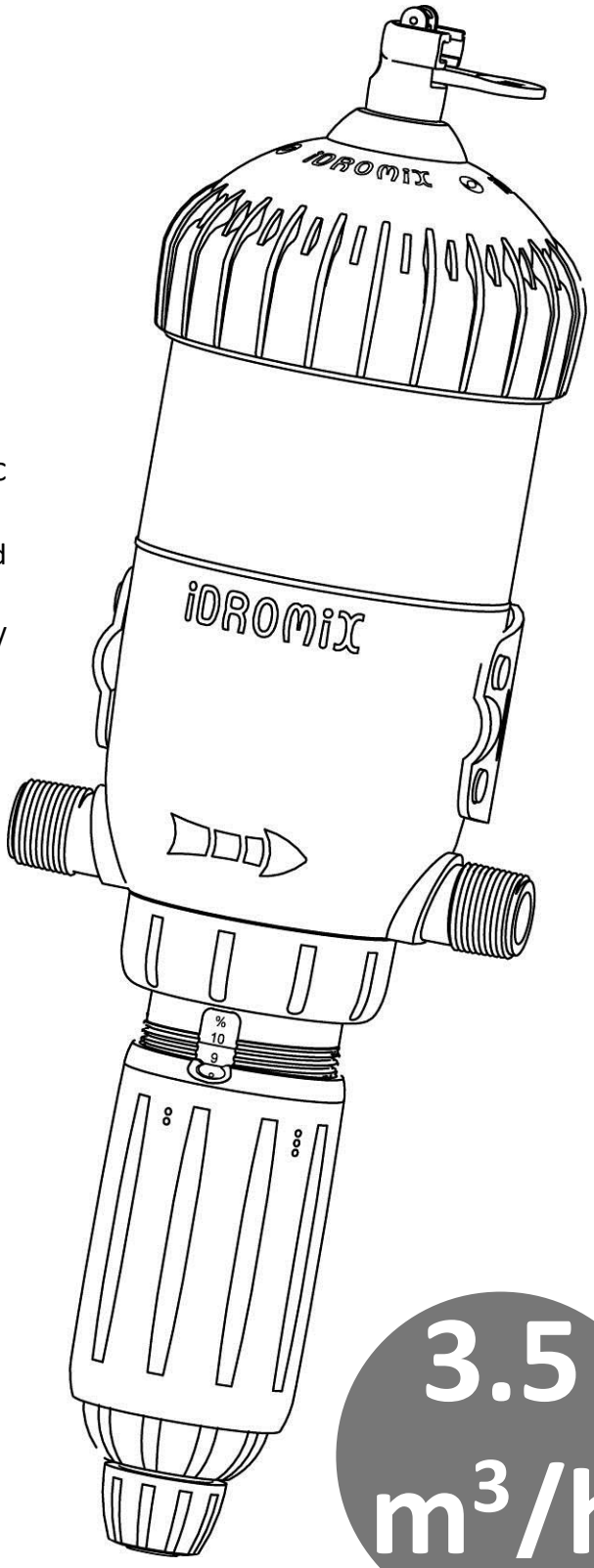
iDROMIX

USER MANUAL - Gamme iDose 3.5

iDose 3.5 DA 022
iDose 3.5 DA 055
iDose 3.5 DA 110



Congratulation !

You now own a high quality volumetric dosing pump.
Carefully read and follow the installation and use recommendations in this manual.
Your Idromix iDose 3.5 will serve you faithfully for many years.

The Idromix iDose 3.5 dosing pump is the easiest solution to achieve a controlled mixture of a liquid product in water.
Simply connect it to a water inlet: the Idromix iDose 3.5 sucks up and mixes your product at the chosen percentage by automatically adjusting to the water flow and provides you with a solution at the right dosage.
No additional connection is necessary.

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3.5 m^3/h

1 Safety and responsibility



Respect the standards for connection to the public or private water network, in order to avoid any pollution of the water supply. Idromix recommends the installation of a backflow preventer.
Take all the necessary safety measures according to the product dosed and the temperature of the water.
Check with your dealer the compatibility of the Idromix iDose 3.5 pump with this product.
Handle dangerous substances with care (corrosive products, solvents, acids, alkaline products etc.).
Observe the safety instructions during any operation on the Idromix pump and follow the recommendations provided by the product manufacturer.
Wear the necessary personal protective equipment (goggles, gloves, clothing, etc.).

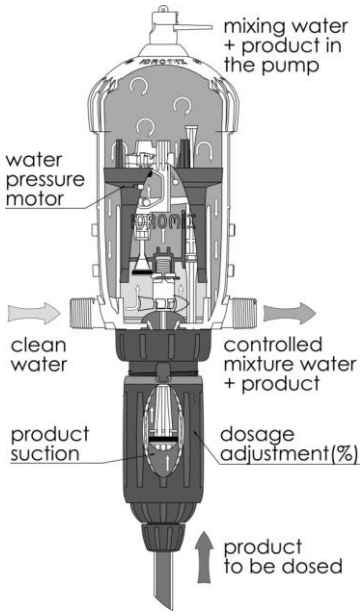
Avoid installing the Idromix iDose 3.5 pump in the fumes of a corrosive product.
Close the product containers with a lid to limit the vapours.
Protect the Idromix dosing pump from direct sunlight and UV rays.
Provide an anti-siphon valve downstream if there is a risk of siphoning due to the installation. Avoid water hammer in the installation.
Protect your Idromix iDose 3.5 from freezing.

<u>Do not use metal tools for any work on the pump.</u>

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2 Operating principle

The Idromix dosing pump uses the energy of the intake water pressure. It is the simplest solution to obtain a controlled dosage of a product in water.



The Idromix pumps only requires 3 connecting pipes :

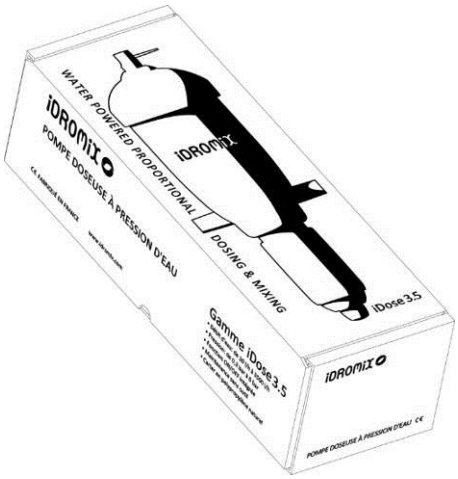
- The pure water inlet pipe,
- The mixture water + product outlet pipe,
- The suction hose for the product to be dosed, connected to the bottom of the pump.

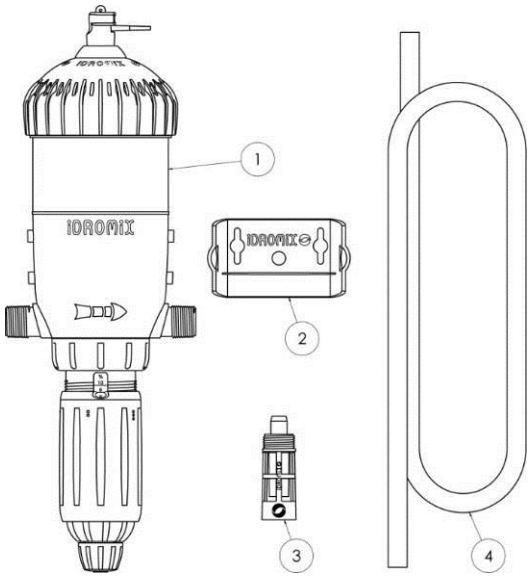
The hydraulic motor, which is volumetric, automatically adapts to the water flow to provide a constant and controlled water + product mixture.

The Idromix dosing pump brings improvements compared to existing models :

- Mechanical resistance and chemical compatibility above market standards :
  - Unique housing in natural PP without fiber glass,
  - High performance monobloc motor with no metal parts.
- Extended capacity in terms of water flow range: from 10 l/h to 3500 l/h,
- Compact, light and easy to maintain, completely dismontable by hand,
- Easy adjustment of the dosing ratio and the adjustment position is automatically locked during the adjustment thanks to the exclusive patented "autolock" system,
- Precision and repeatability of the adjustment, thanks to the patented markings on the dosing part,
- Quality of the mixture : injection at the inlet and mixing throughout the pump body,
- Suction kits interchangeable between models,
- Reduced pressure losses at high flow rates.

The Idromix iDose 3.5 pump is delivered with a wall bracket, a suction hose and a weighted strainer.

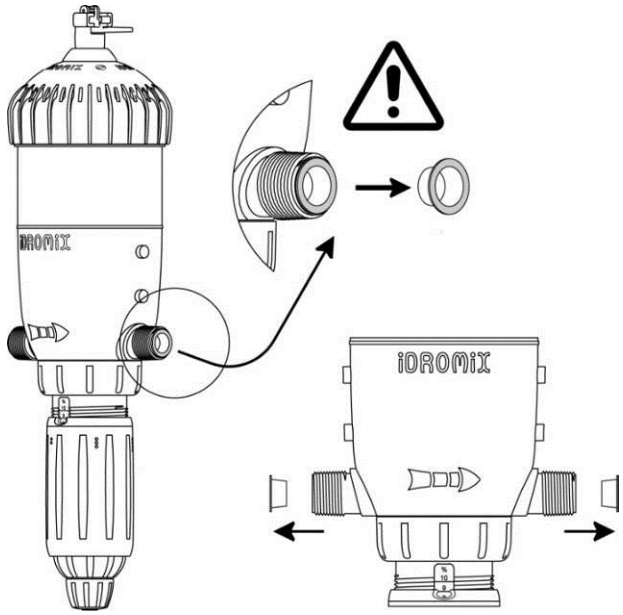




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3 Preparing the pump

3.1 Removing the protective caps



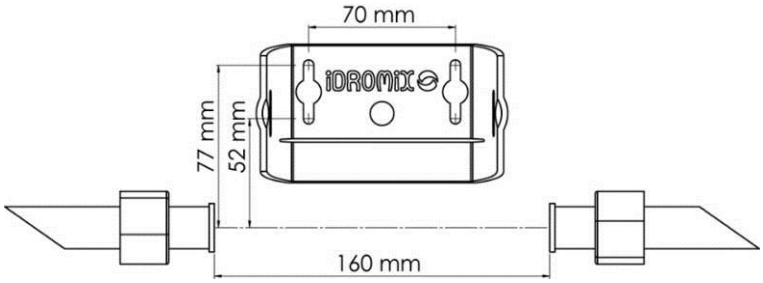
Before any operation on the Idromix iDose 3.5 dosing pump:
Remove the protective caps from the water inlet and outlet.

It is essential to remove them **before** connecting the water inlet and outlet pipes.

3.2 Connecting to the water supply

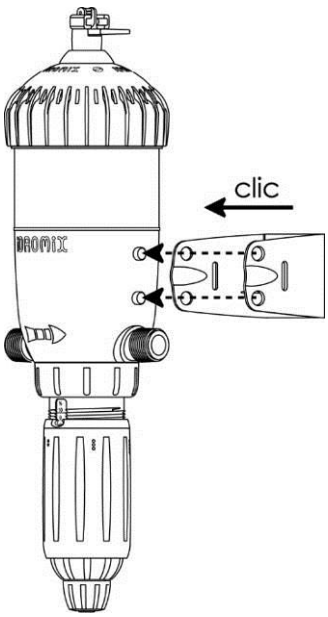
- Prepare the water inlet and outlet pipes with a distance between fittings of 160mm
- Hang the bracket in relation to the axis of the pipes with 2 screws, according to the assembly recommended in the figure, i.e. a distance between 52mm and 77mm.

The wall bracket is reversible: by positioning it upside down, the height between the pipe axis and the fixing holes can be reduced to 32mm



3.3 Installation on the wall bracket

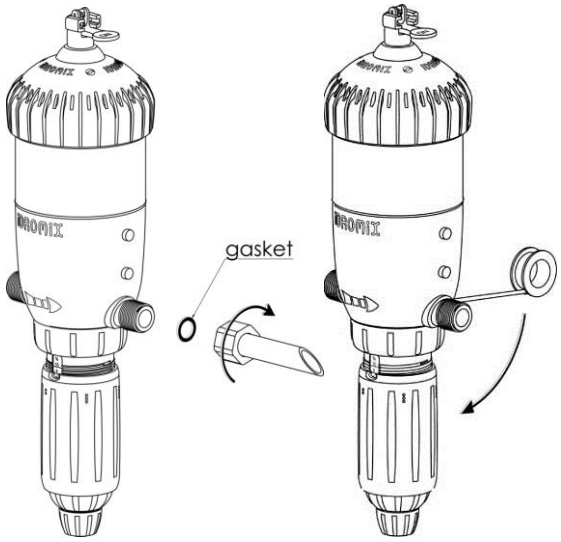
Install the Idromix pump on the wall bracket, **making sure that the arrow on the pump housing is in the direction of water flow.**



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3.4 Connecting the water inlet and outlet.

Idromix recommends the use of plastic fittings to avoid marking or damaging the pump housing threads.



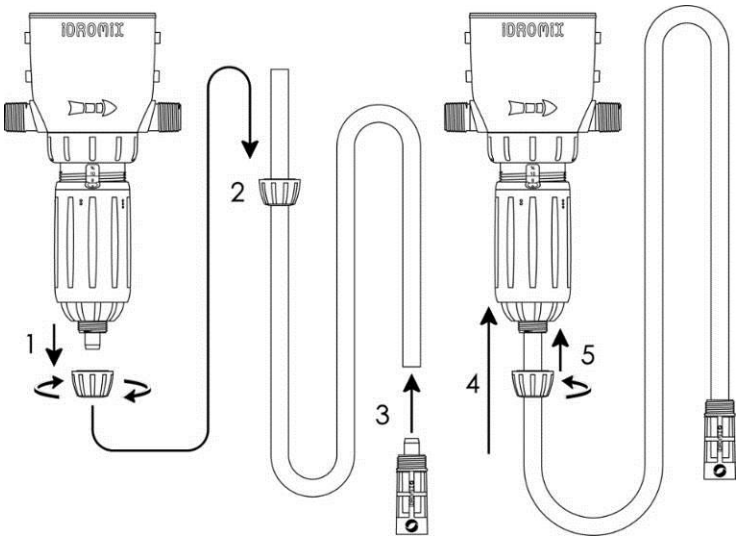
The sealing can be done in 2 ways:

- with a flat seal at the end (suggested solution),
- On the pump housing threads, with Teflon tape.

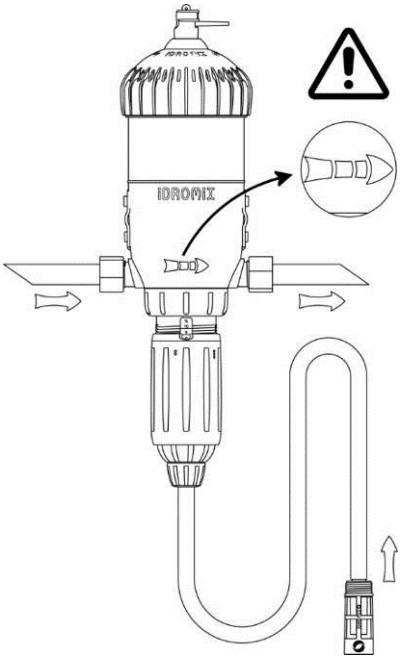
The use of a flat seal allows the use of a swivel joint. In this case, the sealing is not done on the thread.

Do not tight with a torque greater than 20 N.m to avoid damage to the pump housing threads.

3.5 Installing the suction pipe and strainer



1. Unscrew the pipe nut,
2. Push the hose nut over one end of the suction pipe,
3. Push the strainer onto the other end of the suction pipe,
4. Attach the suction pipe to the pump nozzle,
5. Secure the suction pipe by screwing on the pipe nut.



It is not necessary to strongly tighten the pipe nut to achieve a good fixation of the pipe.

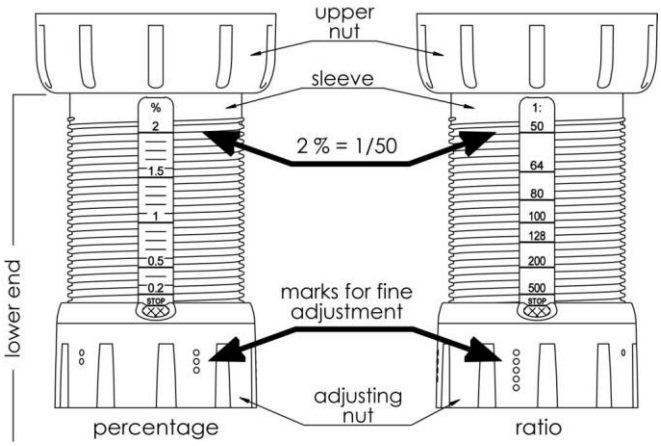
Check :

- The direction of water flow,
- The « ON/OFF » switch on "ON" to start dosing

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4 Dosing pump adjustments

4.1 Graduations



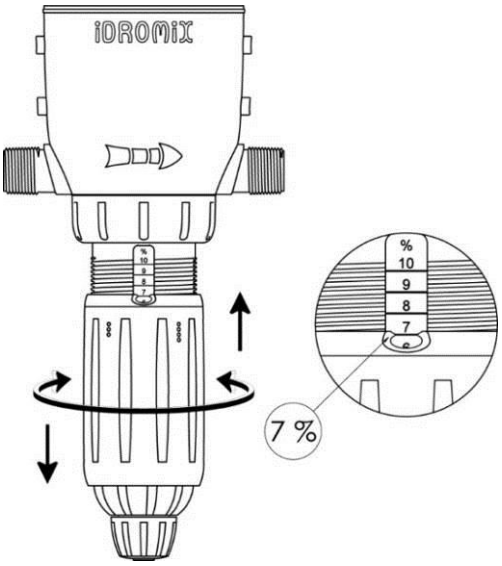
The value of the dosage performed is indicated by the scale engraved on the sleeve of the dosage part.
The engravings indicate the value of the dosage according to two different scales, on each side of the sleeve:

- A percentage scale
- A ratio scale

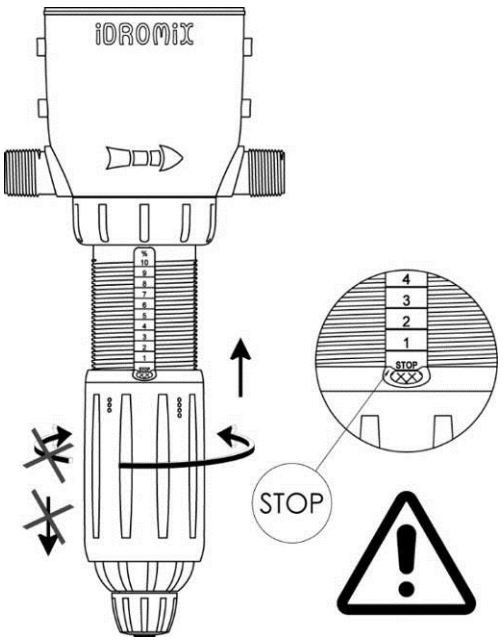
The dosing part can be oriented, dosing or ratio, by unscrewing the top nut, then turning the dosing part by half a turn to have the graduated side of the sleeve chosen in front of the pump, and finally by screwing back the top nut.

4.2 Dosage adjustment

The adjustment is done with a pump out of pressure, manually and without the use of tools.



The dosage value of the solution is easily adjusted by turning the adjusting nut clockwise to decrease the proportion and anticlockwise to increase it.
The selected position of the adjusting nut is automatically maintained thanks to the patented autolock system of the Idromix pump.
The adjusting nut is equipped with markings that make it easy to find an exact position for fine adjustment of the dosage.

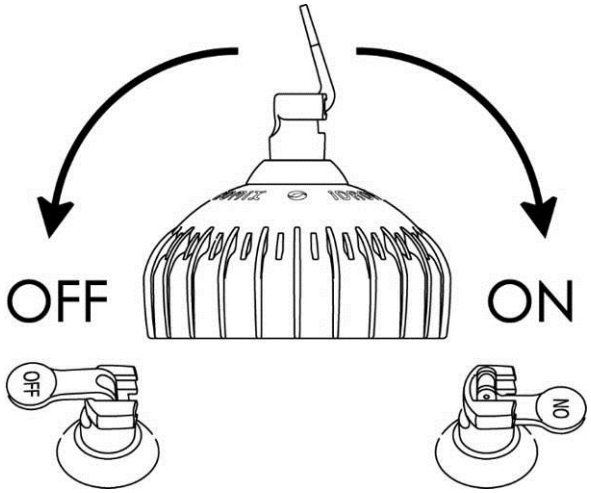


Caution: The lower limit of the setting is indicated by a "STOP" sign.
Do not try to unscrew the adjusting nut after this limit: this will damage your Idromix pump and lead to product leaks.

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4.3 ON/OFF system

Idromix pumps are equipped as standard with an ON/OFF system.
It works by moving the ON/OFF lever, gently, to the ON or OFF side.
It is advisable to accompany with your hand to move the lever from OFF to ON: the water pressure forces the switch from OFF to ON.



It is advisable to use this system:

- When the additive tank is empty,
- In the case of aggressive products, at the end of use to rinse the pump,
- When there is no need to suck up product.

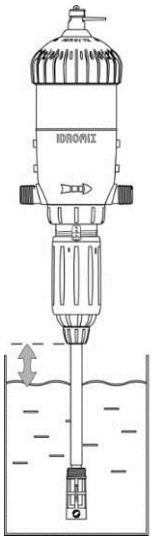
5 Installation

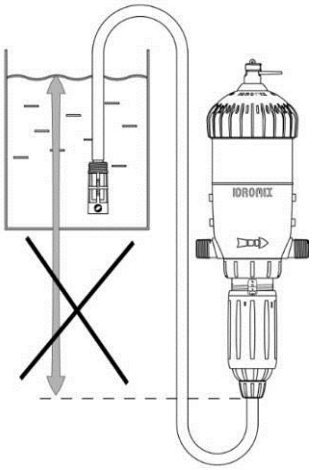
The installation must respect some simple rules for a good functioning of your Idromix iDose 3.5 pump.

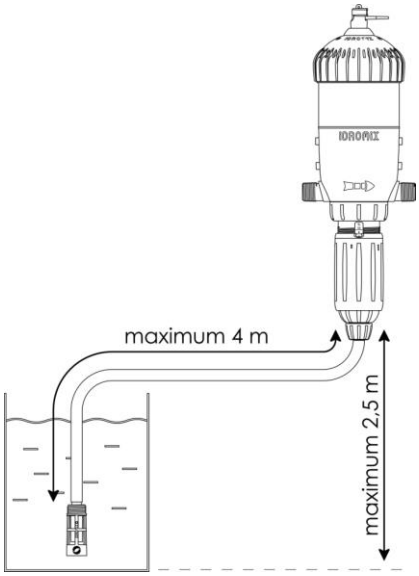
5.1 Product tank

The position of the product tank influences the performance of the Idromix pump.

- The top level of the product to be dosed must always be below the bottom of the Idromix pump. This allows a good functioning of the suction valve and reduces the risks of siphoning the product.
- The height between the bottom of the pump and the top of the product to be dosed must be less than 2.5 m. A greater height may lead to underdosing of the product.
- The total length of the suction pipe is less than 4 m. When the suction pipe used is a flexible pipe, Idromix advises to change it every year.
- Do not install your Idromix pump above a tank containing a corrosive product: the vapours are likely to damage your pump.







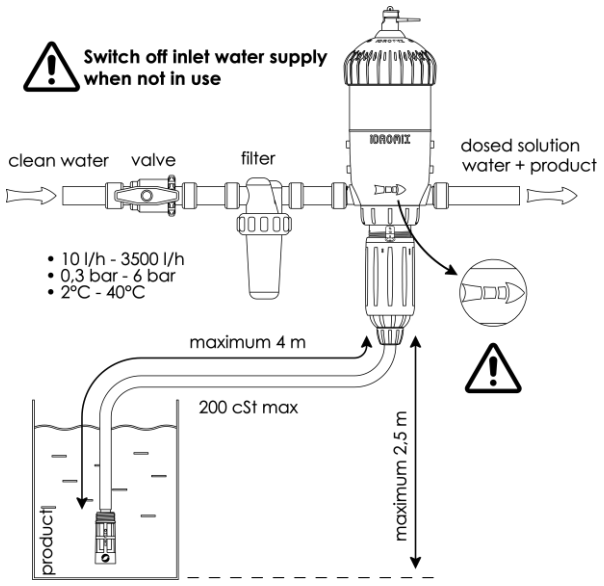
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5.2 Installations

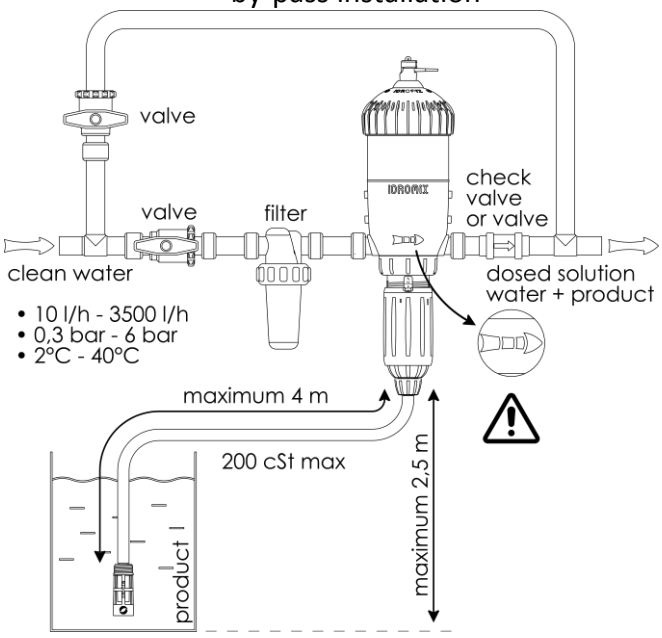
We suggest the installations described in the following diagrams, in order to protect the pump and guarantee its longevity.

- It is the responsibility of the owner/user to ensure that the water pressure and flow rate remain within the specifications of the Idromix pump,
- Air ingress, impurities or deterioration of a seal can interrupt the dosing function. It is recommended to check periodically that the dosing performed by the Idromix pump is correct.
- Always install a filter, 200 µm minimum, and a valve upstream of the Idromix pump.
  - The valve is used to put the pressure off in order to adjust the dosage of the pump,
  - The valve allows the pressure in the pump to be cut off when it is not operating
  - When closed, the valve avoids possible backflow of product into the water circuit,
- Check that the water is flowing in the direction of the arrows on the pump housing.
- Check that the "ON/OFF" function is set to "ON" to dose the product.
- **Close the valve upstream of the Idromix pump to cut off the pressure in the pump when it is not in operation.**

in line installation



by-pass installation



The by-pass installation allows the pump to be protected when there is no product injection.

Protect your Idromix pump:

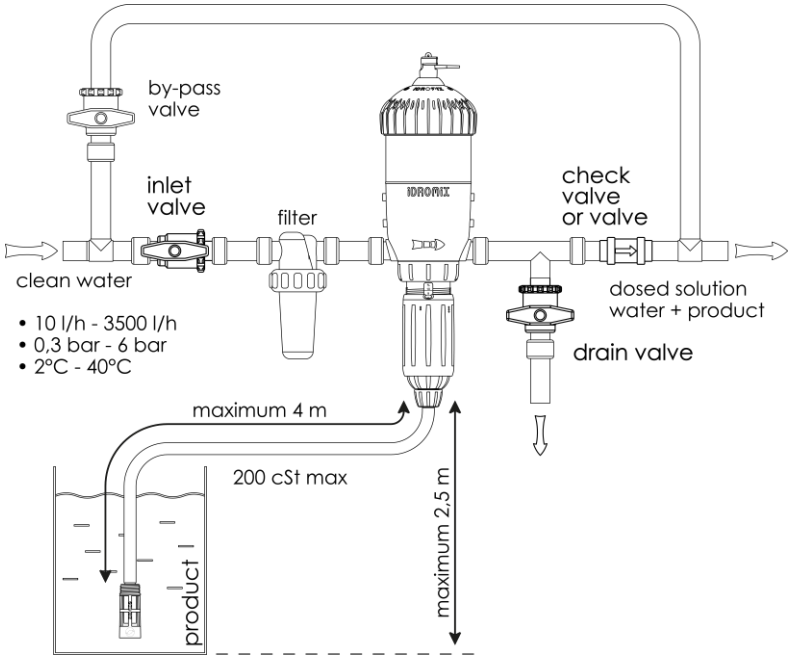
- From contact with corrosive products,
- From freezing,
- Temperatures above 40°C,
- UV rays (avoid direct sunlight).

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For a more complete installation, Idromix recommends installing a drain valve at the pump outlet.

The bleed valve allows you to:

- Prime the pump quickly without allowing water to flow into the downstream system, particularly useful for low dosages.
- Easily draw a sample of the mixture to verify that the pump is operating properly.
- Ensure that there is no pressure remaining in the pump once it has been isolated by the inlet and outlet valves.
- Drain water from the pump if there is a risk of freezing.



5.3 Viscosity

The viscosity of the product affects the pump's performance.
For example, the viscosity of water is close to 1 cSt, while that of a typical 5W50 motor oil ranges from 100 cSt to 200 cSt.
For values above 200 cSt, the pump's performance will depend on the installation: suction line length, pump flow rate, dosage setting, and operating temperature.

If the product's viscosity exceeds 200 centistokes, Idromix recommends:

- Reduce the suction height and length.
- Use a Viscosity Kit, i.e. increase the diameter of the suction hose,
- Reduce the pump's operating flow rate,
- Check and replace the suction hose regularly.

In this case, Idromix recommends to carry out operating tests.

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6 Maintenance

- Replace the seals of the dosing part at least once a year, and more frequently depending on the application, in order to preserve the dosing accuracy.
- Respect the recommendations of the product manufacturers to adjust the dosage of your Idromix iDose 3.5 pump. The adjustment is the sole responsibility of the user.
- Check the suction pipe, replace it annually or if it seems damaged by a chemical substance.
- After each use, it is advisable to rinse the pump with clean water and to turn off the pressure.

6.1 Cleaning the suction valve

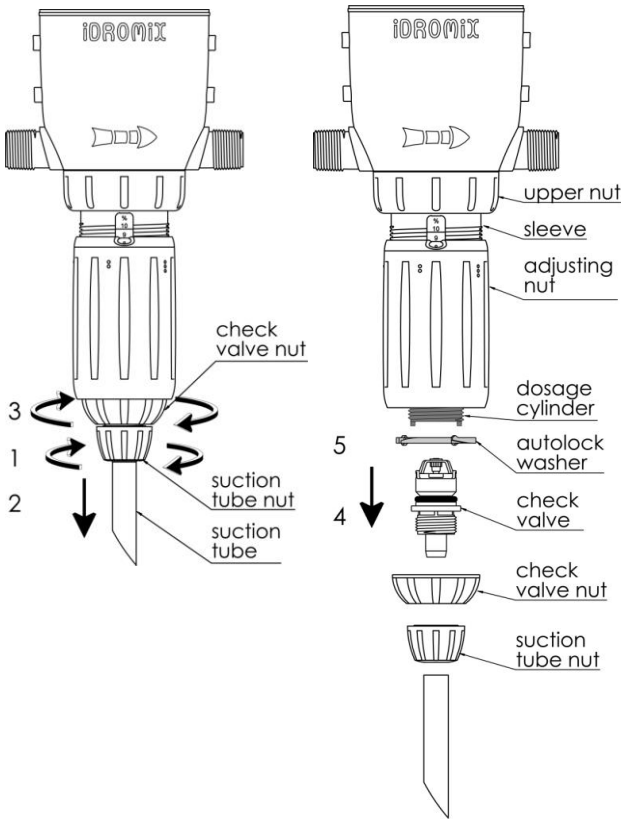
The suction valve receives concentrated products directly. These can degrade its operation and it is therefore advisable to clean it regularly.

The suction valve can be easily removed without tools.
Before this maintenance operation:

- Rinse the pump with clean water,
- Remove the pressure on the pump,
- Prepare a tray under the pump to collect the water when the suction valve is removed.

6.1.1 Removal of the suction valve :

1) Unscrew the pipe nut,,
2) Remove the pipe nut and the suction hose,
3) Unscrew the valve retaining nut,
4) Remove the suction valve,
5) Remove the "autolock" washer".

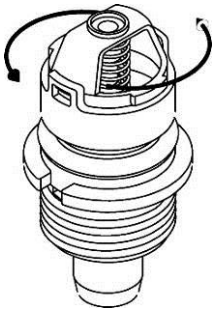


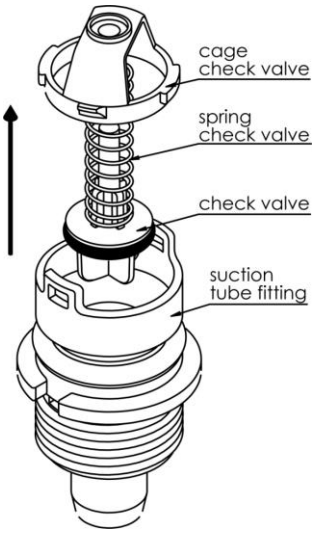
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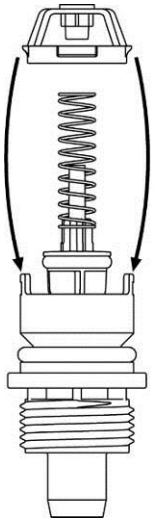
6.1.2 Cleaning the suction valve

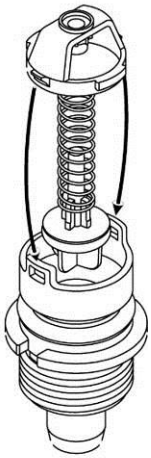
Opening the suction valve :

- Turn the spring retainer a quarter turn,
- Slowly pull the spring retainer apart,
- Slowly pull the retainer apart so that the spring is not lost,
- Clean the parts of the suction valve - change the seal if necessary.









reassembling the suction valve :

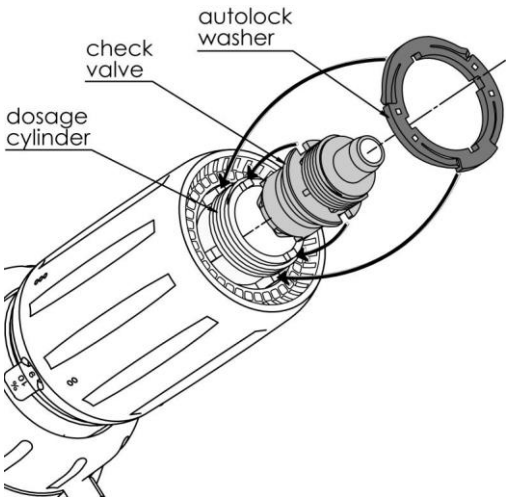
- Install the spring on the valve,
- Position the spring retainer on top of the spring,
- Clip the spring retainer vertically onto the valve seat.

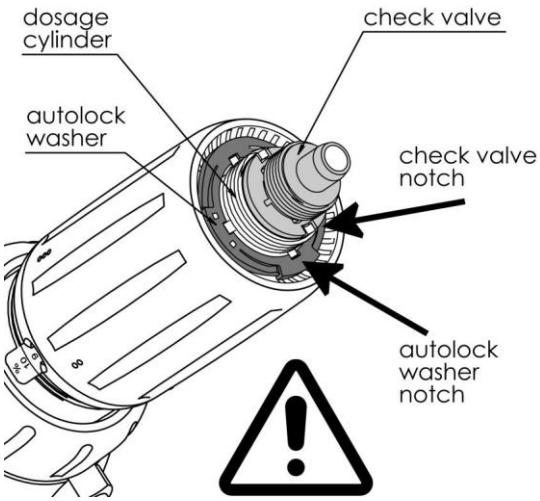
6.1.3 Refitting the suction valve on the dosing section:

The reassembly of the suction valve and the "autolock" washer requires attention.

1. The suction valve is indexed on the dosing cylinder.
   Position the notches of the suction valve correctly on the notches of the dosing cylinder and insert the suction valve.
2. The autolock washer is indexed on the dosing cylinder.
   - Screw the adjusting nut so that it is in contact with the dosing cylinder, the indexing notches of the autolock washer are now visible,
   - Position the notches of the autolock washer on the notches of the dosing cylinder,
   - Screw the valve nut onto the dosing cylinder.

At the end of the screwing, the valve nut engages on the "autolock" washer:
The dosing sub-assembly is then reassembled.

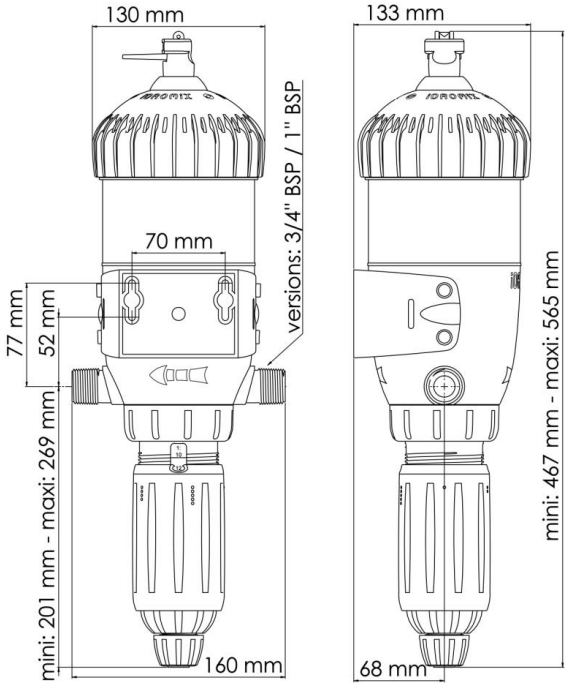




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7 Technical data

Range of use of the Idromix iDose 3.5 pump	
Minimum flow rate	10 l/h - 0.045 gal/min
Maximum flow rate	3500 l/h - 15 gal/min
Minimum temperature	3°C - 35 °F
Maximum temperature	40 °C - 104 °F
Operating pressure	0.3 bar à 6 bar - 2.9 PSI à 90 PSI



Configuration of the Idromix iDose 3.5 pump

iD3.5DA 022V3T	iD3.5DA	022	V	3	T	
Model	iDose 3.5 DA					
Dosage	0.2% à 2% 0.5% à 5% 1% à 10%	022 055 110				
Seals version	fkm ffkm aflas		V K A			
inlet / outlet thread	3/4'' BSP ou NPT 1'' BSP 1'' NPT			3 1 2		
Color	blue green translucent				B V T	
Other data						

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8 Troubleshooting

Symptom	Causes	Solution
Your Idromix does not work	Improper installation of the Idromix	Check the direction of water flow in the pump Check the water supply Turn the ON/OFF switch to ON
	Blocked motor	Restart the engine by switching the ON/OFF lever from ON to OFF then ON
	Broken motor	Send the Idromix back to your dealer
Your Idromix stops	Over flow	Reduce the flow
Irregular operation, (one fast cycle, one slow cycle)	Over flow	Open the pump lid, check the motor valves seals
Backflow in the product tank	Defective suction valve	Clean / replace the suction valve
No product suction / high underdosing	Air intake on the suction pipe	Check the suction pipe and its mounting
	worn suction pipe (crushes when product is sucked in)	Change the suction pipe
	Defective suction valve	Maintenance of the suction valve
	Damaged plunger seal	Replace the plunger seal
	Scratched dosing cylinder	Change the Idromix dosing parts.

9 Warranty limits

Idromix company undertakes to replace all parts shown to be defective in materials or workmanship for a period of 12 months from the date of purchase by the original purchaser (warranty period). The warranty will be limited to the warranty period and may not be extended.

To obtain the replacement of a part under guarantee, the Idromix pump must be returned with the initial proof of purchase to Idromix company or to its dealer and must then be recognised as defective after examination by the technical services of the manufacturer or its dealer.
The Idromix pump must be emptied of all chemicals and rinsed. It is sent to the manufacturer or dealer with postage prepaid. It will be sent back free of charge, within the European Union, once the repairs have been carried out, if it is covered by the guarantee.

The guarantee only covers malfunctions due to defects in the manufacturing process. This guarantee is not valid if defects are found to be due to misuse of the product, inappropriate use of tools, negligence, modifications and/or alterations to the product not carried out by Idromix

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company, lack of maintenance and/or faulty installation or corrosion by foreign bodies and liquids inside or near the Idromix pump.
Seals are not covered by the warranty, nor is damage caused by impurities in the water.
filter (200 µm mesh) must be used in front of the pump for the warranty to be valid.

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