

## **DEVICE FOR INJECTION AGAINST RISING DAMP**

This device is rented to you in perfect working order. We expect you to return it to us in the condition in which you received it, otherwise we will be obliged to charge you for repair costs.

It can only be used for the treatment of damp walls (capillary dampness), exclusively with **CAPILASIL** or **CAPILASIL HS** products following the technique described below.

This device consists of a pump and an injection lance.

In case of problems with the use of the injector or the pump, please do not force the mechanism and contact us at 0032 - (0) 81/83.57.57. Thank you.

Before the injections, it is essential to inform us if the walls to be treated have not been exposed to urea (old stables). In this case, it would be necessary to take samples of at least 10 gr. per wall at a height of about 20 cm from the ground. For long walls, a sample should be taken every 5 m. Please send us these tests with reference numbers. We will analyse the nitrate content and send you the results. Powder from the old joints is perfectly suitable.

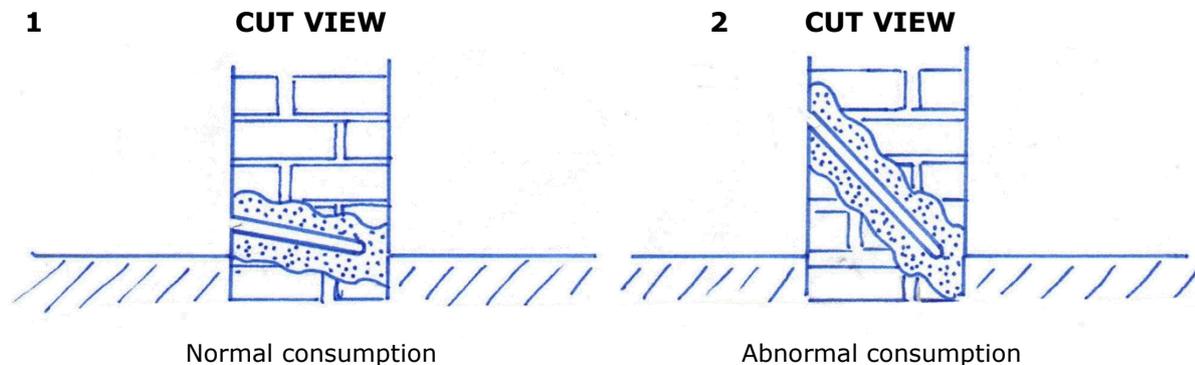
For the diffusion-based technique, please ask us for the corresponding data sheet.

## **PRODUCT APPLICATION TECHNIQUE BY LOW PRESSURE INJECTION**

### 1) Drilling the holes (Diam. 16 mm)

These cores will be slightly reamed downwards (about 15°). The depth will be equal to the thickness of the wall minus 7 cm (see diagram **1**).

Note: The inclination given to the drill holes cannot be exaggerated. If the inclination is greater than 15°, the product will be over-consumed as the waterproof barrier becomes larger (see diagram **2**)

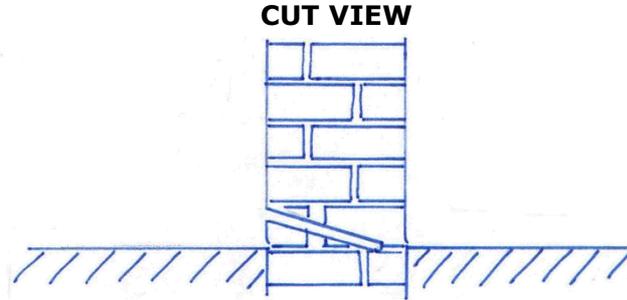


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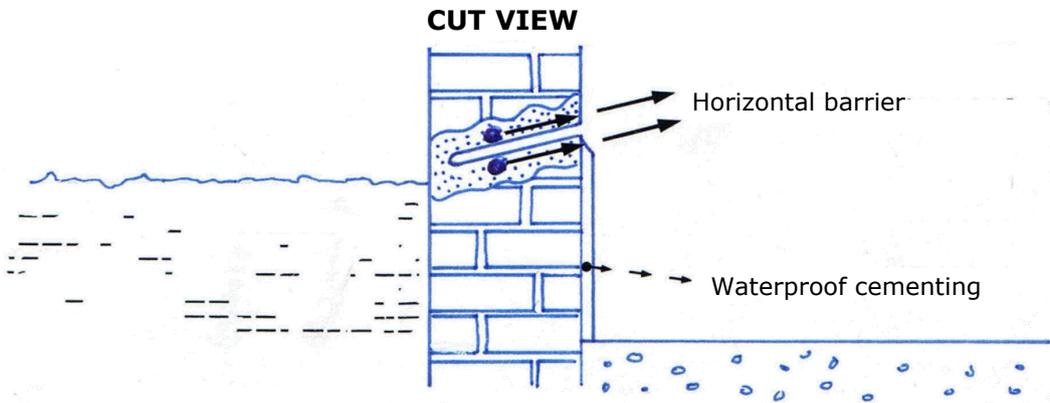
- 2)  
 a. Drilling can be performed from outside or from inside, but the bottom of the core must be level with the inside floor of the building. (see diagram 3)

3



- b. Never treat a wall where one side is against soil. In this case, a watertight cementing should be carried out up to the level of the earth and then injected above this cementing (see diagram 4)

4



- 3) Holes will be drilled every 10 centimetres between axes (see diagram 6). Example of wrong treatment (see diagram 5)

5 ELEVATION VIEW

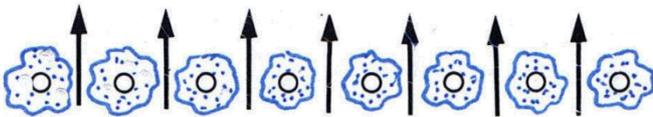


Diagram 5. Wrong treatment.  
 Humidity can still rise.  
 Either holes too far apart or  
 not enough product injected.

6 ELEVATION VIEW

= capillary rise

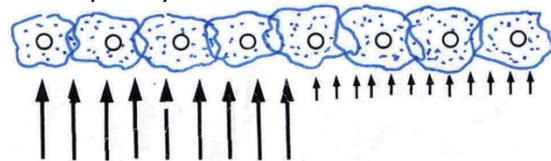


Diagram 6. Good treatment.  
 Humidity can no  
 longer rise.

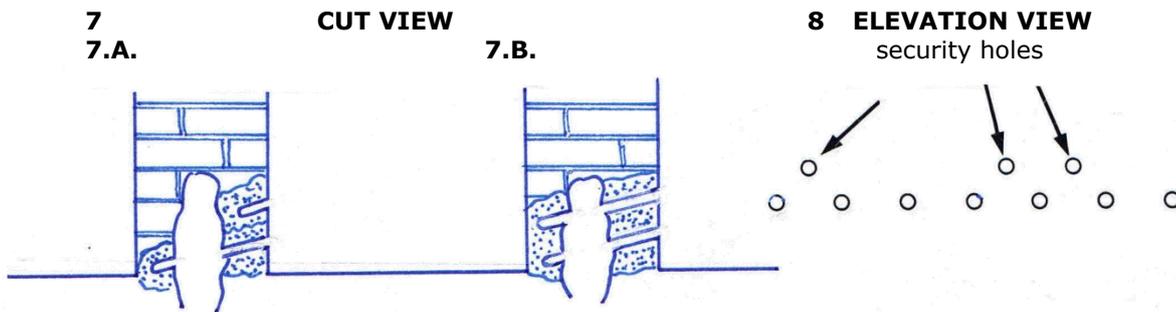
**WATCH OUT :** if you notice that you have not injected enough product, you must intervene a second time, starting again from zero in terms of consumption, as if the wall had not been injected yet.

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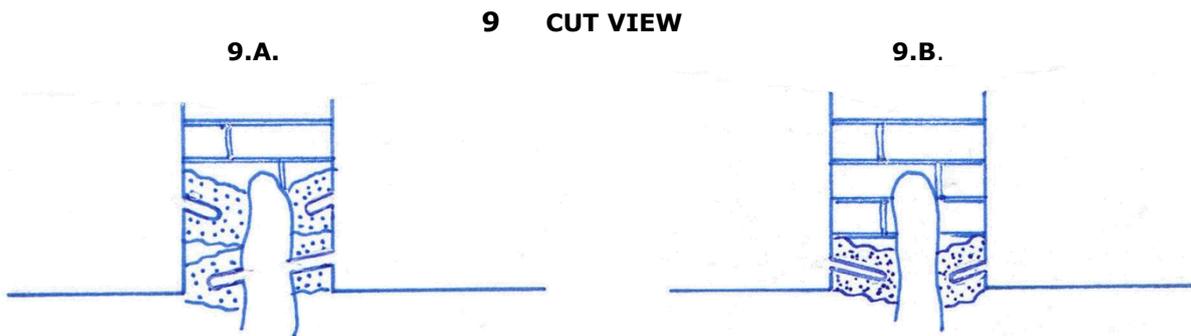
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4) At the time of drilling, if you feel gaps in the wall, it will be necessary:

- a. Either to drill a safety hole about 8 cm above the gaps (see diagrams **7.A.** - **7.B.** - **8**).  
A first drilling before reaching this gap will be done, as well as an injection (see diagram **7.A.**).  
Then this operation will be repeated after the passage of this gap (7.b.).  
This operation must be repeated as many times as there are gaps in the masonry (see diagrams **7.A.** - **7.B.** - **8**)

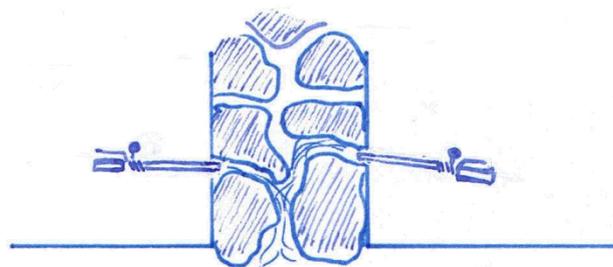


- b. or to drill a safety hole on the other side of the wall, in the first part (diagrams **9.A.** - **9.B.**)



- 5) In the most common cases, brick walls can be injected from one side only up to a wall thickness of 50-60 cm. For non-porous stone walls (e.g. bluestone), up to 40 cm. Beyond this, the injections should be made from both sides, as in this case, and only for very dense stones, moisture will only rise through the joints. The joints should therefore be treated as a priority and with the utmost care. (In some cases, it will even be necessary to empty a joint to pour the product over the stones in order to reach the masonry mortar of the wall. (diagram **10**). If in doubt, consult us.

**10 CUT VIEW**

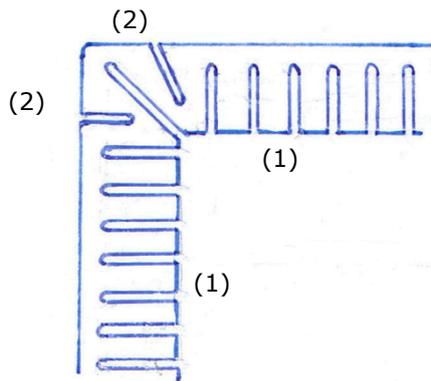


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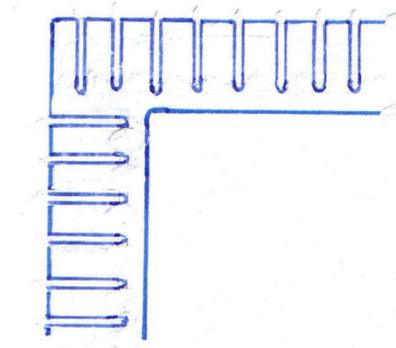
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- 6) a. If you drill the holes from inside (see (1) on diagram **11**), when you get to the corner, you need to drill a slanting hole, as well as one or two straight holes from outside (see (2) on diagram **12**) to fill in the non-injectable gaps from inside. Otherwise, moisture would rise up through these places. (see diagram **12**)
- b. If you drill the holes from outside, you drill taking care to also make an effective barrier in the corners. (see diagram **12**)

**11** **CUT VIEW**  
TREATMENT FROM INSIDE



**12** **CUT VIEW**  
TREATMENT FROM OUTSIDE



- 7) If, for any reason, you feel that you should only inject a part of the same wall without openings at the base of the floor (doors, windows, etc.), it is advisable to make a vertical rise of 80 cm to 1 m. This is to avoid capillary rise from untreated walls.

### CONCLUSION

Wherever there is no **CAPILASIL/CAPILASIL HS**, the chemical reaction cannot take place and capillary rise is to be feared. Test a part of your wall (brick or other material). Treat this part and then let the polymerisation take place for a few days. Then spray water on the treated surface. The result will be a dramatic change in surface tension (beading). Water will no longer penetrate the material and therefore cannot be pumped out.

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### **INSTRUCTIONS FOR USE OF THE DEVICE**

- 1) Place the opening valve in a position perpendicular to the pipe.
- 2) Checking the injector tip seal (it cannot go up on the sliding metal element). To replace the gasket, unscrew the last element (ring) of the injector, replace the gasket and screw the ring back on tightly to prevent it from coming off and getting lost when removing the injector.
- 3) Placement of the 2 hoses in the product can (**CAPILASIL**)
- 4) Placement of the injector in the core inlet. It is only inserted **up to the point where the flexible seal passes through**. i.e. approx. 2 to 3 cm maximum (see diagram XIII. below)
- 5) Tighten slightly, but not fully, by turning the pin with the black ball. Half a turn to a turn to the right is more than enough. **IMPORTANT: you must see some product coming out where the injector is placed.**
- 6) Inject by opening the valve and count from 1 to 5 (time in seconds depending on the porosity of the material). Of course, count the same number of seconds for each injection. When reaching the last hole, repeat the operation until all the liquid has been injected into the wall. Even walls with slow absorption times should be treated with the following quantities: 1.5 to 2 litres per running metre, per 10 cm wall thickness.

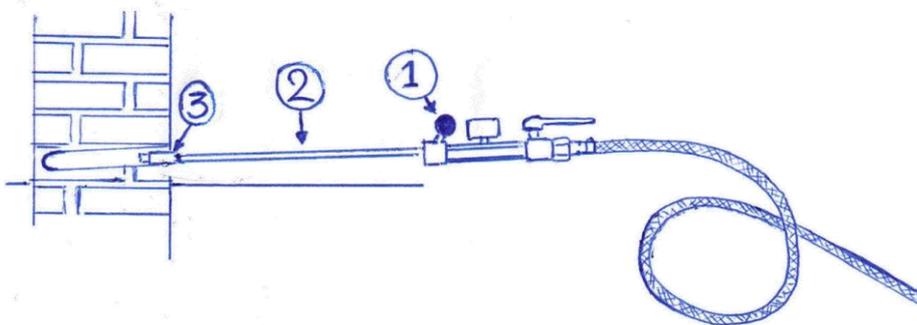
To make it easier, calculate exactly how much product to use in 3 or 5 holes.

E.g.: a 40 cm thick wall will take an average of 8 litres per running metre.

If you make 10 holes per metre, you should use 0.8 litres per hole, i.e. 2.4 litres (1) or 4 litres (2) and empty the product completely into these holes as described above. Your injection quantities will then be correct.

- 7) When removing the injectors, always pull them straight out (without moving them from left to right) to avoid bending the tip, which would no longer allow proper treatment.
- 8) After treatment, rinse thoroughly and abundantly with clean water. Fill an empty can with water and run it through the device to clean the pipes, pump and injector.

### **13 INSTALLING THE INJECTOR**



Turn the clamping lever (1) which will move the slide forward (2) to crush the soft seal (3)

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