

FLUID REGULATORS

mechanical and pneumatic



Better Finish
Precision Regulation
Easy Maintenance
Straight Thread Design

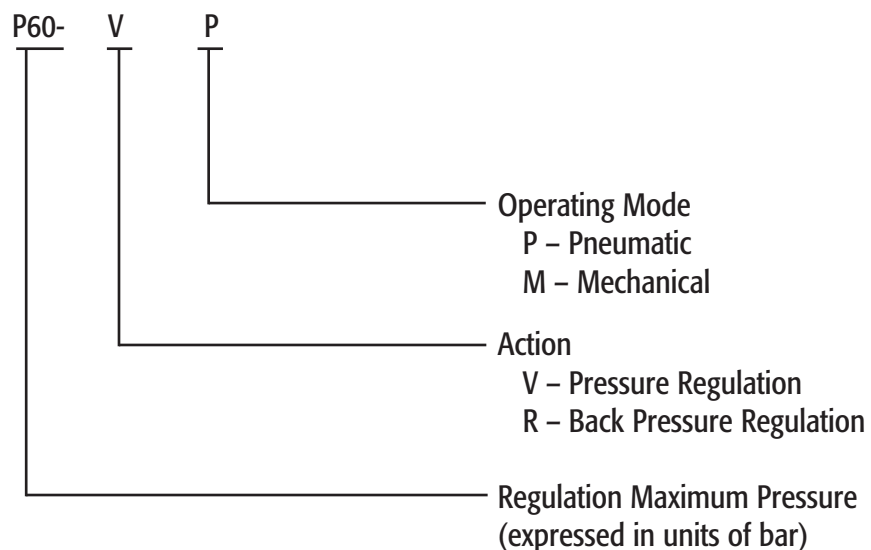


Downstream Fluid Regulators

Fluid regulators control the fluid pressure and keep it constant. The pressure is adjusted either mechanically or pneumatically by remote control. Graco® regulators are built for high pressure applications and are precisely adjustable at low pressures – a complete range for any purpose. All wetted parts are made of stainless steel; valve seats, balls and stems are made of tungsten carbide. The range of regulators are suitable for use with oils, emulsions, solventborne and waterborne paints, dispersions, latex, printing inks, hardener, alcohol, water, cleaning agents, corrosive, aggressive or abrasive fluids.

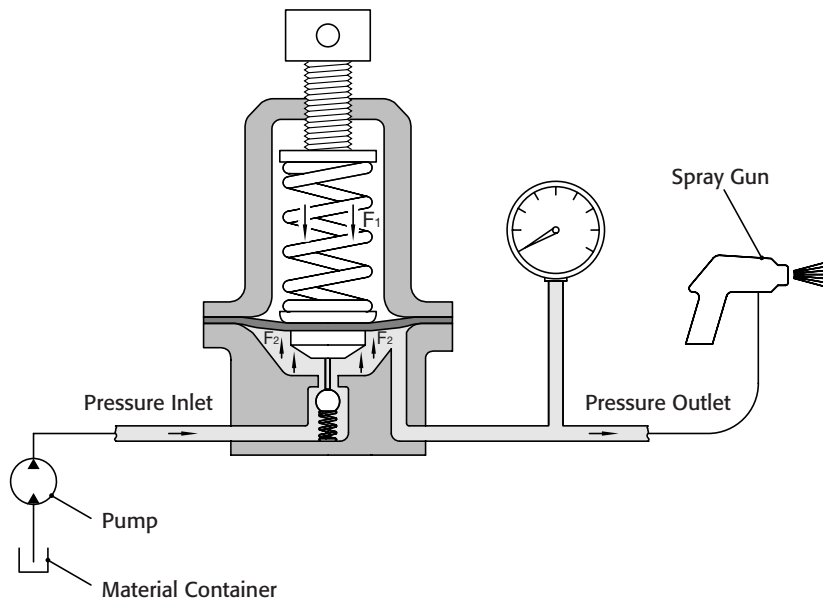
- Available with mechanical control or pneumatic remote control.
- Suitable for fluids with low and high viscosities.
- Wetted parts made of stainless steel.
- Valve seats, valve balls and stems made of tungsten carbide.
- Application-oriented pressure ranges.
- Easy to flush due to a streamlined internal design.
- Compact and innovative design.
- Easy to service and maintain.

Key to Model Designation for Fluid Regulators

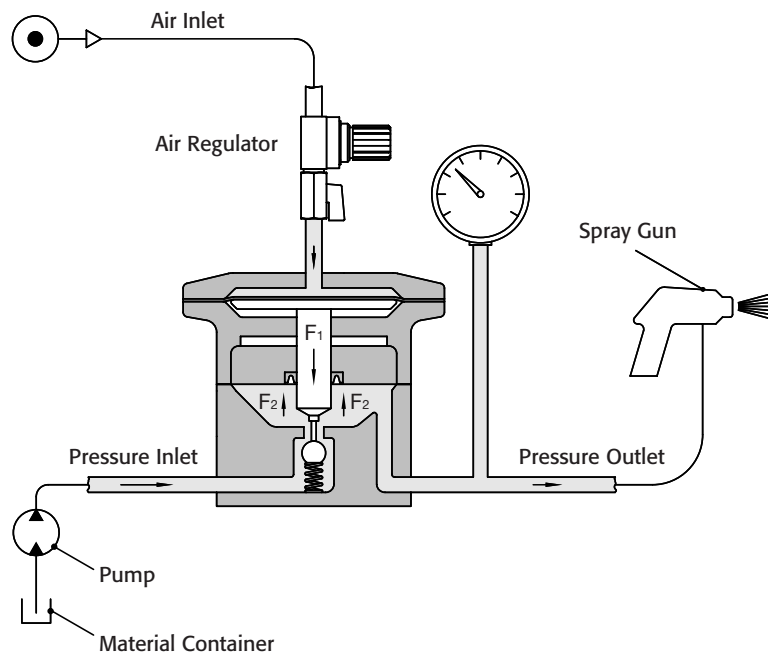


Functions of Downstream Fluid Regulators

Mechanically Adjustable Pressure Regulator



Pneumatically Adjustable Pressure Regulator



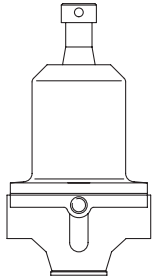
NOTES:

- 1 – At open position, Force₁ (F_1) = Force₂ (F_2) (input fluid pressure in = output fluid pressure out)
- 2 – At increased fluid flow, $F_1 > F_2$ (as an example, when pulling the trigger)
- 3 – At decreasing fluid flow, $F_1 < F_2$

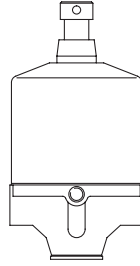
Downstream Fluid Regulators

Mechanically Adjustable Ordering Information

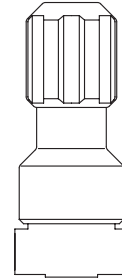
Bare fluid regulator only



P 10-VM
P 20-VM



P 50-VM

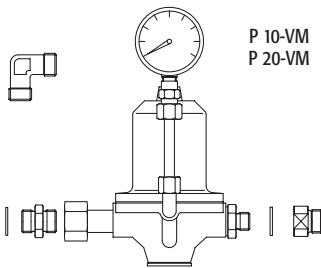


P 100-VM
P 200-VM
P 270-VM

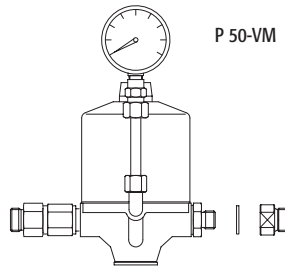
Part No.	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts	Instruction Manual
			bar	psi	MPa	bar	psi	MPa			
233774	P 10-VM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 10	14.5 - 145	0.1-1	40	580	4	27 lpm (7 gpm)	SST, Carbide Valve	309474
79635 021004	P 10-VM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 10	14.5 - 145	0.1 - 1	40	580	4	27 lpm (7 gpm)	SST, PEEK valve	-
233757	P 20-VM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 20	14.5 - 290	0.1-2	40	580	4	27 lpm (7 gpm)	SST, Carbide Valve	309474
233759	P 50-VM	3/8 BSPP(f) 3/8 BSPP(f)	10 - 50	145 - 725	1 - 5	70	1050	7	38 lpm (10 gpm)	SST, Carbide Valve	309474
233814	P 100-VM	3/8 BSPP(f) 3/8 BSPP(f)	40 - 100	580 - 1450	4 - 10	180	2611	18	30 lpm (8 gpm)	SST, Carbide Valve	309475
233767	P 200-VM	3/8 BSPP(f) 3/8 BSPP(f)	90 - 200	1305 - 2901	9 - 20	360	5221	36	30 lpm (8 gpm)	SST, Carbide Valve	309475
233768	P 270-VM	3/8 BSPP(f) 3/8 BSPP(f)	90 - 270	1305 - 3916	9 - 27	360	5221	36	34 lpm (9 gpm)	SST, Carbide Valve	309475

Mechanically Adjustable Complete Set-Up

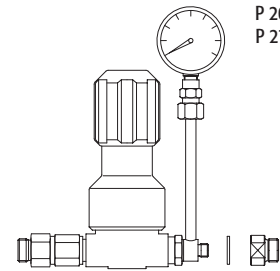
Includes fluid regulators with gauge and hose connection



P 10-VM
P 20-VM



P 50-VM



P 100-VM
P 200-VM
P 270-VM

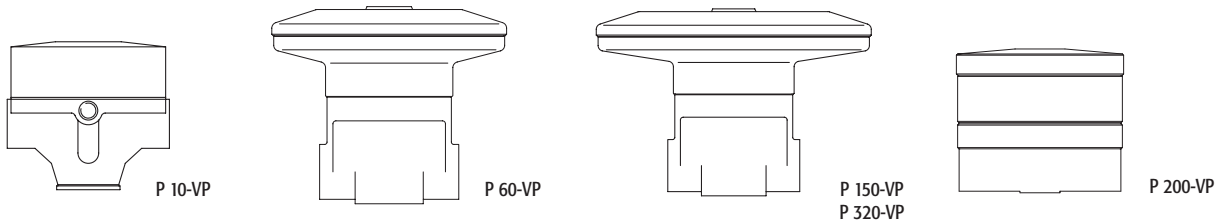
Part No.	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts
			bar	psi	MPa	bar	psi	MPa		
79635 004026	P 10-VM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 10	14.5 - 145	0.1 - 1	40	580	4	27 lpm (7 gpm)	SST, carbide valve
79635 010031	P 20-VM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 20	14.5 - 290	0.1 - 2	40	580	4	27 lpm (7 gpm)	SST, carbide valve
79635 011036	P 50-VM	3/8 BSPP(f) 3/8 BSPP(f)	10 - 50	145 - 725	1 - 5	70	1050	7	38 lpm (10 gpm)	SST, carbide valve
79637 012041	P 100-VM	3/8 BSPP(f) 3/8 BSPP(f)	40 - 100	580 - 1450	4 - 10	180	2611	18	30 lpm (8 gpm)	SST, carbide valve
79637 012046	P 200-VM	3/8 BSPP(f) 3/8 BSPP(f)	90 - 200	1305 - 2900	9 - 20	360	5221	36	30 lpm (8 gpm)	SST, carbide valve
79637 012048	P 270-VM	3/8 BSPP(f) 3/8 BSPP(f)	90 - 270	1305 - 3915	9 - 27	360	5221	36	34 lpm (9 gpm)	SST, carbide valve

Note: BSPP is British Standard Pipe Parallel thread

Downstream Fluid Regulators

Pneumatically Adjustable Ordering Information

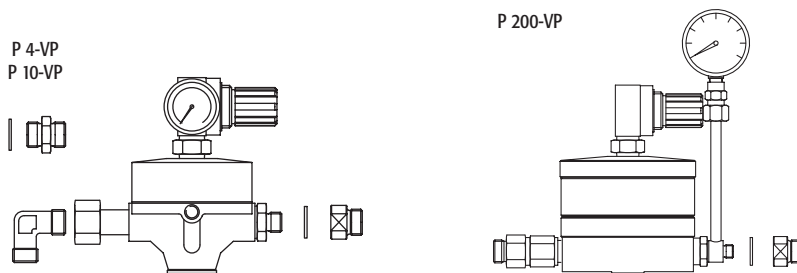
Bare fluid regulator only



Part No.	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts	Instruction Manual
			bar	psi	MPa	bar	psi	MPa			
233773	P 10-VP	3/8 BSPP(f) 3/8 BSPP(f)	0.4 - 10	5.8 - 145	0.04 - 1	40	580	4	27 lpm (7 gpm)	SST, Carbide Valve	309474
233809	P 10-VP	3/8 BSPP(f) 3/8 BSPP(f)	0.4 - 10	5.8 - 145	0.04 - 1	40	580	4	27 lpm (7 gpm)	SST, PEEK Valve	309474
233760	P 60-VP	3/4 BSPP(f) 3/4 BSPP(f)	5 - 60	72 - 870	0.5 - 6	360	5221	36	38 lpm (10 gpm)	SST, Carbide Valve	309475
233769	P 150-VP	3/4 BSPP(f) 3/4 BSPP(f)	20 - 150	280 - 2175	0.2 - 15	360	5221	36	38 lpm (10 gpm)	SST, Carbide Valve	309475
233813	P 200-VP	3/8 BSPP(f) 3/8 BSPP(f)	40 - 250	580 - 3625	4 - 25	360	5221	36	38 lpm (10 gpm)	SST, Carbide Valve	309475
233770	P 320-VP	3/4 BSPP(f) 3/4 BSPP(f)	40 - 320	580 - 4640	0.4 - 32	360	5221	36	38 lpm (10 gpm)	SST, Carbide Valve	309475

Pneumatically Adjustable Complete Set-Up

Includes fluid regulators with gauge and hose connection



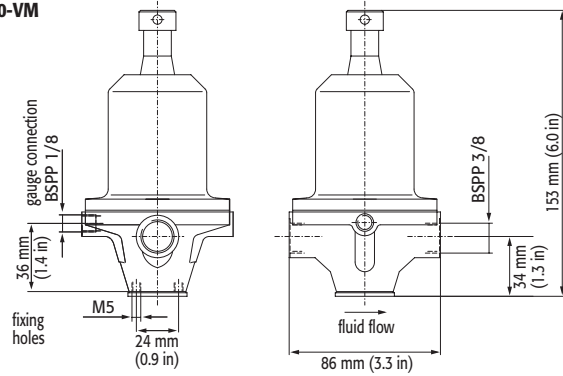
Part No.	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts
			bar	psi	MPa	bar	psi	MPa		
79635 060083	P 4-VP	3/8 BSPP(f) 3/8 BSPP(f)	0.4 - 10	5.8 - 145	0.04 - 1	40	580	4	27 lpm (7 gpm)	SST, Carbide Valve
79635 003081	P 10-VP	3/8 BSPP(f) 3/8 BSPP(f)	0.4 - 10	5.8 - 145	0.04 - 1	40	580	4	27 lpm (7 gpm)	SST, Carbide Valve
79637 007086	P 200-VP	3/8 BSPP(f) 3/8 BSPP(f)	40 - 250	580 - 3625	4 - 25	360	5221	30	38 lpm (10 gpm)	SST, Carbide Valve

Note: BSPP is British Standard Pipe Parallel thread

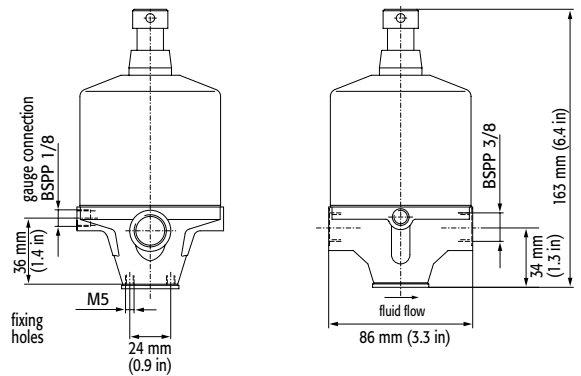
Downstream Fluid Regulators

Mechanically Adjustable Dimensions

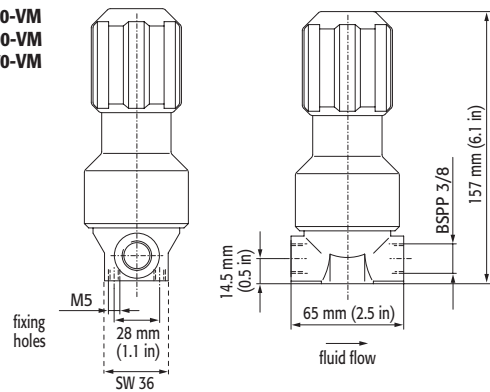
**P 10-VM
P 20-VM**



P 50-VM

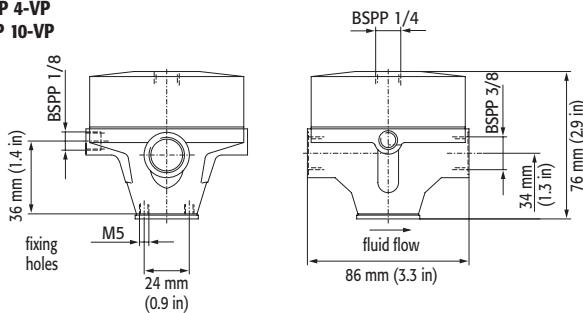


**P 100-VM
P 200-VM
P 270-VM**

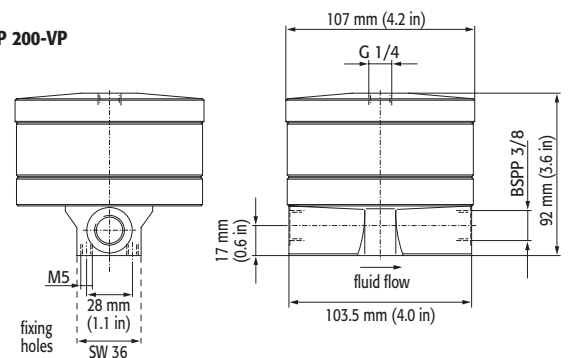


Pneumatically Adjustable Dimensions

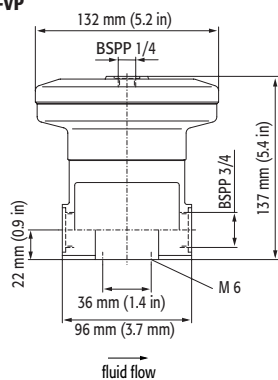
**P 4-VP
P 10-VP**



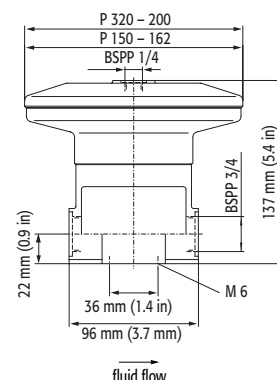
P 200-VP



P 60-VP



**P 150-VP
P 320-VP**



Downstream Fluid Regulators

Accessories

Item	Part No.	Description
1001	77254 008003	Nipple, 3/8 BSPP
1002	77214 017003	Elbow nipple, 3/8 BSPP swivel
1003	77240 005002	Double nipple, 3/8 cone x 3/8 BSPP
1004	74188 015090	Gasket
1006	76639 016003	Reducing nipple, 3/8 BSPP x 1/4 BSPP
1007	76640 005001	Nipple, 3/8 BSPP
1008	75214 011001	Elbow nipple, 3/8 cone x 1/4 BSPP
1009	77796 064003	Pipe
1010	75782 003001	Gauge, 1/4 BSPP, 0-4 bar
1011	75782 006001	Gauge, 1/4 BSPP, 0-16 bar
1012	75782 007001	Gauge, 1/4 BSPP, 0-25 bar
1013	77654 002001	Bracket
1014	75782 010001	Gauge, 1/4 BSPP, 0-60 bar
1015	77796 063002	Pipe
1016	75782 012001	Gauge, 1/4 BSPP, 0-160 bar

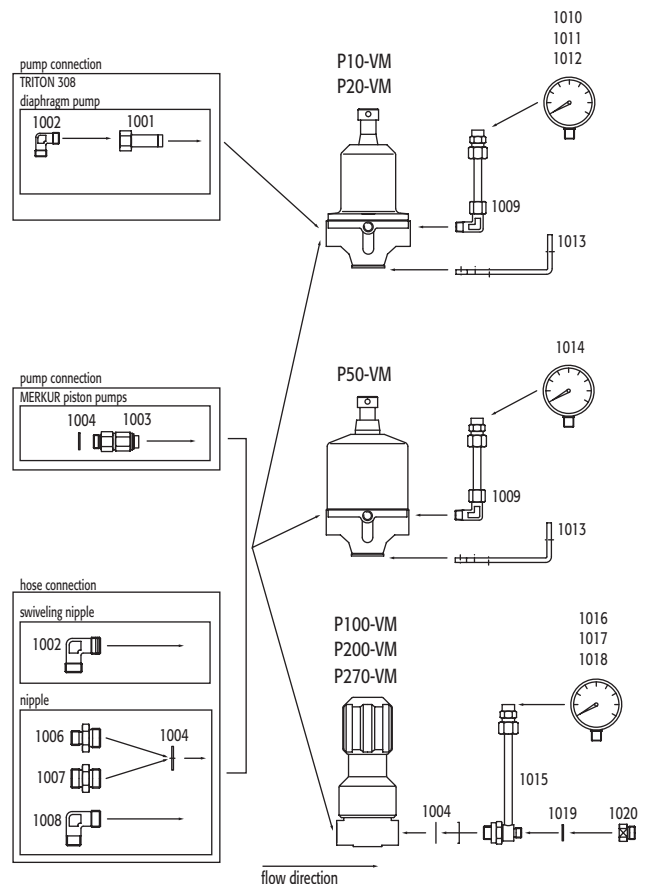
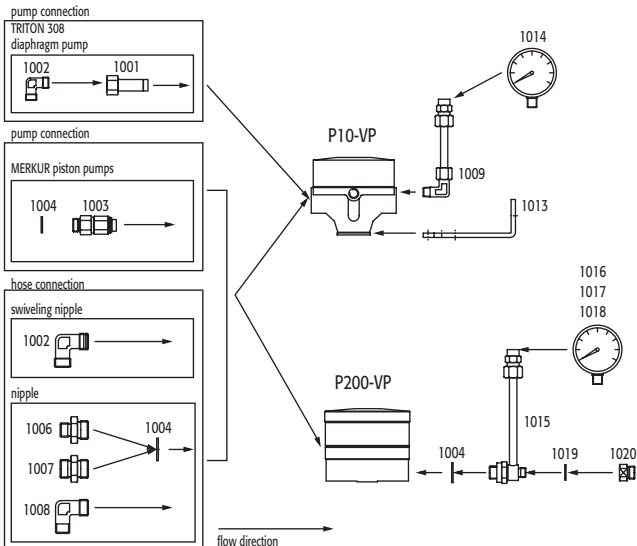
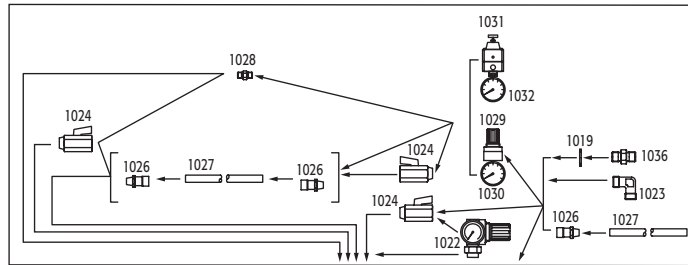
Item	Part No.	Description
1017	75782 013001	Gauge, 1/4 BSPP, 0-250 bar
1018	75782 014001	Gauge, 1/4 BSPP, 0-315 bar
1019	74188 012090	Gasket
1020	76641 017001	Nipple, 1/4 BSPP
1022	77631 014002	Air regulator, 1/4 BSPP, 0-10 bar
1023	75214 006002	Elbow nipple, 1/4 cone x M14
1024	77601 005002	Ball valve, 1/4 cone x 1/4 BSPP
1026	75201 001010	Nipple, 1/4 cone x M8
1027	70346 057004	Air Hose
1028	75239 001003	Nipple, 1/4 cone x 1/4 cone
1029	75631 004001	Air regulator, 1/4 BSPP, 0-10 bar
1030	75781 002001	Gauge, 1/8 BSPP, 0-16 bar
1031	75631 002002	Air regulator, 1/4 BSPP, 0-4 bar
1032	75781 001001	Gauge, 1/8 BSPP, 0-6 bar
1036	76639 014001	Reducing nipple, 1/4 BSPP x M14

BSPT x npt Adapter Fittings

- 115817 Nipple**
1/8 BSPT(m) x 1/8 npt(m), stainless steel
- 15A983 Nipple**
1/4 BSPT(m) x 1/4 npt(m), stainless steel

- 15A641 Nipple**
3/8 BSPT(m) x 3/8 npt(m), stainless steel
- 15A984 Nipple**
3/4 BSPT(m) x 3/4 npt(m), stainless steel
- 15A985 Nipple**
1 BSPT(m) x 1 npt(m), stainless steel

Air connection for P 10-VP and P 200-VP

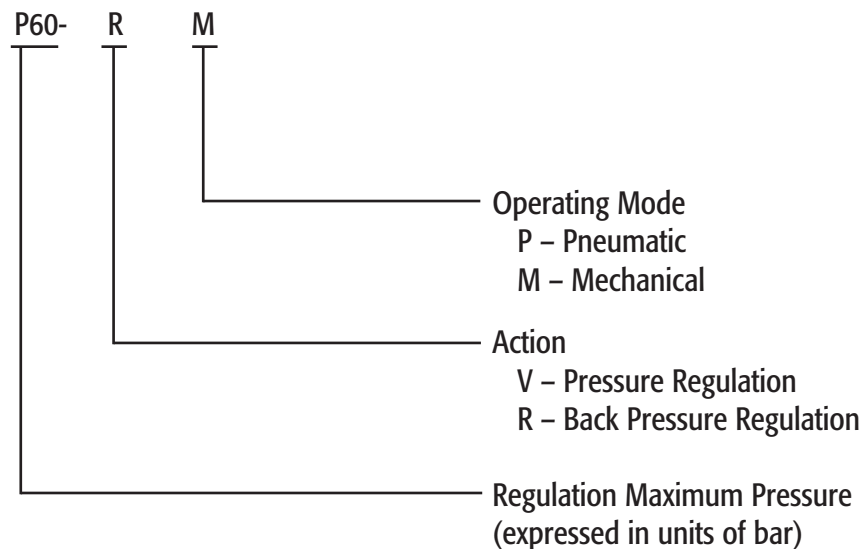


Back Pressure Fluid Regulators

Back pressure regulators limit the supply pressure to a set value by opening an outlet and guiding back the excess material once the predetermined pressure has been achieved. Depending on the model, pressures can also be set by spring force or air-operated remote control. All wetted parts are stainless steel; the valve seats and balls are hardened steel. This ensures that oils, emulsions, lacquers, solventborne and waterborne paints, latex, inks, hardeners, alcohol, water and cleaning agents can be processed safely.

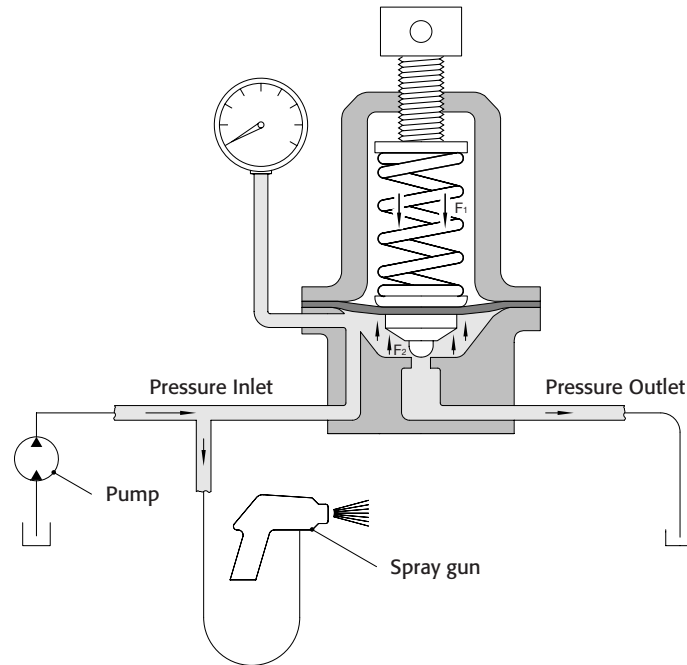
- Depending on the version used, the pressure can be pneumatically set by remote control.
- Wetted parts made of stainless steel.
- Optimum inside geometry ensures easy flushing.
- Compact size means less space needed.
- Modern industrial design requires minimal maintenance.

Key to Model Designation for Back Pressure Regulators

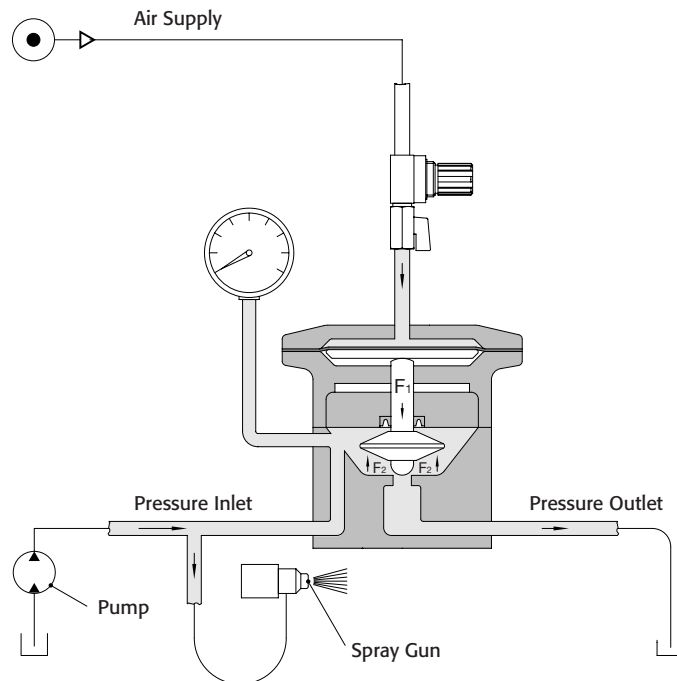


Functions of Back Pressure Fluid Regulators

Mechanically Adjustable Back Pressure Regulator



Pneumatically Adjustable Back Pressure Regulator



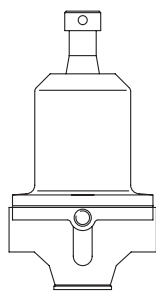
NOTES:

- 1 – When spray gun is opened, a constant material pressure is maintained, Force₁ (F_1) = Force₂ (F_2) (equilibrium of forces)
- 2 – When withdrawal of material is increased, $F_1 > F_2$ (as an example spray gun is opened more)
- 3 – When withdrawal of material is reduced, $F_1 < F_2$ (back pressure regulator opens)

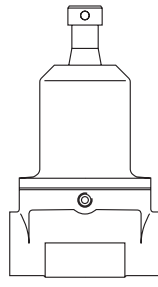
Back Pressure Fluid Regulators

Mechanically Adjustable Ordering Information

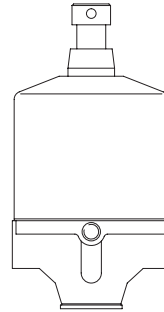
Bare fluid regulator only



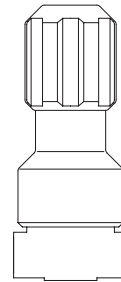
P 10-RM
P 20-RM
(3/8 BSPP)



P 20-RM
(1 BSPP)



P 50-RM

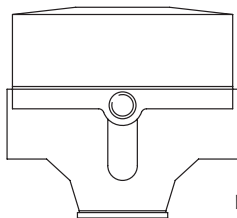


P 100-RM
P 200-RM

Part. No	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts	Instruction Manual
			bar	psi	MPa	bar	psi	MPa			
233758	P 10-RM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 10	14.5 - 145	0.1 - 1	10	145	1	17 lpm (4.5 gpm)	SST, steel valve	309474
233950	P 20-RM	3/8 BSPP(f) 3/8 BSPP(f)	1 - 20	14.5 - 290	0.1 - 2	20	290	2	17 lpm (4.5 gpm)	SST, steel valve	—
233811	P 20-RM	1 BSPP(f) 1 BSPP(f)	1 - 20	14.5 - 290	0.1 - 2	20	290	2	30 lpm (8 gpm)	SST, steel valve	309474
233812	P 50-RM	3/8 BSPP(f) 3/8 BSPP(f)	5 - 50	72.5 - 725	0.5 - 5	50	725	5	45 lpm (12 gpm)	SST, steel valve	309474
233771	P 100-RM	3/8 BSPP(f) 3/8 BSPP(f)	40 - 100	580 - 1450	4 - 10	170	2465	17	38 lpm (10 gpm)	SST, steel valve	309475
233772	P 200-RM	3/8 BSPP(f) 3/8 BSPP(f)	90 - 200	1260 - 2900	9 - 20	235	3407	23.5	38 lpm (10 gpm)	SST, steel valve	309475

Pneumatically Adjustable Ordering Information

Bare fluid regulator only



P 10-RP

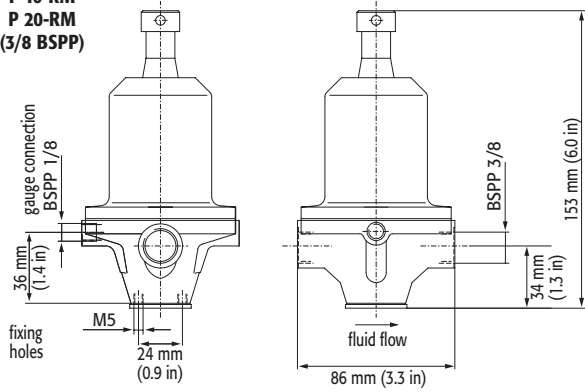
Part. No	Model	Inlet/Outlet	Regulated Pressure Range			Maximum Input Pressure			Maximum Delivery	Wetted Parts	Instruction Manual
			bar	psi	MPa	bar	psi	MPa			
233810	P 10-RP	3/8 BSPP(f) 3/8 BSPP(f)	1 - 10	14.5 - 145	0.14	10	145	1	17 lpm (4.5 gpm)	SST, steel valve	309474

Note: BSPP is British Standard Pipe Parallel thread

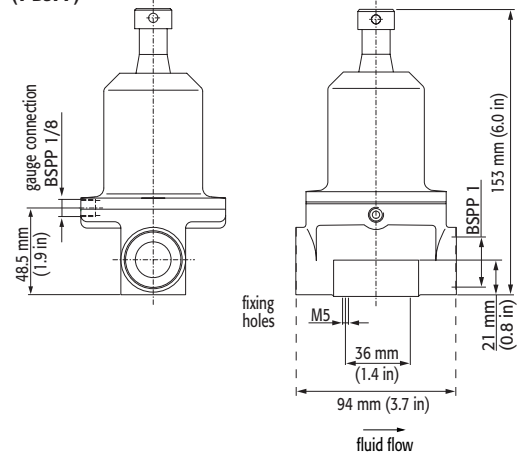
Back Pressure Fluid Regulators

Mechanically Adjustable Dimensions

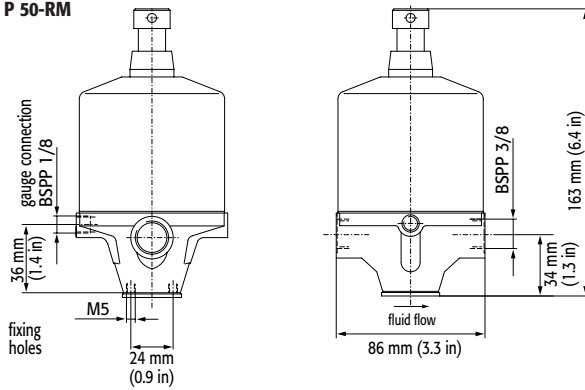
**P 10-RM
P 20-RM
(3/8 BSPP)**



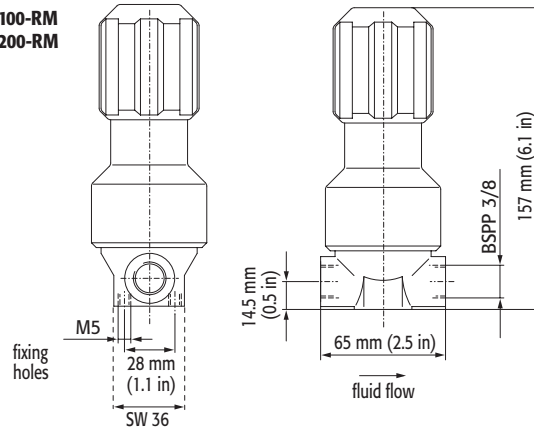
**P 20-RM
(1 BSPP)**



P 50-RM

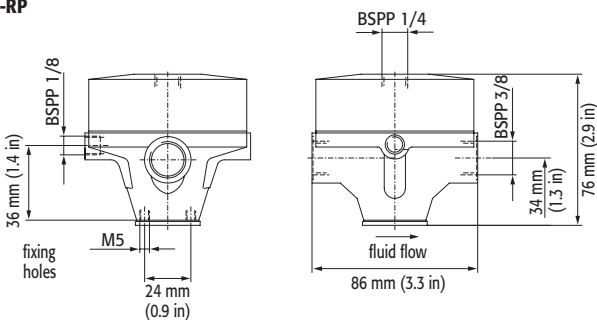


**P 100-RM
P 200-RM**



Pneumatically Adjustable Dimensions

P 10-RP



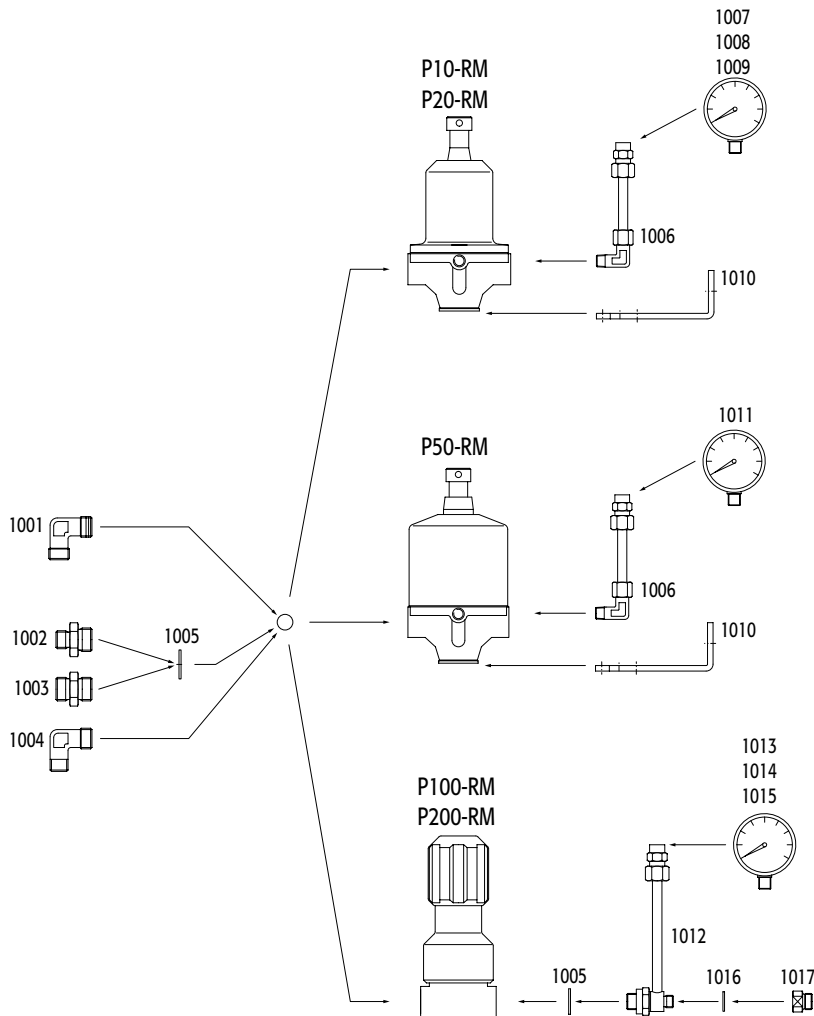
Back Pressure Fluid Regulators

Mechanically Adjustable Accessories

Item	Part No.	Description
1001	77214 017003	Angle, 3/8 BSPP
1002	76639 016003	Reducing connector, 3/8 BSPP x 1/4 BSPP
1003	76640 005001	Connector, 3/8 BSPP
1004	75214 011001	Angle adapter, 3/8 cone x 1/4 BSPP
1005	74188 015090	Sealing ring
1006	77796 064003	Pipe
1007	75782 003001	Gauge, 1/4 BSPP, 0-4 bar
1008	75782 006001	Gauge, 1/4 BSPP, 0-16 bar
1009	75782 007001	Gauge, 1/4 BSPP, 0-25 bar
1010	77654 002001	Angle
1011	75782 010001	Gauge, 1/4 BSPP, 0-160 bar
1012	77796 063002	Pipe
1013	75782 012001	Gauge, 1/4 BSPP, 0-160 bar
1014	75782 013001	Gauge, 1/4 BSPP, 0-250 bar
1015	75782 014001	Gauge, 1/4 BSPP, 0-315 bar
1016	74188 012090	Sealing ring
1017	76641 017001	Connector, 3/8 BSPP x 1/4 BSPP

BSPT x npt Adapter Fittings

- 115817 Nipple**
1/8 BSPT(m) x 1/8 npt(m), stainless steel
- 15A983 Nipple**
1/4 BSPT(m) x 1/4 npt(m), stainless steel
- 15A641 Nipple**
3/8 BSPT(m) x 3/8 npt(m), stainless steel
- 15A984 Nipple**
3/4 BSPT(m) x 3/4 npt(m), stainless steel
- 15A985 Nipple**
1 BSPT(m) x 1 npt(m), stainless steel



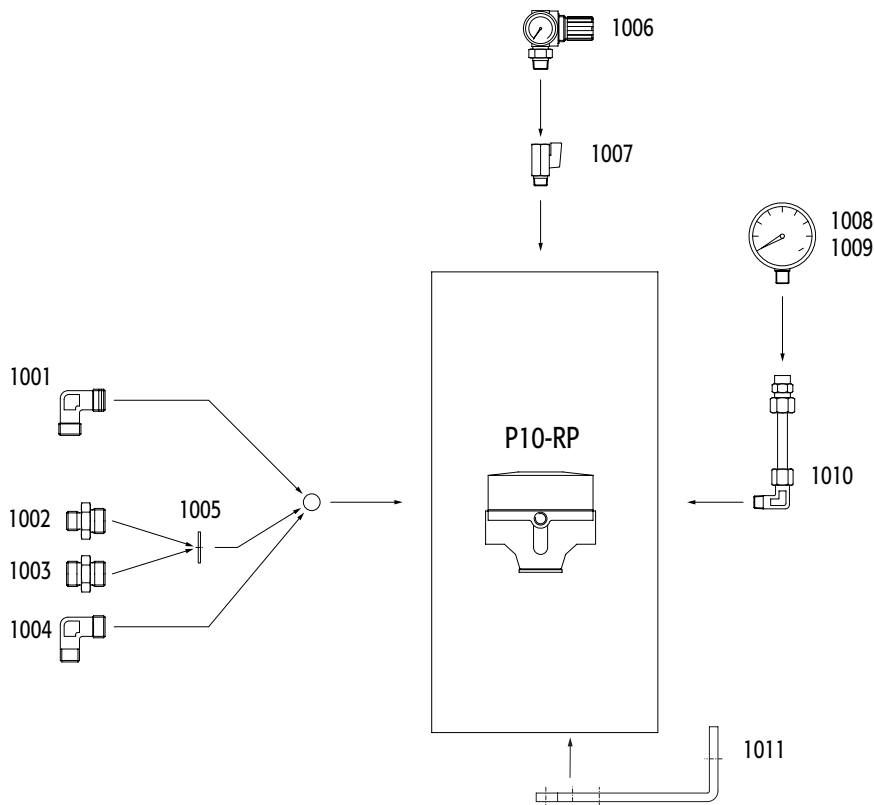
Back Pressure Fluid Regulators

Pneumatically Adjustable Accessories

Item	Part No.	Description
1001	77214 017003	Angle, 3/8 BSPP
1002	76639 016003	Reducing connector, 3/8 BSPP x 1/4 BSPP
1003	76640 005001	Connector, 3/8 BSPP
1004	75214 011001	Angle adapter, 3/8 cone x 1/4 BSPP
1005	74188 015090	Sealing ring
1006	77631 014002	Air regulator, 1/4 BSPP, 0-10 bar
1007	77601 005002	Ball valve, 1/4 cone x 1/4 BSPP
1008	75782 006001	Gauge, 1/4 BSPP, 0-16 bar
1009	75782 010001	Gauge, 1/4 BSPP, 0-60 bar
1010	77796 064003	Pipe
1011	77654 002001	Bracket

BSPT x npt Adapter Fittings

- 115817 Nipple**
1/8 BSPT(m) x 1/8 npt(m), stainless steel
- 15A983 Nipple**
1/4 BSPT(m) x 1/4 npt(m), stainless steel
- 15A641 Nipple**
3/8 BSPT(m) x 3/8 npt(m), stainless steel
- 15A984 Nipple**
3/4 BSPT(m) x 3/4 npt(m), stainless steel
- 15A985 Nipple**
1 BSPT(m) x 1 npt(m), stainless steel



regulators

ABOUT GRACO

PROVEN QUALITY. LEADING TECHNOLOGY.

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology which set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

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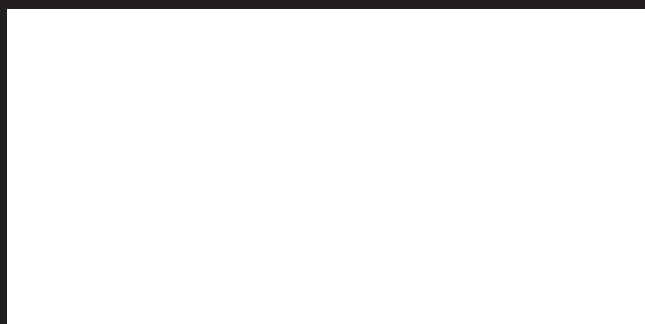
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All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Graco Inc. is registered to I.S. EN ISO 9001.



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