

RULES FOR INSTALLATION AND USE OF EMITTING PIPES AND EMITTERS

Storage

The rolls should be stored by avoiding leaving them outdoors and exposed to the sun if they are not to be used for a long period.

For rolls with cardboard packaging, it is necessary to keep the packaging film and the band around the roll until installation. Their storage must take place on pallets avoiding direct contact with the ground. Do not stack pallets on top of each other if more than twenty rolls are stored on the pallet.

For rolls equipped with polypropylene strap bindings, we recommend storing them in a horizontal position in order to avoid excessive folding, preferably placed on a regular flat surface, overlapping with a maximum of five rolls on top of each other.

Installation

Installation of the emission tube is simple and does not require expensive equipment. The appropriate sleeves and fittings, easily available on the market, must be used.

It is recommended not to use surfactants or soaps when introducing the fittings because they could cause stress cracking phenomena in the emitting tube.

The delivery pipes must be installed with the drippers facing upwards to reduce deposits and sedimentation; they must also be fixed to the ground to prevent the wind from moving them, possibly with small piles of earth.

During installation, avoid rubbing on rough or sharp parts, corners and excessive tension; also avoid continuous rubbing against the ground during application.

If installation is done manually, supporting the rolls, either with strap or cardboard, inserting them into the appropriate metal roll holders so as to allow the roll itself to rotate freely.

In case of mechanical installation, place the metal and/or wooden discs against the cardboard discs of the reel or the walls of the roll with strap so that the reel-discs-axle assembly is secure. Leave 70-80 cm between the bottom of the coil and the injection pipe inlet.

To make the injection pipe, use a perfectly smooth pipe of suitable diameter, with a large bending radius, made of steel or PVC.

For products with cardboard packaging, the tube inlet must be flared to avoid rubbing on the edge. Slightly flatten the outlet of the injection tube (into a duck beak shape) to prevent the product from tipping over at the outlet.

Avoid stepping on the already installed emitting pipe to avoid causing irreversible damage to the drippers and compromising their correct functionality.

Emitting pipes are not suitable for installation under transparent mulch as they are sensitive to the lensing effect caused by condensation droplets.

If the soil contains insects with stinging chewing apparatus, it is advisable to disinfest the soil as the tendons themselves pierce the emitting pipe. It is also recommended to pay attention to the presence of small rodents and birds which can often cause damage to the emitting pipe.

Filtration

Degree of filtration required depending on the flow rate of the dripper:

Recommended filtration for drippers with nominal flow rate $\leq 0,6$ l/h = 200 MESH

Recommended filtration for drippers with nominal flow rate $> 0,6$ l/h = 150 MESH

Recommended filtration for drippers with nominal flow rate $\geq 1,3$ l/h = 120 MESH

The filtration system is essential for the correct functioning of any irrigation system, in particular the drip one; The choice of filter system depends on several factors, including the water source, pollutants and type of application. For this reason it is recommended to rely on competent technical personnel for correct and suitable design and installation of the filtration system.



Water quality

It is recommended to make sure that the water to be used does not contain an excessive level of dissolved oxidizable salts (calcium, magnesium, iron bicarbonate, manganese) which could cause deposits and encrustations at the dispenser orifices causing what is called chemical obstruction.

Furthermore, particular attention must be paid to surface water used in localized irrigation as it may contain decomposing organic material (plants, grasses, leaves) and live organic material (algae spores, colonies of bacteria and fungi). While much decaying organic material can be stopped by proper filtration, algae and bacteria are not filtered out and can aggregate after filtration and clog drippers (biological clogging).

In any case, it is advisable to rely on expert technical personnel who analyze the water and carry out the correct treatment where necessary.

The implementation

Before connecting the emitting pipes to the head, it is good practice to run the system to purge all the pipes. At each start of the irrigation cycle it is useful to purge the residual air in the drippers.

Never exceed the maximum allowable pressure of the emitting pipes indicated on the label, even during transients (closing and opening maneuvers of valves and/or pumps) since exposure to pressures higher than the maximum can permanently alter the hydraulic response of the drippers.

With ambient temperatures above 40°, as could happen under mulch or due to heat peaks, it is recommended to reduce the maximum operating pressure indicated on the product label by at least 15%.

The emitting tubes, if correctly installed, do not require particular maintenance operations.

In the presence of water with a high mineral content, it is recommended to wash it immediately after the period of use and depending on particular needs.

Recovery and recycling

At the end of the season, during the possible rewinding phase for subsequent use of the emitter tube, it is necessary not to force the tension, in order to avoid harmful deformation phenomena.

The minimum rewinding radius is 6 centimeters for cardboard products, 40 centimeters for products with polypropylene strap.

The drip tube is made of completely recyclable polyethylene and must not be disposed of in the environment.

Sub-irrigation

For products that can be used in sub-irrigation, it is recommended to rely on competent technical personnel for correct and suitable design and installation of the system.

We recommend the use of vent valves on the collectors to avoid suction of impurities through the hose delivery holes at the end of the irrigation cycle.

Staff expert in sub-irrigation will also have to provide useful procedures to prevent the root systems of the plants from penetrating inside the drippers, impeding their flow.

Fertigation

The emitting tube is also suitable for fertigation, as long as water-soluble substances are used, which do not produce oxide deposits in the dripper passages (example: fertilizers containing iron microelements in ionic form).

