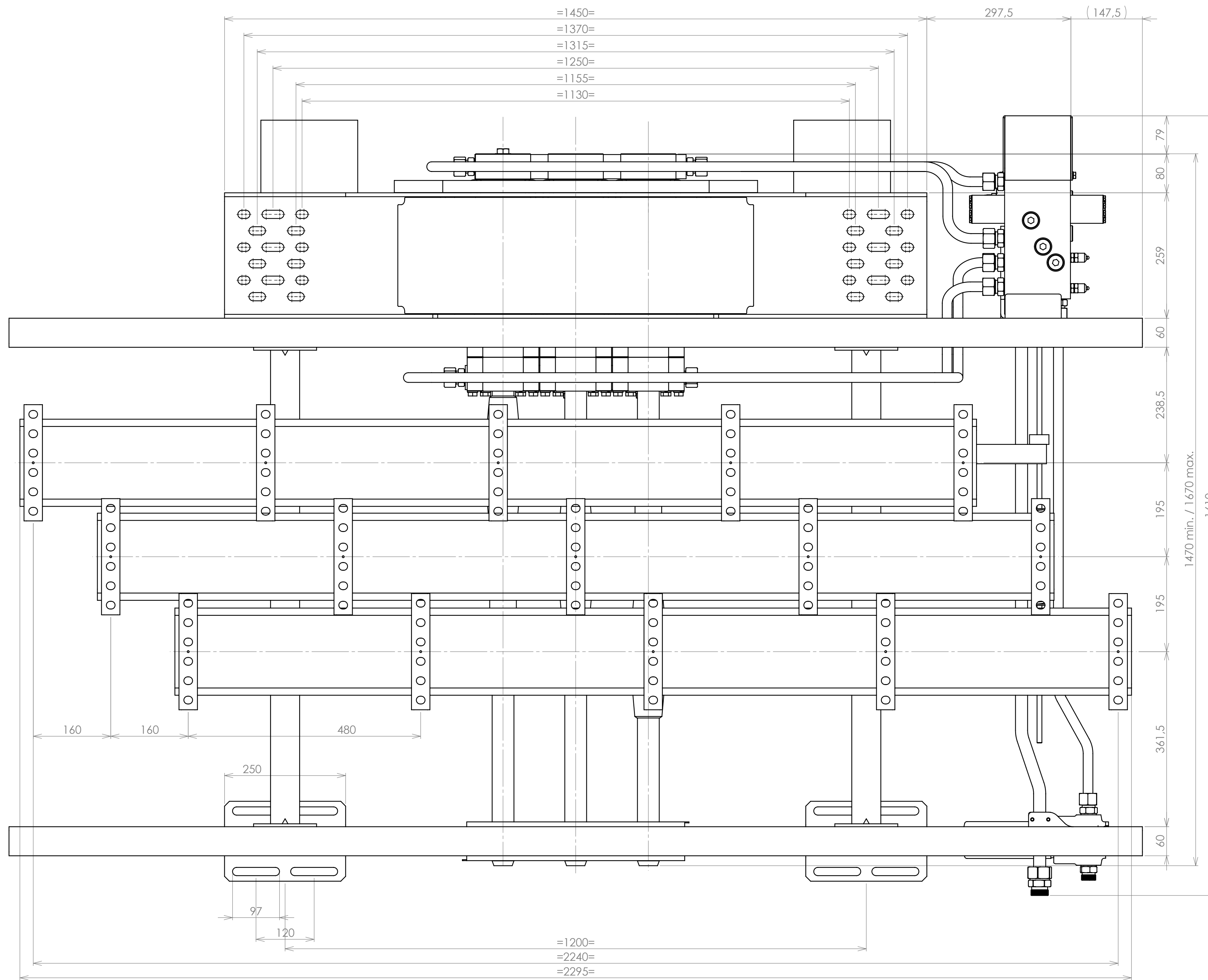
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 E-mail : info@cargo-floor.com

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 Certified Company

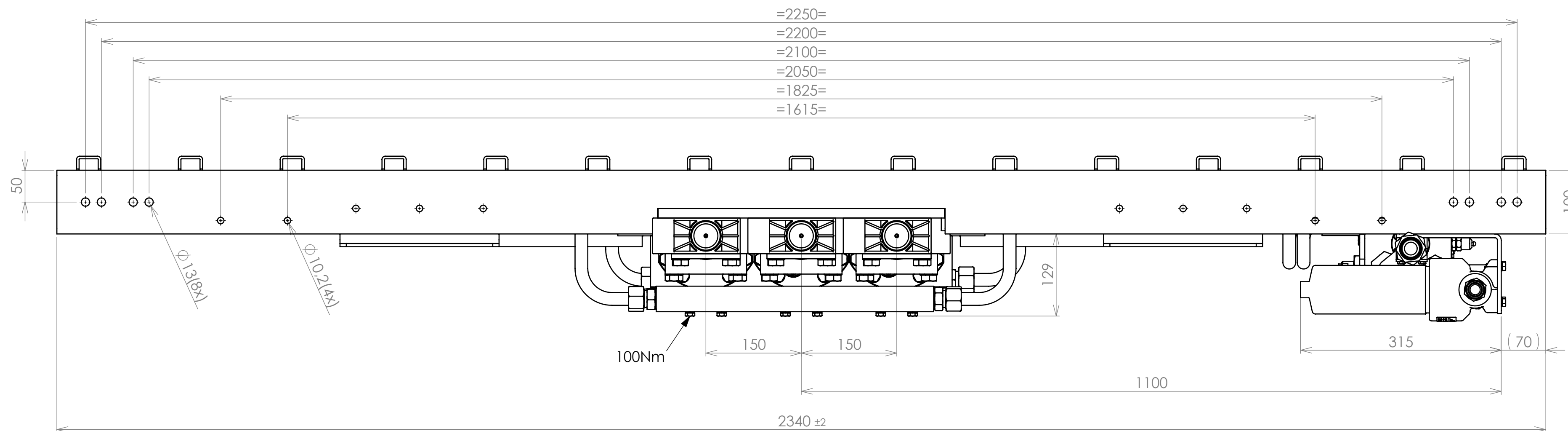
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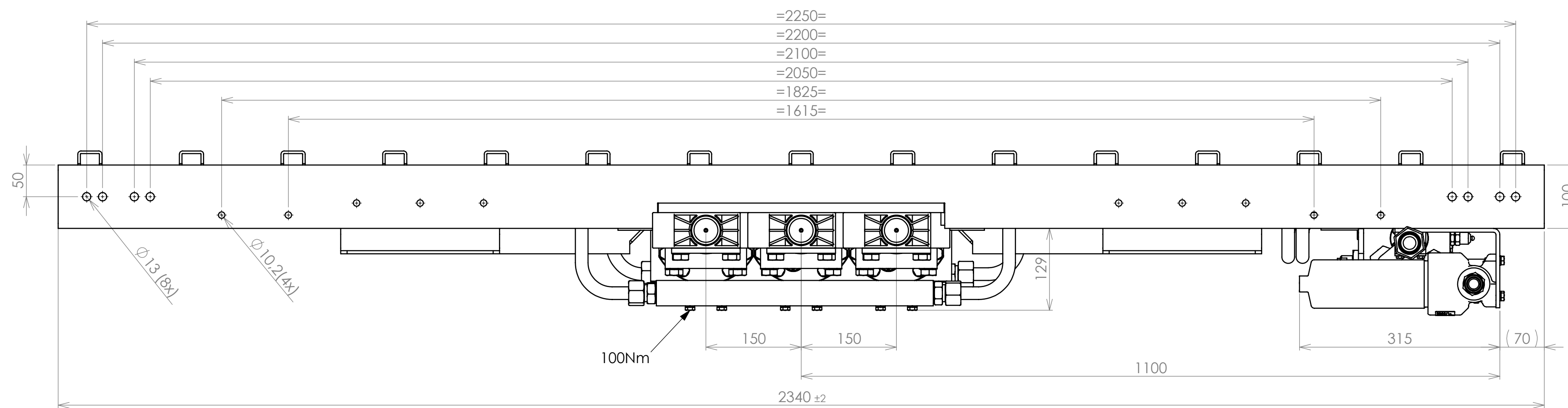
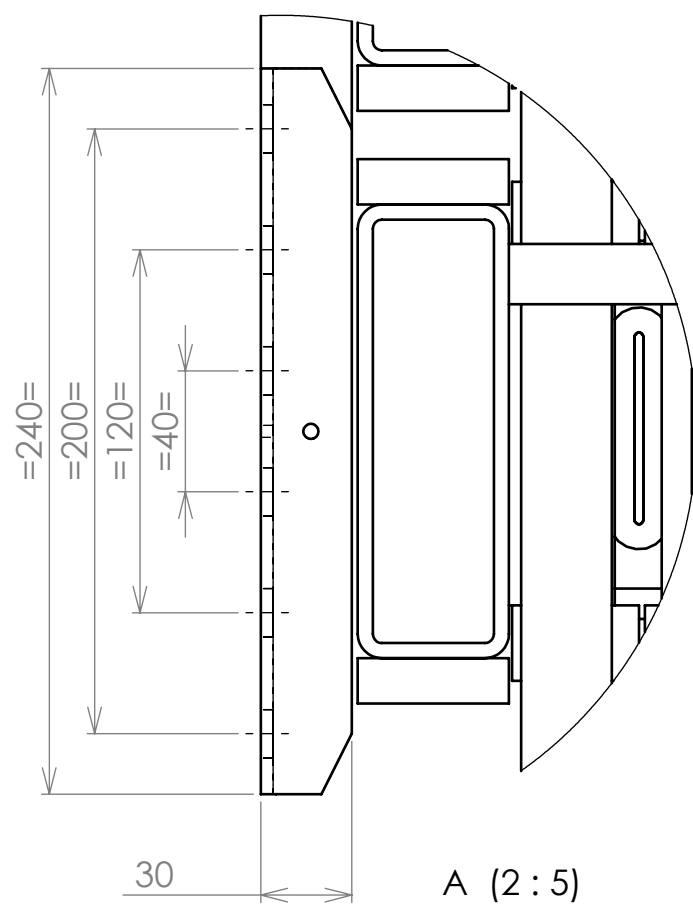
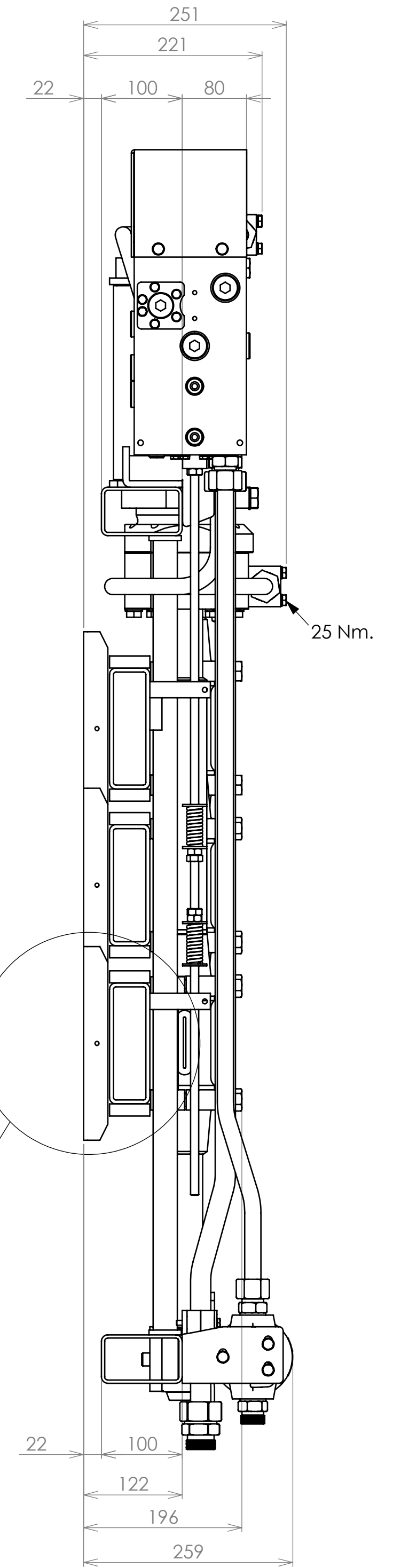
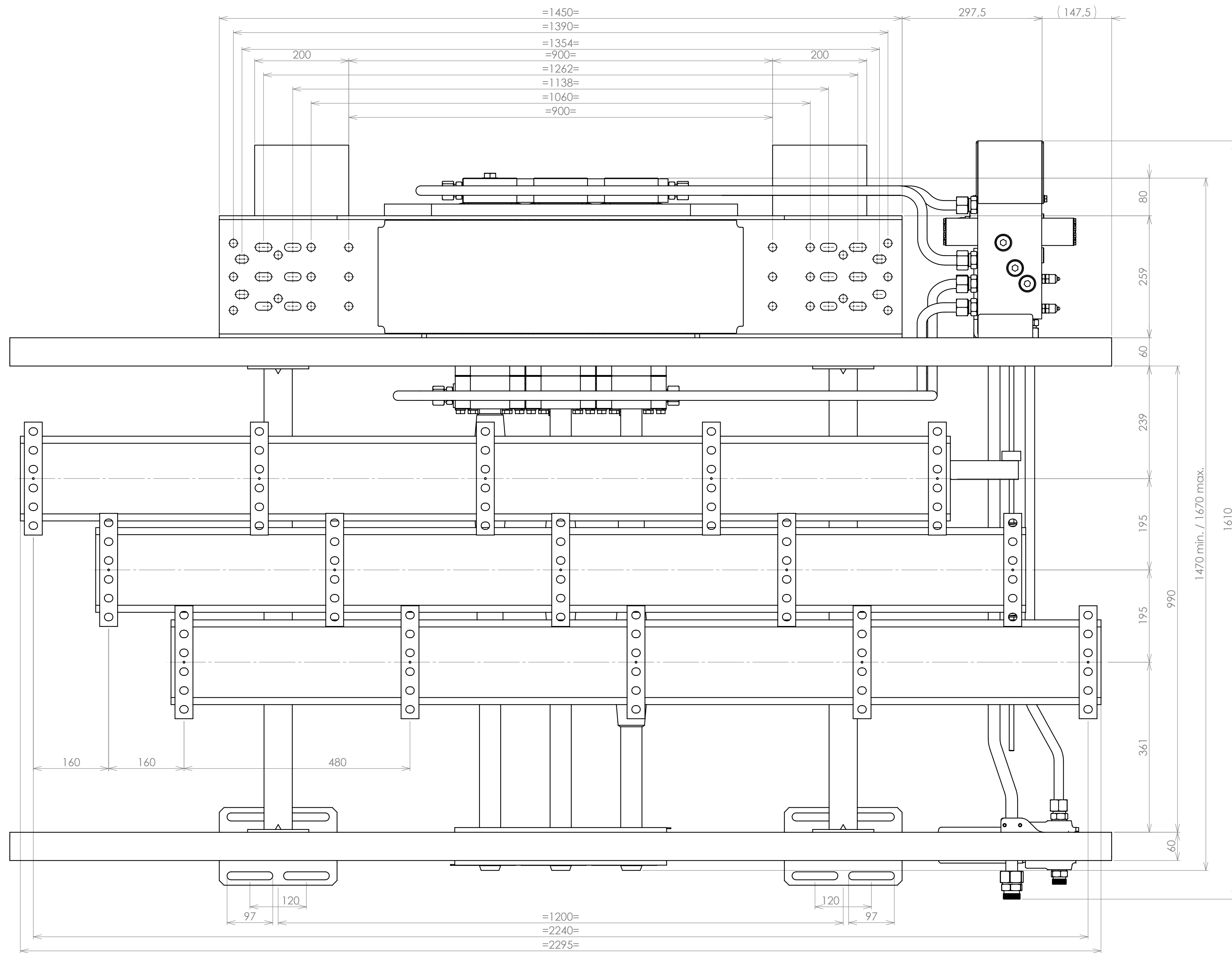
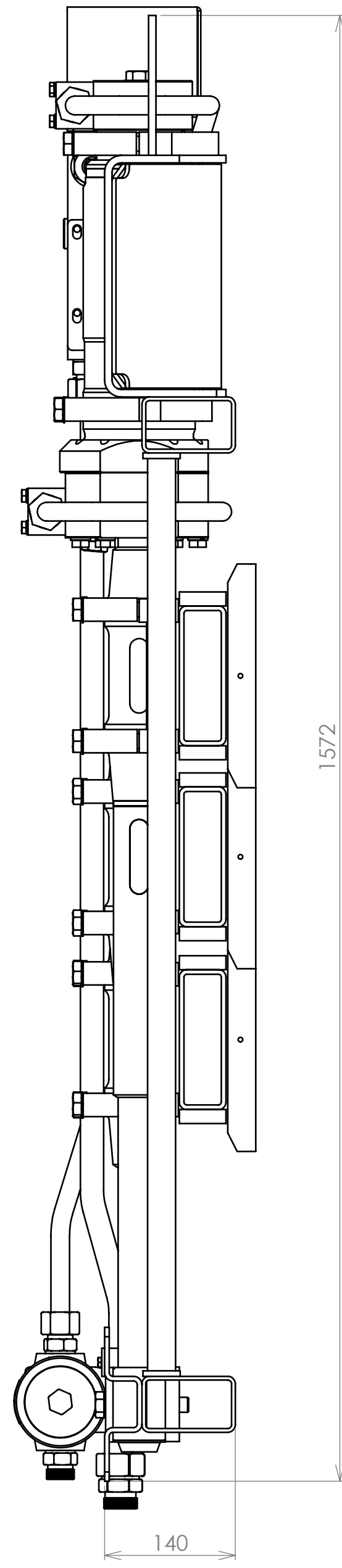


A (2 : 5)



Max. working pressure in pressure pipe : 225 bar
 Max. working pressure in return pipe : 10 bar
 Qmax. : 110 L/min.
 Qmin. : 15 L/min.
 V/Cyclus : 8,5 L.
 Preservative : Primer
 Mass : not measured
 Tightening moment for all bolts M16 = 150 Nm, unless otherwise stated.

Cylinder no. 1 : VDW 100/45 x 200 -Drw. 001-001-957
 Cylinder no. 2 : VDW 100/45 x 200 -Drw. 001-001-964
 Cylinder no. 3 : VDW 100/45 x 200 -Drw. 001-001-966
 Control valve : E-control -Drw. D1750
 Hydraulic diagram -Drw. 90150



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 Control valve : E-control -Drw. D1750
 Hydraulic diagram -Drw. 90150

SUBJECT: **CF500 SL-C H140 15/160 LP**



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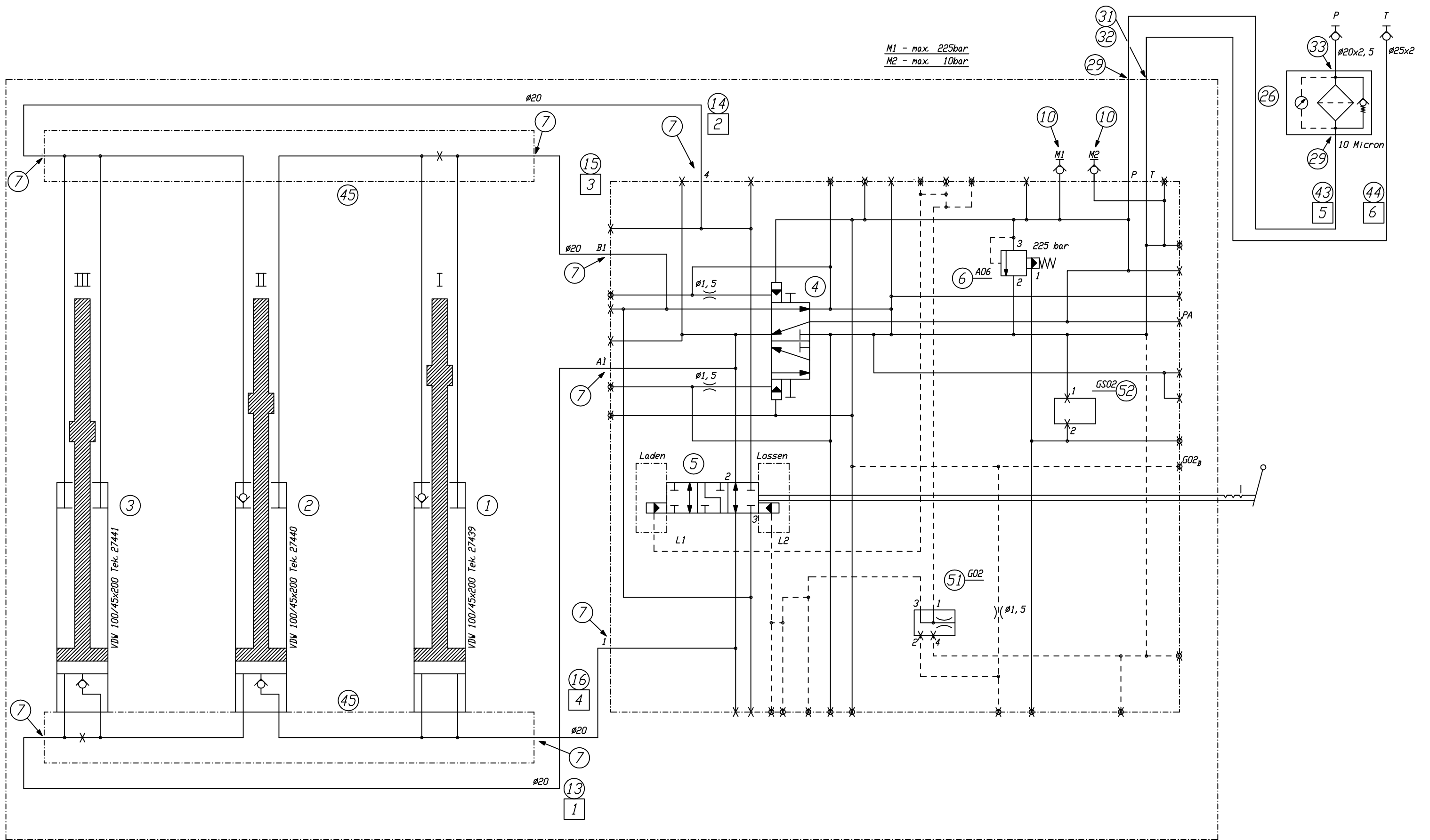
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DRAWN: H.Z. DIMENSIONS IN MM

DRAWING NUMBER:

Page S4LP

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ACHTERZIJDE CHASSIS
 RUCKSEITE CHASSIS
 BACKSIDE FRAME
 DERRIERE DE CHASSIS

ONDERAANZICHT
 UNTERANSICHT
 BOTTOM VIEW
 VUE DESSOUS



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PROJECT:
CF500 SL-C
 SUBJECT:
A-bediening / A-Control / A-Bedienung

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ORDER: ...

DATE: 12-09-12

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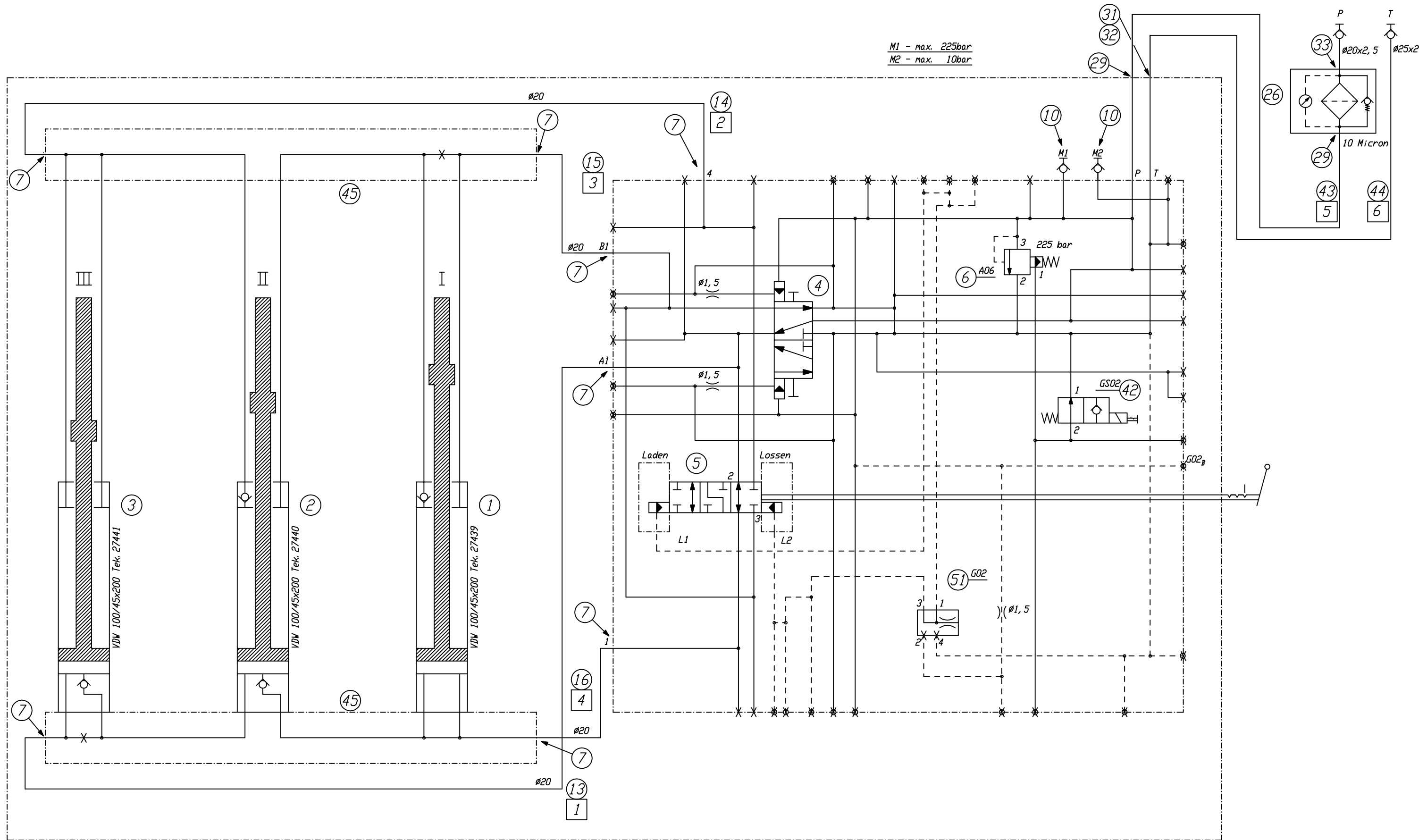
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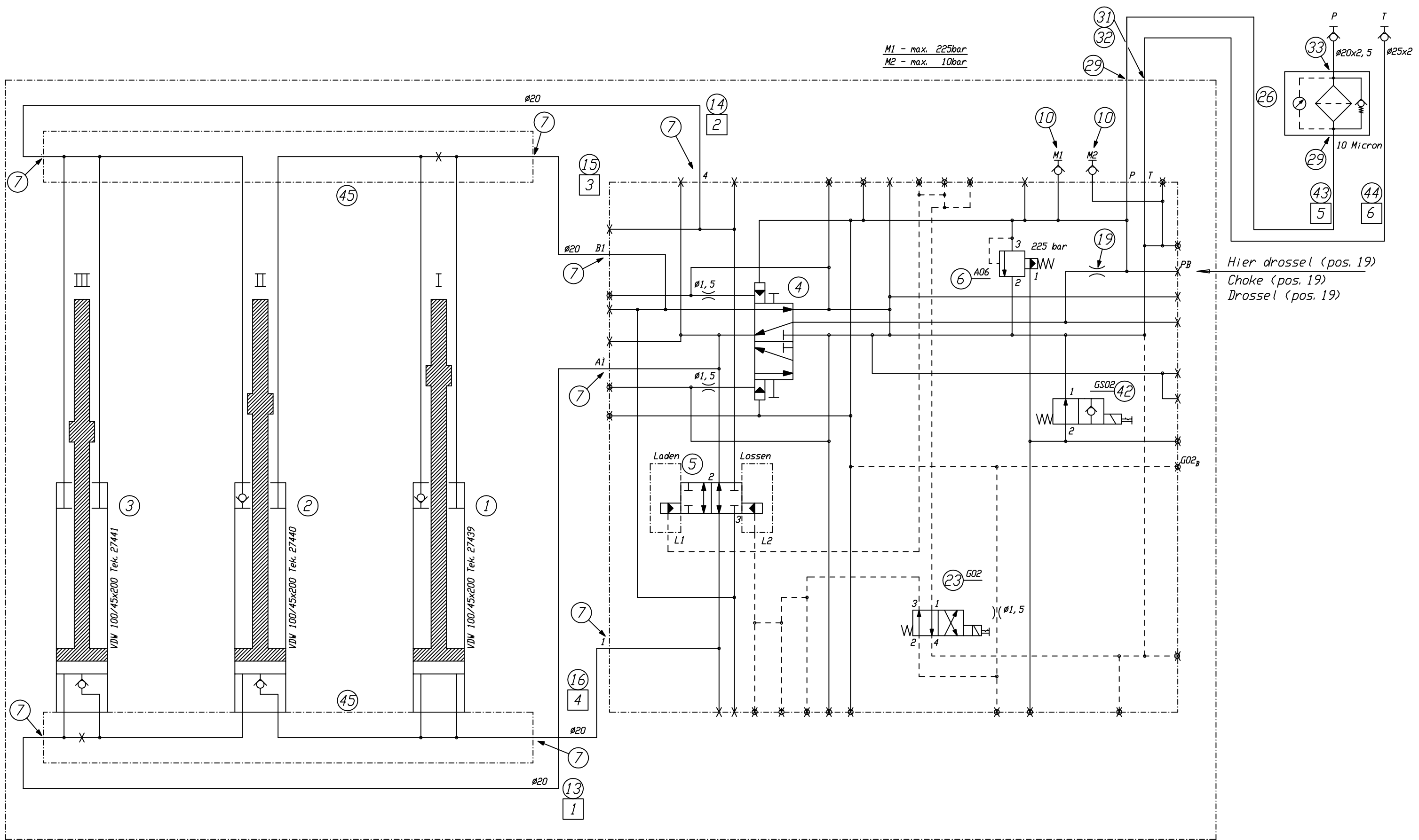
Inbouwboek

REV. DATE CHANGES BY



ACHTERZIJDE CHASSIS
 RUCKSEITE CHASSIS
 BACKSIDE FRAME
 DERRIERE DE CHASSIS

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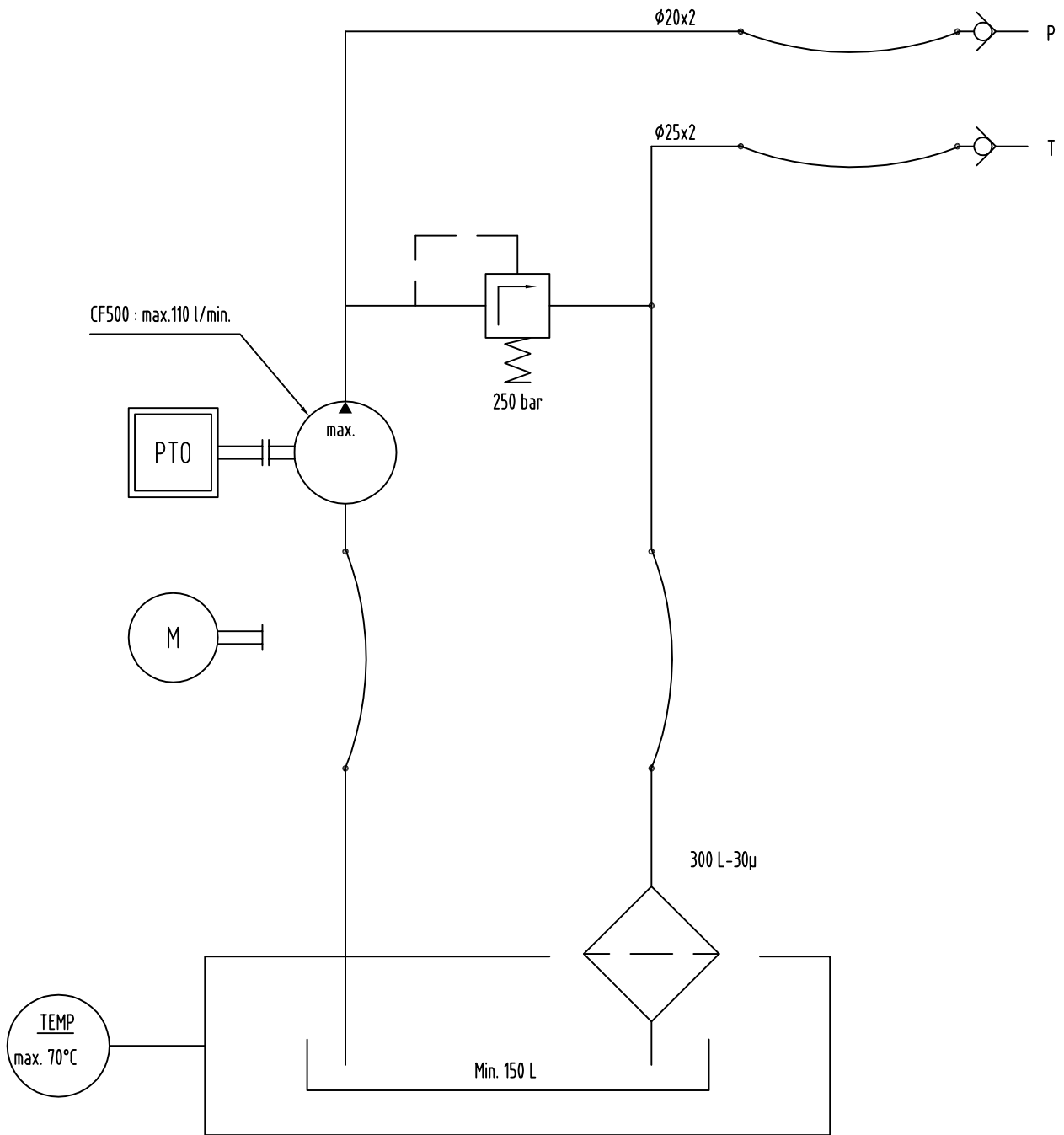


PROJECT: **CF500 SL-C**
 SUBJECT: **E-bediening / E-Control / E-Bedienung**
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REV	DATE	CHANGES	BY

PAGE **H1-E**
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CF500 SL-C



SUBJECT:
Aansluiting / Connection / Anschlüsse

REV.: 0

DATE: 05-10-12

DRAWN: HZ

DIMENSIONS IN MM

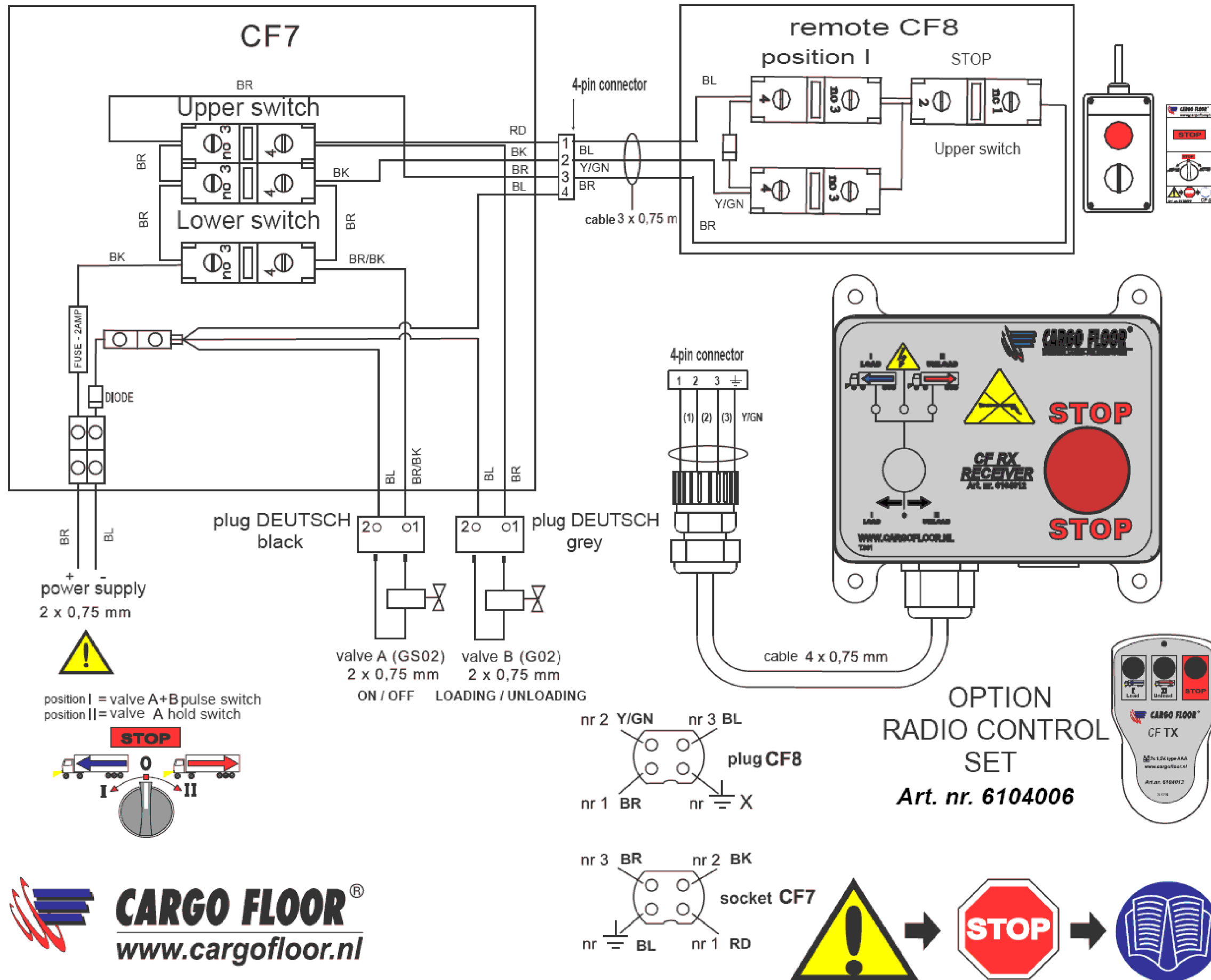


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Page H2



S.009-E

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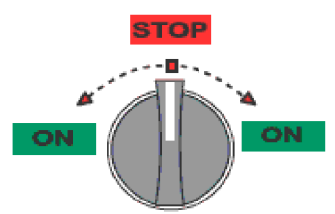
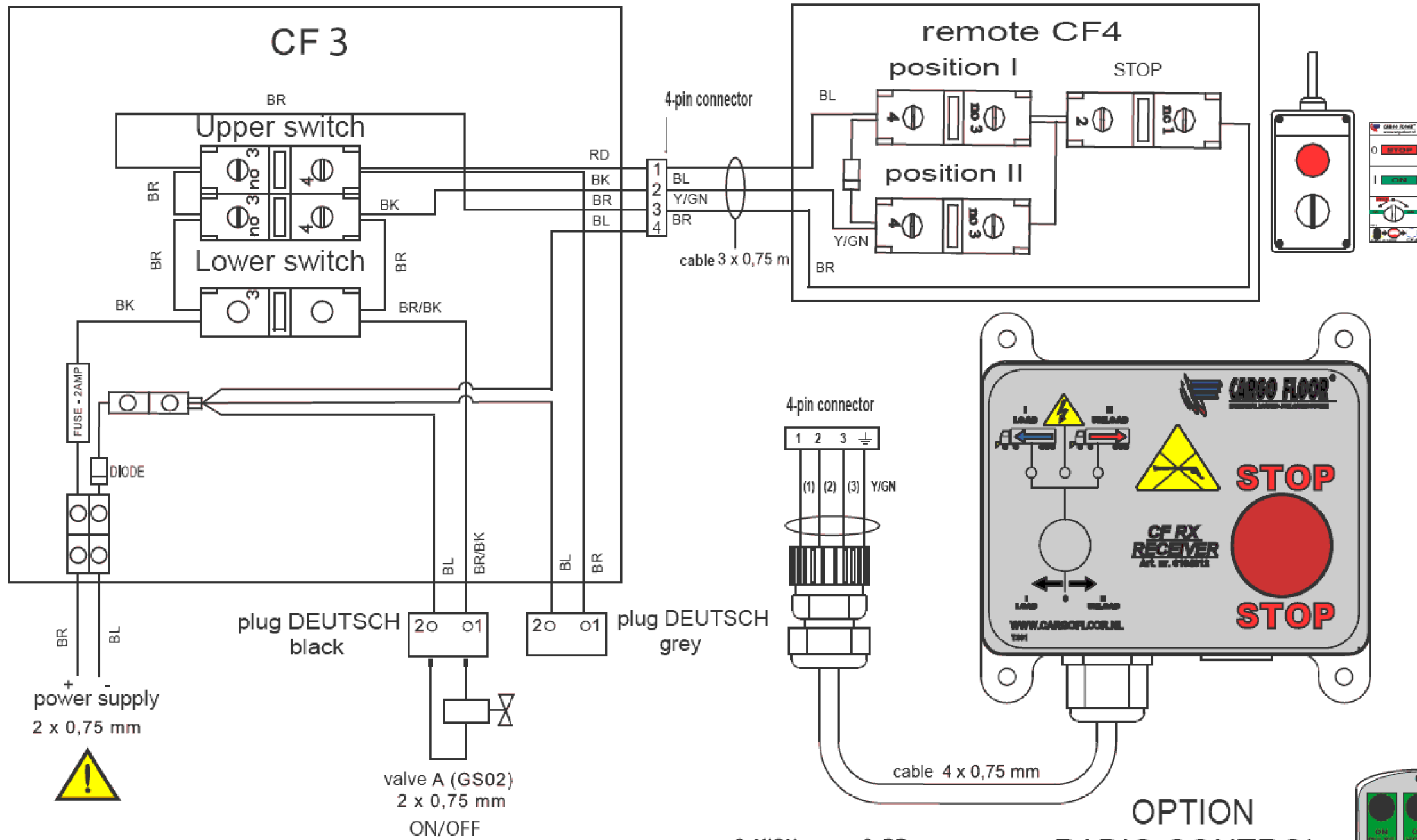


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CF500 SL-C
SUBJECT:
Electric drawing E

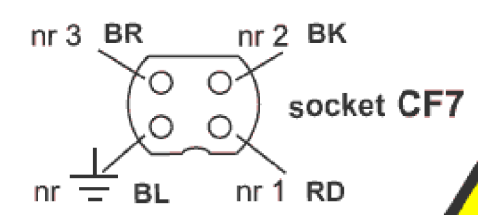
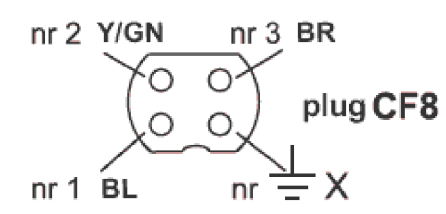
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DATE: 12-09-12			
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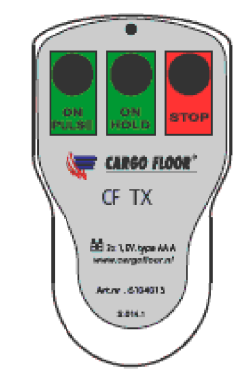
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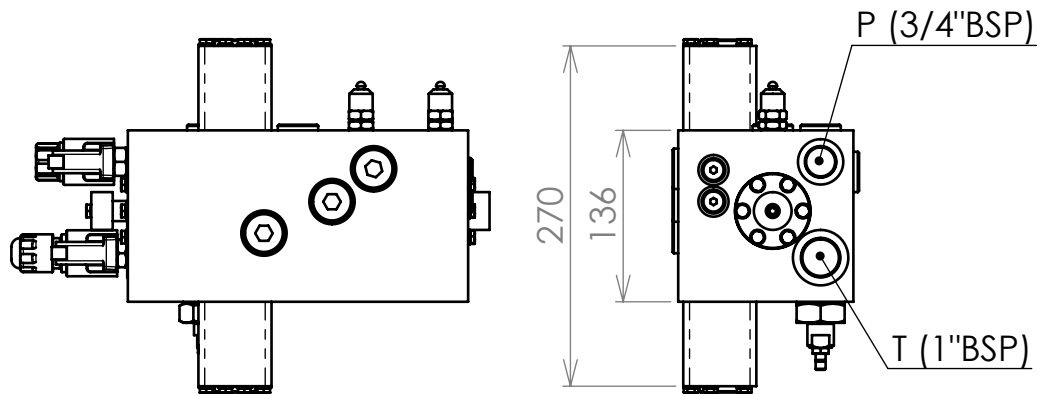
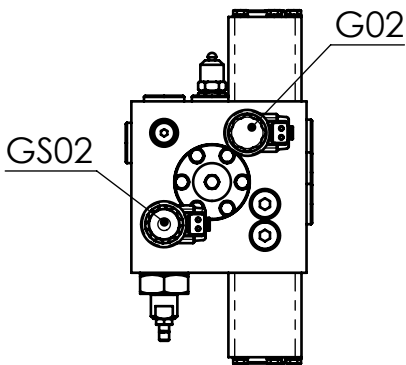
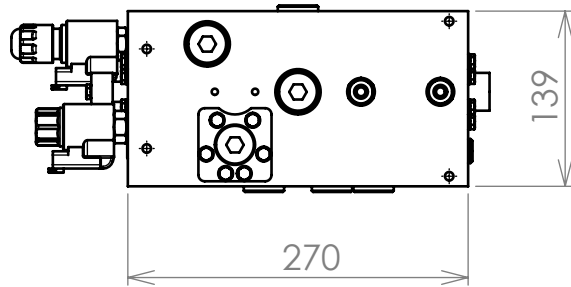
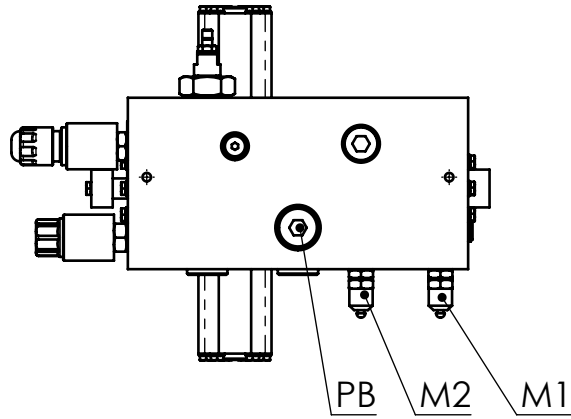
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S.009-B



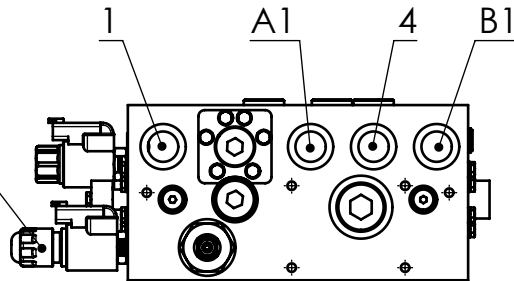
OPTION
RADIO CONTROL
SET
Art. nr. 6104006



10-2009



Noodbediening
Emergency switch
Notschalter
Interrupteur d'urgence



SUBJECT:

Steering valve "E" control

REV.: 0 DIMENSIONS IN MM

DRAWN: H.Z. DATE: 12-09-12

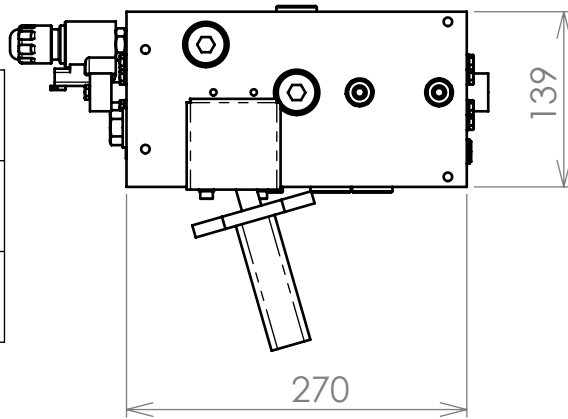
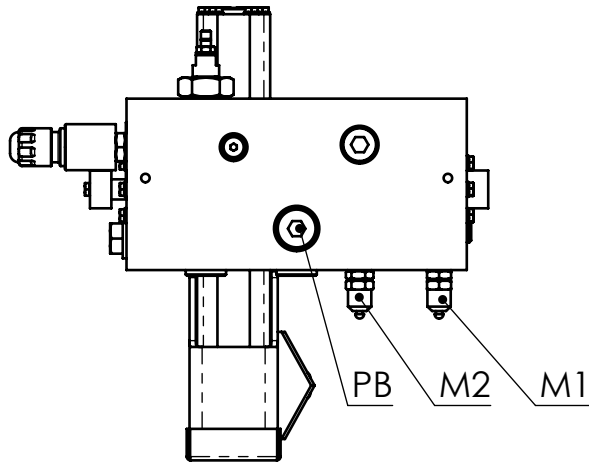


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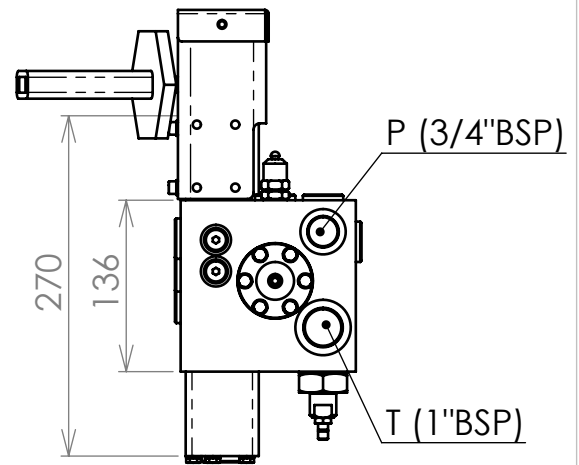
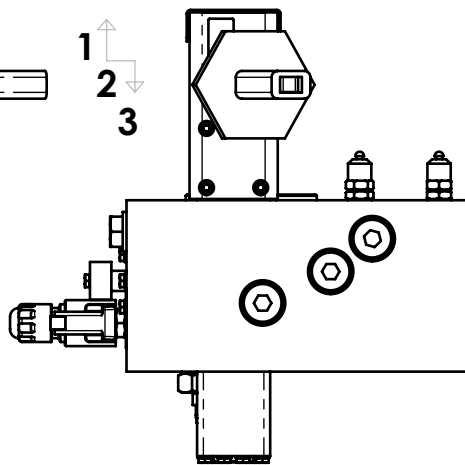
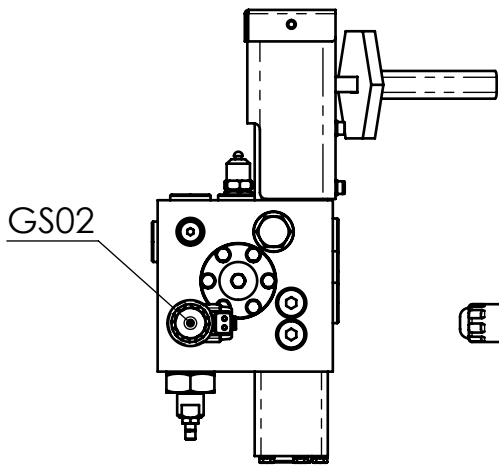


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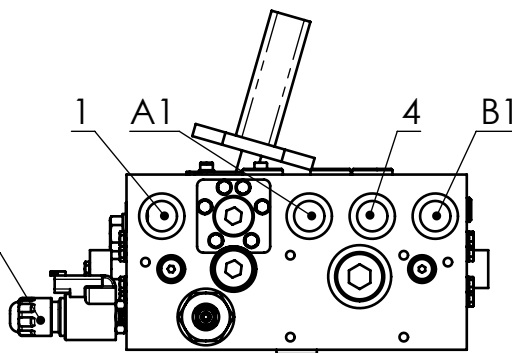
Page BV1



1	Laden, load, Beladen, Charger
2	Stop, Stop Halt, Arrêt
3	Lossen, Unload, Entladen, Décharger



Noodbediening
Emergency switch
Notschalter
Interrupteur d'urgence



SUBJECT:

Steering valve "B" control

REVISION: C+

DIMENSIONS IN MM

DRAWN: H.Z.

DATE: 12-09-12



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