



# Type 3600 Pressure Safety Valve











**Engineering complete solutions** 





## **Pressure Safety Valve**

The Type 3600 Safety Relief valve is designed to have a short 'simmer', then to open rapidly to the full open position, and to re-seat at a controlled pressure. When the valve is in its fully lifted position, the discharge area is controlled by the bore of the nozzle, which ensures that flow calculations for various mediums can be reliably made.

Valves are supplied in sizes  $\frac{1}{2}$ " to 1" and can be manufactured in Cast Steel or Stainless Steel (other materials available on request) with ends screwed male x female, female x female or flanged to customer requirements.

Valves can also be supplied with a packed lever lifting device, a limit switch to indicate opening and closing of the valve, or a governing ring to limit adjustment of the spring to the set point, for ease of resetting.

#### Installation

During installation of the valve avoid bumping or shaking to prevent damaging the end connections, or misalignment of the trim. To remove any foreign bodies, blow through the circuit line on which the valve is to be installed. Clean the valve and nozzle connections thoroughly; as foreign bodies on the nozzle may damage the valve seat during popping. Install the valve in a vertical position only, with the inlet downwards. After the valve has been installed make it pop at least twice to allow automatic alignment of the trim. Misalignment may be caused accidentally during transport or installation.

#### Maintenance

The most frequent operation to be carried out is a precise check, made a regular intervals, to observe whether any obvious faults exist in the different parts of the valve. It should be checked first of all that there are no leakages: these must always be avoided, especially when the medium is poisonous, highly volatile or very expensive. Carry out periodic venting for valves with a lifting device to check regular operation. During these tests the pressure must be at least 75% of the full working pressure.

#### Overhaul

To overhaul the valve the following procedure should be followed: remove the cap, mark the position of the Adjusting Screw relevant to the Locknut, so the correct position may be found during re-setting. Loosen the Adjusting Screw and Locknut to relax the spring, remove the lockscrew from the Valve Body to free the Guide Ring. Unscrew the Nozzle from the Valve Body and

remove the complete Lid assembly from the inside of the body. Check the contact faces of the Nozzle and Disc. Should any scratching or pitting be present, the surfaces will require relapping. Replace all Joints and O Rings and reassemble the valve in reverse order. To prevent damage to the Disc and Nozzle faces, place a screwdriver in the spindle slot. This will prevent the spindle from turning whilst resetting the valve.



#### **LIMITS & STANDARDS**

**Minimum Set Pressure:** 0.5 Barg **Maximum Set Pressure:** 250 Barg

#### Design Standard:

- API 520
- ASME VIII

#### Materials of construction:

- Gunmetal
- Cast Steels
- Aluminium Bronze
- Monel
- Hastelloy
- Inconel

#### **Key Features:**

- Direct Acting, Full Lift Safety Valve
- Gas, Liquid And Vapour Service
- Balance Piston Design







## Pressure Safety Valve (Gas Flanged)

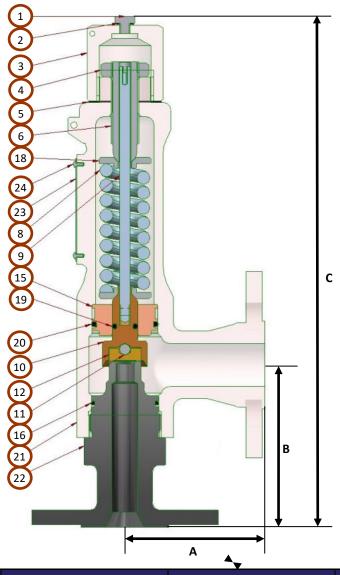
24	Nameplate Rivet
23	Nameplate
22	Nozzle
21	Body
20	O Ring
19	O Ring
18	Spring Carriers
16	O Ring
15	Guide Ring
14	Joint (Lockscrew)
13	Lockscrew (Not Shown)
12	Disc
11	Ball
10	Disc Holder
9	Spindle
8	Spring
6	Adjusting Screw
5	Joint (Cap)
4	Locknut
3	Сар
2	Joint (Plug)
1	Cap Plug

Items shown in red contained in soft goods kit

Item Title

#### **HOW TO ORDER**

To enable Broady flow Control to offer the most suitable valve for your service, please provide the following information at the enquiry stage: Set Pressure, Medium, Temperature, Back Pressure and Flow.



	ANSI 150			ANSI 300			Weight (Kg)
Valve Size	Α	В	С	Α	В	С	
½" x 1"		94	296		99	301	
¾" x 1"	81	95	297	81	100	301	6.0
1" x 1"		95	297		102	303	

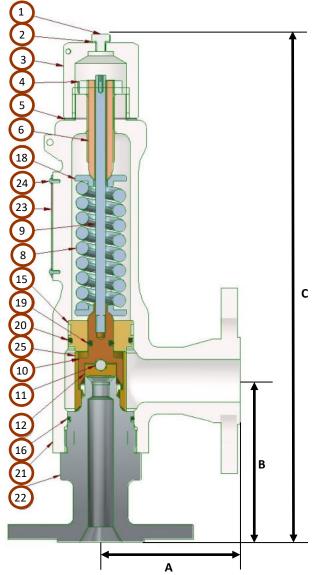
Dimensions (mm)







# Pressure Safety Valve (Liquid Flanged)



	ANSI 150		ANSI 300			Weight (Kg)	
Valve	Α	В	С	Α	В	С	
½" x 1"		94	296		99	301	
¾" x 1"	81	95	297	81	100	301	6.0
1" x 1"		95	297		102	303	

Dimensions (mm)

25	Huddling Ring	
24	Nameplate Rivet	
23	Nameplate	
22	Nozzle	
21	Body	
20	O Ring	
19	O Ring	
18	Spring Carriers	
16	O Ring	
15	Guide Ring	
14	Joint (Lockscrew)	
13	Lockscrew (Not Shown)	
12	Disc	
11	Ball	
10	Disc Holder	
9	Spindle	
8	Spring	
6	Adjusting Screw	
5	Joint (Cap)	
4	Locknut	
3	Сар	
2	Joint (Plug)	
1	Cap Plug	
Items shown in red contained in soft goods kit		

Please contact the Broady Flow Control sales team who will be happy to assist you in selecting the correct valve for your requirements.

Title

Item

Email: sales@broady.co.uk





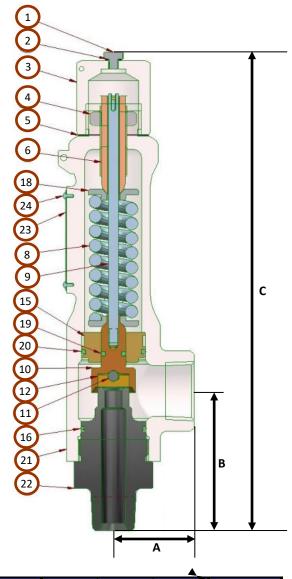


## Pressure Safety Valve (Gas Screwed)

24	Nameplate Rivet		
23	Nameplate		
22	Nozzle Screwed		
21	Body		
20	O Ring		
19	O Ring		
18	Spring Carriers		
16	O Ring		
15	Guide Ring		
14	Joint (Lockscrew)		
13	Lockscrew (Not Shown)		
12	Disc		
11	Ball		
10	Disc Holder		
9	Spindle		
8	Spring		
6	Adjusting Screw		
5	Joint (Cap)		
4	Locknut		
3	Сар		
2	Joint (Plug)		
1	Cap Plug		
Items shown in red contained in soft goods kit			
Item	Title		

### **HOW TO ORDER**

To enable Broady flow Control to offer the most suitable valve for your service, please provide the following information at the enquiry stage: Set Pressure, Medium, Temperature, Back Pressure and Flow.



Valve	Α	В	С	Weight (Kg)
½" x 1"				
¾" x 1"	48	83	285	4.0
1" x 1"				

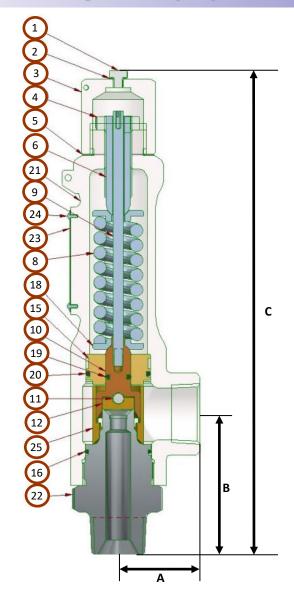
Dimensions (mm)







# Pressure Safety Valve (Liquid Screwed)



Valve	А	В	С	Weight
½" x 1"				
¾" x 1"	48	83	285	4
1" x 1"				

Dimensions (mm)

25	Huddling Ring		
24	Nameplate Rivet		
23	Nameplate		
22	Nozzle Screwed		
21	Body		
20	O Ring		
19	O Ring		
18	Spring Carriers		
16	O Ring		
15	Guide Ring		
14	Joint (Lockscrew)		
13	Lockscrew (Not Shown)		
12	Disc		
11	Ball		
10	Disc Holder		
9	Spindle		
8	Spring		
6	Adjusting Screw		
5	Joint (Cap)		
4	Locknut		
3	Сар		
2	Joint (Plug)		
1	Cap Plug		
	Items shown in red contained in soft goods kit		

Items shown in red contained in soft goods kit

Item Title

Please contact the Broady Flow Control sales team who will be happy to assist you in selecting the correct valve for your requirements.

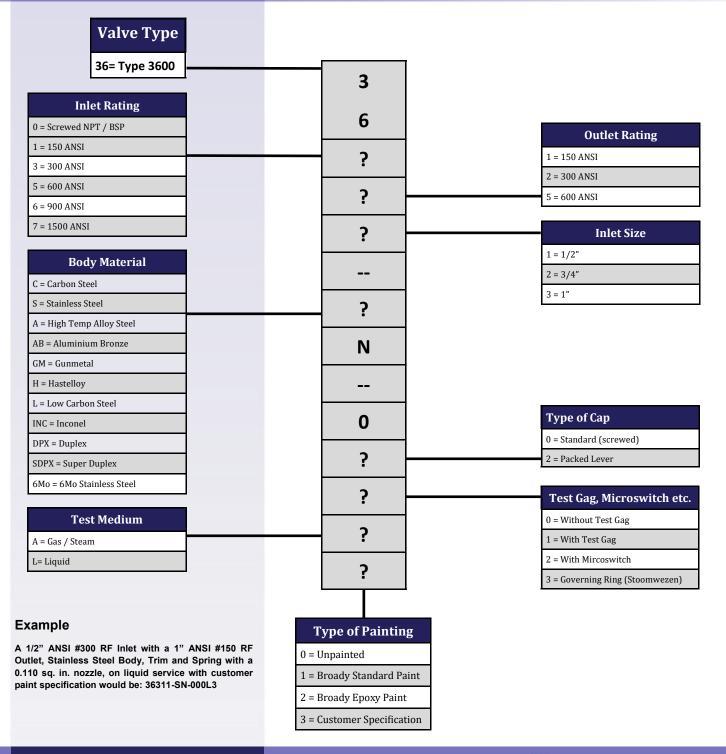
Email: sales@broady.co.uk







## Valve Coding









## Broady Quality

Broady Flow Control Limited, over its many years of trading, has developed into a highly efficient and customer focused organisation, well placed to satisfy the ever changing requirements of the industry. Renowned for innovation, flexibility and integrity.

Broady has a well established and robust quality management system which supports order processing and manufacturing, ensuring the highest standards are maintained at all times.

The dedicated management team is supported by a highly skilled and dedicated workforce trained in all engineering disciplines. The future of Broady is assured by the policy of employment and training of young dynamic apprentices who are fully involved in the development and implementation of the quality management system.

At the heart of Broady's philosophy is the desire to strive for continual improvement and complete customer satisfaction through the process of internal and external audits designed to ensure a "right first time" environment.

Broady Flow Control Limited is committed to maintaining and continually improving the quality of the products and services offered to all its customers.













# Valves from the Broady Product Range



**3500 Series Pressure Safety Valves** 



Fire Fighting (Hydrant Valves)

Please contact the Broady Flow Control sales department for more information on our extensive product range on +44 (0)1482 619600 or via sales@broady.co.uk



Type 3600, 2600, 180 & 180-S Safety Valves



(Type A, Type D, Type 8, Type 9)



Reducing Valves (A, AB, C, D, B2)



Type 4000 Pilot Operated Safety Relief Valve









**Engineering complete solutions** 

#### **Broady Flow Control Limited**

English Street
Kingston Upon Hull
East Yorkshire
HU32DU

Telephone: +44 (0)1482 619600 Facsimile: +44 (0)1482 619700

Email: sales@broady.co.uk

Website: www.broady.valvitalia.com

Website: www.valvitalia.com







The information, specifications and technical data contained in this guide are subject to change without notice. The user should verify all technical data and specifications prior to use.

Broady Flow control does not warrant that the material and information contained herein is current and assumed no responsibility for the use or misuse of any such material and information by the user.

WARNING: The entire contents of the brochure are subject to the laws of copyright and intellectual property rights. Any infringement will be rigorously pursued.