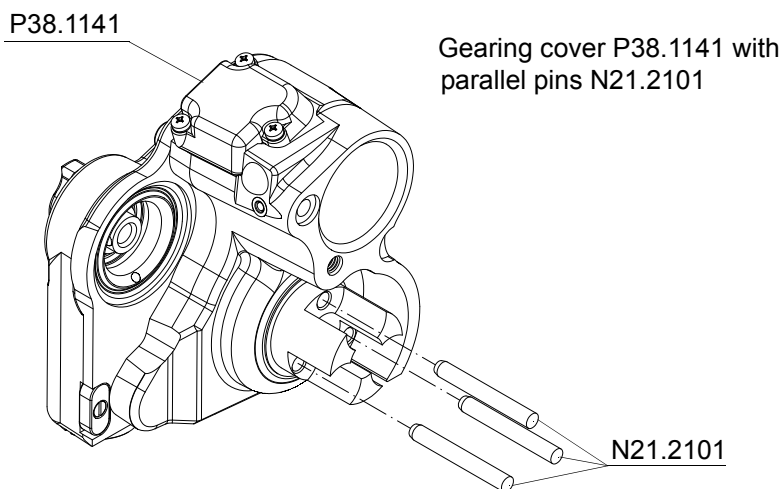
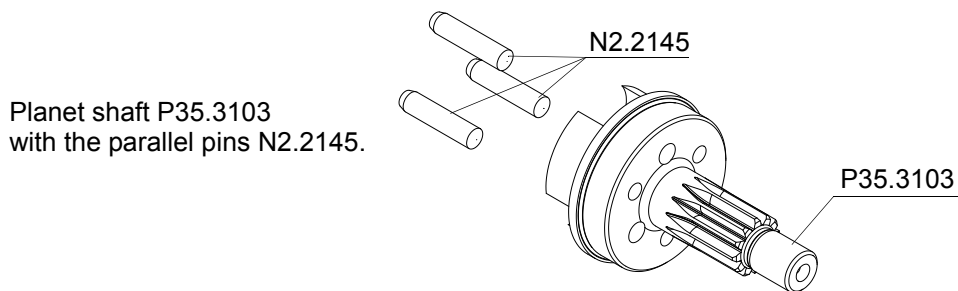
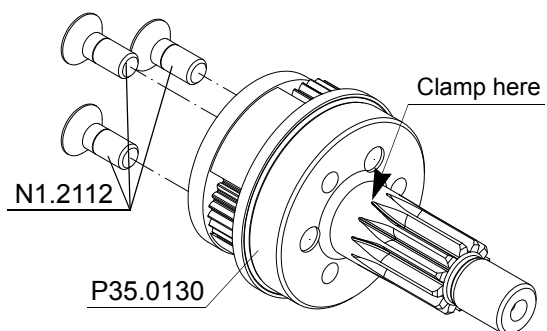


### 1.3.4 Glueing rules

Following parts have to be glued with **LOCTITE 603**:



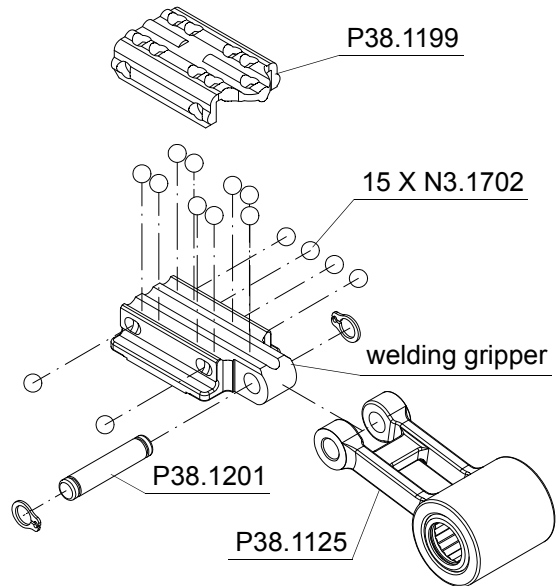
The screws N1.2112 have to be glued additionally in the planetary gear stage P35.0130 using **LOCTITE 222**. Don't clamp the planet shaft directly on the teeth when loosening or tightening the screws N1.2112.



**1.3.5 Lubrication rules**

- Lubricate the rocker P38.1125 and the bolt P38.1201 in the area of the welding jaw with **Klüber Isoflex NBU 15**.
- Lubricate the balls N3.1702, ball cage P38.1199 and the running surface of the balls on the welding gripper with **Klüber Isoflex Alltime SL2**.

Lubrication interval:  
At each maintenance or after 12 months at the latest.



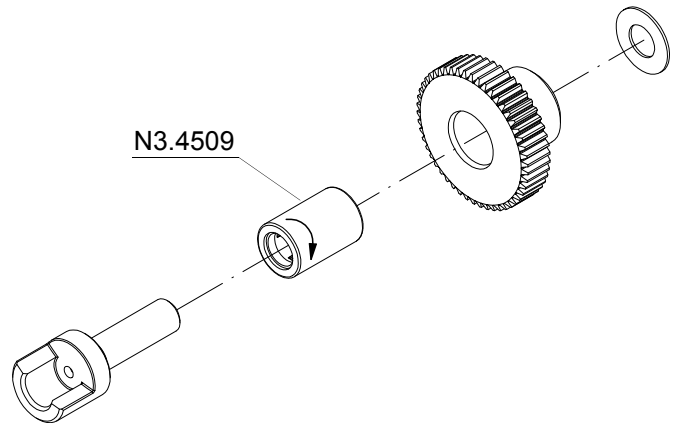
All movable gear parts have to be lubricated with **MOLYKOTE BR 2 PLUS** grease.  
Lubrication interval: At each maintenance or after 12 months at the latest.

All other parts have to be greased according to the explosion drawing.  
Lubrication interval: At each maintenance or after 12 months at the latest.

**1.3.6 Assembly information**

**Needle free wheeling:**

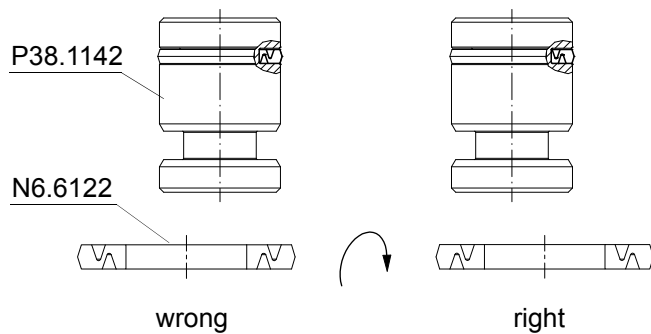
Pay attention to the assembling direction of the needle free wheeling N3.4509.  
The sense of rotation is stamped at the front of the free wheeling.



**Seal N6.6122**

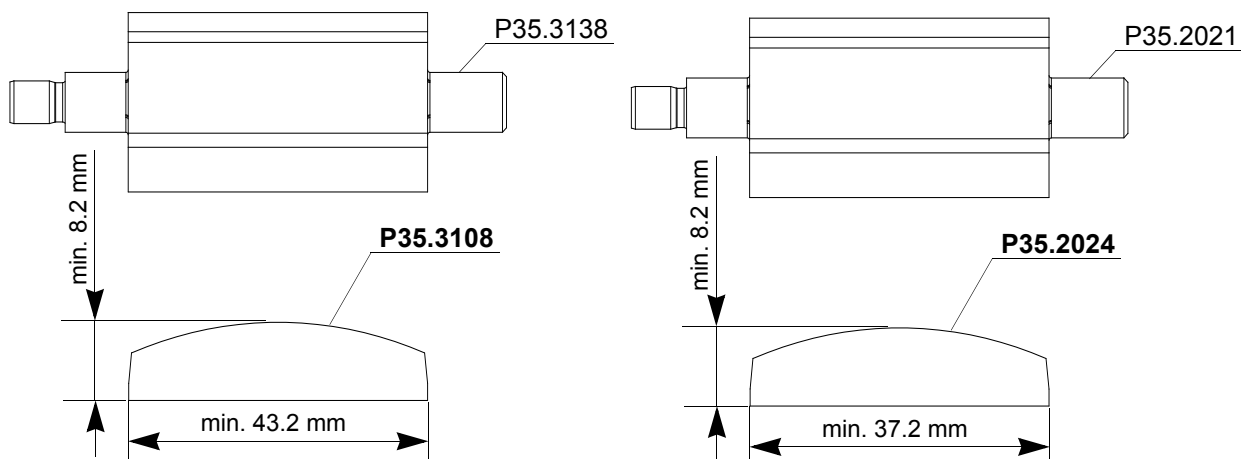
Pay attention to the mounting position of the Seal N6.6122.  
(see picture)

Grease the parts with Mobilux EP2.



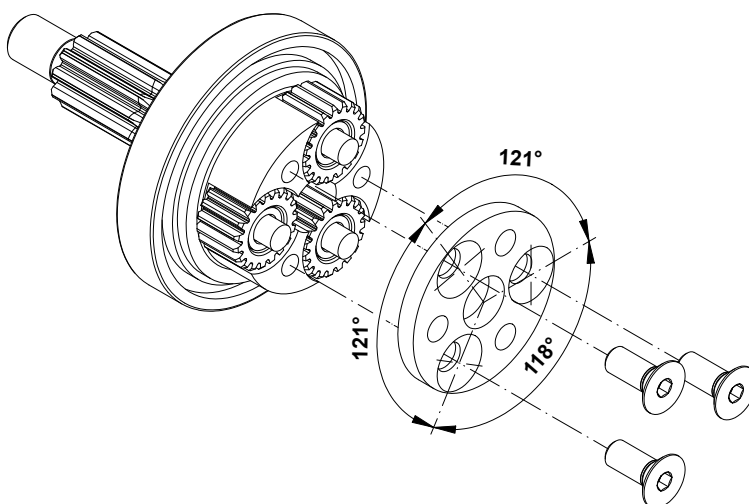
**Vane:**

If the minimum diameters (see drawing) are not reached anymore, the vanes P35.2024 or P35.3108 must be exchanged.



**Assembling of the cover P35.3105 on the idler step P35.0130**

Observe assembling direction of the cover.  
 The division of the holes is not 3x120°.  
 The cover must be easy to assemble.  
 If the cover is assembled distorted, the gear runs bad.



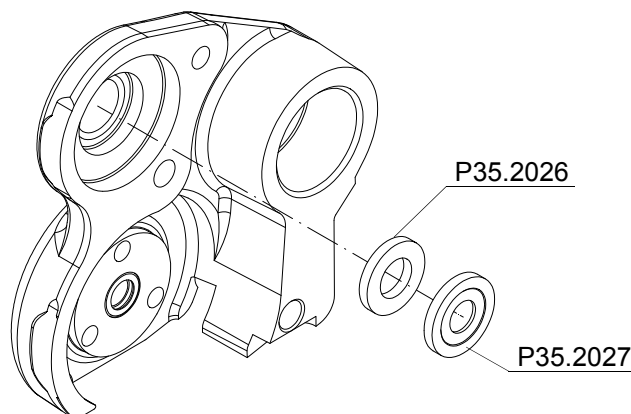
**Elastomer Spring and Thrust Piece:**

When assembling the end cover P38.1147, pay attention to the assembling direction of the spring P35.2026 and the thrust piece P35.2027. (see drawing)

Thrust piece towards the motor.

**Attach parts with grease on the motor cover!**

**The same assembling position is valid at the welding motor too!**



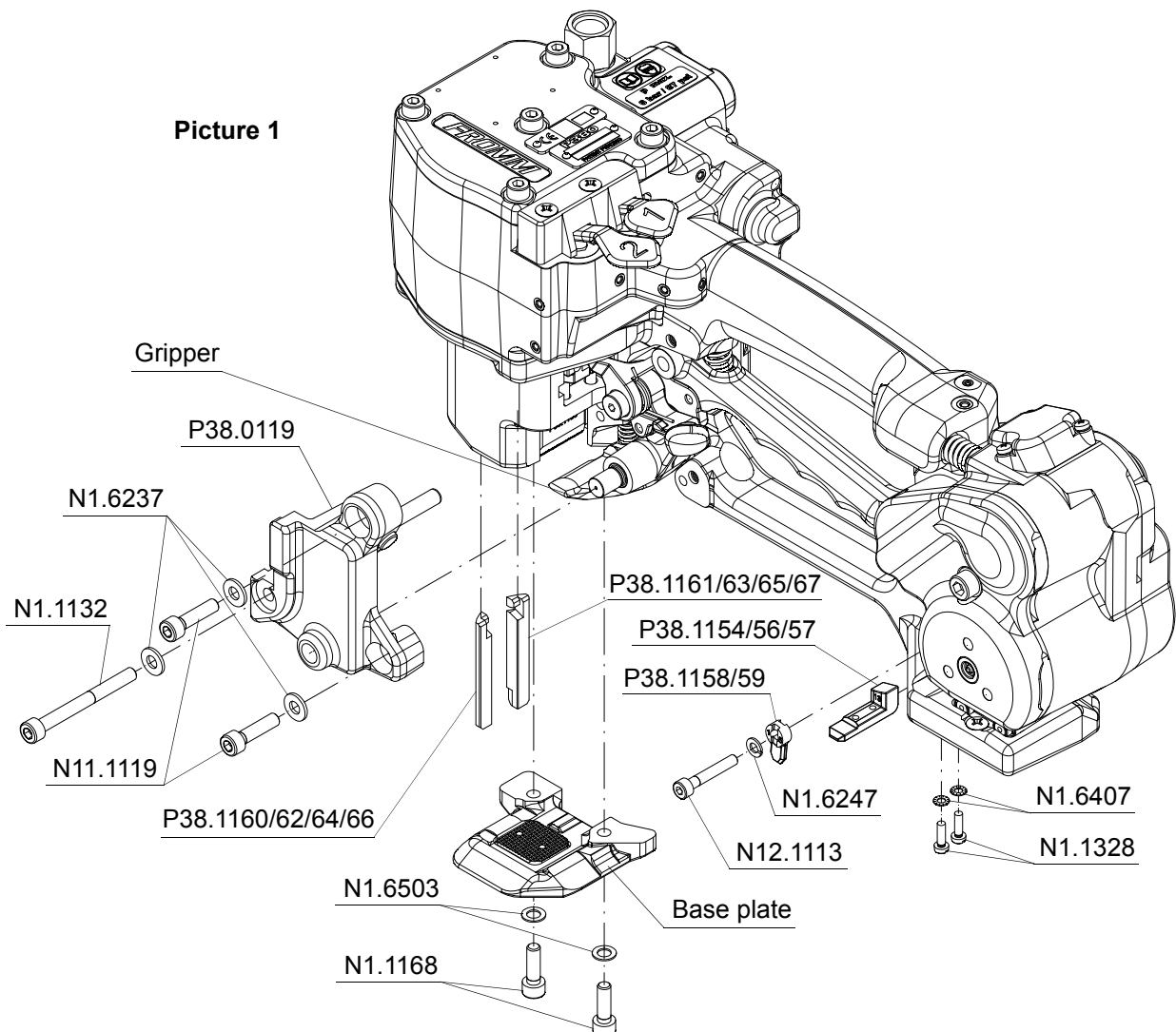
## Exchange of strap guides and strap stop

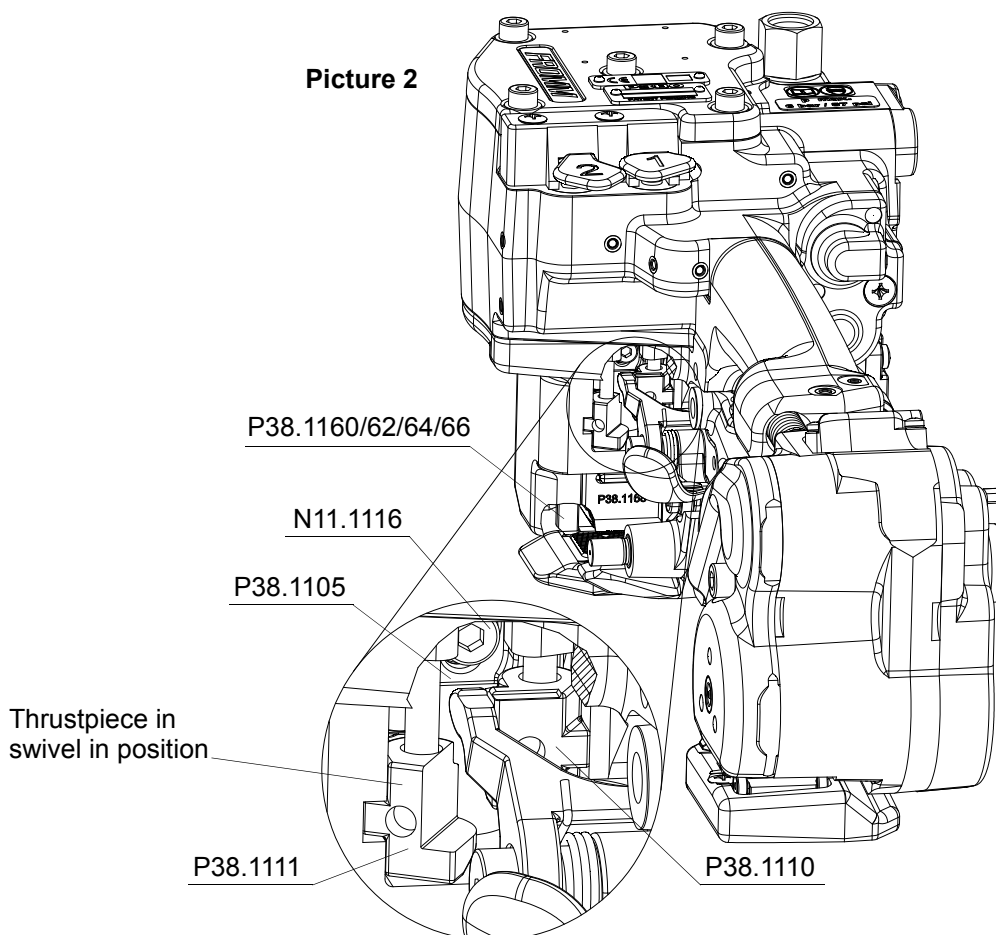
### Disassembling:

- For protection of the tooth system from the gripper a piece of plastic strap should be inserted before loosening or tightening the base plate. (therefore lift the handle)
- Unscrew base plate
- Disassemble the end cover P38.0119
- To extract the strap guides P38.1160/62/64/66 and P38.1161/63/65/67 respectively pull down the thrust pieces P38.1110 and P38.1111 and swivel them to the side. (Picture 2)  
The thrust pieces P38.1110 and P38.1111 are arranged in mirror image.
- Extract the strap guides P38.1160/62/64/66 and P38.1161/63/65/67
- Unscrew the strap guide P38.1158/59
- Disassemble the strap stop P38.1154/56/57

### Assembling:

- Set the thrust pieces to swivel in position. (Picture 2)
- When setting in the strap guides P38.1154/56/57 push them in to the level of the welding gripper.
- Swivel back the thrust pieces
- Release the strap guide and check the function. (Press in and release the strap guide 2 or 3 times)
- Assembling of strap stop P38.1154/56/57 and strap guide P38.1158/59 in opposite order.
- When assembling the strap guide P38.1158/59 pay attention to the width of the strap.  
The number of the used strap width has to show to the inside.





### Adjustment of the strap guide after service or repair work

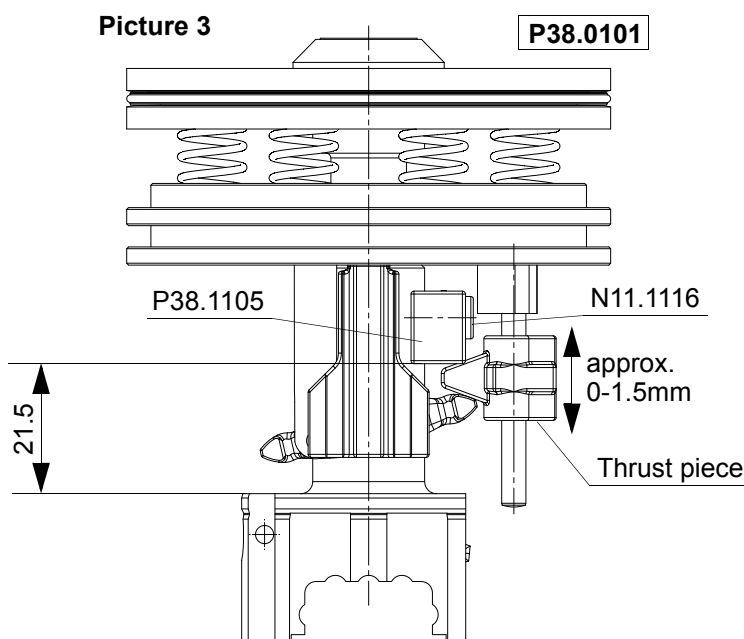
If the strap guides P38.1160/62/64/66 and P38.1161/63/65/67 don't touch the base plate or after the welding you see pressure points at the side of the upper strap you have to adjust the strap guides:

- Disconnect the tool from the air supply.
- Remove the end cover P38.0119. (Picture 1)
- The free play of the thrust pieces P38.1110 and P38.1111 should be 0 - 1.5mm otherwise they have to be readjusted.

### Readjusting with disassembled piston P38.0101 (Picture 3):

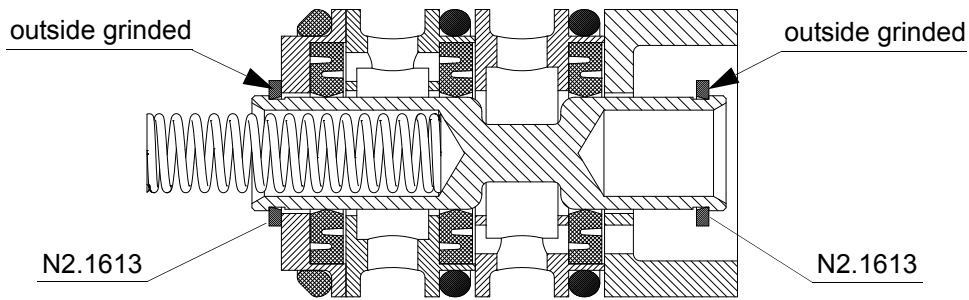
- Loose the screw N11.1116.
- Preset the pusher P38.1105 to the measure 21.5mm
- Increasing of the preset measure 21.5mm increases the free play.  
Decreasing of the preset measure 21.5mm decreases the free play.

**In order to check the free play the piston must be assembled again!  
The free play must be sensed by moving up and down the thrust piece.**



**Assembling of the valve P38.0103**

Pay attention to the assembling position of the spring ring N2.1613. The grinded side must show to the outside.



**1.4 RECOMMENDED SPARE PARTS**

Following spare parts are recommended for stock keeping:

Item-No.	Description	Pieces per tool
N1.1168	Screw	2
N1.1306	Screw	2
N1.1807	Raised ctrs. head screw	4
N1.1808	Raised ctrs. head screw	3
N1.1813	Raised ctrs. head screw	3
N1.1820	Raised ctrs. head screw	2
N1.6407	Tooth washer	4
N1.6503	Safety washer	2
N2.1121	Security ring	2
N2.1613	Spring ring	2
N3.1702	Ball	21
N5.2702	Cover	2
N6.6233	O-Ring	3
N6.6262	O-Ring	1
N6.6264	O-Ring	1
N6.6268	O-Ring	1
P35.2024*	Vane	5
P35.3108*	Vane	5
P35.3202*	Tensioning Wheel (for 0.40 - 0.64 mm Strap thickness)	1
P35.3203*	Tensioning Wheel (for 0.65 - 1.35 mm Strap thickness)	1
P38.1151*	Slide jaw	1
P38.1168*	Cutter (for 0.40 - 0.64 mm Strap thickness)	1
P38.1169*	Cutter (for 0.65 - 1.35 mm Strap thickness)	1
P38.1170*	Gripper (for 0.40 - 0.64 mm Strap thickness)	1
P38.1172*	Gripper (for 0.65 - 1.35 mm Strap thickness)	1
P38.1187*	Welding stop gripper	1
P38.1197*	Welding gripper (for 0.40 - 0.64 mm Strap thickness)	1
P38.1198*	Welding gripper (for 0.65 - 1.35 mm Strap thickness)	1
P38.1199	Ball cage	1
P38.1201	Bolt	1

\*= wearing parts

Stock only parts from tools that are in sale.

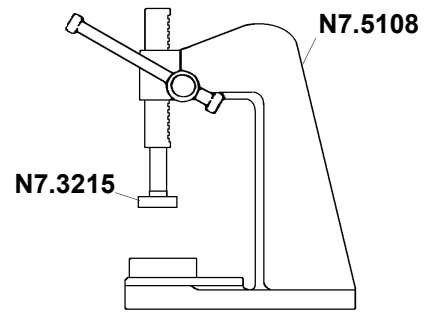
## 1.5 ACCESSORY TOOLS

Item number	Description	Application
N71.3247	Press in and press out pressure pad	N3.1157/P35.3103
N71.3264	Press in and press out arbor	N3.1157/P35.3103
N71.3237	Press in and press out arbor	N3.1159/P32.1037 and N3.2356/P38.1147
N71.3238	Press in and press out pressure pad	N3.1159/P32.1037
N71.3235	Press in and press out arbor	N3.4509/P38.1140
N72.3203	Press in and press out pressure pad	N3.4509/P38.1140
N71.3244	Press out arbor	N3.1134, P32.1023/P32.1732
N71.3245	Pressure pad	N3.1134, P32.1023/P32.1732 and N3.2356/P38.1147
N71.3240	Press out arbor	N3.2347/P38.1125
N71.3241	Press in and press out pressure pad	N3.2347/P38.1125
N71.3266	Press out arbor	N3.2356/P38.1147
N71.3280	Press out pressure pad	P32.1023/P35.0140
N71.3255	Sleeve	P32.1023/P35.0140
N71.3254	Press on arbor	P32.1023/P35.0140
N71.3281	Press on pressure pad	P32.1023/P35.0140
N71.3277	Thrust piece	P35.3138 resp. P35.2021/ P35.2023, N3.1174
N71.3276	Pressure pad	P35.3138 resp. P35.2021/ P35.2023, N3.1174
N71.3274	Hook	P35.2005, P35.3129, P35.3157, P35.3145, P35.2059/P38.1112
N71.3299	Hook	P35.3114/P38.1112
N72.3201	Spring clamp	P38.1104/P38.0101

Partly some of these tools are already used for other models.

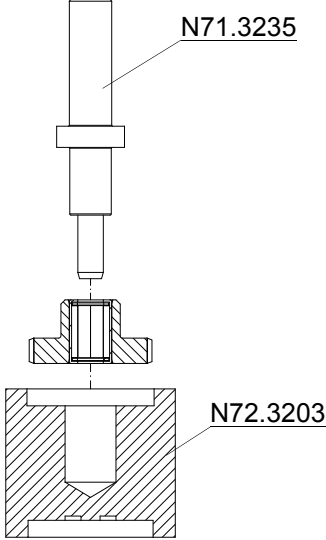
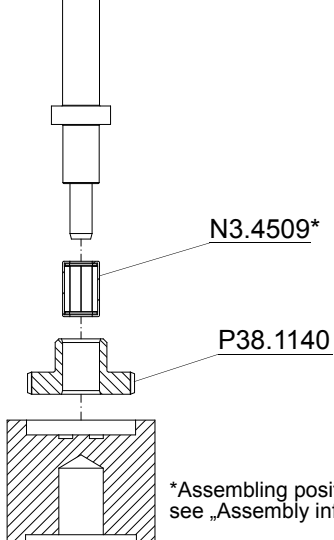
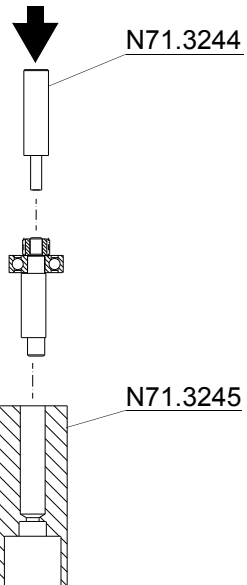
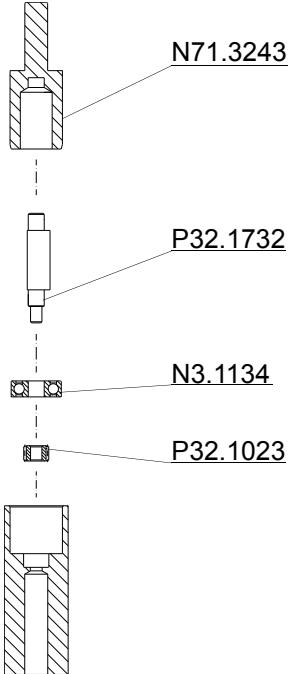
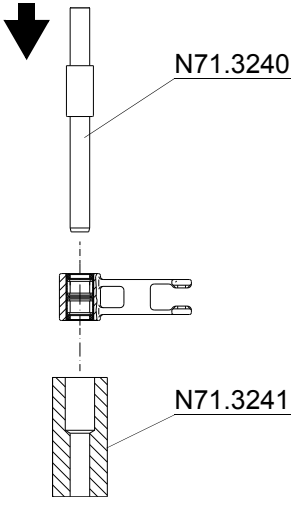
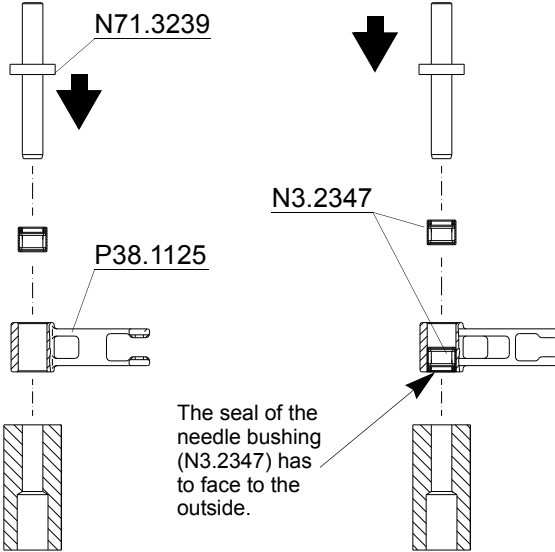
**1.5.1 Use of accessory tools**

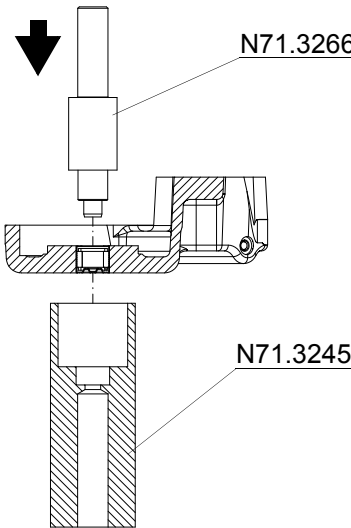
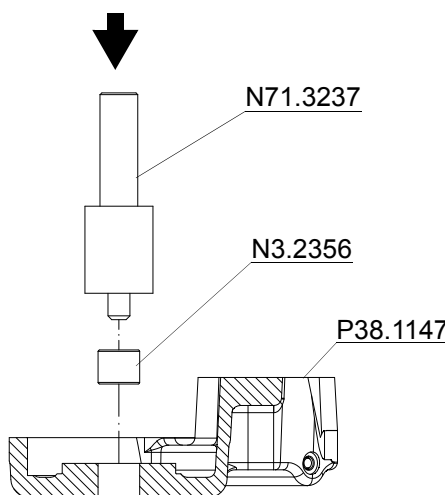
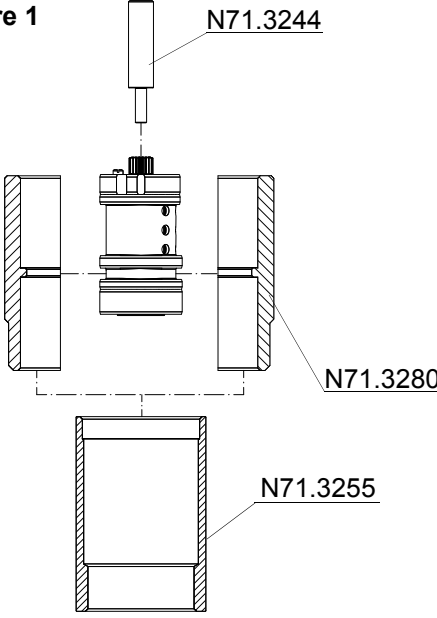
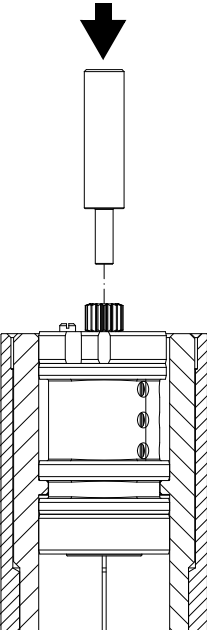
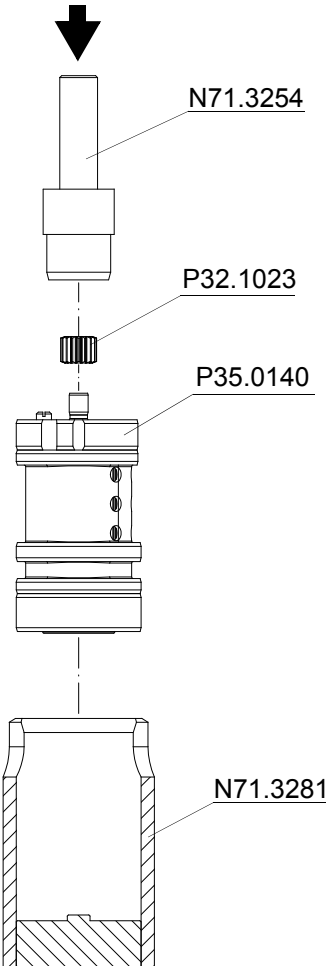
Accessory tools should only be used with the suitable arbor press N7.5108 in order to avoid a tilt of the pressed in parts. Additional a retainer (N7.3215) is necessary.



Part	Disassembly	Assembly
<p>N3.1157/ P35.3103</p>		
<p>N3.1159/ P32.1037</p>		



Part	Disassembly	Assembly
<p>N3.4509/ P38.1140</p>	 <p>N71.3235</p> <p>N72.3203</p>	 <p>N3.4509*</p> <p>P38.1140</p> <p>*Assembling position see „Assembly information“</p>
<p>P32.1023/ N3.1134/ P32.1732</p>	 <p>N71.3244</p> <p>N71.3245</p>	 <p>N71.3243</p> <p>P32.1732</p> <p>N3.1134</p> <p>P32.1023</p>
<p>N3.2347/ P38.1125</p>	 <p>N71.3240</p> <p>N71.3241</p>	 <p>N71.3239</p> <p>N3.2347</p> <p>P38.1125</p> <p>The seal of the needle bushing (N3.2347) has to face to the outside.</p>

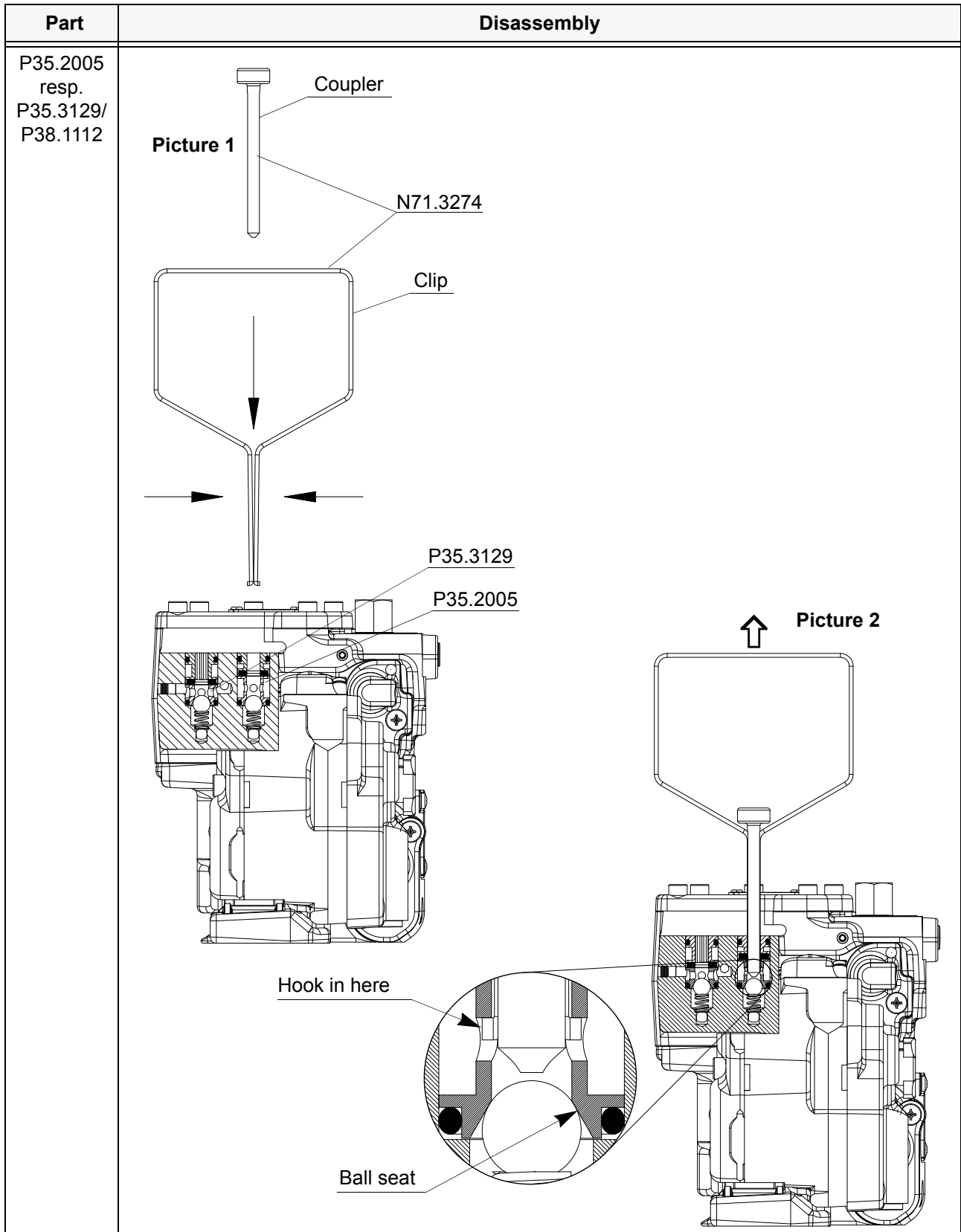
Part	Disassembly	Assembly
<p>N3.2356/ P38.1147</p>		
<p>P32.1023/ P35.0140</p>	<p><b>Picture 1</b></p>  <p><b>Picture 2</b></p> 	

Part	Disassembly	Assembly	
P35.2023/ N3.1174/ P35.3138 resp. P35.2021	<p><b>Commercially available Puller.</b></p>	<p>N71.3277</p> <p>P35.3138 P35.2021</p> <p>P35.2023</p> <p>N3.1174</p> <p>N71.3276</p>	<p>The distance between rotor (P35.3138 resp. P35.2021) and end plate (P35.2023) should be 0.03 mm</p> <p>0.03 mm</p>

**Proceeding for valve disassembling:**

- Press clip together and insert it into the hole, until it snaps into the shown position
- Insert coupler pull out exhaust ring

**Attention!**  
**When disassembling the valves don't damage the ball seat.**



Part	Disassembly
<p>P35.3157/ P38.1112</p>	<p>P35.3157</p> <p>N71.3274</p> <p>Hook in here</p>
<p>P35.3145/ P38.1112</p>	<p>P35.3145</p> <p>N71.3274</p> <p>Hook in here</p>

Part	Disassembly
<p>P35.2059/ P38.1112</p>	<p>Hook in here</p> <p>N71.3274</p> <p>P35.2059</p>
<p>P35.3114/ P38.1112</p>	<p>N71.3299</p> <p>P35.3114</p> <p>Hook in here</p>

## Exchange of thrust pieces P38.1104

### Disassembling:

Required tools: punch  $\varnothing$  max. 2.8mm, spring clamp N72.3201 and arbour press

- Press down the spring bolt P38.1103 through the bore of the thrust piece P38.1104.
- Push the spring clamp N72.3201 between thrust piece P38.1104 and spring bolt P38.1103.

### Attention!

Disassembling and assembling of the bolt N2.2112 has only to be made from the side which is shown in picture 2.

(In order to not damage the press fit)

- Disassemble the bolt N2.2112 by using a punch
- Disassemble thrust piece P38.1104

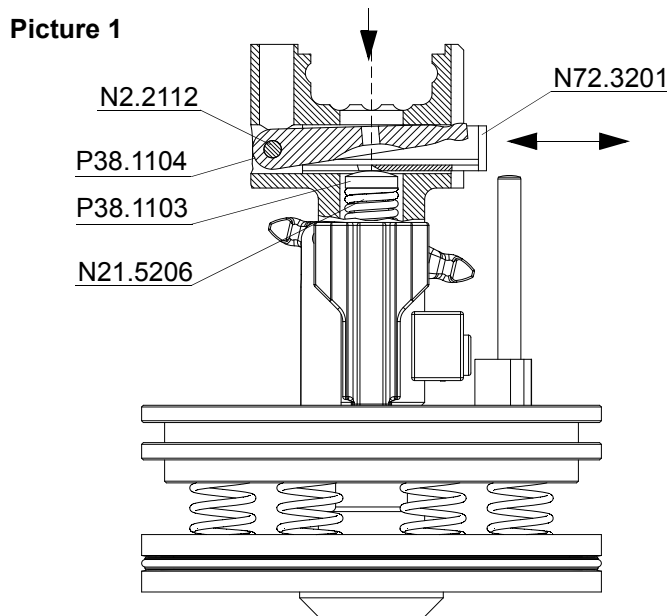
**Attention danger of injury! Do not yet remove the spring clamp.**

Spring bolt P38.1103 and spring N21.5206 jump out of the piston when removing the spring clamp N72.3201.

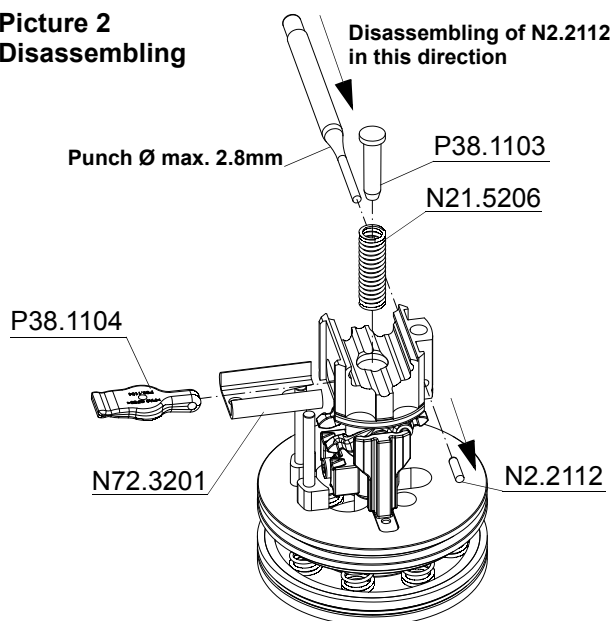
Assembling in opposite order.

**Attention! Bolt N2.2112 must not protrude out of the bores.**

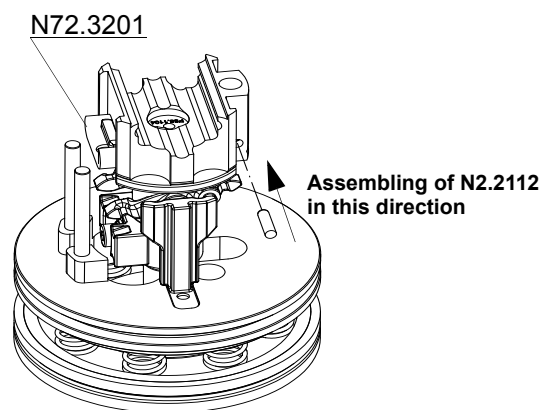
Remove the spring clamp N72.3201 after the assembling.  
(Pull at the bore of spring clamp by using a punch.)



**Picture 2  
Disassembling**



**Picture 3  
Assembling**



## 1.6 ORDERING SPARE PARTS

On principle spare part numbers should be taken from the drawings or spare parts lists. Check if the version number of the tool and the spare parts list are the same.

Type dependent spare parts should be ordered as follows:

### Ordering example

Ordering a tensioning wheel:

- Take item numbers of the tensioning wheel from drawing (P35.3202/03)
- Find out the tool type in which the tensioning wheel should be assembled (e.g. 49.3801)
- Find out the item number of the needed tensioning wheel by using the type dependent spare parts lists (for type 49.3801, it is tensioning wheel P35.3202)

Order as follows if 10 tensioning wheels are needed:

**P35.3202          Tensioning wheel          10 pcs.**

### 1.6.1 Ordering manuals

When converting tools make sure that the used manual has still validity.

If tools change their item number because of the conversion (see chart of types) the adequate manual must be ordered as follows.

#### Ordering example:

Tool item number: 49.3801

Version number: 01

Language of the manual: German

The manual order for this tool must look as follows:

**49380101.de**

If the manual is needed in another language replace the shorthand expression "de" (see table).

<b>de</b>	<b>German</b>
<b>en</b>	<b>English</b>
<b>fr</b>	<b>French</b>
<b>it</b>	<b>Italian</b>
<b>fin</b>	<b>Finnish</b>
<b>nl</b>	<b>Dutch</b>
<b>po</b>	<b>Portuguese</b>
<b>se</b>	<b>Swedish</b>
<b>sp</b>	<b>Spanish</b>
<b>ru</b>	<b>Russian</b>
<b>cz</b>	<b>Czech</b>
<b>pl</b>	<b>Polish</b>

### 1.6.2 Ordering address

Spare parts and manuals can be ordered at:

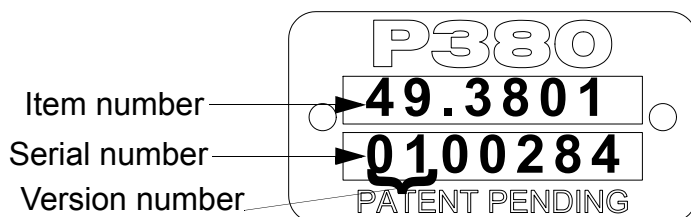
Fromm Holding AG  
Hinterbergstrasse 26  
CH-6330 Cham  
Switzerland

Tel.: +41(0) 41 741 57 41  
Fax: +41(0) 41 741 57 60  
e-mail: spares@fromm-pack.com



### 1.6.3 Finding out of the tool type (item number), the serial number and the version number:

#### Type label P380



## 5.7 SERVICE ADDRESS

You will get further assistance and information at:

Fromm System GmbH  
Technical customer support  
Neulandstr. 10  
D-77855 Achern  
Germany

Phone: +49(0)7841 / 62 94-22  
Fax: +49(0)7841 / 62 94-11

e-mail: [de@fromm-pack.com](mailto:de@fromm-pack.com)