



**Amflow®**

**A & H Enterprises, Inc.**

11812 NE 116th Street  
Kirkland, WA 98034 USA

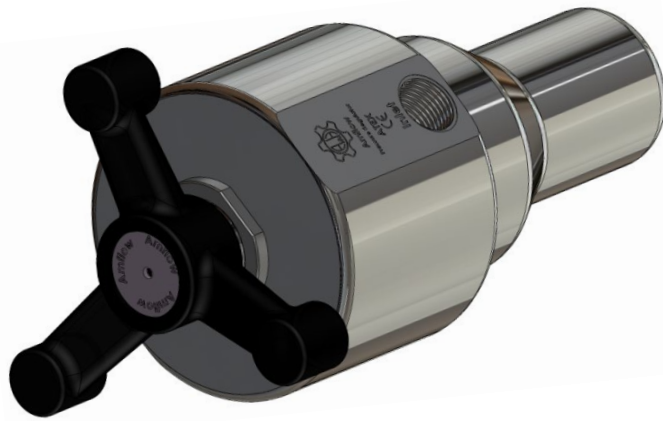
TEL: +425.883.4040  
FAX: +425.823.1962

www.amflow.com

EMAIL: ah@amflow.com

## TECHNICAL DATA SHEET

# **AMFLOW® PR15 BACK PRESSURE REGULATOR**



**Part Number: 00001100-0501**

(Reference Ordering Guide on page 6 for part number options)

### **Standards & Patents:**

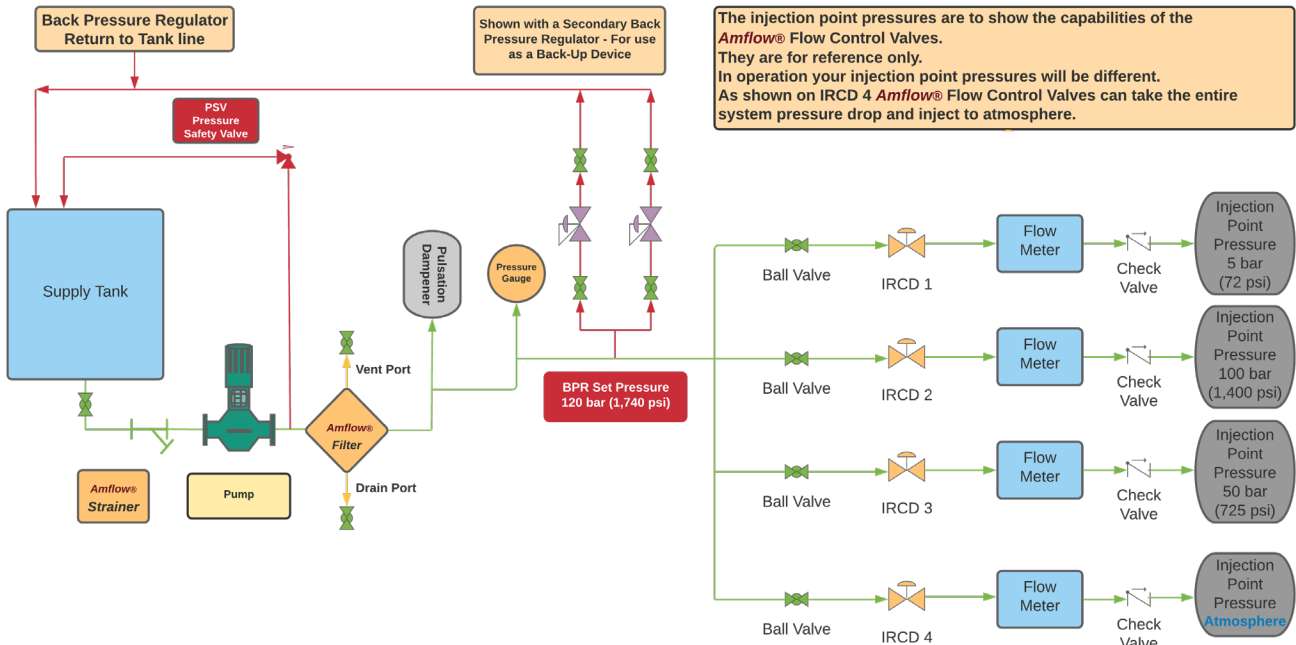
Material traceability certificates, post processes, and As-Built documents shall be maintained on file with **Amflow®** for a period of not less than TEN years.

<b>ATEX DIRECTIVE 2014/34/EU</b>
<b>CE 0891 Ex II 2G Ex h T6</b>
<b>PED 2014/68 EU SEP CATEGORY II MODULES A, D1 &amp; E1</b>
<b>US PATENTS 7343929 B2</b>

**Amflow®** reserves the right to amend or change specifications without prior notice.



STANDARD SF750CX MEDIUM PRESSURE PORT'S LOCATION & CONFIGURATION



The injection point pressures are to show the capabilities of the Amflow® Flow Control Valves. They are for reference only. In operation your injection point pressures will be different. As shown on IRCD 4 Amflow® Flow Control Valves can take the entire system pressure drop and inject to atmosphere.

This P&ID is just a sample. It is a typical setup and what we recommend for a system. It is not meant to apply to any particular project.

Pump Requirement: Pressure & Flow to meet highest demand. Pump Stroke should be set to a minimum of 20% more than project requirements. The excess amount will be returned to the tank. Pulsation Dampener (Accumulator): Charged to 75-80% of system operating pressure. Back Pressure Regulator: Set to a minimum of 20 bar above the highest injection point.



Sample Chemical Injection Skid P&ID - 4 injection points Reference only.



## Design Features

### PRODUCT DESCRIPTION:

The **Amflow**® PR15 Back Pressure Regulator is adjustable for back pressure regulation from 3 bar (44 PSI) to 931 bar (13,500 PSI) and flow rates up to 7,500 LPH.

The PR15 Back Pressure Regulator is designed to be mounted in a stainless-steel panel with a minimum thickness of 2 mm. The mounting hole should be from 46 mm to 50 mm in diameter.

The Inlet and Outlet Ports are 180-degrees from each other.

### DESIGN FEATURES:

- The **Amflow**® PR15 Back Pressure Regulator maintains up stream pressure.
- Pressure Vessel Material Standard: 316/316L Stainless Steel & Titanium (6AL-6V-2Sn)
- Pressure Vessel Material Special Order: Duplex 2205, Super Duplex 2507 & Titanium
- Operating Pressure: 3 bar (44 PSI) to 931 bar (13,500 PSI)
- Operating Temperature: -15°C (5°F) to 232°C (450°F)
- Standard Inlet & Outlet Ports: SF750CX Medium Pressure for use with 3/4" tube
- Weight: 8.4 kg (18.5 lbs)
- Ceramic pins & seats for high pressure control & reliability
- FFKM (perfluorolastomer) & PTFE seals for high chemical resistance.
- Low maintenance
- Variable spring rate with the configurable Belleville spring stack allows flexibility in set pressure range.
- Easily adaptable to remote operation with **Amflow**® ATEX Certified Electronic Actuators.

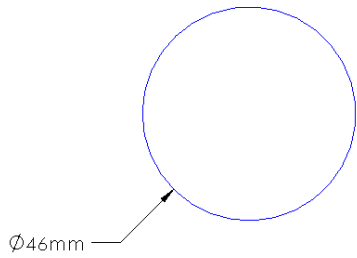
### OPERATING TORQUE:

Due to the design of the **Amflow**® PR15 Back Pressure Regulator, the operating torque requirements are very low throughout the operating range, thus making it suitable for automated applications.

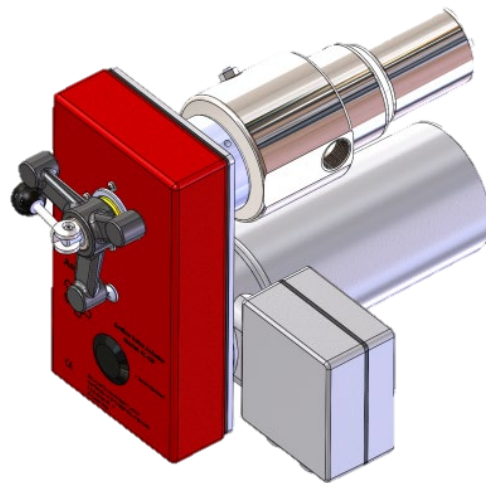
The PR15 Back Pressure Regulator can be configured with an **Amflow**® A6 ATEX/IECEx certified, 24 VDC electronic valve actuator for local or remote operation.



## Panel Mount Dimensions



## ATEX/IECEX Certified Actuator Options



**PR15**  
Shown with  
**Amflow® A6 ATEX/IECEX certified 24 VDC Actuator**  
Offering remote & local back pressure regulation.



1. FLOW RATES		
1.01 Flow rate range	<b>MINIMUM:</b> 5 LPH	<b>MAXIMUM:</b> 7,500 LPH
1.02 Operating pressure range * SF750CX	<b>MINIMUM:</b> 3 bar (44 PSI)	<b>MAXIMUM:</b> 931 bar (13,500 PSI)
1.03 Hydrostatic Pressure Test SF750CX	1,396 bar (20,250 PSI)	
1.04 Ambient operating temperature	<b>MINIMUM:</b> -15°C (5°F)	<b>MAXIMUM:</b> 232°C (450°F)
2. PORT CONFIGURATION		
	Standard	
2.01 Positioned as shown on GA drawing	SF750CX used with 3/4" Tube	ANSI B16.5/ASTM A82 Flanges
3. CONSTRUCTION MATERIALS		
	Standard Material	Special Order
3.01 Pressure vessel & external parts	316/316L & Titanium (6AL-6V-2Sn)	Duplex 2205, Super Duplex 2507 & Titanium
3.02 Internal wetted parts	316/316L & Titanium (6AL-6V-2Sn)	Contact <b>Amflow</b> ®
3.02 Wetted Seals	FFKM & PTFE	Contact <b>Amflow</b> ®
3.03 Non-Wetted Seals	Viton	Contact <b>Amflow</b> ®
4. CONTROL ORIFICE		
	Standard Material	
4.01 Pin & Seat	Ceramic – Zirconia (ZrO <sub>2</sub> )	
4.02 Seat Leakage Class	IV	
5. NOISE		
	Decibels	
5.01	Less than 70 dB	
6. DIMENSIONS		
	Metric	Imperial
6.01 Height (overall)	262 mm	10.3 in
6.02 Diameter	97 mm	3.82 in
7. WEIGHT		
	Metric	Imperial
7.01	8.4 kg	18.5 lb
8. PANEL MOUNT REQUIREMENTS		
	Metric	Imperial
8.01 Maximum Panel Thickness	7 mm	0.280 in
8.02 Mounting Hole Diameter	46 mm	1.5 in
<b>NOTES:</b>		
<b>SET PRESSURE:</b>		
* Depending on the set pressure requirements of the back-pressure regulator, springs can be assembled in four different configurations.		



**ORDERING GUIDE**

PRODUCT NO.	PRODUCT TYPE	CODE NO.	EXTERNAL BODY PARTS MATERIAL	MATERIAL CODE NO.	WETTED SEALS	SEALS CODE NO.	FLOW RATE H <sub>2</sub> O	FLOW CODE NO.	SET PRESSURE RANGE	SET PRESSURE CODE NO.	INLET & OUTLET PORTS	PORT CODE NO.	
00001100	BACK PRESSURE REGULATOR	-0501	316L	-001	BASED ON CHEMICAL MSDS	-02	5-100 LPH	-000	44-1,000 PSI (3-69 BAR)	-01	SF750CX MEDIUM PRESSURE	-00	
			TITANIUM	-002			5-500 LPH	-001	1,000-4,000 PSI (69-275 BAR)	-02			
			DUPLEX 2205	-003			5-1000 LPH	-002	4,000-8,000 PSI** (275-552 BAR)	-03			
			SUPER DUPLEX 2507	-004	STANDARD WETTED SEALS ARE FFKM & PTFE		5-3000 LPH	-003	8,000-13,500 PSI** (551-931 BAR)	-04	ANSI B16.5 ASTM A182 FLANGES		-FL
							5-7500 LPH	-004					



**00001100      -0501      -001      -02      -003      -02      -00**

**EXAMPLE**

**TO ORDER:**

PR15 Back Pressure Regulator in 316/316L with FFKM Seals, 0-100 LPH, 275 - 551 BAR (4,000 - 8,000 PSI) and SF750CX Medium Pressure Ports

**YOU WOULD ORDER #:**

**00001100 - 0501 - 001 - 02 - 000 - 03 - 00**

\*\* Only available with SF750CX Medium Pressure Ports

**ORDERING INFORMATION**

As the **Amflow®** PR15 Back Pressure Regulator is custom built specifically to meet the end user's criteria, it is critical that **Amflow®** receive certain information when ordering Back Pressure Regulators. That information should include, the minimum & maximum Flow rates, set pressures, temperatures & chemical MSDS.



**Amflow® A&H Enterprises Inc.**  
**World Headquarters**

11812 NE 116<sup>th</sup> St.  
Kirkland Washington U.S.A.  
98034

Tel: +1.425.883.4040  
Fax: +1.425.823.1962  
E-Mail: ah@amflow.com

**Amflow Norge As**  
**Representing:**

**Norway, Denmark, Germany, Italy, Sweden, Middle East, United Kingdom & The Netherlands**

Prinsens Vei 12  
4315 Sandnes  
Norway

Tel: +47.922.19.656  
Fax: +47.520.00.591

**Amflow Controls Asia SDN. BHD.**

**Representing:**  
**Malaysia, India, Indonesia, Singapore, Thailand & Vietnam**

No. 9 Jalan 11/12 46200 Petaling Jaya  
Selangor, Malaysia

Tel: +60.12.3323.118  
E-Mail: amflowcontrols@gmail.com

**Sudiflow Integrated Services, LTD.**

**Representing:**  
**Nigeria, Angola, Benin, Cameroon, Equatorial Guinea, Gabon, Ghana & Togo**

25 Elemenwo Road  
Port Harcourt  
Nigeria

Tel: +234.803.309.1405  
E-Mail: sudiflow@yahoo.com

