Pressure Regulators

1/4" to 1-1/2" – PVC and Corzan® CPVC

Reliable Pressure Regulation

Hayward Pressure Regulators prevent downstream pressure from exceeding a preset pressure. When the upstream pressure increases beyond the set pressure of the regulator, the regulator prevents the downstream pressure from exceeding the set pressure.

Easy to Set Pressure

Hayward Pressure Regulators can be set by hand, no tools are needed, to control downstream pressures from 5 to 75 PSI. Each size regulator is designed to cover this complete pressure range with just one, non-wetted, plastic coated spring. There's no need to change springs for different pressure ranges as with ordinary regulators.

Molded Gauge Port

An integral molded 1/4" NPT gauge port on the valve body makes installation of a gauge to monitor downstream pressure easy. No drilling, or extra fittings are needed.

No Corrosion Failure

These all plastic regulators have no metal parts and will never fail, jam, or stick because of rusted or corroded components. They also require no painting or epoxy coatings to survive corrosive environments.

Features

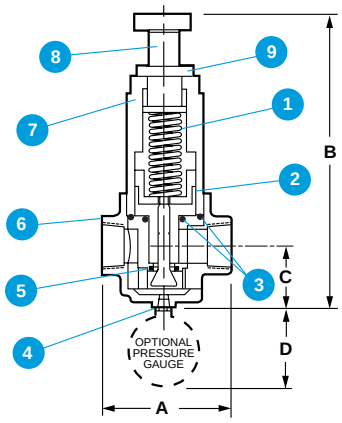
- No Metal Parts to Stick or Jam
- Hand Adjustable
- Molded Gauge Port
- Regulates from 5 to 75 PSI
- All Plastic, No Rust or Corrosion
- Viton® Seals

Options

- Pressure Gauges
  0 to 60 PSI
  0 to 160 PSI
- Gauge Guards

Corzan® CPVC is a trademark of Noveon, Inc.
Viton® is a trademark of DuPont Dow Elastomers

Technical Information



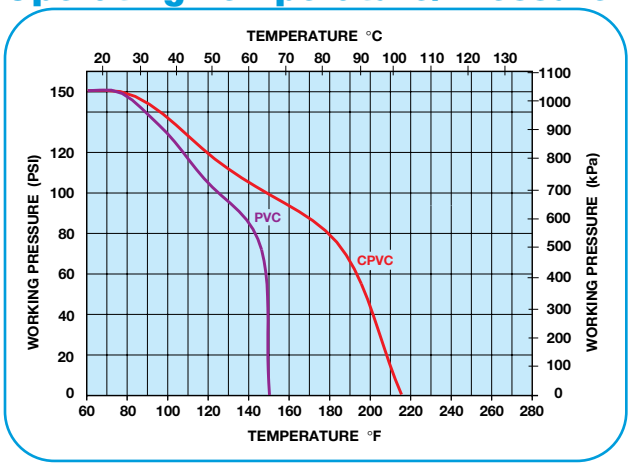
Parts List
Pressure Regulators

1. Spring (Plastic Coated)
2. Diaphragm Assembly
3. O-Ring Seals
4. Gauge Port
5. Square Cut Seal
6. Body
7. Bonnet
8. Stem
9. Locknut

Dimensions - Inches / Millimeters

Size	A	B	C	D	Weight (lb / kg)
1/4"	4.13 / 105	9.25 / 235	2.13 / 54	2.38 / 60	1.38 / .63
1/2"	4.13 / 105	9.25 / 235	2.13 / 54	2.38 / 60	1.38 / .63
3/4"	4.13 / 105	9.25 / 235	2.13 / 54	2.38 / 60	1.38 / .63
1"	5.50 / 140	14.00 / 356	3.00 / 76	2.38 / 60	4.75 / 2.16
1-1/2"	5.50 / 140	14.00 / 356	3.00 / 76	2.38 / 60	4.75 / 2.16

Operating Temperature/Pressure



Selection Chart

Size	Material	End Conn.	Seals	Pressure Setting	Pressure Rating
1/4" to 1-1/2"	PVC or CPVC	Threaded	Viton®	5 to 75 PSI	150 PSI @ 70F Non-Shock

How to Size a Pressure Regulator

Pressure regulator selection is based on the desired flow, inlet pressure and the desired outlet pressure.

Example: A system requires a flow rate of 10 gpm at a set pressure of 30 psi, and the inlet pressure is 50 psi. From the graph at right, a 1" regulator has a flow coefficient of 5.5 at a 30 psi set pressure.

$\Delta P = (Q \div Cv)^2$ ΔP = Pressure Drop

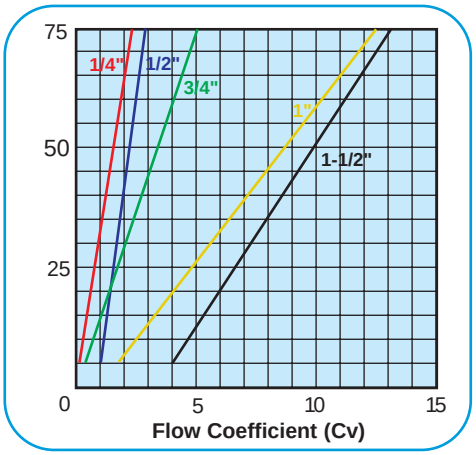
$\Delta P = (10 \div 5.5)^2$ Q = Flow in GPM

$\Delta P = 3.3$ psi Cv = Flow Coefficient

The 1" regulator will meet the requirements because 3.3 psi is less than the required pressure drop of 20 psi (50 psi inlet pressure less 30 psi set pressure). The maximum flow rate in this example is:

$$Q = Cv\sqrt{\Delta P}$$
$$Q = 5.5\sqrt{20}$$
$$Q = 24.6 \text{ gpm}$$

Flow Coefficients



HAYWARD®

Hayward Industrial Products, Inc.
One Hayward Industrial Drive, Clemmons, NC 27012
Tel: 1-888-429-4635 (1-888-HAYINDL) • Fax: 1-888-778-8410
E-mail: industrial@haywardnet.com
Web Site: http://www.haywardindustrial.com

Hayward Industrial Products (UK) Ltd.
Unit 2, Crowngate, Wyncolls Road
Colchester, Essex C04 9HZ
Tel: +44 (0) 1206 854454 • Fax: +44 (0) 1206 851240

MC-3-PRRG Rev. 4 Printed in U.S.A.