



Installation Plan Washing Machine PW 413 PW 418

Installation and planning notes	5
Installation requirements	5
Storage/Transportation	5
General operating conditions	5
Installation	6
Installation on concrete base	6
Leveling the machine	7
Securing the machine	7
Machine connections	8
Electrical connection	9
Water connection	11
Cold water connection	11
Hot water connection	11
Drain valve	11
Dispenser pump connections	13
Optional accessories	14
XKM RS232 communication module	14
Base	14
Suds drain and vapor vent (BWS)	14
Technical drawings - dimensions in inches	15
PW 413	15
Dimensions	15
Dimensions with Miele base (UG/UO)	16
Installation	17
PW 418	18
Dimensions	18
Dimensions with Miele base (UG/UO)	19
Installation	20
Anchoring PW 413/418	21
Attaching to the floor/concrete base	21
Attaching to the floor/concrete base when installing in a run	21
Attaching to the floor with Miele base	22
Technical drawings - dimensions in millimeters	23
PW 413	23
Dimensions	23
PW 413 with Miele base (UG/UO)	24
Installation	25
PW 418	26
Dimensions	26
Dimensions with Miele base (UG/UO)	27
Installation	28
Anchoring PW 413/418	29
Attaching to the floor/concrete base	29
Attaching to the floor/concrete base when installing in a run	29
Attaching to the floor with Miele base	30
Technical data	31
Water connection	31
Models with detergent dispenser drawer (WEK)	31
Drain valve	31

Contents

Connection for equipotential bonding.....	31
Anchoring	31
Attaching to the floor	31
Attaching to the floor with Miele base.....	31
Attaching to a concrete base (provided on-site)	31
PW 413.....	32
Electrical version and electrical data.....	32
Installation dimensions.....	32
Transport data, weight and floor load	33
Emissions data	33
PW 418.....	34
Electrical version and electrical data.....	34
Installation dimensions.....	34
Transport data, weight and floor load	35
Emissions data	35

Installation requirements

The washing machine must be installed by Miele Service or by properly trained staff of an authorized dealer.

- This washing machine must be installed in accordance with all relevant regulations and standards. Local energy supplier regulations must also 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: 32-105°F (0-40°C)
- Humidity: non-condensing

General operating conditions

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

- Ambient temperature of location: 32-105°F (0-40°C)
- Relative humidity: non-condensing
- Maximum height above sea level of location site: 6500 ft (2000 m)

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

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 jack. 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.

Tip: A concrete floor is the most suitable installation surface for this machine, being far less prone to vibration during the spin cycle than wooden floorboards or a carpeted surface.

The washing machine requires a gap of at least 2" (50 mm) on each side to allow for movement during operation. To ensure suitable access for further maintenance and service work, please ensure a minimum distance of 16" (400 mm) is maintained between the back of the machine and the wall.

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 base immediately after installation!

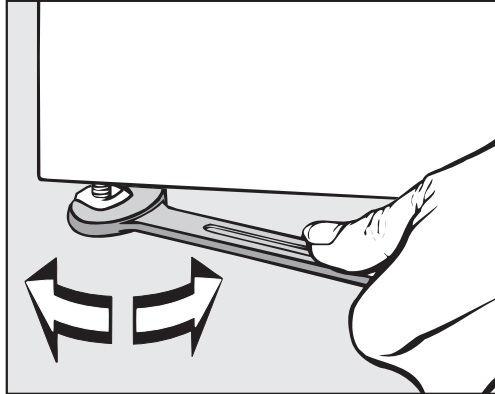
There is a risk of the washing machine falling off a raised base during a spin cycle if it is not secured.

Leveling the machine

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

The washing machine must stand perfectly level on all four feet to ensure safe and proper operation. Otherwise water and energy consumption will be increased and the machine could move.

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

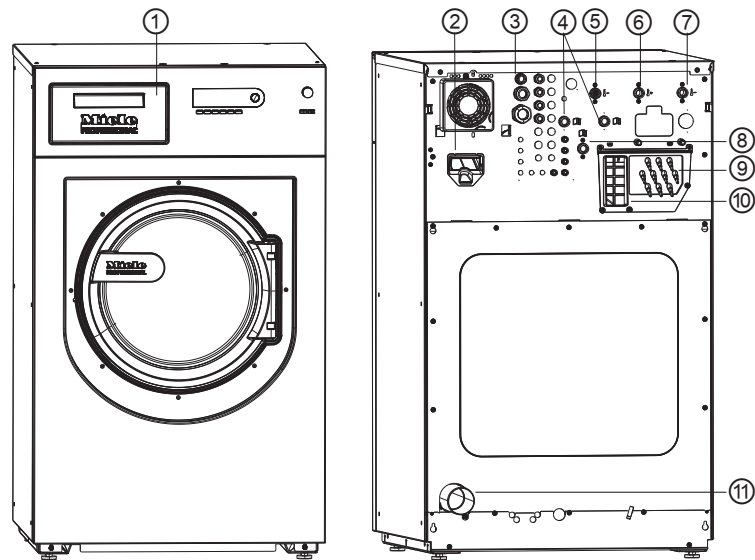


Securing the machine

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

Fittings supplied are for installation on a concrete floor. For other types of flooring please purchase suitable fitting materials separately.

Machine connections



- ① **Detergent dispenser (WEK)**
- ② **Communication module slot**
The XKM RS232 communication module is available as an optional accessory.
- ③ **Electrical connection**
- ④ **Hard water connection (2x)**
(Optional)
- ⑤ **Cold water connection**
- ⑥ **Hot water connection**
Water temperature to maximum 158°F (70°)
- 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 NPS 2 ¾" (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 supply that complies with local and national regulations. Please also observe your insurance and energy supplier's regulations as well as any health and safety at work regulations.

► The required voltage, power consumption and specifications for external fusing are quoted on the data plate on the washing machine. Ensure that the supply voltage complies with the voltage quoted on the data plate before connecting the washing machine to the power supply.

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.

► Conversion to a different voltage must only be carried out by a Miele Service engineer or by an authorized Service Dealer. The wiring instructions given on the wiring diagram must be followed.

The washing machine can either be hard-wired or connected via a plug and socket that complies with national codes and regulations. For a hard-wired connection an all-pole isolation device must be installed on site.

For hard-wired machines connection should be made via a suitable switch with all-pole isolation which, when in the off position, ensures a 1/8" (3 mm) gap between all open contacts. These include circuit breakers, fuses and relays.

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.

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 machine is designed to operate with a supply pressure of between 14.5 psi (1 bar) and must not exceed 145 psi (10 bar). If it is higher than 145 psi (10 bar) a pressure reducing valve must be used.

The machine must be connected to the water supply using the inlet hoses provided.

⚠ 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

A supply faucet with 3/4" threaded union is required for each connection to the water supply (single or double). If this is not present, the washing machine should be connected to the water supply by a qualified plumber.

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

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 water up again.

Use the inlet hose supplied (red stripes) for the hot water connection.

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

If there is no hot water supply at the installation location for the washing machine, the connection hose must nevertheless be connected to the cold water supply. A Y-piece is required in this case. The cold water consumption increases accordingly to account for the missing hot water intake.

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.

Installation and planning notes

Drain valve

A motorized dump valve is used to drain the machine. A 2 ¾" 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). The dump valve can also be operated manually to allow the suds container to be emptied in the event of a power outage.

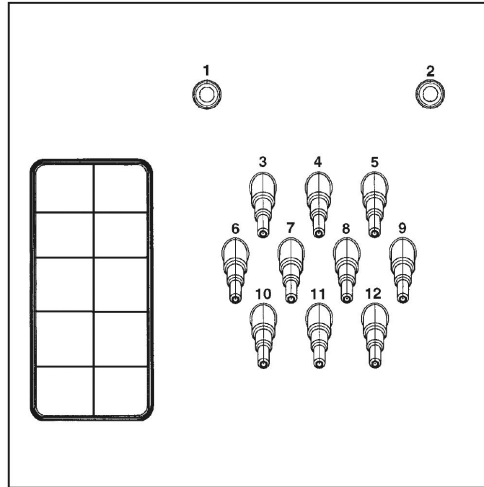
A vented drainage system is vital for unimpeded drainage. If several machines are connected to a single drain pipe, it should be large enough to allow all machines to drain simultaneously. The appropriate Miele installation set M.-No.: 05 238 090 is available from Miele for venting a 2 ¾" (DN 70) pipe. If the slope for drainage is extremely steep, the piping must be vented so prevent formation of a vacuum in the machine's drain system.

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.

⚠ Outflowing suds can be as hot as 203°F (95°C). Danger of injury by burning!
Avoid direct contact.

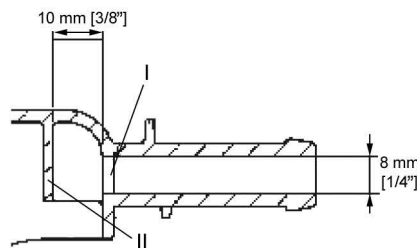
Dispenser pump connections

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



Dispenser pump connections on the back of the machine

Connections **1** and **2** are for viscous agents. These connectors are sealed and need to be drilled out before connection with a 5/16" (8 mm) drill bit.



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

Connections **3** to **12** are for liquid dispensing. 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.

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 void the warranty, and Miele cannot accept liability.

XKM RS232 communication module

The serial interface RS-232 can be retrofitted to the washing machine via an XKM RS 232 (optional accessory available from Miele). This communication module must only be used with Miele Professional machines that are fitted with an appropriate slot for the module.

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 box base, available as an optional Miele accessory).

Elevating the washing machine gives a better ergonomic working position when loading or unloading. It also simplifies the installation of a waste water connection.

 When installed on a raised base, the machine must be secured to the base and the base must be secured to the floor.

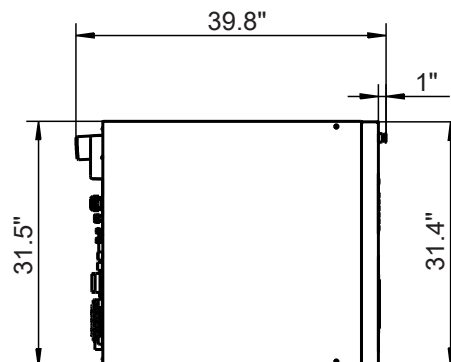
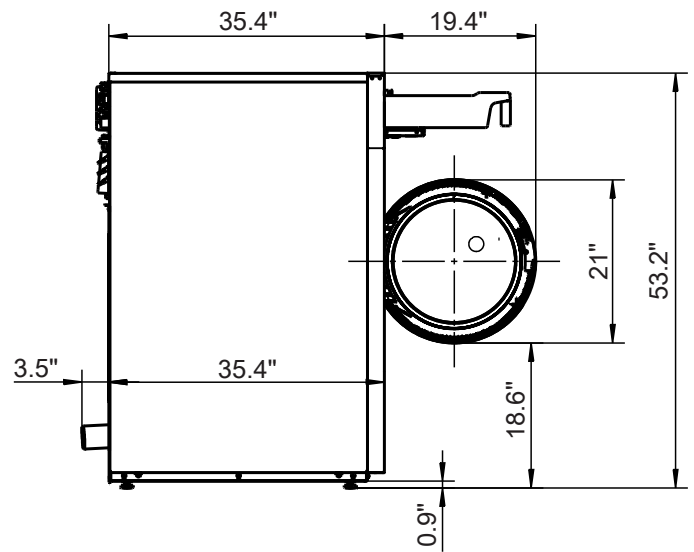
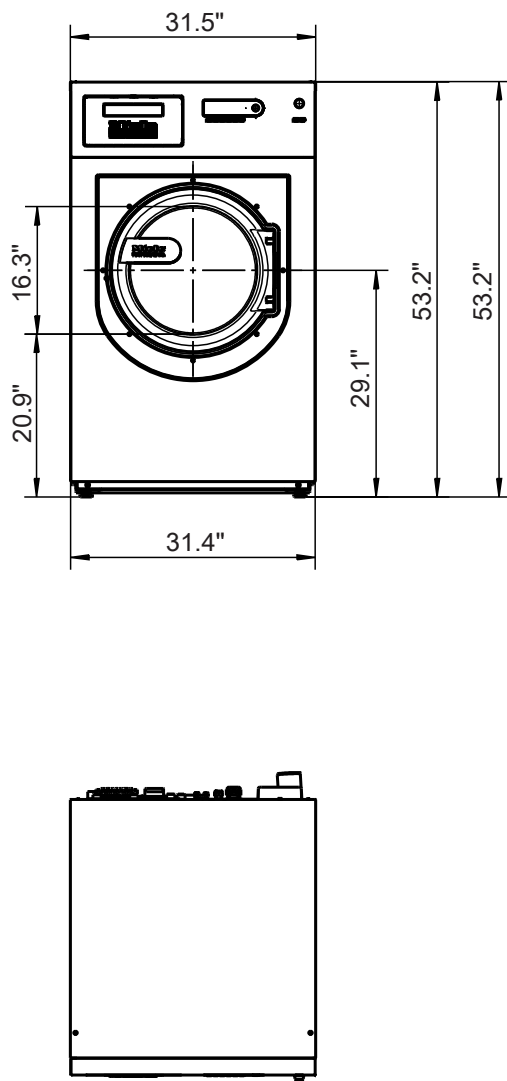
There is a risk of the washing machine falling off a raised base during a spin cycle if it is not secured.

Suds drain and vapor vent (BWS)

If excessive suds form, suds may escape from the vapor vent. To drain the suds, an optional vapor vent kit (BWS) can be installed.

PW 413

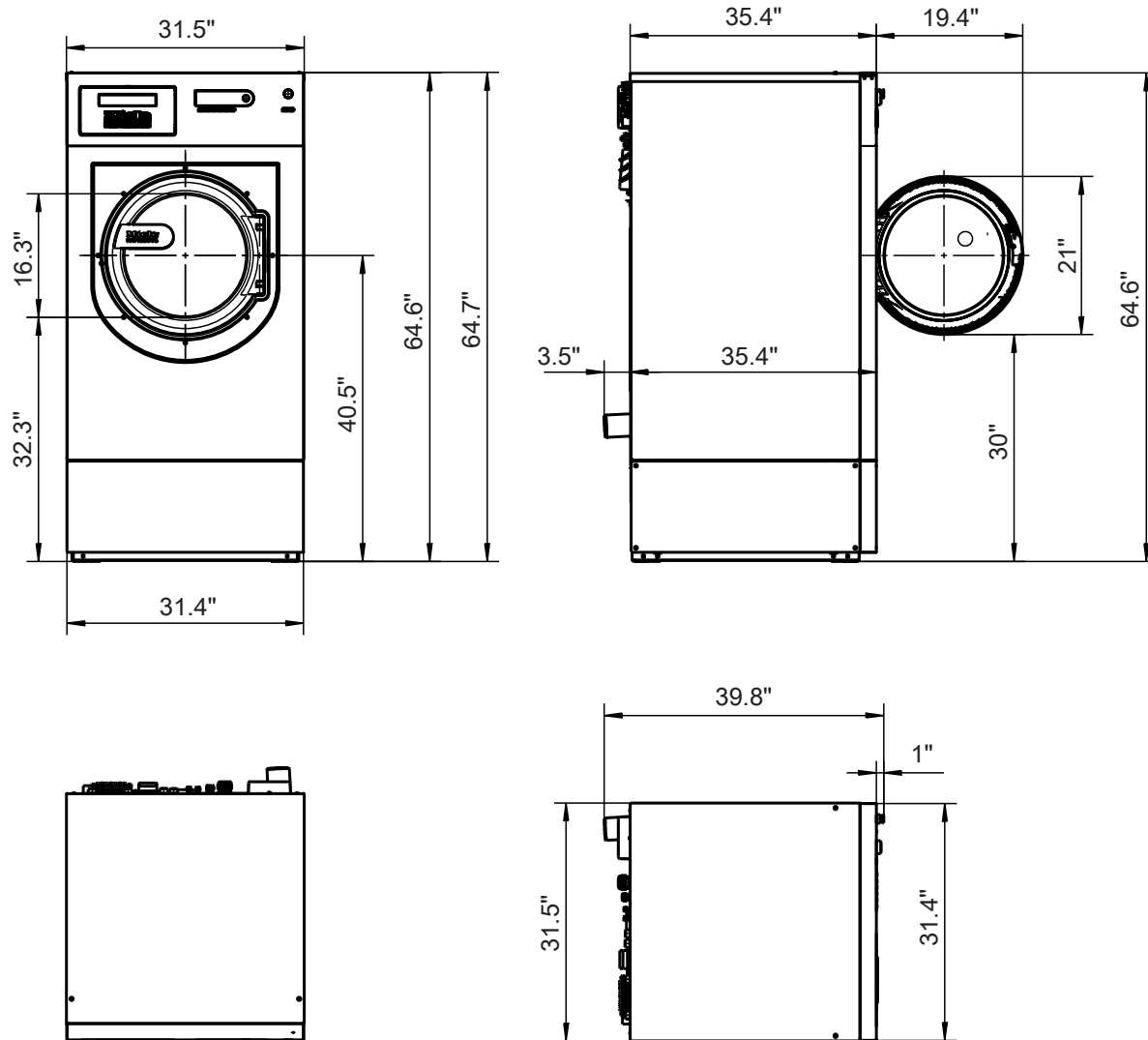
Dimensions



Dimensions in inches

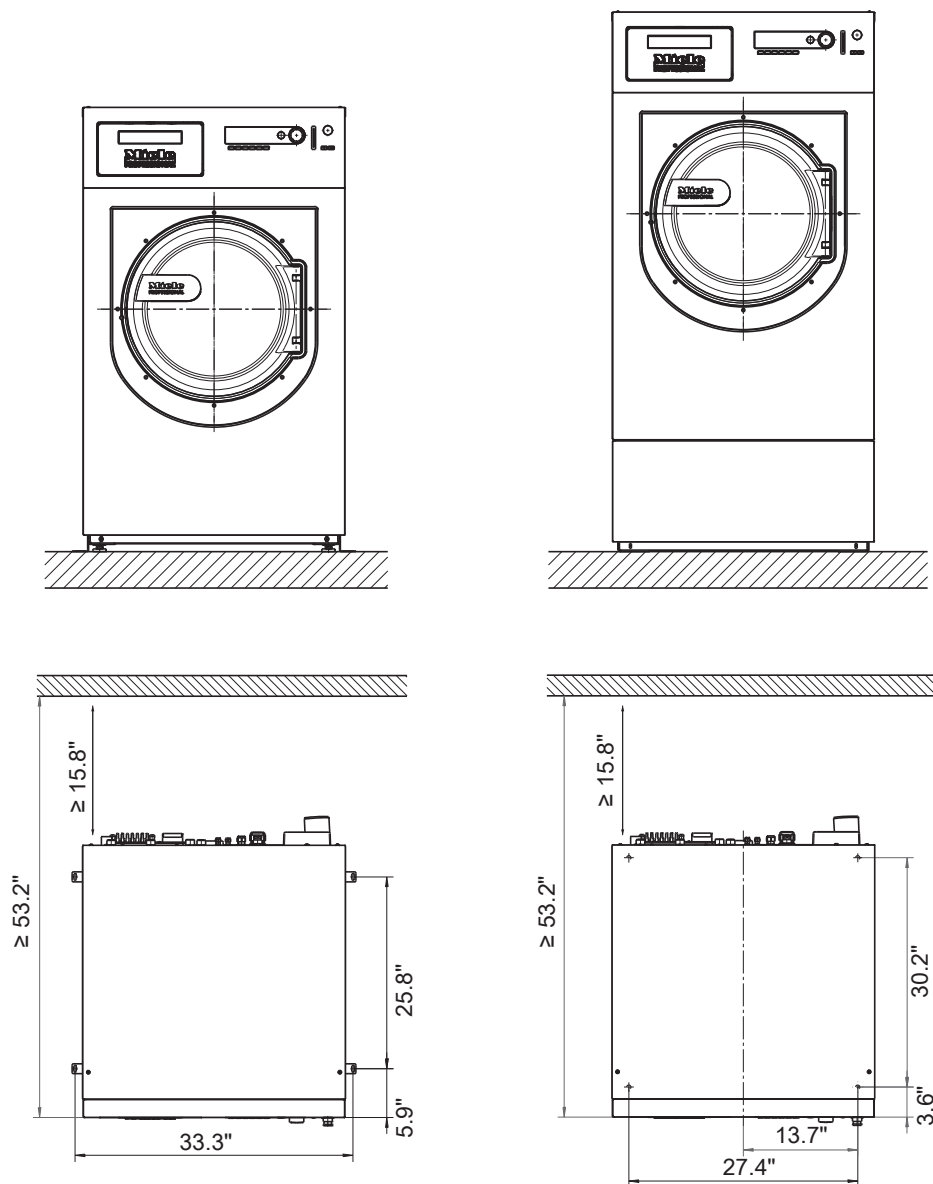
Technical drawings - dimensions in inches

Dimensions with Miele base (UG/UO)



Dimensions in inches

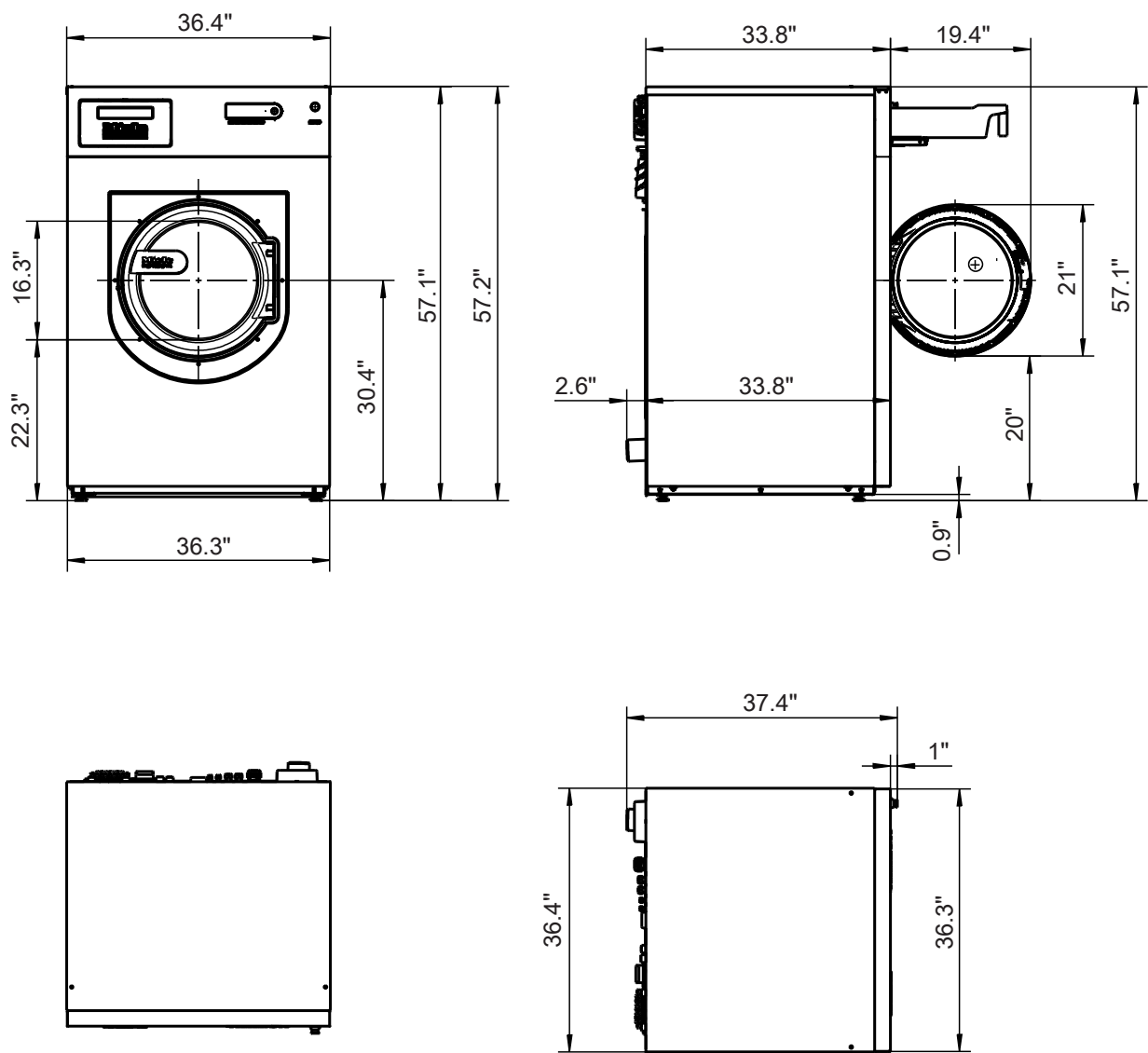
Installation



Dimensions in inches

PW 418

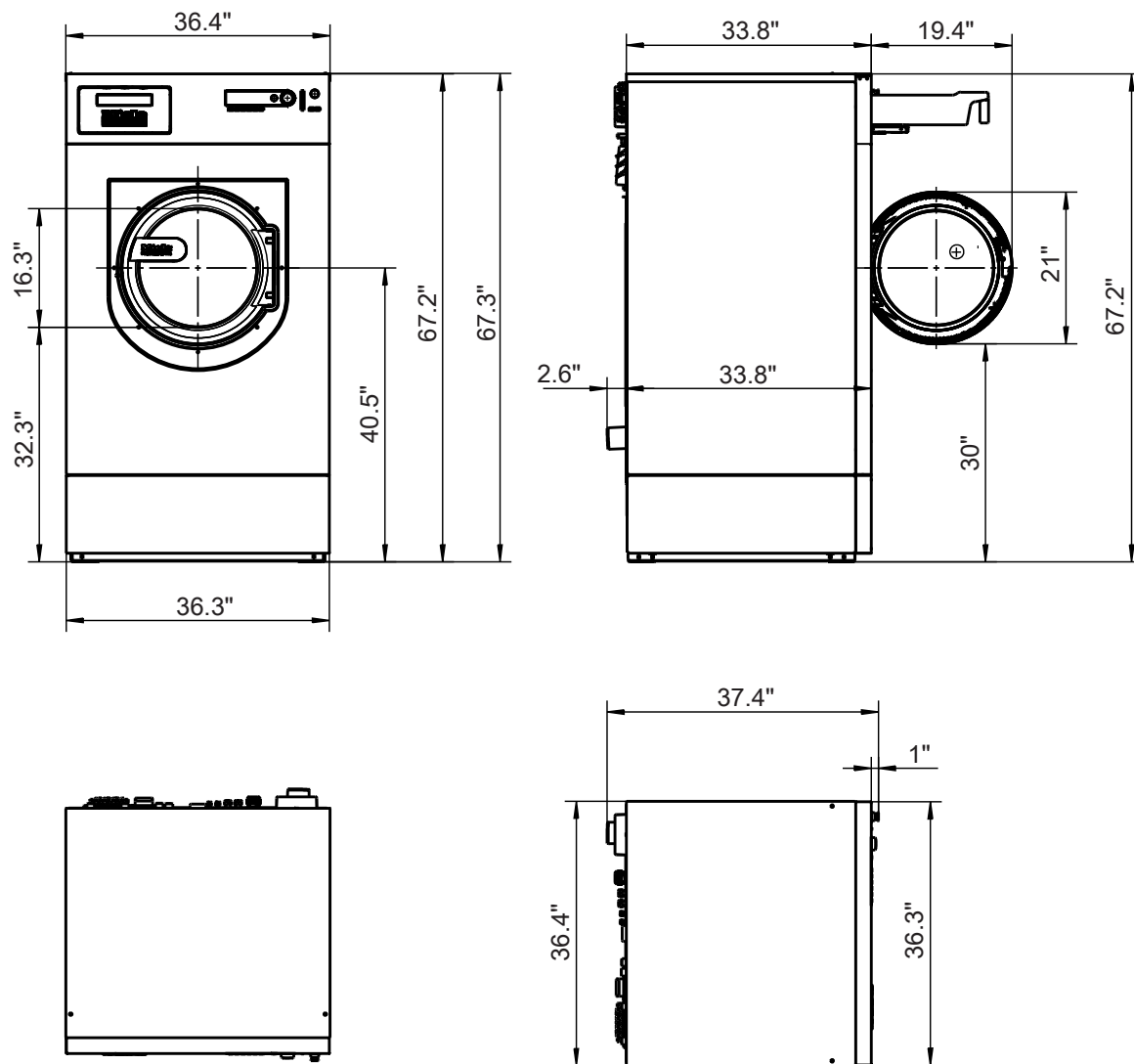
Dimensions



Dimensions in inches

Technical drawings - dimensions in inches

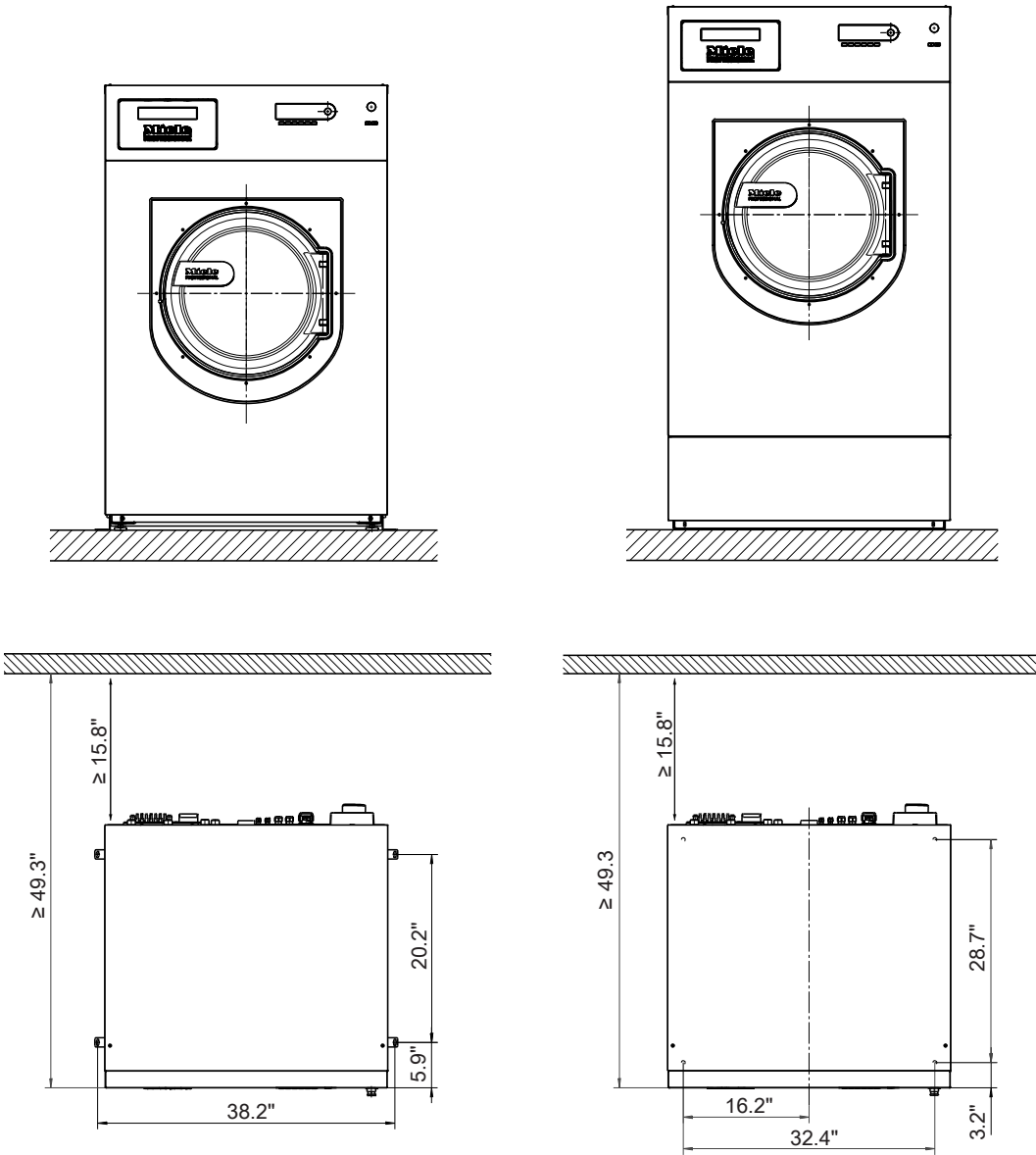
Dimensions with Miele base (UG/UO)



Dimensions in inches

Technical drawings - dimensions in inches

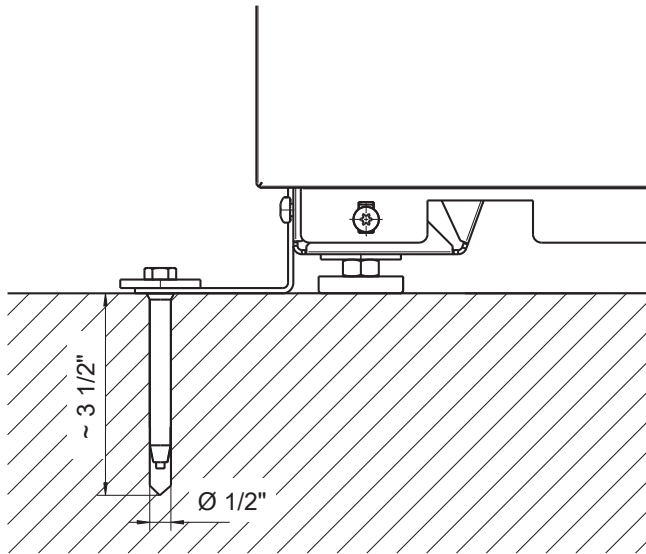
Installation



Dimensions in inches

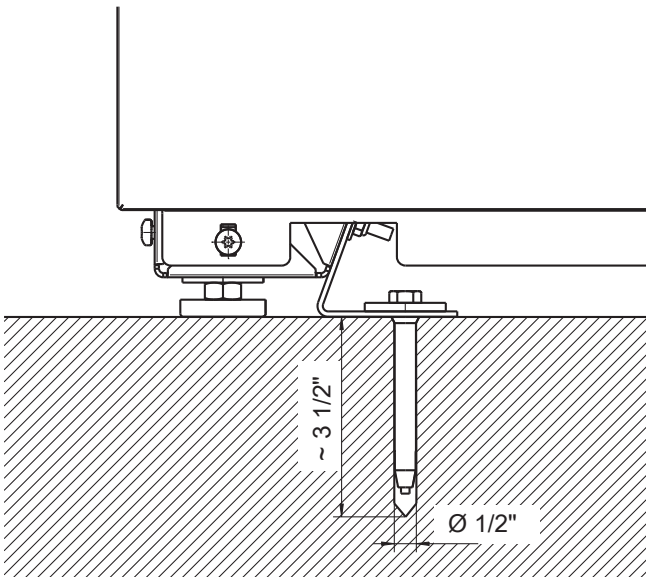
Anchoring PW 413/418

Attaching to the floor/concrete base



Dimensions in inches

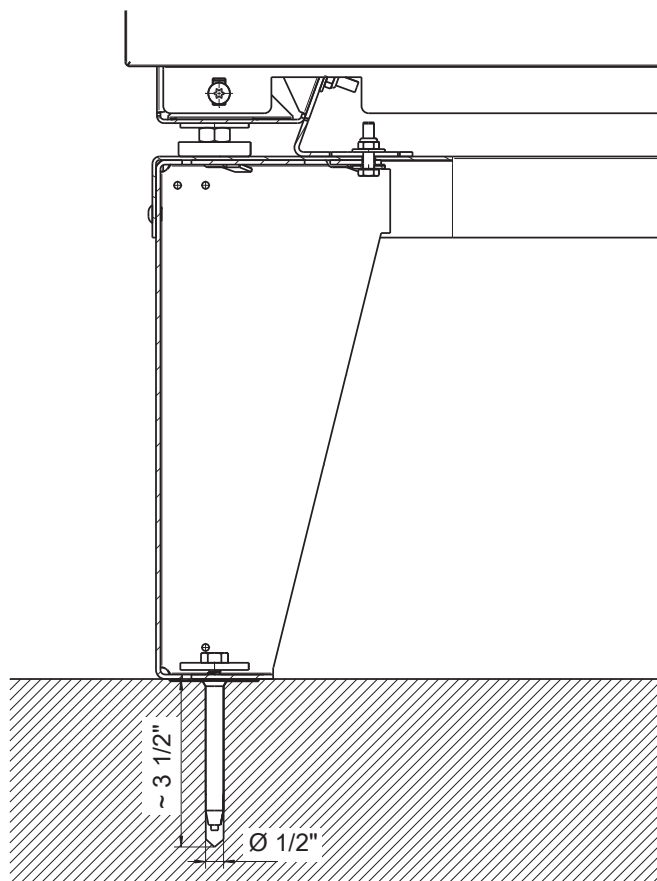
Attaching to the floor/concrete base when installing in a run



Dimensions in inches

Technical drawings - dimensions in inches

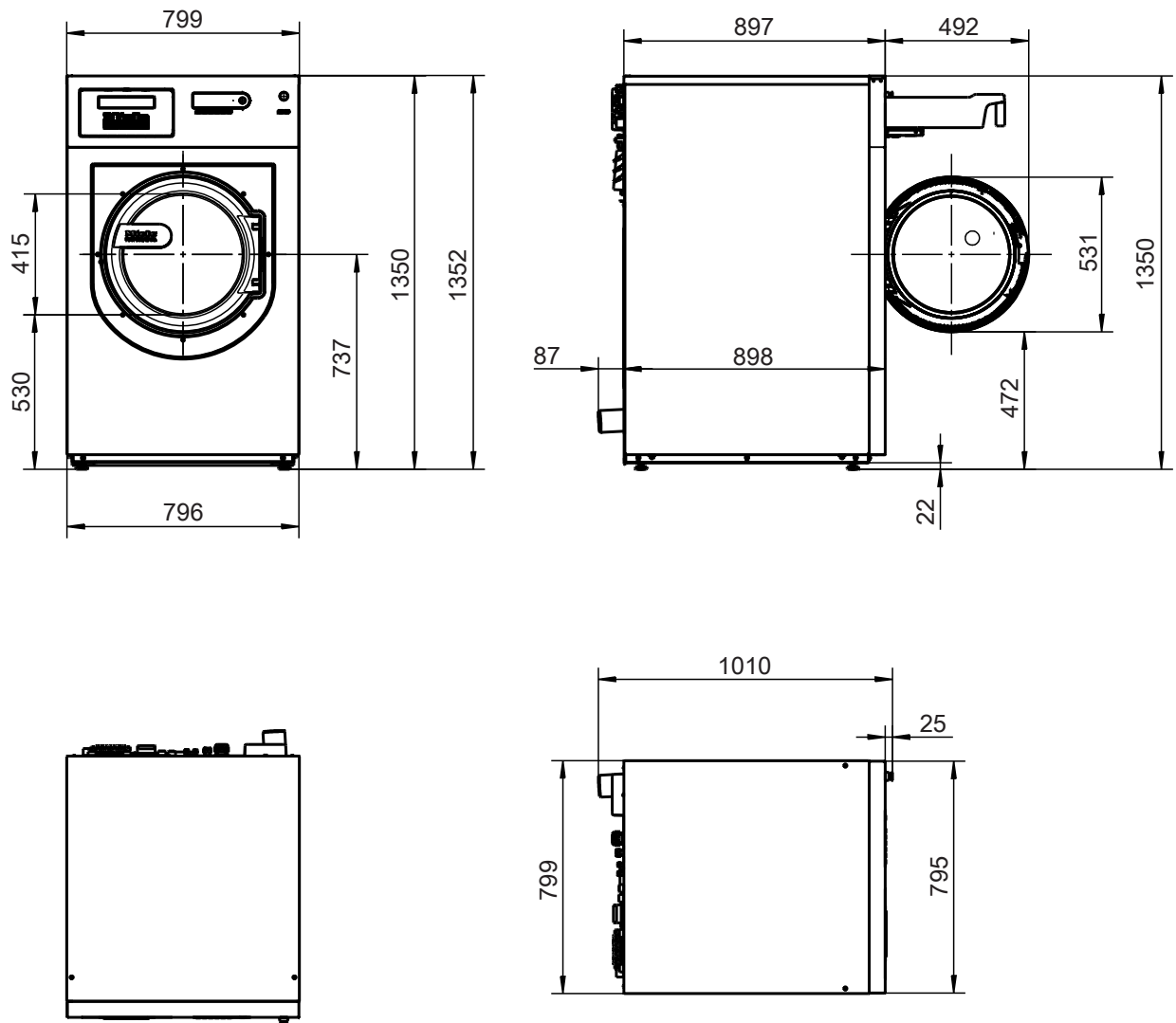
Attaching to the floor with Miele base



Dimensions in inches

PW 413

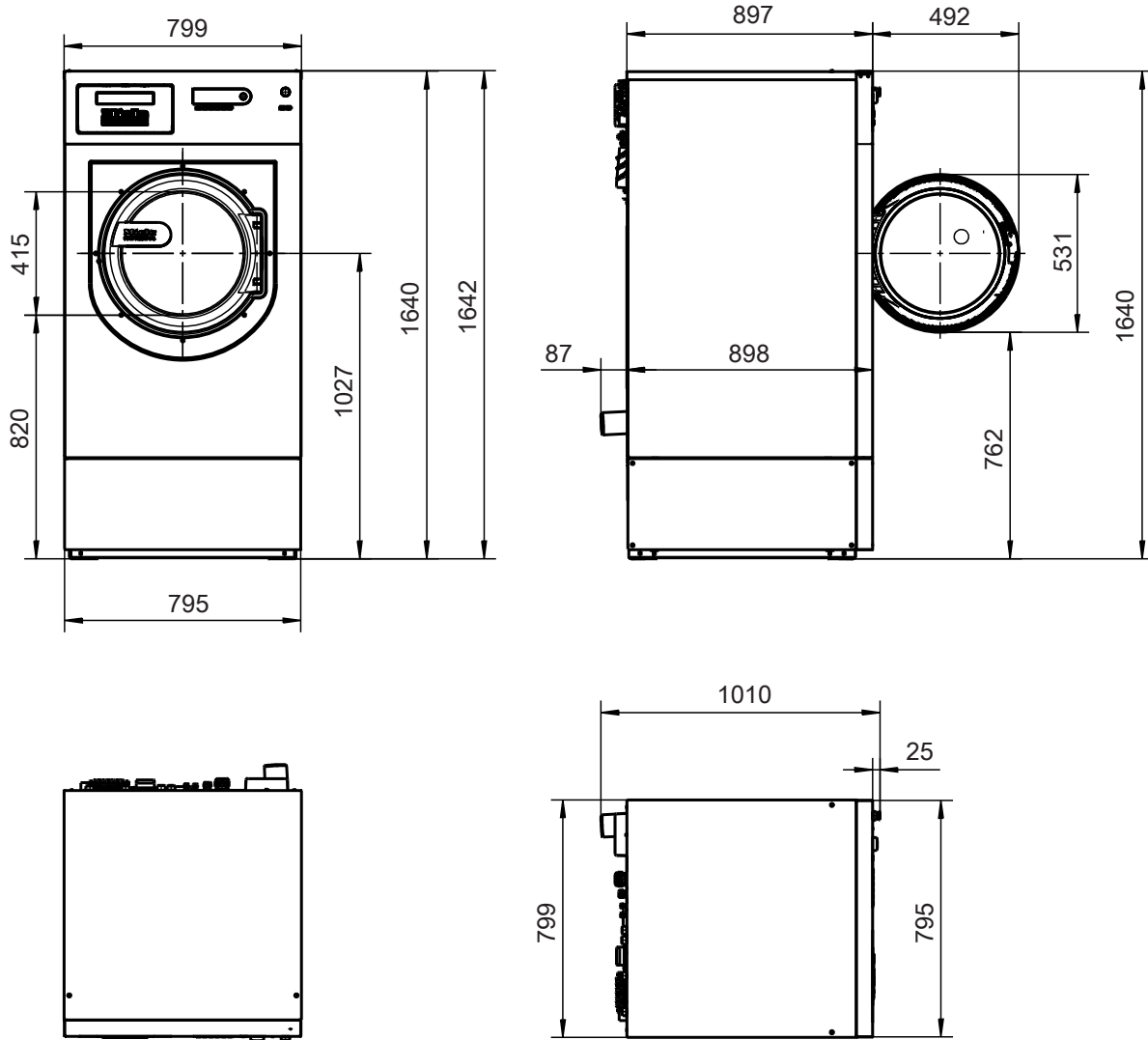
Dimensions



Dimensions in millimeters

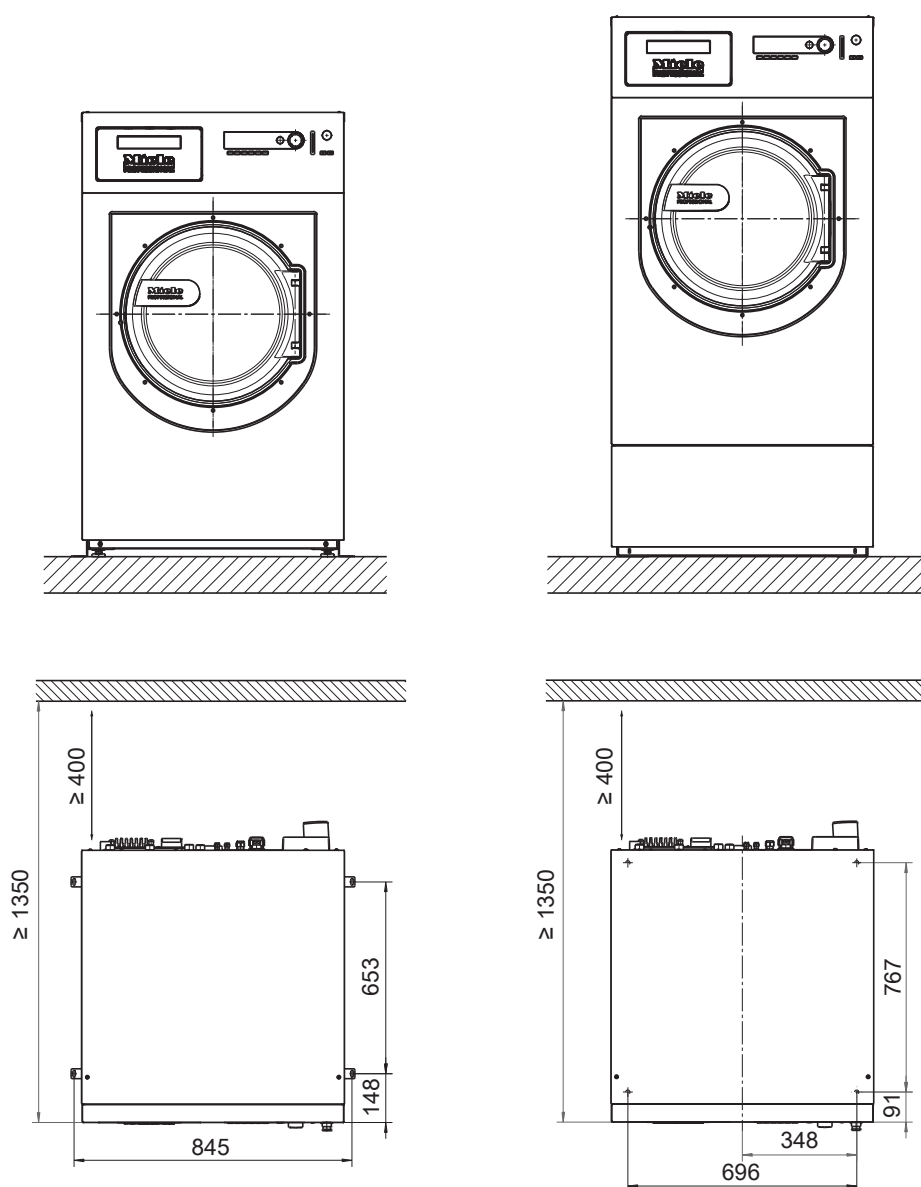
Technical drawings - dimensions in millimeters

PW 413 with Miele base (UG/UO)



Dimensions in millimeters

Installation

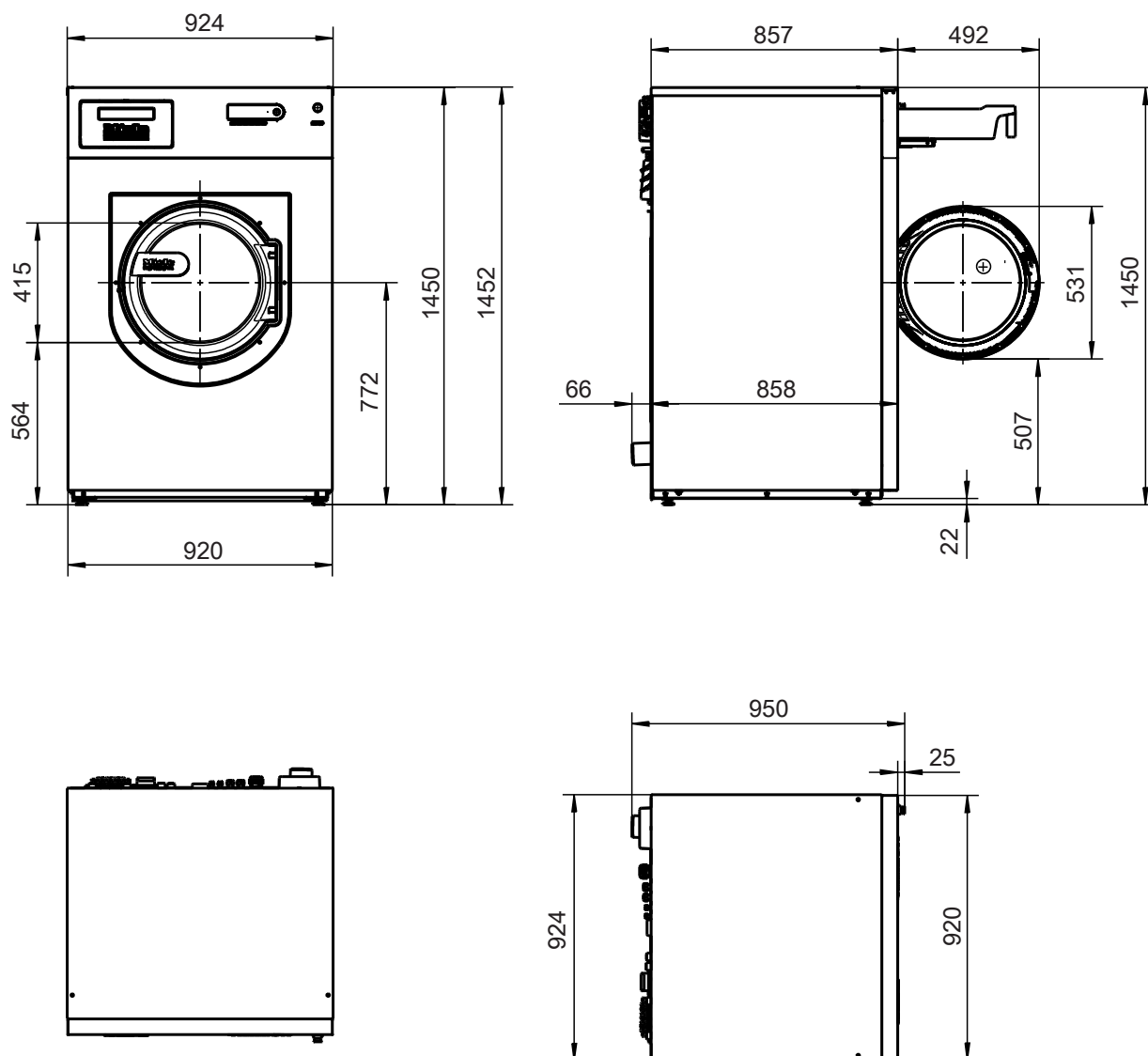


Dimensions in millimeters

Technical drawings - dimensions in millimeters

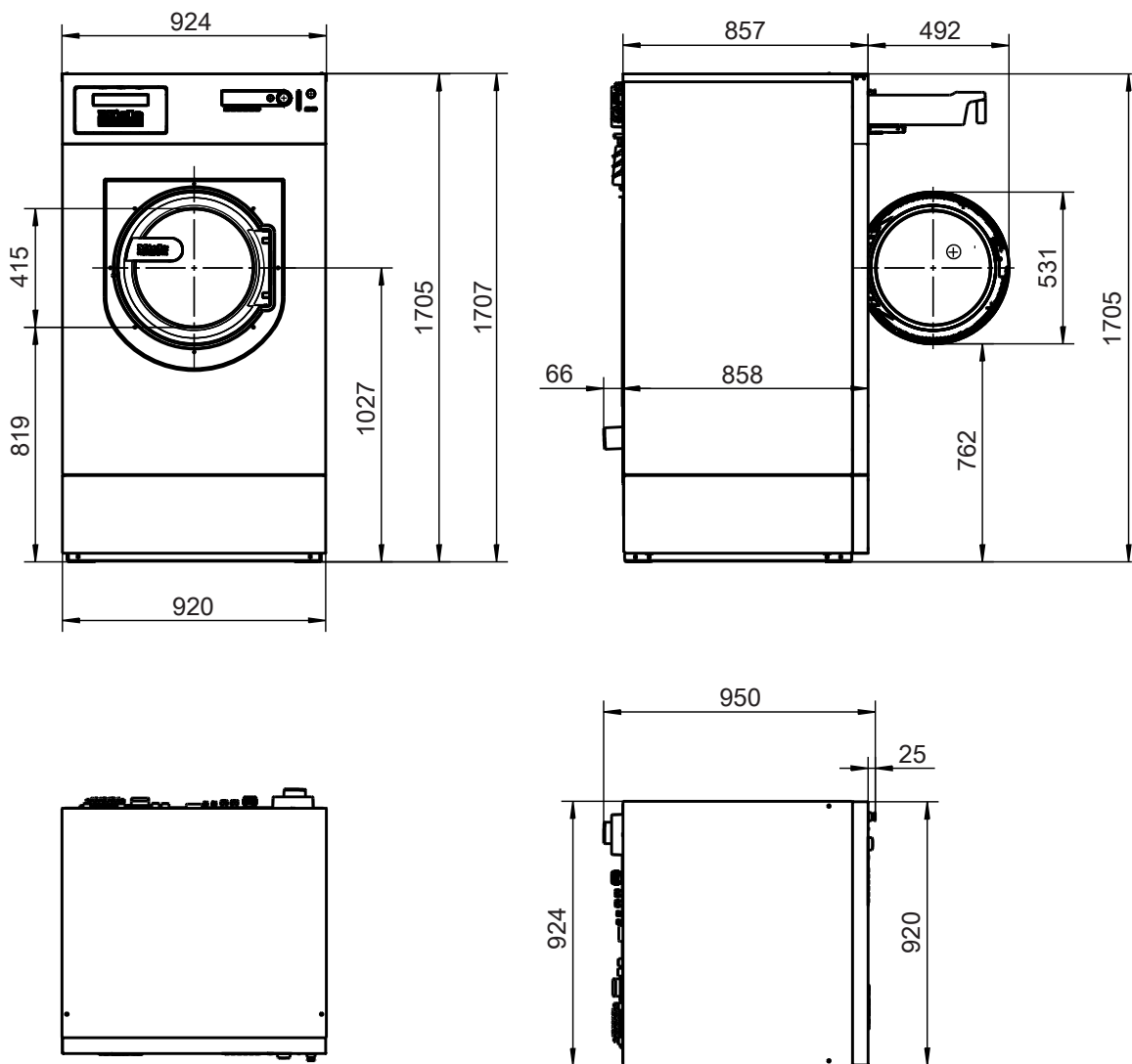
PW 418

Dimensions



Dimensions in millimeters

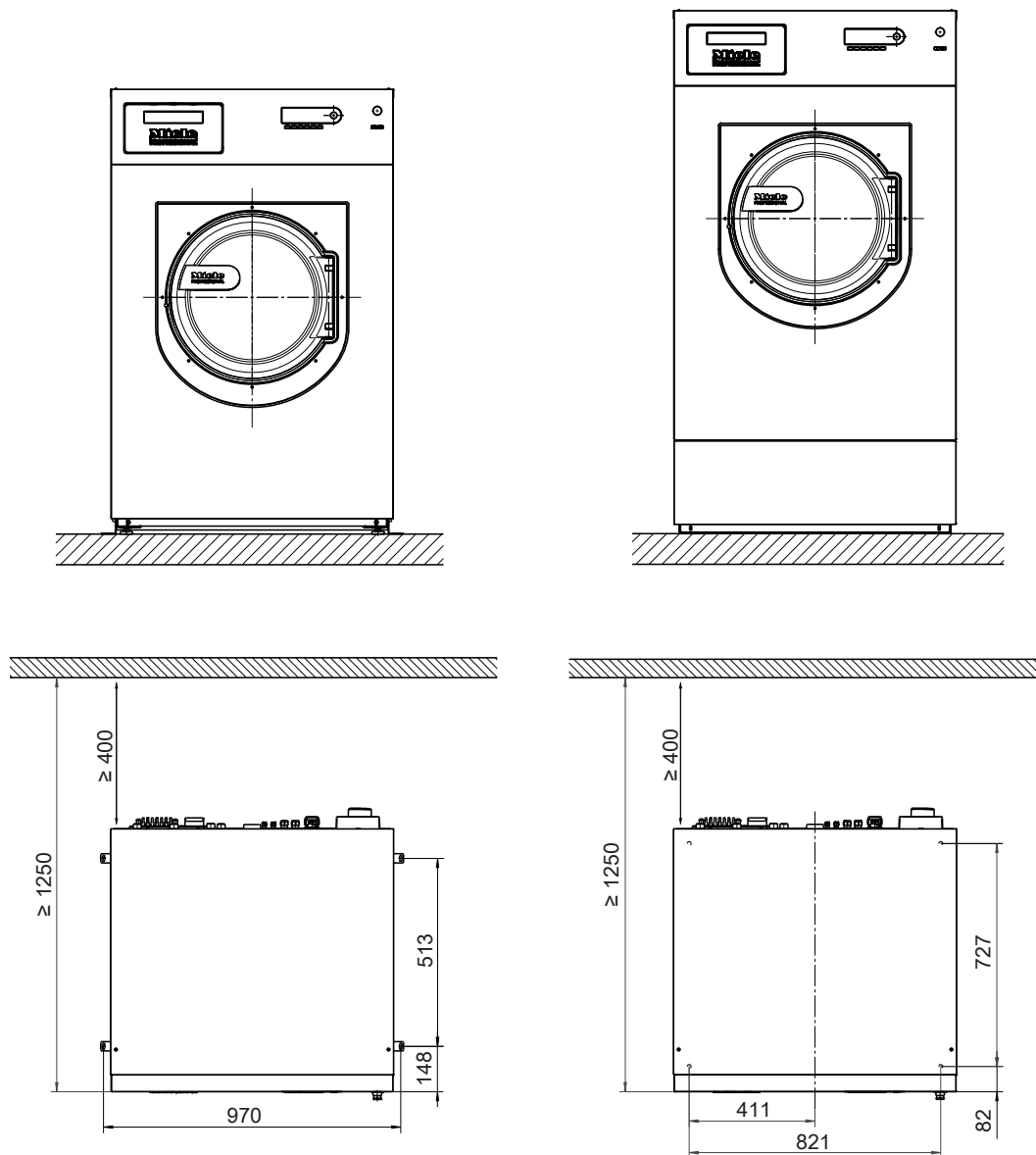
Dimensions with Miele base (UG/UO)



Dimensions in millimeters

Technical drawings - dimensions in millimeters

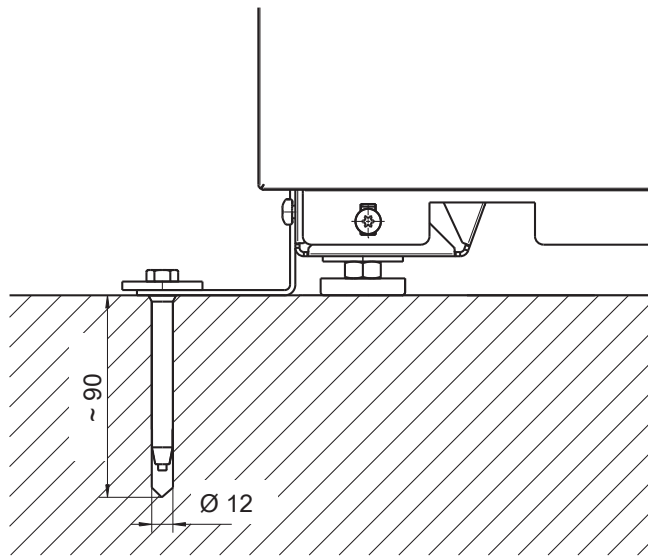
Installation



Dimensions in millimeters

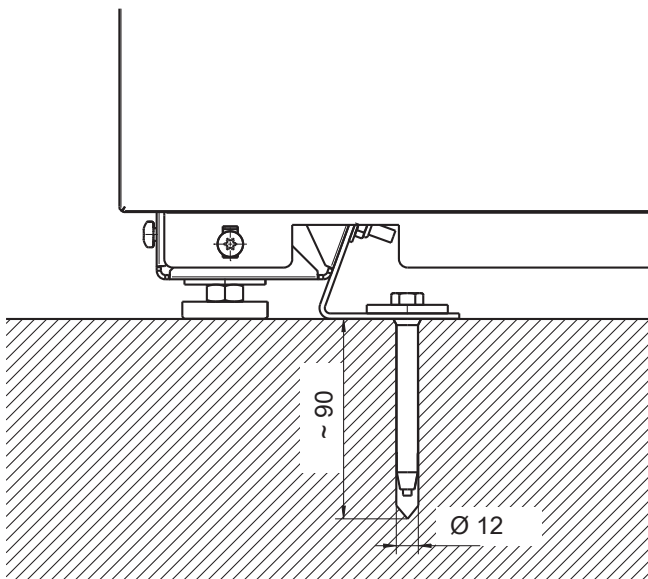
Anchoring PW 413/418

Attaching to the floor/concrete base



Dimensions in millimeters

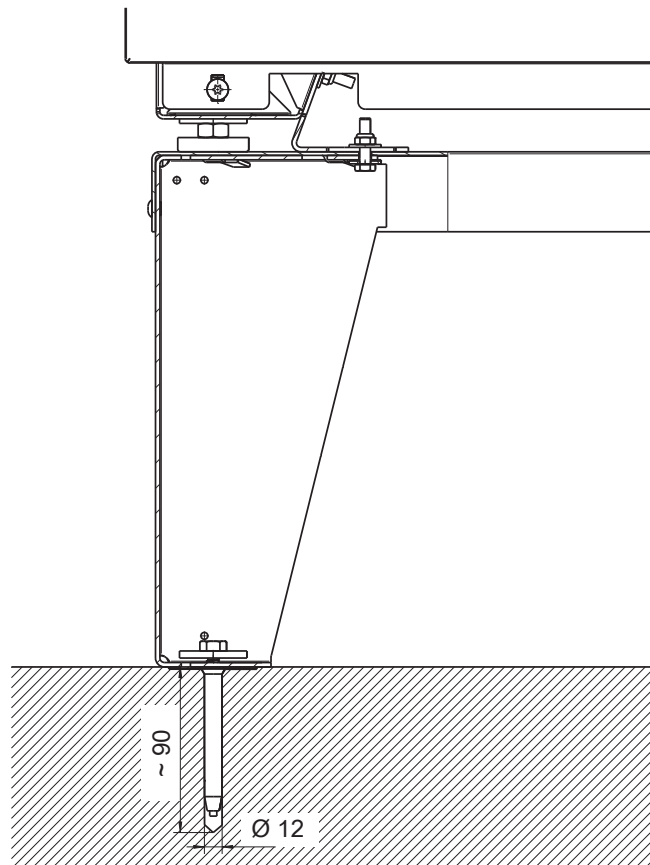
Attaching to the floor/concrete base when installing in a run



Dimensions in millimeters

Technical drawings - dimensions in millimeters

Attaching to the floor with Miele base



Dimensions in millimeters

Water connection

Models with detergent dispenser drawer (WEK)

Permitted supply pressure	14.5-145 psi (1-10 bar)
Maximum water intake rate	21 gal/min (79.5 l/min)
Cold water connection (to be provided on site, external thread according to DIN 44991, flat seal)	2 x ¾"
Optional cold-hard water connection (to be provided on site, external thread according to DIN 44991, flat seal)	2 x ¾"
Hot water connection ≤ 158°F (70°C) (to be provided on site, external thread according to DIN 44991, flat seal)	1 x ¾" (25 x 19 mm)
Water intake hose length	59" (1500 mm)

Drain valve

Maximum drain water temperature	203°F (95°C)
Waste water connection (on machine)	NPS 2 ¾" (DN 70) plastic pipe
Drain (on-site)	2 ¾" connection
Maximum drainage rate	53 gal/min (200 l/min)

Connection for equipotential bonding

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

Anchoring

Attaching to the floor

Required anchor points	2
Wood screw (diameter x length)	1/2" x 3 1/2" (12 mm x 90 mm)
Wall anchors (diameter x length)	5/8" x 3 1/8" (16 mm x 80 mm)

Attaching to the floor with Miele base

Required anchor points	4
Wood screw (diameter x length)	1/2" x 3 1/2" (12 mm x 90 mm)
Wall anchors (diameter x length)	5/8" x 3 1/8" (16 mm x 80 mm)

Attaching to a concrete base (provided on-site)

Required anchor points	2
Wood screw (diameter x length)	1/2" x 3 1/2" (12 mm x 90 mm)
Wall anchors (diameter x length)	5/8" x 3 1/8" (16 mm x 80 mm)

Technical data

PW 413

Electrical version and electrical data

3 AC 200-208/220-240 V, 60 Hz, electrically heated

Standard:

Connection voltage	3 AC 220-240 V
Frequency	60 Hz
Fuse rating	3 x 25 A
Power rating	10.2-11.8 kW
Power cord, min. cross-section	4 x AWG 12
Cord connector	M 32

Convertible to:

Connection voltage	3 AC 200-208 V
Frequency	60 Hz
Fuse rating	3 x 25 A
Power rating	8.8-9.4 kW
Power cord, min. cross-section	4 x AWG 12
Cord connector	M 32

3 AC 220-240 V, 60 Hz, without heating

Standard:

Connection voltage	3 AC 220-240 V
Frequency	60 Hz
Fuse rating	3 x 16 A
Power rating	2.3 kW
Power cord, min. cross-section	4 x AWG 14
Cord connector	M 25

Convertible to:

Connection voltage	3 AC 200-208 V
Frequency	60 Hz
Fuse rating	3 x 16 A
Power rating	2 kW
Power cord, min. cross-section	4 x AWG 14
Cord connector	M 25

Installation dimensions

Casing width (without add-on components)	31.4" (795 mm)
Casing height (without add-on components)	53.2" (1350 mm)
Casing depth (without add-on components)	35.4" (897 mm)
Overall machine width	31.5" (799 mm)
Overall machine height	53.3" (1352 mm)
Overall machine depth	39.8" (1010 mm)
Minimum width of transport opening	31.7" (805 mm)
Minimum distance between wall and machine front	53.2" (1350 mm)

Transport data, weight and floor load

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

Packaging width	44.5" (1130 mm)
Packaging height	57.8" (1468 mm)
Packaging depth	43" (1090 mm)
Gross volume	63.9 cu. ft. (1808 l)
Gross weight	717 lb (325 kg)
Net weight	655 lb (297 kg)
Maximum floor load during operation	4608 N

PW 413 with detergent dispenser drawer (WEK), without heating

Packaging width	44.5" (1130 mm)
Packaging height	57.8" (1468 mm)
Packaging depth	43" (1090 mm)
Gross volume	63.9 cu. ft. (1808 l)
Gross weight	712 lb (323 kg)
Net weight	650 lb (295 kg)
Maximum floor load during operation	4589 N

Emissions data

Workplace related sound pressure level, washing	53 dB (A)
Sound power level, washing	62.0 dB (A)
Workplace related sound pressure level, spinning	67 dB (A)
Sound power level, spinning	74.2 dB (A)
Average heat dissipation rate to installation site	Electrically heated models: 3754 BTU Models without heating: 683 BTU

Technical data

PW 418

Electrical version and electrical data

3 AC 200-208/220-240 V, 60 Hz, electrically heated

Standard:

Connection voltage	3 AC 220-240 V
Frequency	60 Hz
Fuse rating	3 x 40 A
Power rating	11.9-13.6 kW
Power cord, min. cross-section	4 x AWG 8
Cord connector	M 40

Convertible to:

Connection voltage	3 AC 200-208 V
Frequency	60 Hz
Fuse rating	3 x 40 A
Power rating	10.4-11.0 kW
Power cord, min. cross-section	4 x AWG 8
Cord connector	M 40

3 AC 220-240 V, 60 Hz, without heating

Standard:

Connection voltage	3 AC 220-240 V
Frequency	60 Hz
Fuse rating	3 x 16 A
Power rating	3 kW
Power cord, min. cross-section	4 x AWG 12
Cord connector	M 25

Convertible to:

Connection voltage	3 AC 200-208 V
Frequency	60 Hz
Fuse rating	3 x 16 A
Power rating	3 kW
Power cord, min. cross-section	4 x AWG 12
Cord connector	M 25

Installation dimensions

Casing width (without add-on components)	36.3" (920 mm)
Casing height (without add-on components)	57.1" (1450 mm)
Casing depth (without add-on components)	33.8" (857 mm)
Overall machine width	36.4" (924 mm)
Overall machine height	57.2" (1452 mm)
Overall machine depth	37.4" (950 mm)
Minimum width of transport opening	36.7" (930 mm)
Minimum distance between wall and machine front	49.3" (1250 mm)

Transport data, weight and floor load

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

Packaging width	46.9" (1190 mm)
Packaging height	61.8" (1568 mm)
Packaging depth	44.5" (1130 mm)
Gross volume	74.5 cu. ft. (1931 l)
Gross weight	994 lb (451 kg)
Net weight	935 lb (424 kg)
Maximum floor load during operation	6027 N

PW 418 with detergent dispenser drawer (WEK), without heating

Packaging width	46.9" (1190 mm)
Packaging height	61.8" (1568 mm)
Packaging depth	44.5" (1130 mm)
Gross volume	74.5 cu. ft. (1931 l)
Gross weight	990 lb (449 kg)
Net weight	930 lb (422 kg)
Maximum floor load during operation	6007 N

Emissions data

Workplace related sound pressure level, washing	54 dB (A)
Sound power level, washing	62.0 dB (A)
Workplace related sound pressure level, spinning	65 dB (A)
Sound power level, spinning	77.3 dB (A)
Average heat dissipation rate to installation site	Electrically heated models: 6142 BTU Models without heating: 1024 BTU

Please have the model and serial number
of your machine available when
contacting Technical Service.



U.S.A.

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