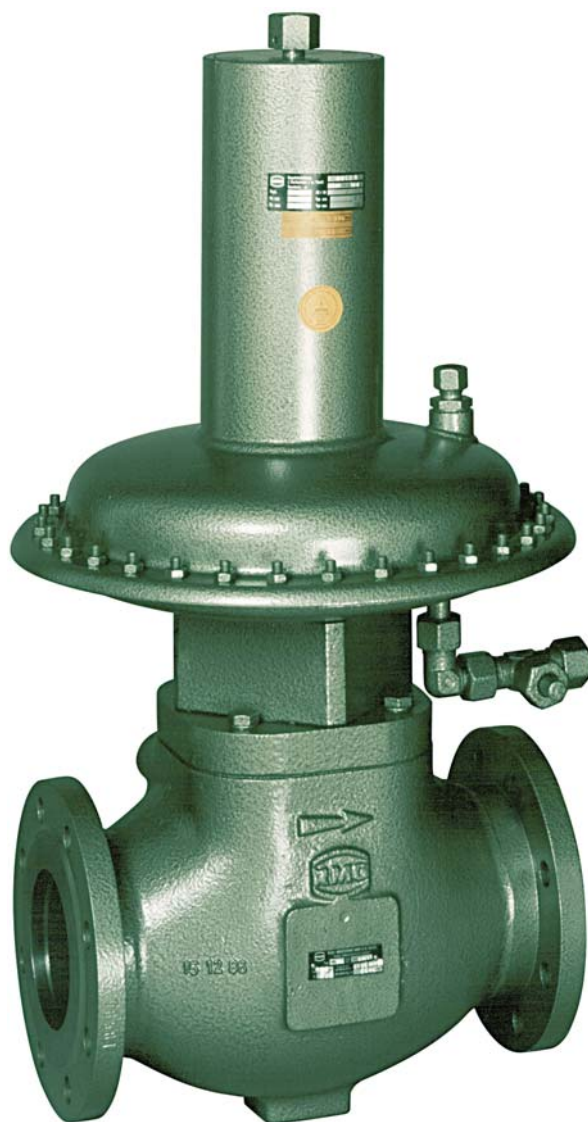


Gas Pressure Regulator RMG 320



**Operation and Maintenance,
Spare Parts**

320.20

Edition 04/93

RMG REGEL + MESSTECHNIK GMBH

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1. General Remarks

Our leaflet 320.00 gives full information with technical data, different versions and dimensions of the gas pressure regulator RMG 320.

Our brochure "General Operating Instructions for Gas Pressure Regulators and Safety Devices" will be useful to fit the valve into the line, put it into service and find faults that might disturb the operation.

The construction, set-up, supervision and maintenance of gas pressure regulating stations are subject to special technical rules which should be strictly observed, in particular those given by the DVGW Worksheets G 490, G 491, and G 495.

The frequency of periodical maintenance to be foreseen for the gas pressure regulator RMG 320 should be determined according to the prevailing service conditions and the type and composition of the gaseous medium. We, therefore, abstain from imposing any fixed intervals and would rather refer you to the recommendations given by the DVGW Worksheet G 495.

For maintenance all parts are to be cleaned and subjected to a thorough visual inspection. A visual inspection should not be omitted when the course of operation or functional tests have shown lack of regulating accuracy.

Particular care should be given to the checking of sealings and diaphragms, as well as of all carrying and moving parts. Damaged parts should be replaced by new ones.

The item numbers referred to in the maintenance instructions are identical with those of spare parts drawings and spare parts lists.

We recommend to keep all parts that are specially marked in the spare parts lists in stock for prompt maintenance availability.

2. Special Operating Instructions

Change of setpoint spring for new outlet pressure range

For removing a setpoint spring from measuring unit size 2 proceed as follows:

- release setpoint spring (224)
- loosen screws (221)
- press locking plate (222) into the spring housing above the diaphragm case (232)
- remove half-round rings (253).

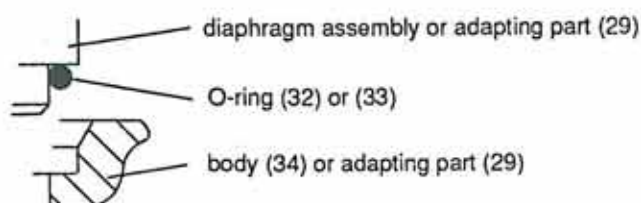
3. Special Maintenance Instructions

O-rings (157, 241, 309)

Attention! These O-rings should be fitted unlubricated, as they serve only as locking rings for the reducing adapter (155, 239, 305).

O-rings (32, 33)

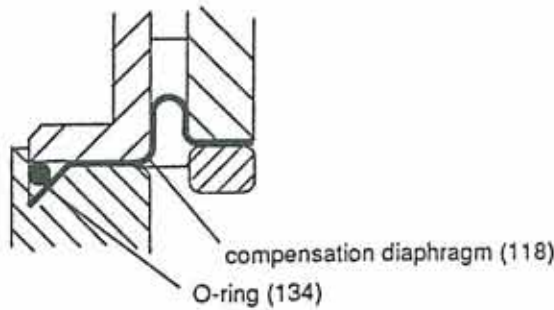
When fitting the diaphragm assembly and the adapting part the O-ring is to be positioned as shown below:



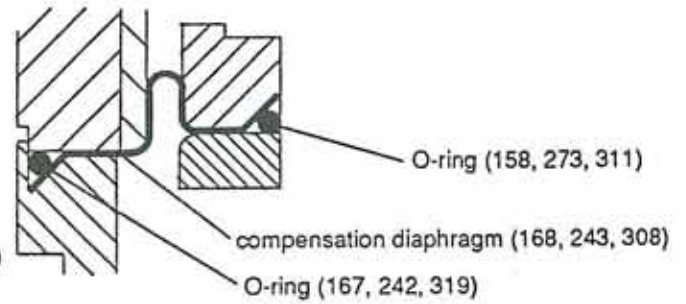
Compensation Diaphragm (118, 168, 243, 308)

Make sure to fit the compensation diaphragm in the correct mounting position.

see page 9

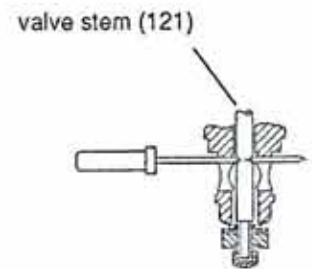


see pages 12, 16, 19



Valve Stem (121, 172, 204, 274, 321)

In order to avoid any diaphragm distortions when loosening or tightening the screws (163, 277, 325) or nuts (108, 141, 228), it is necessary to safeguard the valve stem from distortion. To this effect the valve stem (121) has been provided with a lateral arresting bore, whereas the valve stems (172, 204, 274, 321) have been machined with a key guide surface.

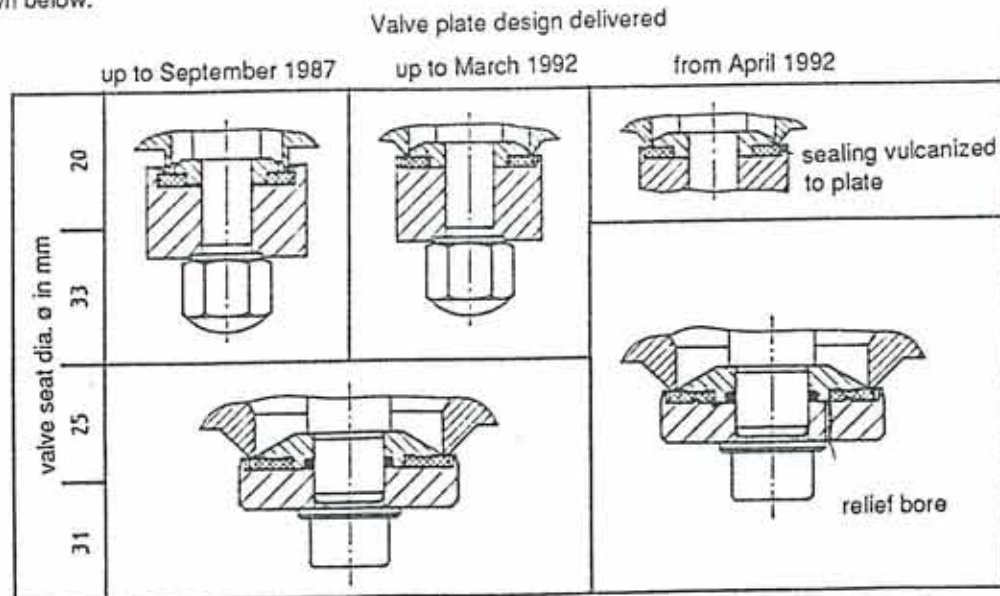


Cylinder Screw (163, 277, 325)

The cylinder screw is provided with a longitudinal bore for pressure compensation and should, therefore, not be replaced by a cylinder screw of the conventional type.

Valve Plate (124, 162, 249)

The valve plate design has been changed several times for deliveries from September 1987 to April 1992 as shown below.



The valve plate dia. ϕ 20 is now provided with a sealing vulcanized to the plate; the valve plate dias. ϕ 25, 31 and 33 are provided with an additional bore for pressure relief.

We recommend to fit new design valve plates into old regulators working under inlet pressures > 6 bar. Regulators with valve seat dias. ϕ 20 and 33 supplied before September 1987 need not be changed.

Torque

item no.	torque	M_A in Nm
170, 245	5	
113, 153, 159, 238, 246, 312	10	
141	15	
194, 228	18	
163, 277, 317	20	
235, 320	30	
25, 302, 325	40	
27	70	
226	5 (only for fitting of arresting tube)	
108	10 (see page 9)	
	18 (see page 12)	
132	15 (see page 9)	
	20 (see page 12)	
21	40 (for DN 50)	
	70 (for DN 80, DN 100)	

Lubricants

part (to be greased slightly)	lubricant	RMG part no.
all o-rings (except items 157, 241, 309)	silicone grease	00 027 081
all sliding surfaces		
fixed end and loop areas of working diaphragm (122, 233)		
all fastening and pipe screws	high duty grease	00 027 058

Screw Locking

part	screw locking	RMG part no.
cap nut (141) cylinder screw (163, 277, 325) adjusting piece (226) (only for valves with arresting tubes fitted)	LOCTITE	00 026 688

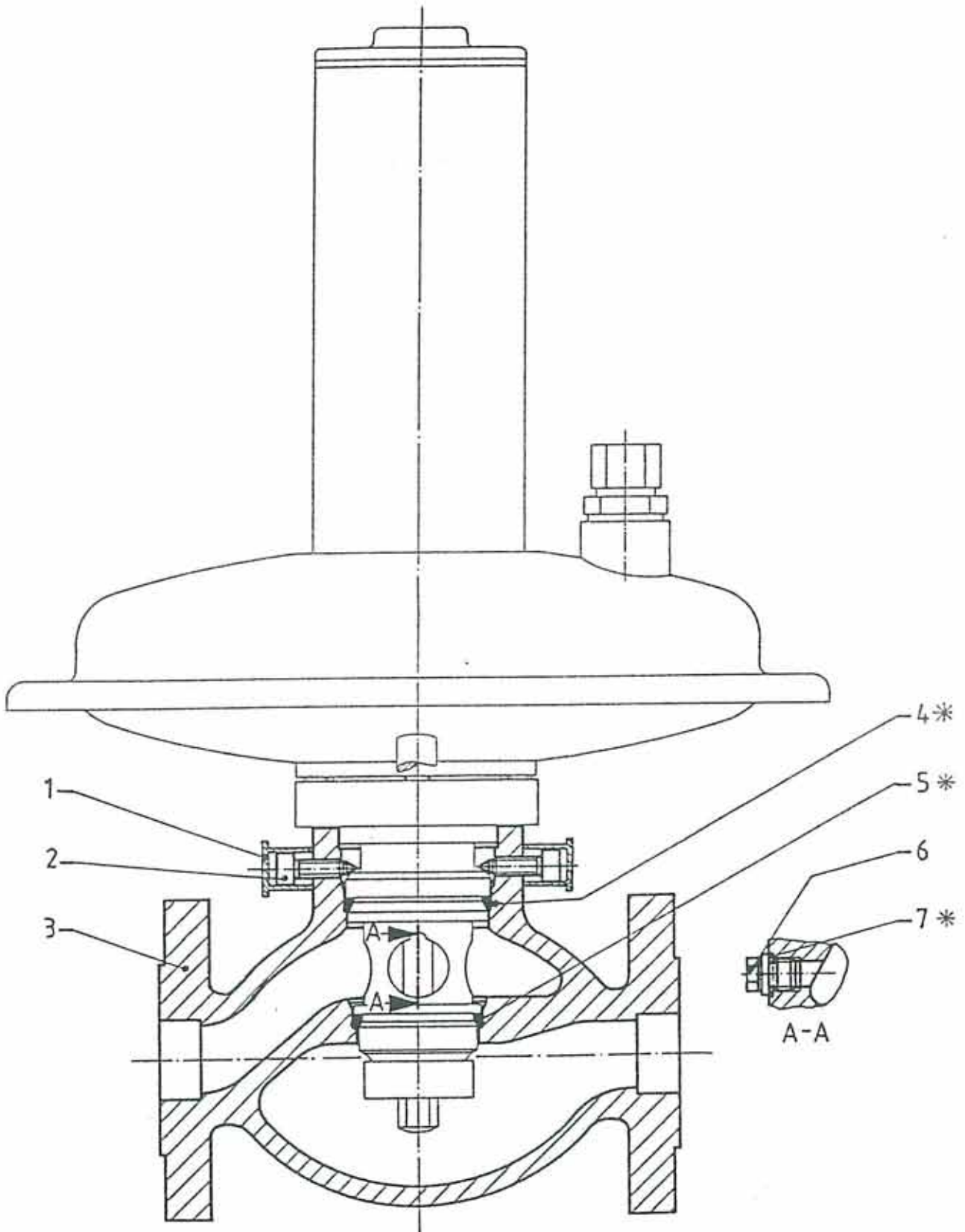
Adjusting Tools

regulator diaphragm assy.	adjusting tool				
	for setpoint adjusting screw	no.	description	RMG part no.	
size 1	103	for $W_h \leq 0,5$ bar	W 1	key DIN 659-41	00 026 502
		for $W_h \geq 0,45$ bar	W 2	p_a adjusting key	10 004 911
		106	W 5	screw driver DIN 911 - 14	00 026 266
size 2	251	W 3	open-jawed or ring spanner SW 32		

4. Spare Parts

Spare Parts Drawing RMG 320 DN 25

with diaphragm assembly size 1



Parts marked by an asterisk (*) are to be kept in stock for maintenance

Spare Parts List RMG 320 DN 25
with diaphragm assembly size 1

item no.	description	material	stock no.
1	plug	K	00 026 066
2	cylinder screw	St	10 004 895
3	valve body, at option		
-	PN 16	GS	10 008 454
-	ANSI 150	GS	10 008 455
4*	O-ring	KG	00 020 243
5*	O-ring	KG	00 020 241
6	screw plug	St	00 026 175
7*	sealing ring	LM	00 018 842

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St ... steel

K ... plastic material

LM ... light metal

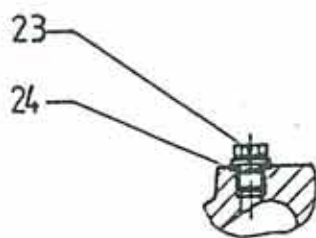
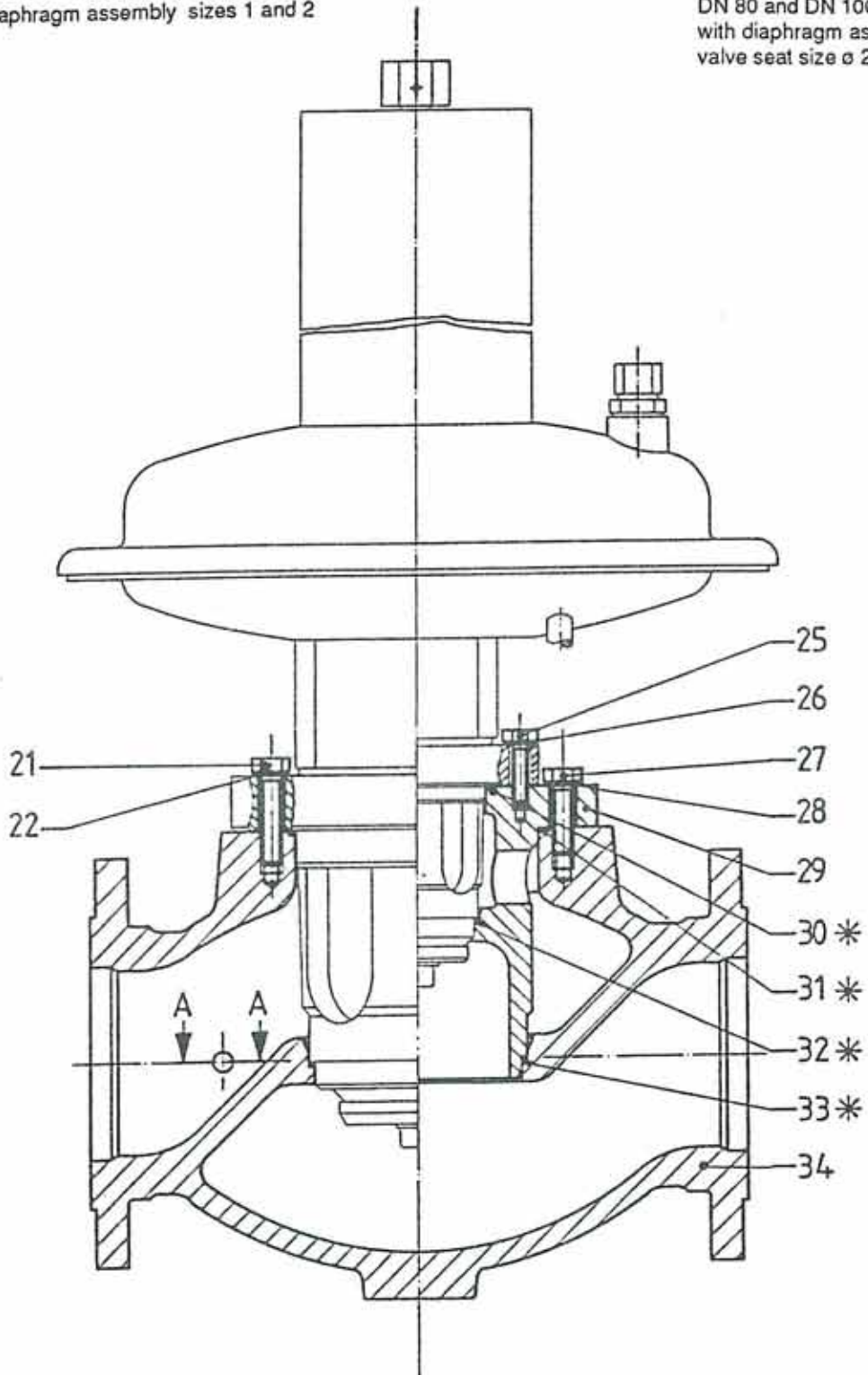
KG ... rubber-like plastic material

GS ... cast steel

Spare Parts Drawing RMG 320 DN 50, DN 80, DN 100 with diaphragm assembly size 1 or 2

version without distance piece
diaphragm assembly sizes 1 and 2

version with distance piece
DN 80 and DN 100
with diaphragm assembly size 2
valve seat size \varnothing 25, 31, 41, 50



A-A

Spare Parts List RMG 320 DN 50, DN 80, DN 100
with diaphragm assembly size 1 or 2

item no.	description	material	stock no.		
			DN 50	DN 80	DN 100
21	hexagon screw	St	00 003 873	00 008 182	00 008 182
22	safety washer	FSt	00 014 121	00 014 119	00 014 119
23	screw plug	St	00 026 175	00 026 175	00 026 175
24*	sealing ring	LM	00 018 842	00 018 842	00 018 842
25	hexagon screw	St	--	00 010 032	00 010 032
26	safety washer	FSt	--	00 014 121	00 014 121
27	hexagon screw	St	--	00 010 463	00 010 463
28	safety washer	FSt	--	00 014 119	00 014 119
29	distance piece	LM	--	10 007 204	10 007 204
30*	O-ring	KG	--	00 020 246	00 020 246
31*	O-ring	KG	00 020 246	00 020 427	00 020 427
32*	O-ring	KG	--	00 020 425	00 020 425
33*	O-ring	KG	00 020 425	00 020 259	00 020 259
34	valve body, at option:				
-	PN 16	GGG	--	10 007 079	10 007 085
-	PN 16	GS	10 008 456	10 008 458	10 008 460
-	ANSI 150 RF	GS	10 008 457	10 008 459	10 008 461

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

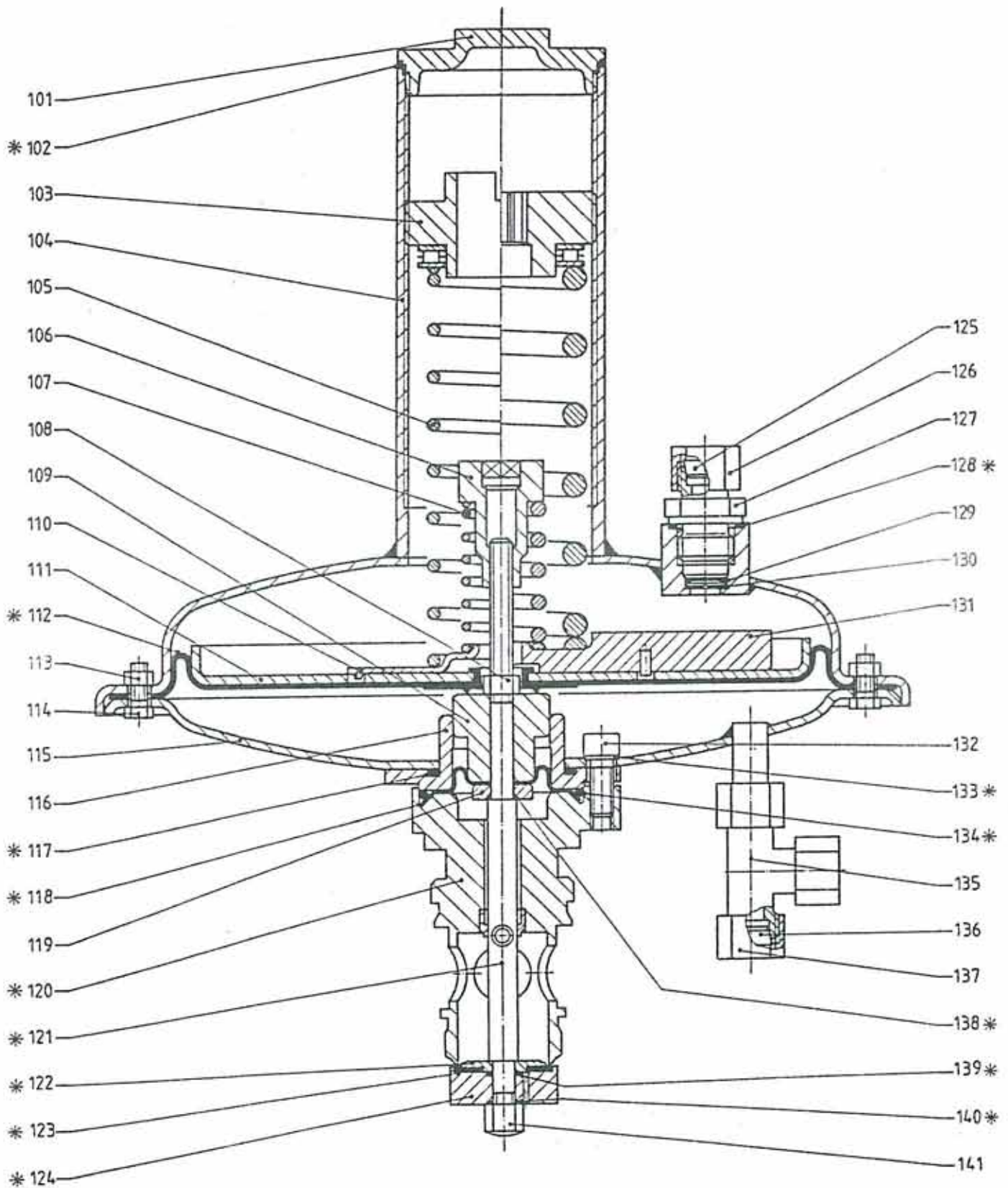
St	... steel	GGG	... spheriodal graphite cast iron
LM	... light metal	FSt	... spring steel
GS	... cast steel	KG	... rubber-like plastic material

Spare Parts Drawing, Diaphragm Assembly Size 1

with valve seat size $\varnothing 20, 33 \text{ mm}$

version for
Wh = 0,02 ... 0,5 bar

version for
Wh = 0,45 ... 1,0 bar



Parts marked by an asterisk (*) are to be kept in stock for maintenance.

Spare Parts List, Diaphragm Assembly Size 1
with valve seat size \varnothing 20, 33 mm

item no.	description	material	stock no.	
			\varnothing 20	\varnothing 33
101	cap	GZn	10 003 641	10 003 641
102*	sealing ring	K	10 003 640	10 003 640
103	adjusting screw, complete			
	at option:			
-	0,02 bar ... 0,5 bar	GZn/St	10 003 637	10 003 637
-	0,45 bar ... 1,0 bar	Ms/St	10 004 875	10 004 875
104	diaphragm cover, complete	St	10 003 604	10 003 604
105	pressure spring, complete:			
-	Wh 0,02 bar ... 0,05 bar (grey)	FSt	10 003 629	10 003 629
-	Wh 0,045 bar ... 0,1 bar (yellow)	FSt	10 003 630	10 003 630
-	Wh 0,09 bar ... 0,2 bar (brown)	FSt	10 003 631	10 003 631
-	Wh 0,15 bar ... 0,3 bar (light red)	FSt	10 003 632	10 003 632
-	Wh 0,25 bar ... 0,4 bar (dark red)	FSt	10 003 633	10 003 633
-	Wh 0,35 bar ... 0,5 bar (light blue)	FSt	10 003 634	10 003 634
-	Wh 0,45 bar ... 0,6 bar (white)	FSt	10 012 563	10 012 563
-	Wh 0,55 bar ... 0,8 bar (green)	FSt	10 012 564	10 012 564
-	Wh 0,65 bar ... 1,0 bar (black)	FSt	10 004 894	10 004 894
106	adjusting piece	LM	10 003 627	10 003 627
107	pressure spring for response pressure, at option:			
-	10 mbar ... 100 mbar > pa (grey)	FSt	10 003 636	10 003 636
-	75 mbar ... 300 mbar > pa (dark blue)	FSt	10 003 620	10 003 620
108	hexagon nut	St	00 005 559	00 005 559
109	guide piece	Ms	10 004 860	10 004 861
110	spring plate (version 0,02 bar ... 0,5 bar)	St	10 003 626	10 003 626
111	diaphragm plate	LM	10 003 625	10 003 625
112*	diaphragm	KG	10 003 606	10 003 606
113	hexagon nut	St	00 003 399	00 003 399
114	hexagon screw	St	00 008 172	00 008 172
115	diaphragm housing	St	10 003 601	10 003 601
116	distance plate	LM	10 004 858	10 004 859
117*	O-ring	KG	00 020 306	00 020 306
118*	compensation diaphragm	KG	10 003 619	10 003 618
119	pressure disc	LM	10 003 609	10 003 608
120*	orifice, complete	LM/AiBz	10 004 862	10 004 863
121*	valve stem	NSt	10 004 878	10 004 878
122*	carrying piece	LM	10 003 603	10 003 602
123*	sealing washer	KG	-	10 003 599
124*	valve plate	LM, LM/KG	10 023 461	10 023 465
125	compression joint	St	00 030 904	00 030 904
126	cap nut	St	00 030 804	00 030 804
127	threaded adapter	St	00 030 142	00 030 142

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St ... steel

Ms ... brass

GZn ... zinc cast

LM ... light metal

FSt ... spring steel

AiBz ... aluminiumbronze

NSt ... stainless steel

KG ... rubber-like plastic material

K ... plastic material

Spare Parts List, Diaphragm Assembly Size 1
with valve seat size σ 20, 33 mm

item no.	description	material	stock no.	
			σ 20	σ 33
128*	sealing ring	LM	00 018 787	00 018 787
129	locking ring	FSt	00 019 135	00 019 135
130	slotted disc	KG	10 003 607	10 003 607
131	support disc, complete (version 0,45 ... 1 bar)	LM/St	10 004 898	10 004 898
132	cylinder screw	St	00 010 323	00 010 323
133*	sealing ring	LM	00 018 710	00 018 710
134*	O-ring	KG	00 021 161	00 021 161
135	bleed valve E 12	St/Ms/KG	10 004 060	10 004 060
136	compression joint	St	00 030 904	00 030 904
137	cap nut	St	00 030 804	00 030 804
138*	sealing ring	LM	00 018 710	00 018 710
139*	O-ring	KG	-	00 020 595
140*	sealing ring	LM	00 018 710	00 018 710
141	cap nut	St	00 013 015	00 013 015

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St ... steel

FSt ... spring steel

LM ... light metal

KG ... rubber-like plastic material

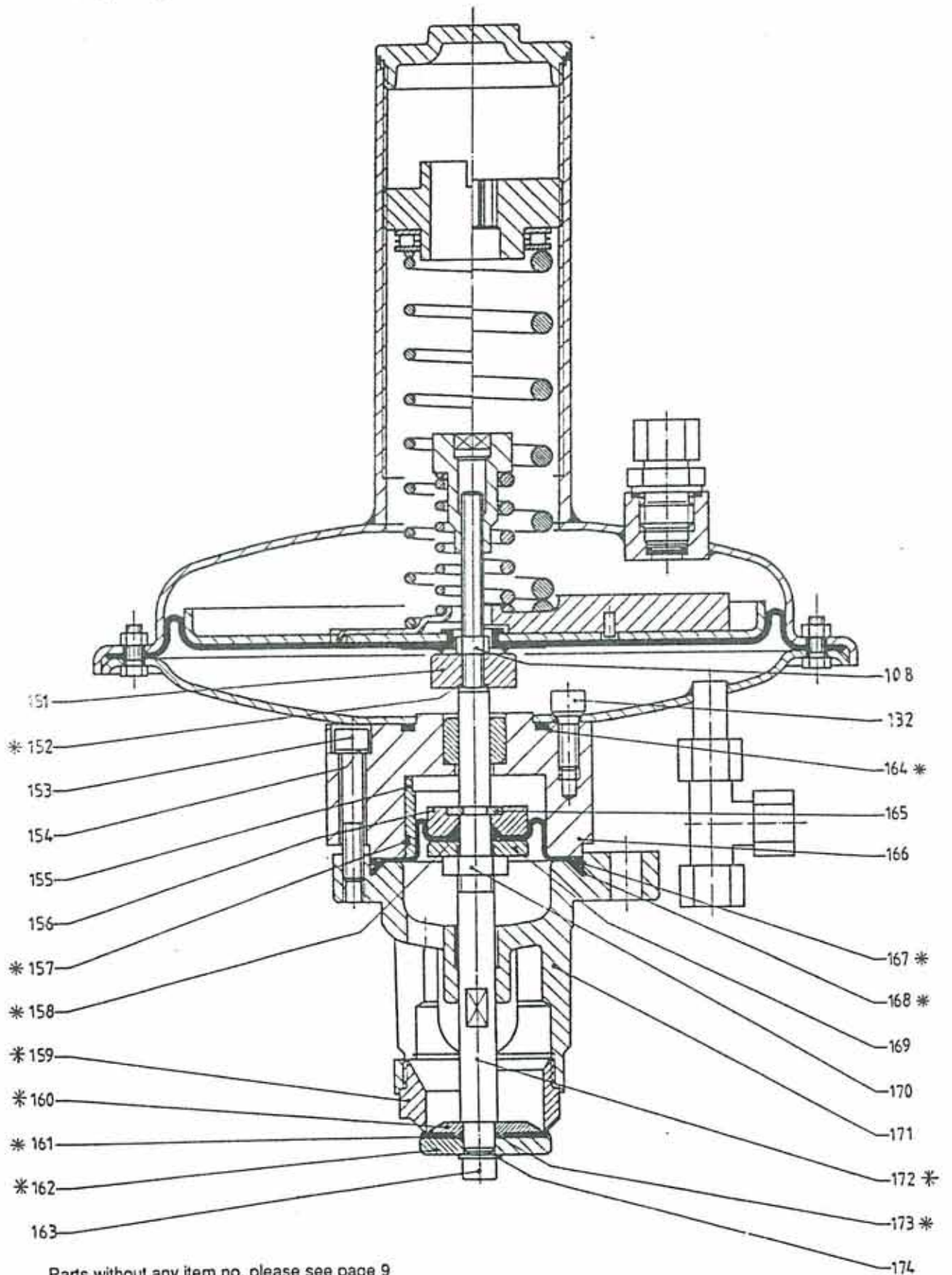
Ms ... brass

Spare Parts Drawing, Diaphragm Assembly Size 1

with valve seat size \varnothing 25, 31, 41, 50 mm

version for
Wh = 0,02 ... 0,5 bar

version for
Wh = 0,45 ... 1,0 bar



Parts without any item no. please see page 9

Parts marked by an asterisk (*) are to be kept in stock for maintenance

Spare Parts List, Diaphragm Assembly Size 1

with valve seat size \varnothing 25, 31, 41, 50 mm

item no.	description	material	stock no.			
			\varnothing 25	\varnothing 31	\varnothing 41	\varnothing 50
108	hexagon nut	St	00 005 559	00 005 559	00 005 559	00 005 559
132	cylinder screw	St	00 010 323	00 010 323	00 010 323	00 010 323
151	check piece	LM	10 009 049	10 009 049	10 009 049	10 009 049
152*	sealing ring	LM	00 018 710	00 018 710	00 018 710	00 018 710
153	cylinder screw	St	00 010 389	00 010 389	00 010 389	00 010 389
154	safety washer	FSt	00 014 122	00 014 122	00 014 122	00 014 122
155	reducing adapter	LM	10 006 188	10 009 082	10 009 083	-
156	diaphragm disc	LM	10 006 187	10 009 088	10 009 090	10 009 186
157*	O-ring	KG	00 020 243	00 020 243	00 020 243	-
158*	O-ring	KG	00 020 234	00 020 234	00 020 234	00 020 234
159*	orifice	LM	10 006 181	10 009 064	10 009 063	10 009 162
160*	carrying piece	LM	10 006 184	10 009 199	10 009 198	10 009 197
161*	valve sealing	KG	10 006 183	10 009 215	10 009 216	10 009 217
162*	valve plate	LM	10 023 463	10 023 464	10 009 201	10 009 200
163	cylinder screw	St	10 009 099	10 009 099	10 009 099	10 009 099
164*	O-ring	KG	00 020 325	00 020 325	00 020 325	00 020 325
165	ring segment (2)	St	10 008 612	10 008 612	10 008 612	10 008 612
166	adapting part, complete	LM/NSt	10 009 179	10 009 179	10 009 179	10 009 179
167*	O-ring	KG	00 020 246	00 020 246	00 020 246	00 020 246
168*	compensation diaphragm	KG	10 006 186	10 009 086	10 009 087	10 009 188
169	pressure disc	LM	10 006 185	10 009 089	10 009 091	10 009 187
170	hexagon nut	St	10 009 045	10 009 045	10 009 045	10 009 045
171	valve support	GG	10 009 161	10 009 161	10 009 161	10 009 161
172*	valve stem, complete	Ms/St	10 009 156	10 009 156	10 009 156	10 009 156
173*	O-ring	KG	00 020 451	00 020 451	00 020 451	00 020 451
174	washer	St	00 008 281	00 008 281	00 008 281	00 008 281

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St ... steel

Ms ... brass

GG ... grey cast iron

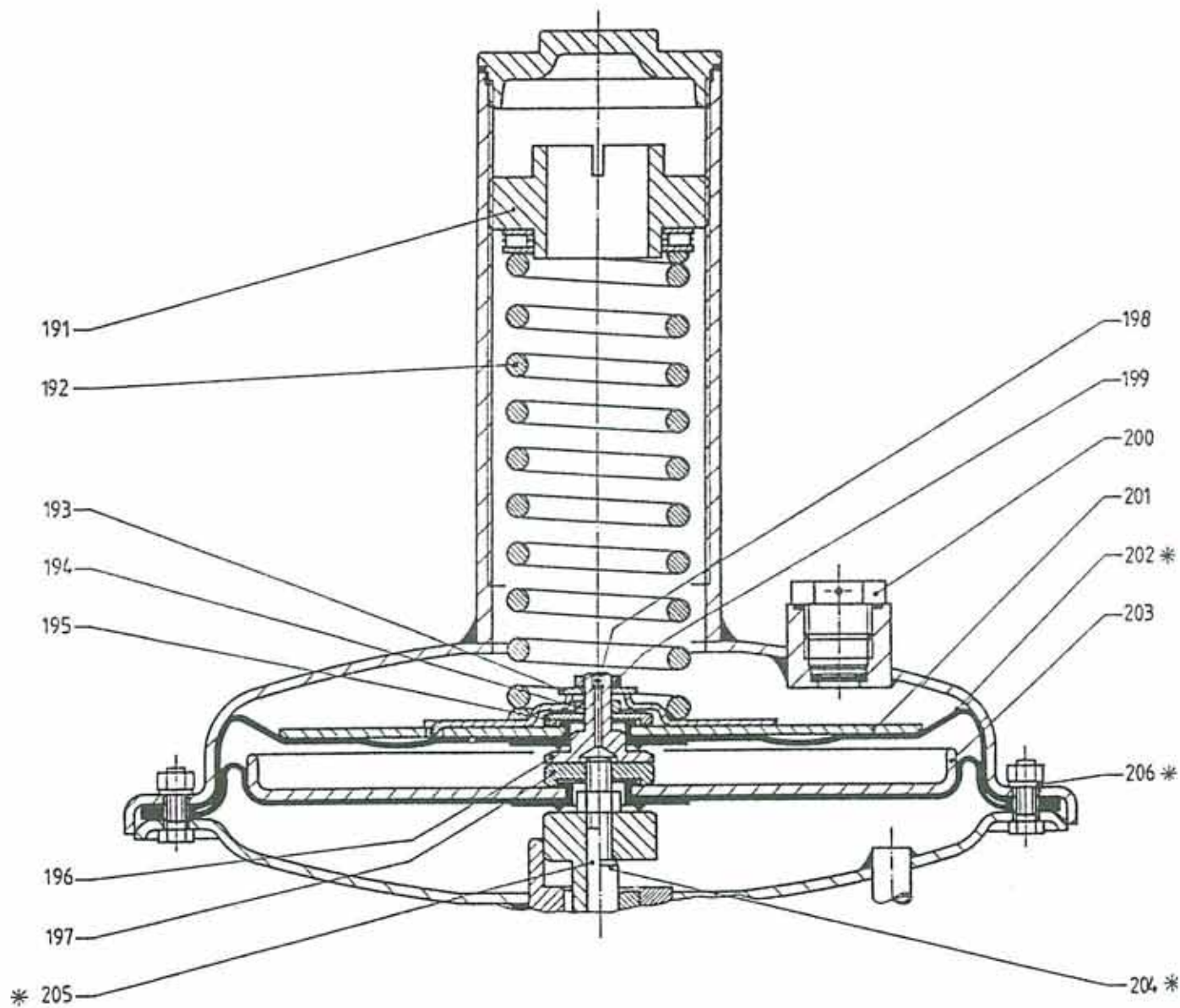
LM ... light metal

FSt ... spring steel

NSt ... stainless steel

KG ... rubber-like plastic material

Spare Parts Drawing, Diaphragm Assembly Size 1 with Safety Diaphragm
 with valve seat size \varnothing 20, 33 mm or \varnothing 25, 31, 41, 50 mm
 $W_h = 0,02 \dots 0,5$ bar



Parts without any item no. please see page 9

Parts marked by an asterisk (*) are to be kept in stock for maintenance

Spare Parts Drawing, Diaphragm Assembly Size 1 with Safety Diaphragm
with valve seat size \varnothing 20, 33 mm or \varnothing 25, 31, 41, 50 mm

item no.	description	material	stock no.	
			\varnothing 20, 33	\varnothing 25, 31, 41, 50
191	adjusting screw, complete	GZn/St	10 003 637	10 003 637
192	pressure spring, at option:			
-	Wh 0,02 bar ... 0,05 bar (grey)	FSt	10 003 629	10 003 629
-	Wh 0,045 bar ... 0,1 bar (yellow)	FSt	10 003 630	10 003 630
-	Wh 0,09 bar ... 0,2 bar (brown)	FSt	10 003 631	10 003 631
-	Wh 0,15 bar ... 0,3 bar (light red)	FSt	10 003 632	10 003 632
-	Wh 0,25 bar ... 0,4 bar (dark red)	FSt	10 003 633	10 003 633
-	Wh 0,35 bar ... 0,5 bar (light blue)	FSt	10 003 634	10 003 634
193	washer	St	00 014 157	00 014 157
194	hexagon nut	St	00 013 115	00 013 115
195	adapting part	LM	10 006 178	10 006 178
196	locking screw	NSt	10 006 177	10 006 177
197	adapting part	St	10 006 189	10 006 189
198	threaded pin	St	00 012 405	00 012 405
199	hexagon nut	St	00 013 115	00 013 115
200	screw plug	K	00 027 178	00 027 178
201	diaphragm plate	LM	10 004 798	10 004 798
202*	safety diaphragm	KG	10 004 807	10 004 807
203	diaphragm plate	LM	10 004 809	10 004 809
204*	valve stem, complete	Ms/St	-	10 004 819
205*	valve stem	NSt	10 004 804	-
206*	threaded gasket	St/K	00 021 162	00 021 162

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St ... steel

Ms ... brass

GZn ... zinc cast

LM ... light metal

FSt ... spring steel

K ... plastic material

NSt ... stainless steel

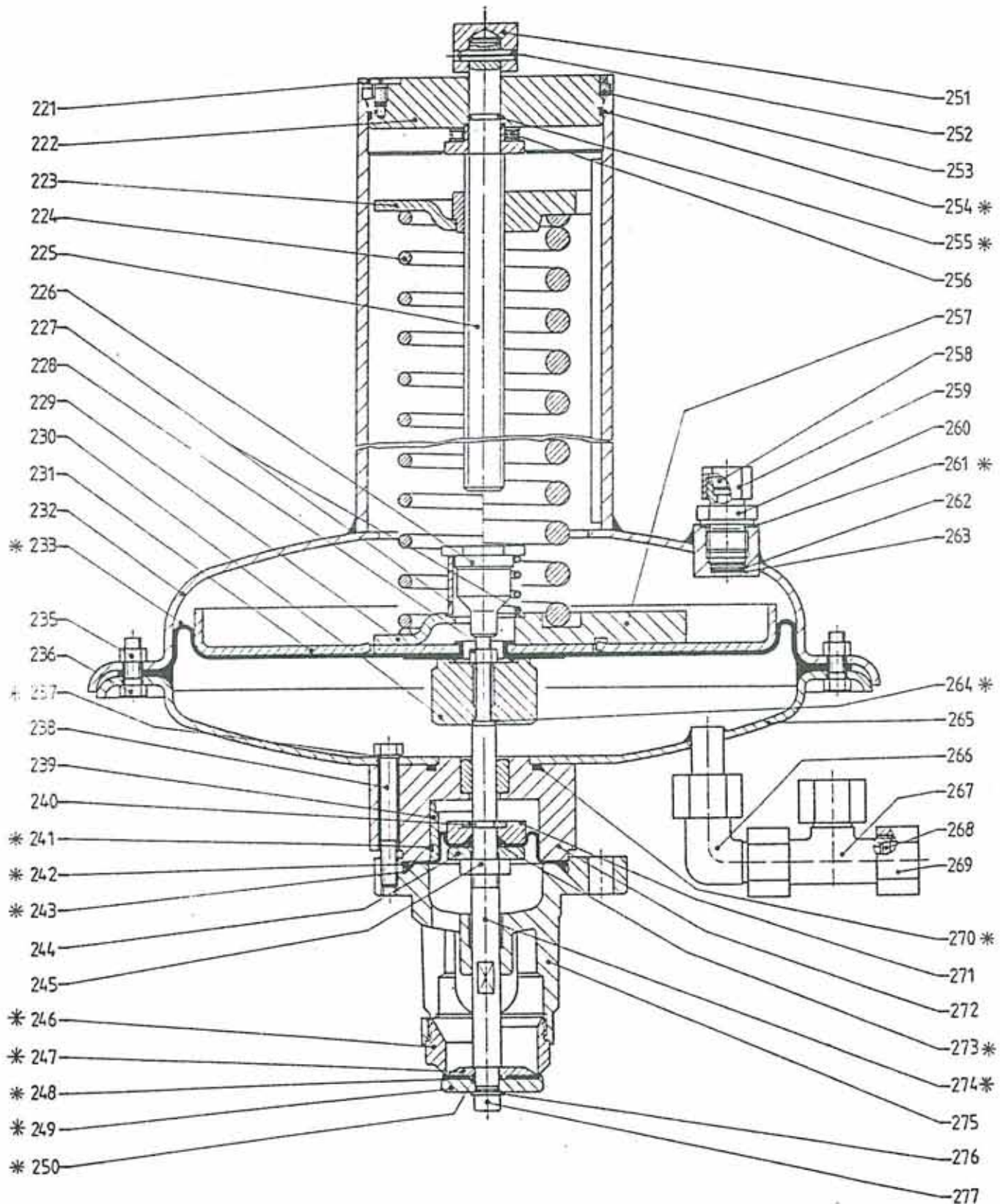
KG ... rubber-like plastic material

Spare Parts Drawing, Diaphragm Assembly Size 2

with valve seat size \varnothing 25, 31, 41, 50 mm

version for
Wh = 0,02 ... 0,5 bar

version for
Wh = 0,45 ... 1,0 bar



Parts marked by an asterisk (*) are to be kept in stock for maintenance.

Spare Parts List, Diaphragm Assembly Size 2

with valve seat size \varnothing 25, 31, 41, 50 mm

item no.	description	material	stock no.			
			\varnothing 25	\varnothing 31	\varnothing 41	\varnothing 50
221	screw	St	00 011 111	00 011 111	00 011 111	00 011 111
222	locking plate	LM	10 009 065	10 009 065	10 009 065	10 009 065
223	spring plate, at option:					
-	Wh 0,02 bar ... 0,5 bar	St,Ms	10 009 067	10 009 067	10 009 067	10 009 067
-	Wh 0,45 bar ... 1,0 bar	Ms	10 009 167	10 009 167	10 009 167	10 009 167
224	pressure spring, at option:					
-	Wh 0,02 bar ... 0,05 bar (grey)	FSt	10 009 068	10 009 068	10 009 068	10 009 068
-	Wh 0,045 bar ... 0,1 bar (yellow)	FSt	10 009 069	10 009 069	10 009 069	10 009 069
-	Wh 0,09 bar ... 0,2 bar (brown)	FSt	10 009 070	10 009 070	10 009 070	10 009 070
-	Wh 0,15 bar ... 0,3 bar (light red)	FSt	10 009 071	10 009 071	10 009 071	10 009 071
-	Wh 0,25 bar ... 0,4 bar (dark red)	FSt	10 009 072	10 009 072	10 009 072	10 009 072
-	Wh 0,35 bar ... 0,5 bar (light blue)	FSt	10 009 073	10 009 073	10 009 073	10 009 073
-	Wh 0,45 bar ... 0,6 bar (white)	FSt	10 009 163	10 009 163	10 009 163	10 009 163
-	Wh 0,55 bar ... 0,8 bar (green)	FSt	10 009 164	10 009 164	10 009 164	10 009 164
-	Wh 0,65 bar ... 1,0 bar (black)	FSt	10 009 165	10 009 165	10 009 165	10 009 165
225	adjusting spindle, complete	St	10 009 048	10 009 048	10 009 048	10 009 048
226	adjusting piece	LM	10 009 178	10 009 178	10 009 178	10 009 178
227	pressure spring or arresting tube, at option:					
-	for 15 mbar > pa (yellow) (version 0,02 bar ... 0,5 bar)	FSt	10 009 151	10 009 151	10 009 151	10 009 151
-	for 40 mbar > pa (red) (version 0,02 bar ... 0,5 bar)	FSt	10 009 152	10 009 152	10 009 152	10 009 152
-	for 130 mbar > pa (dark blue)	FSt	10 009 153	10 009 153	10 009 153	10 009 153
-	arresting tube	St	10 009 103	10 009 103	10 009 103	10 009 103
228	hexagon nut	St	00 013 140	00 013 140	00 013 140	00 013 140
229	spring plate (version: 0,02...0,5 bar)	St	10 009 102	10 009 102	10 009 102	10 009 102
230	check piece	LM	10 009 159	10 009 159	10 009 159	10 009 159
231	diaphragm plate	LM	10 009 168	10 009 168	10 009 168	10 009 168
232	diaphragm cover, complete	St	10 009 036	10 009 036	10 009 036	10 009 036
233*	diaphragm	KG	10 009 046	10 009 046	10 009 046	10 009 046
235	hexagon nut	St	00 013 140	00 013 140	00 013 140	00 013 140
236	hexagon screw	St	00 010 065	00 010 065	00 010 065	00 010 065
237*	sealing ring	LM	00 018 710	00 018 710	00 018 710	00 018 710
238	hexagon screw	St	00 010 277	00 010 277	00 010 277	00 010 277
239	reducing adapter	LM	10 006 188	10 009 082	10 009 083	-
240	ring segment (2)	St	10 008 612	10 008 612	10 008 612	10 008 612
241*	O-ring	KG	00 020 243	00 020 243	00 020 243	-
242*	O-ring	KG	00 020 246	00 020 246	00 020 246	00 020 246
243*	compensation diaphragm	KG	10 006 186	10 009 086	10 009 087	10 009 188
244	pressure disc	LM	10 006 185	10 009 089	10 009 091	10 009 187

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

St	... steel	FSt	... spring steel
LM	... light metal	KG	... rubber-like plastic material
Ms	... brass		

Spare Parts List, Diaphragm Assembly Size 2

with valve seat size \varnothing 25, 31, 41, 50 mm

item no.	description	material	stock no.			
			\varnothing 25	\varnothing 31	\varnothing 41	\varnothing 50
245	hexagon nut	St	10 009 045	10 009 045	10 009 045	10 009 045
246*	orifice	LM	10 006 181	10 009 064	10 009 063	10 009 162
247*	carrying piece	LM	10 006 184	10 009 199	10 009 198	10 009 197
248*	valve sealing	KG	10 006 183	10 009 215	10 009 216	10 009 217
249*	valve plate	LM	10 023 463	10 023 464	10 009 201	10 009 200
250*	O-ring	KG	00 020 451	00 020 451	00 020 451	00 020 451
251	adjusting screw	St	10 009 055	10 009 055	10 009 055	10 009 055
252	cyl. dowel pin	St	00 017 145	00 017 145	00 017 145	00 017 145
253	half ring (2)	St	10 009 061	10 009 061	10 009 061	10 009 061
254*	O-ring	KG	00 020 248	00 020 248	00 020 248	00 020 248
255*	O-ring	KG	00 020 588	00 020 588	00 020 588	00 020 588
256	axial needle bearing	St	00 026 384	00 026 384	00 026 384	00 026 384
-	axial disc	St	00 026 385	00 026 385	00 026 385	00 026 385
257	support disc (version: 0,45 bar ... 1,0 bar)	LM	10 009 166	10 009 166	10 009 166	10 009 166
258	compression joint	St	00 030 904	00 030 904	00 030 904	00 030 904
259	cap nut	St	00 030 804	00 030 804	00 030 804	00 030 804
260	adapter	St	00 030 142	00 030 142	00 030 142	00 030 142
261*	sealing ring	LM	00 018 787	00 018 787	00 018 787	00 018 787
262	locking ring	FSt	00 019 135	00 019 135	00 019 135	00 019 135
263	slotted disc	KG	10 003 607	10 003 607	10 003 607	10 003 607
264*	sealing	LM	00 018 710	00 018 710	00 018 710	00 018 710
265	diaphragm housing, complete	St	10 009 037	10 009 037	10 009 037	10 009 037
266	adapter	St	00 031 203	00 031 203	00 031 203	00 031 203
267	bleed valve E 16	St/Ms/KG	10 008 996	10 008 996	10 008 996	10 008 996
268	compression joint	St	00 030 906	00 030 906	00 030 906	00 030 906
269	cap nut	St	00 030 807	00 030 807	00 030 807	00 030 807
270*	O-ring	KG	00 020 325	00 020 325	00 020 325	00 020 325
271	diaphragm disc	LM	10 006 187	10 009 088	10 009 090	10 009 186
272	adapting part, complete	LM/NSt	10 009 180	10 009 180	10 009 180	10 009 180
273*	O-ring	KG	00 020 234	00 020 234	00 020 234	00 020 234
274*	valve stem, complete	Ms/St	10 009 156	10 009 156	10 009 156	10 009 156
275	valve support	GG	10 009 161	10 009 161	10 009 161	10 009 161
276	washer	St	00 008 281	00 008 281	00 008 281	00 008 281
277	cylinder screw	St	10 009 099	10 009 099	10 009 099	10 009 099

Parts marked by an asterisk (*) are to be kept in stock for maintenance.

material key:

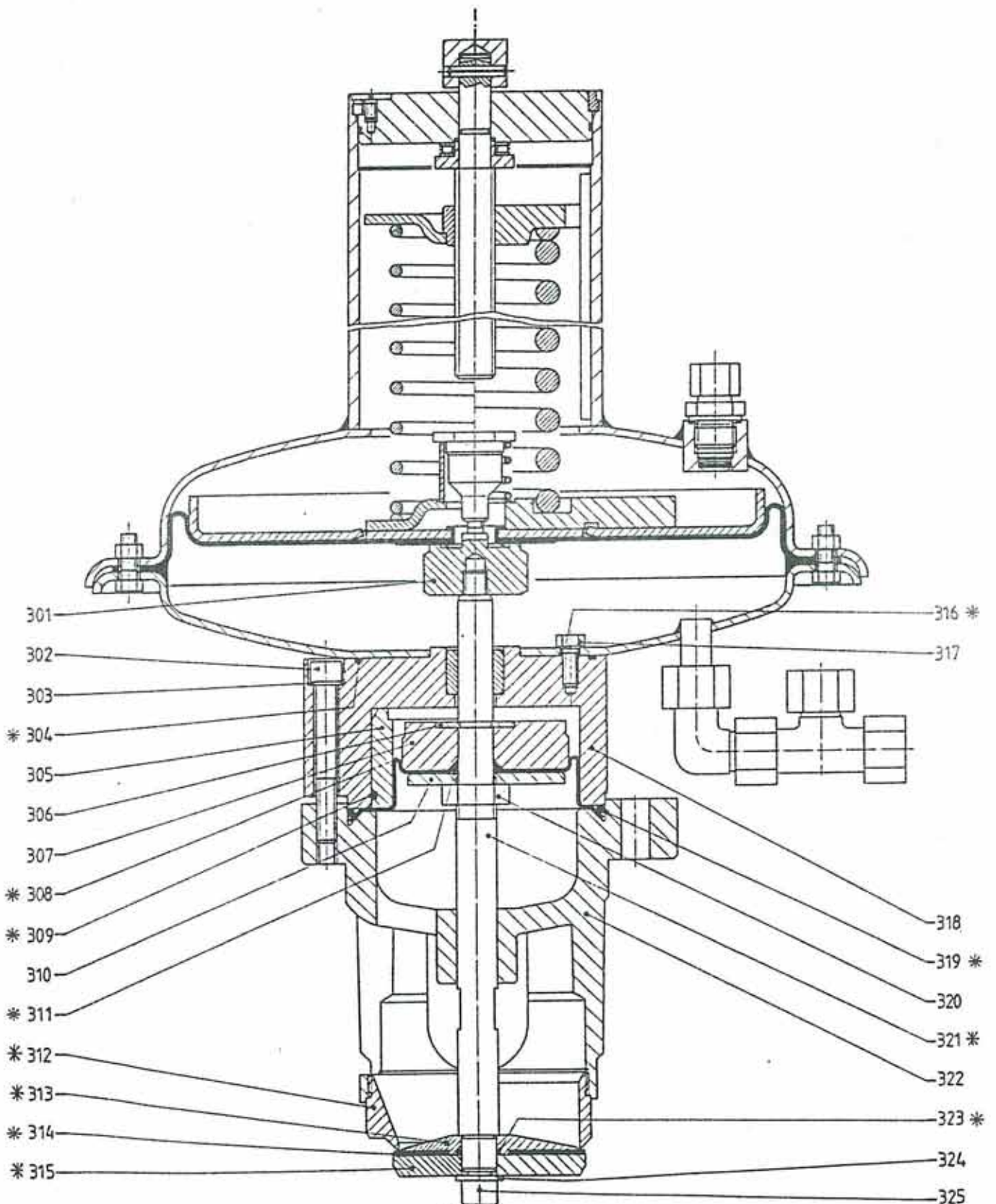
St	... steel	FSt	... spring steel	GG	... grey cast iron
LM	... light metal	KG	... rubber-like plastic material		
Ms	... brass	NSt	... stainless steel		

Spare Parts Drawing, Diaphragm Assembly Size 2

with valve seat size \varnothing 60, 80, 100 mm

version for
Wh = 0,02 ... 0,5 bar

version for
Wh = 0,45 ... 1,0 bar



Parts without any item no. please see page 16

Parts marked by an asterisk (*) are to be kept in stock for maintenance

Spare Parts List, Diaphragm Assembly Size 2

with valve seat size \varnothing 60, 80, 100 mm

item no.	description	material	stock no.		
			\varnothing 60	\varnothing 80	\varnothing 100
301	check piece	St	10 009 177	10 009 177	10 009 177
302	cylinder screw	St	00 010 386	00 010 386	00 010 386
303	safety washer	FSt	00 014 121	00 014 121	00 014 121
304*	O-ring	KG	00 020 355	00 020 355	00 020 335
305	reducing adapter	LM	10 009 114	10 009 115	-
306	ring segment (2)	St	10 009 129	10 009 129	10 009 129
307	diaphragm disc	LM	10 009 142	10 009 141	10 009 127
308*	compensation diaphragm	KG	10 009 120	10 009 134	10 009 137
309*	O-ring	KG	00 020 449	00 020 449	-
310	pressure disc	LM	10 009 124	10 009 125	10 009 128
311*	O-ring	KG	00 020 442	00 020 442	00 020 442
312*	orifice	LM	10 009 105	10 009 106	10 009 123
313*	carrying piece	LM	10 009 208	10 009 207	10 009 206
314*	valve sealing	KG	10 009 218	10 009 219	10 009 220
315*	valve plate	LM	10 009 211	10 009 210	10 009 209
316*	sealing ring	LM	00 018 710	00 018 710	00 018 710
317	hexagon screw	St	00 010 065	00 010 065	00 010 065
318	distance piece, complete	LM/NSt	10 009 139	10 009 139	10 009 139
319*	O-ring	KG	00 020 428	00 020 428	00 020 428
320	hexagon nut	St	10 009 109	10 009 109	10 009 109
321*	valve stem, complete	Ms/St	10 009 155	10 009 155	10 009 155
322	valve support	GG	10 009 133	10 009 133	10 009 133
323*	O-ring	KG	00 020 442	00 020 442	00 020 442
324	washer	St	00 008 271	00 008 271	00 008 271
325	cylinder screw	St	10 009 122	10 009 122	10 009 122

Parts marked by an asterisk (*) are to be kept in stock for maintenance

material key:

St ... steel

GG ... grey cast iron

Ms ... brass

LM ... light metal

FSt ... spring steel

NSt ... stainless steel

KG ... rubber-like plastic material