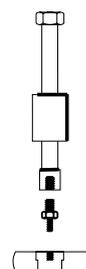


# 1.81/1 + 2

## SET OF THREADED INSERTS

for 1-hole uses

- > The threaded inserts make the removal of threaded caps, for example, possible, when these possess one threaded hole
- > No. 1.81/1: For sliding hammers 1.35/1, 1.35/2, counter-support brace 1.36/1
- > No. 1.81/2: For sliding hammers 1.35/2, 1.36/2, counter-support brace 1.36/3



Connecting thread 		Code	No.
<b>M10 - M4</b>	0.340	1120727	1.81/1
<b>M10 - M5</b>			
<b>M10 - M6</b>			
<b>M10 - M8</b>			
<b>M10 - M10</b>			
<b>M10 - M12</b>			

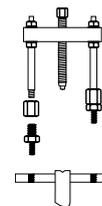
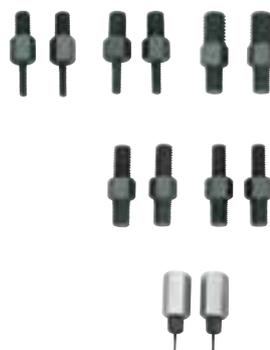
Connecting thread 		Code	No.
<b>M14x1,5 - M8</b>	0.490	1120743	1.81/2
<b>M14x1,5 - M10</b>			
<b>M14x1,5 - M12</b>			
<b>M14x1,5 - M14</b>			
<b>M14x1,5 - M16</b>			
<b>M14x1,5 - M18</b>			

# 1.81/10 + 20

## SET OF THREADED INSERTS

for 1-hole and 2-hole uses, 2 each

- > The threaded inserts make the removal of threaded caps, for example, possible, when these possess one or two threaded holes
- > No. 1.81/10: For separator puller 1.38/0, 1.38/1
- > No. 1.81/20: For separator puller 1.38/2



Connecting thread 		Code	No.
<b>M10 - M4</b>	0.670	1120735	1.81/10
<b>M10 - M5</b>			
<b>M10 - M6</b>			
<b>M10 - M8</b>			
<b>M10 - M10</b>			
<b>M10 - M12</b>			

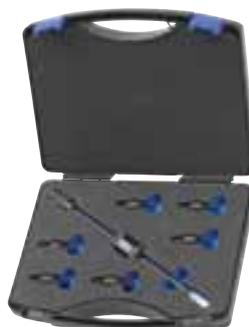
Connecting thread 		Code	No.
<b>M14x1,5 - M8</b>	1.222	1120751	1.81/20
<b>M14x1,5 - M10</b>			
<b>M14x1,5 - M12</b>			
<b>M14x1,5 - M14</b>			
<b>M14x1,5 - M16</b>			
<b>M14x1,5 - M18</b>			

# 1.81/K

## SET OF THREADED INSERTS

for 1-hole uses

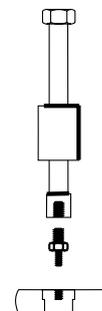
- > The threaded inserts make the removal of threaded caps, for example, possible, when these possess one threaded hole
- > No. 1.81/K-1: With sliding hammer 1.35/1, rod 230 mm and impact weight 200 g
- > No. 1.81/K-12: With sliding hammer 1.35/1A, rod 230 mm and impact weight 700 g, adaptor M14x1,5
- > In robust plastic case, 275 x 229 x 83 mm



1.81/K-1



1.81/K-12



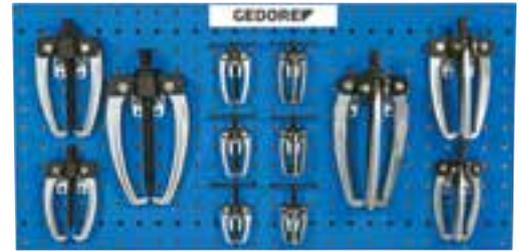
Connecting thread 		Code	No.
<b>M10 - M4</b>	1.000	1936549	1.81/K-1
<b>M10 - M5</b>			
<b>M10 - M6</b>			
<b>M10 - M8</b>			
<b>M10 - M10</b>			
<b>M10 - M12</b>			

Connecting thread 		Code	No.
<b>M10 - M4</b>	1.830	1936557	1.81/K-12
<b>M10 - M5</b>			
<b>M10 - M6</b>			
<b>M10 - M8</b>			
<b>M10 - M10</b>			
<b>M10 - M12</b>			
<b>M14x1,5 - M14</b>			
<b>M14x1,5 - M16</b>			
<b>M14x1,5 - M18</b>			

## Add-on systems

### 1.18/1.19 PULLER SET

- › This perforated panel offers place for 12 pullers of the series 1.18 and 1.19
- › For clamping depths up to  $\varnothing$  200 mm and clamping reach up to 200 mm
- › Delivery includes perforated panel

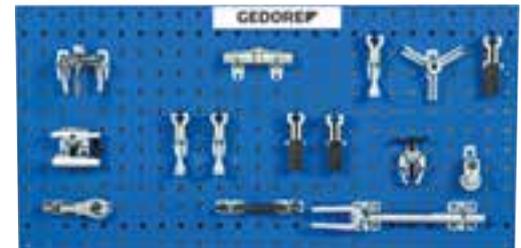


Contents			Code	No.
<b>2-arm Puller</b> 1.18/1 1.18/2 1.18/3	<b>2-arm-Fan puller</b> 1.18/0 1.18/01 1.18/02	21.0	1824007	1.18/1.19
<b>3-arm Puller</b> 1.19/1 1.19/2 1.19/3	<b>3-arm Fan puller</b> 1.19/0 1.19/01 1.19/02			

### 2.10 AUTOMOBILE WORKSHOP SET

#### Add-on system

- › 2- and 3-arm puller set
- › Clearly arranged module system
- › Everything at hand on perforated wall-board

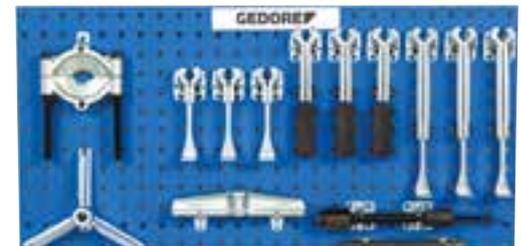


Contents			Code	No.
<b>1 cross-beam, 2-arm pattern 140 mm, No. 106/103</b> <b>1 cross-beam, 3-arm pattern 140 mm, No. 107/103</b> <b>1 spindle 17 mm, M14x1.5, 140 mm, No. 1.1406140</b> <b>3 pulling legs 100 mm, No. 106/A-100-N</b> <b>3 pulling legs slim pattern 100 mm, No. 106/A-100-S</b>	<b>1 battery-terminal puller, 2-arm pattern 60x40 mm, No. 1.12/02</b> <b>1 nut splitter 17-24 mm, M10-M16, No. 1.26/2</b> <b>1 stud extractor 8-19 mm, No. 1.28/2</b> <b>1 dismantling and assembly fork 23 mm, No. 1.70/2</b> <b>1 universal ball joint puller 65x23 mm, No. 1.73/1</b> <b>1 oil filter hook 3-arm pattern 60-120 mm, No. 1.75/1</b>	13.3	1088696	2.10

### 2.20 TRUCK WORKSHOP SET

#### Add-on system

- › 2- and 3-arm puller set incl. separator
- › Clearly arranged module system
- › For clamping depths up to  $\varnothing$  200 mm external,  $\varnothing$  260 mm internal, and clamping reach up to 300 mm
- › With this set, you will be able to assemble 12 of the usual versions including hydraulic spindle, in seconds
- › 2-arm cross-beams with scale for uniform adjustment of the puller legs. Allows centred pulling, with optimised application of force, even when extremely high pulling forces are required
- › Everything at hand on perforated wall-board



Contents			Code	No.	No.
<b>1 cross-beam, 2-arm pattern 260 mm, No. 106/2A03</b> <b>1 cross-beam, 3-arm pattern 260 mm, No. 107/2A03</b> <b>1 spindle 22 mm, G 1/2", 210 mm, No. 1.2106210</b> <b>1 hydraulic pressure spindle 10 t, No. 1.06/HSP1</b>	<b>3 pulling legs 150 mm, No. 106/B-150-N</b> <b>3 pulling legs slim pattern 220 mm, No. 106/B-220-S</b> <b>3 pulling legs slim pattern 220 mm, No. 106/B-220-S</b> <b>1 bearing separator 22-115 mm, No. 1.40/2</b>	23,3	1088718	2.20	



# MANUFACTURING PROCESS OF A 2-ARM 1.06 PULLER

## CROSS-BEAM

**1**  
**Blank**  
from hard and tempered steel cut from the bar.



**5**  
**De-burring**  
Excess burr is removed under an eccentric press.



**10**  
**Drilling**  
Tapped hole is drilled.



**2**  
**"Pre-upsetting"**  
Mighty hammer blows drop-forged the cut-to-length forging into the hot "pre-form".



**6**  
**Forged blank**  
Ready for further processing and finishing.



**11**  
**Cutting**  
The thread for the spindle is cut.



**3**  
**Rough-forging**  
Powerful drop-hammer blows contour the cross-beam in the first die-sinking.



**7**  
**Calibrating**  
The width of the leg guide is calibrated and sand-blasted. Important for the following operations.



**12**  
**Zinc-plating**  
Electro-galvanized for corrosion protection.



**4**  
**Final forging**  
The cross-beam obtains its ultimate shape in the second die-sinking.



**8**  
**Grinding**  
Grinding the cross-beam on all sides.



**13**  
**Stamping**  
Manufacturer and Item No. are stamped on in a permanent fashion.



**9**  
**Milling the leg guide**  
The height of the leg guide is milled to size.



**14**  
**Lasering**  
The check-tool marking is lasered.



## SPINDLE

**1**  
**Blank**  
from hard and tempered steel cut from the bar.



**3**  
**Rolling**  
The fine thread is rolled.



**5**  
**Riveting**  
Either the firm spindle tip is permanently riveted or the replaceable spindle tip inserted.



**2**  
**Turning + drilling**  
Turn the spindle to measure and the drill hole for the spindle tip is inserted.



**4**  
**Nitro-carburating**  
Edge-layer hardening of the thread. The spindle is toughened at the edge and thus resistant to wear. The core remains "soft" and flexible and resiliently absorbs any stresses arising.



In line with the requirement, we hot-form the ideal steel for each puller sub-assembly.

## CLAMPING PARTS

**1**  
**Blank**  
made of hard and tempered steel and cut to size from the bar.



**2**  
**Upsetting**  
Mighty hammer blows drop-forged the cut-to-length forging into the hot "pre-form".



**3**  
**Rough-forging**  
Powerful drop-hammer blows contour the clamping parts in the first die-sinking.



**4**  
**Final forging**  
The clamping parts obtain their ultimate shape in the second die-sinking.



**5**  
**Hot de-burring**  
Still hot excess burr is removed under an eccentric press.



**6**  
**Forged blank**  
Ready for further processing and finishing.



**7**  
**Calibrating**  
The clamping part is calibrated and sand-blasted.



**8**  
**Perforating**  
The two holes for connection with the leg are cold-holed.



**9**  
**Zinc-plating**  
Electro-galvanizing protects the clamping part from corrosion.



**10**  
**Mounting**  
A pin and a screw and/or the quick-release clamp are for connecting two clamping parts to the leg.



## LEGS

**1**  
**Blank**  
made of 31CrV3 and cut to size from the bar.



**2**  
**Forging**  
Hot, drop-forged.



**3**  
**De-burring**  
Excess burr is removed under an eccentric press.



**4**  
**Calibrating**  
The leg is calibrated and sand-blasted.



**5**  
**Drilling**  
The holes for the clamps are drilled.



**6**  
**Milling**  
Milling provides the leg base with its optimum form.



**7**  
**Tempering**  
A special thermal treatment involving inert gas gives the leg its extreme hardness and toughness. Hardening ensures the required hardness and the annealing which follows imparts that toughness to the legs. Hardening and annealing together are referred to as tempering.



**8**  
**Sand-blasting**  
Sand-blasting is made use of to clean the surface before processing continues.



**9**  
**Zinc-plating**  
Electro-galvanizing protects the leg from corrosion.



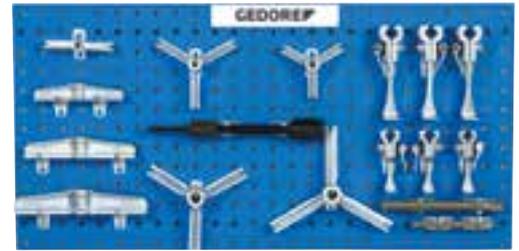
**10**  
**Pressing-in**  
The connecting pin for the two clamping parts is pressed in.



## 2.30 INDUSTRIAL PULLING SET

### Add-on system

- > 2- and 3-arm puller set
- > For the assembly of the tried and tested 1.06 and 1.07 versions
- > For clamping depths up to Ø 200 mm external, Ø 260 mm internal, and clamping reach up to 150 mm
- > 2-arm cross-beams with scale for uniform adjustment of the puller legs. Allows centred pulling, with optimised application of force, even when extremely high pulling forces are required
- > Using this set, you will be able to assemble 12 of the usual versions with high-speed clamping legs, including hydraulic spindle, in seconds
- > Everything at hand on perforated wall-board

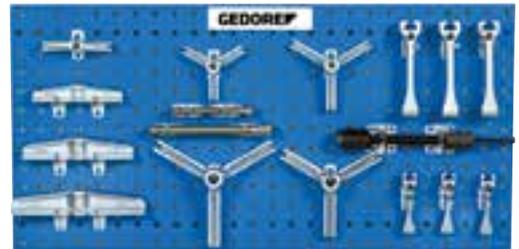


Contents			Code	No.
1 cross-beam, 2-arm pattern 140 mm, No. 106/103	1 spindle 17 mm, M14x1.5, 140 mm, No. 1.1406140	19,4	1393014	2.30
1 cross-beam, 2-arm pattern 180 mm, No. 106/1A03				
1 cross-beam, 2-arm pattern 220 mm, No. 106/203	1 spindle 22 mm, G 1/2", 210 mm, No. 1.2106210			
1 cross-beam, 2-arm pattern 260 mm, No. 106/2A03	1 hydraulic pressure spindle 10 t, No. 1.06/HSP1			
1 cross-beam, 3-arm pattern 140 mm, No. 107/103	3 quick-release pulling legs 100 mm, No. 106/A-100-E			
1 cross-beam, 3-arm pattern 180 mm, No. 107/1A03				
1 cross-beam, 3-arm pattern 220 mm, No. 107/203	3 quick-release pulling legs 150 mm, No. 106/B-150-E			
1 cross-beam, 3-arm pattern 260 mm, No. 107/2A03				

## 2.30-B INDUSTRIAL PULLING SET WITH LEG BRAKE

### Add-on system

- > 2- and 3-arm puller set
- > For the assembly of the tried and tested 1.06 and 1.07 versions
- > For clamping depths up to Ø 210 mm external as well Ø 260 mm internal, and clamping reach up to 150 mm
- > With this set, you will be able to assemble 12 of the usual versions with high-speed clamping legs, including hydraulic spindle, in seconds
- > 2-arm cross-beams with scale for uniform adjustment of the puller legs. Allows centred pulling, with optimised application of force, even when extremely high pulling forces are required
- > Leg brake prevents unintentional leg slipping. The leg can be slid along the cross-beam at the push of a button
- > Everything at hand on perforated wall-board



Contents			Code	No.
1 cross-beam, 2-arm pattern 140 mm, No. 106/103	1 spindle 17 mm, M14x1.5, 140 mm, No. 1.1406140	19,4	2017032	2.30-B
1 cross-beam, 2-arm pattern 180 mm, No. 106/1A03	1 spindle 22 mm, G 1/2", 210 mm, No. 1.2106210			
1 cross-beam, 2-arm pattern 220 mm, No. 106/203	1 hydraulic pressure spindle 10 t, No. 1.06/HSP1			
1 cross-beam, 2-arm pattern 260 mm, No. 106/2A03	3 pulling legs, all steel, leg brake 100 mm, No. 106/A-100-B			
1 cross-beam, 3-arm pattern 140 mm, No. 107/103				
1 cross-beam, 3-arm pattern 180 mm, No. 107/1A03	3 pulling legs, all steel, leg brake 150 mm, No. 106/B-150-B			
1 cross-beam, 3-arm pattern 220 mm, No. 107/203				
1 cross-beam, 3-arm pattern 260 mm, No. 107/2A03				

## 2.40 PULLING SET FOR CONSTRUCTION MACHINES

### Add-on system

- > 2- and 3-arm puller set
- > For the assembly of the robust and handy strap-pattern pulling tools 1.14 and 1.15
- > For clamping depths up to Ø 280 mm and clamping reach up to 390 mm
- > With this set, you will be able to assemble 10 of the usual flexible strap-pattern pulling tools from the range 1.14/1.15, including the new hydraulic spindle
- > Everything at hand on perforated wall-board



Inhalt			Code	No.
1 head 2-arm pattern No. 114/204	1 hydraulic pressure spindle 10 t, No. 1.06/HSP1	24,3	1393030	2.40
1 head 2-arm pattern No. 114/304	3 pulling legs 210 mm, No. 114/201			
1 head 3-arm pattern No. 115/204	3 pulling legs 260 mm, No. 114/301			
1 head 3-arm pattern No. 115/304	3 pulling legs 390 mm, No. 114/401			
1 spindle 19 mm, M18x1.5, 200 mm, No. 1.1806200	6 straps No. 114/208			
1 spindle 22 mm, G 1/2", 250 mm, No. 1.2106250	12 straps No. 114/308			

## 2.50

# SET OF INTERNAL AND EXTERNAL EXTRACTORS

- › Suitable for various applications of external or internal extraction
- › Internal extractors for bores with  $\varnothing$  5 - 55 mm. To use in connection with sliding hammer or counter-support braces
- › External extractors with various clamping depths up to 130 mm
- › Separators and pullers incl. extension rods, ideal for removing tightly-seated or thin-walled parts for outer diameter 5 - 115 mm
- › Everything at hand on perforated wall-board



Contents	 kg	Code	No.
1 internal extractor 5-8 mm, No. 1.30/0	29.0	2017040	2.50
1 internal extractor 8-12 mm, No. 1.30/1			
1 internal extractor 12-15 mm, No. 1.30/2			
1 internal extractor 15-19 mm, No. 1.30/3			
1 internal extractor 19-25 mm, No. 1.30/4			
1 internal extractor 25-30 mm, No. 1.30/4A			
1 internal extractor 30-35 mm, No. 1.30/5			
1 internal extractor 35-45 mm, No. 1.30/6			
1 internal extractor 45-55 mm, No. 1.30/7			
1 sliding hammer 230 mm, 700 g, No. 1.35/1A			
1 sliding hammer 500 mm, 1,7 kg, No. 1.35/2			
1 counter-support brace for 1.30/0 - 1.30/5, No. 1.36/1			
1 counter-support brace for 1.30/6 - 1.30/7, No. 1.36/2			
1 universal puller HIGH POWER 2-arm pattern 130x100 mm, No. 1.04/HP1A			
1 battery-terminal puller, 3-arm pattern 70x80 mm, No. 1.13/00			
1 puller 80x85 mm, No. 1.23/1S			
1 separator puller 40-120 mm, No. 1.38/0			
1 separator puller 70-215 mm, No. 1.38/2			
1 extension rod M10, No. 1.38/AV			
1 extension rod M14x1.5, No. 1.38/CV			
1 bearing separator 5-60 mm, No. 1.40/0			
1 bearing separator 22-115 mm, No. 1.40/2			

INDIVIDUAL WALL-BOARDS AVAILABLE ON REQUEST!



## SAFETY NOTES

### PULLERS

- › Read the operating instructions!
- › Use only original spare parts and accessories for your GEDORE puller. Never use worn, modified or defective spare parts or accessories.
- › Wear goggles and protective clothing when working. For added safety, use the GEDORE safety cover 5.10!
- › Before pulling, ensure that the legs are in contact with the part to be pulled and are firmly tightened so that the spindle operates centrally along the axis of the puller.
- › Attention! When using a puller, forces of up to several tons are generated! Take care to ensure that the puller is correctly positioned and is vertical to the component being pulled.
- › Do not use electric or pneumatic power or percussion drivers.

