



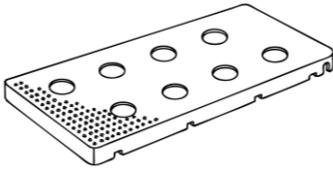
Vink

Hoof care spray mat

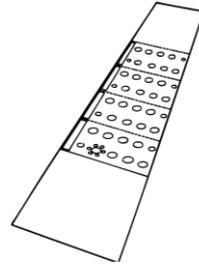
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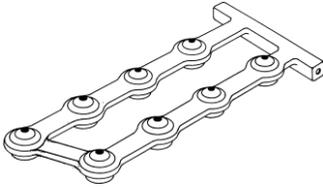
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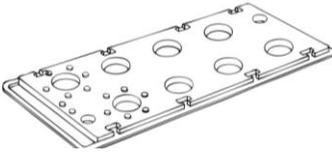
Covermat 4x



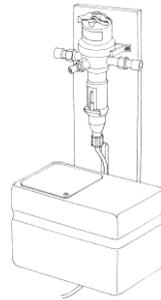
Carton template 1x



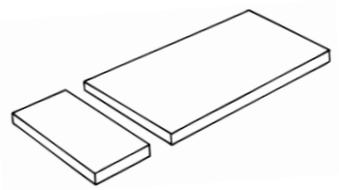
Spray mat 4x



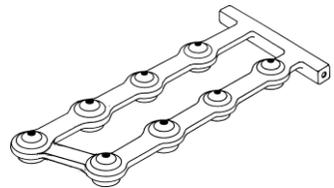
Bottom mat 4x



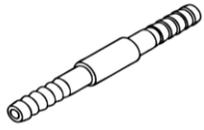
Control unit 1x



Granulate mat 2x



dummy mat 4x



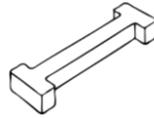
Coupling unit 3x



Water supply 1x



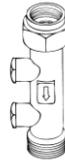
Plug 12x



Connection piece 12x



End plug 1x



safety valve 1x



Hose 6x8



Hose 8x12

Preface:

The hoof care spray mat for disinfecting or medicating cows' feet is ideally positioned at the exit of a parlor the robotic milking system. The system is connected to the water mains and consists of:

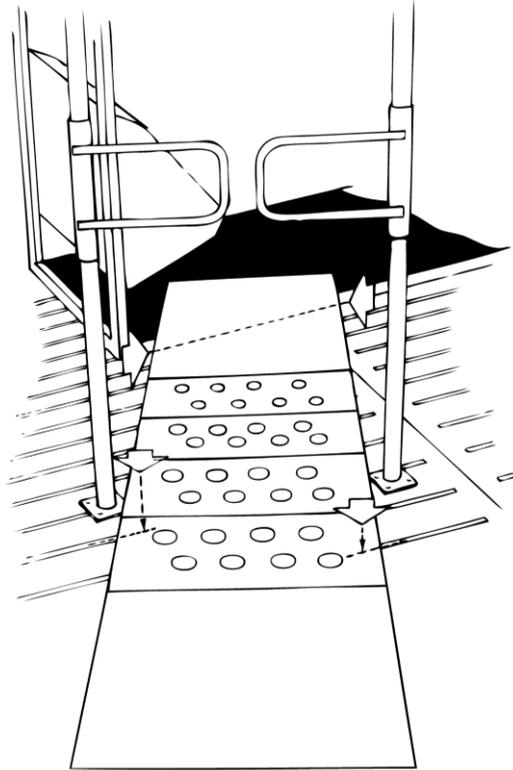
- Safety valve, prevent liquid to flow back into the water mains
- Dosing pump, adds medicine or disinfectant to the water
- Control unit, to control the pressure in the mat
- Spray mat, consists of bottom mat, spray mat with nozzles, top mat and a spray mat without nozzles (dummy mat)
- Granulate mats, to connect the exit of the milking robot and enclose the spray mat
- Fastening - and connection materials

The hoof care spray mat will be installed on the floor of a walkway just outside the exit of the milking robot. If the cow walks over the mat and one foot step on or near a coloured sphere it will be pressed and the valve will open. The liquid is sprayed forcefully against the foot, the medication is sprayed into the hard-to-reach areas. The system is connected to the water mains and is provided with a reducing unit. A dosing pump will add the correct amount of medication to the water.

The dimensions of one mat is 80x40 cm, you will need 4 mats to reach a length of 160 cm. This length ensures that all feet will step on the mat. The granulate mat of 80x100 cm to be placed between the exit of the milking robot and the first mat and a granulate mat of 80x20 cm to be placed behind the last mat.

Preparing for installation - robotic milking system

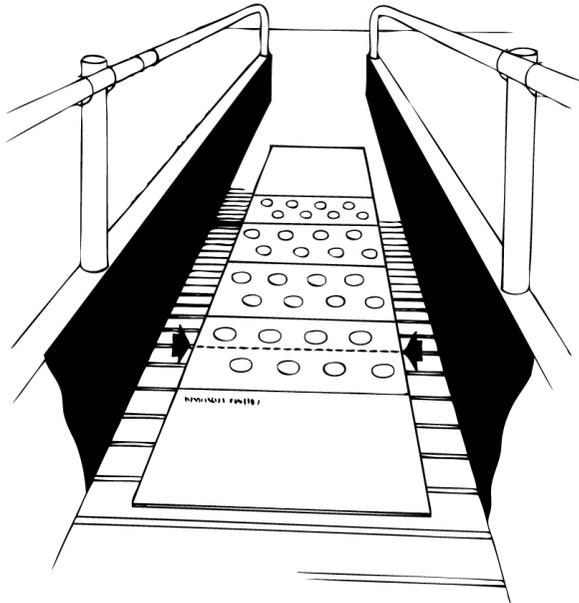
Determine the best location for the mat and the side for the water supply with the supplied carton template. Best location is just outside the exit of the milking robot. Place the carton template at this location with the marked filling connection on the correct side.



Measure and draw on the template the size of the granulate mat. This mat connects the hoof care spray mat with the exit of the milking robot and mark the places for the fastening bolts and plugs for the bottom mats (2 per mat) Bolts and plugs will be fastened in the slats. For marking use a bar/strip that you place along the slat and mark or drill through the places for the fastening bolts and plugs on the template. Please notice that these places should not be on the big black parts of the template. It is not necessary to stop the milking robot because these preparations take a little time.

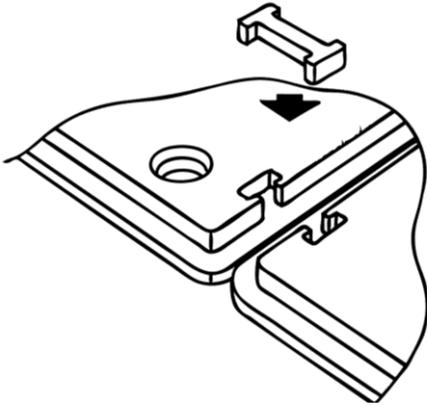
Preparing for installation - milking parlor

Determine the best location for the mat and the side for the water supply with the supplied carton template. Best location is just outside the exit of the milking parlor. Place the carton template at this location with the marked filling connection on the correct side. Measure and draw on the template the size of the rubber granulate mat which connects the hoof care spray mat with the exit of the milking parlor and one at the end of the spray mat. Mark the places for the fastening bolts and plugs for the bottom mats (2 per mat) Bolts and plugs will be fastened in the slats. For marking use a bar/strip that you place along the slat and mark or drill through the places for the fastening bolts and plugs on the template. Please notice that these places should not be on the big black parts of the template.

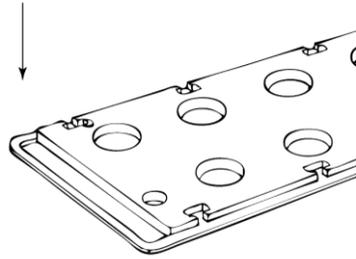


Cutting and drilling

Cutting to size and drilling can take place outside the stable. Place outside the stable the granulate mats and the bottom mats with the fill side on the correct side. (see drawing) Connect the bottom mats with the supplied connecting pieces



Filling side

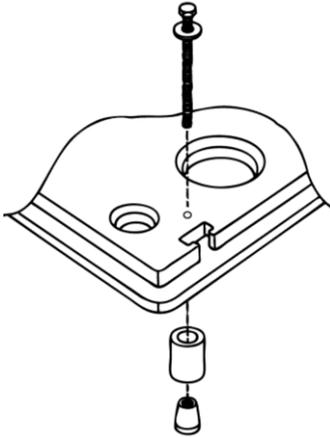


Place the template on the granulate mats and the bottom mats, mark the correct size of the granulate mats and fastening holes in all mats. Please note that the fill side is on the correct side.

Cut the correct size. For cutting use a jig saw with coarse teeth, cut at low speed or use a Stanley knife, place the mat on a table and bend the mat at the cutting line. Drill the fastening holes with a drill bit of 7 mm.

Assembly on slatted floors

Place the fastening bolts and plugs in the bottom mats and granulate mats



Expanding plug consists of bolt, washer and two part plastic plug.
Assemble as follows:

Place the bolt and washer from the top in the holes of the mat.
Screw the two part plastic plug from the bottom on the bolt. First the straight part then the plug with taper angle with the narrow part up.

Place the bottom mat and granulate mats in the stable at the correct location, connect the mats with the connecting pieces and now tighten the bolts. In the bottom mats the bolts are tightened on the bottom part of the hollow mats. If the bolts are tightened the plastic plug will expand whereby the mat will be locked.

Assembly on concrete floors

Place the bottom mat and granulate mats in the stable at the correct location. Select a drill bit of 7 mm and drill holes through in the concrete floor, Depth: 130 mm for the granulate mats (60 mm thickness of the mat and 70 mm in the concrete floor) 70 mm for bottom mats (25 mm thickness of the bottom mat and 45 mm in the concrete floor). Place the lock screws for concrete in the mats and tighten. (120 mm long screws for granulate mats and 60 mm long screws for bottom mats)

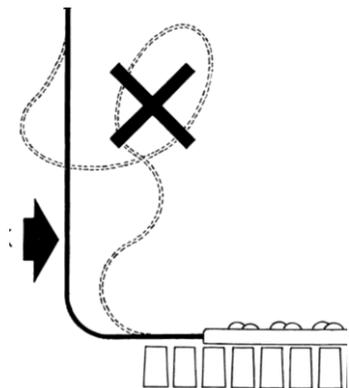
Assembly spray mat and top mat

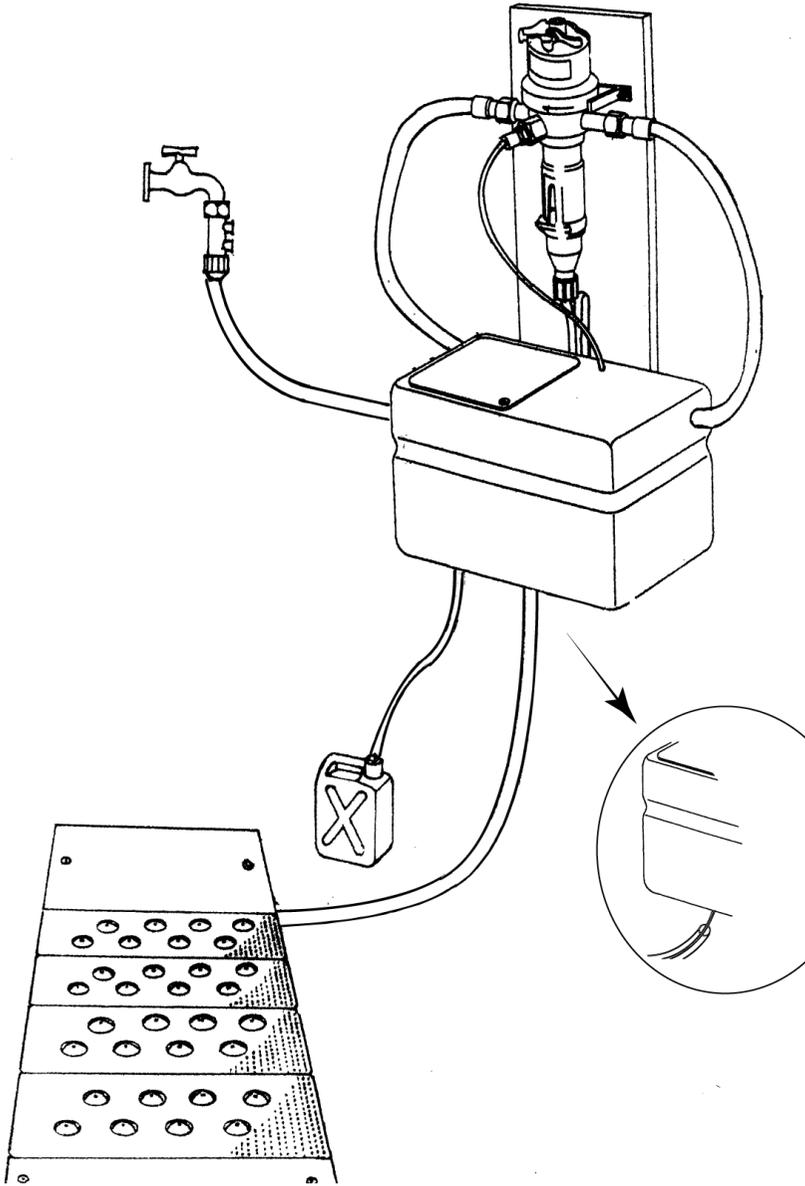
Connect the water supply to the first spray mat and the coupling units to connect the spray mats and the end plug. Place the spray mat on the bottom mat and place finally the cover mat.

Assembly control unit

Connect the control unit as close as possible to the mats (max 5 meter) but out of reach of the cows at a height of 220 cm, measured from the top of the control unit.

The height of the control unit determines the height of the jet. Slide hose of 12x8 mm over hose of 4x2 mm at the bottom of the reservoir of the control unit. Cut hose to the correct length and connect to the first mat. Please note that from the reservoir of the control the hose should not go up. (see drawing) Connect safety valve with sieve to the water supply tap. Connect the hose of 8x6 mm to the safety valve and to the side of the reservoir of the control unit.





Open the tap to fill the mat, this will take a few minutes. As soon as the mat is completely filled check the spray height approx. 30 cm.

Water & disinfection liquid usage – robotic milking system

The Vink hoof care spray mat must be installed just outside the exit of the robotic milking system. When a cow crosses the HoofCare SprayMat an average of two hoofs are automatically sprayed with clean liquid. 100 cc liquid will be sprayed on the hoof so liquid consumption for 60 cows will be 12 liters. If the animals (including refusers) walk over the mat four times per day liquid consumption will be 36 liters per day. So if 60 cows walk four times per day for 6 days over the mat liquid consumption will be 288 liters and all hoofs are treated twelve times with clean liquid.

Water & medication /disinfection liquid usage – milking parlour

The Vink hoof care spray mat must be installed just outside the exit of the milking parlour. When a cow crosses the HoofCare SprayMat an average of two hoofs are automatically sprayed with clean liquid. 100 cc liquid will be sprayed on the hoof so if 100 cows walk over the mat liquid consumption will be 100 times 200 cc is 20 liters, per day 40 liters. So after 10 days liquid consumption is approx 400 liters, same as liquid consumption of a footbath and all four hoofs are treated 10 times with clean liquid.

Use/ treatment

Which method of treatment is most effective will depend on various circumstances. For example, the degree of contamination, the conditions in the stable and the agent to be used.

Will daily treatment for a longer period with low dosing of agent better than Is the daily treatment for a longer period of time with a low dose of the agent better than treatment at intervals during a short period of time with a higher dose, or is a treatment using multiple agents at the same time advisable? Is preventive or curative treatment required? These questions can best be answered by the farmer or the veterinarian.

If treatment is not necessary

If treatment is temporarily not necessary the cows can continue walking over the mats. ***But it is very important that water pressure is on the system because otherwise the nozzles in the mats contaminate and clog.*** In order to save water and to extend service life of the colored spray mats you will have to remove these mats, which is very easy, and replace them for the supplied dummy spray mats without nozzles.

There is no water consumption and the mats retain the same appearance so that the cows see no difference whether they are treated or not treated.

In case of frost

In case of frost, and there is a risk of freezing of the liquid therefore the mat must be removed and replaced by the dummy mats. Close the water supply and disconnect the water supply to the hose. Empty the control unit.

Adjusting of the dosing pump

The required liquid additive is drawn by the dosing pump through a pipe inserted into a container. The additive is added to the water flow at the bottom part of the control unit.

Clicking Sound is Normal

Fluid flowing through the injector will automatically cause the injector to “click” and inject a set amount of solution into the fluid line. The higher the flow rate the more frequent the “clicking”. The injector is designed to inject solution proportionally (at the same set ratio) regardless of fluid flow

Service Fluid Flow

Fluid flow and pressure must be within the established specifications for your model.

Flow Rate: 0,11 – 13 l/mn (0.03 – 3.5 gpm)

Operating Pressure: 0,41 – 6,9 bar (6 – 100 psi)

Change Feed (Injection) Rate

The feed rate on the injector is adjustable **EVEN WHILE OPERATING AND UNDER PRESSURE**. To change feed rate see (Fig. 1). **Do not remove #79.**

Rotate Ratio Adjuster (Fig 1) up or down using the Setting Indicator Mark (Fig 1a) to select the desired feed rate.

NOTE: Do not screw Ratio Adjuster Sleeve below lowest setting line. Setting indicator Mark shows right in percentages and left ratio 1:

Bypass Operation

Injecting solution into the fluid line can be **TEMPORARILY** stopped with the On/Off feature (Fig. 2). Moving the On/Off Lever to the **OFF** position allows service fluid to pass through the injector without injecting chemical. No “clicking” will be heard.

With the On/Off lever set to the **ON** position the injector will operate as normal and “clicking” will be heard when fluid is flowing.

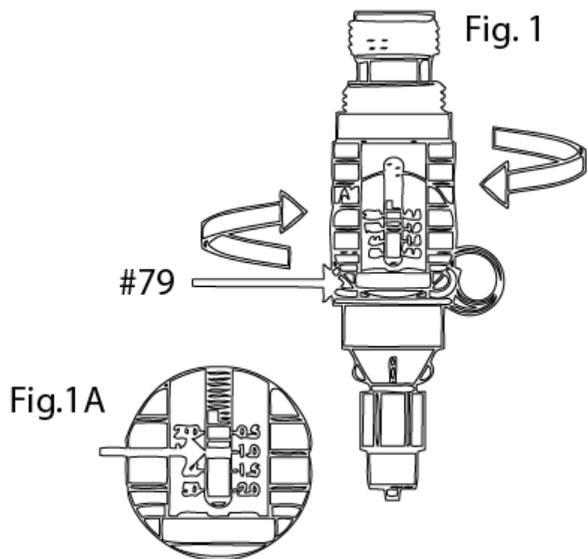
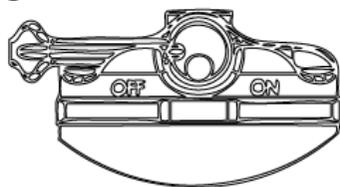


Fig. 2

Off position
(not clicking)



Run position
(clicking)



What to do in case of fault

No agent is added to the water.

Possible causes:

- Valves of the pump are dirty
- Supply hose or outlet hose is blocked

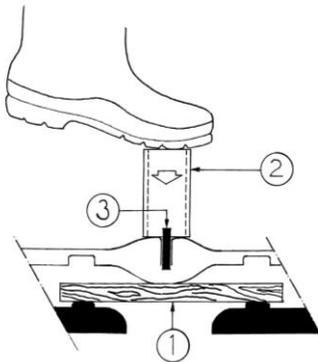
Replacing a nipple in the mat

If a nipple is broken, clogged or leaking you can easily replace it. Remove the top mat. Place a board (1) under the spray mat where the nipple should be replaced. This is to avoid the nipple to sink.

Now the nipple can be removed as follows:

Place a piece of a tube (2) with a diameter of six cm over the nipple and push the tube down. The nipple will be forced out of the mat.

Place the new nipple and hit with a hammer. Attention: do not forget to remove the board!!!





EC - Declaration of conformity

Manufacturer: Vink-Elst B.V.

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E-mail: info@vink-elst.nl, Website: www.vink-elst.nl

We declare that, the Vink hoof care spraymat

conforms to the Machine Directives 2006/42/EG as recently amended.

G.J. Vink – Managing director May 2013

Vink Warranty

Vink warrants, the Vink hoof care spray will, with normal use and service, be free from faulty parts, manufacture or workmanship for a period of one (1) year from invoice date.

This warranty is limited to the exchange of the defective part during its warranty period, Disassembly and assembly of parts are for the Client's account

The part/product must be returned to Vink carriage paid.

Replaced parts are warranted for the remainder of the original products warranty period.