

Washer Kit

HAC-WAS



BOSCH

en Installation Manual

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1 Important Safety Instructions

**DANGER!**

High risk: This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product.

If not avoided, this will result in an electrical shock, serious bodily injury, or death.

**WARNING!**

Medium risk: Indicates a potentially hazardous situation.

If not avoided, this could result in minor or moderate bodily injury.

**CAUTION!**

Low risk: Indicates a potentially hazardous situation.

if not avoided, this could result in property damage or risk of damage to the unit.

Read, follow, and retain all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operation.

1. Clean only with a dry cloth. Do not use liquid cleaners or aerosol cleaners.
2. Do not install unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. Adjust only those controls specified in the operating instructions.
4. Do not overload outlets and extension cords, as this can cause fire or electrical shock.
5. Protect the plug and power cord from foot traffic or pinching, at electrical outlets, and at its exit from the unit.
6. Operate the unit only from the type of power source indicated on the label.
7. Unless qualified, do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
8. Use only replacement parts specified by the manufacturer.
9. Install in accordance with the manufacturer's instructions in accordance with applicable local codes. Use only attachments/accessories specified by the manufacturer. Equipment change or modification could void the user's guarantee or authorization agreement.



Disposal - Your Bosch product was developed and manufactured with high-quality material and components that can be recycled and reused. This symbol means that electronic and electrical appliances, which have reached the end of their working life, must be collected and disposed of separately from household waste material. Separate collecting systems are usually in place for disused electronic and electrical products. Please dispose of these units at an environmentally compatible recycling facility, per *European Directive 2002/96/EC*.

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2 Description

A washer kit for the UPH Series High-speed Positioning System. Available in 230 VAC (HAC-WAS05-50 and HAC-WAS30-50) or 24 VAC (HAC-WAS05-20). The standard pump guarantees a delivery up to a maximum of 4 m (13 ft), while the high delivery version (HAC-WAS30-50) delivers up to 30 m (98 ft). It is possible to adjust the articulated nozzle of the pump associating it to a preset in order to obtain the desired position of the wiper and sprinkle functions. The pumps, equipped with relay, allow the direct connection to the UPH. Further, in the high delivery version, the lack of liquid in the reservoir is signalled to the operator with the stop of the pump itself.

3 Preparing the Product for Use



CAUTION!

Any change that is not expressly approved by the manufacturer will invalidate the guarantee.

3.1 Contents and Unpacking

When the product is delivered, make sure that the package is intact and that there are no signs that it has been dropped or scratched. If there are obvious signs of damage, contact the supplier immediately. Keep the packaging in case you need to send the product for repairs. Check the contents to make sure they correspond with the list of materials as below:

- Washer kit for UPH Series High-speed Positioning System
- Washer pipe support
- Locking bracket for pipe support
- Screws and washers
- Washer pipe with nozzle
- Washer delivery tube:
 - HAC-WAS05-20, HAC-WAS05-50: 4 m (13 ft) tube
 - HAC-WAS30-50: 30 m (98 ft) tube
- Pipe connector
- Clamp
- Housing equipment
- Installation manual

3.2 Safely Disposing of Packaging Material

The packaging material can all be recycled. The installer technician will be responsible for separating the material for disposal, and in any case for compliance with the legislation in force where the device is to be used.

Bear in mind that if the material has to be returned due to a fault, using the original packaging for its transport is strongly recommended.

4 Assembly and Installation



DANGER!

In the 115/230 VAC powered configuration it is necessary to insert a 1 0 unipolar main switch (open contact distance $d > 3$ mm) upstream on the power line. This switch should be used to disconnect the power supply before carrying out any maintenance operation or before opening the housing.



CAUTION!

Only qualified personnel should assemble and install the device.

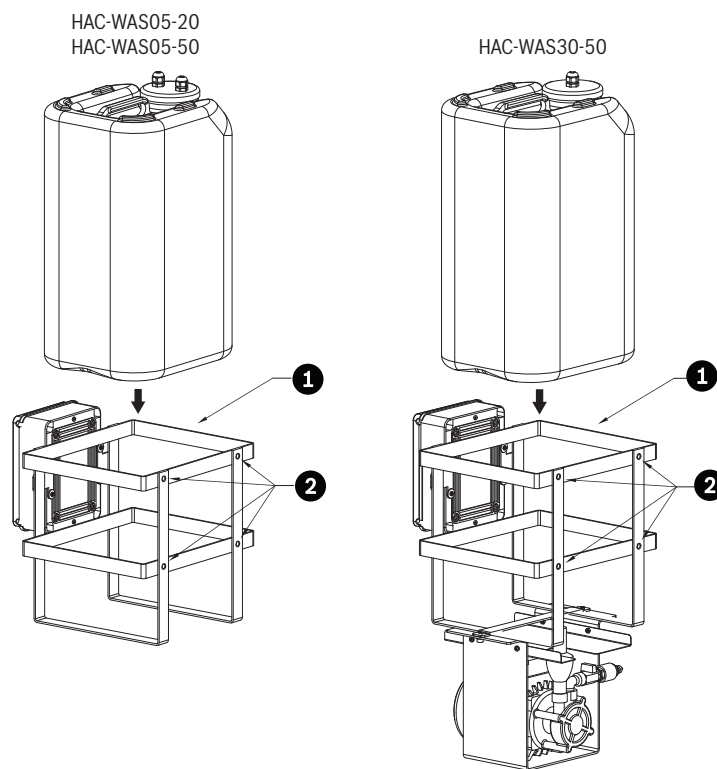
4.1 Installing the Pump Tank



CAUTION!

If using the pump at temperatures below 3°C (37.4°F) add some motor vehicle-type antifreeze to the water.

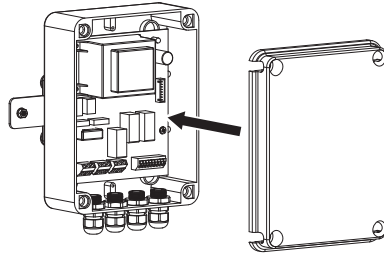
1. Attach the metal cage (item 1, below) firmly to a wall using the four (4) holes provided for this (item 2).



2. Remove the cap from the tank with the corresponding pump or level controller. Remove the tank from the metal cage.

4.2 Board Wiring

Open the cover of the waterproof box and make the connections.



4.2.1 Connecting the Power Supply



DANGER!

Always make the base connections with the power supply disconnected and the circuit-breaker open.



NOTICE!

When commencing installation make sure that the specifications for the power supply for the installation correspond with those required by the device.



NOTICE!

Make sure that the power source and connecting cables are suitable for the power consumption of the system.



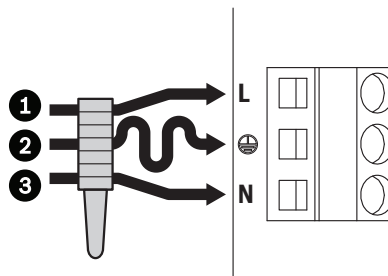
NOTICE!

The Earth cable should be about 10 mm (0.39 in.) longer than the other two, so that it will not be disconnected accidentally if the cable is stretched or pulled.



NOTICE!

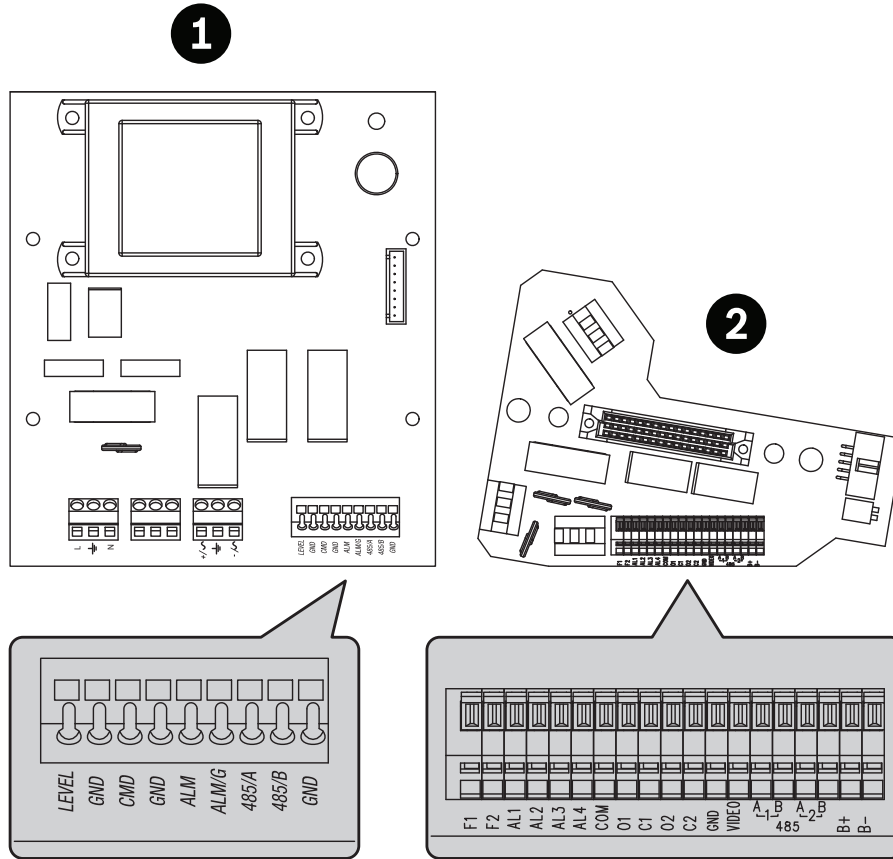
The power supply cable should also be covered by the silicone sheath supplied for this purpose, and fastened with the corresponding tie. Furthermore, all signal cables must be grouped together by means of a strap.



1	Line
2	Earth
3	Neutral

4.2.2 Connecting the UPH Pan/Tilt

To connect the pump of the washer (item 1, below) to the UPH (item 2) refer to the following illustration and table. Close the cover door when the connections are complete.



Pump board (connector CN4)	UPH Board
CMD	01
GND	C1

Additional Connections for HAC-WAS30-50

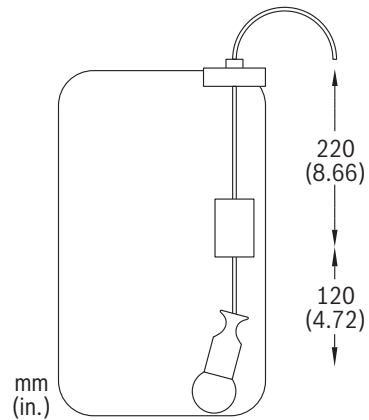
Pump board (connector CN4)	UPH Board
ALM	AL1
ALM/G	COM

4.2.3 Installing the Pump (HAC-WAS20-05, HAC-WAS20-50)

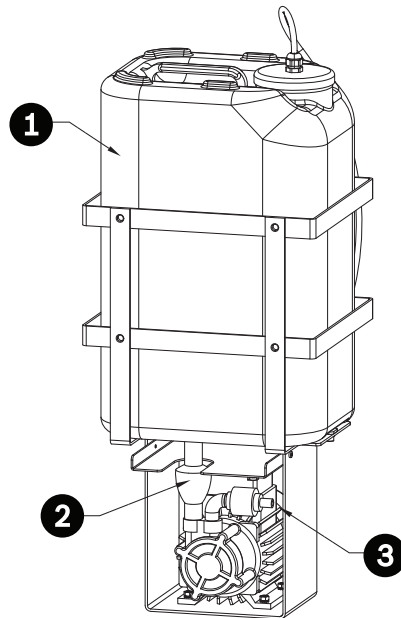
Fill the tank with water and insert it in the metal cage. Insert the pump in the tank and tighten the cap. The system is ready to be powered.

4.2.4 Installing the Pump (HAC-WAS30-50)

1. Adjust the position of the level controller and the weight.



2. Fill the tank (item 1, below) with water and insert it in the metal cage, taking care to insert the male/female hydraulic coupling (item 2) correctly.
3. Check the delivery hose coupling for the pump (item 3) to make sure a small quantity of water comes out.



4. Connect the delivery hose. The system is ready to be powered.

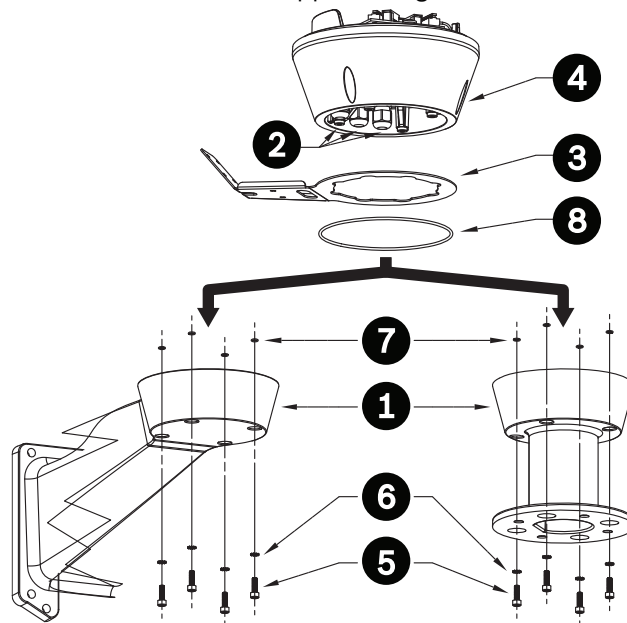
4.3 Installing the Washer to the UPH



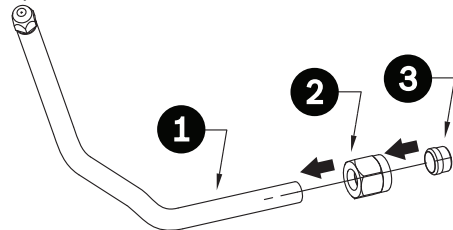
NOTICE!

To attach the base to the support use the new screws provided (item 5, below) and make sure the washers (item 6) are present, as well as the screw seals (item 7) and the gasket (item 8).

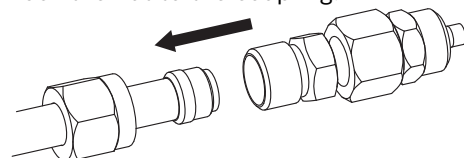
1. After attaching the support (item 1, bracket or column support), position the washer pipe support (item 3) in the desired position. Insert the cables inside the support so that they protrude by about 50 cm (19.68 in.).
2. Insert the cable in the cable glands (item 2) and, keeping the base (item 4) at about 20 cm (7.87 in.) from the support, lock the cable glands.
3. Set the base on the support, aiding the cables to achieve the correct position inside. Attach the base to the support using the new screws supplied (item 5).



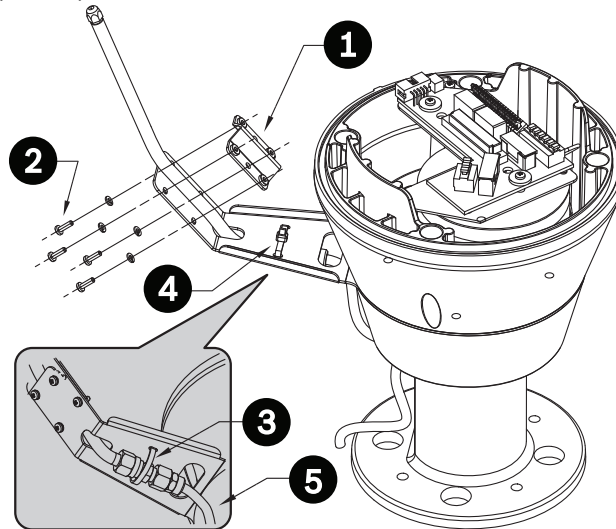
4. Cut the cables to size and either restore or make the connections to the positioning unit. When you have attached the base to the support, shorten the washer pipe (item 1, below) as required and attach it to the coupling as follows: undo the nut (item 2) from the coupling, insert it into the pipe and insert the end of the pipe on the nosecap (item 3).



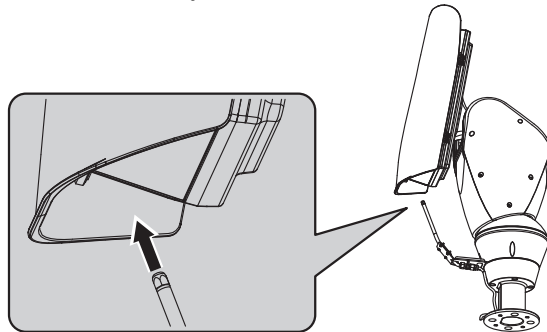
5. Lock the nut to the coupling.



6. Attach the pipe to the washer support using the bracket (item 1), the screws (item 2) and the washers (item 3) supplied.
Lock the coupling using the hose clip (item 4) supplied and connect the delivery hose (item 5).



7. To calibrate the jet direct the nozzle towards the glass of the housing.



8. To operate the washer, refer to *UPH Series Installation Manual*.

4.3.1 Washer Installation Examples

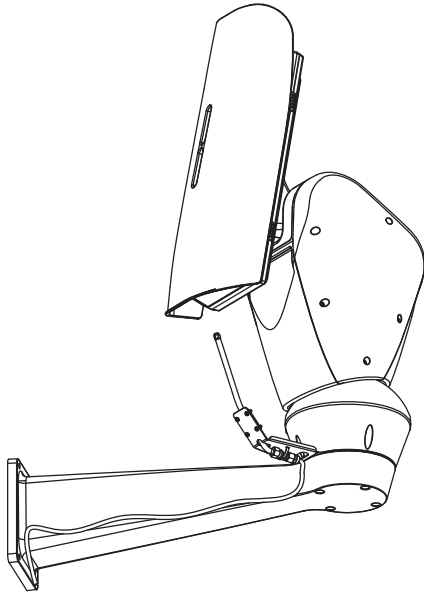


Figure 4.1 Example of installation with wall bracket

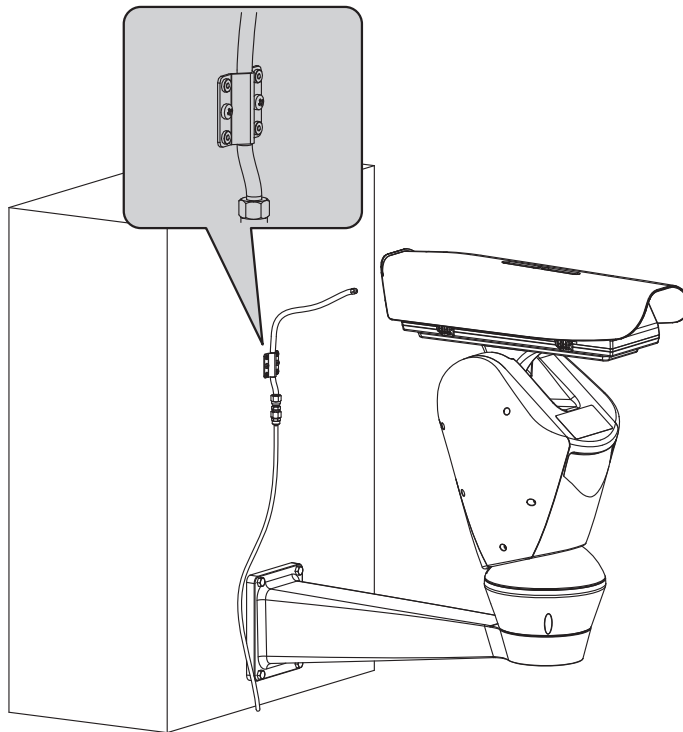


Figure 4.2 Pipe fixed directly to the wall through the plate

4.4 Fuse Replacement



NOTICE!

If it is necessary to change the fuse, see the diagram where it is marked FUSE. The size of the fuse will vary according to the voltage of the equipment.

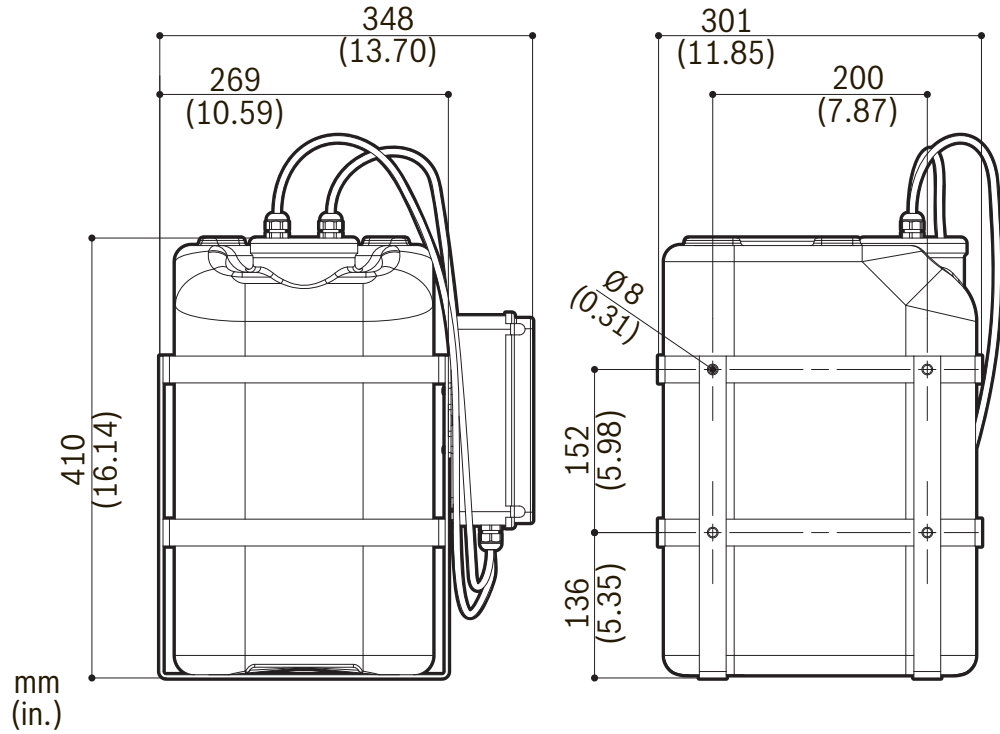
	HAC-WAS05-20 HAC-WAS05-50	HAC-WAS30-50
24 VAC	2AT	n/a
120 VAC	0.5AT	n/a
230 VAC	250mAT	4AT

5 Technical Data

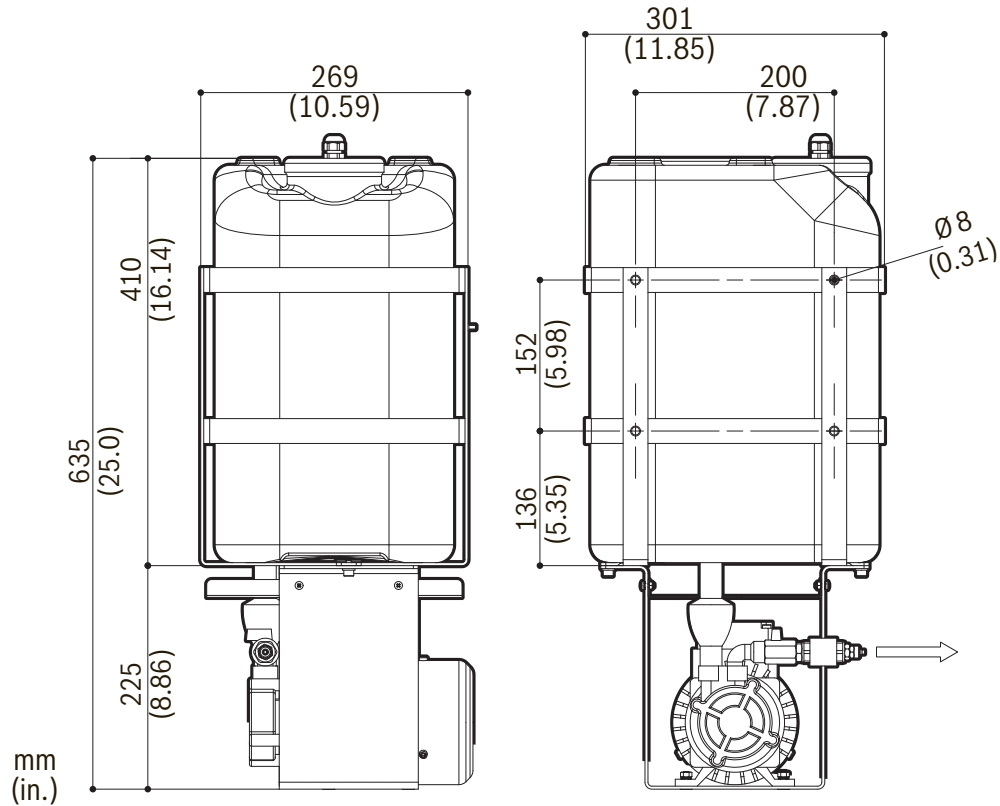
HAC-WAS05-20, HAC-WAS05-50	
Dimensions (W x H x L)	301 x 410 x 347.5 mm (11.8 x 16.0 x 13.7 in.)
Reservoir Capacity	23 l (6 gal)
Delivery Head	Maximum 4 m (13 ft)
Tube Length	4 m (13 ft)
Tube Diameter	O.D. 5 mm
Flow Rate	5 liters/minute
Power Consumption	
– HAC-WAS05-20	12 W maximum
– HAC-WAS05-50	12 W maximum
Waterproofing	IP56
HAC-WAS30-50	
Dimensions (W x H x L)	301 x 635 x 269 mm (11.8 x 25.0 x 10.6 in.)
Reservoir Capacity	23 l (6 gal)
Delivery Head	Maximum 30 m (98 ft)
Tube Length	30 m (98 ft)
Tube Diameter	O.D. 5 mm
Flow Rate	15 liters/minute (Flow rate is reduced to 0.1 liters/minute if the entire 30 m (98 ft) tube length is used.)
Power Consumption	600 W maximum
Waterproofing	IP45

6 Dimensional Drawings

HAC-WAS05-20, HAC-WAS05-50



HAC-WAS30-50



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