

# INSTALLATION MANUAL

## DELI MULTISERIE

### MODELS

Deli Multiserie with Grease Separator.  
Deli Multiserie with GS and condensor.  
Deli Multiserie with Grease Collector.  
Deli Multiserie with GC and condensor (shown).



#### - NOTICE -

This manual is prepared for the use of trained Service Technicians and should not be used by those not properly qualified. If you have attended a training for this product, you may be qualified to perform all the procedures in this manual.

This manual is not intended to be all encompassing. If you have not attended a training for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained technician.

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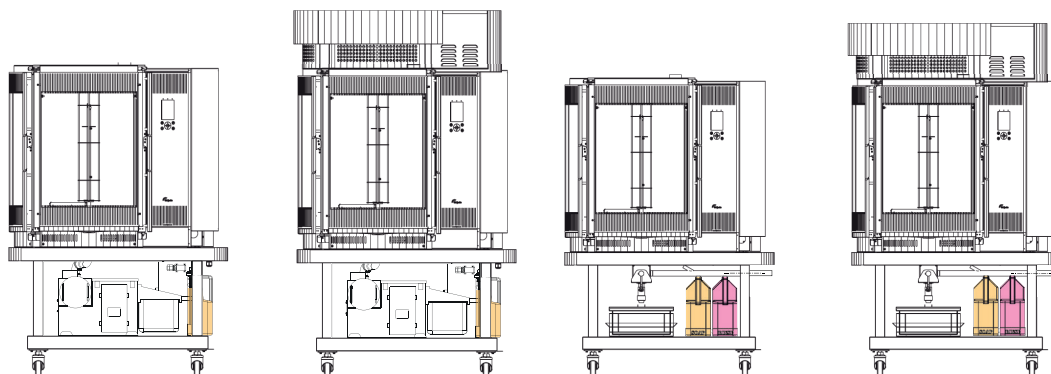
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## GENERAL TECHNICAL DATA

This manual covers the Fri-Jado Deli Multiserie ovens. All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

### TECHNICAL DATA



Type	Deli Mts. with GS	Deli Mts. with GS and IC	Deli Mts. with Bag in Box	Deli Mts. with Bag in box and IC
Net weight	390 kg 860 LBS	465 kg 1025 LBS	360 kg 794 LBS	435kg 959 lbs.
Gross weight	505 kg 1113 LBS	595 kg 1312 LBS	475 kg 1047 LBS	565kg 1246 lbs.
Height	1885 mm	2215 mm	1885 mm	2215 mm
Width	1008 mm	1008 mm	1008 mm	1008 mm
Depth	1320 mm	1341 mm	1320 mm	1341 mm
Voltage	400/230 V	400/230 V	400/230 V	400/230 V
Power connection	see next page, default CEEform 32A plug			
Phase	3	3	3	3
Power	20,6kW	20,6kW	20,6kW	20,6kW
Breaker	32A/55A	32A/55A	32A/55A	32A/55A
Frequency	50Hz	50Hz	50Hz	50Hz

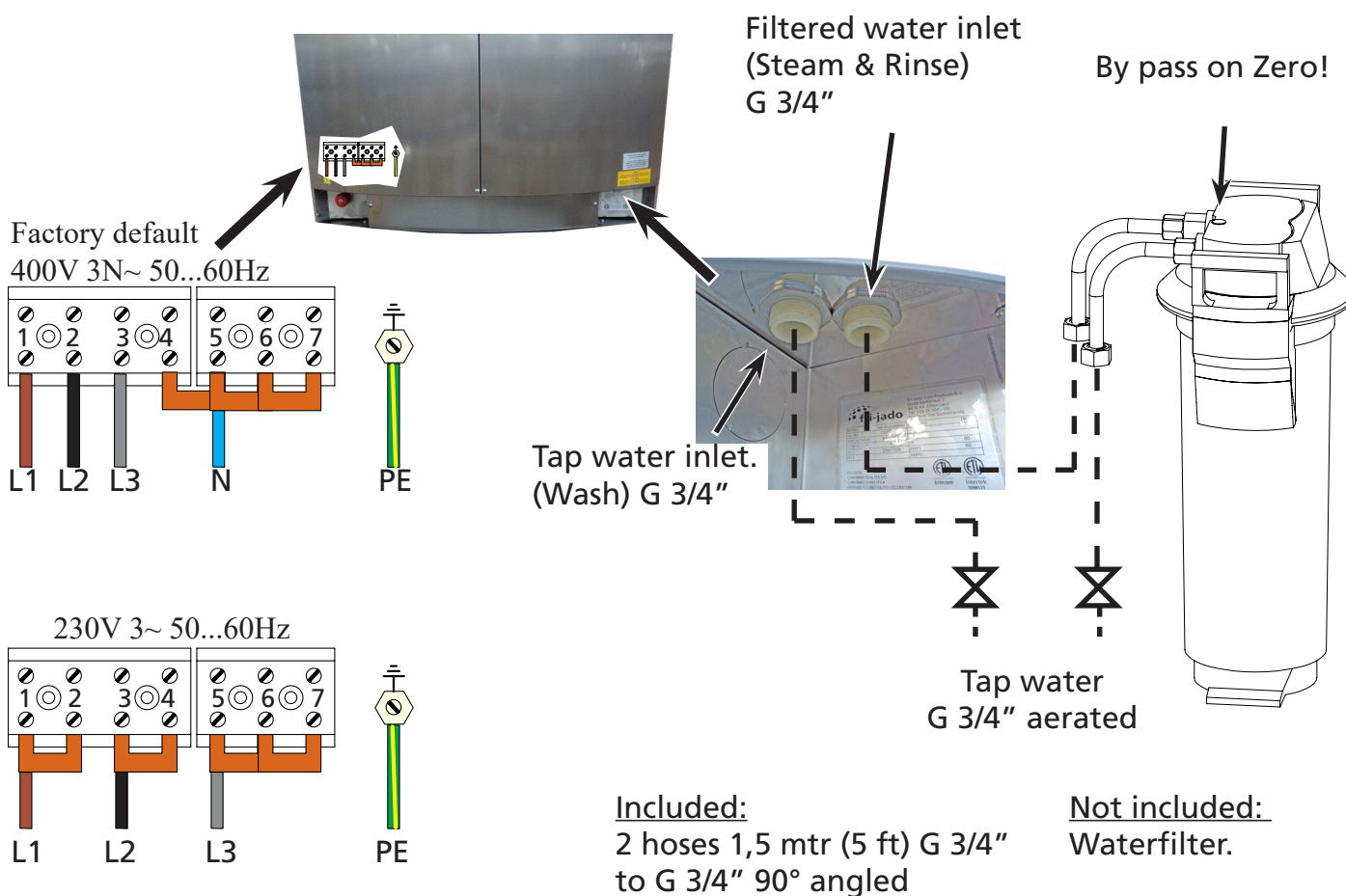
**Warning: all electrical connections must comply with local codes.**

Additional Grease separator			
Power	n/a (Through Multiserie)		
Water connection	n/a (Through Multiserie)		
Drain	50 mm (aerated inside the unit)		
Water drain		50 mm Open connection (aerated)	

## WATER REQUIREMENTS

Water connection Wash	G 3/4" aerated
Water pressure	Minimum 3 Bar at 15 ltr/min / 40 Psi at 4 Gallon / minute
	Maximum 6 Bar at 15 ltr/min / 90 Psi at minimum 4 Gallon / minute
Water temperature	Maximum 70°C / 158°F
Acidity	pH 7.0-8.0
Chlorides	< 30 ppm
Water connection Steam & Rinse (S&R)	G 3/4" aerated
Hardness	Maximum 2° KH (preferably zero!)
Temperatur range	20-250°C / 122-482°F
Ambient temperature	Maximum 35°C / 95°F
Cleaning agent	Ecolab Grease Cutter Plus
Preferred Rinse agent	Ecolab Clear Dry HDP plus

Use sediment pre-filter or a strainer for the reduction of silica and other non-dissolved sediments plus an active carbon pre-filter for the reduction of chlorine. In case of water hardness of 2 grains per gallon or more, use a decalcifying filter for reducing calcium and put the by-pass on ZERO. Contact your local water supplier for details regarding water quality.



### Warning:

*all plumbing connections must comply with local sanitary, safety and plumbing codes*

## INSTALLATION PROCEDURES

- Unpacking of the unit.
- Remove the pallet under the unit with the help of a fork lift.
- Put the unit on his location.
- Check if there is enough free space around the unit (see installation drawing).
- Check the electrical supply.
- Tethering the oven
- Load a program in the memory and make a test run on 250°C.
- Give instructions to the operator.

### UNPACKING THE UNIT

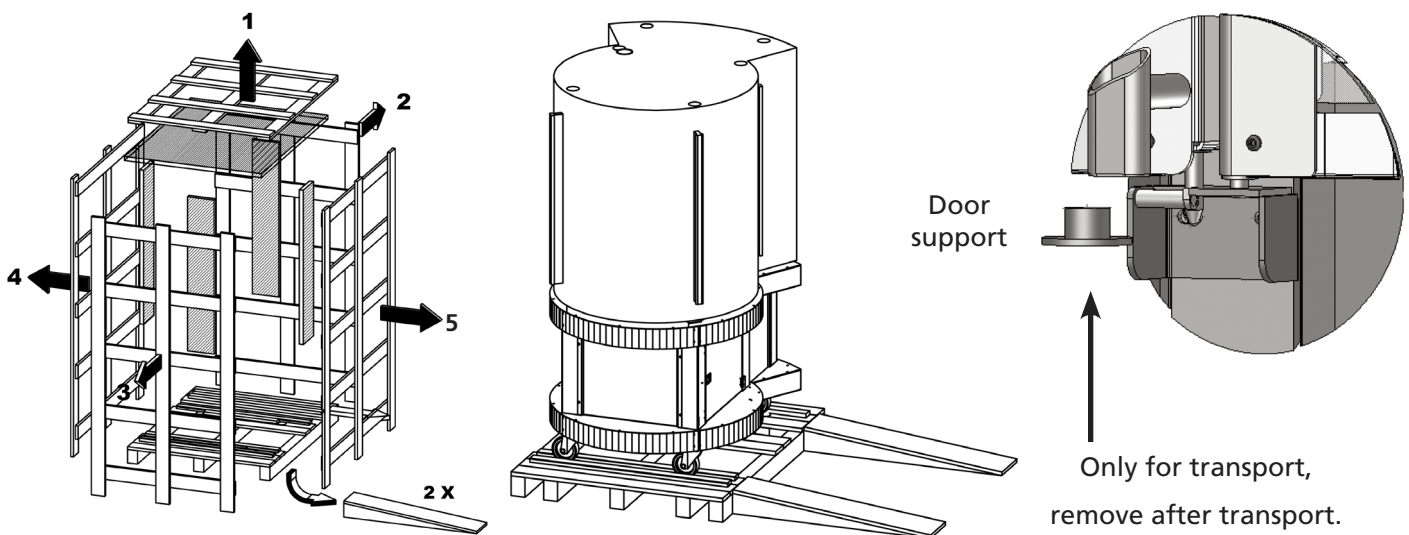
Immediately after unpacking the oven, check for possible shipping damage. If the oven is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

### REMOVAL OF PALLET

The standard way to remove the multiserie from a pallet is with a fork lift. See picture. Lift the unit from pallet and put the unit in its place.

Another possibility is to roll it from the pallet with help of the wedges, supplied with the oven. See "unpacking" drawing.

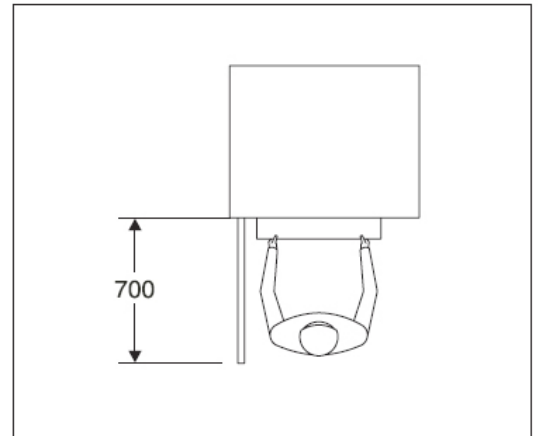
**Warning:** Do this with at least two persons. The oven is top heavy. Remove obstacles from the floor first.



## LOCATION AND CASTORS

The oven must be installed on a level surface. The installation location must allow adequate clearances for servicing and proper operation.

**IMPORTANT:** Make sure you leave sufficient space around the oven to easily remove or insert the meat baskets or chicken racks. The floor on which the multisserie rests must be level.



- The installation location must allow adequate clearances for servicing and proper operation, see pictures next chapter
- The Multisserie is equipped with adjustable castors.
- The intended use of these castors is for little movement for the purpose of cleaning or maintenance.
- The castors are not suitable for moving around on uneven surfaces.
- These castors allow to put the Multisserie on a floor that is not level.
- It is however advised to have a level floor.
- In case the floor is not level, it is important that :
  - The unit is adjusted level at installation (all door post vertical)
  - The unit is standing steady on all 4 castors.
  - The unit will be placed back on the exact same place, after cleaning or maintenance.

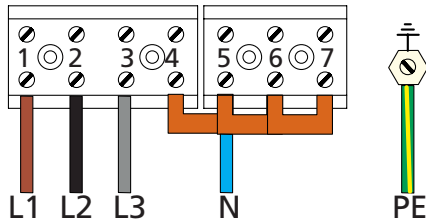
## ELECTRICAL SUPPLY

Prior to installation, test the electrical service to assure that it agrees with the specifications on the machine data plate located on the right side panel near the controls. The mains cable must be connected to a disconnect switch that is installed near the unit in a clear visible manner. Also refer to the local codes.

The unit must be connected according to one of the figures below.

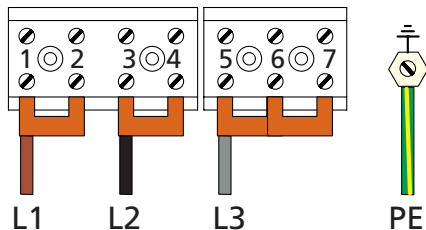
The unit is default supplied with a mains cable with 32A CEE form plug.

Factory default  
400V 3N~ 50...60Hz



This terminal block can be found at the bottom side, after opening the metal service door. See arrow.

230V 3~ 50...60Hz



## WATER REQUIREMENTS

### Tap water (wash) inlet

The supplied water for the tap water inlet must have the following conditions:

1. Minimum pressure 3 bar (40Psi) at 15 ltr/min (4 Gal/min) flowing.
2. Maximum pressure 6 bar (90 Psi) at minimum 15 ltr/min (4 Gal/min) flowing.
3. Maximum water temperature 70°C (158°F)
4. Acidity pH 7.0-8.0
5. Chlorides less than 30 ppm
6. Use a sediment pre-filter or a strainer for the reduction of silica and other non-dissolved sediments.

### Filtered water (Steam & Rinse) inlet

7. In addition to the above, the supplied water for the Steam & Rinse inlet can have a hardness of maximum 2 dH (2 Grains/Gal), but preferably zero.
8. Put the by pass from the filter on zero! (most filters have an adjustable by-pass)

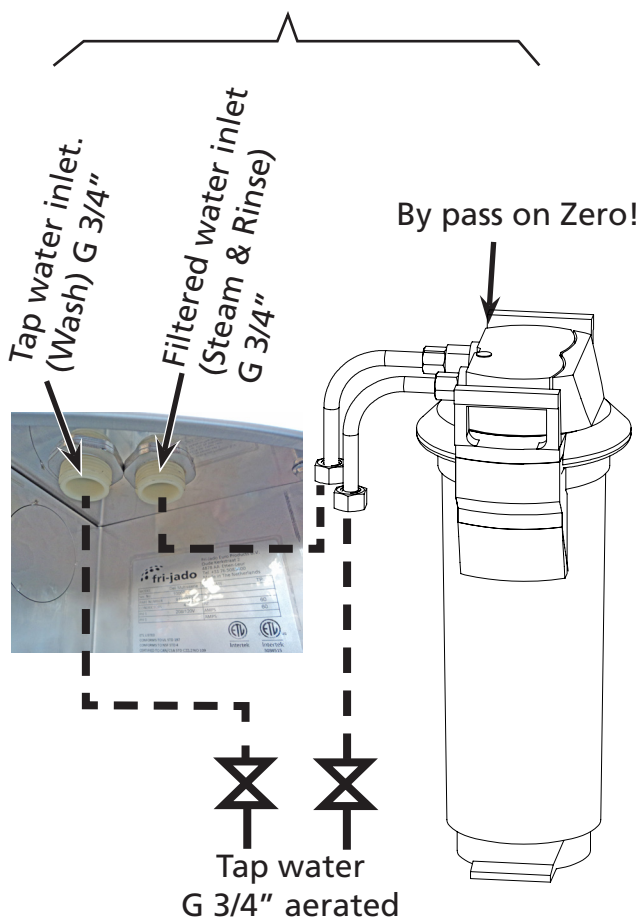


# WATER CONNECTION MULTISERIE

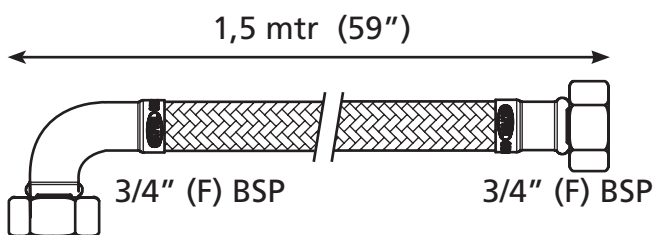
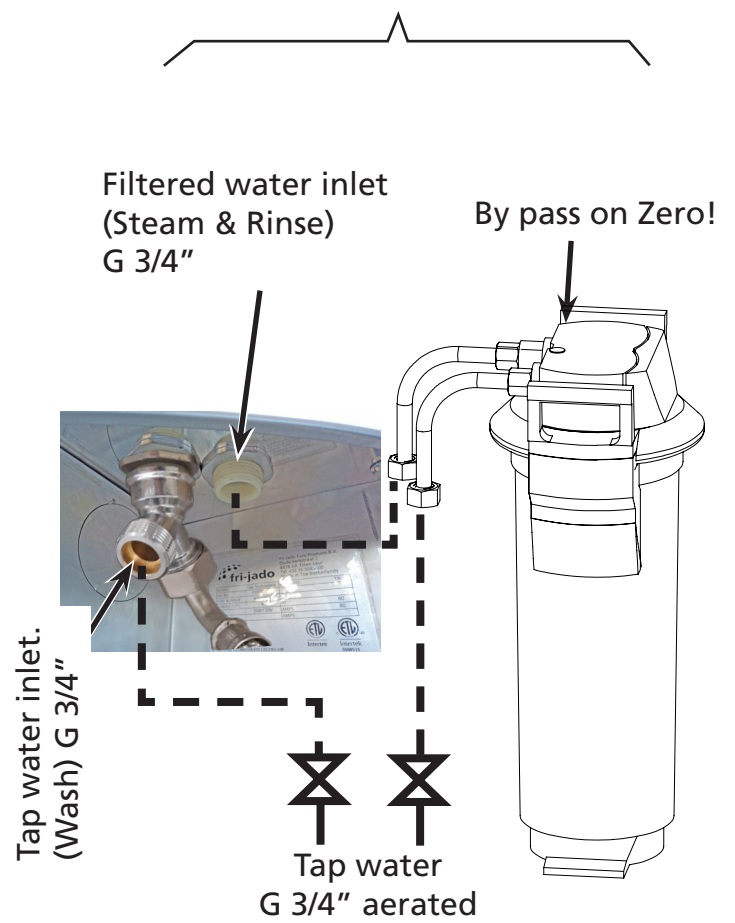


Water connection Multiserie

Water connection for Multis-  
serie with grease collector

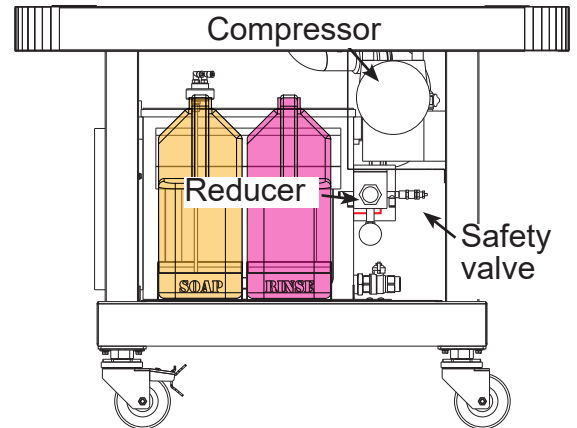
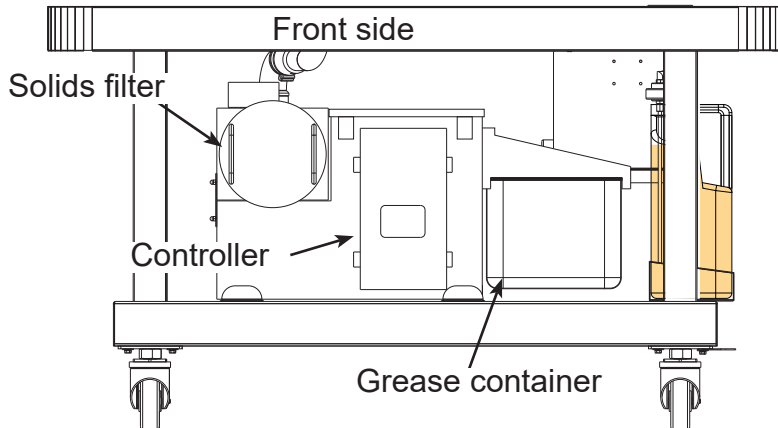


Water connection for Multis-  
serie with grease guardian

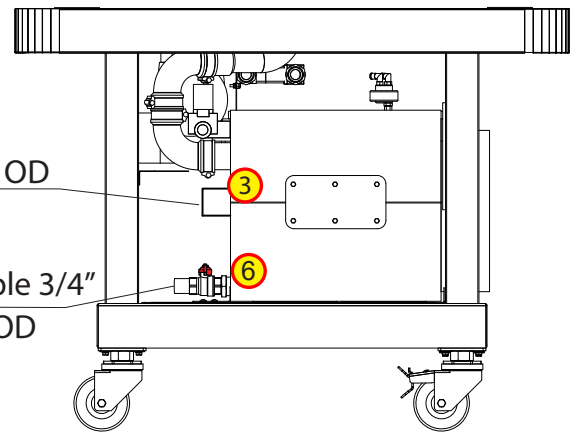
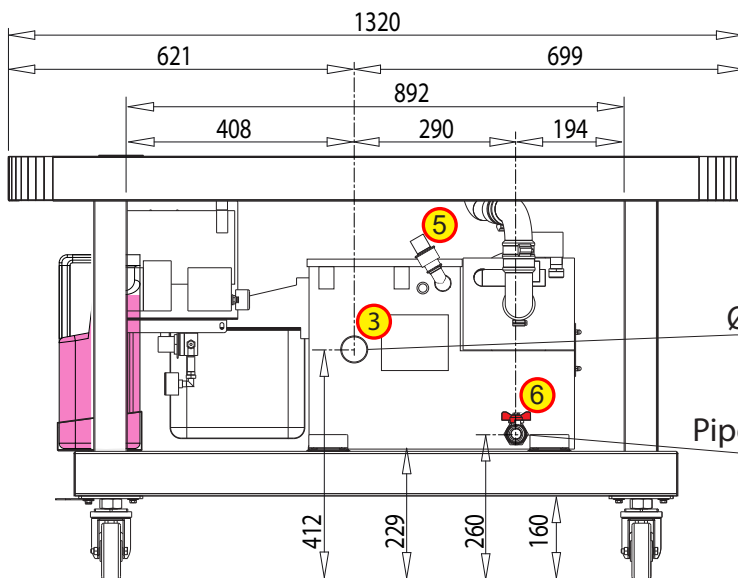


2 of these hoses always come with the unit.

## OVERVIEW OF UNDER FRAME WITH GREASE GUARDIAN



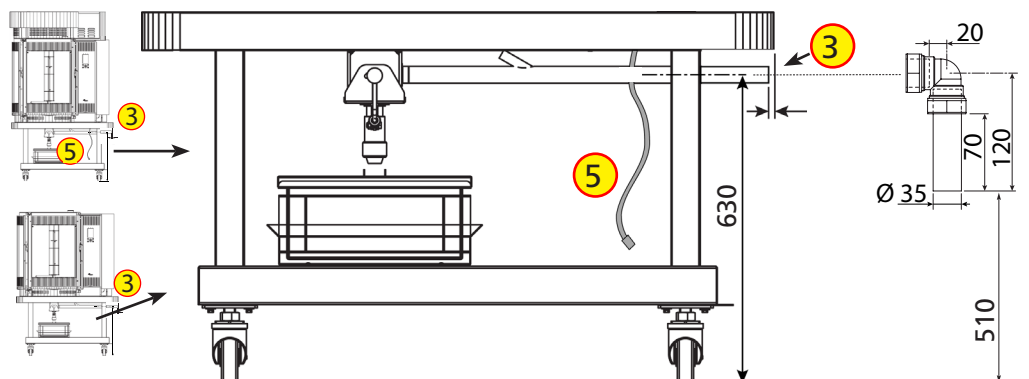
## DRAIN MULTISERIE WITH GREASE GUARDIAN



- ③ = Drain, Ø 48,5 mm (1 15/16") OD. It is aerated inside the unit. A 50 mm (2") rubber sleeve is delivered with the unit to connect 50 mm (2") plumbing material. This plumbing needs to slope down always.
- ⑤ = Connection of drain hose from condensing hood, if applicable. Pipenipple 3/4". This drain hose is default connected from factory. See picture.
- ⑥ = Drain for service, 3/4" pipe nipple (Ø 27mm OD). Can be connected to the sewer. (keep ball valve closed)



# DRAIN MULTISERIE WITH GREASE COLLECTOR

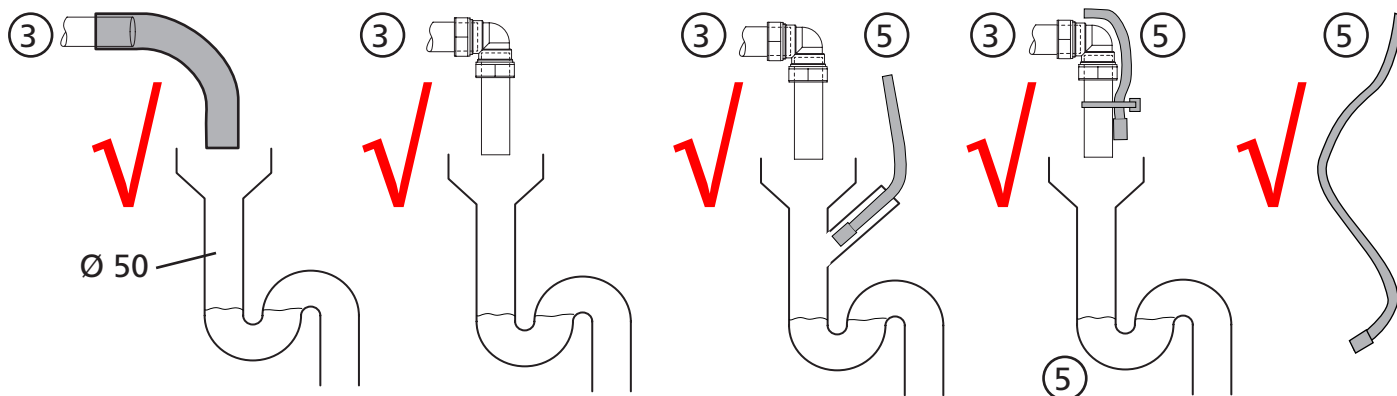


Supplied:  
1x Knee,  
compression  
1x Pipe,  
-length 100 mm  
-Diameter Ø 35 O.D.

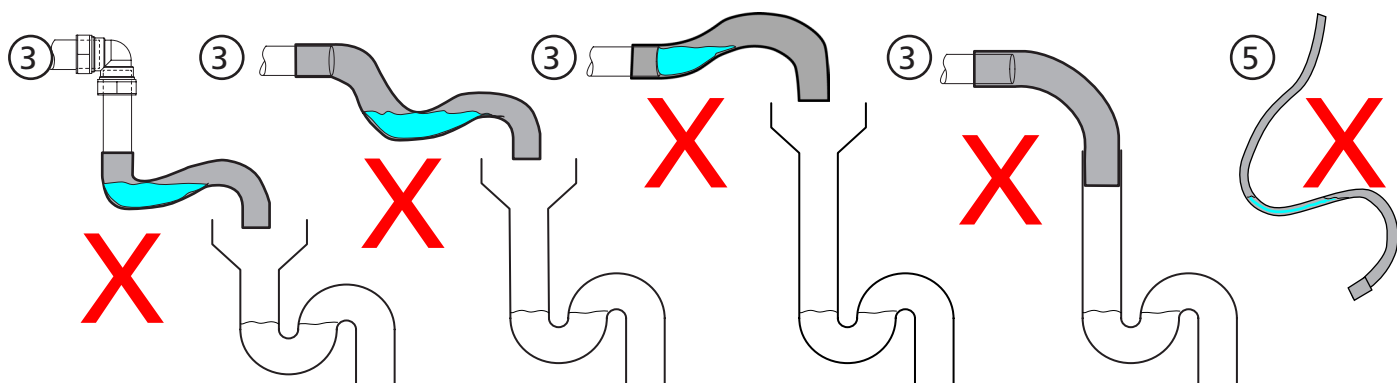


- ③ = Drain pipe from unit Ø35mm (1 3/8") O.D. stainless steel.  
Maximum temperature of waste water  $\pm 70^{\circ}\text{C}$  (158°F)  
Average temperature of waste water = tapwater temperature +  $10^{\circ}\text{C}$  (50°F)  
Maximum flow = Volume of tapwater =  $\pm 1000$  ltr (265 gallon) / hour
- ⑤ = Drain hose condensing hood Ø27mm (1 1/16") O.D. PVC.  
Maximum temperature of waste water  $\pm 70^{\circ}\text{C}$  (158°F)  
Maximum volume 15 ltrs (4 gallon) / hour

## Possible lay outs of drain

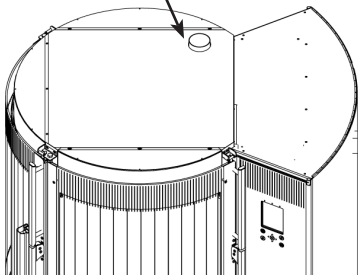


## Faulty lay outs of drain

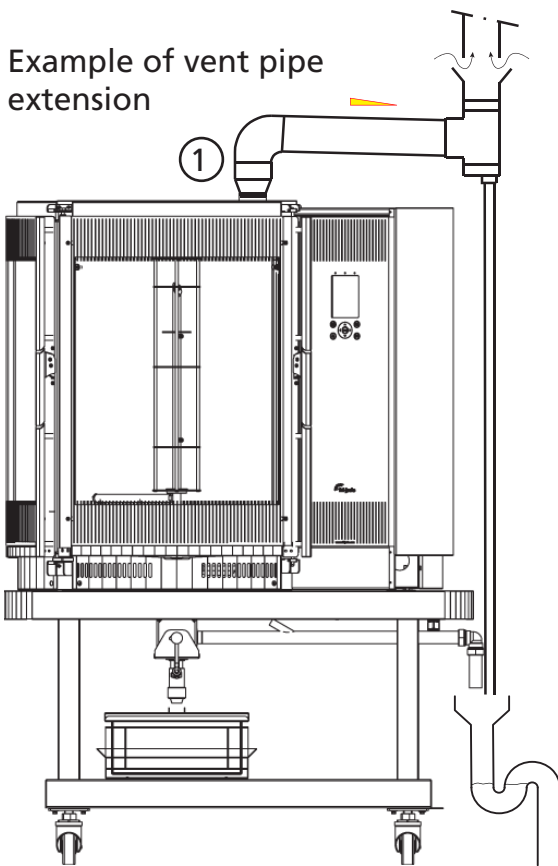


## VENT AND VENTILATION OF THE MULTISSERIE

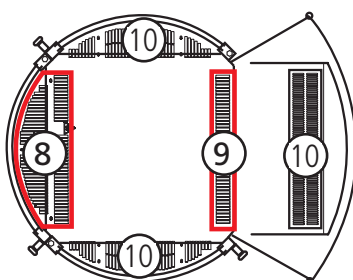
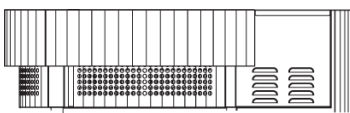
Vent pipe  
 $\varnothing 72\text{mm}$   $\varnothing 76\text{mm}$   
 $\varnothing 2\frac{53}{64}"$   $\varnothing 3"$



Example of vent pipe  
 extension



- The Multisserie vent can emit up to 43m<sup>3</sup>/ hour (25 cf/m) pure water vapor during peak performance.
- This depends on the load and the amount of injection of the meat.
- Ventilation is needed only if required by local codes
- Depending on the temperature of the environment, the theoretical capacity of the hood, if applicable, has to be 1780m<sup>3</sup>/h (1050cf/m).
- The extraction hood has to extend minimum by 200mm on all sides of the oven
- The extraction hood has to have a free height, above the rotisserie, of a minimum of 300mm.
- The rotisserie has to be accessible for service purposes
- In case it is necessary to extend the vent pipe, the shown example, could be a way to do it.
- Make sure that the suction pressure at #1 does not exceed 1mbar (1000 pascal, 0,15 Psi)
- Make sure that Back pressure at #1 is not possible.
- Make sure that there is no back flow from condensation into the unit.
- Make sure that the used pipes are
  1. - Heat resistant.
  2. - Resistant against corrosion.
  3. - Gastight, to prevent liquid leaks.

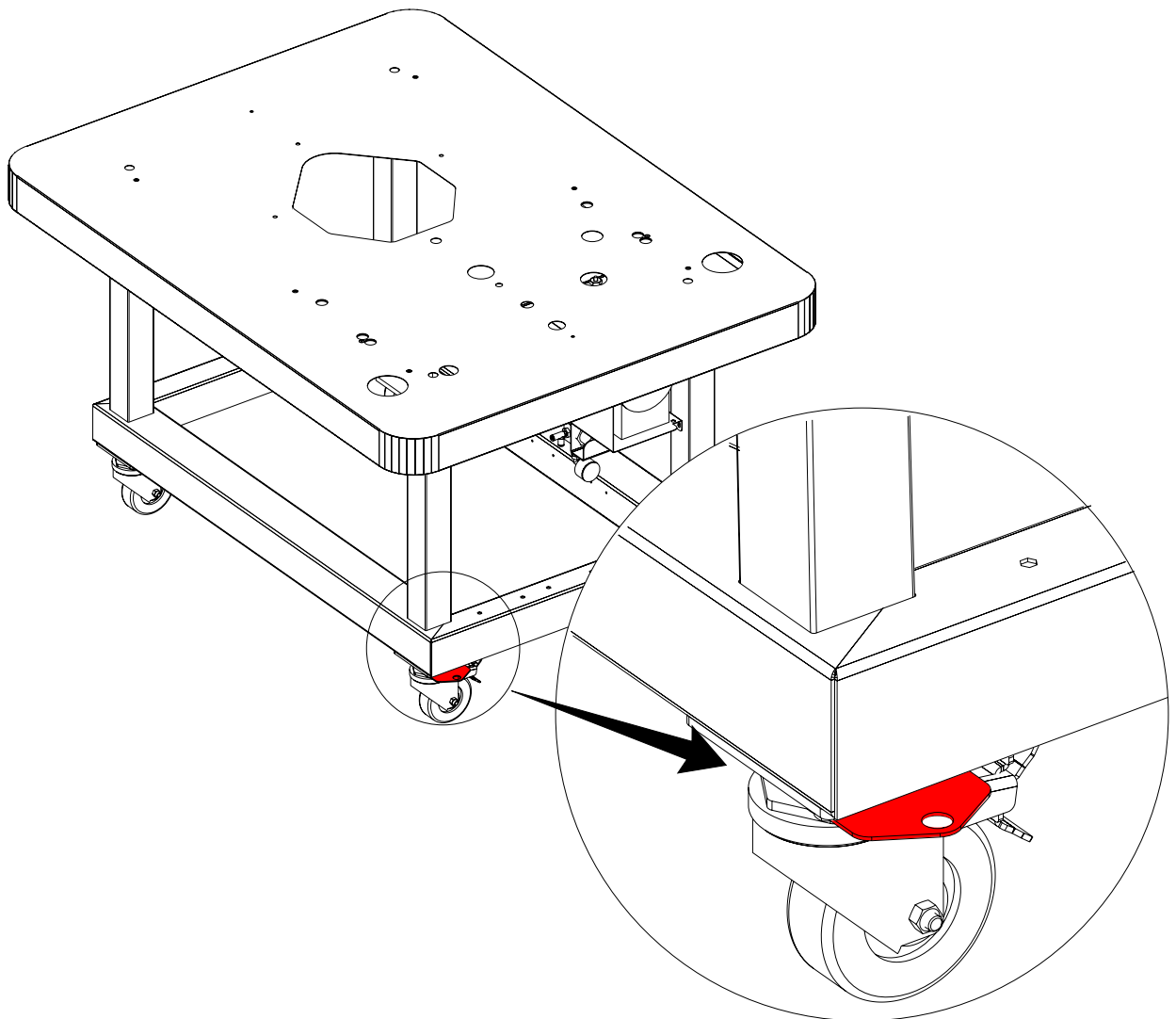


- No hood is required when the Multisserie has a condensor hood.
- Cooling air is forced in at #8.
- Cooling air is forced out at #9.
- Natural cooling air comes out at #10

## TETHERING THE OVEN

**Warning:** Safety standards require that, when this appliance is properly connected to the electrical power supply using a permanent connection, adequate means be provided to limit movement of the appliance without depending on or transmitting stress to the electrical conduit. **This means that, as part of the installation, the base must be secured to the building structure (typically either wall or floor) to limit the movement of the appliance and, thus, helping to prevent damage to the conduit during cleaning, maintenance and service operations.**

A tether bracket, as shown on the drawing below, is installed along with the caster to one corner of the base. The open hole in the center of the tether bracket is to be used to secure one end of the tether (locally supplied chain, cable, etc.). The other end of the tether is to be secured to an anchoring point in the building structure. Note: Length of tether must be shorter than the flexible conduit to make sure that during appliance movement, no stress is transmitted to the conduit.



**Warning:** Following installation, check to confirm that, when the appliance is moved to the limits of the tether in each direction, no stress is transmitted to the electrical conduit.

## FIRST USE

The oven must be burned in to release any odours that might result from heating the new oven surfaces. Operate the oven at maximum temperature setting of 250°C (482°F) for 30 minutes. Smoke with an unpleasant odour will normally be given off during this burn-in period.

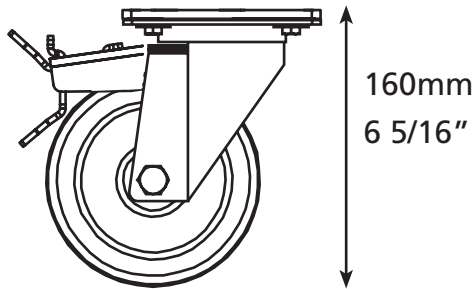
## INSTRUCTIONS FOR OPERATORS

After installation of the oven, the operator of the unit has to be instructed. The instruction has to cover the following subjects:

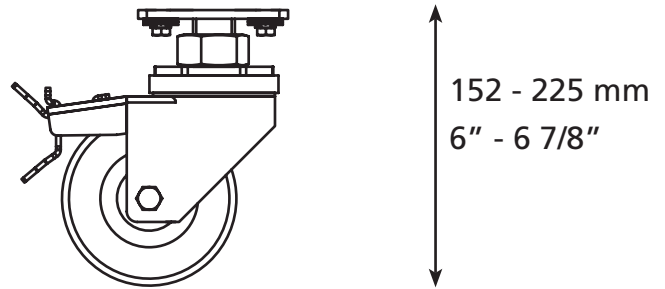
- Programming and options.
- Working of the unit.
- Free space of unit for cooling of drive motor and blowers.
- Run through the user manual.
- Refer to the storyboard training guide and laminated sheet with pre-programmed programs.
- Periodical maintenance.
- How to react for information or service calls.

## MULTISERIE CASTORS

Castors used until oktober 2011



Adjustable castors  
used from November 2011

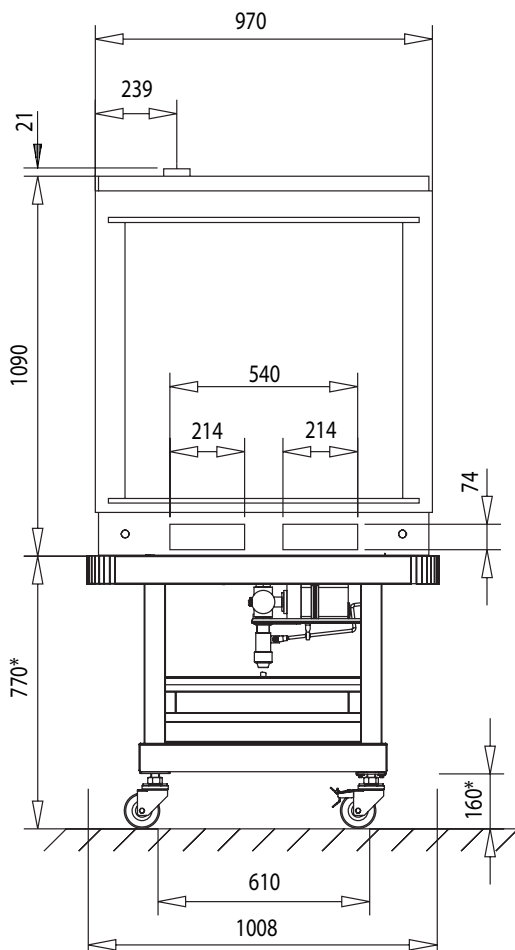


In the installation drawings, shown on the next pages, all sizes are related to the shown 160mm (6 5/16").

This means that the total height of the units can go up to 65 mm (2 9/16") higher.

**The castors are only suitable for movement for the purpose of cleaning or maintenance.  
The castors are not suitable for moving around on uneven surfaces!**

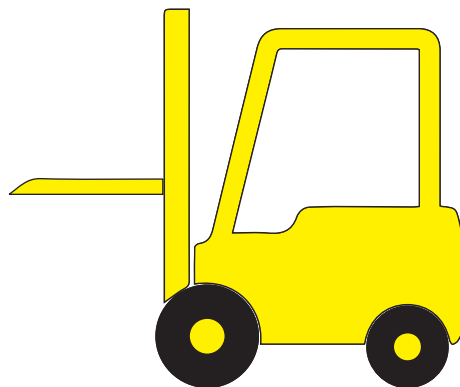
## LIFTING WITH A FORKLIFT



It might be good to know that the oven has slots which make it possible to lift it with a fork lift.

These slots can be reached by removing the curved covers under the front and rear (tech.) doors.

Take care of the wiring and plumbing in that section.



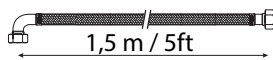
\* see castors above

# MULTISSERIE WITH GREASE COLLECTOR

- ① Location of mains connection.
- ② Location of water connection  
2x G 3/4" BSP.
- ③ Drain Ø 35mm (1 3/8)
- ④ Vent pipe Ø76 x Ø72
- ⑦ Minimum required space.

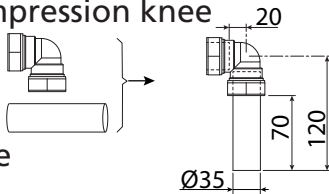
Included with unit

-2x hose

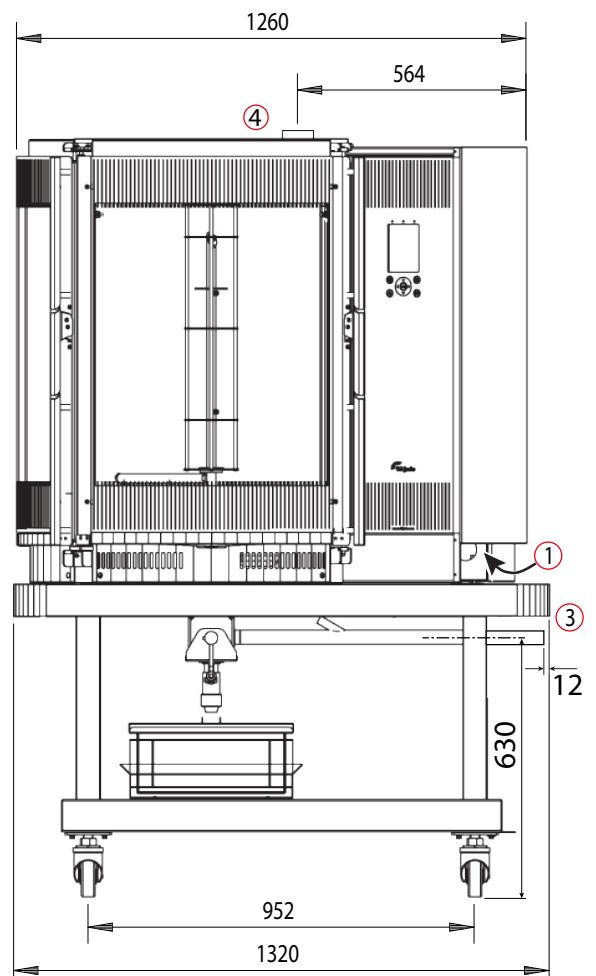
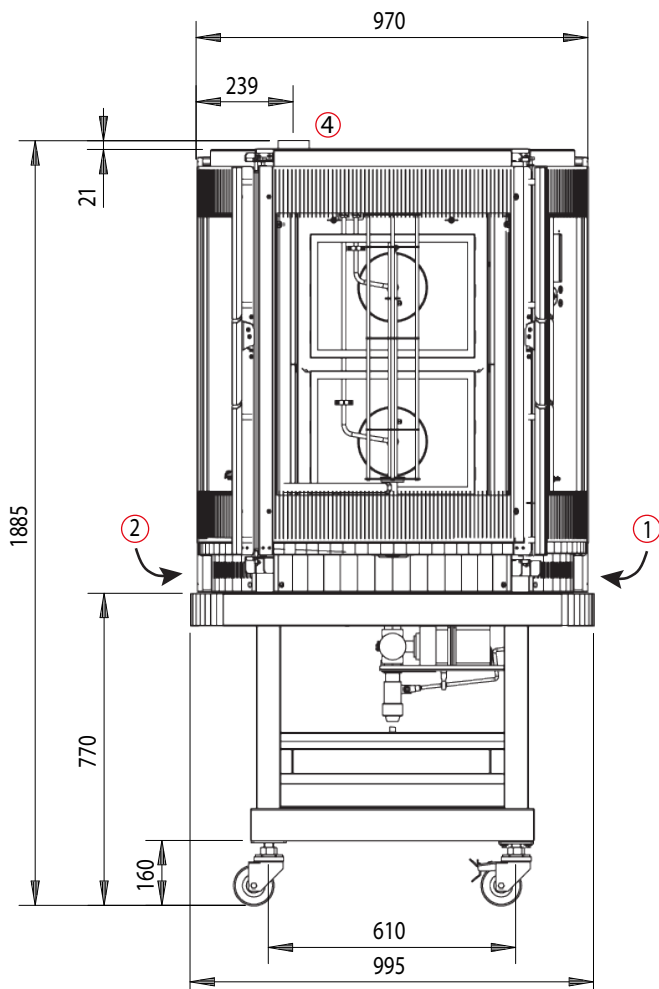
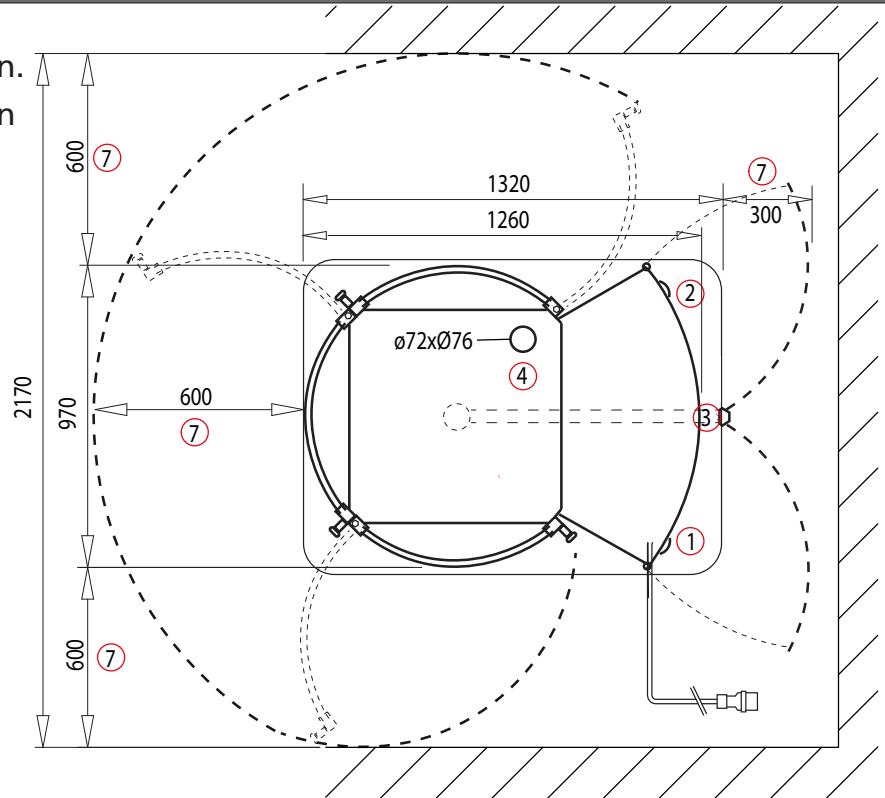


-1x compression knee

Ø35



-1x pipe



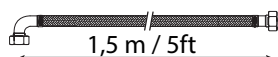


# MULTISERIE WITH GREASE COLLECTOR AND CONDENSING HOOD

- ① Location of mains connection.
- ② Location of water connection  
2x G 3/4" BSP.
- ③ Drain Ø 35mm (1 3/8)
- ⑤ Drain hose from hood.
- ⑦ Minimum required space.
- ⑧ ⑨ ⑩ Ventilation grids

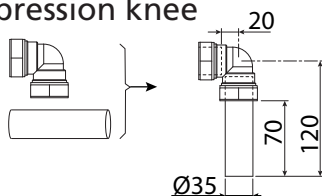
Included with unit

-2x hose

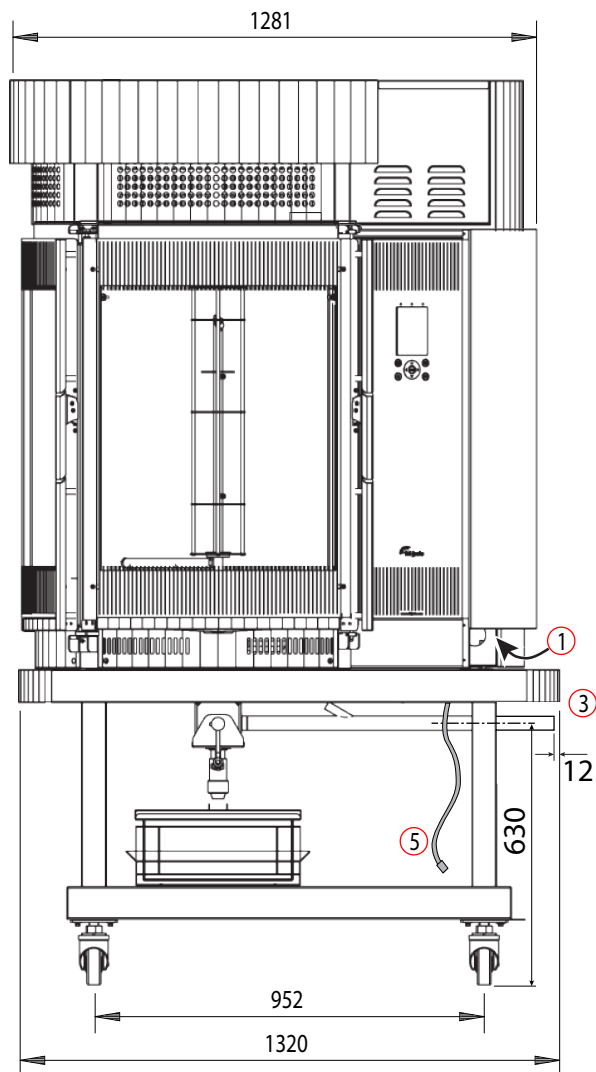
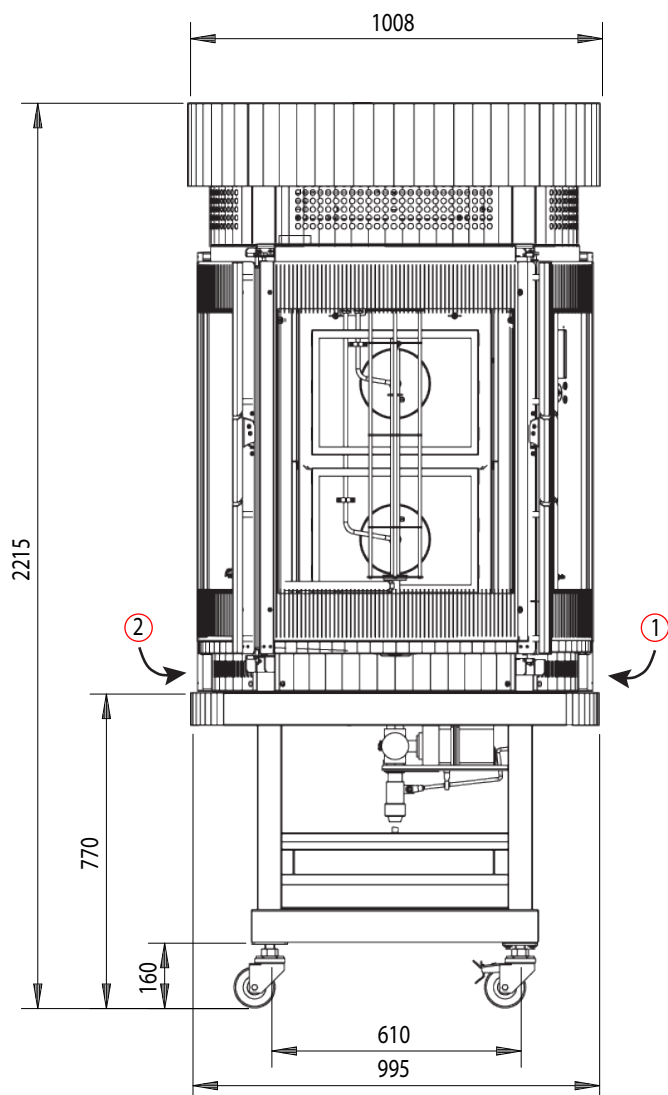
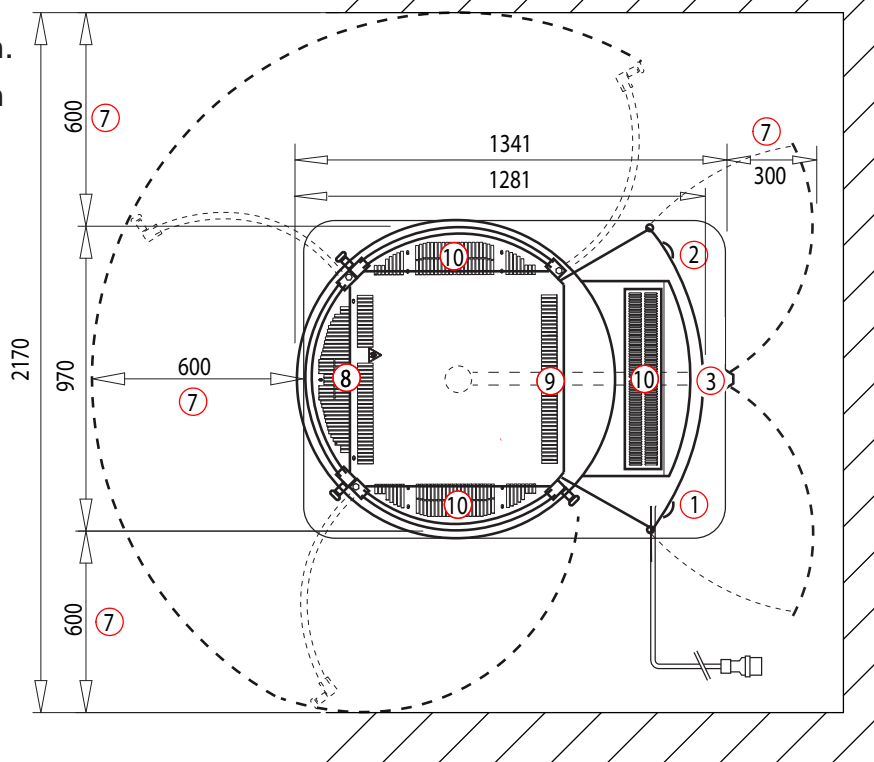


-1x compression knee

Ø35



-1x pipe

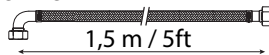


## MULTISSERIE WITH GREASE GUARDIAN

- ① Location of mains connection.
- ② Location of water connection  
2x G 3/4" BSP.
- ③ Drain Ø 50mm (2")
- ④ Vent pipe Ø76 x Ø72
- ⑥ Drain for service, 3/4" pipe nipple, Ø 27 mm OD
- ⑦ Minimum required space.

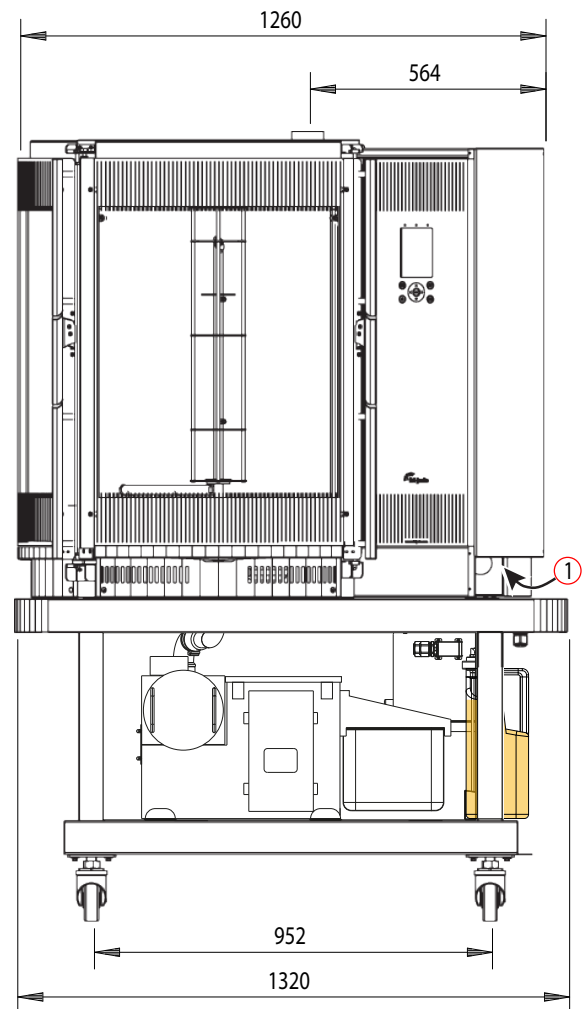
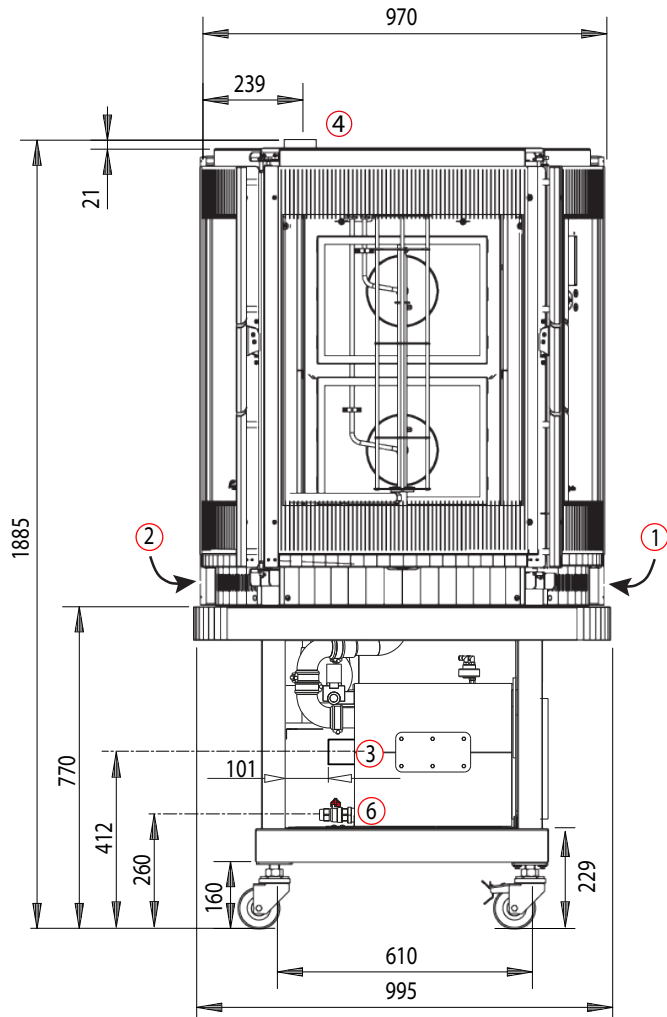
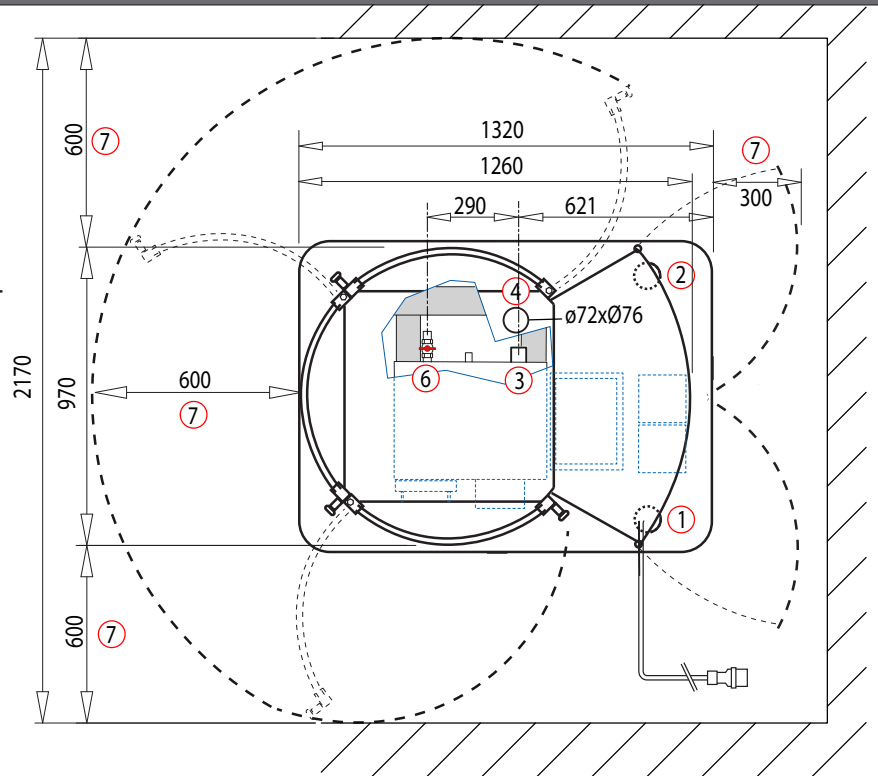
Included with unit

-2x hose



-1x rubber sleeve

Ø 51



# MULTISERIE WITH GREASE GUARDIAN AND CONDENSING HOOD

① Location of mains connection.

② Location of water connection  
2x G 3/4" BSP.

③ Drain Ø 50mm (2")

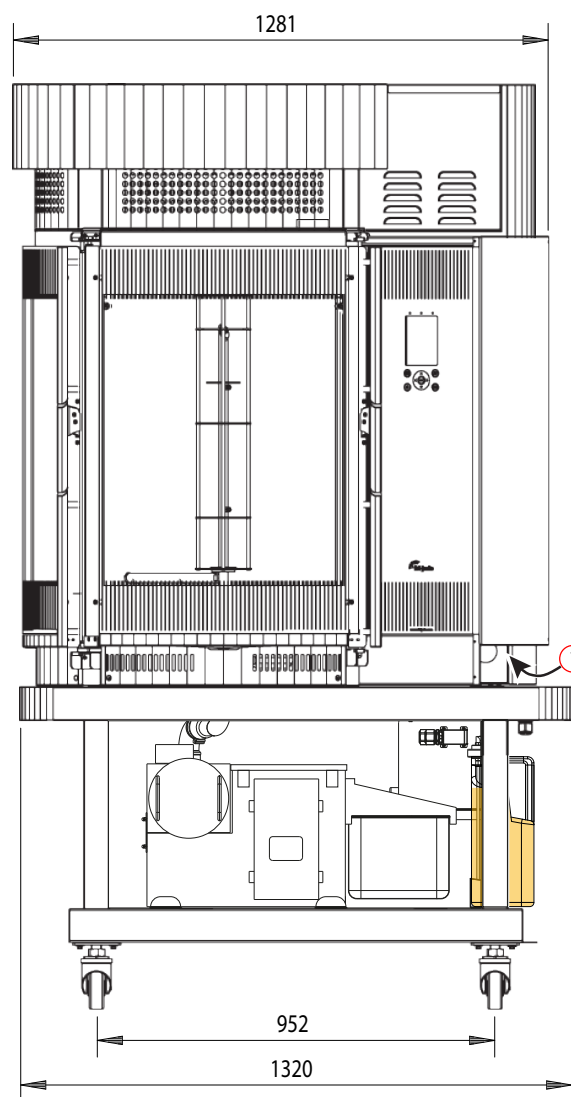
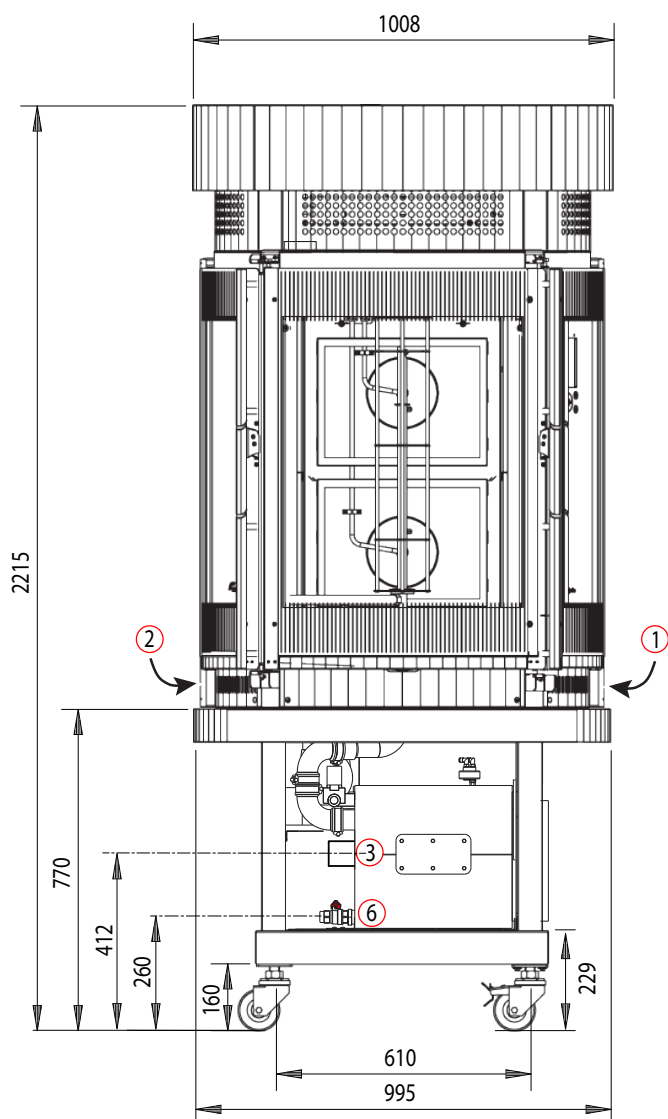
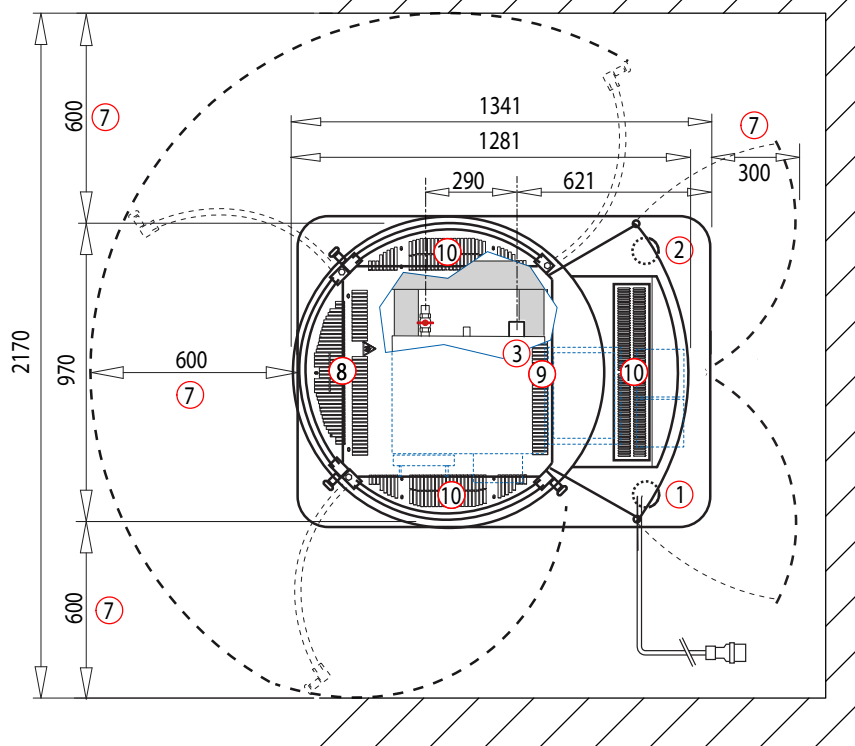
⑥ Drain for service, 3/4" pipe  
nipple, Ø 27 mm OD.

⑦ Minimum required space.

⑧ ⑨ ⑩ Ventilation grids.  
Included with unit

-2x hose 1,5 m / 5ft

-1x rubber sleeve  
Ø 51

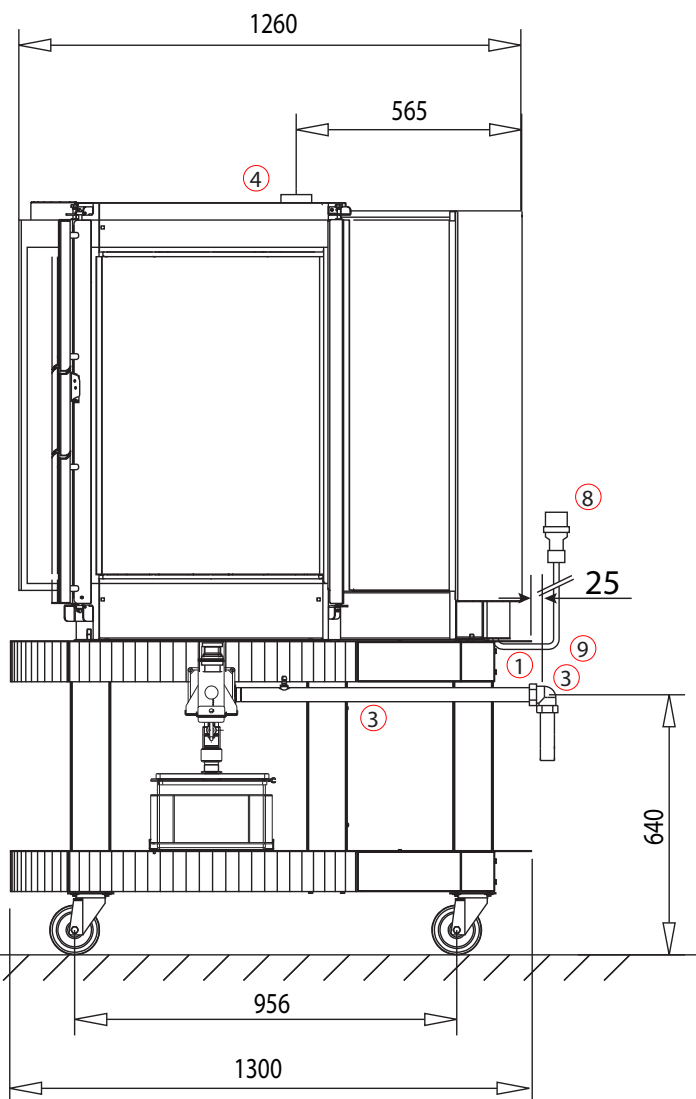
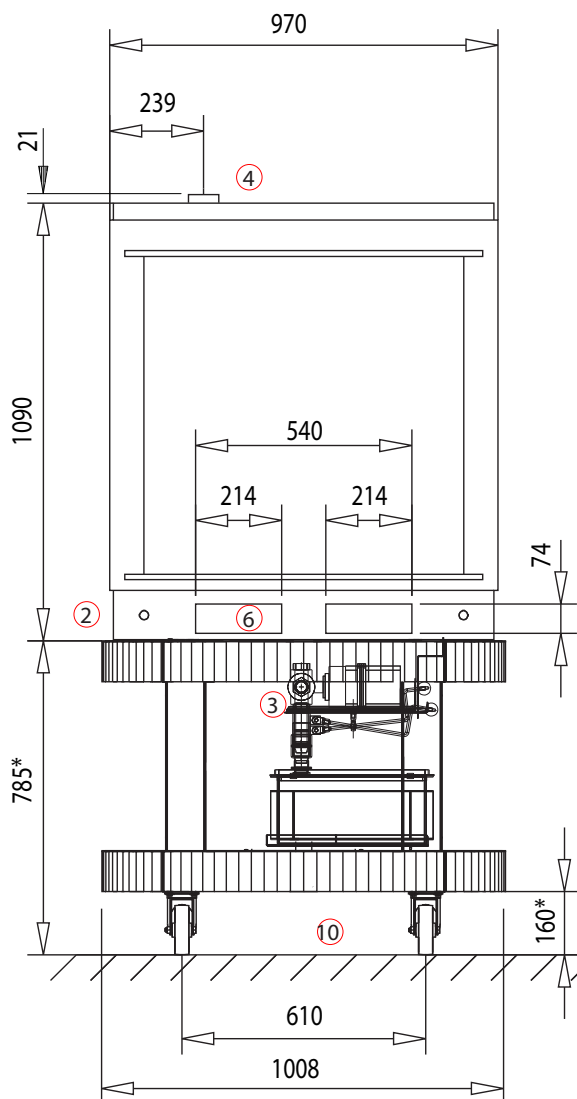
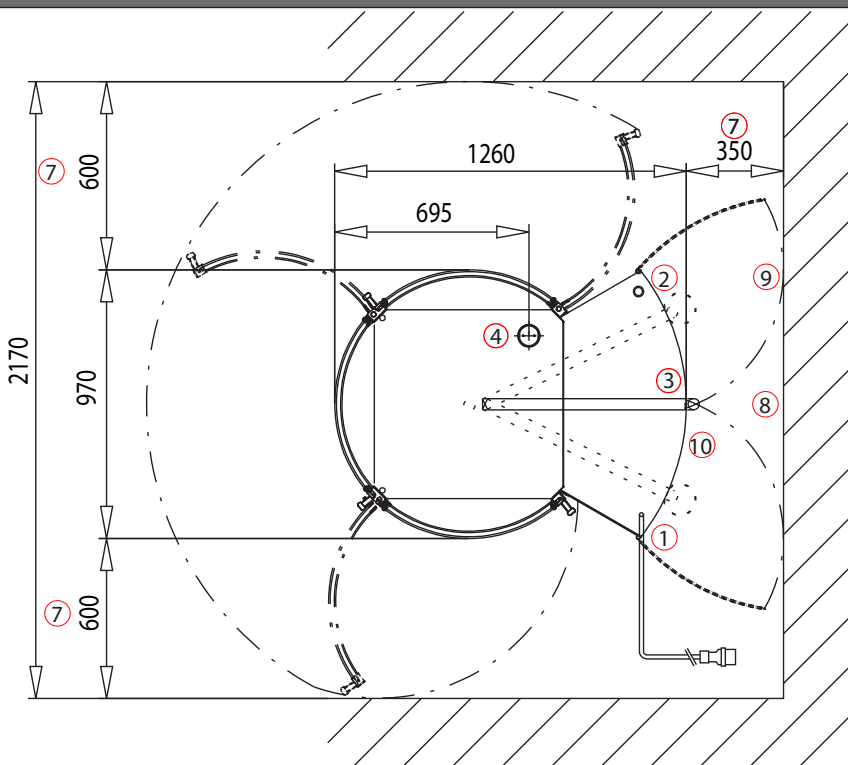


# MULTISSERIE WITH GREASE COLLECTOR ON OLD UNDERFRAME

## Description of the labels on the drawings

Label	Description	
1	Power cable	length 2,6 m.*
2	Water supply "G" 3/4"	hose length 1,2 m. *
3	Water drain Multisserie	35 mm stainless steel
4	Exhaust pipe Multisserie	80 mm
6	Holes for forklift	
7	Space between unit and wall	
8	Location for wall socket	
9	Location for tap	
10	Location for drain pipe	

\* Length measured from the point at the rear of the Multisserie where the hose and the cable come out.



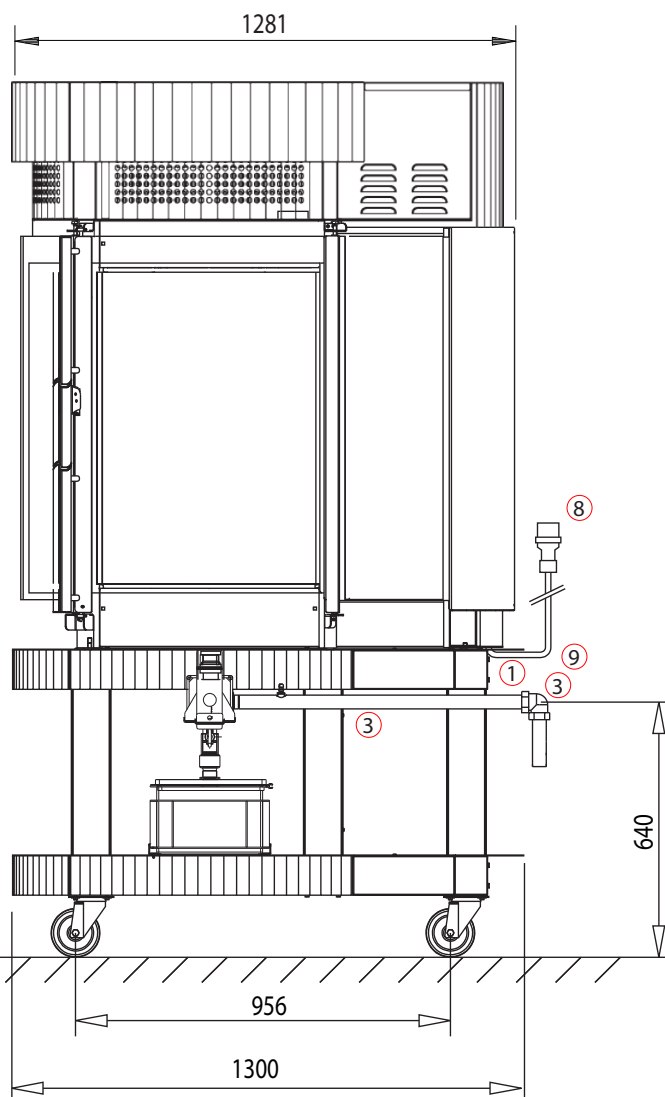
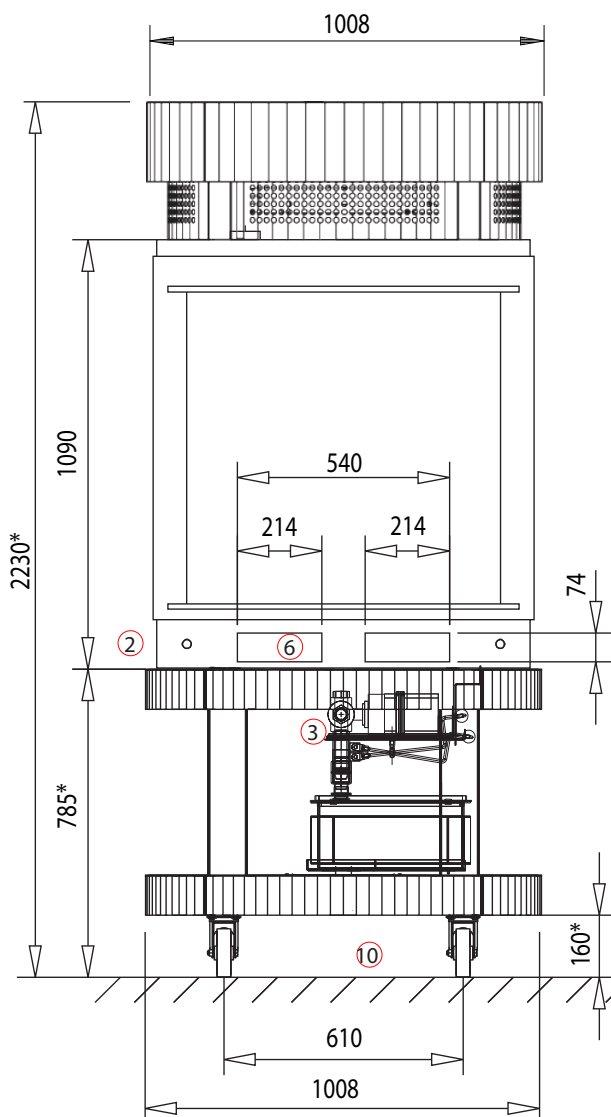
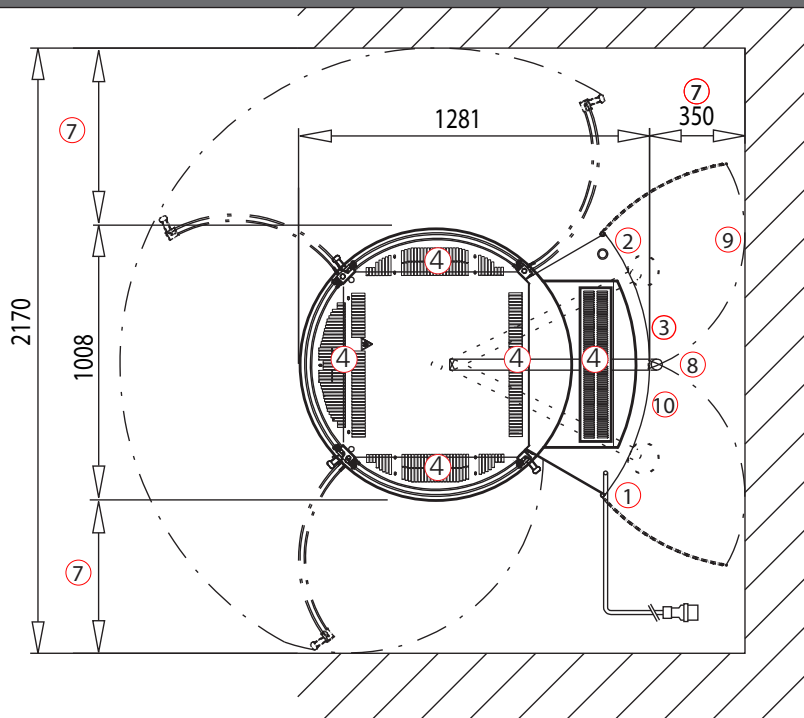
# MULTISERIE WITH GC AND CONDENSING HOOD ON OLD UNDERFRAME

## Description of the labels on the drawings

Label	Description	
1	Power cable	length 2,6 m.**
2	Water supply "G" 3/4"	hose length 1,2 m. **
3	Water drain Multiserie	35 mm stainless steel
4	Ventilation grids	
6	Holes for forklift	
7	Space between unit and wall	
8	Location for wall socket	
9	Location for tap	
10	Location for drain pipe	

\*\* Length measured from the point at the rear of the Multiserie where the hose and the cable come out.

\* See Multiserie Castors





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