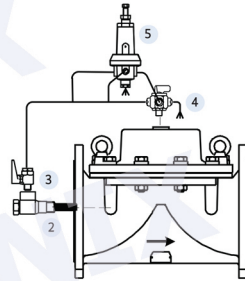


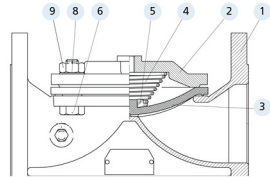
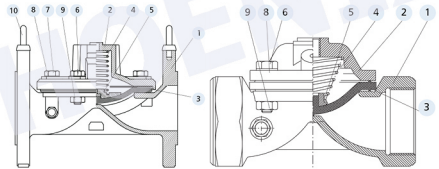
Model : RL-188



**Optional Control System Components:**

- 1 Main Valve
- 2 Self-flushing filter
- 3 Cock valve\*
- 4 Manual over-ride selector valve\*
- 5 3-way pilot valve (other types are optional)

\* Optional component



### Description

The valve maintains a preset downstream pressure, regardless of upstream pressure or flow rate fluctuation. The main valve is controlled by either a 3 way pilot valve (allowing full opening when upstream pressure drops below the pressure set point) or by a 2 way pilot valve (creating a minimal differential in open position)

### Purchase Specification

The valve will be hydraulic, direct acting diaphragm type, which allows inline maintenance. No stem, shaft or guide bearing will be located within the water passage. The valve will be activated by the line pressure or by an external hydraulic or pneumatic pressure. The valve will be operated by a pressure reducing pilot valve to achieve constant outlet pressure, regardless of upstream pressure or flow variations. The valve and the controls will be a Phoenix valve or similar in all aspects.

### Quick Sizing

- Valve size same as line or one size smaller
- Maximum flow speed for continuous operation 5.5 m/sec. (18ft/sec.)

### Features

- Accurate, stable control from no-flow to full flow
- Simple and reliable design
- Exceptionally low losses at high flow
- WRAS Approval no. 04251

### Design Considerations

- The valve should be suited for the maximal flow and allowed headloss
- In case upstream pressure may drop to the required set pressure select 3 way control pilot
- Large pressure differentials may cause cavitation damage. Consult Phoenix for solutions if such conditions are expected

Components	
Component No.	Description
1	Body
2	Bonnet
3	Diaphragm
4	Spring
5	Spring Disc
6	Bolt
7	Short Bolt
8	Washer
9	Nut
10	Suspension ring (Hook)

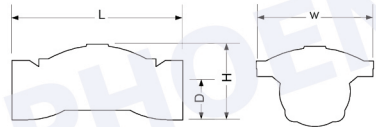
## Dimensions and Weights

### Straight Flow, Threaded Connection

Valve Size		L				H				D		W		Weight			
		Cast Iron		Bronze		Cast Iron		Bronze						Cast Iron		Bronze	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
20	3/4	115	4.53	112	4.41	43	1.69	43	1.69	20	0.79	68	2.68	1	2.2	1	2.2
25	1	120	4.72	119	4.69	52	2.05	52	2.05	24	0.94	68	2.68	1	2.2	1	2.2
40	1 1/2	170	6.69	149	5.87	93	3.66	86	3.39	33	1.3	93	3.66	2.2	4.9	1.8	4
50	2	188	7.4	184	7.24	115	4.53	101	3.98	42	1.65	112	4.41	3.2	7	2.6	5.7
65	2 1/2	219	8.62	212	8.35	118	4.65	109	4.29	46	1.81	112	4.41	3.6	7.9	3.4	7.5
80R*	3R	225	8.86	221	8.7	126	4.96	116	4.57	54	2.13	112	4.41	4.5	9.9	3.9	8.5
80	3	316	12.44	316	12.44	135	5.31	135	5.31	53	2.09	200	7.87	11	24		

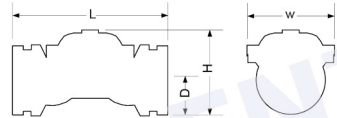
\* R = Reduced Port

### Model : 106-RPS



### Straight Flow, Grooved Connection (Vic.)

Valve Size		L		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
40	1.5	177	6.97	81	3.19	26	1.02	93	3.66	1.8	4
50	2	190	7.48	100	3.94	33	1.3	112	4.41	2.6	5.7
80R	3R	201	7.91	120	4.72	47	1.85	112	4.41	3	6.6
80	3	286	11.26	124	4.88	47	1.85	200	7.87	11	24.3
100	4	317	12.48	133	5.24	60	2.36	194	7.64	12	26.4
150	6	392	15.43	250	9.84	82	3.23	300	11.81	31	68.3

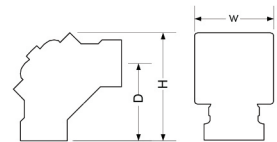


### Angle Flow, Grooved Connection (Vic.)

Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
80	3	240	9.45	170	6.69	200	7.87	10.5	23.1
100	4	250	9.84	185	7.28	200	7.87	11.5	25.4

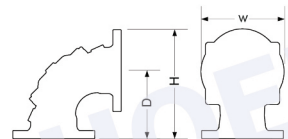
### Angle Flow, Threaded Connection

Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
40	1.5	110	4.33	75	2.95	93	3.66	1.7	3.7
50	2	136	5.35	90	3.54	112	4.41	2.4	5.3
80R	3R	165	6.5	114	4.49	112	4.41	3.6	7.9
80	3	239	9.41	145	5.71	200	7.87	10.8	23.8

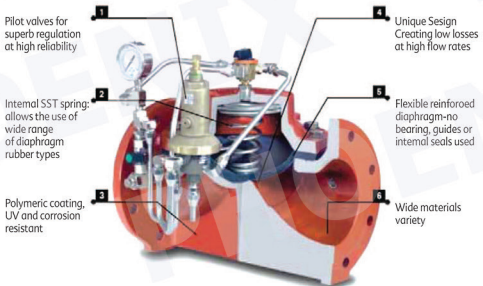


### Angle Flow, Flanged Connection

Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
80	3	278	10.9	174	6.85	200	7.87	18	39.7
100	4	300	11.8	185	7.28	230	9.06	21	46.3
150	6	380	15	230	9.06	300	11.8	45	99.2



# PHOENIX



1 Pilot valves for superb regulation at high reliability

2 Internal SST spring allows the use of wide range of diaphragm rubber types

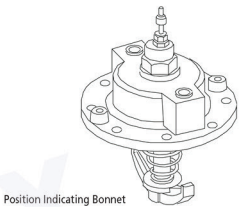
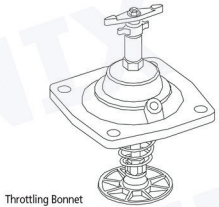
3 Polymeric coating, UV and corrosion resistant

4 Unique Design Creating low losses at high flow rates

5 Flexible reinforced diaphragm-no bearing, guides or internal seals used

6 Wide materials variety

## Non Stand Bonnets



## Design Specifications :

Materials	Standard	Optional *	Connections	Standard	Optional *
Body and Bonnet	Cast Iron, Ductile Iron, Bronze	Cast Steel, Stainless Steel	Flanges	ISO 2084, 2441, 5752	ANSI B16 JIS B22 AS 10
Diaphragm	Natural Rubber	NBR, EPDM, Neoprene	Threads	F-BSP	F-NPT
Spring	SST 302	SST 316	Control Bores	1/8", 1/4", 1/2" NPT	
Nuts And Bolts	Coated Steel	SST			
Coating	Polyester	Epoxy, Nylon, Rubber			

\* Others Upon Request

## Available Models :

Pattern													
Connection	Threaded	Threaded	Victaulic®	Flanged	Flanged	Flanged	Flanged	Threaded	Victaulic®	Threaded	Flanged	Threaded	
Material	Cast Iron	Bronze	Cast Iron	Cast Iron	Bronze	Ductile Iron	Cast Iron	Cast Iron	Cast Iron	Bronze	Ductile Iron	Ductile Iron	
Max. Pressure	16bar / 230psi										25bar / 360psi		
Available Sizes	mm	inch											
	20	3/4"	•	•									
	25	1"	•	•									
	40	1 1/2"	•	•	•				•	•			
	50	2"	•	•	•	•	•		•	•	•	•	
	65	2 1/2"	•	•	•	•	•		•	•	•	•	
	80	3 1/2"	•	•	•	•	•		•	•	•	•	
	100	4"			•	•	•	•	•	•	•	•	•
	150	6"			•	•	•	•	•	•	•	•	•
	200	8"			•	•	•	•	•	•	•	•	•
	250	10"			•	•	•	•	•	•	•	•	•
	300	12"			•	•	•	•	•	•	•	•	•
	350	14"			•	•	•	•	•	•	•	•	•
400	16"									•	•	•	
450	18"									•	•	•	
500	20"									•	•	•	
600	24"									•	•	•	