

# K INJECTION SYSTEMS

PROVIDE THE RIGHT STOP



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Anchoring

Drilling

Measurement

Injection

# INJECTION HOSES

## K INJECTION HOSES from HDPE



Item number	Ø outer	Ø inner	Wall thickness	Pressure	Unit
65-10130940	13	9	2	40 bar	100 m roll
65-10131140	13	11	1	10 bar	100 m roll
65-10161270	16	11.6	2.2	70 bar	250 m roll
65-10201616	20	16	2	16 bar	500 m roll
65-10251940	25	19	3	40 bar	100 m roll
65-10322340	32	23.2	4.4	40 bar	200 m roll
65-10402940	40	29	5.5	40 bar	100 m roll

## INJECTION SYSTEM 16 mm



### K Injection tip



(Item No. 65-11201612)



For screwing onto the K injection hose. Is is also used as sealing for the injection hose and as re-injection valve



Thread cutter for tips (Item No. 64-651016)

### K Re-injection valve incl. ferrule



The K Re-injection valves incl. ferrules have been tested using vacuum testing.

(Item No. 65-11301612-1)



K Crimp tube (Item No. 64-652016)

### Assembly



Pre-drilled hole in the tube



Attaching the valve



Fixing the valve and ferrule using K Crimp tube

**K INJECTION ADAPTER**



screwable (self-tapping thread)

Item number	to injection hose	Thread
66-40 13 11	13 mm	3/4" outer
66-40 16 12	16 mm	3/4" outer
66-40 20 16	20 mm	1" outer
66-40 25 19	25 mm	1" outer
66-40 32 23	32 mm	1" inner
66-40 40 29	40 mm	1 1/4" inner
66-40 50 34	50 mm	1" outer

**RE-INJECTION SYSTEM IN USE**



Upper concrete pile with four pieces **K Injection lines** deployed in two different depths



**Stress test on pressure**  
Without re-injection max. 1 500 kN  
With **K re-injection** max. 3 000 kN



Attachment of **K Injection pipes**



**K Re-injection connections**  
rupture pressure approx. 15–65 bar  
after 24 hours



**K MUNG** injection system  
max. 70 bar injection pressure

Further details can be found in the following documents:



# K COLLAR PIPES



The collar pipes are made of rigid PVC. They are supplied in 2000 mm length, incl. outer and inner thread, and can be extended to any length. Other lengths (500 mm to 6000 mm) on request. The collar distances are available with 250, 330, 500 and 1000 mm distance.

Shell filling with K injection binder and re-injection with KÜMIX®

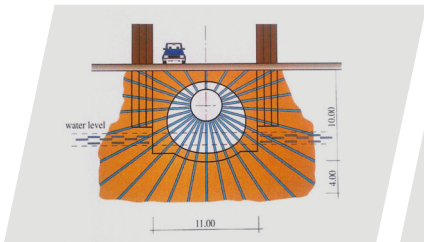
SPECIFICATIONS				
Threaded pipes	1 1/8"	1 1/4"	1 1/2"	2"
Outer	38	40	48	60
Inner	33	34	42	54
Outer sleeves	44	49	55	70
Tip	x	x	x	x
Max. pressure, bar	80	60	40	40

## K COLLAR PIPES 15 BAR

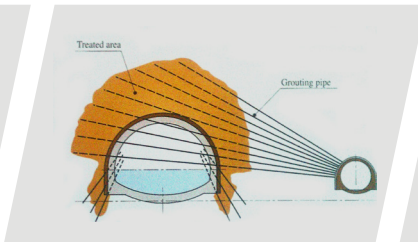


The collar pipes are also available in PP (polypropylene).  
 Diameter: 1 1/4", 1 1/2", 2"  
 Length: 330 mm incl. collars and sleeves

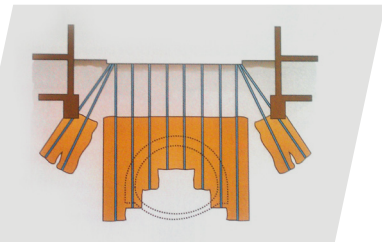
## AREAS OF APPLICATION



Consolidations in the tunnel



Underground and surface mining



Foundations

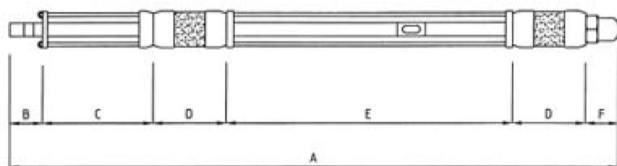
# HYDR. SINGLE AND DOUBLE PACKERS



Developed for the injection of KÜMIX cement mortar in micropiles, pipe screens and collar pipes. The hydraulic packer is driven by a hand pump and a hydraulic piston, which compresses two existing expansion elements from a special elastomer. The packers can be used as required as single or double packer.

**REST POSITION**

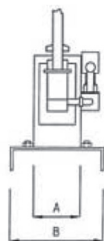
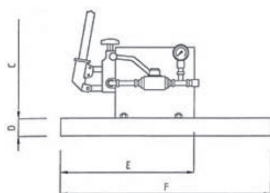
**IN USE**



	A	B	C	D	E	F	
<b>Model</b>	<b>Mass in mm</b>						<b>Weight</b>
<b>IS 24</b>	529	90	162	42	200	35	1.1 kg
<b>IS 32</b>	634	102	170	75	250	40	2.0 kg
<b>IS 45</b>	697	102	175	95	300	45	3.3 kg
<b>IS 58</b>	777	60	172	95	405	45	7.6 kg
<b>IS 78</b>	777	60	172	95	405	45	13.4 kg

<b>Model</b>	Expansion element minimal in mm	Expansion element maximum in mm	Connection Hydraulic pipe	Connection Injection tube	Maximum hydraulic pressure in bar	Maximum injection pressure in bar
<b>IS 24</b>	24	35	G 1/8	G 1/8	180	60
<b>IS 32</b>	32	45	G 1/8	G 1/4	250	100/120
	35	50				
	45	60				
<b>IS 45</b>	45	60	G 1/8	G 3/8	250	100/120
	50	65				
<b>IS 58</b>	58	75	G 1/8	G 1/2	250	100/120
	68	85				
	78	92				
	88*	105				
<b>IS 78</b>	78	92	G 1/4	G 3/4	250	100/120
	88	105				
	99	116				
	115	135				
	138*	158				
	148*	168				

## HYDRAULIC HAND PUMP



	A	B	C	D	E	F	
<b>Model</b>	<b>Mass in mm</b>						<b>Weight</b>
<b>ISP 12</b>	529	90	162	42	200	35	11 kg
<b>Tank capacity</b>						2 ℓ	
<b>Maximum flow / per cycle</b>						12 ℓ	
<b>Maximum pressure</b>						380 bar	

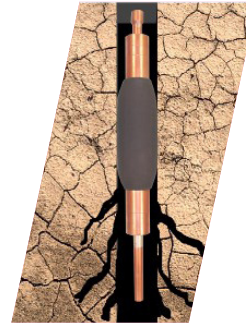
# PNEUMATIC SINGLE AND DOUBLE PACKERS



Developed for the injection of KÜMIX cement mortar in micropiles, pipe screens and collar pipes. The packers can be used as required as single or double packer

REST POSITION

IN USE



## GEOPACK STANDARD

### Geopack Ø 35

Drill hole in mm	40	45	50	55
Pressure in bar	85	70	60	50

### Geopack Ø 44

Drill hole in mm	50	55	60	65	70	75
Pressure in bar	85	85	75	60	50	40

### Geopack Ø 54

Drill hole in mm	60	65	70	75	80	85	90	95	100	105
Pressure in bar	85	85	85	80	65	50	40	35	30	20

### Geopack Ø 74

Drill hole in mm	80	85	90	95	100	105	110	120	130
Pressure in bar	85	70	55	50	45	40	35	30	25

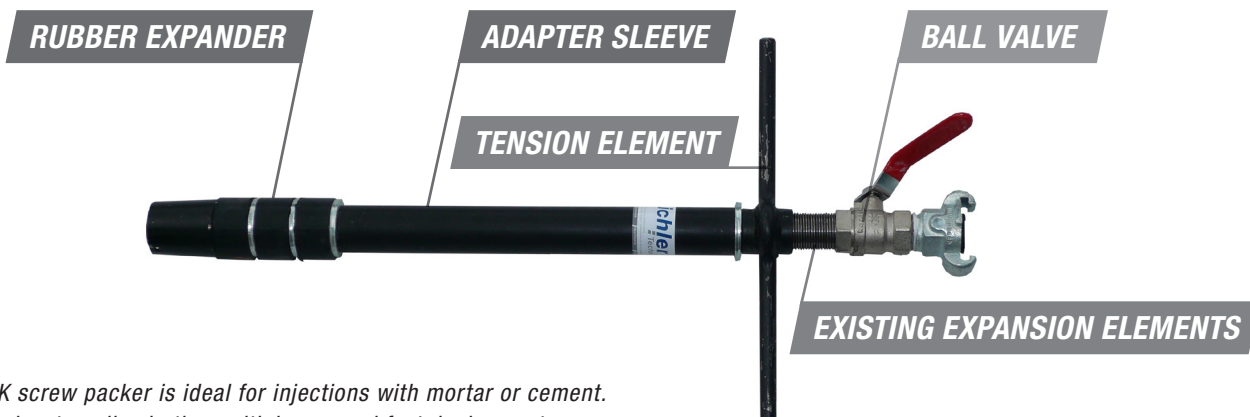
### Geopack Ø 84

Drill hole in mm	90	95	100	105	110	120	130	140	150
Pressure in bar	85	85	85	85	85	70	50	40	25

### Geopack Ø 102

Drill hole in mm	110	120	130	140	150	160	170	180	190
Pressure in bar	85	85	85	70	50	40	35	30	15

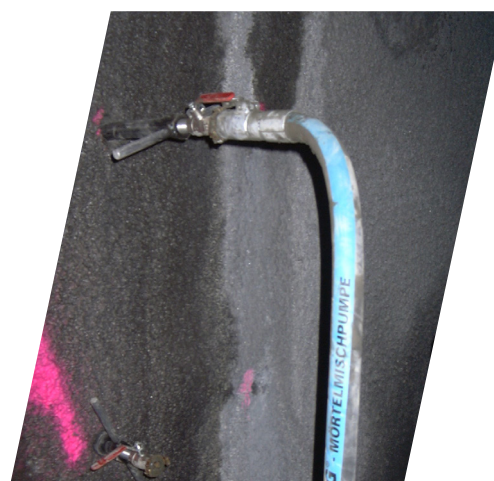
# MECHANICAL SCREW PACKER



The K screw packer is ideal for injections with mortar or cement. The advantage lies in the multiple use and fast deployment.

### The areas of application

Backfills and injections of tubbing, masonry, steel pipes, concrete slabs etc.



Item number	Designation	Drilling	min. Drill hole	max. Drill hole	Length	Thread	Unit
66-3002530006	K Injection packer 25/300 mm, 1/4"	9	25	28	300	1/4"	Piece
66-3003230012	K Injection packer 32/300 mm, 1/2"	15	32	36	300	1/2"	Piece
66-3003830012	K Injection packer 38/300 mm, 1/2"	15	38	42	300	1/2"	Piece
66-3004340019	K Injection packer 43/400 mm, 3/4"	20	43	47	400	3/4"	Piece
66-3004540019	K Injection packer 45/400 mm, 3/4"	20	45	49	400/700	3/4"	Piece
66-3005160019	K Injection packer 51/600 mm, 3/4"	20	51	56	600	3/4"	Piece
66-3007560025	K Injection packer 75/600 mm, 1"	25	75	80	600	1"	Piece
66-3008860025	K Injection packer 88/600 mm, 1"	25	88	93	600	1"	Piece

Other diameters and lengths available on request. Also available with non-return valve