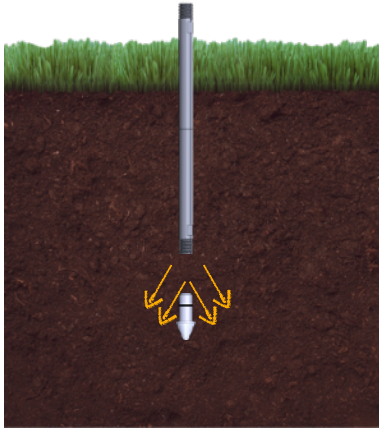


## ***INJECTION LANCES***

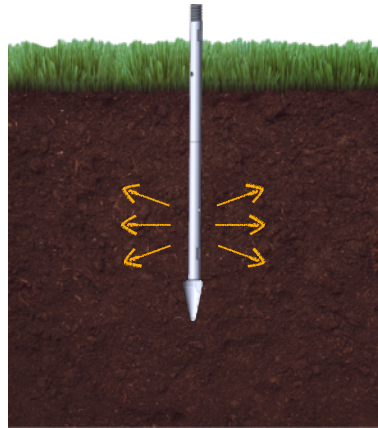
## Injection with Injection Lances

**JG-SYSTEM** injection lance system, with 500 mm and 1000 mm solid and perforated sections. Balanced injection surface structure for both cement suspensions, geopolymers, acrylic gels and polyurethane resins.



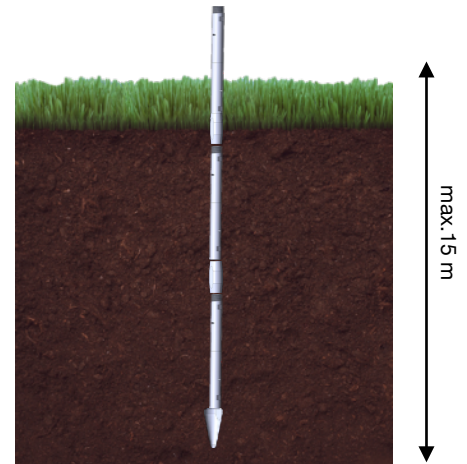
### **JG-SHOOTER**

Injection spearhead - allows for injection directly into the ground (for solid lances) or perforated lances.



### **JG-NOSHooter**

The fixed blade outlet allows for injection along the entire length of the perforated lance.



The maximum depth of the works carried out depends on ground conditions, in case of favorable conditions it can be up to 15 meters.

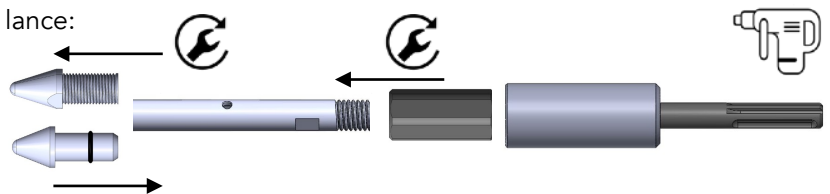
## Installation of Injection Lances HAMMPACK®

1. Installation of the arrowhead on the injection lance:

- a) press-in tip **JG-SHOOTER**
- b) screw-in tip **JG-NOSHooter**

2. Screwing **JG-HAMMPLUG**

3. Hammering the lance with an impact hammer



4. Wringing out **JG-HAMMPLUG**

5. Filing **JG-CONNECTOR 14**

Assembling another piece of the lance.

6. Repeat steps 2-5 to reach the final depth

CPC M10X1

NG-F M10X1

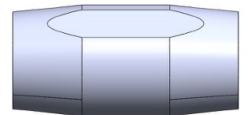
**HAMMPACK®****JG - INJECTION LANCES**

- material: steel
- outer diameter: Ø13 mm
- inner diameter: Ø9 mm
- Bore diameter: Ø3.8 mm (JG PER)
- No. of holes / mb: 16 (JG PER)
- length: 500 / 1000 mm
- Keyed: 12 mm
- GZ 1/4 / m10x1 (**JG-END**)

**JG-SYSTEM** injection lances driven directly into the soil or outside of building structures.

**JG-CONNECTOR 14**

- material: steel
- outer diameter: Ø16 mm
- inner diameter: Ø13 mm
- for wrench: 15 mm
- GW 1/4



System connector **JG**

**PI-JG 18/150**

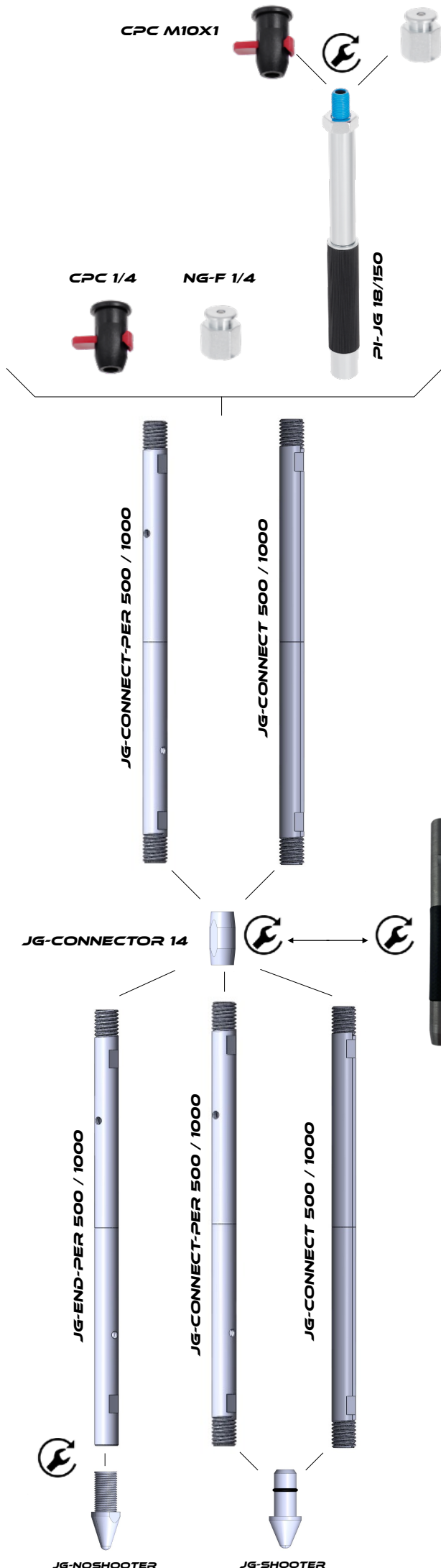
- material: steel
- diam. diameter: Ø18 mm
- upper connection: m10x1
- bottom connection: GW 1/4

The **JG** system packer makes it possible to seal the start of the injection lance system **JG-SYSTEM**

**PI-LONGPACK 20/200**

- material: steel
- diam. diameter: Ø20-22 mm
- connections: GW 1/4

The **JG** system packer allows the system to be tightened anywhere in the system (at any depth)



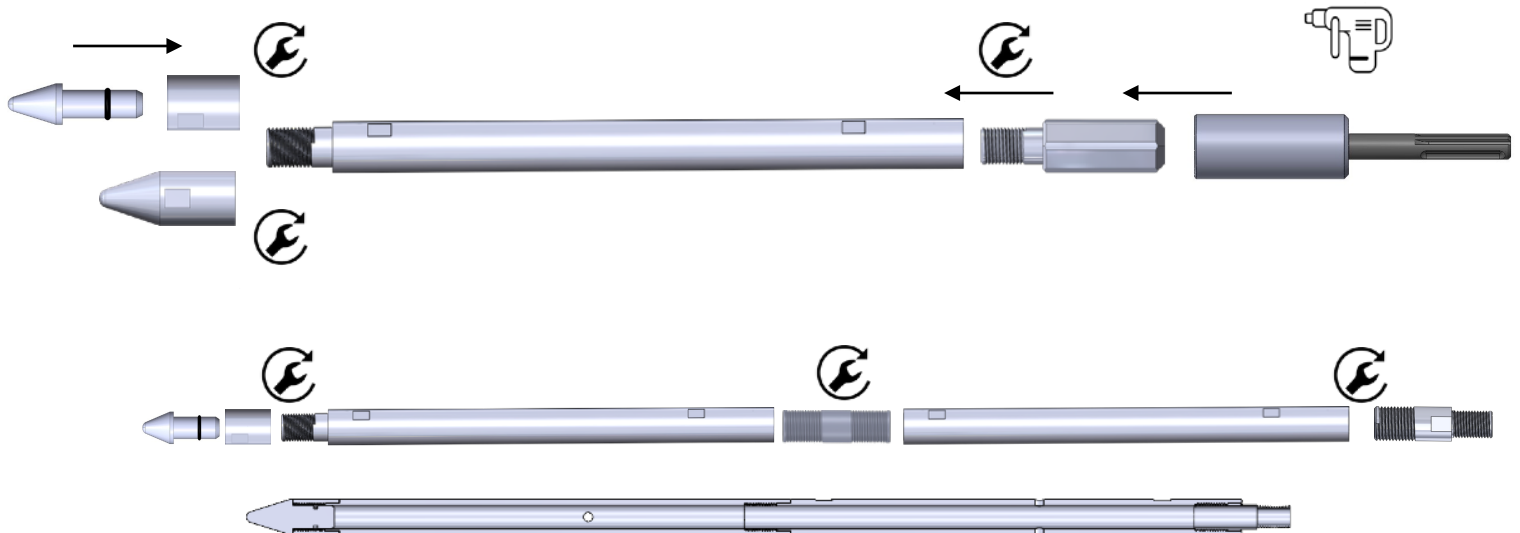
	<b>JG-SHOOTER</b> Arrowhead for <b>JG-CONNECT</b>	 5 903968 662318 >
	<b>JG-NOSHooter</b> Screw-in blade (fixed), for lances <b>JG-END-PER</b>	 5 903968 662301 >
	<b>JG-END-PER 500 / 1000</b> Lance for injection perforated Key 12mm for the screwdriver head <b>JG-NOSHooter</b>	<b>500</b>  5 903968 662288 > <b>1000</b>  5 903968 662295 >
	<b>JG-CONNECT-PER 500 / 1000</b> Lance for injection perforated Key 12mm	<b>500</b>  5 903968 662257 > <b>1000</b>  5 903968 662264 >
	<b>JG-CONNECT 500 / 1000</b> Full injection lance Key 12mm	<b>500</b>  5 903968 662233 > <b>1000</b>  5 903968 662240 >
	<b>JG-CONNECTOR-14</b> Lance coupler Wrench 15mm	 5 903968 662271 >
	<b>NG-F 1/4</b> Flat Cap (Ball 5mm, G1/4)	 5 903968 662363 >
	<b>NG-F M10</b> Flat Cap (Ball 3mm, m10x1)	 5 903968 662370 >
	<b>CPC 1/4</b> Push-in injection valve 1/4 Flow rate 7mm	 5 903968 662387 >
	<b>CPC M10x1</b> Injection valve m10x1 Flow rate 7mm	 5 903968 662394 >
	<b>PI-JG 18/150</b> Bore diameter: $\varnothing 18\text{mm}$ m10x1 / G1/4	 5 903968 662349 >
	<b>PI-LONGPACK 20/200</b> Packer for <b>JG</b> lance system, can be placed at any point in the system	 5 903968 662356 >
	<b>JG-HAMMPLUG</b> Lance beater, allows use of <b>JG-HAMMPOD</b> beater or hand hammer	 5 903968 662325 >
	<b>JG-HAMMPOD SDS-MAX</b> Beater for injection lance compatible with <b>JG-HAMMPLUG</b>	 5 903968 662332 >
	<b>JG-HAMMPOD SDS+</b> Beater for injection lance compatible with <b>JG-HAMMPLUG</b>	 5 903968 664107 >

## Stages of Lance Injection **HAMMPACK®**

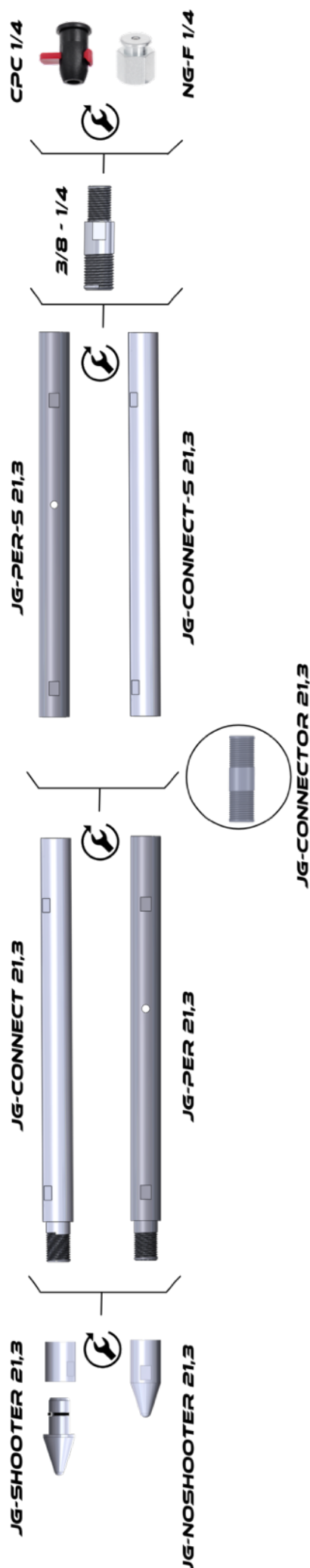
1. Agree on remedial actions together with the designer or geotechnical engineer.
2. Determination of the grid in accordance with the developed concept of work.
3. Installation of the lances to the desired depth.
4. Assembly of the bonding system on the injection lance.
5. Installation of the hose and application of the material.
6. After completion of the work the bonding system has to be removed.

## Injection by means of injection lances 21,3mm

**JG-SYSTEM Ø21,3MM** injection lance system 1000mm solid and perforated sections. Balanced injection surface structure for both cement suspensions, geopolymers, acrylic gels and polyurethane resins.



	<b>JG-SHOOTER 21,3</b> Arrowhead
	<b>JG-NOSHooter 21,3</b> Screw-in blade (fixed), under lances <b>JG-PER 21,3</b>
	<b>JG-CONNECT-PER 21,3 / 1000</b> Perforated injection lance Key 20mm
	<b>JG-CONNECT 21,3 / 1000</b> Full injection lance Key 20mm
	<b>JG-PER-S 21,3 / 1000</b> Perforated injection lance Key 20mm
	<b>JG-CONNECT-S 21,3 / 1000</b> Full injection lance Key 20mm
	<b>JG-CONNECTOR 21,3</b> Connector for injection lance
	<b>3/8 - 1/4</b> It allows the connection of injection nozzles (CPC 1/4, NG-F 1/4) with an external 1/4 thread. Key 20mm
	<b>JG-HAMMPLUG 21,3</b> Lance beater, allows the use of a beater <b>JG-HAMMPOD</b> or hand hammer



## INJECTION LANCES 21,3MM

- material: steel
- outer diameter: Ø21,3 mm
- inner diameter: Ø14,3 mm
- hole diameter: Ø5,5 mm (**JG PER 21,3**)
- number of openings / mb: 16 (**JG PER 21,3**)
- length: 1000 mm
- Key: 20 mm
- GZ 3/8 GW 3/8

Injection lances **JG-SYSTEM 21,3** driven directly into the ground or outside building structures.

## JG-CONNECT 21,3 AND JG-PER 21,3

- lances only used first in the section because they have external threads that allow the installation of tips



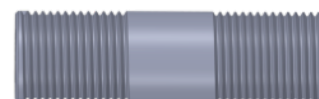
## JG-CONNECT-S 21,3 ORAZ JG-PER-S 21,3

- lances used as further elements of the system extension (they have internal threads on both sides)



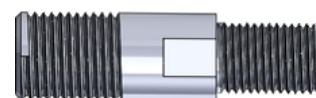
## JG-CONNECTOR 21,3

- material: steel
- GZ 3/8
- connector for injection lance



## 3/8 - 1/4

- material: steel
- GZ 3/8 - GZ 1/4

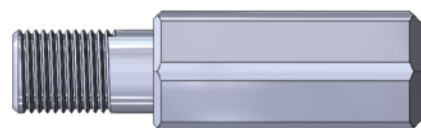


It allows the connection of injection nozzles (CPC 1/4, NG-F 1/4) with an external 1/4 thread.

## JG-HAMMPOD 21,3

- material: steel

Mallet for injection lances 21,3mm



# PAKERY.PL<sup>TM</sup>



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