# GRACO

# 6000313E, Rev. B

PRESSURE REGULATION VALVE P2-RM - P10-RM - P20-RM

Manually regulated pressure regulation valve for liquid materials. In particular for paints at operating temperature within a viscosity range of 30 to 1500 mm<sup>2</sup>/s (cSt).

In special cases and with agreement the range can be extended.

# **Description**

The pressure regulation valve essentially consists of the housing bottom part ① with valve seat ② and fluid connection holes ③ as well as the housing top part ④ with pressure spring ⑤, spring guide (spring cap) ⑥ and regulating key ⑦.



A diaphragm (8) is fitted as a separating element (fluid space/spring space) between the housing top part and bottom part.

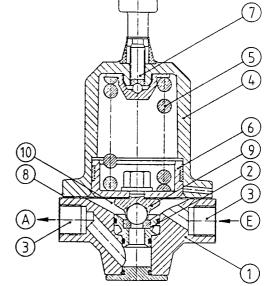
The valve tappet (9) connects the diaphragm to the spring cap and ensures the transmission of the diaphragm movement to the pressure spring.

The pressure regulation valve is fitted in circulation circuits.

During operation, the fluid under pressure flows from the inlet E to the diaphragm space 10 and from there via the valve seat to the outlet A.

Changes in the fluid inlet pressure, eg. due to removal, are transmitted to the pressure spring by the movement of the diaphragm and have an effect on the cross-section in the valve seat through the valve tappet.

In this way consumers connected to the system are protected from pressure interruptions and large pressure fluctuations in the circuit can be avoided.



Replacement for issue of 02.96 Subject to change

Prepared by 08.09.99 Stengele Checked by 19.10.99 Kuhn

USER INFORMATION	I
- TECHN. PRODUCT DESCRIPTION -	

ssued 10.99 B.12.30.01-P

F22.060.01, issued on 07.99

79996 001071

The pressure regulation valve is designed for straight pipeline construction with the shortest throttle path and best possible flushing capacity.

- Internal threads have been avoided.

# Technical data

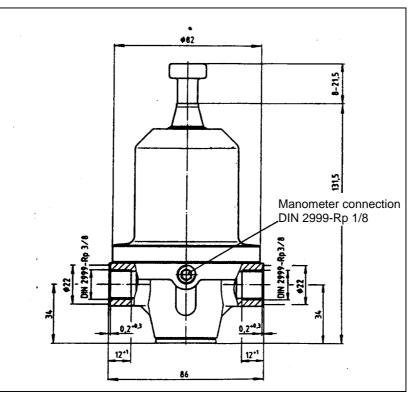
Model range

Pressure regulation	Regulation pressure	Materials of the	Weight	Article No.
valve	Range	parts in contact with		
Model	[ bar ]	the fluid	[ kg ]	
P 2-RM	0,5-2		1,30	79636 002007
P 10-RM	1-10	Stainless steel 1.4305		79636 002004
P 20-RM	0-RM 1-20 Stainless steel		1,45	79636 002005
		1.4308, 1.4310,		

Fluid

<ul> <li>Temperature range</li> <li>Max. allowable input pressure</li> <li>Max. volume flow rate</li> </ul>	0-90 <sup>°</sup> C 10 bar (P10-RM) 20 bar (P20-RM) 2 bar (P2 –RM) 15 I/min. (not P2-RM)
Construction materials	
Valve tappet, ball, seat Diaphragm Seals	Hardened steel G10 PTFE (rubber-lined) FPM

## **Dimensions**



# Build-up position Vertical, regulating key points upwards

## Commissioning, Operation

All pressure regulation valves are tested for operation with an anti-corrosion liquid after factory assembly.

When commissioning, the residues of this anti-corrosion liquid as well as contaminants that are unavoidable during the assembly of the system, should be thoroughly flushed out with a suitable solvent (detergent).

Before prolonged shutdown (holidays), the pressure regulation valves should also be flushed and the detergent left in the system until the next time it is used.

## Faults and their causes

Fault	Inlet pressure exceeds	Inlet pressure	Fluid escapes from the
	the set value.	is falling.	aeration hole of the
Fault location			housing top part.
Fluid removal points	Too little fluid removal. Reset	Too much fluid removal.	
(consumer)	inlet pressure accordingly.	Reset inlet pressure	
(consumer)		accordingly.	
	Check the lines to see		
Lines	whether there is free		
	discharge behind the valve;		
	clean if necessary.		
Dump		Check whether the pump is	
Pump		working properly.	
Dianhaaraa			Replace defective
Diaphragm			diaphragm.

GRACO VERFAHRENSTECHNIK GMBH	DUISBURGER STR. 7 D-33647 BIELEFELD
MATERIALTEMPERATUR MAX [B MATERIALEINGANGSDRUCK MAX [C	

We recommend that the data of the supplied pressure regulation valve on the original nameplate should be recorded here.

#### Footnote

This technical product description also serves as operating instructions.

#### Associated documentation

List of part illustrations

List of replacement parts

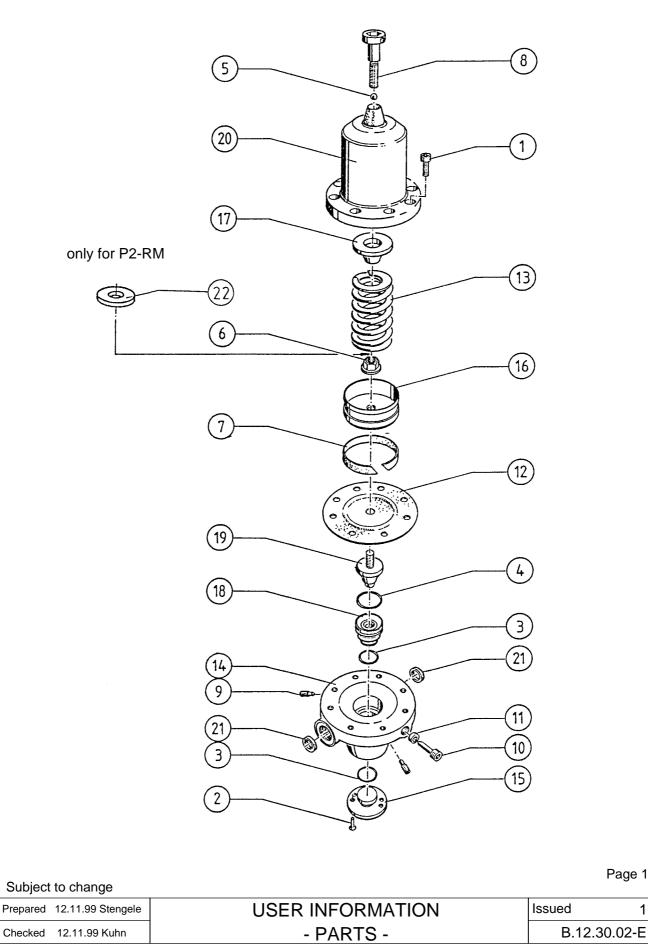
B.12.30.02-E

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# GRACO

# PRESSURE REGULATION VALVE P2-RM - P10-RM - P20-RM

SST basic model



F22.060.01, issued on 07.99

Note protection mark in accordance with DIN 34

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#### PRESSURE REGULATION VALVE P10-RM PRESSURE REGULATION VALVE P20-RM PRESSURE REGULATION VALVE P2 -RM

#### PART Nbr. 79636 002004 PART Nbr. 79636 002005 PART Nbr. 79636 002007

							Id	entifi	catio	n.	
Ref. nbr.	Qty	Part Nbr.	Description	n	Dimensions	А	D	к	М	V	W
1	8	74006 007033	Cheese head screw		M 5 x 16						
2	2	74017 021013	Countersunk screw		M 4 x 10						
3	2	74186 025020	O-ring		12 x 2 B						
4	1	74186 030020	O-ring		20 x 2 B						
5	1	74824 013090	Ball		6 mm III						
6	1	75083 001006	Hexagonal collar nut		Seal Lock M 8						
7	1	75739 078002	Packing		8 x 1.5 x 143						
8	1	76007 016001	Cheese head screw		M 8 x 36						
9	2	76051 001001	Set screw	AE	M 6 x 15.5						
10	1	76051 011002	Set screw		G 1/8 x 25						
11	1	76188 007001	Seal		4 x 8.5 x 5						
12	1	76196 065001	Flat diaphragm		D 83 x T 0,65						
13	1	76313 091001	Spring		For type P10-RM						
13	1	76313 093001	Spring		For type P20-RM						
14	1	76504 002002	Housing bottom part		-						
15	1	76530 001003	Cover		D 16						
16	1	76561 025001	Spring guide		D 41						
17	1	76842 028001	Spring support		D 21						
18	1	77275 011003	Valve seat	complete	D 6,5						
19	1	77277 002003	Valve tappet	complete	-						
20	1	77502 002001	Housing top part	complete	-						
21	2	76104 118001	Seal		9 x 14.8 x 4						
13	1	76313 370001	Spring		For type P2-RM						
22	1	74094 017003	Washer		For type P2-RM						
	1										
	1										

A = Replacement part

D = Seal

M = Assembly tool

V = Wear part

K = Supplied as complete set

W = Maintenance part

Subject to change

# **GRACO STANDARD WARRANTY**

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the repaid return of equipment claimed to be defective to an authorized Graco distributor for verification of claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco does not extend its warranty to accessories, appliances, materials or components which are sold by Graco but are not manufactured by Graco and makes no guarantee, however implied, with regard to the brand capability and suitability for a certain purpose. These parts sold by Graco but not manufactured by Graco (such as electric motors, switches, hoses, etc.) are covered by the warranties of the respective manufacturers. Graco will support the buyer in enforcing any warranty claim with the proviso that in no event can Graco be made liable for indirect, incidental, special or consequential damages which arise from the supply of appliances by Graco under the conditions governed by these provisions, or the supply, performance or use of any products or other goods which are sold under the conditions governed by these or the part of Graco or for any other reason.

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