



Installation Plan

Commercial Washing Machine

PW 413

PW 418

It is **essential** to read the operating instructions before installation - commissioning - use. This prevents both personal injury and damage to the machine.

en-CA



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Installation requirements

The washing machine must be installed and commissioned by a Miele Service technician or by an authorized Service technician.

- ▶ The washing machine must be installed in accordance with applicable regulations and standards. In addition, the regulations of the local energy supplier and water works must be observed.
- ▶ This washing machine must only be operated in a room that has sufficient ventilation and which is frost-free.

The washing machine should not be installed or operated in any area where there is a risk of explosion.

Storage / Transportation

The following conditions must be observed for transport and storage of the machine:

- Ambient temperature: 0 - 40 °C
- Humidity: non-condensing

General operating conditions

This washing machine is intended only for use in a commercial environment and must only be operated indoors.

- Ambient temperature of location: 0 - 40 °C
- Relative humidity: non-condensing
- Maximum height above sea level of location site: 2000 m

Depending on the nature of the installation site, sound emissions and vibration may occur.

Useful tip: Have the installation site inspected and seek the advice of a professional in instances where increased noise may cause a nuisance.

Installation and planning notes

Installation

This washing machine must be transported to its installation site using a suitable pallet truck and remove the transport packaging.

The washing machine must be set up on a level and firm surface with the minimum stated load bearing capacity (see "Technical data").

The floor load created by the washing machine is concentrated and transferred to the installation footprint via the machine feet.

Useful tip: A concrete floor is the most suitable installation surface. It is far less prone to vibration during the spin cycle than wooden floorboards or a carpeted surface.


Due to dynamic movements during operation, the washing machine requires clearance of 50 mm on the sides. In order to facilitate machine maintenance, a distance of at least 400 mm should be maintained between the wall and the rear panel.

Installation on concrete base

The washing machine can be installed on a concrete base if desired.

The concrete materials and the durability of the concrete base must be assessed in accordance with the floor load bearing capacity given in "Technical data".

- To guarantee the stability of the washing machine, make sure that the concrete base is sufficiently stable on the floor and that it is capable of withstanding any burden or force from the washing machine.
- The washing machine must be secured to the concrete base using the fixtures and fastenings supplied.

 The washing machine must be secured to the concrete base immediately after installation!

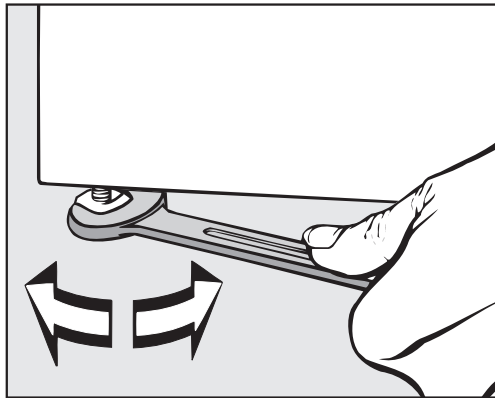
There is a risk of the washing machine falling off a raised base during a spin cycle if it is not secured.

Leveling the machine

- Align the washing machine vertically and horizontally using the adjustable feet and a spirit level.

The washing machine must stand evenly and horizontally on all four feet to ensure trouble-free and energy-efficient operation. Otherwise the water and energy consumption increases and the washing machine might move around.

- After aligning the machine tighten the lock nuts by turning them in an counterclockwise direction with a wrench. This will prevent the feet from adjusting themselves.



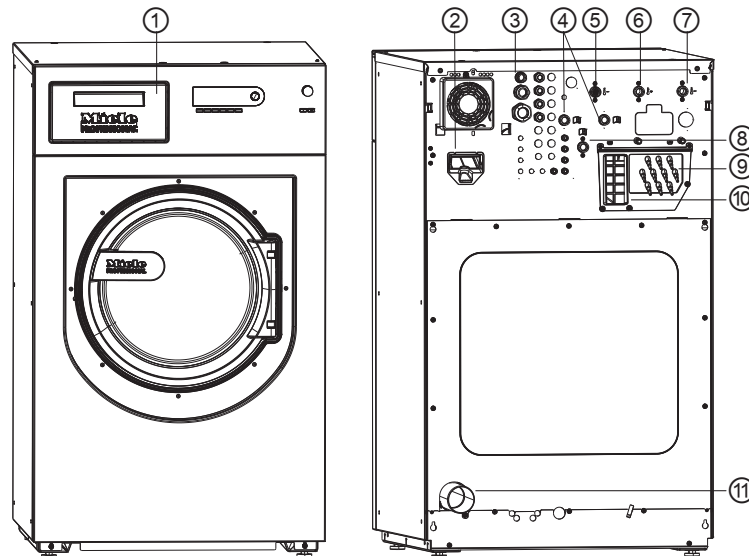
Securing the machine

- The feet of the washing machine must be secured to the floor using the fixtures and fastenings supplied.

The material provided is intended for use in bolting the machine to a concrete floor. If other floor types are present at the installation site, the fastening material must be ordered separately.

Machine connections

Models with
detergent
dispenser drawer
(WEK)



- ① **Detergent dispenser (WEK)**
- ② **Communication module slot**
The XKM RS232 communication module is available as an optional accessory.
- ③ **Electrical connection**
- ④ **2 x hard water connection**
(Optional)
- ⑤ **Cold water connection**
- ⑥ **Hot water connection**
Water temperature to maximum 70°C.
- ⑦ **Cold water connection**
- ⑧ **Cold water connection for liquid dispensing**
(Optional)
- ⑨ **Connections for external dispenser pumps**
For up to 12 dispenser pumps
- ⑩ **Vapor extraction / free outlet Type AB**
- ⑪ **Drain valve**
Connection for plastic pipe HT DN 70.

Electrical connection

The electrical connection must only be carried out by a qualified electrician who must ensure that all electrical work is carried out in accordance with applicable electrical regulations and standards.

► The washing machine must be connected to an electrical system according to national and local regulations. In addition, all regulations of the appropriate utility supply companies and standards relating to safety, and all applicable valid regulations and technical standards must be complied with!

► The required voltage, connected load and fusing rating can be found on the data plate on the washing machine. Before connecting the washing machine to the power supply please ensure that the mains supply voltage complies with the values given on the data plate.

Connection to a supply voltage other than the one quoted on the data plate can lead to functional faults and damage the washing machine.

If more than one voltage is quoted on the data plate, the washing machine can be converted for connection to the voltages stated by Miele Service.

► Conversion to a different voltage must only be carried out by a Miele Service technician or by an authorized Service technician. The wiring instructions given on the wiring diagram must be followed. The washing machine can either be hard-wired or connected using a plug-and-socket connection in accordance with IEC 60309-1. For hard-wired machines connection should be made via a suitable switch with all-pole isolation at the installation site.

Isolator switches ensure a contact opening of more than 3 mm. These include circuit breakers, fuses and relays (IEC/EN 60947).

If the power supply cannot be permanently disconnected, the isolator switch (including plug and socket) must be safeguarded against being switched on either unintentionally or without authorization.

Useful tip: We recommend connection to the power supply via a suitable plug and socket which must be easily accessible for servicing and maintenance work after the machine has been installed.

Installation and planning notes

▶ If it is necessary to install a residual current device (RCD) in accordance with local regulations, a residual current device type B (sensitive to universal current) must be used.

An existing type A residual current device, (RCD) must be exchanged for a type B RCD.

▶ If necessary, equipotential bonding with good galvanic contact must be guaranteed in compliance with all applicable local and national installation specifications.

Equipotential bonding must have an earth current rating > 10 mA. Accessories for equipotential bonding are not supplied and need to be ordered separately.

Water connection

The washing machine complies with current local and national safety regulations protecting the drinking water supply and can therefore be connected to the drinking water supply without a non-return valve.

The flow pressure must amount to a minimum of 100 kPa (14.5 psi) and must not exceed an overpressure of 1,000 kPa (145 psi). If the flow pressure is higher than 1,000 kPa (145 psi), a pressure relief valve must be used.

The machine must be connected to the water supply using the inlet hoses provided. Extension hoses are available from Miele as spare parts.

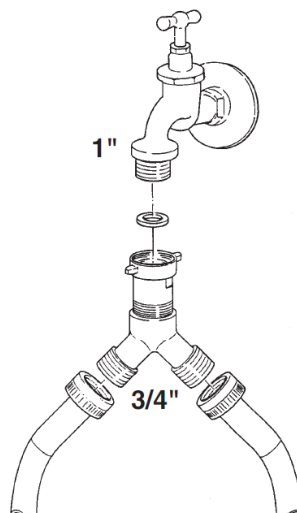
⚠ The connection points are subject to water supply pressure. Turn on the faucet slowly and check for leaks. Correct the position of the seal and union if necessary.

Cold water connection

Use the inlet hose supplied (cold - blue stripes) for the cold water connection. For the cold water connection (single or double) one water tap each with a 3/4" male garden hose thread is required. If not available, only a qualified installer may connect the washing machine to the water supply.

The inlet hose for cold water (blue stripes) is not intended to be used with a hot water supply line.

If the hot or hard water connection is missing, cold water consumption increases accordingly to account for the missing water intake.



A Y-piece for connecting two inlet hoses to a single cold water line is supplied.

Installation and planning notes

Hot water connection

To minimize energy consumption during operation with hot water the washing machine should be connected to a hot water ring circuit.

So-called "transmission lines" (single lines to hot water generators) can result in cooling down of the water remaining in the pipes if not in constant use. More energy would then be consumed to heat the liquid up again. More electrical energy would be needed in order to heat the suds.

Use the inlet hose supplied (hot - red stripes) for the hot water connection. A 3/4" male garden hose thread connection is required.

The temperature of the hot water intake must not exceed 70°C (158°F).

If no hot water supply is available, the inlet hose for hot water (coded red) must also be connected to the cold water supply. An additional Y-piece is required in this case. Cold water consumption of the washing machine increases by the initially required quantity of warm water.

For functional and technical reasons it is not possible to operate the machine exclusively with a hot water connection (without a separate cold water intake).

Even if a hot water connection is present, the washing machine must be connected to a cold water intake.

Drain valve

A motorized dump valve is used to drain the machine. An HT DN 70 angle connector can be used for draining the machine directly into the waste water system (without a siphon) or into an on-site gully (with odor trap).


An optimised closing mechanism and an increased cross-sectional diameter prevents clogging and deposits even with coarse soiling. The drain valve can also be operated manually to allow the suds container to be emptied in the event of a power failure as an exception.

A vented drainage system is vital for unimpeded drainage. If several machines are connected to a single drain pipe, this should be sufficiently large to allow all machines to drain simultaneously.

The appropriate Miele installation set M.-No.: 05 238 090 is available from Miele for venting a HT DN 70 pipe.

If the drain gradient is too high, a pipe ventilation must be provided to prevent a vacuum to develop in the drain system of the washing machine.

Slow or obstructed drainage or a backup of water in the drum as a result of undersized pipework can result in faults occurring during programs, which will result in error messages appearing in the display.

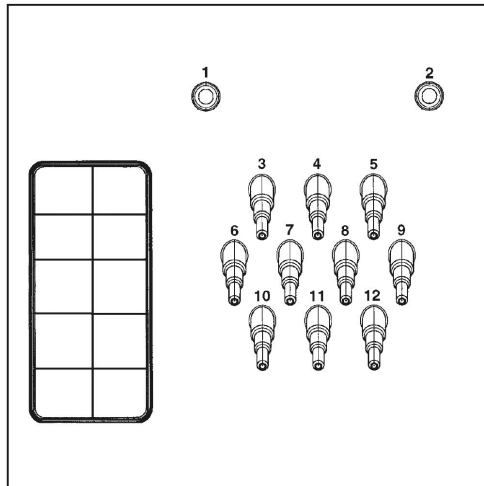
 The temperature of the drained suds can reach up to 95 °C. There is a danger of burns!
Avoid direct contact.

Installation and planning notes

Dispenser pump connections

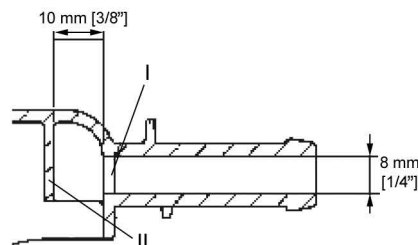
Up to 12 dispenser pumps can be connected to the washing machine.

It is particularly important to observe the manufacturer's instructions when using a combination of cleaning agents and special application products.



Dispenser pump connections on the back of the machine

Connections **1** and **2** are provided for viscous agents. These connections are sealed and need to be drilled open using a 8 mm drill bit before connecting.



Make sure that you only drill through the first panel (**I**) as there is a deflecting panel (**II**) 10 mm (3/8") behind it.

Connections **3** to **12** are provided for liquid detergent. These connections are sealed and must be cut to the diameter of the hose with a small saw.

If opened connections are no longer required, they must be resealed using a suitable sealant (e.g. silicone).

Connection terminals for five time-controlled dispenser pumps, which can be operated without a multifunction module, are located behind the cover adjacent to the electrical connection.

Calibration of the dispenser pumps and regulation of dispensing quantities is carried out automatically for washing machines fitted with a multifunction module.

A flowmeter or throughput sensors can be connected for precise monitoring of the dispensing quantity.

Connections for level monitoring are available for every agent dispensed. A message is displayed if empty.

Installation and planning notes

Optional accessories

Only use genuine Miele spare parts and accessories with this machine.

Using spare parts or accessories from other manufacturers will invalidate the warranty, and Miele cannot accept liability.

XKM RS232 communication module

The serial data interface RS 232 for the washing machine can be retrofitted via the communication module XKM RS 232, available as optional accessory. This communication module is only intended for use in Miele Professional machines which are equipped with a corresponding module slot.

The data interface provided via communication module XKM RS232 complies with SELV (Safety Extra Low Voltage) in accordance with EN 60950.


Machines connected to this interface must also be SELV compliant.

Communication module XKM RS 232 is supplied with a connection cable and a D-sub-connector.

Base

The machine can be installed on a machine base (open or closed base, available as an optional Miele accessory).

A raised setup of the washing machine ensures ergonomic loading and unloading. At the same time it facilitates the installation of a drain connection.

 The washing machine must be secured to the base immediately after installation! The base must be secured to the floor!
There is a risk of the washing machine falling off during a spin cycle if it is not secured.

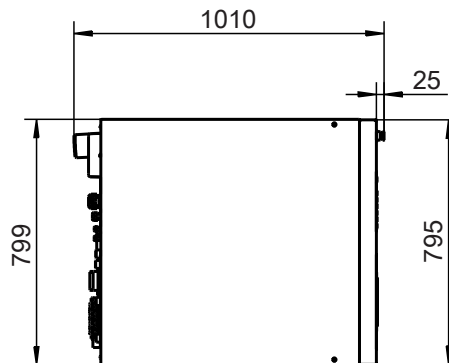
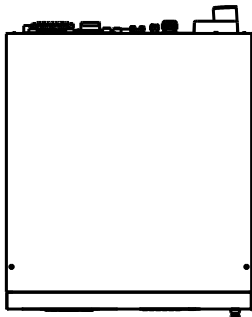
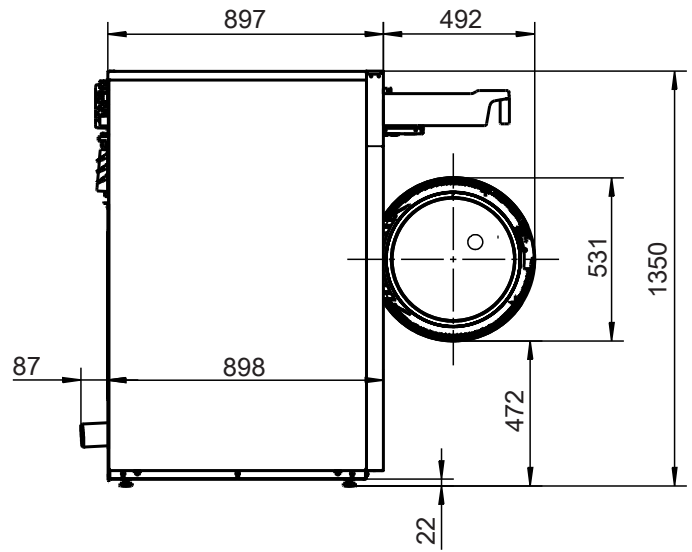
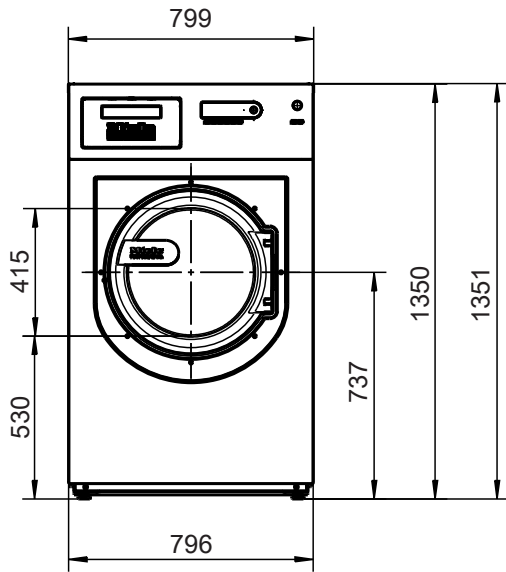
Steam and foam venting kit (BWS)

In case of increased foam development foam can escape from the steam drain. To remove the foam, the optional "Steam and foam venting kit (BWS) can be used.

Technical drawings - dimensions quoted in millimeters

PW 413

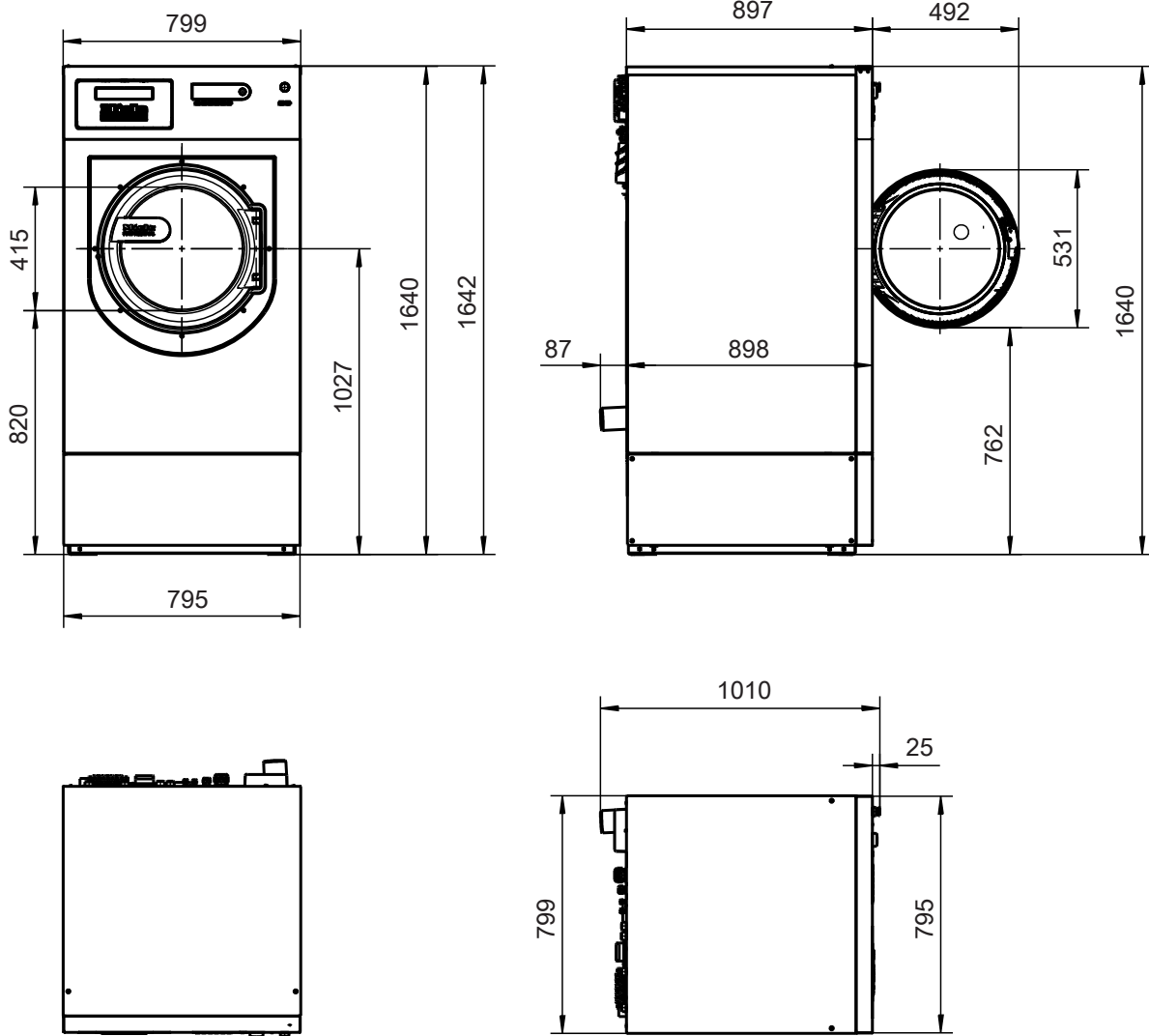
Dimensions of PW 413



Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

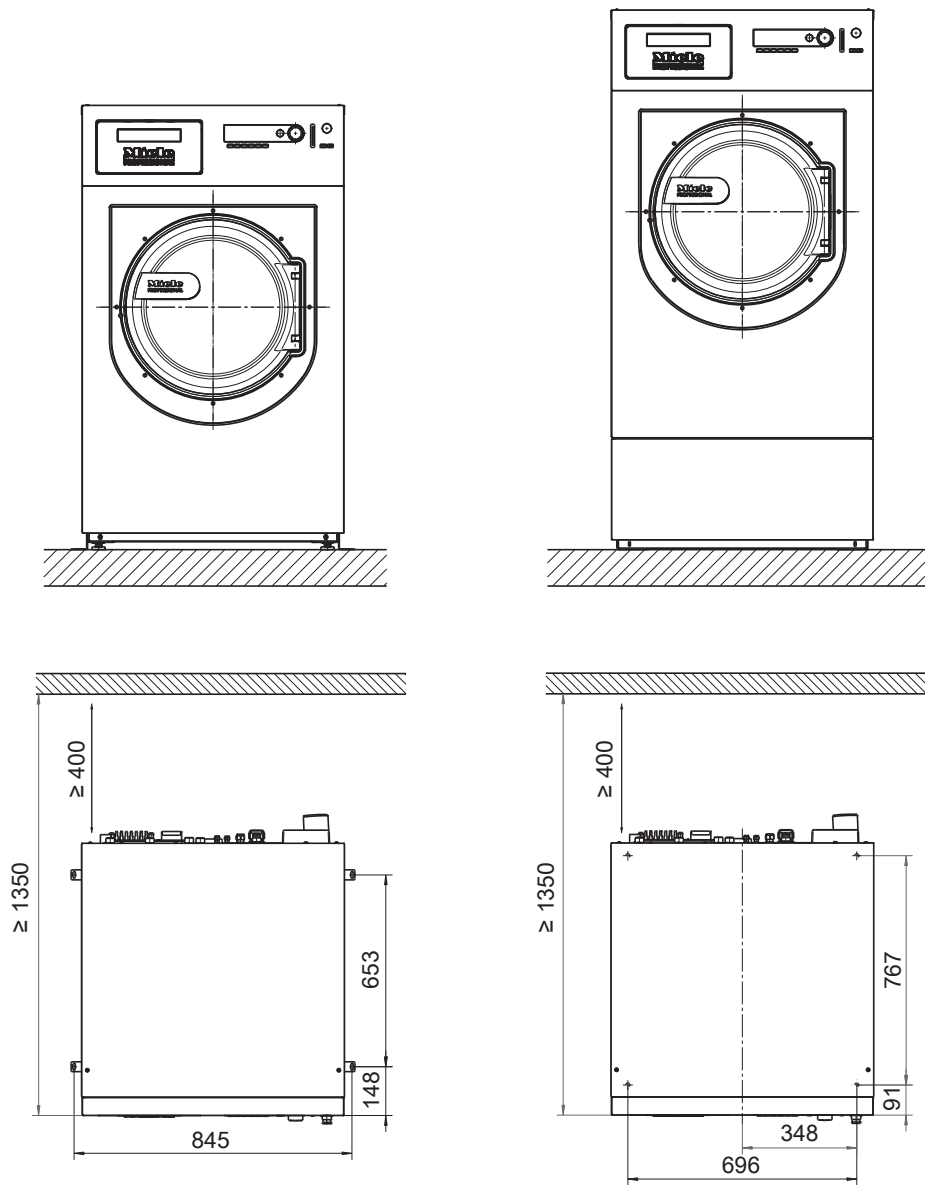
PW 413 with Miele base (UG/UO)



Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

Installation of PW 413

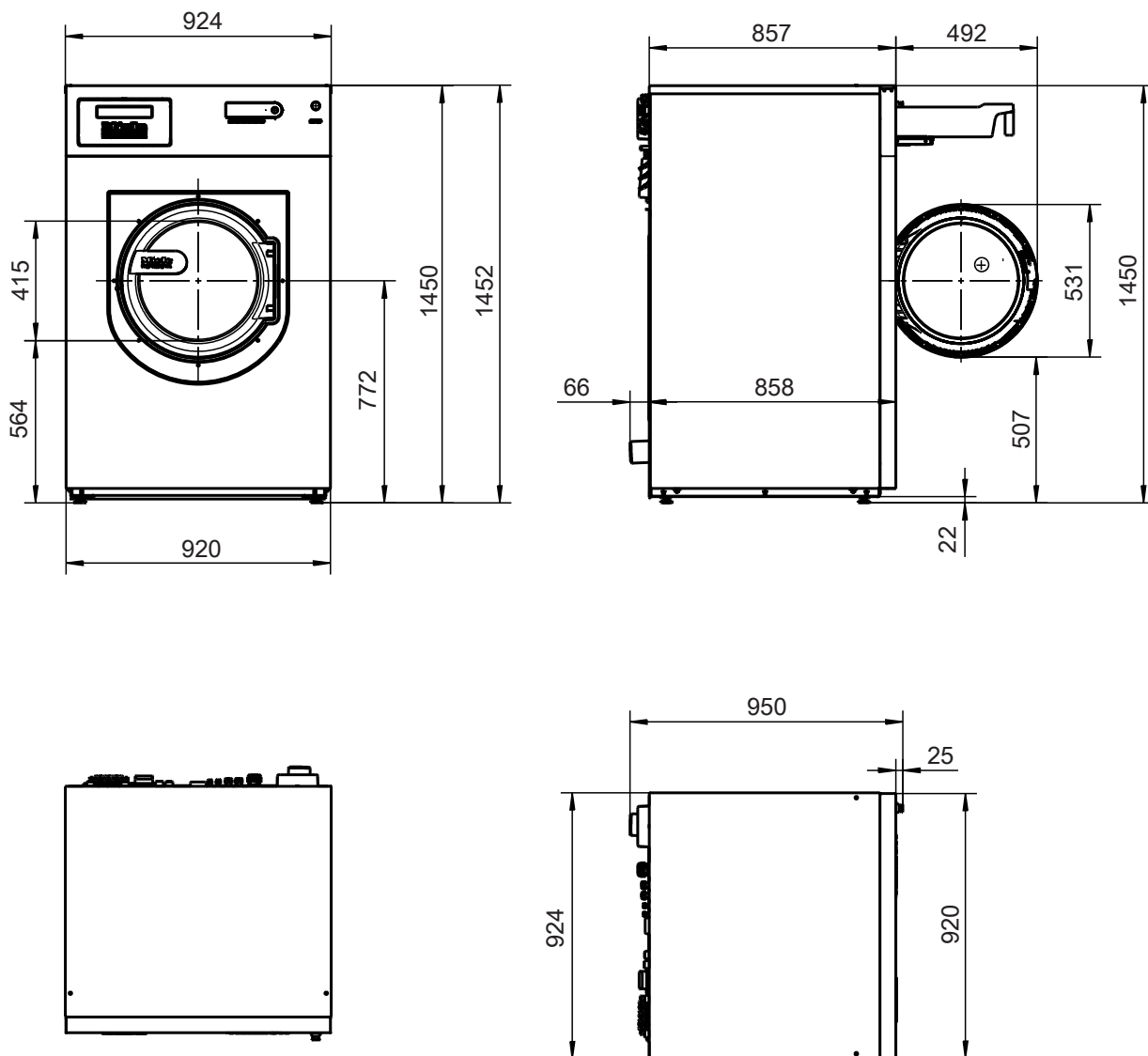


Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

PW 418

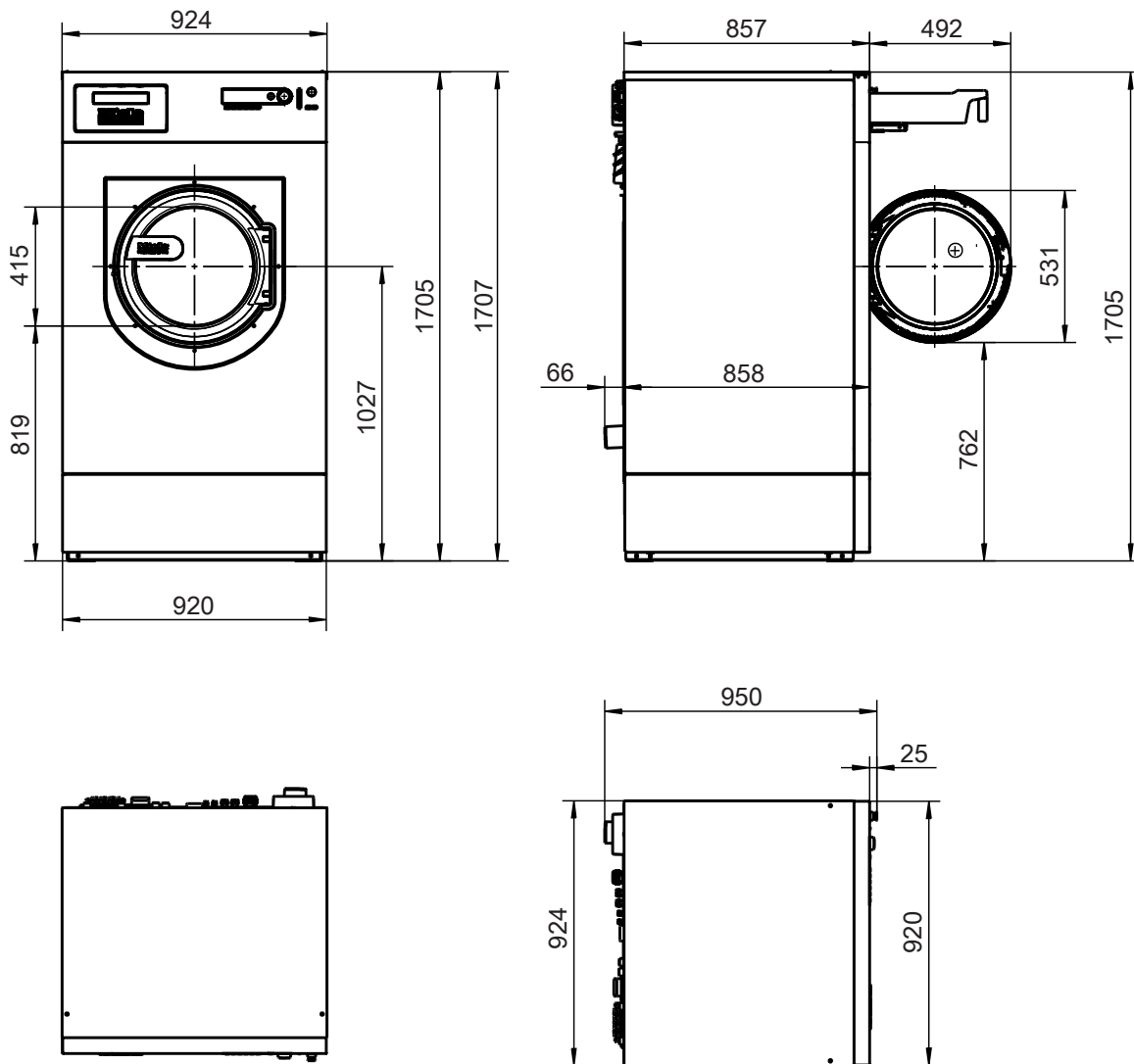
Dimensions of PW 418



Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

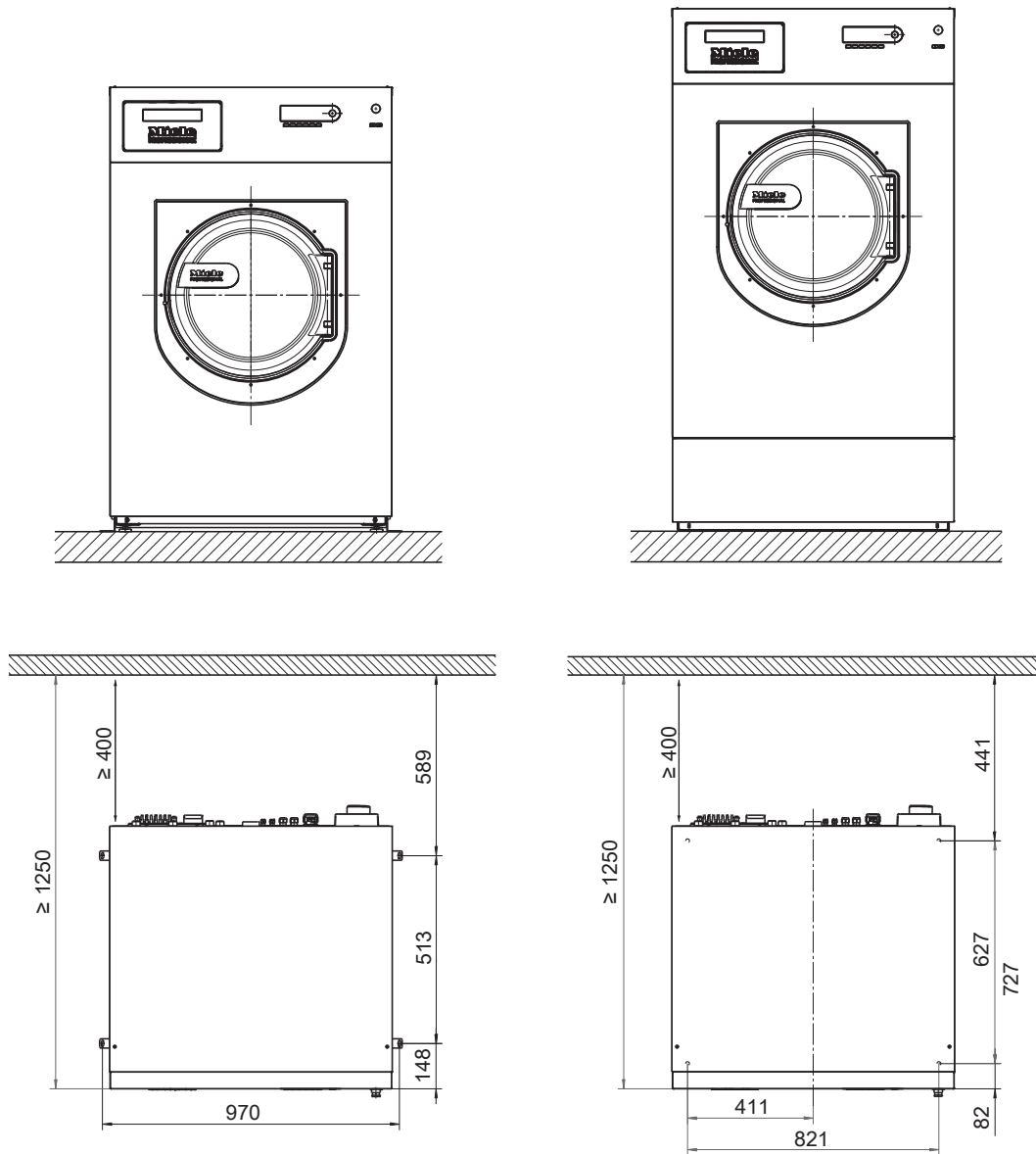
PW 418 with Miele base (UG/UO)



Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

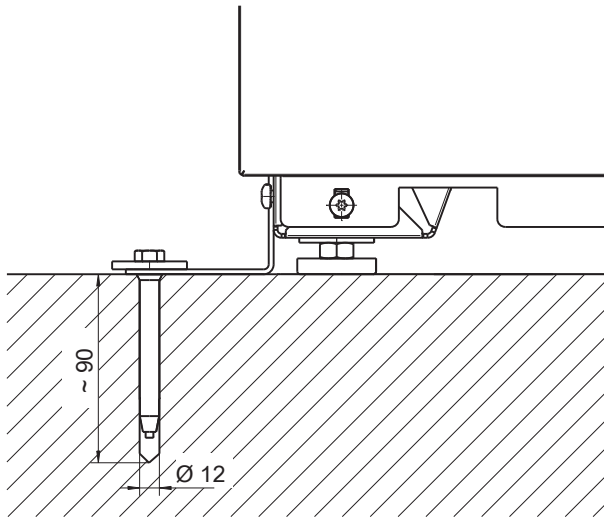
Installation of PW 418



Dimensions quoted in millimeters

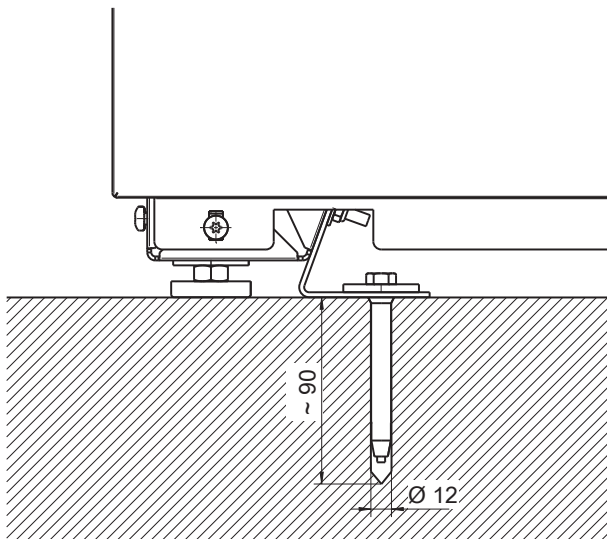
Machine fastening

Fixing to floor / concrete base



Dimensions quoted in millimeters

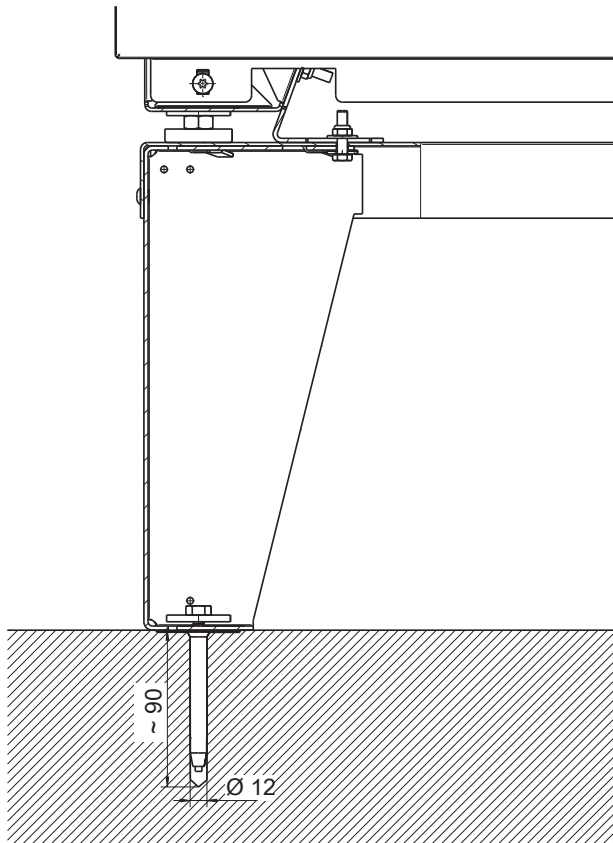
Fixing to floor / concrete base in row set



Dimensions quoted in millimeters

Technical drawings - dimensions quoted in millimeters

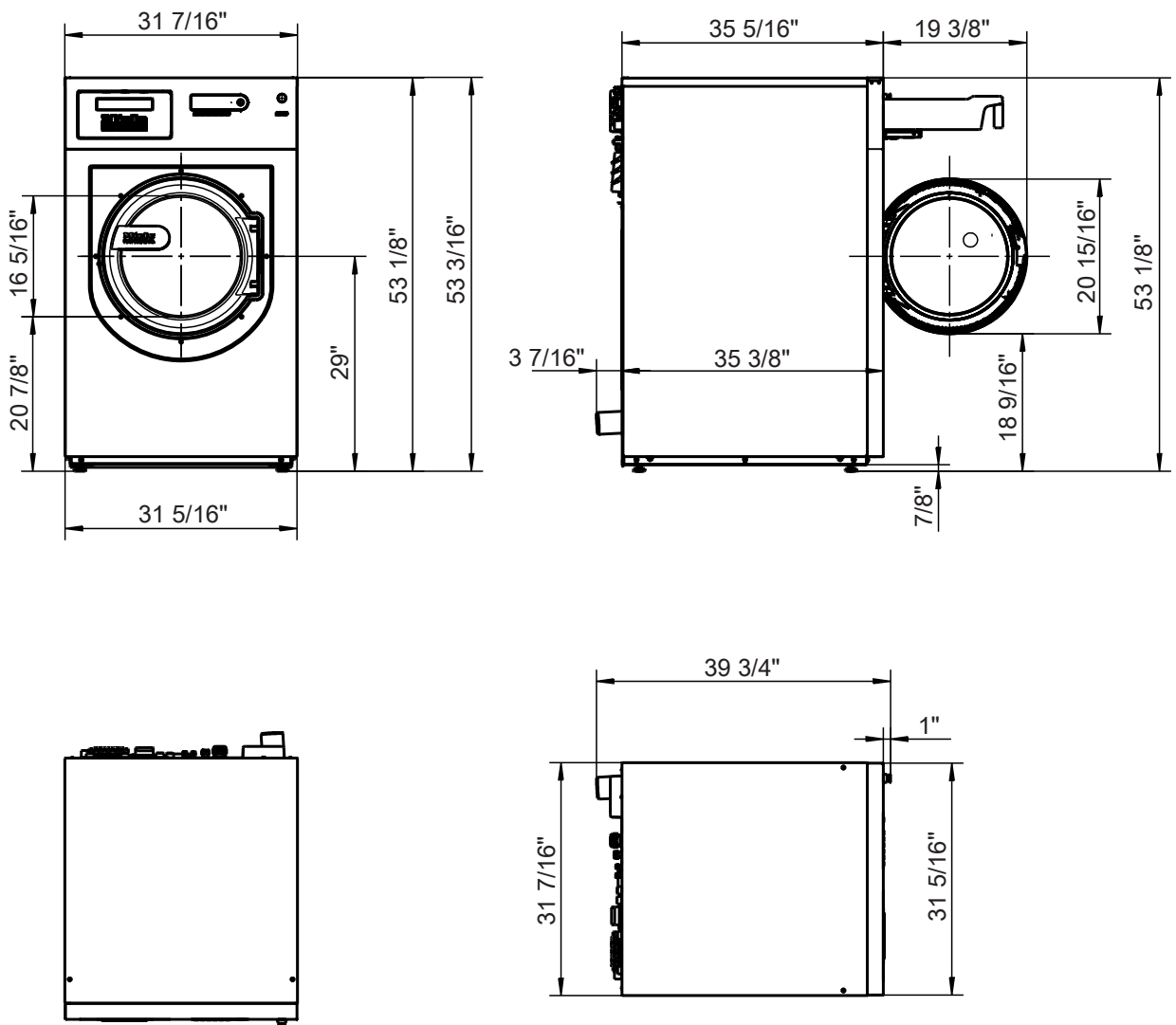
Fixing to the floor with Miele base



Dimensions quoted in millimeters

PW 413

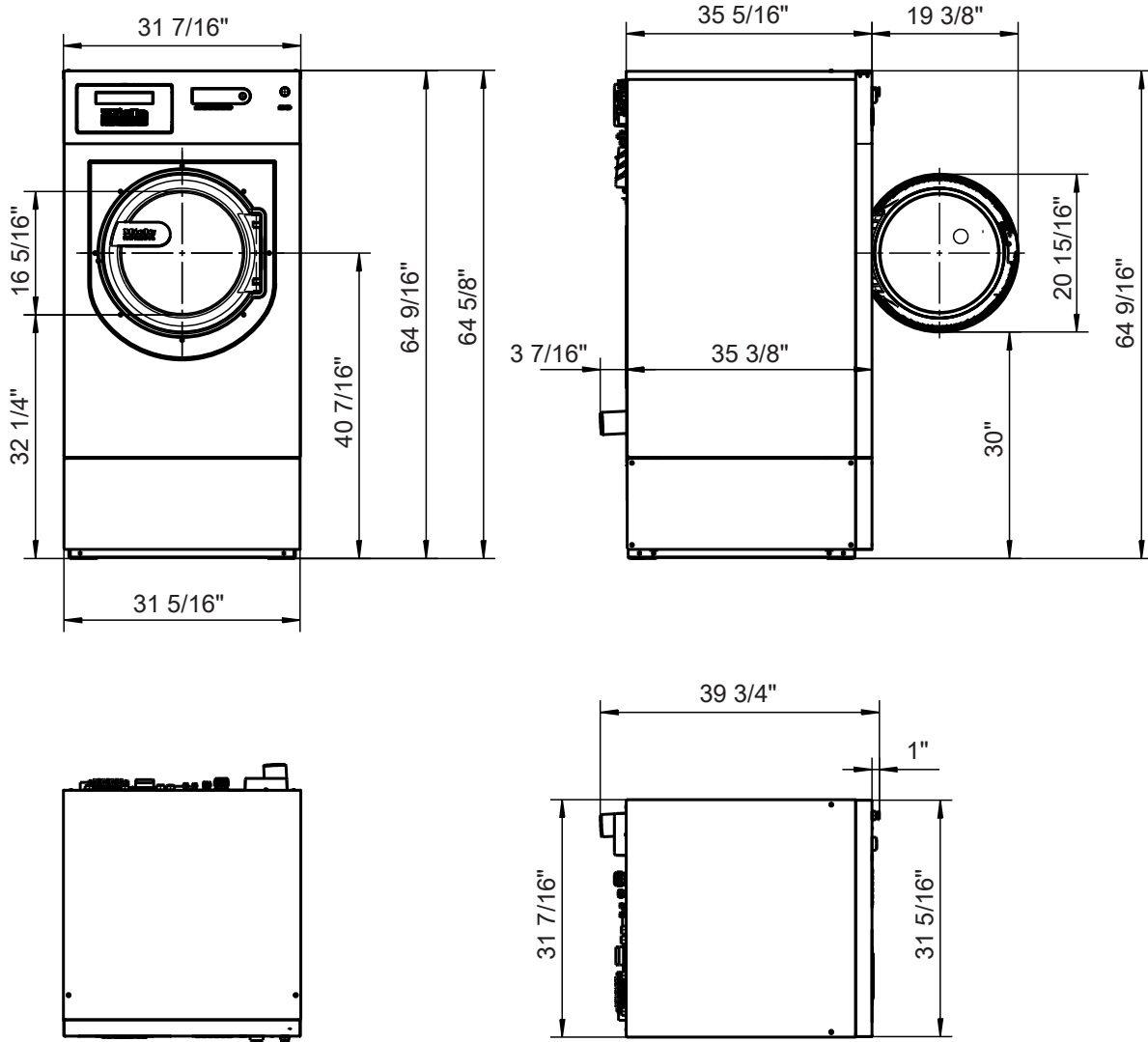
Dimensions of PW 413



Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

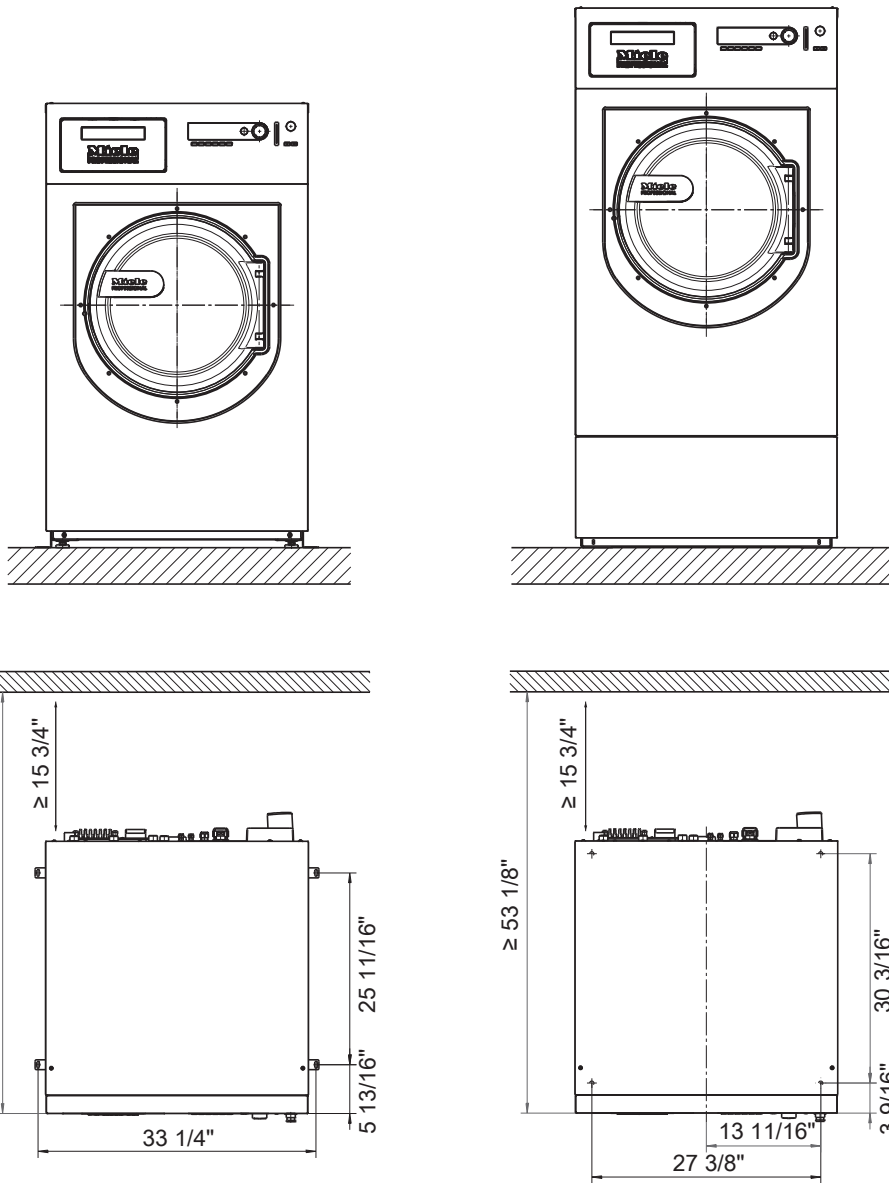
Dimensions of PW 413 with Miele base (UG/UO)



Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

Installation of PW 413

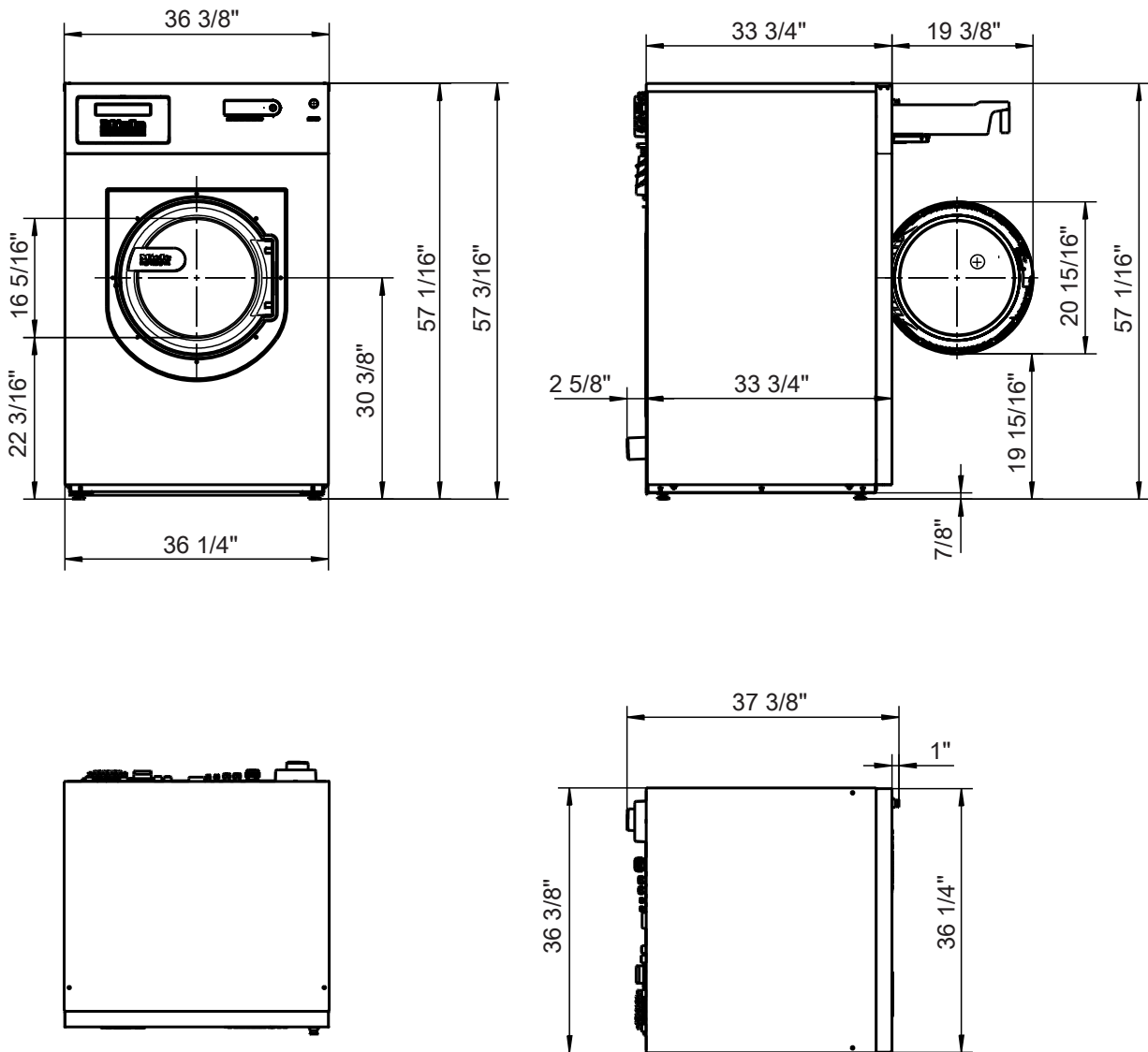


Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

PW 418

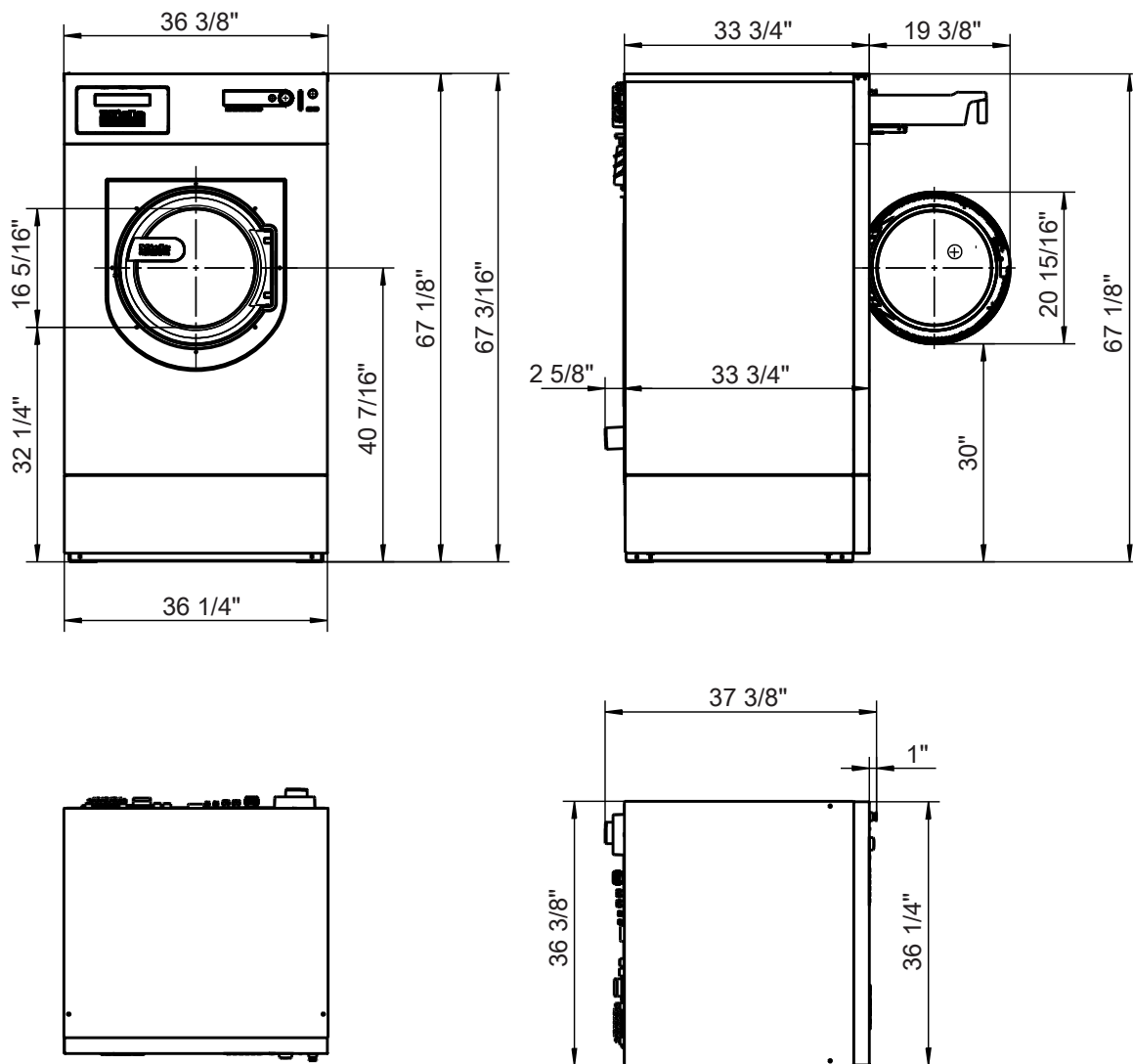
Dimensions of PW 418



Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

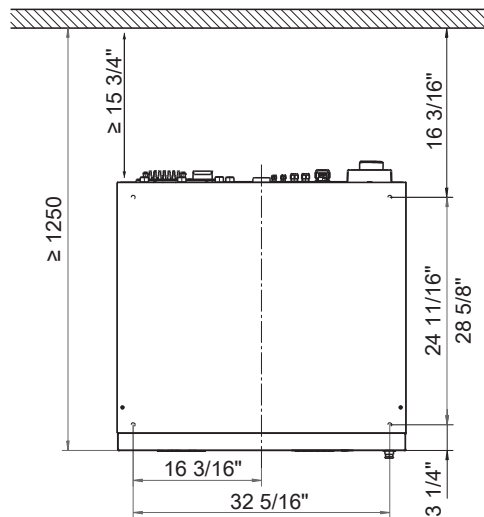
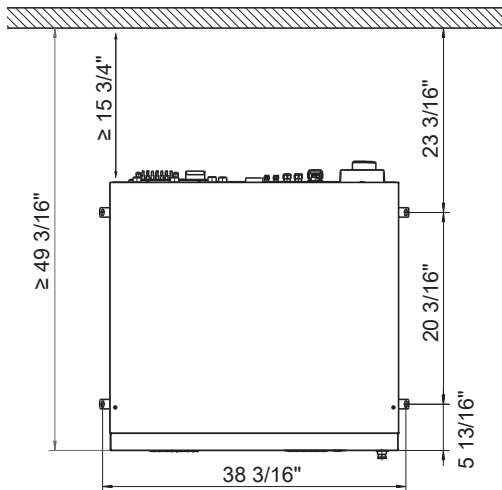
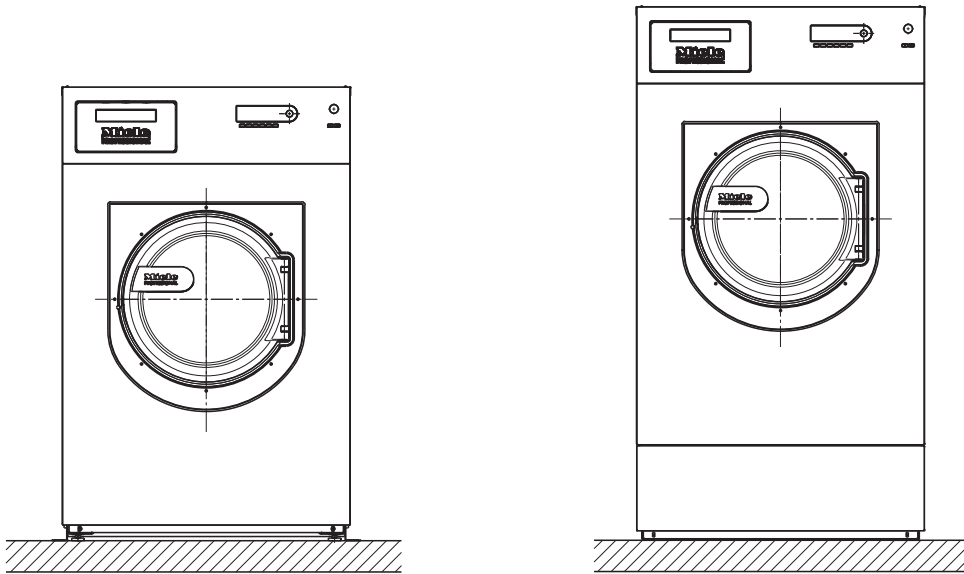
Dimensions of PW 418 with Miele base (UG/UO)



Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

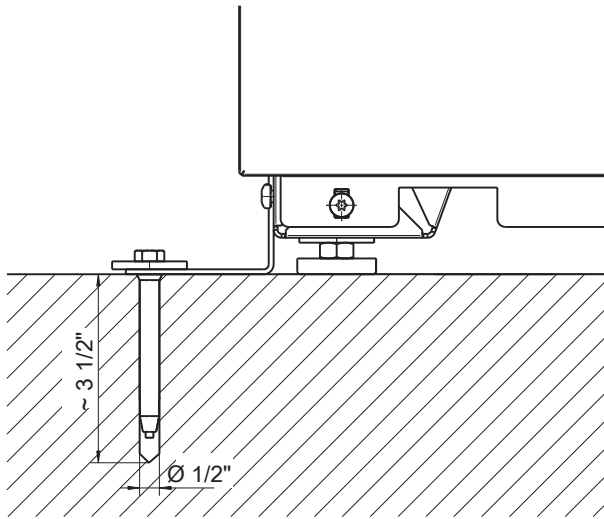
Installation of PW 418



Dimensions quoted in inches

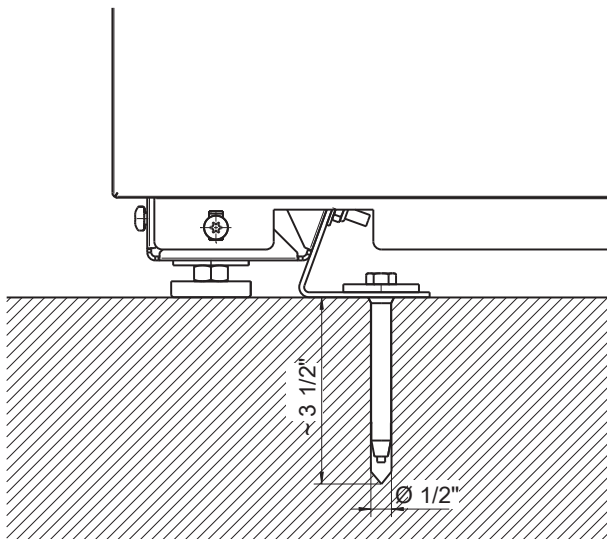
Machine fastening

Fixing to floor / concrete base



Dimensions quoted in inches

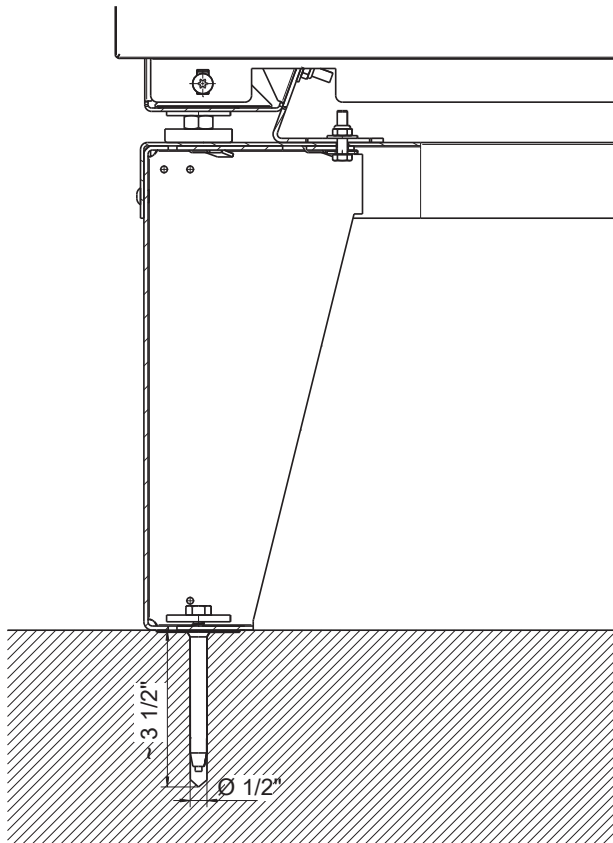
Fixing to floor / concrete base in row set



Dimensions quoted in inches

Technical drawings - dimensions quoted in inches

Fixing to the floor with Miele base



Dimensions quoted in inches

Water connection

Models with detergent dispenser drawer (WEK)

Permitted flow pressure [kPa / psi]	[100 - 1000 / 14.5 - 145]
Maximum intake rate	79,5 l/min
Cold water connection (to be provided on site, external thread according to DIN 44991, flat seal)	2 x ¾" [1 x 1"]
Optional cold-hard water connection (to be provided on site, external thread according to DIN 44991, flat seal)	2 x ¾" [1 x 1"]
Hot water connection ≤ 70°C (158°F) (to be provided on site, external thread according to DIN 44991, flat seal)	1 x ¾"
Hot water connection ≤ 90°C (194°F), only for models with hot water connection (on site external thread according to DIN 44991, flat seal)	1 x 1"
Intake hose length	1500 mm
Y-piece connector for cold water	2 x ¾"

Drain valve

Maximum drain water temperature	95 °C
Waste water connection (on machine)	Plastic pipe HT DN 70
Drain (on-site)	DN 70 connection
Maximum drainage rate	200 l/min

Connection for equipotential bonding

Connection with male thread (machine)	10 mm x 35 mm (3/8" x 1 3/8")
Washers and nuts	M10

Fixing screws

Fixing to the floor

Required anchor points	2
DIN 571 wood screw (diameter x length)	12 mm x 90 mm
Rawl plugs (diameter x length)	16 mm x 80 mm

Fixing to the floor with Miele base

Required anchor points	4
DIN 571 wood screw (diameter x length)	12 mm x 90 mm
Rawl plugs (diameter x length)	16 mm x 80 mm

Fixing to concrete base (on site)

Required anchor points	2
DIN 571 wood screw (diameter x length)	12 mm x 90 mm
Rawl plugs (diameter x length)	16 mm x 80 mm

Technical data

PW 413

Voltage versions and electrical data

Electrically heated

Standard:

Connection voltage	3 AC 220 - 240 V
Frequency	60 Hz
Fuse rating (on site)	3 x 25 A
Power rating	10,2 - 11,8 kW
Rated current	3 x 23,2 A
Power cord, min. cross-section	4 x AWG 12
Cable screw connector	M 32

Convertible to:

Connection voltage	3 AC 208 V
Frequency	60 Hz
Fuse rating (on site)	3 x 25 A
Power rating	8,8 - 9,4 kW
Rated current	3 x 21,2 A
Power cord, min. cross-section	4 x AWG 12
Cable screw connector	M 32

Installation dimensions

Casing width (without add-on components)	31 5/16" (795 mm)
Casing height (without add-on components)	53 1/8" (1350 mm)
Casing depth (without add-on components)	35 5/16" (897 mm)
Overall machine width	31 7/16" (799 mm)
Overall machine height	53 1/4" (1352 mm)
Overall machine depth	39 3/4" (1010 mm)
Minimum width of transport opening	31 11/16" (805 mm)
Minimum distance between wall and machine front	53 1/8" (1350 mm)

Transport data, weight and floor load

PW 413 with detergent dispenser drawer (WEK), electrically heated

Packaging width	44 1/2" (1130 mm)
Packaging height	57 13/16" (1468 mm)
Packaging depth	42 15/16" (1090 mm)
Gross volume	1931 l
Gross weight	681 lb (309 kg)
Net weight	619 lb (281 kg)
Maximum floor load during operation	4501 N

Emission levels

Sound pressure level at workplace, washing	53 dB (A)
Noise power level - Washing	62,0 dB (A)
Sound pressure level at workplace, spinning	67 dB (A)
Noise power level - Spinning	74,2 dB (A)
Average heat output to the room	3,96 MJ/h

Technical data

PW 418

Voltage versions and electrical data

Electrically heated

Standard:	
Connection voltage	3 AC 220 - 240 V
Frequency	60 Hz
Fuse rating (on site)	3 x 40 A
Power rating	11,9 - 13,6 kW
Rated current	3 x 32,3 A
Power cord, min. cross-section	4 x AWG 8
Cable screw connector	M 40
Convertible to:	
Connection voltage	3 AC 208 V
Frequency	60 Hz
Fuse rating (on site)	3 x 40 A
Power rating	10,4 - 11,0 kW
Rated current	3 x 28,2 A
Power cord, min. cross-section	4 x AWG 8
Cable screw connector	M 40

Installation dimensions

Casing width (without add-on components)	31 5/16" (795 mm)
Casing height (without add-on components)	57 " (1450 mm)
Casing depth (without add-on components)	33 3/4" (857 mm)
Overall machine width	36 3/8" (924 mm)
Overall machine height	57 3/16" (1452 mm)
Overall machine depth	37 3/8" (950 mm)
Minimum width of transport opening	36 5/8" (930 mm)
Minimum distance between wall and machine front	49 3/16" (1250 mm)

Transport data, weight and floor load

PW 418 with detergent dispenser drawer (WEK), electrically heated

Packaging width	44 1/2" (1130 mm)
Packaging height	61 3/4" (1568 mm)
Packaging depth	46 7/8" (1190 mm)
Gross volume	1931 l
Gross weight	968 lb (439 kg)
Net weight	908 lb (412 kg)
Maximum floor load during operation	5978 N

Emission levels

Sound pressure at workplace, washing	54 dB (A)
Noise power level - Washing	62,0 dB (A)
Sound pressure level at workplace, spinning	65 dB (A)
Noise power level - Spinning	77,3 dB (A)
Average heat output to room	4,5 MJ/h



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