

Gas Pressure Regulator RMG 300



Operation and Maintenance, Spare Parts

For integrated safety cut-off unit please refer to technical leaflet 720.20

300.20

edition 07/1995

Serving the Gas Industry - WORLDWIDE



1. General

The "General description 300.00" for the gas pressure regulator of series RMG 300 contains technical data, versions and dimensions. The spare parts are described in the following brochures:

Safety shut-of valve:	General description	720.00
	Operation and maintenance, Spare parts	673.20

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

The construction, set-up, supervision and maintenance of gas pressure pressure 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 of gas pressure regulator RMG 300 should be determined according to the prevailing conditions and the type and composition of the gaseous medium.

We, therefore, abstain from imposing any fixed intervals and would rather refer to the recommendations given by the DVGW-Worksheets 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 carrying and moving parts.

Damaged parts should be replaced by new ones.

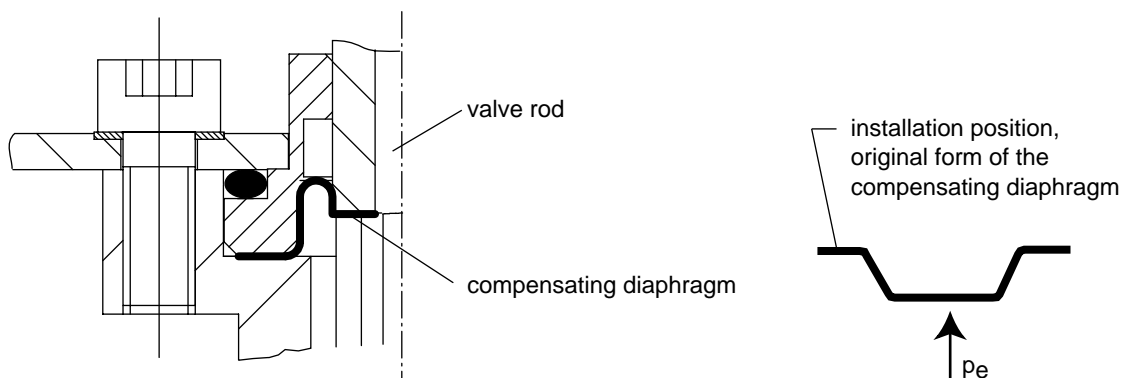
The item numbers referred to in the maintenance instructions are identical with those of spare parts drawings and spare parts lists.

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

Compensating Diaphragm (114)

By assembling, we should pay attention to the correct position of the compensating diaphragm.



Valve rod (130, 167)

In order to prevent from disforming of the compensating diaphragm, by releasing or fastening of the screw (117) or the nut (166, 127), the valve rod must not be distorted. Moreover, the valve rod (130, 167) must be equipped with a key head.

Torques

pos.no.	torque M_A in Nm
127	2
117	2,5
109	5
129	8

Lubricants

part (grease slightly)	lubricant	RMG - part.no.
all o-rings all sliding surfaces fixed and loop areas of working diaphragm (108, 203, 163)	silikon grease	00 027 081
all fastening and pipe screws	high duty grease	00 027 058

Screw locking

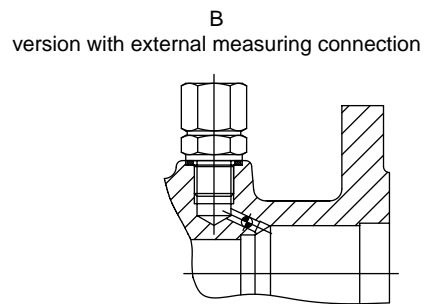
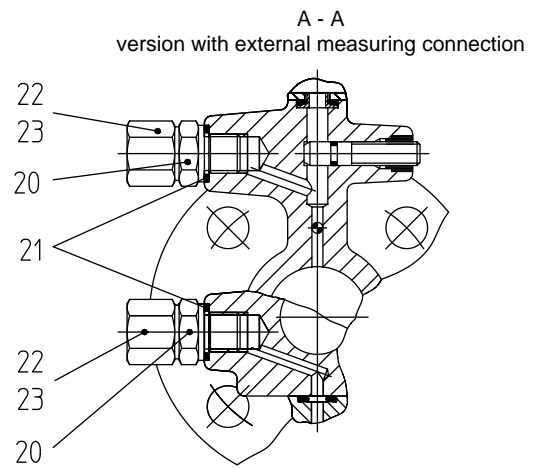
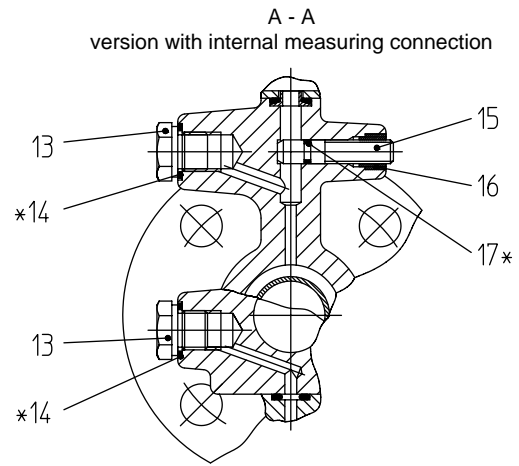
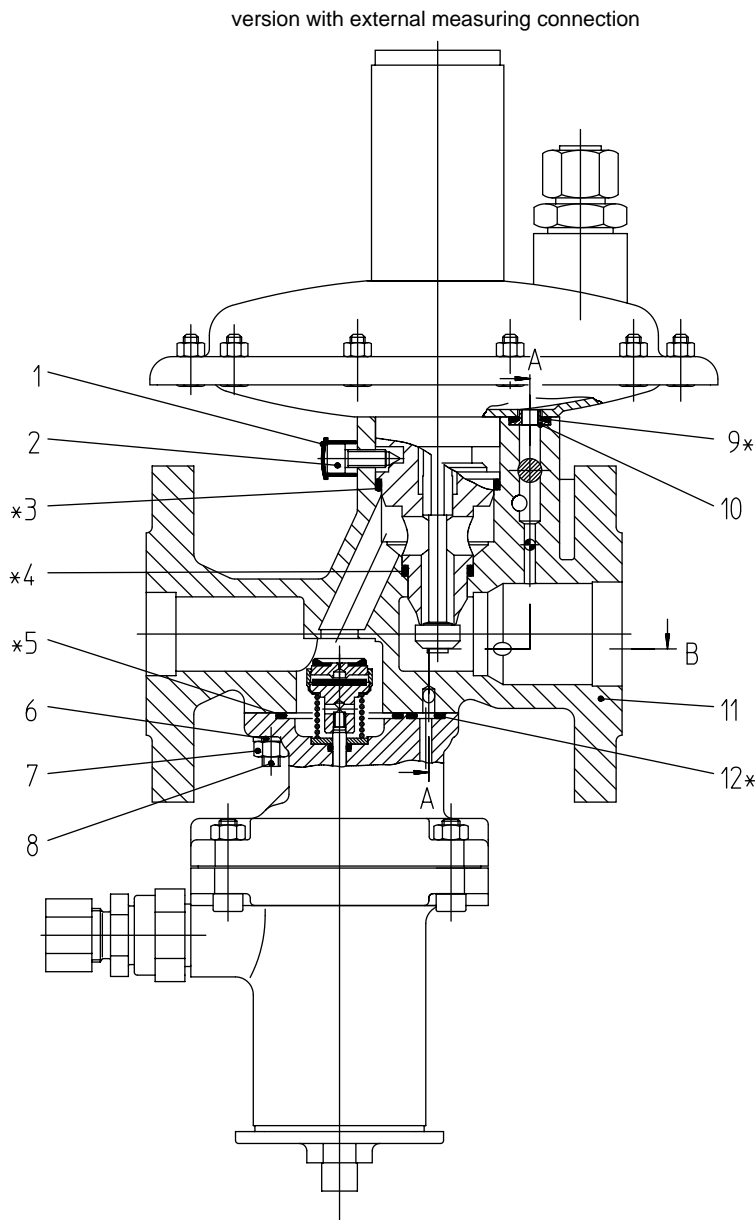
part	screw locking I	RMG - part.no.
threaded pin (169)	LOCTITE	00 026 690

Adjusting Tools

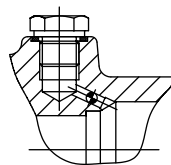
regulator diaphragm assy.	adjusting tool		
	for setpoint adjusting screw	description	RMG - part.no.
size 1 size 1 SM size 2	102	p_a - adjusting key	10 004 254

3. Spare Parts

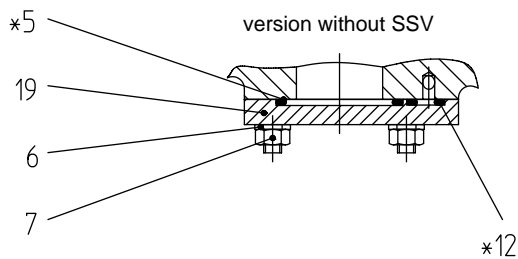
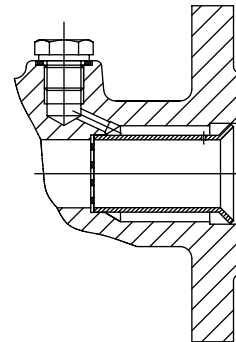
3.1 Spare Parts Drawing RMG 300



B
version with external measuring connection
and without SSV



B
version with internal measuring connection



*Parts to be kept in stock for maintenance

3.2 Spare Parts List RMG 300

pos. no.	description	material	item no.
1	plug	K	00 026 066
2	internal hexagonal screw	St	10 004 895
3*	o-ring	KG	00 020 239
4*	o-ring	KG	00 020 227
5*	o-ring	KG	00 020 239
6	disc	St	00 008 279
7	hexagonal screw	St	00 003 399
8	locking screw	St	00 012 218
9*	o-ring	KG	00 020 419
10	sealing plate	LM	10 004 278
11	casing, premounted, alternatively with:		
-	- external measuring connection	GLM/LM/St/Ms/KG	10 004 275
-	- internal measuring connection	GLM/LM/St/Ms/KG	10 004 276
12*	o-ring	KG	00 020 521
13	closing screw	St	10 014 009
14*	sealing ring	LM	00 018 689
15	adjusting screw	NSt	10 004 067
16	insert	Ms	18 352 376
17*	o-ring	KG	00 020 309
19	closing plate	St	10 010 992
20	nozzle R 1/4" / E 10 L	St	00 030 110
21*	sealing ring	LM	00 018 689
22	compression joint	St	00 030 903
23	cap nut	St	00 030 803

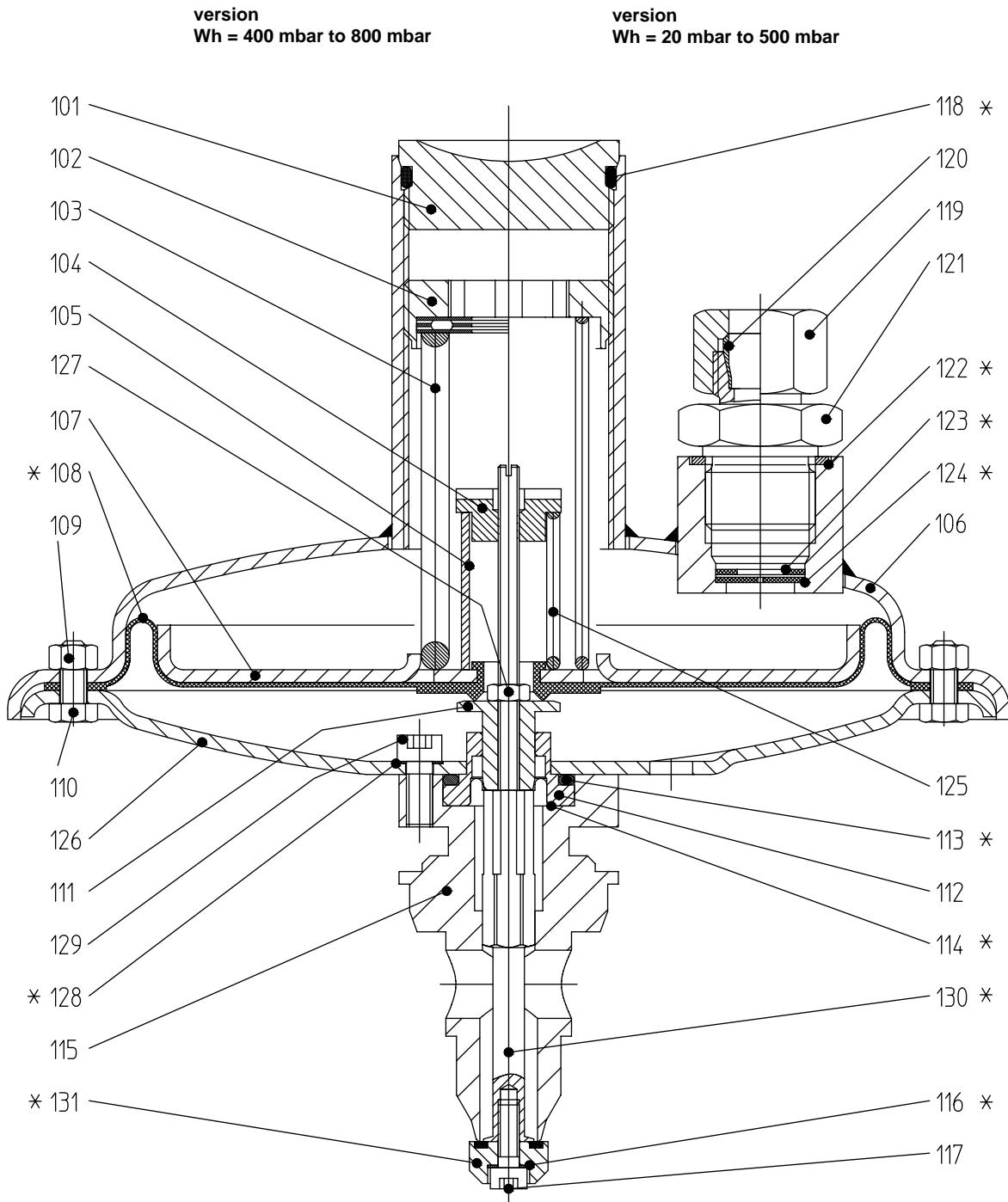
Parts marked by an asterisk * to be kept in stock for maintenance

Material-key:

St	... steel	LM	...light metal	K	... plastic material
NSt	... spring steel	Ms	... brass	KG	... rubber-like plastic material
GLM	... light metal cast				

3.3 Spare Parts Drawing RMG 300

Diaphragm assembly 1



* Parts to be kept in stock for maintenance

3.4 Spare Parts List RMG 300

Diaphragm assembly 1

pos. no.	description	material	item no.
101	closing cap	St	10 004 327
102	adjusting screw, alternatively:		
-	W _h 20 mbar to 500 mbar	LM	10 004 326
-	W _h 400 mbar to 800 mbar	LM/St	10 004 194
103	pressure spring, alternatively:		
-	W _h 20 mbar to 45 mbar	FSt	10 004 334
-	W _h 35 mbar to 100 mbar	FSt	10 004 335
-	W _h 80 mbar to 200 mbar	FSt	10 004 336
-	W _h 150 mbar to 300 mbar	FSt	10 004 337
-	W _h 250 mbar to 400 mbar	FSt	10 004 338
-	W _h 300 mbar to 500 mbar	FSt	10 004 339
-	W _h 400 mbar to 800 mbar	FSt	10 004 340
104	ring plate	LM	10 004 325
105	block tube	St	18 354 788
106	diaphragm cover, complete	St	10 004 271
107	diaphragm plate	LM	10 004 323
108*	rolling diaphragm	KG	10 004 320
109	hexagon mutter	St	00 003 020
110	hexagon screw	St	00 008 163
111	guide piece	LM	10 004 196
112	diaphragm ring	NSt	10 004 195
113*	o-ring	KG	00 020 383
114*	compensating diaphragm	KG	10 004 316
115	jet, Ø 11mm	LM	10 004 197
116*	sealing ring	LM	00 018 701
117	cylinder screw	St	00 010 391
118*	o-ring	KG	00 020 305
119	cap nut	St	00 030 804
120	compression joint	St	00 030 904
121	threaded adapter R 1/2" / E 12 L	St	00 030 142
122*	sealing ring	LM	00 018 684
123*	safety ring	FSt	00 019 135
124*	plastic material slotted disc	KG	10 003 607
125	pressure spring to W _h 500 mbar	FSt	10 004 344
126	diaphragm casing	St	10 004 305
127	hexagon nut	St	00 005 414
128*	sealing ring	LM	00 018 807
129	cylinder screw	St	00 010 318
130*	valve rod, complete	NSt/St/LM	10 004 268
131*	valve plate	LM/KG	10 004 313

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

Material-key:

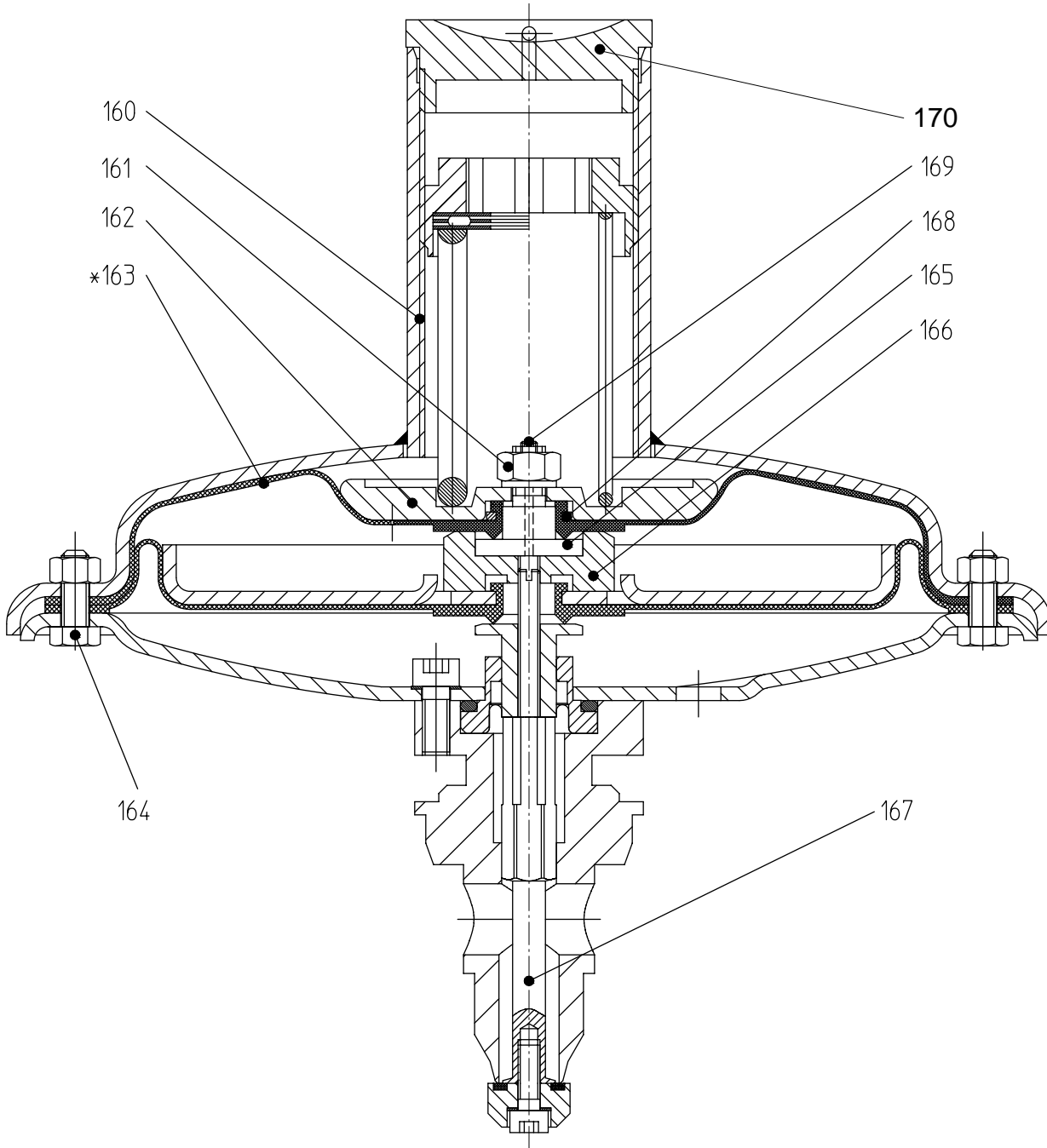
St	... steel	LM	...light metal	KG	... rubber-like plastic material
NSt	... stainless steel				
FSt	... spring steel				

3.5 Spare Parts Drawing RMG 300

Diaphragm assembly 1 with safety diaphragm

version
 $W_h = 400$ to 800 mbar

version
 $W_h = 20$ to 500 mbar



* Parts to be kept in stock for maintenance

Parts without item pos. see p. 6

3.6 Spare Parts List RMG 300

Diaphragm assembly 1 with safety diaphragm

pos. no.	description	material	item no.
160	diaphragm cover	St	10 004 706
161	hexagon nut	St	00 003 399
162	spring plate	LM	10 004 360
163	safety diaphragm	KG	10 004 367
164	hexagon screw	St	00 010 008
165	fixing screw	NSt	10 004 361
166	distance piece	LM	10 004 366
167	valve rod, complete	NSt/St/LM	10 004 363
168	sealing ring	LM	00 018 740
169	threaded pin	St	00 012 405
170	closing cap	LM	10 004 368

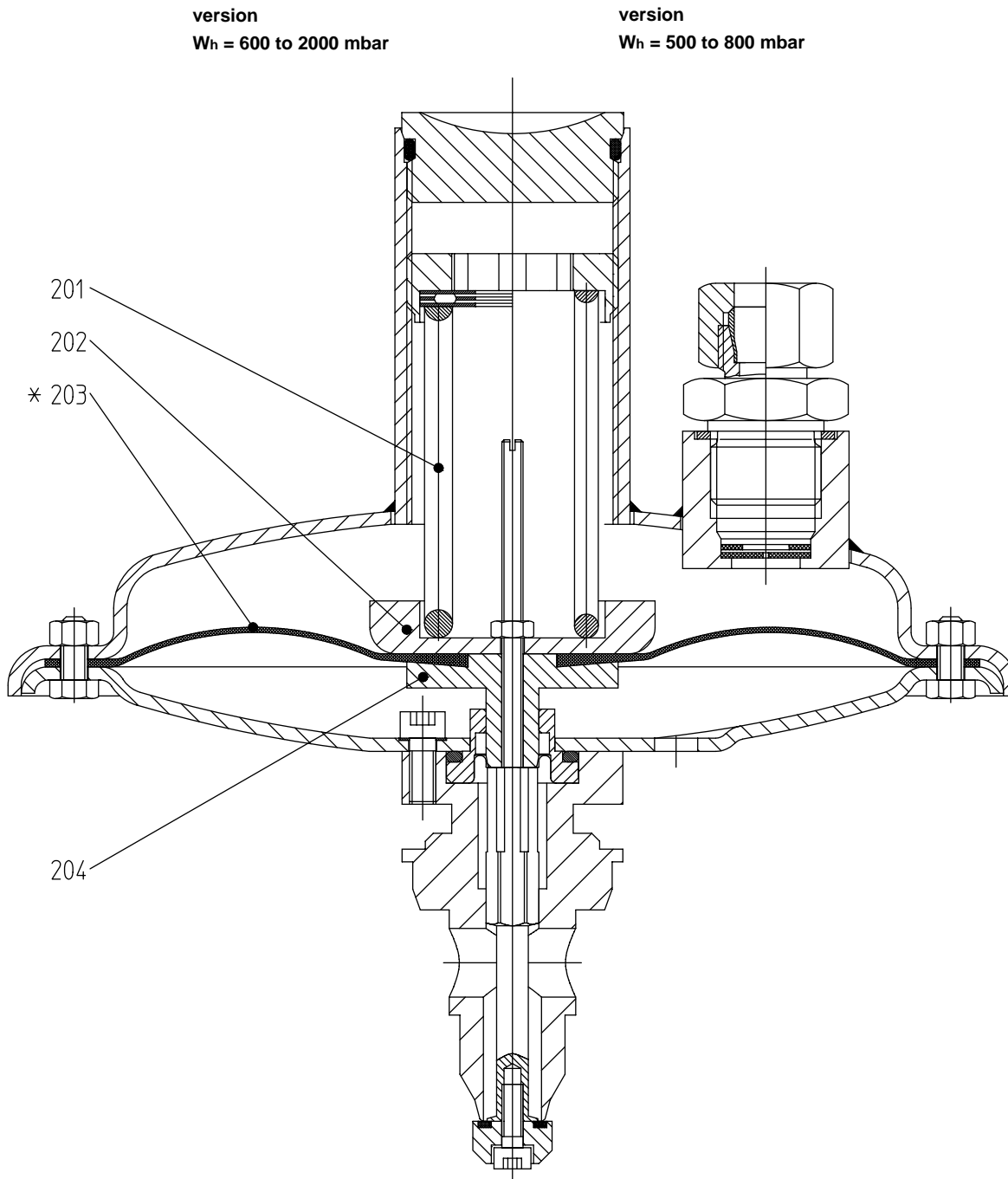
Parts marked by an asterisk * to be kept in stock for maintenance

Material-key:

St	... steel	LM	...light metal	KG	... rubber-like plastic material
NSt	... stainless steel				
FSt	... spring steel				

3.7 Spare Parts Drawing

Diaphragm assembly 2



* Parts to be kept in stock for maintenance

Parts without item pos. see p. 6

3.8 Spare Parts List RMG 300

Diaphragm assembly 2

pos. no.	description	material	item no.
201	pressure spring, alternatively:		
-	Wh 500 mbar to 800 mbar	FSt	10 004 339
-	Wh 600 mbar to 2000 mbar	FSt	10 004 340
202	diaphragm plate	LM	10 004 386
203*	form diaphragm	KG	10 004 713
204	guide piece	LM	10 004 385

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

Material-key:

FSt	... spring steel	LM	...light metal	KG	... rubber-like plastic material
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design and assembly of gas pressure regulating and metering stations

The RMG Group of Companies on the internet: <http://www.rmg.de>

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