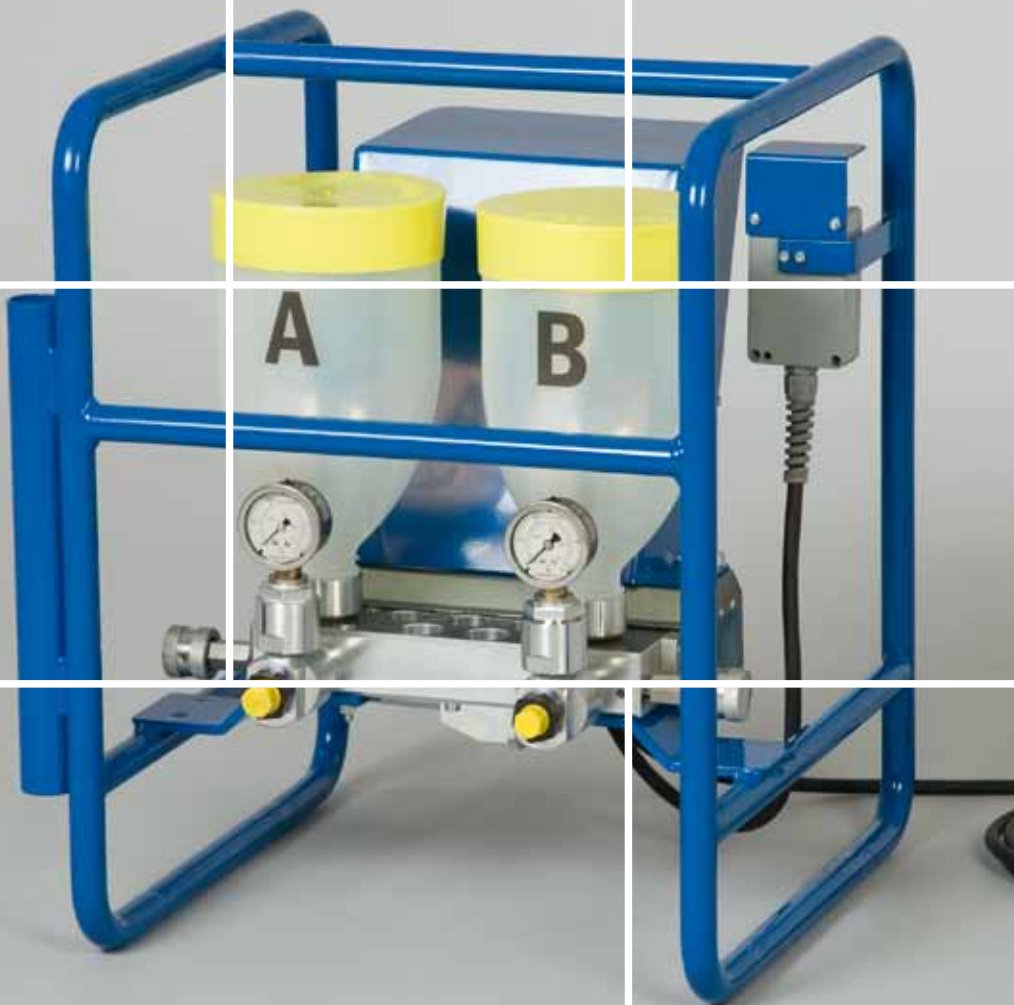




# Technique for injection Innovations

Edition 2.1

In addition to our catalogue 12



# Introduction

## Contents

### Dear Customers,

In the beginning there is an idea. The design department turns the idea into reality which is finally realised in the production department. The combination of these processes under one roof enables us to develop innovative DESOI products and to place them on the market.

Our team of experts as well as our modern, high-capacity machinery equipped with future-oriented technology guarantees that the most economic manufacturing methods are always used.

Our customers benefit from our focus on new and further developments in the field of injection technology.

### Your DESOI team

#### General note

The information on the methods is a recommendation and not binding. If required, please contact us for professional advice.

## Contents

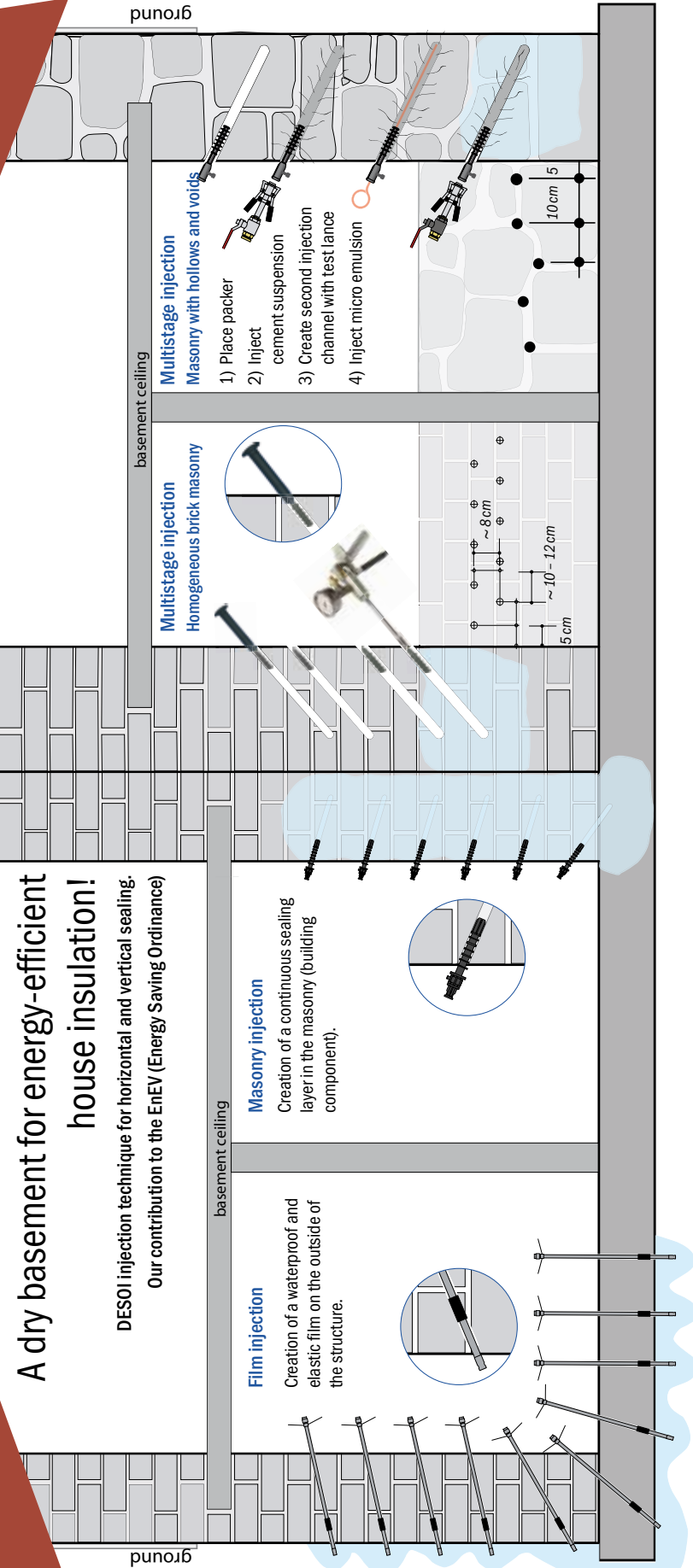
<b>Introduction</b>		
Contents .....	2	
<b>Waterproofing first – thermal insulation second</b>		
DESOI injection technique .....	3	
<b>Injection into hollow bricks using cone packers</b>		
General information .....	4	
<b>Cone packer</b>		
Cone packer accessories .....	5	
<b>Ram injection lances</b>		
General information below building components/in the ground ..	6	
<b>Ram injection lances ¼"</b>		
Object-related foundation/slab .....	7	
<b>Ram injection lances ¼" with clamping rubber</b>		
Object-related foundation/soil .....	8	
<b>Ram injection lances ¼"</b>		
Object-related foundation/soil .....	9	
<b>Ram injection lances</b>		
Accessories .....	10	
<b>Ram injection lances ¾"</b>		
Accessories ¾" .....	11	
<b>Special packers for one-day sites</b>		
General information, products and accessories .....	12	
<b>Universal adhesive packer</b>		
General information, products and accessories .....	13	
<b>Special mini mixer</b>		
Mixing technique .....	14	
<b>Manual reciprocating pump MZP-30-Z</b>		
Mixing technique .....	14	
<b>Tensible anchor system</b>		
Application information, products & accessories .....	15	
<b>Tensible anchor system</b>		
Accessories .....	16	
<b>DESOI textile hose for anchors</b>		
Application information .....	16	
<b>DESOI textile hose for anchors</b>		
Application information .....	17	
<b>Clamping packer/clamping packer MS</b>		
General information .....	18	
<b>Annulus packer</b>		
Application information .....	19	
<b>2K Reciprocating pump PN-2036 T</b>		
Pneumatic reciprocating pump .....	20	
<b>2K Reciprocating pump PN-1436 T</b>		
Pneumatic reciprocating pump .....	21	
<b>2K Reciprocating pump PN-1436</b>		
Pneumatic reciprocating pump .....	22	
<b>Injection accessories for reciprocating pumps</b>		
PN-1436, PN-1436T, PN-2036T .....	23	
<b>Electric reciprocating pump 2K-10 T</b>		
Electric reciprocating pump .....	24	
<b>Injection accessories for reciprocating pump 2K-10 T</b>		
Electric reciprocating pump .....	25	
<b>WS blind packer</b>		
Packer technique .....	26	
<b>Custom-made products</b>		
Packer technique .....	26	
<b>Fax order form</b>		
+49 6655 9636-6666 .....	27	

**DESOI Injection technique**

**Dry insulates best**

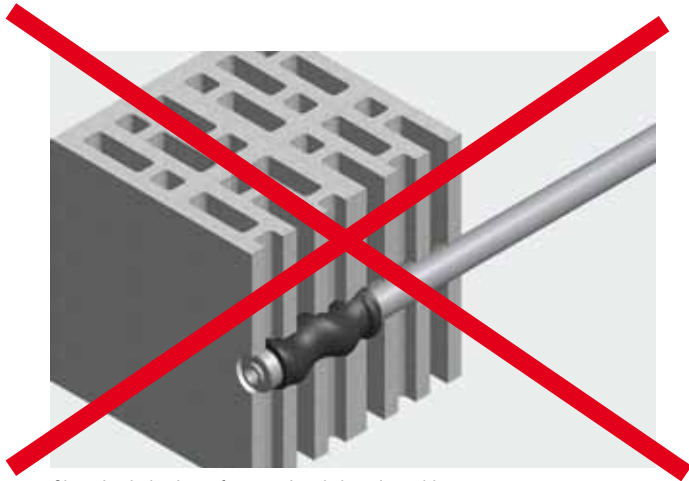
## A dry basement for energy-efficient house insulation!

DESOI injection technique for horizontal and vertical sealing.  
Our contribution to the EnEV (Energy Saving Ordinance)



# Injection into hollow bricks using cone packers

## General information



Clamping behaviour of conventional clamping rubbers

### Clamping behaviour of conventional clamping rubbers

The characteristics of rubber causes the following problem:

- The clamping rubber gets stuck on the cone.
- The clamping rubber does not get back in its initial position.
- The clamping rubber keeps clamped in the drill hole.

### The solution:

The new slotted plastic bushing:

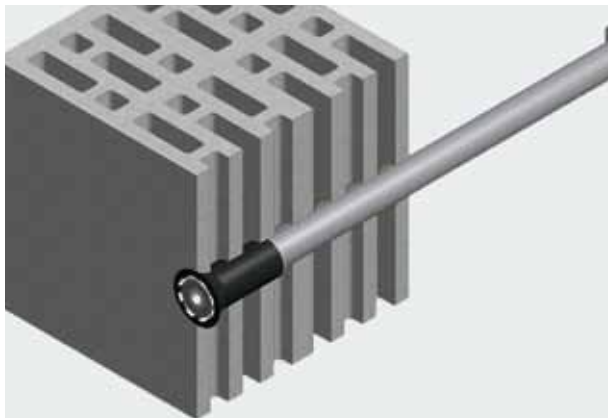
- The thin walled plastic bushing is mounted with the clamping rubber.
- Due to the gliding properties of plastic the clamping rubber can be released to its initial diameter.
- The packer becomes loose and can be removed.

Material to be used:

- Mineral injection material
- Gel (acrylate gel)
- PUR gel
- Injection resin

Application range:

- Film injection/masonry injection
- Targeted injection of hollows
- Horizontal barrier
- Masonry stabilization



Injection packer clamped in the checker brick



Injection packer clamped in the hollow brick



Unclamped



Clamped



Injection packer unclamped



Injection packer clamped



Clamping rubber



Clamping rubber with plastic bushing, cutted



Thread

### Steel cone packer

with external thread M10x1, nut SW 17 and clamping rubber with slotted plastic bushing

Ø 18 x 300 mm, clamping rubber 40 mm

Ø 18 x 550 mm, clamping rubber 40 mm

Ø 18 x 800 mm, clamping rubber 40 mm

Order number

20405

20406

20407

### Accessories



### Socket wrench SW 17

for cordless screwdriver

Order number

25014



### Socket wrench SW 17

for manual operation

25026



### Locking tappet

with internal thread M10x1 and free passage Ø 7 mm

33010



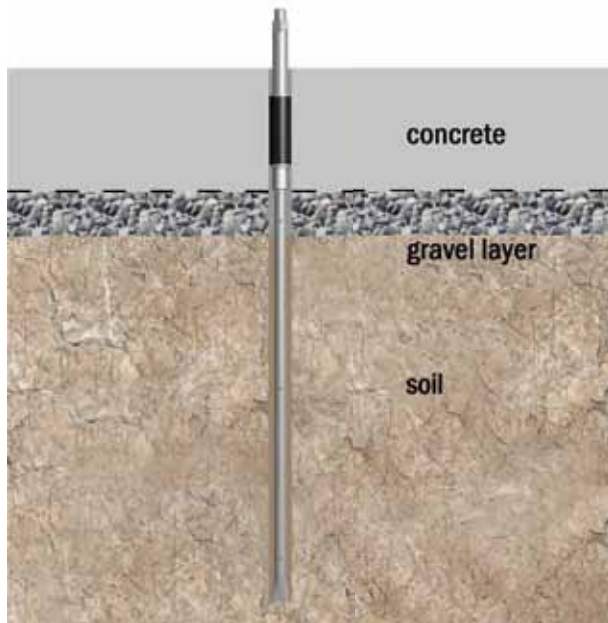
### HP pan head nipple

with internal thread M10x1 and sealing ring

20881

# Ram injection lances

## General information below building components/in the ground



Ram injection lance installed



Tension of the rubber ring closes gap.

### Application – Example

Placing of the ram injection lance for injection below building components



Ram the lances



Extend the lances



Connection: pan head nipple



Injection

### Application Range

- Building ground stabilisation
- Rebuilding the foundation
- Consolidation of unconsolidated rock
- Creation of a sealing film
- Additional sealing
- Compensation grouting
- Preparation of machine foundations

### Objectives

- Sealing/waterproofing
- Stabilisation of the building ground  
(Hollows in the building ground are filled with injection material)

### Advantages

- The length of the ram injection lances can be perfectly adjusted to the injection depth.
- On placing the ram injection lance no gap is produced at the outside diameter so no injection material runs out unused.

### Procedure

- Determine the rehabilitation measure together with experts, e.g. planners, geotechnicians etc.
- Mark the position of the holes to be drilled on the fundament according to the determined concept
- Drill the holes
- Drive the ram injection lance down to the determined depth using the battering ram and the pile hammer
- Fix the packer
- Mount the coupling system to the ram injection lance
- Inject the material
- Remove packer and coupling system after the injection work has been finished
- Seal borehole with appropriate material

### Notes

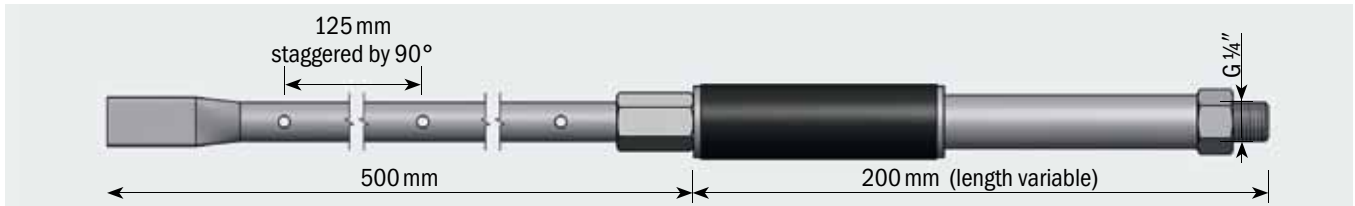
In Germany injections into the ground have to be authorised by the "Untere Wasserbehörde" (~ lower water authorities).

Prior to starting the work (project) make sure that it will be carried out in accordance with applicable laws and regulations.

You can find informative videos under: [www.desoi.de](http://www.desoi.de)

# Ram injection lances 1/4"

## Object-related foundation/slab



### Ram injection lance BP (complete)

Order number

with external thread G 1/4", clamping rubber Ø 25 x 80 mm and lateral outlets

Ø 25 x 700 mm

20647

Ø 25 x 1200 mm

20648

Ø 25 x 1700 mm

20649

### Object-related foundation



### Basis element ram injection lance

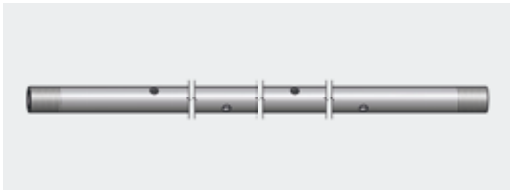
with lateral outlets Ø 4 mm spaced at intervals of 125 mm, external thread G 1/4" and pressed tip

500 mm long

20639-01

1000 mm long

20639-02



### Extension ML

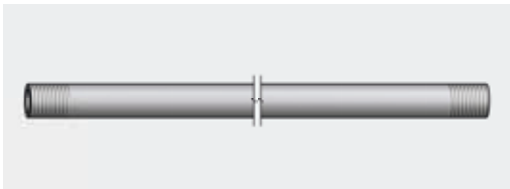
with lateral outlets Ø 4 mm spaced at intervals of 125 mm, 2 x external thread G 1/4"

500 mm long

20639-05

1000 mm long

20639-06



### Extension OL

without outlets, 2 x external thread G 1/4"

500 mm long

20639-08

1000 mm long

20639-09



### Steel packer Ø 25 x 200 mm

for ram injection lance BP, with external thread G 1/4" and free passage Ø 9 mm, internal thread G 1/4"

20639-11



### Connecting sleeve Ø 16 x 28 mm

with internal thread G 1/4"

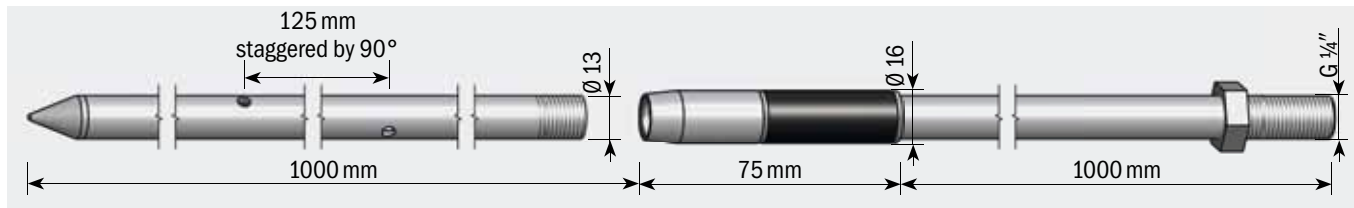
20639-07

### Sample for an object-related compiled ram injection lance



# Ram injection lances 1/4" with clamping rubber

## Object-related foundation/soil



**Order number** Ram injection lance ER Ø 16 x 2040 mm (complete)

20639 with external thread G 1/4", clamping rubber Ø 16 x 40 mm and lateral outlets

**Sealing element**

with sleeve Ø 16 x 35 mm, clamping rubber Ø 16 x 40 mm, and external thread M10

20639-10 103 mm long

**Ram injection lance basis element**

with lateral outlets Ø 4 mm spaced at intervals of 100 mm, external thread G 1/4", pressed tip

20639-12 500 mm long  
20639-13 1000 mm long

**Extension ML**

with lateral outlets Ø 4 mm spaced at intervals of 100 mm and 2 x external thread G 1/4"

20639-05 500 mm long  
20639-06 1000 mm long

**Extension OL**

without outlets, 2 x external thread G 1/4"

20639-08 500 mm long  
20639-09 1000 mm long

**Thrust piece ER**

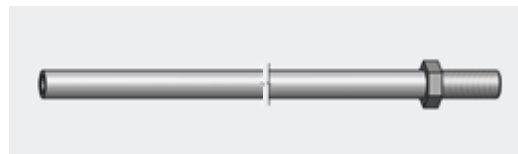
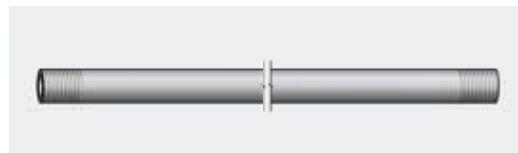
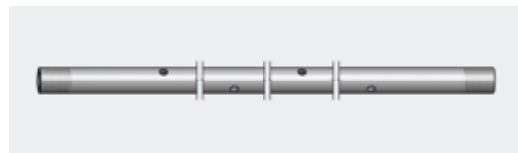
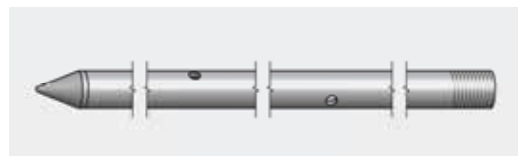
with internal thread M10 and external thread G 1/4"

20639-03 500 mm long  
20639-04 1000 mm long

**Connecting sleeve Ø 16 x 28 mm**

20639-07 with internal thread G 1/4"

**Object-related foundation**

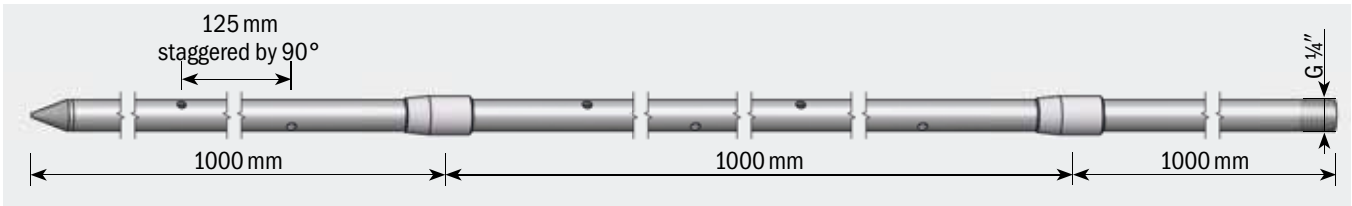


**Sample for an object-related compiled ram injection lance**



# Ram injection lances 1/4"

## Object-related foundation/soil



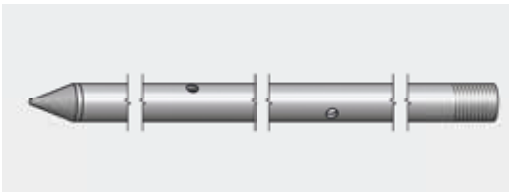
### Ram injection lance ER Ø 13 x 3000 mm (complete)

Order number

with external thread G 1/4" and lateral outlets,  
combined of: ram injection lance basis element,  
extension ML, extension OL and 2 x connecting sleeve

20631

### Object-related foundation

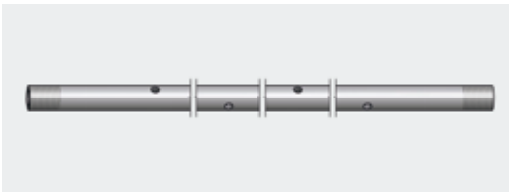


### Ram injection lance basis element

with lateral outlets Ø 4 mm spaced at intervals of 125 mm,  
external thread G 1/4" and pressed tip

500 mm long  
1000 mm long

20639-12  
20639-13

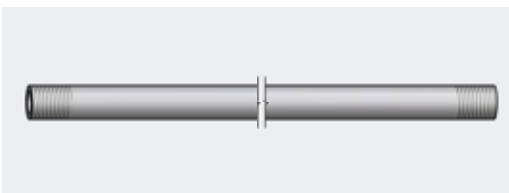


### Extension ML

with lateral outlets Ø 4 mm spaced at intervals of 125 mm  
and 2 x external thread G 1/4"

500 mm long  
1000 mm long

20639-05  
20639-06



### Extension OL

without outlets and 2 x external thread G 1/4"

500 mm long  
1000 mm long

20639-08  
20639-09



### Connecting sleeve Ø 16 x 28 mm

with internal thread G 1/4"

20639-07

### Sample for an object-related compiled ram injection lance



# Ram injection lances

## Accessories

Order number **Battering ram Ø 40 x 150 mm**  
20641 with bore Ø 27 x 70 mm, internal thread G ¼"



Order number **Pulling device**  
20634 with internal thread G ¼"



Order number **Pile hammer**  
10957 for placing the ram injection lances, output power: 800 W, rated input power: 1600 W, weight: 11 kg, single-blow energy: 7 - 27 J



Order number **Mounting tool**  
10958 with SDS-MAX



Order number **Locking tappet**  
33000 with internal thread R ¼", free passage Ø 7 mm

For injection with mineral material



Order number **HP pan head nipple**  
20882-01 with rubber seal, internal thread G ¼"

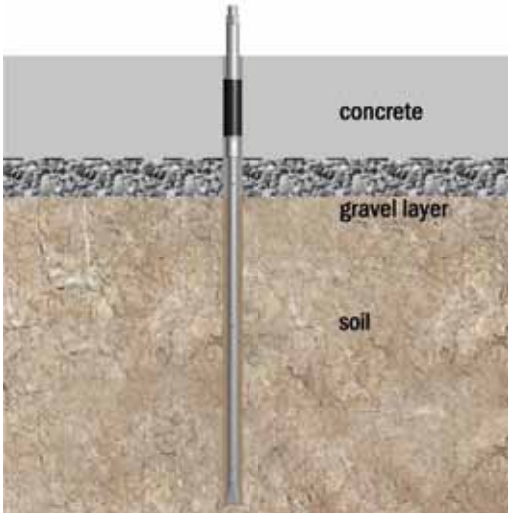
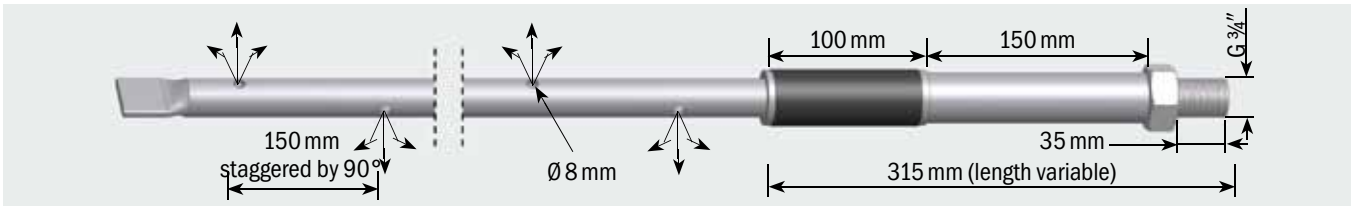
For injection with gel



Order number **Connecting nipple DN10**  
22038 with internal thread G ¼", internal-Ø 7 mm



# Ram injection lances $\frac{3}{4}$ " Accessories $\frac{3}{4}$ "



Ram injection lance installed

Ram injection lance length	lateral outlets	leaked area
1000 mm	5 x 100 mm	500 mm
1500 mm	6 x 150 mm	900 mm
2000 mm	10 x 150 mm	1500 mm
3000 mm	16 x 150 mm	2400 mm

## Ram injection lance BP (complete)

Order number

with external thread G  $\frac{3}{4}$ ", clamping rubber  $\varnothing 38 \times 100$  mm, and lateral outlets  $\varnothing 8$  mm

$\varnothing 38 \times 1000$ mm	20654
$\varnothing 38 \times 1500$ mm	20657
$\varnothing 38 \times 2000$ mm	20658
$\varnothing 38 \times 3000$ mm	20659

Also available with clamping rubber  $\varnothing 41$  und  $\varnothing 46$  mm.

## Accessories



### Locking tappet

with internal thread G  $\frac{3}{4}$ ", connecting thread for claw coupling and free passage  $\varnothing 18$  mm

33012



### Claw coupling, rotary

with internal thread G 1"

11045



### Battering ram $\varnothing 32 \times 160$ mm

with internal thread G  $\frac{3}{4}$ " for ram injection lances

20643

### Note

The battering ram is screwed on ram injection lances.



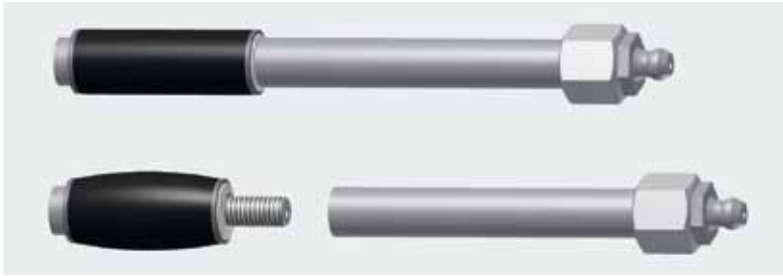
### Pulling device

with internal thread G  $\frac{3}{4}$ " for ram injection lances

20644

# Special packers for one-day sites

## General information, products and accessories



Locking plate

### Advantages

- All working steps can be carried out on one day.
- Due to the integrated check valve no injection material may run back through the packer.
- The locking plate fixes the clamping rubber.
- So that the thrust piece can be removed directly after the injection.
- The drill hole can be sealed with appropriate material.

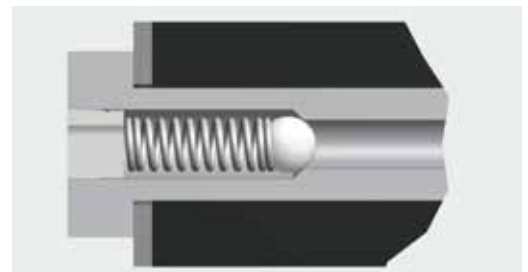
### Procedure

- to place the steel packer
- to inject the injection material
- to remove the thrust piece, lower part remains in drill hole
- to seal the drill hole

Order number	Steel packer
	with check valve, special retaining spring and HP round head nipple M10x1 and with coupling sleeve, SW 14 clamping rubber 40 mm
20011	Ø 12 x 300 mm – thrust piece 240 mm
20012	Ø 12 x 450 mm – thrust piece 390 mm
20013	Ø 12 x 600 mm – thrust piece 540 mm
20015	Ø 13 x 300 mm – thrust piece 240 mm
20016	Ø 13 x 450 mm – thrust piece 390 mm
20017	Ø 13 x 600 mm – thrust piece 540 mm
	optional
..... -2	with HP pan head nipple
	Stainless steel packer (INOX)
	with check valve, lower part and thrust washer of stainless steel, steel thrust piece and HP round head nipple M10x1 and with coupling sleeve, SW 14, clamping rubber 40 mm
20026	Ø 12 x 300 mm – thrust piece 240 mm
20027	Ø 12 x 450 mm – thrust piece 390 mm
20028	Ø 12 x 600 mm – thrust piece 540 mm
20045	Ø 13 x 300 mm – thrust piece 240 mm
20046	Ø 13 x 450 mm – thrust piece 390 mm
20047	Ø 13 x 600 mm – thrust piece 540 mm
	optional
..... -1	with LP round head nipple
..... -2	with HP pan head nipple
..... -3	with LP pan head nipple



Steel- or stainless steel packer Ø 12 x 300 mm – thrust piece 240 mm



Check valve

### Accessories



	Socket wrench
	SW 14
25023	for manual operation
25010	for cordless screwdriver

# Universal adhesive packer

## General information, products and accessories



### Universal adhesive packer

with cross sliding valve and moulded pan head nipple,  
Ø 16 mm, adhesive surface Ø 50 mm, height 48 mm

Order number

32035

### Advantages

- Cross sliding valve can be opened and closed
- No opening pressure must be overcome
- High tightness
- No material drops out of packer
- Free passage Ø 3 mm
- The adhesive (sealing material) is pressed through the 8 through holes causing a high riveting effect
- No reduction of cross section
- Material to be used: injection resin, mineral injection material

### Accessories



① thixotropic agent, ② activator, ③ component A, ④ component separator, ⑤ component B, ⑥ sheet metal mixing container

### Steel pin

Ø 2 x 70 mm, head-Ø 2,5 mm, 100 pcs./package

25122

### 2-component adhesive

1,6 kg plastic bag to seal cracks and to fix the adhesive packers

56338

### Advantages

- Mixed material (completely reacted) and entirely empty plastic bag can be disposed of in the regular household garbage
- Long storage life – 2 years



### “Klebfix“

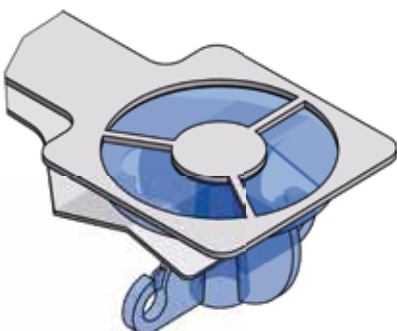
Packer holder for easy application of adhesive (sealing material, e.g. PUR or epoxy) on the adhesive surface of the adhesive packer.

25260

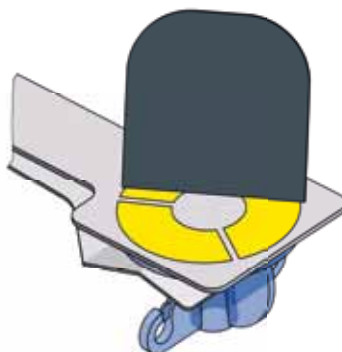
### Advantages

- Exact required amount of adhesive (sealing material) is applied to the adhesive surface
- Access to the crack is maintained

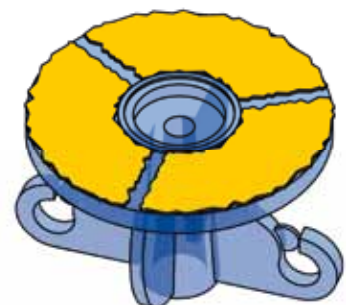
### Description



Insert adhesive packer in “Klebfix“



Apply adhesive (sealing material)



Adhesive surface is prepared, access to crack is maintained

# Special mini mixer

## Mixing technique

Order number: 12055



Dissolver disc



### Description

The handy and powerful special mini mixer is most appropriate when only small injection quantities are required.



### Technical Data

Supply	230V/5A
Motor power	1.0 kW
Speed	300 - 3000 rpm
Delivery	max. 8 l/min
Weight	5 kg
Dimensions	(cm) 54/Ø 36

### Delivery range

plastic material container for 5 l mixing material, drive, mixing shaft and dissolver disc

### Advantages

- Perfect for small material quantities
- Cost-effective mixing
- 2.5 kg container cement suspension can be completely mixed

<b>DESOL cement suspension</b>	Order number
for injection of cracks from 0.2 mm and of injection hoses, 2.5 kg container	56355

# Manual reciprocating pump MZP-30-Z

## Mixing technique

Order number: 10757



Ball valve R ¼" with lateral slide coupling



### Description

The manual reciprocating pump MZP-30-Z has been designed for short-time use. By the hand lever the material can be dosed easily and the pressure can be controlled precisely.

Due to its light weight and the compact dimensions the pump can be used in areas hard to reach.

### Technical Data

Supply	0 - 25 bar
Delivery	30 ml/Hub
Grain size (material)	0.3 mm
Weight	7 kg
Height/width/length-working position (cm)	35/18/45

### Delivery range

2.5 l material container, manometer 0 - 25 bar, 3 m material hose Ø8 mm and ball valve G ¼" with lateral slide coupling

### Advantages

- Small and lightweight
- Material easy to dose
- Easy operation and cleaning

# Tensile anchor system

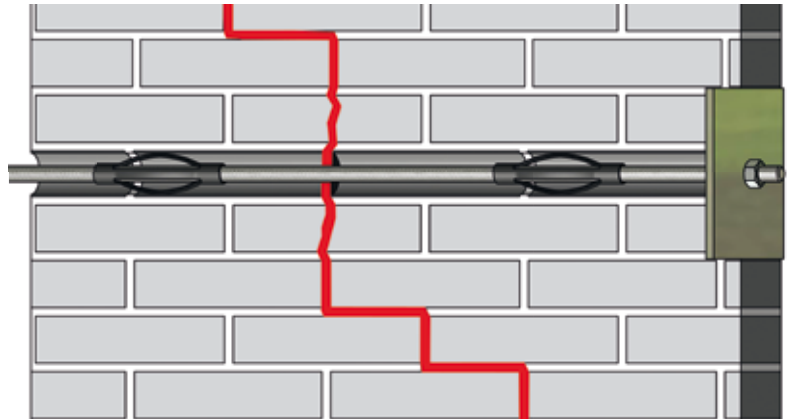
## Application information, products & accessories

### Application targets

- Creation of the bond strength (shear bond)
- Gentle restoration of objects under historical preservation protection
- Brickwork repair in accordance with the historical preservation guidelines

### Information about the installation of the anchors

- Install the threaded anchors together with suitable spacers centrally in the bore holes
- The spacers must not hinder the flow of the grout injection suspension
- Pay attention to the deaeration of the bore holes
- To ensure corrosion protection, the cement stone coating must be at least 2 cm.



Threaded anchor		
Versions	Material V2A order number	Material V4A order number
M8 x 1000 mm	20704	20738
M10 x 1000 mm	20706	20739
M12 x 1000 mm	20710	20740
M16 x 1000 mm	20711	20741
M20 x 1000 mm	20712	20742
M24 x 1000 mm	20713	20743
M8 x 3000 mm	20709	20785
M10 x 3000 mm	20714	20786
M12 x 3000 mm	20715	20745
M16 x 3000 mm	20716	20746
M20 x 3000 mm	20717	20747
M24 x 3000 mm	20718	20748

### Accessories



#### Anchor plate

material V2A, round, Ø 100 x 8 mm with

	Order number
drill hole-Ø 9 mm	20758
drill hole-Ø 11 mm	20749
drill hole-Ø 13 mm	20750
drill hole-Ø 17 mm	20751
drill hole-Ø 21 mm	20752
drill hole-Ø 25 mm	20753



#### Anchor plate

material V2A, square, 100 x 100 x 8 mm with

	Order number
drill hole-Ø 9 mm	20734
drill hole-Ø 11 mm	20735
drill hole-Ø 13 mm	20730
drill hole-Ø 17 mm	20731
drill hole-Ø 21 mm	20732
drill hole-Ø 25 mm	20733

# Tensible anchor system

## Accessories

Order number	Spacer
68518	M8
68519	M10
68520	M12
68521	M16
68522	M20
68523	M24



	Nut
	material V2A
20729	M8
20724	M10
20725	M12
20726	M16
20727	M20
20728	M24

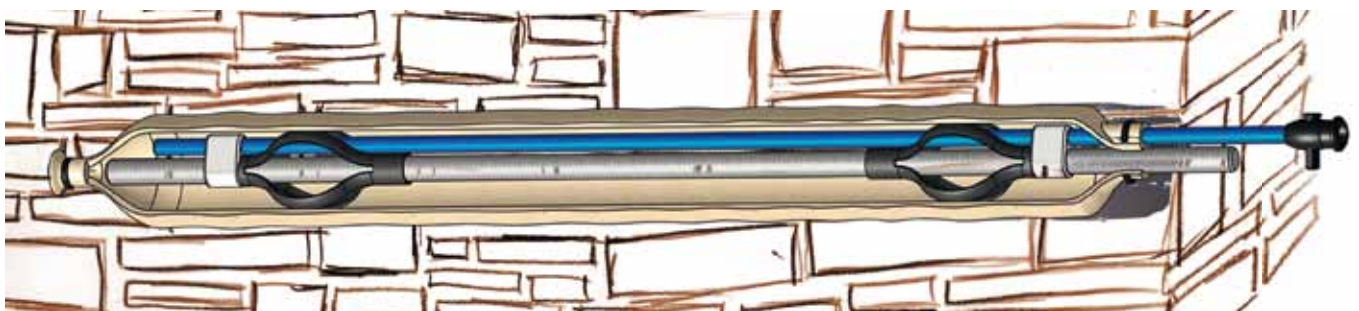


	Connecting sleeve
	material V2A
20779	M8 x 16 mm
20774	M10 x 20 mm
20775	M12 x 24 mm
20776	M16 x 30 mm
20777	M20 x 35 mm
20778	M24 x 40 mm



# DESOL textile hose for anchors

## Application information



### Notes for installing the stocking for anchor

The stocking for anchor is pulled over the anchor and closed by a cable strap at the end. A filling line is additionally integrated in the front part of the anchor. After the professional installation of the anchor, the filling operation is performed. In this regard, the stocking for anchor prevents the filling material from flowing in an uncontrolled manner into hollow spaces, pockets of loose gravel and other faulty structures in the object. Due to its extensibility, the stocking for anchor adapts itself to the unevennesses of the drill hole. At the same time, the fabric is so permeable that the interconnection of the anchor within the component is ensured.

# DESOI textile hose for anchors

## Application information

For the application with the DESOI stocking for anchor, you need the following:

- Stocking for anchor
- Threaded anchor (see page 15)
- Filling tube
- Spacer (see page 16)
- Locking tappet
- Cable strap
- Anchor plate (see page 15)

### Assembling service

We are pleased to offer you the pre-assembled anchor including stocking for anchor, spacer and filling tube.

Please ask us!



Moisten the stocking for anchor at all costs prior to pulling it over onto the spacer.



### DESOI textile hose for anchors

made of polyester, 2 lengths available

Versions	50 m Order number	10 m Order number
Ø 40 mm	68499	68499-10
Ø 55 mm	68500	68500-10
Ø 75 mm	68503	68503-10
Ø 100 mm	68501	68501-10
Ø 150 mm	68502	68502-10
<b>Cotton</b>	<b>50 m</b>	<b>10 m</b>
Ø 30 mm	68498	68498-10



### Filling tube

Order number

blue, Ø 13 x 2 for R ¼" external threaded, Pre-cut per meter, minimum purchase 10 m

Reel with 10 m

68510

Reel with 50 m

68511



### Locking tappet

with internal thread R ¼" and free passage Ø 7 mm

33000



### Thread cutter G ¼"

for cutting the connecting thread into the outside of the material hose

68069

### Cable strap

360 mm long, 1 item

25220

# Clamping packer/clamping packer MS

## General information

### Clamping packer < 100 bar

The clamping packer is suitable to be used for sealing operations, for example in tunnelling. It allows a safe and fast injection of all injection materials on mineral basis as well as injection resins. An improved clamping system prevents damage to the securing rings.

### Clamping packer MS < 150 bar

The clamping packer MS is equipped with an additional mechanical securing device. During the bracing operation, the special expansion sleeve acts like a barbed hook and firmly dovetails in the borehole. Thus, the fastening of the packer is much stronger, even in problematic rock. Additional security measures can be dispensed with to the greatest possible extent.



Place clamping packer and fix it using the clamping and injection device

Ø clamping packer	45	48	51	54	57	63
Ø drill hole	45 – 47	48 – 50	51 – 53	54 – 56	57 – 59	63 – 65

#### Order number **Clamping packer**

	with clamping rubber 140 mm, internal thread R ½"
69006	Ø 45 x 200 mm
69008	Ø 48 x 200 mm
69010	Ø 51 x 200 mm
69012	Ø 54 x 200 mm
69014	Ø 57 x 200 mm
69016	Ø 60 x 200 mm
69018	Ø 63 x 200 mm

#### **Clamping packer MS**

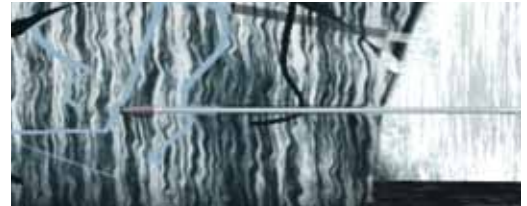
	with clamping rubber 140 mm, internal thread R ½", mechanical locking device
69026	Ø 45 x 260 mm
69028	Ø 48 x 260 mm
69030	Ø 51 x 260 mm
69032	Ø 54 x 260 mm
69034	Ø 57 x 260 mm
69038	Ø 63 x 260 mm

#### **Clamping and injection device**

	with ball valve and mortar hose plug
69070	1000 mm long
69071	1500 mm long
69072	2000 mm long
69074	3000 mm long
69076	4000 mm long
69078	5000 mm long
69080	6000 mm long



Clamping packer, braced



Connect injection pump and open ball valves. Start injection process at low pressure and slowly increase pressure up to maximum.



Injection completed

### User videos can be found at:

[www.desoi.de/anwendervideos/spannpackerspannpacker-ms](http://www.desoi.de/anwendervideos/spannpackerspannpacker-ms)

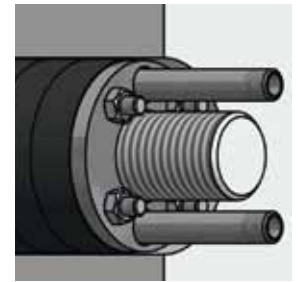
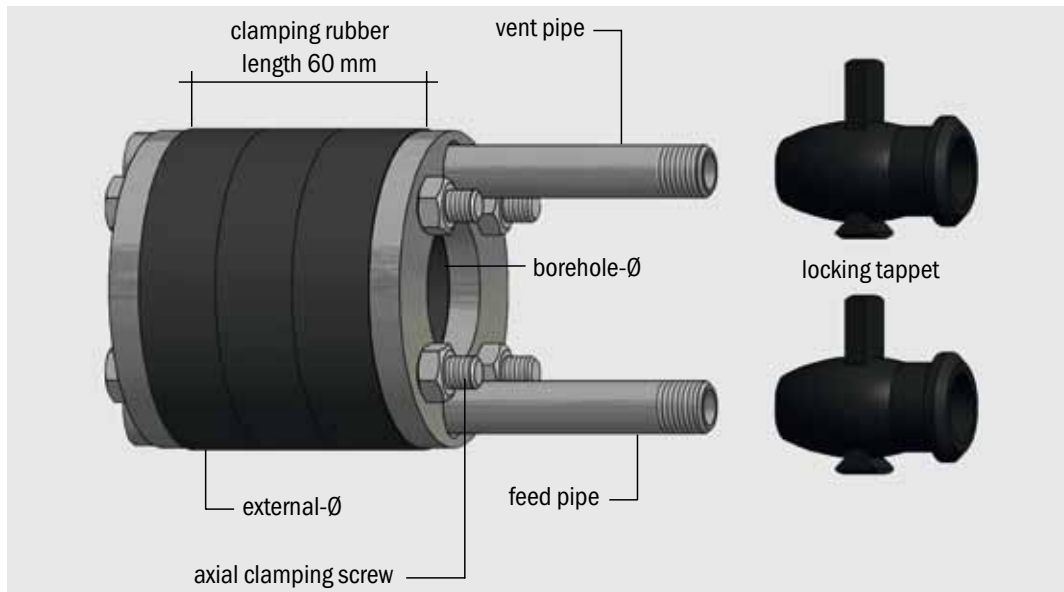


### Accessories



# Annulus packer

## Application information



Annulus packer mounted

The annulus packer is used for the injection and simultaneous deaeration in the case of rod anchors. Due to 4 axial clamping screws, it is possible to seal the drill hole and the anchor against the injection material. After complete deaeration, injection pressure can be built up.

<b>Annulus packer</b> clamping rubber 60 mm long, with 4 axial clamping screw <b>M8</b> , feed pipe, vent pipe (free passage 9 mm) with external thread <b>G 1/4"</b> and 2 x locking tappet (not mounted), total length 150 mm				<b>Accessories</b> Socket wrench SW 13
drill hole-Ø	anchor-Ø 20 mm	anchor-Ø 24 mm	anchor-Ø 36 mm	
Ø 70 mm	68612	68610	-	for manual operation 25024
Ø 80 mm	68604	68602	68600	for cordless screwdriver 25011
Ø 90 mm	-	68592	68590	
Ø 100 mm	-	68582	68580	

<b>Annulus packer</b> clamping rubber 60 mm long, with 4 axial clamping screw <b>M6</b> , feed pipe, vent pipe (free passage 6 mm) with external thread <b>M10x1</b> and 2 x locking tappet (not mounted), total length 150 mm					<b>Accessories</b> Socket wrench SW 10
drill hole-Ø	anchor-Ø 12 mm	anchor-Ø 16 mm	anchor-Ø 20 mm	anchor-Ø 24 mm	
Ø 50 mm	68632	68630	-	-	for manual operation 25023
Ø 60 mm	68626	68624	68622	68620	for cordless screwdriver 25010

<b>Annulus packer</b> clamping rubber 60 mm long, with 4 axial clamping screw <b>M5</b> , feed pipe, vent pipe (free passage 6 mm) with external thread <b>M8</b> and 2 x locking tappet (not mounted), total length 150 mm					<b>Accessories</b> Socket wrench SW 8
drill hole-Ø	anchor-Ø 12 mm	anchor-Ø 16 mm	anchor-Ø 20 mm	anchor-Ø 24 mm	
Ø 50 mm	-	-	-	68629	for manual operation 25021
					for cordless screwdriver 25018

# 2K Reciprocating pump PN-2036 T

## Pneumatic reciprocating pump

Order number: 17533



Anti-freezing device



Manometer



PN-2036 T with wheelset  
(accessorie)



### Description

The reciprocating pump PN-2036 T achieves a delivery of max. 20 l/min at a mixing ratio of 1 : 1.

Due to the big valves and pistons also highly viscous material can be used without any problems.

### Technical data

Working pressure - infinitely variable	5 - 200 bar
Delivery	max. 20 l/min
Required compressor output	2.5 m <sup>3</sup> /min.
Mixing ratio	1 : 1
Air pressure	max. 8 bar
Weight	65 - 70 kg
Height/width/length	(cm) 65/36/100

### Delivery range

moving device, suction system, 2 x pressure gauge unit with manometer 0 - 250 bar

### Advantages

- Pressure gauge units with manometers at machine outlet for pressure control of each component
- Big material passage - suitable also for highly viscous material
- Adjustment of the material volume

### Material to be used

- 2-component injection resin and foams

# 2K Reciprocating pump PN-1436 T

## Pneumatic reciprocating pump

Order number: 17528



Driving device, optional  
(Order number: 17529)



Anti-freezing device



Mixing head

### Description

The reciprocating pump PN-1436 T achieves a delivery of max. 20l/min at a mixing ratio of 1 : 1.

Due to the big valves and pistons also highly viscous material can be used without any problems.

### Technical data

Working pressure-ininitely variable	5 - 100 bar
Delivery	max. 20l/min
Required compressor output	1.0 m <sup>3</sup> /min.
Mixing ratio	1 : 1
Air pressure	max. 8 bar
Weight	60 kg
Height/width/length	(cm) 65/36/100

### Delivery range

moving device, suction system, 2 x pressure gauge unit with manometer 0 - 160 bar

### Advantages

- Pressure gauge units with manometers at machine outlet for pressure control of each component
- Big material passage-suitable also for highly viscous material
- Can be equipped with DESOI flow control (electronic recording system)

### Material to be used

- 2-component injection resin
- Acrylate gel

# 2K Reciprocating pump PN-1436

## Pneumatic reciprocating pump

Order number: 17527



Handily and compactly



Anti-freezing device



Mixing head



### Description

The reciprocating pump PN-1436 achieves a delivery of max. 20 l/min at a mixing ratio of 1 : 1.

Due to the big valves and pistons also highlyviscous material can be used without any problems.

### Technical data

Working pressure - infinitely variable	5 - 100 bar
Delivery	max. 20 l/min
Required compressor output	1.0 m <sup>3</sup> /min.
Mixing ratio	1 : 1
Air pressure	max. 8 bar
Weight	55 kg
Height/width/length	(cm) 65/36/100

### Delivery range

moving device, suction system, 2 x pressure gauge unit with manometer 0 - 160 bar

### Advantages

- Pressure gauge units with manometers at machine outlet for pressure control of each component
- Big material passage - suitable also for highlyviscous material
- Can be equipped with DESOI flow control (electronic recording system)

### Material to be used

- 2-component injection resin
- Acrylate gel

# Injection accessories for reciprocating pumps

## PN-1436, PN-1436T, PN-2036T



### 2K mixing head – stainless steel (INOX)

Order number

with 8 x in-line static mixer, flexible whip, sliding coupling,  
with material hose connection for  
component A: G ½", component B: G ⅜"

17722

#### Advantages

- The components are perfectly mixed
- Mixing tubes of different lengths provide exact mixing of injection resins
- Due to the constructive design of the mixing there is no contact between the two components during the cleaning process
- High-pressure resistant up to 250 bar

#### Note

The required mixing length must be determined by tests.

### Accessories



#### Mixing tube

with internal thread G ¼" on both sides for

4 in-line static mixers, 58 mm long

17736

8 in-line static mixers, 96 mm long

17737

12 in-line static mixers, 134 mm long

17738



#### In-line static mixer

made of plastic, as spare part Ø 9.4 mm, length 9.5 mm

17716



#### HP twin material hose, stainless steel (INOX)

with connecting thread G ½" for component A and  
connecting thread G ⅜" for component B

6 m – Ø 10 mm

17766

10 m – Ø 10 mm

17767

20 m – Ø 10 mm

17768

More lengths on request

# Electric reciprocating pump 2K-10 T

## Electric reciprocating pump

Order number: 17531



Manometer



### Description

The compact electric reciprocating pump 2K-10 T has been developed for processing 2-component PU resins in a mixture ratio of 1 : 1. The suction valves are metallically sealing ones. The outlet valves have been designed with a large volume. The return flow system returns the excess material to the machine. The piston-pin bushings and the cylinder liners are made of low-wear material.

### Technical data

Supply	230 V
Motor power	0.75 kW
Working pressure-ininitely variable	10 - 200 bar
Delivery	0.85 l/min
Weight	28 kg
Height/width/length (cm)	44/44/53

### Delivery range

Drive unit, pressure control with return flow system and 2 pressure measuring units with manometer 0 - 250 bar, 2 x 3 m high-pressure material hose, Ø 6 mm and 2 x 2 l material container, transparency

### Advantages

- Precise pressure adjustment
- Integrated return flow system
- Metallically sealing suction valves
- Easy to operate and clean

### Material to be used

- 2K PUR resins
- 2K PUR foams
- 2K EP resins

# Injection accessories for reciprocating pump 2K-10 T

## Electric reciprocating pump



### 2K mixing head – stainless steel (INOX)

Order number

with mixing tube, 4 x in-line static mixer and 2 mixing elements (inox), mixing tube with stop plate and sliding coupling, with material hose connection for component A: M16x1,5; component B: M14x1,5

17720

#### Advantages

- The components are perfectly mixed
- Mixing tubes of different lengths provide exact mixing of injection resins
- Due to the constructive design of the mixing there is no contact between the two components during the cleaning process
- High-pressure resistant up to 250 bar

#### Note

The required mixing length must be determined by tests.

### Accessories



#### Mixing tube

with internal thread G ¼" on both sides for 4-in-line static mixers, 58 mm long

17736



#### In-line static mixer

made of plastic, as spare part Ø9.4 mm, length 9.5 mm

17716



#### Mixing tube

with external thread M10x1 on both sides and stop plate for 2 x mixing element (inox)

17744



#### Mixing element (inox)

Ø 8 x 80 mm

17742

## WS blind packer

### Packer technique



#### WS blind packer

	Order number
Ø 10 x 60 mm – clamping rubber 40 mm, clamping nut SW 7	20005
Ø 12 x 60 mm – clamping rubber 40 mm, clamping nut SW 7	20018
Ø 14 x 60 mm – clamping rubber 40 mm, clamping nut SW 7	20019
Ø 16 x 60 mm – clamping rubber 40 mm, clamping nut SW 10	20020
Ø 18 x 60 mm – clamping rubber 40 mm, clamping nut SW 13	20021
Ø 20 x 60 mm – clamping rubber 40 mm, clamping nut SW 13	20022
Ø 22 x 60 mm – clamping rubber 40 mm, clamping nut SW 13	20023
Ø 25 x 60 mm – clamping rubber 40 mm, clamping nut SW 13	20024
Ø 30 x 60 mm – clamping rubber 40 mm, clamping nut SW 13	20025
Ø 35 x 70 mm – clamping rubber 50 mm, clamping nut SW 13	20029

Blind packers are used for closing all the drill holes and holes which remain after removing spacers in the case of formwork.

The blind packer is braced by means of a hexagonal nut.

## Custom-made products

### Packer technique

#### You have got a special challenge?

We are pleased to deliver a custom-made solution.

#### steel packer

with external thread G 2", quick acting tommy nut with internal thread G 2" and free passage Ø 52 mm, delivery time about 1 week

Ø 400 x 1000 mm – clamping rubber 150 mm

on request





# DESOI®

Injection technique  
Mixing technique  
Spraying technique



**Qualitätsmanagement**

**Wir sind zertifiziert**

Regelmäßige freiwillige  
Überwachung nach ISO 9001:2008

**DESOI GmbH**

Gewerbestraße 16  
36148 Kalbach/Rhön

Phone: +49 6655 9636-0

Fax: +49 6655 9636-6666

E-mail: [info@desoi.de](mailto:info@desoi.de)

Internet: [www.desoi.de](http://www.desoi.de)