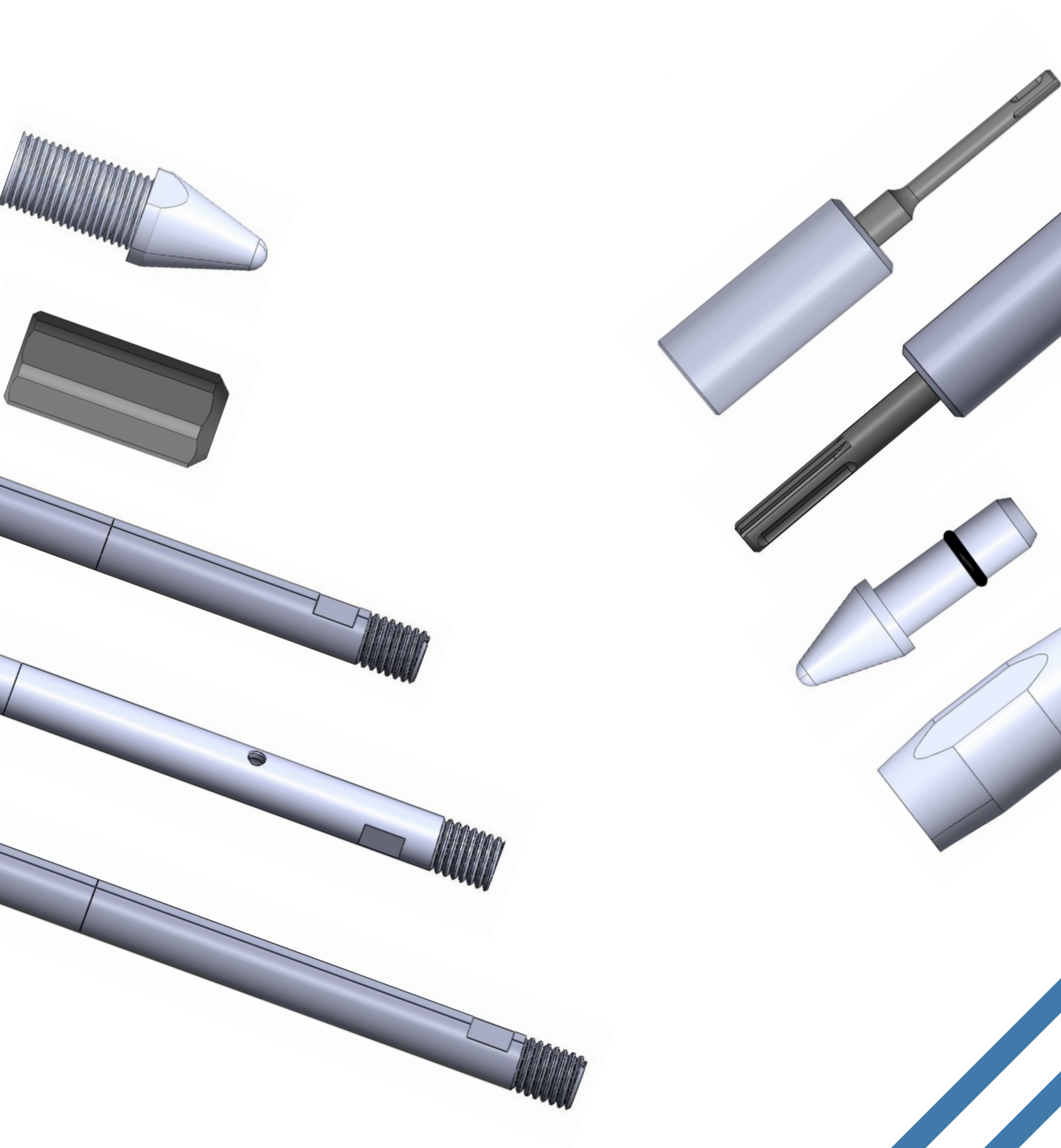




Injection lances

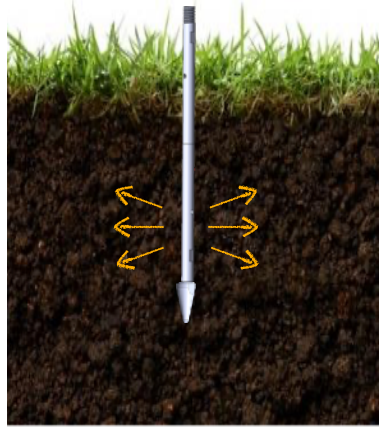
Injection by means of injection lances

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



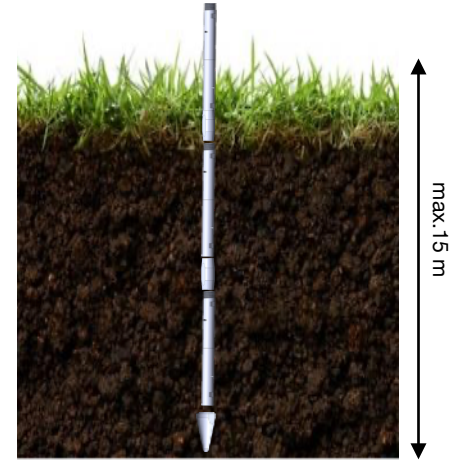
JG-SHOOTER

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



JG-NOSHooter

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



The maximum depth of the work carried out depends on ground conditions; in the case of favourable conditions it can be up to 15 metres.

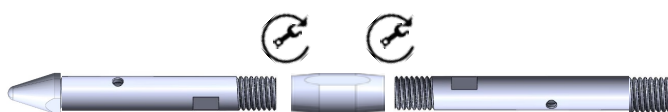
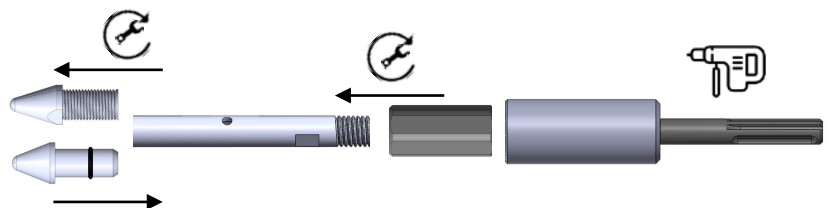
Installation of Injection Lances

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**

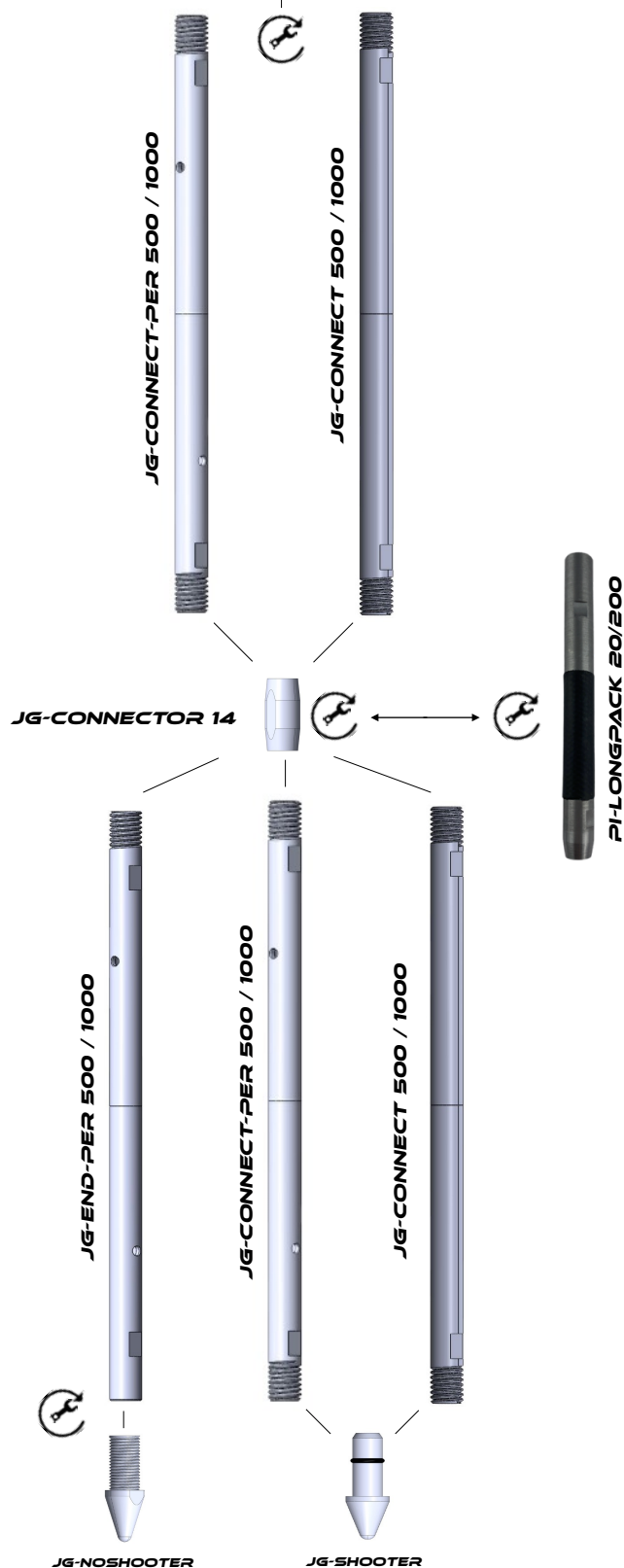
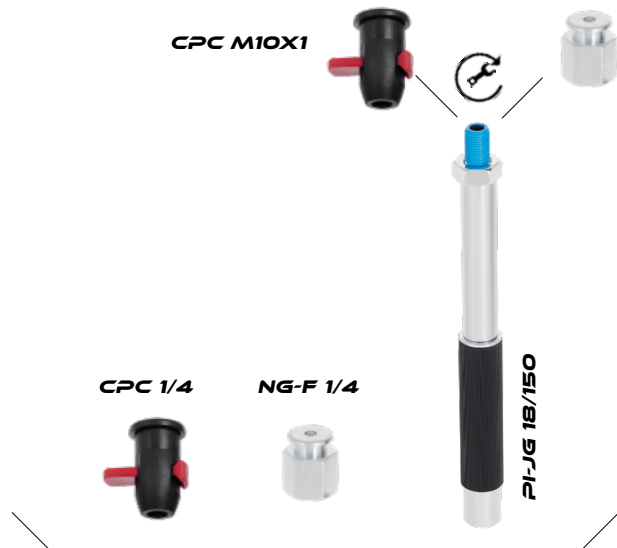
5. Filming **JG-CONNECTOR 14**

6. Installation of another lance fragment.

Repeat steps 2-5 to reach the final depth

CPC M10X1

NG-F M10X1



JG - INJECTION LANCES

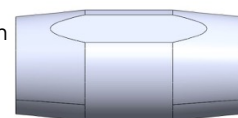
- material: steel
- outer diameter: Ø13 mm
- inner diameter: Ø9 mm
- Hole diameter: Ø3.8 mm (**JG PER**)
- number of openings / mb: 16(**JG PER**)
- length: 500 / 1000 mm
- Key: 12 mm
- GZ 1/4 / m10x1 (**JG-END**)

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



JG-CONNECTOR 14

- material: steel
- external diameter: Ø16 mm
- inner diameter: Ø13 mm
- for spanner: 15 mm
- GW 1/4



System connector **JG**

PI-JG 18/150

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

Packer system **JG** allows the beginning of the injection lance system to be sealed **JG-SYSTEM**

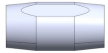
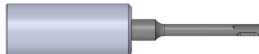


PI-LONGPACK 20/200

- material: steel
- diam. ot. for injection: Ø20-22 mm
- connections: GW 1/4

System packer **JG** allows the system to be sealed anywhere in the system (at any depth)



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

Stages of Lance Injection **HAMMPACK**

1. Agree remedial action with the designer or geotechnical engineer.
2. Determination of the grid according to the developed concept of work.
3. Installation of the lances to the desired depth.
4. Installation of the bonding system on the injection lance.
5. Hose assembly and material application.
6. Po zakończeniu prac należy zdjąć system łączący

