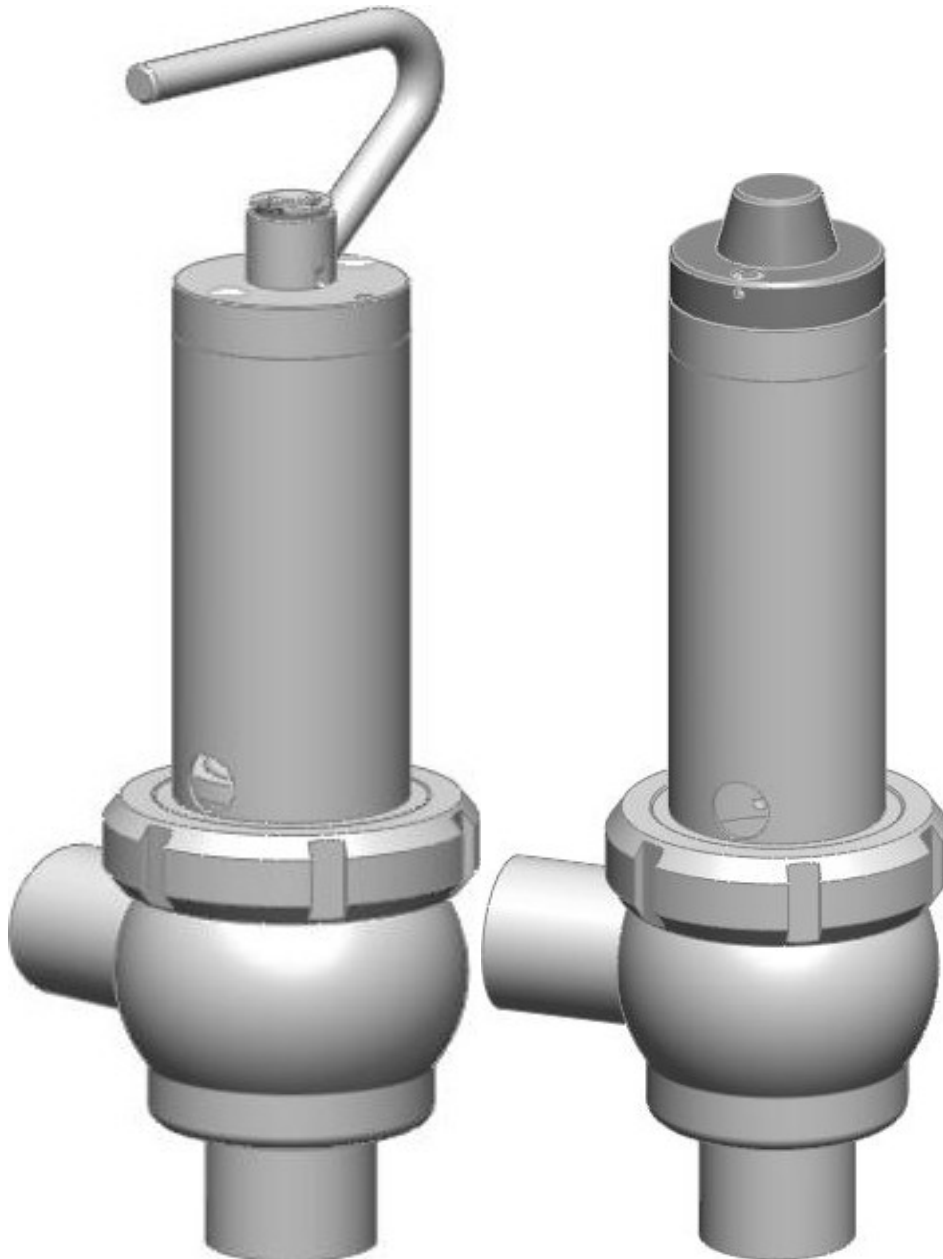


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## PRESSURE RELIEF VALVE

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## 1 CHANGE MANAGEMENT

CHANGES	INDEX	DATE	PAGE(S)	INITIALS
New version	1	December 2008	/	G. ANDRE
Add springs references for DN2"	2	December 2010	15	N. CROZIER
Add Pressure relief valve body clamp	3	August 2012	15	G.BEGAUD
Change of reference pin (rep 25)	4	January 2015	12/15	G.BEGAUD

## 2 **SAFETY**

### 2.1 **IMPORTANT INFORMATION**

Always read the maintenance notice before manipulating the valve



**DANGER !**

Failure to observe these instructions can result in serious bodily injury or loss of life.



**CAUTION**

This can also result in less serious injuries or damage to the equipment.



**DANGER !**

Electricity can result in serious bodily injury or loss of life.



**CAUTION !**

This can also result in less serious injuries or damage to the equipment.

### 2.2 **GENERAL INFORMATION**



**NOTE**

The following advice is given to ensure optimum use of the equipment.

- The tasks must be performed in the order specified.

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## Pressure Relief Valve MAINTENANCE NOTICE

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### 3 INTRODUCTION

The pressure relief valve is disassembled in 2 separate stages:

#### **3.1 DISASSEMBLING THE BODY (changing the internal seals)**

This operation enables access to the plug seals (Changing the seals) and the removal of the actuator.

This is a straightforward procedure and can be performed on-site as it does not present any particular problems.

This is the case in the majority of maintenance operations for this type of equipment.

#### **3.2 DISASSEMBLING THE ACTUATOR (changing the internal parts)**



**DANGER !**

**CAUTION:** This operation must be performed using a special tool ensuring that the necessary precautions are taken (**STRESSED SPRING**)



**NOTE**

**NOTE :** After carrying out any maintenance work on DEFINOX products it is essential that you check the correct function of the equipment concerned : tightness, pressure, etc...

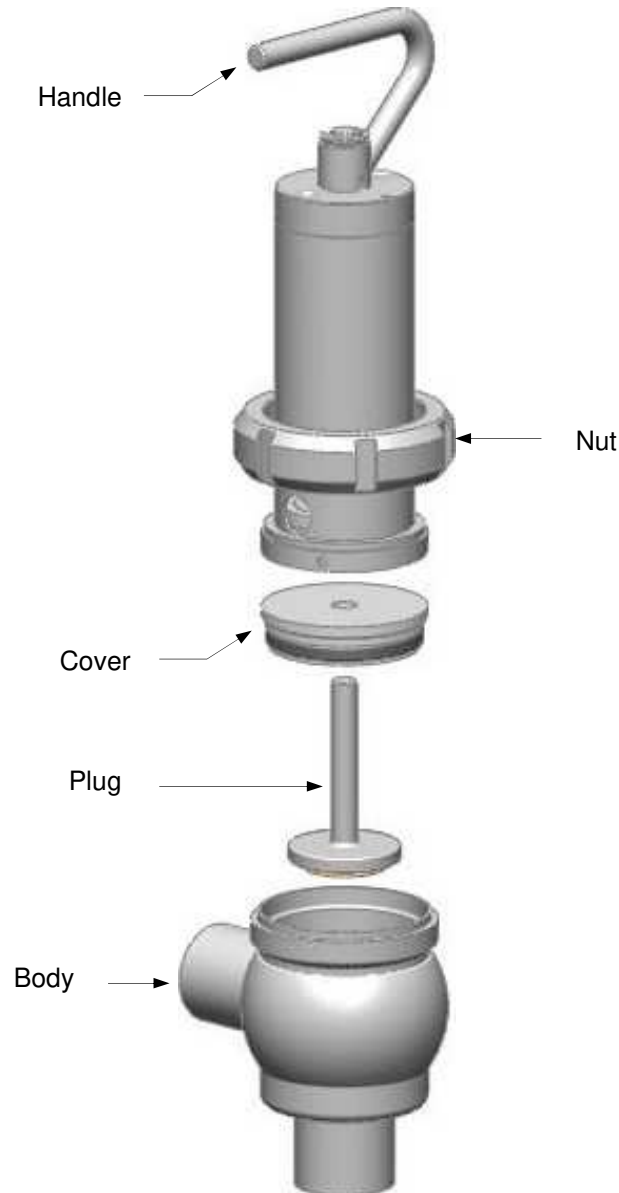


**PRESSURE RELIEF VALVE**

## 4 DISASSEMBLING THE PRESSURE RELIEF VALVE

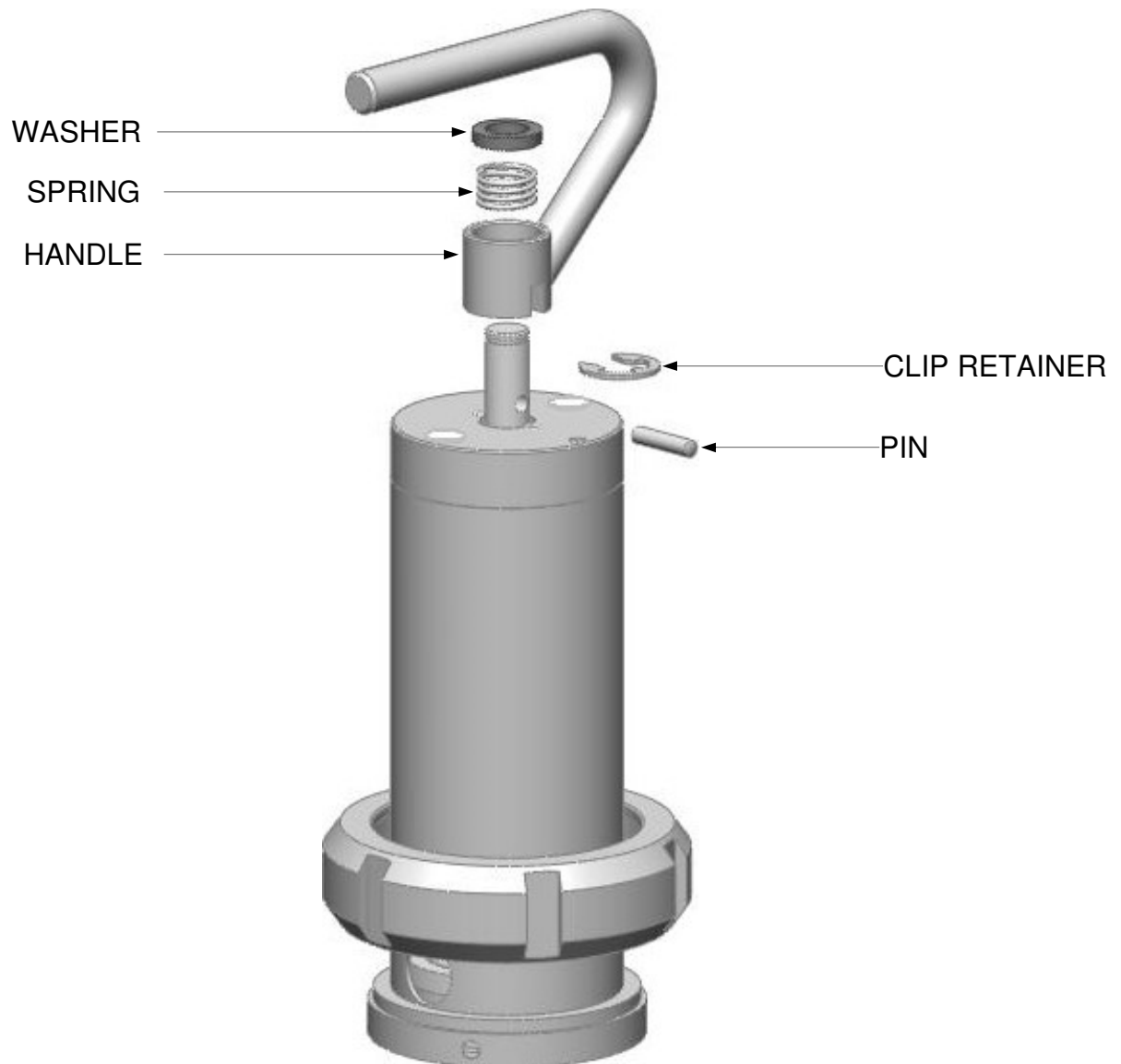
### 4.1 DISASSEMBLING THE PRESSURE RELIEF VALVE NUT

- Turn the handle to relieve the pressure on the nut from the spring.
- Unscrew the nut.
- Remove the actuator assembly, the cover and the valve from the body.



#### 4.2 **DISASSEMBLING THE HANDLE**

- Remove the clip retainer from its shaft.
- Remove the washer, the spring and the handle.
- Drive the pin out its shaft.



### 4.3 DISASSEMBLING THE INTERNAL ACTUATOR COMPONENTS

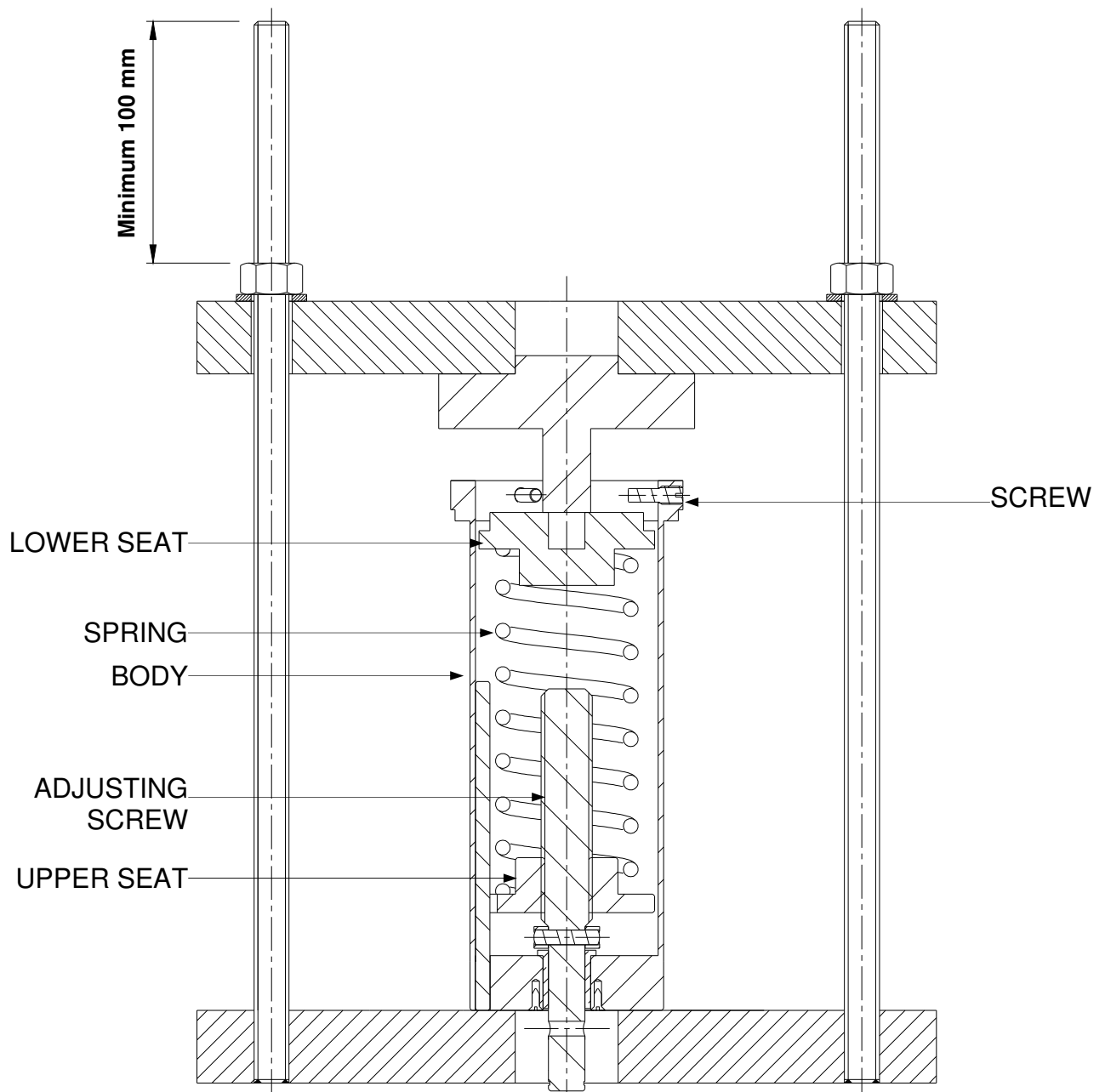


**DANGER !**

**WARNING:** This operation is dangerous if the right tools are not used (Take spring expansion into account for the tooling).

With the actuator placed in vertically:

- Push down the lower seat to reduce the force of the seat on the screws.
- Remove the screws so you can take out the lower seat
- Release the pressure to allow the seat to rise back up.
- Remove the lower seat, the spring, the adjusting screw and the upper seat from the actuator body.





## 5 CHANGING SEALS AND REASSEMBLY

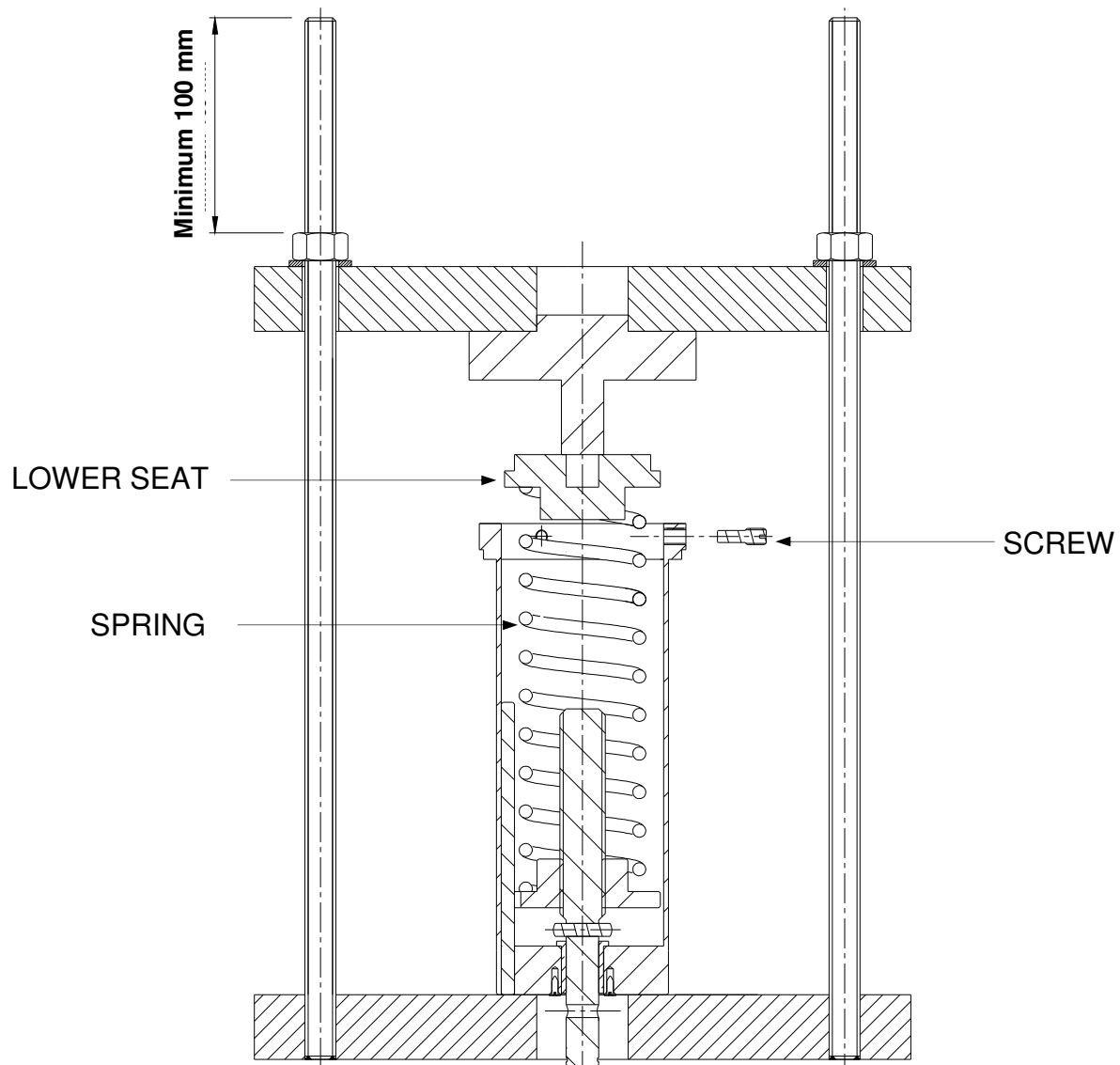
### 5.1 INTRODUCTION

The components of our pressure relief valves are listed and identified in this notice, together with all the information you need to order your spare parts.

### 5.2 ASSEMBLING THE ACTUATOR

This procedure is performed in the reverse order to disassembly. However, it is necessary to take into account the following information:

- Before reassembling the parts, ensure that the assembly is lubricated with an appropriate lubricant (water-resistant and temperature-resistant food grade grease → E.g., for information: 4025 H1 QUINPLEX by Lubrication Engineers). Ensure that the grease used is compatible with the elastomer seals.
- Take care not to damage the cover seals during assembly.
- Make sure the screws are properly tightened (they must not protrude) before releasing the pressure.
- Test operation of the actuator before continuing assembly.



### **5.3 CHANGING THE VALVE SEALS**

To change EPDM seals, follow the guidelines given below:

- Remove the defective seal using a cutter taking care not to mark the bearing surface of the plug (protect the stainless steel surface using the edge of a steel rule or a plastic off-cut),
- Insert the seal from one side of the groove and then gradually push it into its housing.



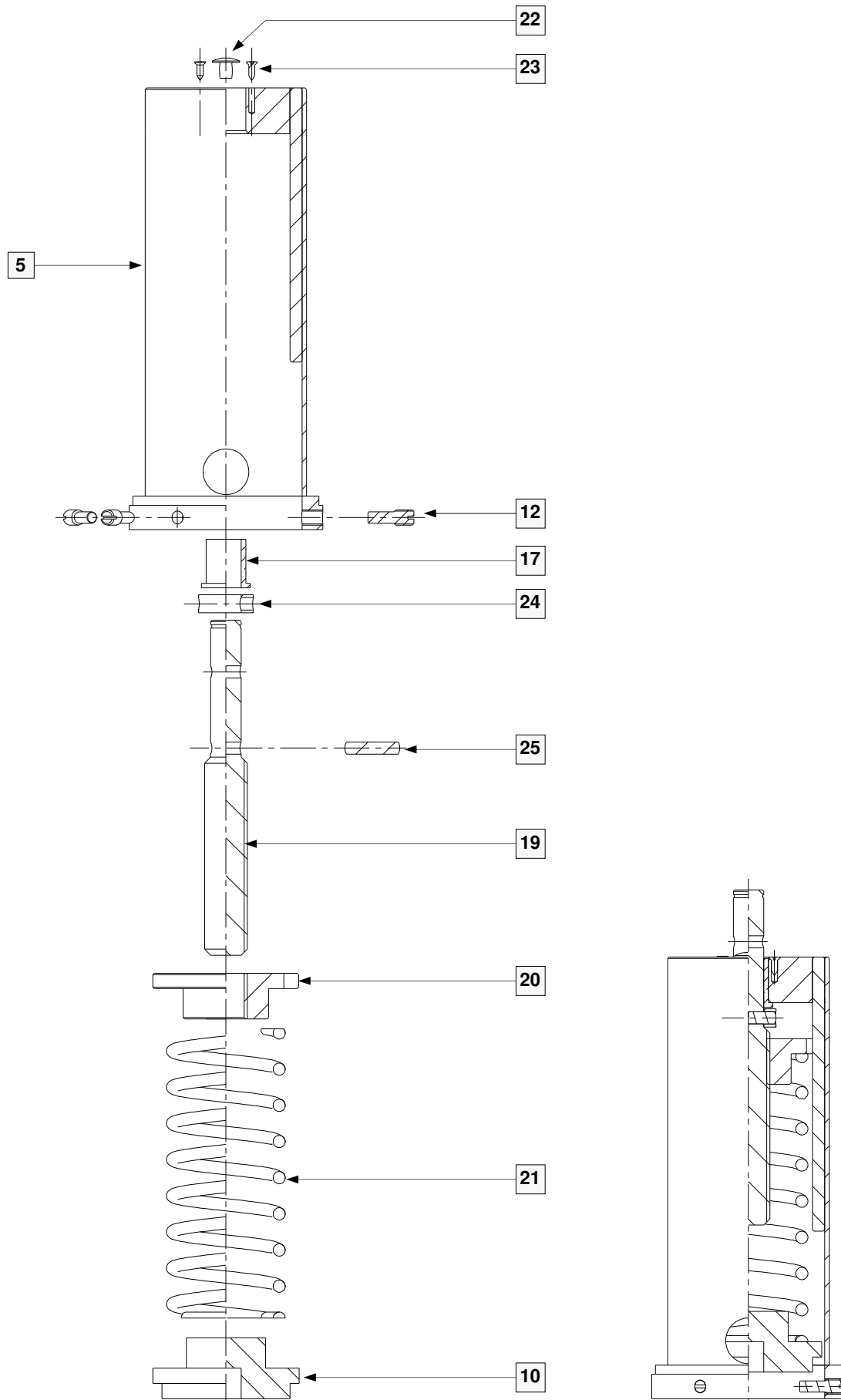
### **5.4 REASSEMBLING THE PRESSURE RELIEF VALVE**

This procedure is performed in the reverse order to dismantling. You should follow the guidelines given below:

- Don't forget to unscrew the handle to relieve the pressure from the spring before tightening the nut.
- If you encounter problems when carrying out the operations described above, do not hesitate to contact us.
- You can also contact us regarding maintenance of your pressure relief valves either onsite or at our own premises.

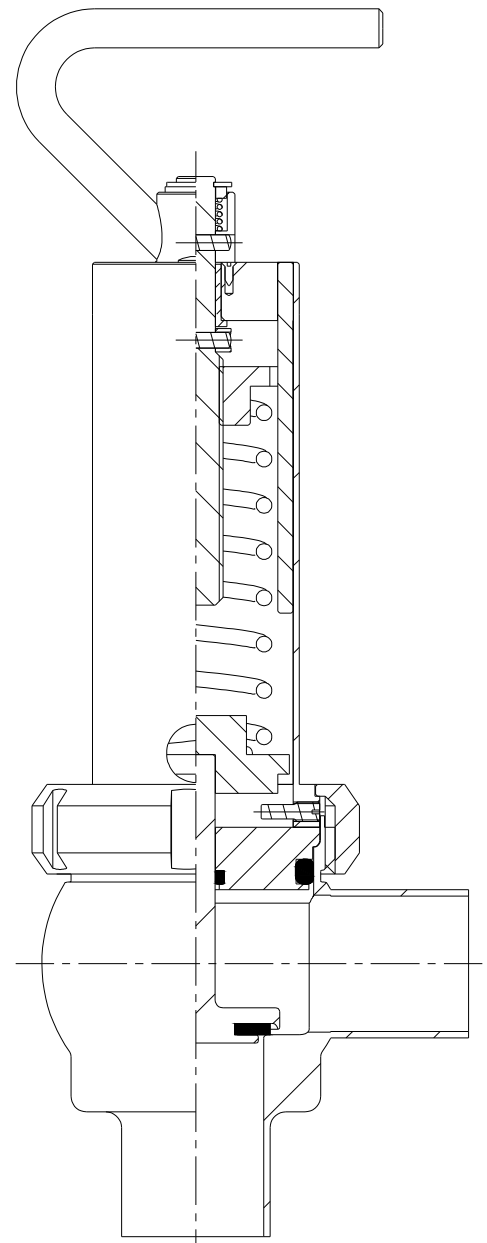
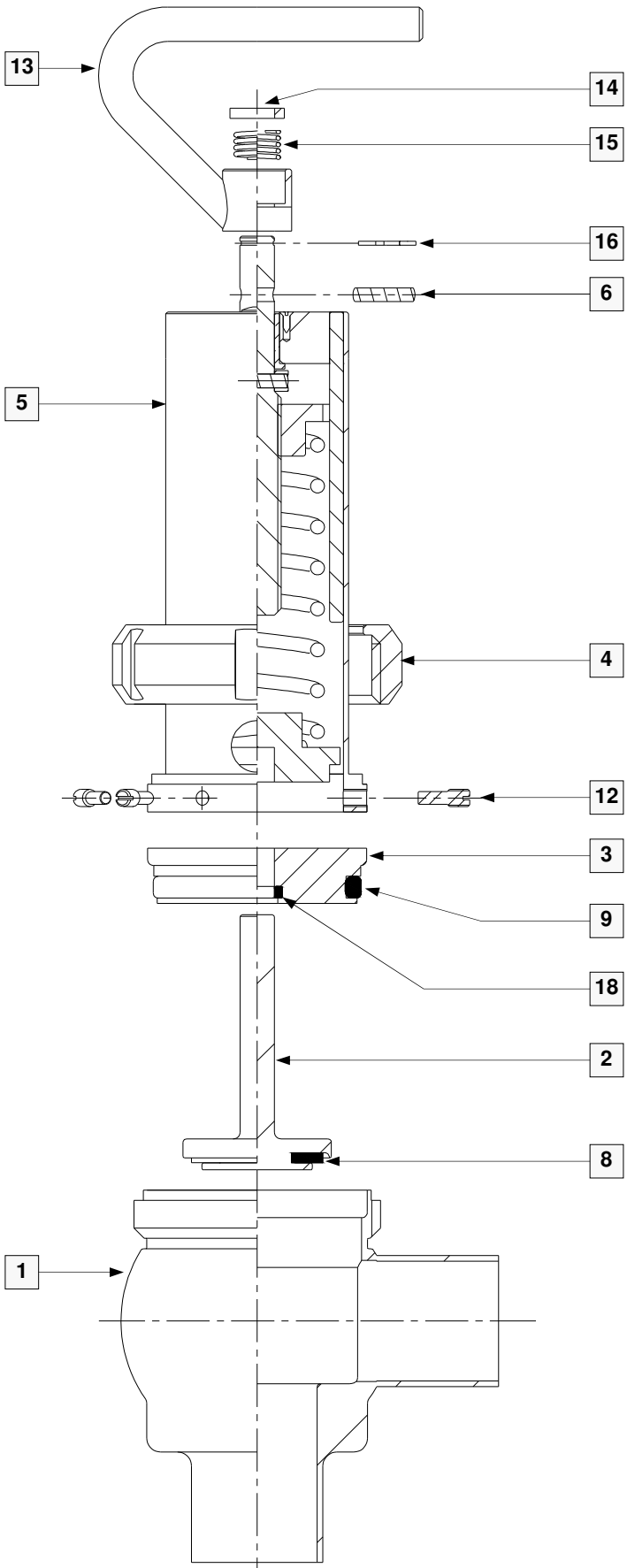
6 PARTS

6.1 PRESSURE RELIEF VALVE ACTUATOR

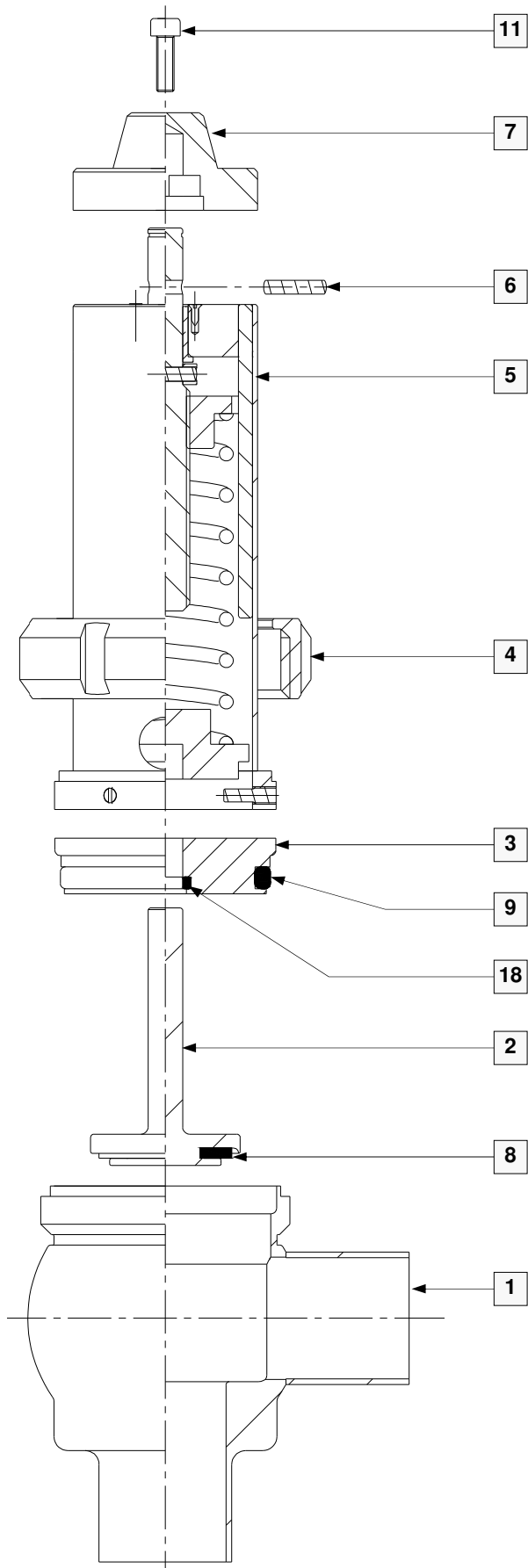


**6.2 ADJUSTABLE HANDLE PRESSURE RELIEF VALVE**

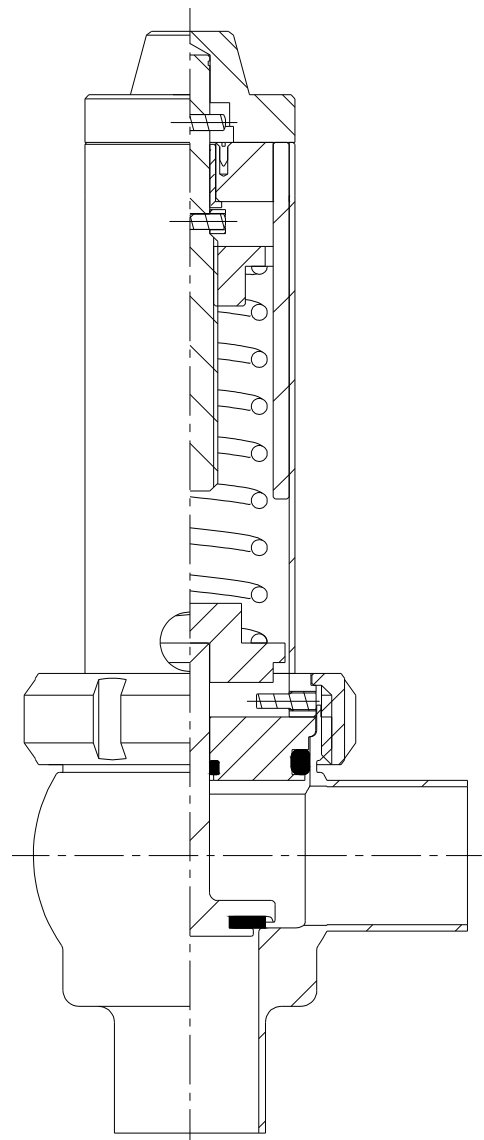
Seals kits: **A1, A2**



**6.3 SET PRESSURE RELIEF VALVE**



Seals kits: **A1, A2**



**6.4 LIST OF PRESSURE RELIEF VALVE PARTS DN1"1/2 AND DN2"**

Ref.	Part name	Qty	DN1"1/2	DN2"
1	Pressure relief valve body	1	7504006	7504206
1	Pressure relief valve body clamp	1	7504035	7504243
2	DCX3 Pressure Relief valve	1	7504011	7504211
3	Safety valve cover	1	7504017	7504217
4	SMS nut	1	7440821	7441121
5	Safety valve dome cover	1	7504001	7504201
6	Pin	2	7007201	
7	Safety valve cap	1	7504101	7504301
8	Elastomer plug O-ring <b>EPDM FDA</b>	1	7000015	7000016
8	Elastomer plug O-ring <b>FKM FDA</b>	1	7500161	7500212
9	Outer cover O-ring <b>EPDM FDA</b>	1	7380143	7006235
9	Outer cover O-ring <b>FKM FDA</b>	1	7013683	7006130
10	Safety valve lower seat	1	7504018	7504218
11	CHC cap screw	2	7006740	
12	Pressure relief valve M5 screw	3	7006840	
13	Safety valve handle	1	7504022	
14	Safety valve washer	1	7504025	
15	Handle spring	1	7007703	
16	Compression ring	1	7007429	
17	Ring with skirt	1	7009910	
18	Cover O-ring <b>EPDM FDA</b>	1	7006004	7006191
18	Cover O-ring <b>FKM FDA</b>	1	7380610	7006114
19	Safety valve adjusting screw	1	7504019	7504219
20	Safety valve upper seat	1	7504020	7504220
21	Pressure relief valve spring	1	See table below	
22	Cap	1	7009086	
23	KA dome cover screw	2	7006878	
24	Safety valve skirt	1	7504021	7504221
25	Pin for safety valve adjusting screw	1	7007201	7007213

Springs		
Valve setpoint (bar)	DN1"1/2	DN2"
0 – 3,5	7504026	7504226
3,5 – 7,5	7504028	7504228
7,5 – 12	7504029	7504229

**6.5 LIST OF PART NUMBERS FOR PRESSURE RELIEF VALVE SEAL KITS**

Description			DN1"1/2	DN2"
For details of kits A, see following chapter	<b>1</b>	<b>EPDM FDA</b> safety valve seat kit	7071165	7071167
	<b>2</b>	<b>FKM FDA</b> safety valve seat kit	7071166	7071168

**6.6 DETAILS OF PRESSURE RELIEF VALVE SEAL KITS**

**EPDM FDA** pressure relief valve seal kits:

<b>A1</b>		<i>Diameter</i>		DN1"1/2	DN2"
<b>Kit No.:</b>				<b>7071165</b>	<b>7071167</b>
Ref.	Part name	Qty	Seal reference		
8	<i>Elastomer plug O-ring</i> <b>EPDM FDA</b>	1	7000015	7000016	
9	<i>Outer cover O-ring</i> <b>EPDM FDA</b>	1	7380143	7006235	
18	<i>Cover O-ring</i> <b>EPDM FDA</b>	1	7006004	7006191	

**FKM FDA** pressure relief valve seal kits :

<b>A2</b>		<i>Diameter</i>		DN1"1/2	DN2"
<b>Kit No.:</b>				<b>7071166</b>	<b>7071168</b>
Ref.	Part name	Qty	Seal reference		
8	<i>Elastomer plug O-ring</i> <b>FKM FDA</b>	1	7500161	7500212	
9	<i>Outer cover O-ring</i> <b>FKM FDA</b>	1	7013683	7006130	
18	<i>Cover O-ring</i> <b>FKM FDA</b>	1	7380610	7006114	

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**FRANCE**

DEFINOX SAS  
3 Rue des Papetiers - Z.A.C de Tabari 2  
44190 CLISSON - France  
Tel : +33 (0)2 28 03 98 50 Fax : +33 (0)2 28 03 88 00  
[info@definox.com](mailto:info@definox.com)

**USA**

DEFINOX INC.  
16720 W. Victor Road  
New Berlin – WISCONSIN 53151 – USA  
Tel : (1) 262 797 5730 - Fax : (1) 262 797 5735  
[lbuckett@definox-usa.com](mailto:lbuckett@definox-usa.com)

**CHINA**

DEFINOX Beijing Stainless Steel Equipment Ltd  
No 18 Anningzhuang East Road – HAIDIAN District  
BEIJING 100085 – CHINA  
Tel : (86) 10.6293.4909 - Fax : (86) 10.6293-4835  
[lk@definox.com.cn](mailto:lk@definox.com.cn)

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