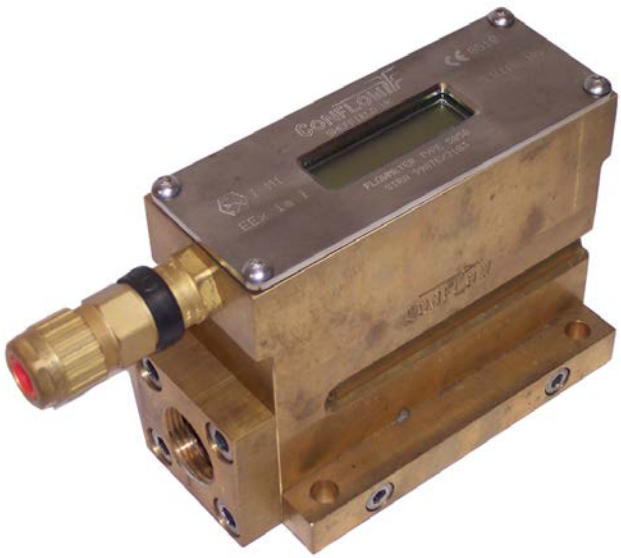


Underground and Quarrying Products

For Measurement, Control and Suppression Applications

Parker

ENGINEERING YOUR SUCCESS.

Contents

Follow Parker Process Control on:

Pendulum Valves

Code 15

The Parker Conflow Code 15 - Pendulum Valve supplies superior dust suppression water at belt conveyor transfer points, chutes and bunkers and feeder breakers.

The dust supression valve regulates the flow of fluid by movement of a vertically hanging paddle. In its vertical, free hanging position the valve is closed. When a moving load contacts the paddle it swings away from the vertical. This movement causes a cam to rotate which opens a button valve allowing the fluid to flow.

Pendulum Valves

Markets

- Quarrying
- Mining

Features/Benefits

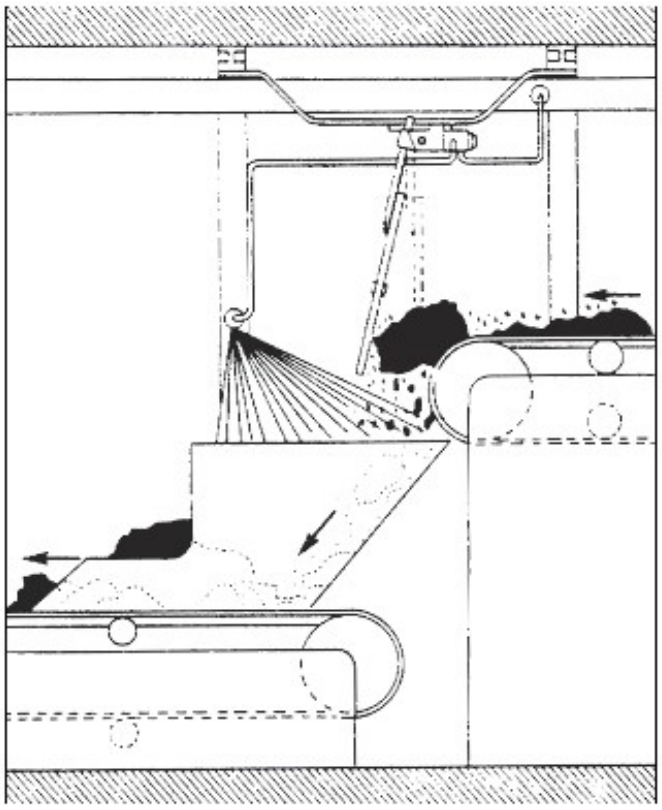
- Valve regulates the flow of liquid by movement of a vertically hanging paddle
- Valve opens only when pendulum is moved from vertical position
- Available in ½" size
- Maximum working pressure 105 bar
- Adjustable cam to control on/off limits
- Adjustable pendulum length
- Fire resistant paddle
- Heavy duty construction ideal for mineral processing
- Weight: 8 kg (½")

Applications

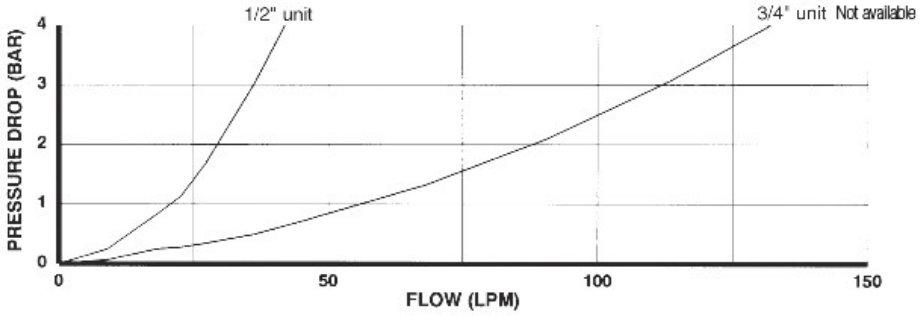
- Supplying dust suppression water at Belt conveyor transfer points, chutes and bunkers and feeder breakers

Compatible Sprays

- Parker Conflow Code 1188 swivel sprays
- Parker Conflow Code 96 multi disc cluster spays

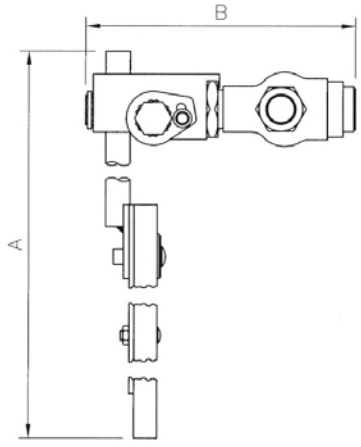


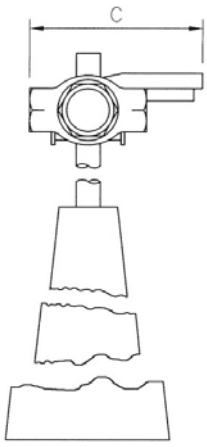
Liquid flow regulation by Pendulum Valve

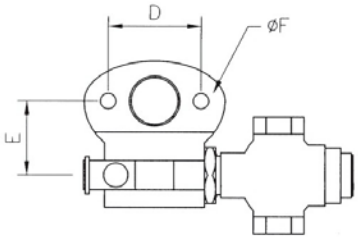


Specifications

Dimension	Unit	½" Unit
A	mm	650 to 975
B	mm	235
C	mm	117
D	mm	95.25
E	mm	56
ØF	mm	14
Weight	kg	8







Multi Disc Cluster Sprays

Code 96

The Parker Conflow Code 96 multi disc cluster spray offers superior performance for large volume spraying in dust supression applications.

Parker Conflow's Code 96 multi disc cluster spray incorporates five spray heads into one compact unit affording extensive liquid discharge and coverage. The combined spray form is ideally suitable for large volume spraying in dust supression applications. The unit uses five economy spray discs and hence offers all the spray form options from extra fine to solid heavy cone.

Multi Disc Cluster Spray

Markets

- Quarrying
- Mining

Features/Benefits

- 90° solid cone spray form
- Internal filter to prevent clogging (easily removed for cleaning)

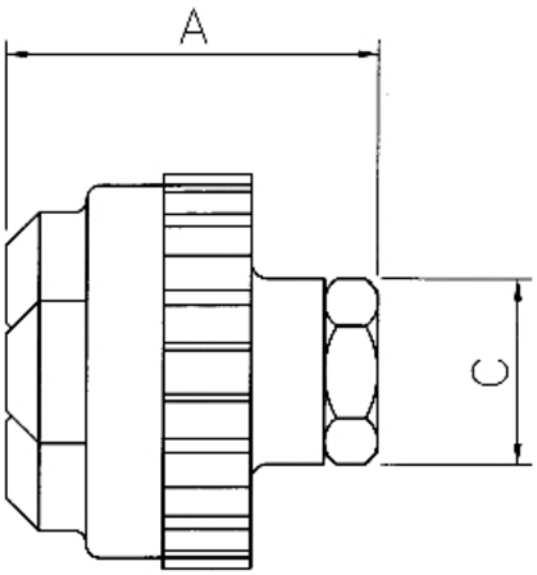
Applications

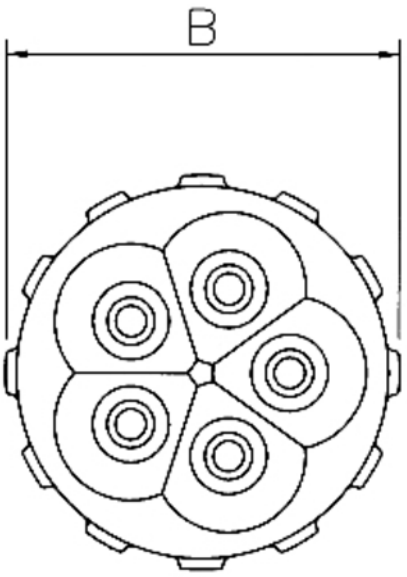
- Dust suppression at conveyer transfer points

Disc No. Spray	Form Solid cone	Inlet Size	Orifice Dia	Flow Rate (LPM) at Pressure (bar)			
				3.5	10	17.5	25
1	Extra fine	½"	5 x 5/16"	18	32	41	48
2	Fine	½"	5 x 5/16"	23	36	46	52
3	Medium	½"	5 x 5/16"	36	55	69	68
4	Coarse	½"	5 x 5/16"	50	64	77	82
5	Heavy	½"	5 x 5/16"	64	100	119	127

Specifications

Dimension	Unit	
A	mm	49
B	mm	56
C	mm	38
Weight	kg	0.53





Spray Control Valve

Code 100

The Parker Conflow Code 100 - spray control valve is capable of controlling the flow of any fluid by mechanically sensing belt movement, without the need for an independent power supply.

This is achieved by a drive wheel in frictional contact with the moving conveyor belt. The rotating wheel generates hydraulic pressure to open an ON/OFF valve built into the unit. Available in ½" and above and maximum working pressure up to 105 bar, the spray control valve is perfect for supplying water sprays on bottom belts where fine dust accumulates.

Spray Control Valve

Markets

- Quarrying
- Mining

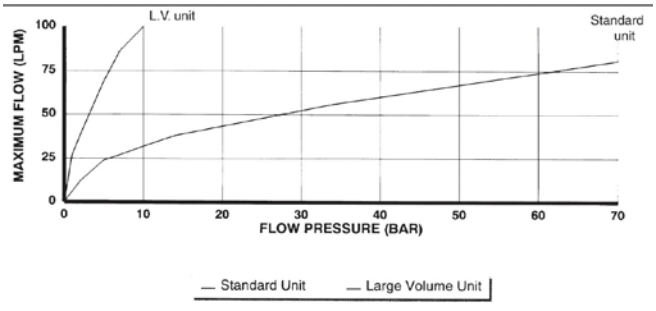
Features/Benefits

- ½" standard and large volume units available
- Maximum working pressure 105 bar
- 4" or 6" driving wheels
- No additional power supply is needed
- Operates at belt speeds from 0.5 m/sec (100 ft/min) to 3.75 m/sec (750 ft/min)

Applications

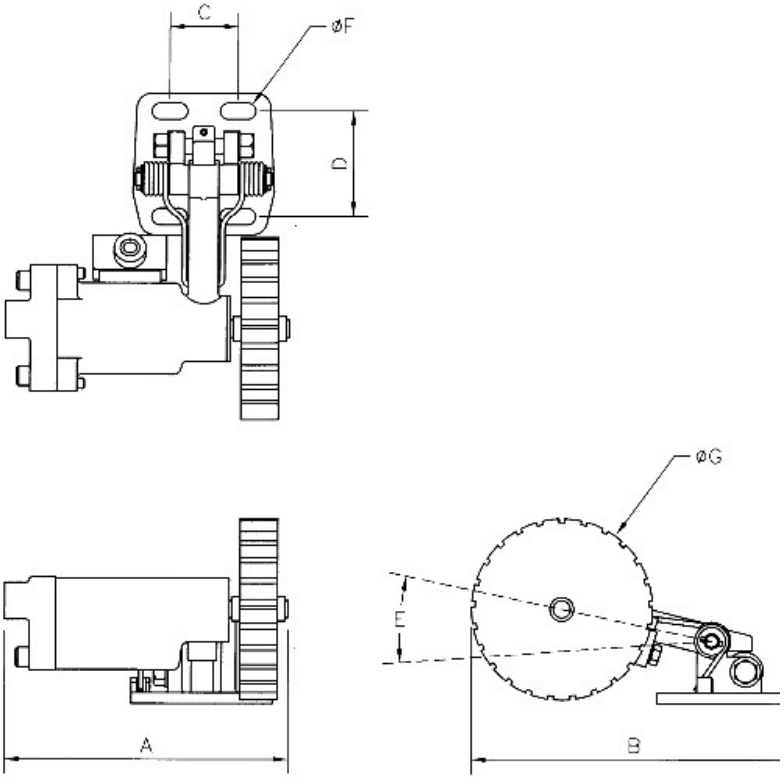
- Supplying dust suppression water onto the belts transporting minerals, particularly at transfer points
- Ideal in applications where there is no electrical or other source of power

	100mm dia.wheel	150mm dia.wheel
Minimum speed to operate	110 ft/min	150 ft/min
Maximum speed	500 ft/min	750 ft/min
Maximum high adjustable position - Baseplate to wheel top	150mm	175mm
Recommended installation position - Base plate to wheel top	147mm	172mm
Minimum low adjustable position - Baseplate to wheel top	110mm	135mm
Further depressable movement - Baseplate to wheel top	10mm	10mm
Total movement from maximum to minimum height	50mm	50mm



Specifications

Dimension	Unit	
A	mm	280
B	mm	270
C	mm	60
D	mm	90
E	mm	15°
ØF	mm	14
ØG	mm	100 OR 150
Weight	kg	9

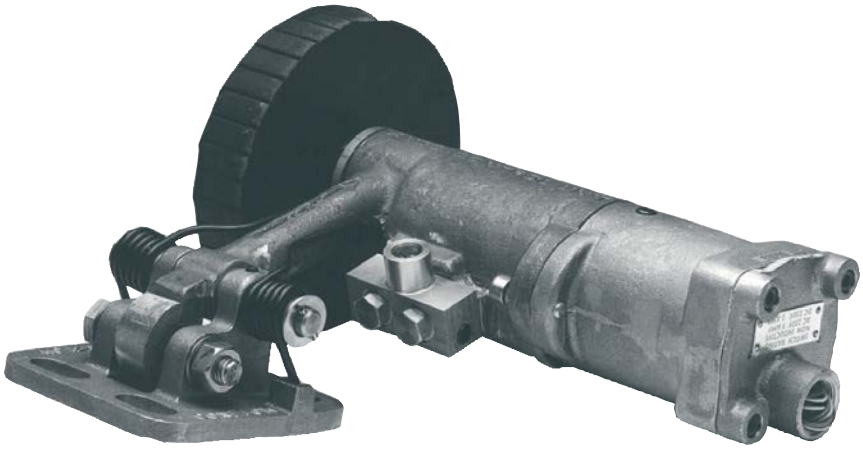


Sequence Control Valve

Code 200

The Parker Conflow Code 200 -sequence contol valve switches electrical equipment by detecting the movement of a conveyor belt in dust supression applications.

A pilot signal is sent to operate a relay which is achieved by a drive wheel in frictional contact with the moving conveyor belt. The rotating wheel generates hydraulic pressure to close a microswitch built in to the unit.



Sequence Control Valve

Markets

- Quarrying
- Mining

Features/Benefits

- Sequence control of associated conveyer belts
- Control of auxiliary equipment
- Signal indication of belt status, moving/stationary
- Electrical switch (230 V.AC, 5A / 230 V. DC, 2A)
- No additional power supply is needed
- Operates at belt speeds down to 0.5 m/sec
- Adjustable for varying belt speeds

Applications

- Belt Conveyers
- Mobile Tail Pieces

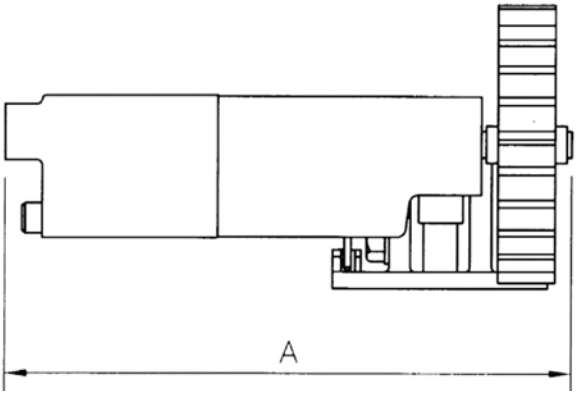
Technical

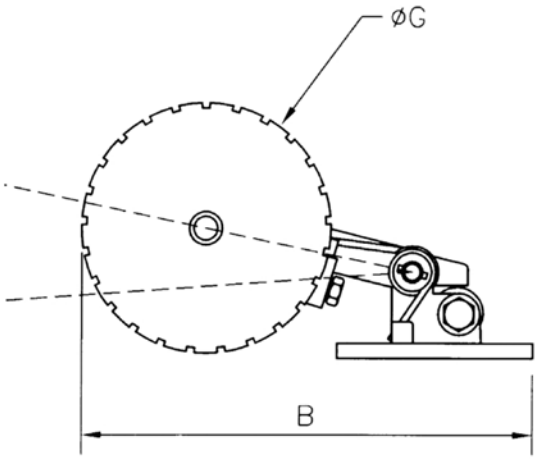
Switch rating non inductive AC 230V 5 amp DC 230V 2 amp	**150mm dia.wheel**	**150mm dia.wheel**
Minimum speed to operate switch.	100 ft/min	150 ft/min
Maximum speed	500 ft/min	750 ft/min
Maximum high adjustable position - Baseplate to wheel top	150mm	175mm
Recommended installation position - Base plate to wheel top	147mm	172mm
Minimum low adjustable position - Baseplate to wheel top	110mm	135mm
Further depressable movement - Baseplate to wheel top	10mm	10mm
Total movement from maximum to minimum height	50mm	50mm

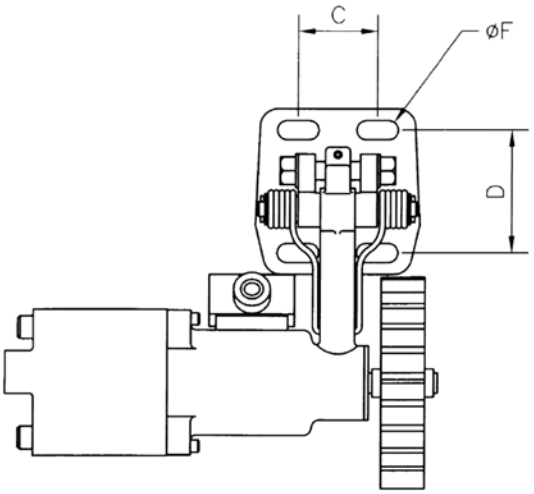
This unit is not of flameproof construction

Specifications

Dimension	Unit	
A	mm	300
B	mm	270
C	mm	60
D	mm	90
E	mm	15 degrees
ØF	mm	14
ØG	mm	100 OR 150
Weight	kg	9.5







Hexagon Head Drum Sprays

Code 800

The Conflow Code 800 Series - Stainless Steel Hexagon Head Drum Sprays provide a wide range of spray forms for pick face flushing on cutting drums.

Choice of orifice diameter, screw thread and spray form allows for the many different applications required. The hexagon head design offers an alternative fitting option to the socket head type, where corrosion is a problem and difficulties in replacing sprays can be encountered.

A nylon male/female insert can be fitted between spray and vane to enable easier removal and replacement of the sprays. Option available which incorporates a split pin to prevent spray blockage.

Hexagon Head Drum Sprays

Applications

- Pick flushing on light to medium duty cutting forms
- General dust suppression

Features

- ¼", ⅜" and ½" sizes available (BSP or NPT)
- Orifices from 1.0mm to 3.2mm
- Maximum working pressure 105 bar
- Hollow or solid cone and jet spray forms
- Stainless steel construction
- Available with integral filters

Inlet Size	Spray Form Dia	Orifice (mm)	Spray Angle (@ 10 bar)	Flow rate (LPM) at Pressure (bar)			
				3.5	10.0	17.5	25.0
¼"	Hollow cone	1.6	20.0	2.0	3.5	4.5	5.0
¼"	Hollow cone	2.4	15.0	4.0	6.5	8.0	9.5
¼"	Hollow cone	3.2	50.0	4.0	8.5	11.0	13.5
¼"	Hollow cone	1.4	30.0	1.5	3.0	3.5	4.0
¼"	Hollow cone	1.0	30.0	0.1	0.5	0.5	1.0
¼"	Solid cone	1.3	30.0	1.4	2.6	3.3	3.7
⅜"	Solid cone	1.6	20.0	2.0	3.5	4.5	5.0
⅜"	Solid cone	2.4	15.0	4.0	6.5	8.0	9.5
⅜"	Solid cone	3.2	50.0	4.0	8.5	11.0	13.5
⅜"	Solid cone	1.0	30.0	0.1	0.5	0.7	1.0
⅜"	Solid cone	1.2	30.0	0.5	1.5	2.0	2.5
¼"	Jet	1.6	0.0	3.0	5.0	6.0	6.5
¼"	Jet	2.4	5.0	8.0	11.0	14.0	15.5
¼"	Jet	3.2	5.0	10.0	19.0	24.0	28.0
⅜"	Jet	1.6	0.0	3.0	5.0	6.0	6.5
⅜"	Jet	2.4	5.0	8.0	11.0	14.0	15.5
⅜"	Jet	1.0	0.0	0.1	0.5	0.7	1.0
⅜"	Jet	1.2	0.0	0.5	1.5	2.0	2.5
½"	Jet	1.6	0.0	3.0	5.0	6.0	6.0
½"	Jet	2.4	5.0	8.0	11.0	14.0	15.5
½"	Jet	3.2	5.0	10.0	19.0	24.0	28.0
¼"	Jet (filter)	1.6	4.0	1.0	2.5	3.0	3.3
¼"	Jet (filter)	2.4	0.0	2.0	2.5	3.5	4.0
⅜"	Jet (filter)	1.6	4.0	1.0	2.0	3.0	3.3
⅜"	Jet (filter)	2.4	0.0	2.0	3.0	3.5	4.0
⅜"	Jet (filter)	1.0	4.0	-	0.8	1.1	1.6
½"	Jet (filter)	1.6	4.0	1.1	2.3	2.9	3.2
½"	Jet (filter)	2.4	0.0	1.8	2.7	3.6	4.1
¼"	Jet (split pin)	2.4	10.0	4.0	7.0	9.0	11.0
¼"	Jet (split pin)	3.2	20.0	6.0	11.0	14.0	16.0
⅜"	Jet (split pin)	2.4	10.0	4.0	7.0	9.0	11.0
⅜"	Jet (split pin)	3.2	20.0	6.0	11.0	14.0	16.0
½"	Jet (split pin)	2.4	10.0	4.0	7.0	9.0	11.0
½"	Jet (split pin)	3.2	20.0	6.0	11.0	14.0	16.0
½"	Hollow cone	2.4	50.0	3.0	5.0	7.0	8.0
⅜"	Hollow cone	2.4	50.0	3.0	5.0	7.0	8.0
⅜"	Hollow cone	1.6	40.0	1.5	3.0	3.0	4.5

Hexagon Head Drum Sprays

Code 850

The Parker Conflow Code 850 - hexagon head drum sprays provide a wide range of spray forms for pick face flushing on cutting drums in dust supression applications.

Parker Conflow's hexagon head drum sprays offers a choice of orifice diameter, screw thread and spray form that allows for the many different applications required. The hexagon head design offers an alternative fitting option to the socket head type, where corrosion is a problem and difficulties in replacing sprays can be encountered.

A nylon male/female insert can be fitted between spray and vane to enable easier removal and replacement of the sprays. Option available which incorporates a split pin to prevent spray blockage.

Hexagon Head Drum Sprays

Markets

- Quarrying
- Mining

Features/Benefits

- Orifices from 1.0mm to 3.2mm
- Hollow or solid cone and jet spray forms

Applications

- Pick flushing on light to medium duty cutting forms
- General dust suppression

Specifications

Inlet Size	Spray Form Dia	Orifice (mm)	Spray Angle (@ 10 bar)	Flow rate (LPM) at Pressure (bar)			
				3.5	10.0	17.5	25.0
¼”	Hollow cone	1.6	65.0	1.0	2.0	2.5	3.0
⅜”	Hollow cone	1.6	30.0	2.0	4.0	4.5	5.5
⅜”	Solid cone	1.6	20.0	20.0	3.5	4.5	5.5
¼”	Jet	1.6	0.0	2.5	4.5	6.0	7.5
¼”	Jet	2.4	5.0	9.0	14.0	17.0	18.5
¼”	Jet	3.2	10.0	12.0	20.0	24.5	28.0
¼”	Jet	4.8	8.0	23.5	40.0	48.0	55.0
⅜”	Jet	1.6	0.0	2.0	4.5	6.0	7.0
⅜”	Jet	2.4	5.0	9.0	14.0	17.0	18.5
⅜”	Jet	3.2	10.0	12.0	20.0	24.5	28.0
⅜”	Jet	4.8	8.0	24.0	40.0	48.0	55.0
½”	Jet	1.6	0.0	2.0	4.5	6.0	7.5
½”	Jet	2.4	5.0	9.0	14.0	17.0	18.5
½”	Jet	3.2	10.0	12.0	20.0	24.5	28.0
½”	Jet	4.8	8.0	24.0	40.0	48.0	55.0
⅛”	Jet	2.4	5.0	9.0	14.0	17.0	19.0
¼”	Jet (filter)	1.6	5.0	2.0	3.5	4.5	5.5
¼”	Jet (filter)	2.4	0.0	6.0	9.5	11.5	13.0
¼”	Jet (filter)	3.2	0.0	9.0	14.0	17.0	19.5
¼”	Jet (filter)	4.8	10.0	16.0	29.0	34.5	39.0
⅜”	Jet (filter)	1.6	0.0	2.0	3.5	4.5	5.5
⅜”	Jet (filter)	2.4	0.0	6.0	9.5	11.5	19.5
⅜”	Jet (filter)	3.2	0.0	9.0	14.0	17.0	29.0
½”	Jet (filter)	1.6	0.0	6.0	9.5	11.5	19.5
¼”	Jet (split pin)	1.6	0.0	2.0	4.0	5.0	6.5
¼”	Jet (split pin)	2.4	8.0	5.5	9.5	10.5	11.0
¼”	Jet (split pin)	3.2	10.0	7.0	11.0	13.0	14.5
¼”	Jet (split pin)	4.8	10.0	8.0	15.0	19.0	20.0
⅜”	Jet (split pin)	1.6	0.0	2.0	4.0	5.0	6.0
⅜”	Jet (split pin)	2.4	8.0	5.5	9.0	11.0	11.0
⅜”	Jet (split pin)	3.2	10.0	7.0	11.0	13.0	14.5
⅜”	Jet (split pin)	4.8	10.0	8.0	15.0	19.0	22.0

Swivel Sprays

Code 1188

The Parker Conflow Code 1188 - swivel spray provides superior direction controlled spray forms for a wide range of dust supression spraying purposes

The direction of the spray is easily controlled by turning the spring-loaded ball to the required position with the key provided, or a screwdriver. Single, double and four-way housings with flat fan, cone and jet spray forms give maximum spray coverage with efficient use of the fluid. Blanks can also be fitted.

Swivel Sprays

Markets

- Quarrying
- Mining

Features/Benefits

- Flat fan, cone and jet spray forms
- The flat fan type is ideal for providing a knife edge cleaning operation for chutes
- Spray direction easily adjusted
- Single, double and 4 head spray housings

Applications

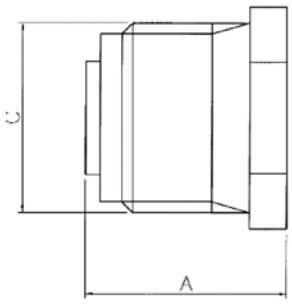
- Dust suppression on conveyer belts, particularly at transfer points and discharges into bunkers
- Dust suppression on cutting machines, AFC transfers and feeder breakers

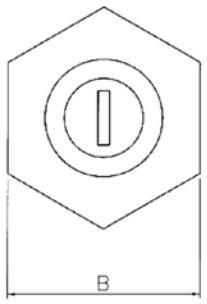
Compatible Valves

- Parker Conflow Code 15 Pendulum Valve
- Parker Conflow Code 100 Automatic Control Valve

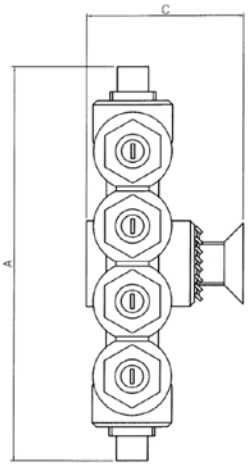
Specifications

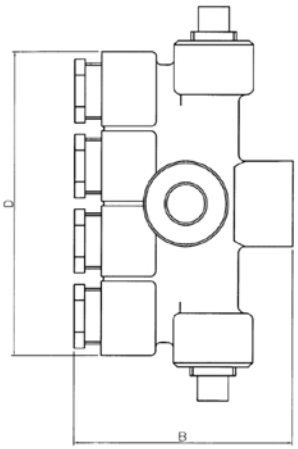
Dimension	Unit	
A	mm	22
B	mm	21
C	mm	19
Weight	kg	0.04





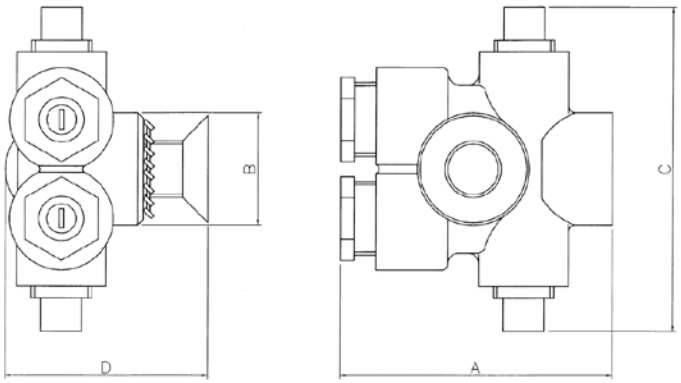
Dimension	Unit	
A	mm	153
B	mm	74
C	mm	54
D	mm	114
Weight	kg	1.2





Specifications cont.

Dimension	Unit	
A	mm	74
B	mm	31
C	mm	85
D	mm	54
Weight	kg	0.74



Spray Type	Spray Form	Inlet Size	Orifice (mm)	Spray Angle (@ 10 bar)	Flow rate (LPM) at Pressure (bar)			
					3.5	10.0	17.5	25.0
Single	Flat fan	⅜”	1.2 slot	45.0	3.5	7.0	10.0	12.5
Single	Flat fan	½”	1.2 slot	45.0	3.5	7.0	10.0	12.5
Single	Flat fan	½”	1.2 slot	45.0	35.0	7.0	10.0	12.5
Single	Flat fan	½”	1.2 slot	45.0	35.0	7.0	10.0	12.5
Single	Flat fan	½”	0.8 slot	100.0	2.0	3.5	5.0	6.0
Single	Flat fan	½”	2.0 slot	90.0	10.0	22.5	30.0	34.5
Single	Flat fan	½”	0.8 slot	100.0	2.0	3.5	5.0	6.0
Single	Jet	⅜”	3.2 dia	0.0	13.5	23.0	27.0	32.0
Single	Jet	⅜”	3.2 dia	0.0	13.5	23.0	27.0	32.0
Single	Jet	½”	3.2 dia	0.0	13.5	23.0	27.0	32.0
Single	Hollow cone	⅜”	3.2 dia	50.0	4.5	10.0	13.5	17.0
Single	Hollow cone	½”	3.2 dia	50.0	4.5	10.0	13.5	17.0
Single	Flat fan	⅜”	0.8 slot	100.0	2.0	3.5	5.0	6.0
Single	Flat fan	⅜”	1.2 slot	45.0	4.0	7.0	10.0	12.5
Twin	Flat fan	⅜” or ½”	1.2 slots	-	9.0	18.0	23.0	27.0
Twin	Flat fan	⅜” or ½”	1.2 slots	-	9.0	18.0	23.0	27.0
Twin	Flat fan	⅜”	1.2 slots	-	9.0	18.0	23.0	27.0
Quad	Flat fan	½”	1.2 slots	-	18.0	32.0	36.0	41.0
Quad	Flat fan	½”	1.2 slots	-	18.0	32.0	36.0	41.0
Quad	Flat fan	⅜”	1.2 slots	-	18.0	32.0	36.0	41.0

Economy Sprays

Code 1266

The Parker Conflow Code 1266 economy spray is a basic fluid spray head with a wide variety of spray forms for all general spraying in dust supression applications.

The code 1266 economy spray's versatility is derived from the ease in which any of six discs can be interchanged to offer a range of liquid discharged from extra fine to extra heavy. Each spray head can also be supplied with a choice of orifice diameters.

Economy Spray

Markets

- Quarrying
- Mining

Applications

- Dust suppression purposes wherever mineral is transported throughout a mine or quarry

Features/Benefits

- ½" BSP inlet.
- Maximum working pressure 105 bar
- Constructed from Brass with Delrin insert
- Wide range of orifice sizes and spray forms

Specifications

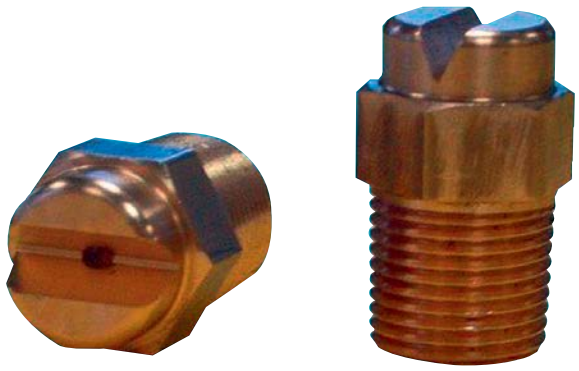
Disc No.	Spray Form	Orifice (mm)	Spray Angle (@ 10 bar)	Flow rate (LPM) at Pressure (bar)			
				3.5	10.0	17.5	25.0
1.0	Hollow cone extra fine	2.4	70.0	2.0	4.0	4.5	5.0
1.0	Hollow cone extra fine	3.2	60.0	3.5	5.5	6.0	6.0
1.0	Hollow cone extra fine	4.8	90.0	4.0	6.0	8.0	9.0
2.0	Hollow cone fine	2.4	60.0	2.0	4.0	5.0	6.0
2.0	Hollow cone fine	4.8	95.0	5.0	8.0	11.0	13.0
2.0	Hollow cone fine	2.4	50.0	3.0	7.0	7.5	9.0
3.0	Hollow cone medium	3.2	70.0	6.0	8.5	11.0	12.5
3.0	Hollow cone medium	4.8	85.0	7.5	11.5	15.5	18.0
3.0	Hollow cone medium	2.4	45.0	4.0	8.5	9.0	11.0
4.0	Solid cone coarse	2.4	45.0	4.0	8.5	9.0	11.0
4.0	Solid cone coarse	3.2	80.0	7.0	11.0	13.5	15.5
4.0	Solid cone coarse	4.8	80.0	9.0	13.5	18.0	21.0
5.0	Solid cone heavy	2.4	30.0	4.0	9.0	10.0	12.0
5.0	Solid cone heavy	3.2	60.0	10.0	14.0	18.0	22.0
5.0	Solid cone heavy	4.8	75.0	12.0	22.0	27.0	32.0

V Sprays

Code 1293

The Parker Conflow Code 1293 - "V" Spray provides a knife edge spray form making it suitable for a wide range of spraying purposes in dust supression applications.

With ⅜" BSPT or NPT connections and a maximum working pressure of 105 bar, the V Spray is ideally suited to provide dust supression water for the mining and quarrying market.



V Sprays

Markets

- Quarrying
- Mining

Applications

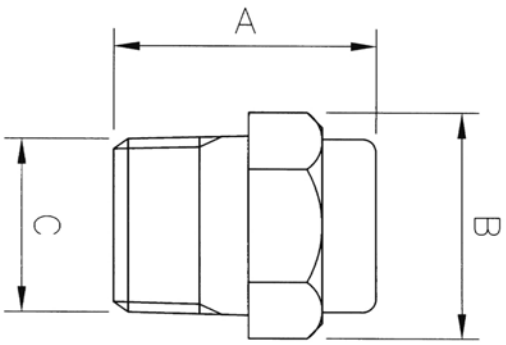
- For applying dust suppression water onto conveyers, feeder breakers and chutes

Features/Benefits

- 1 piece construction
- Choice of 3 orifice sizes

Specifications

A	B	C
31	⅜" WHIT HEX.	⅜" BSPT



Pressure (bar)	Water flow rate (LPM)		
	Spray #1	Spray #2	Spray #3
7.0	7.5	13	30.0
14.0	11	17	41.0
21.0	13	21	49.0
28.0	15	23	54.0
35.0	17	26.5	58.0
42.0	19	28	63.0
48.0	21	30	67.0
55.0	23	31	70.0
62.0	23.5	33	74.0
69.0	24	34	77.0

Venturi Sprays

Code 1912

The Parker Conflow venturi spray produces a powerful jet providing a dense coverage of dust suppression water.

As the venturi spray fills the body tube with water, it creates a vacuum into which the surrounding air and dust is drawn. This has a dual effect of capturing and suppressing airborne dust and diluting any gasses that may be in the vicinity. For maximum efficiency the spray nozzle produces a 'hollow cone' spray form, minimising the amount of water used.

Venturi Spray

Markets

- Quarrying
- Mining

Features/Benefits

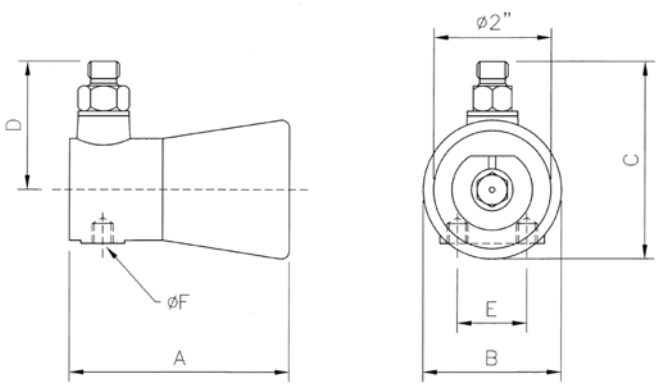
- ½" BSP or NPT inlet
- Maximum working pressure 105 bar
- Ideal for dust suppression
- Produces a dense saturating spray
- Available with 5 orifice sizes
- Weight: 2.17 kg

Applications

- To dilute methane gas and suppress dust in the vicinity of the cutting drum of mineral extraction machines
- Used as an air mover in shutes and feeder breakers

Specifications

Dimension	Unit	
A	mm	139
B	mm	89
C	mm	115
D	mm	65
E	mm	45
F	mm	M 12
Weight	kg	2.17



Specifications cont.

Disk No. + Orifice	Pressure (bar)	Flow (LPM)	Air Velocity (M/S)	Air Quantity (L/S)	Jet Length (cm)	Spray Angle (Degrees)
1 2.4 mm	15.2	6.8	5.5	66.1	3.05	4
	34.5	10.5	8.7	105.3	4.27	12
	55.2	14.5	11.6	138.8	5.18	15
	69	15.4	12.7	153.4	6.71	8
	82.8	16.8	14.5	174.6	8.23	8
2 3.2 mm	13.8	8.6	4.7	57.1	4.27	5
	34.5	14.5	6.5	78.8	5.49	10
	55.2	18.2	9.4	113.3	6.71	12
	69	20.9	11.1	134	7.63	13
	82.8	24.5	11.6	139.7	8.85	10
3 3.2 mm	13.8	9.5	4.4	52.9	5.49	10
	34.5	14.1	7.4	88.7	6.71	12
	55.2	18.2	8.9	107.6	7.93	12
	69	21.8	9.8	118	9.15	12
	82.8	23.6	11.3	135.9	9.76	12
4 3.2 mm	13.8	9.5	4.6	55.2	4.88	12
	34.5	14.1	7.2	87.3	6.41	12
	55.2	17.7	9.2	110.4	7.93	13
	69	21.8	10.8	130.3	8.54	10
	82.8	22.7	11.7	141.6	8.54	10
5 4.0 mm	13.8	13.2	3.8	45.4	3.35	8
	34.5	18.6	6.8	82.1	5.49	12
	55.2	25.9	8.5	102.9	7.93	14
	69	30.5	9.7	116.6	7.93	12
	82.8	32.3	10	120.8	7.93	10

Staple Lock Drum Sprays

Code 2801

The Parker Conflow Code 2801 - staple lock drum spray provides a superior fluid spraying system for cutting drums in dust supression applications.

The spray housing is welded onto the cutting drum, which is a hardened steel forging, specially formulated to resist distortion during welding and maximise resistance to wear during use.

The spray is fixed in the housing with locking staples, so there are no threads prone to damage and the sprays can be easily and quickly cleaned or changed. The sprays are manufactured from stainless steel to eliminate corrosion problems, and are available in a wide range of different specifications with a range of inserts to provide different spray patterns.

To extend the life of the Cutting Drum, every housing is threaded, so that once wear means the staples cannot be used, a single screwed spray (Parker Conflow code 850) can be fitted into the remainder of the housing.

Staple Lock Drum Sprays

Markets

- Quarrying
- Mining

Features/Benefits

- Highly effective ick flushing of cutting drum
- Wide range of orifice sizes and spray forms
- Easy removal and replacement of sprays, requiring no special tools

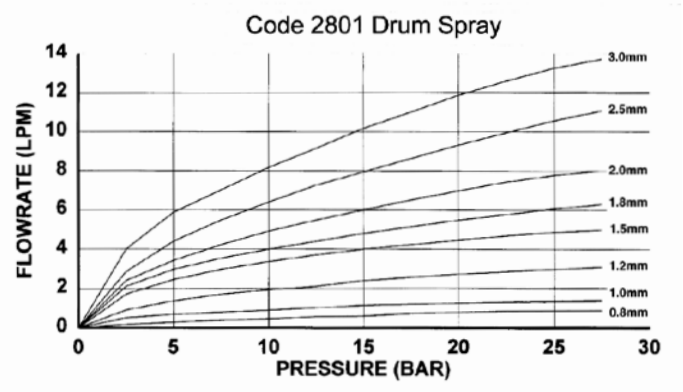
Applications

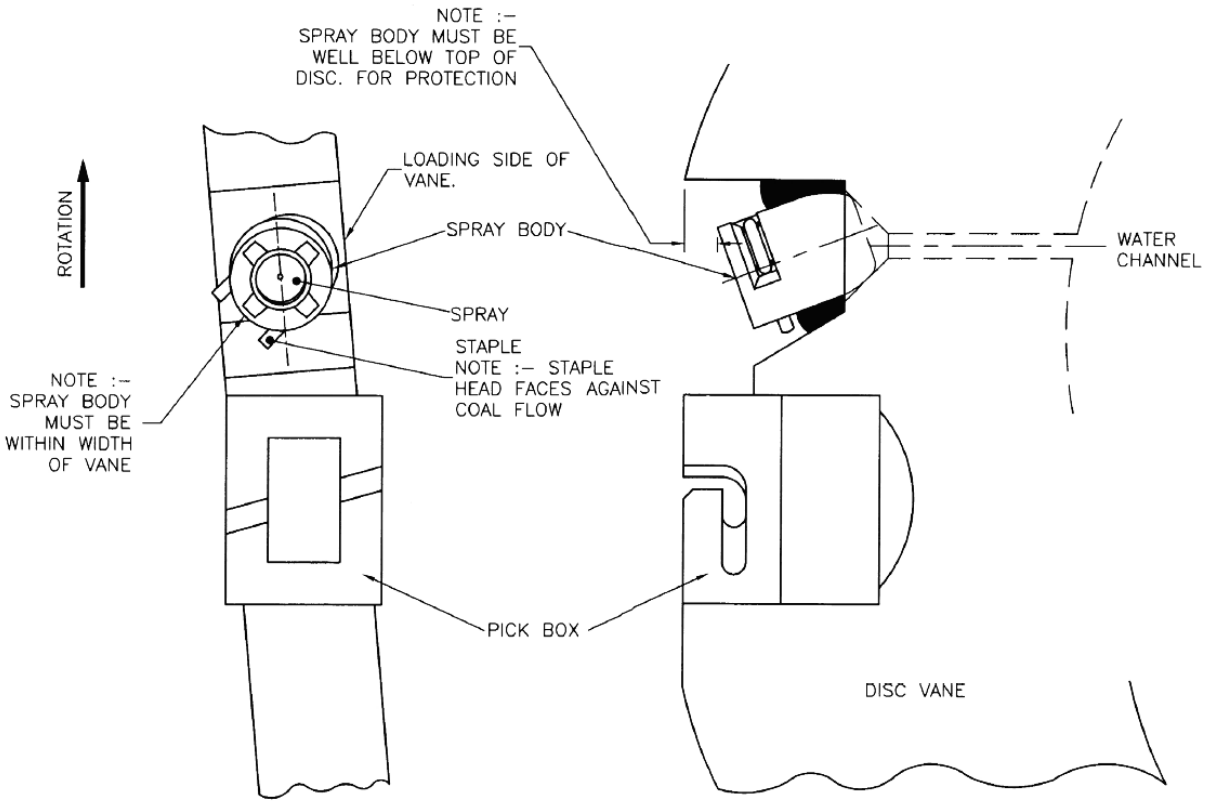
- For supplying pick flushing and dust suppression to mineral extraction shearer drums where precise spray positioning is required
- Particularly suitable for heavy duty shearer drums, where it is vital that the sprays operate accurately and efficiently all the time

Compatible Spray

- Parker Conflow Code 850 Single Screwed Spray
- Parker Conflow Code 100 Automatic Control Valve

Specifications





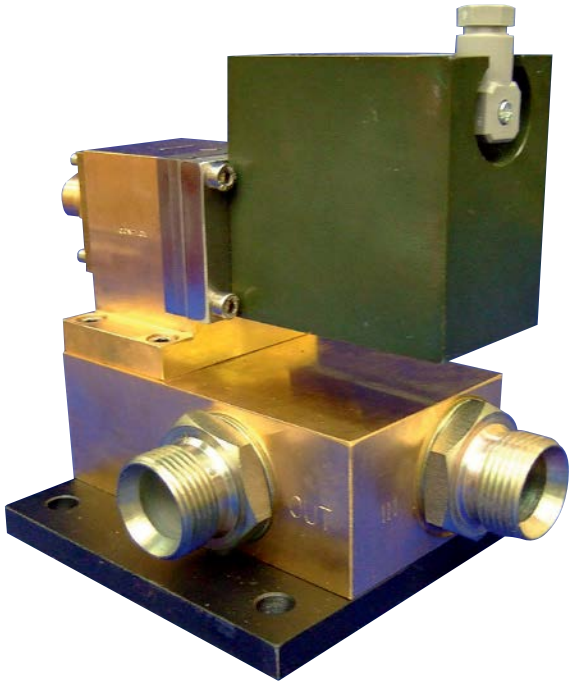
Fluid Line Stop Valves

Code 5042

The Parker Conflow Code 5042 fluid line stop valve is designed to operate with an Intrinsically Safe (I.S.) low energy supply suitable for underground use.

Parker Conflow's fluid line stop valve is made up of two halves conveniently bolted together. The valve half (wet end) is a pilot operated stopvalve which requires only a small force to open fully, for water pressures up to 100 bar.

The solenoid half is an electrical coil (driver) which, when energised, causes a mild steel core to move axially within the coil. This movement exerts a force in excess of that required to operate the pilot valve in the wet end. Available in ½", ¾", 1" & 2" and with maximum working pressure up to 100 bar the fluid line stop valve is ideally suited for dust supression applications.



Fluid Line Stop Valve

Markets

- Quarrying
- Mining

Features/Benefits

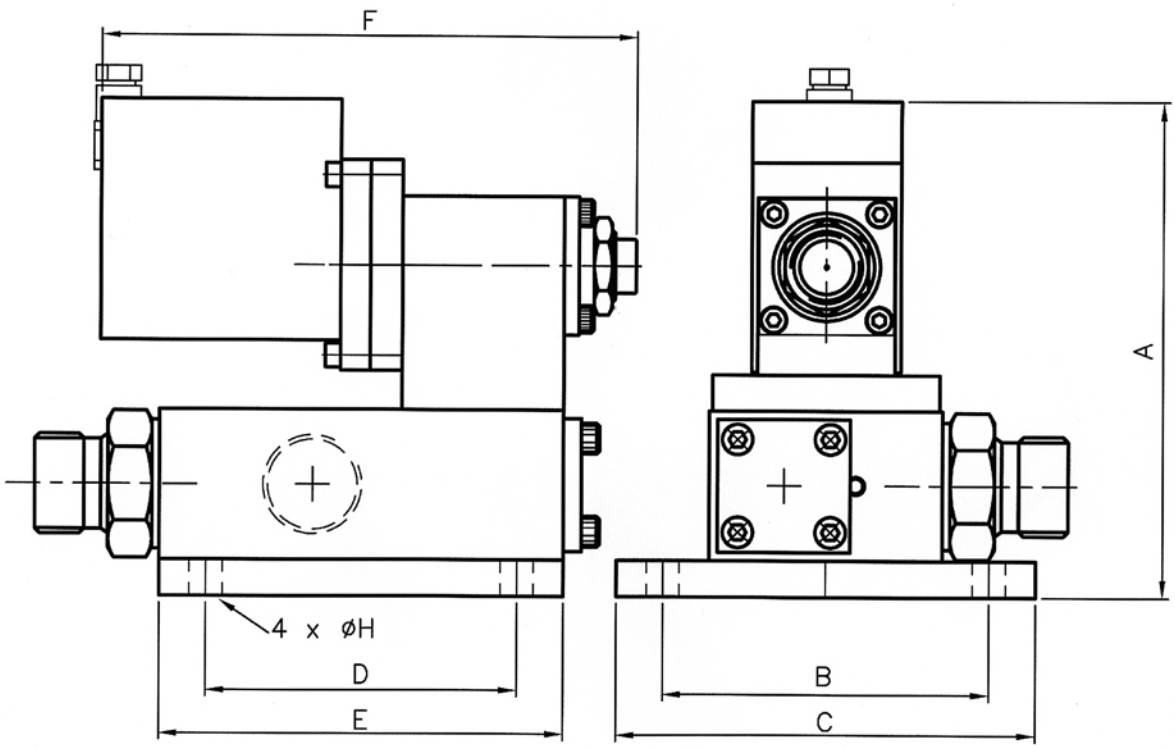
- Controls flows up to 180 GPM
- Rapid shut off time
- 12VDC supply voltage

Applications

- Controlling belt sprays
- Dust Suppression on the cutting heads of continuous miners
- Control of water cooling to trunk conveyer belt drives

Specifications

Dimension	Unit	½" ¾"1"	2"
A	mm	165	206
B	mm	109 CRS	N/A
C	mm	140	111
D	mm	104 CRS	N/A
E	mm	135	N/A
F	mm	179	218
H	mm	Ø11	N/A
Weight	kg	11	21



Belt Wetting System

Code 130

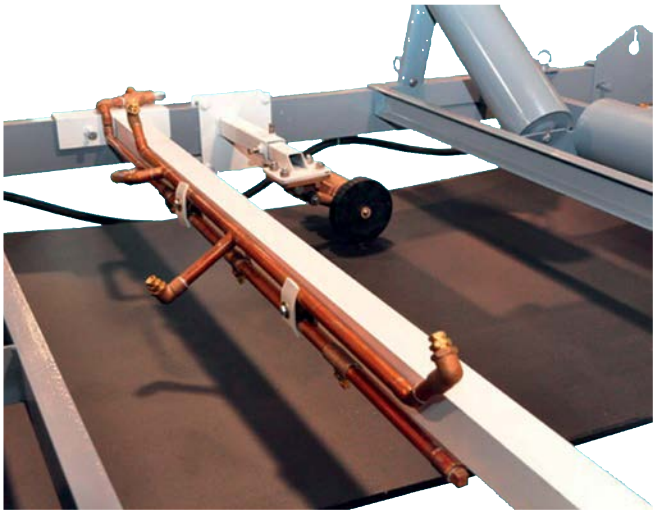
The Parker Conflow Code 130 - belt wetting system incorporates the Code 100 Automatic Water Control Valve to control the flow of water to dust suppression sprays by mechanically sensing the movement of the conveyor belt.

Markets

- Quarrying
- Mining

Features/Benefits

- Movement of the conveyor belt causes the wheel to rotate which opens a valve to allow water to flow.
- Device can be installed to allow water flow to dust suppression sprays for both top and/or bottom belt spraying.
- Spray bars supplied to suit type of structure and belt widths from 18” to 96”.
- System suited for use on belts with mechanical fasteners.
- Various options on type of spray available to suit application.
- Simple design provides ease of installation and maintenance.



Belt Wetting System

Applications

- Supplying dust suppression water on to the conveyor belts

Compatible Valves

- Parker Conflow Code 100 Automatic Control Valve

Underground Fire Hydrant Control Valve

Code 12

The Parker Conflow Code 12 - underground fire hydrant is a control valve used to reduce underground mains water pressure and flow to ensure the protection of the fire hose in mining and quarrying applications.

Parker Conflow's control valve for underground mains water pressure offers the reliability and durability required to protect the fire hose. The desired outlet pressure for any available inlet pressure is preset by bringing a locking dome into contact with a stop collar on the spindle. The Parker Conflow Code 14PS pre-setting bend is used to pre-set and test the hydrant to ensure a safe and constantly available supply of fire fighting water. A safety relief valve is built into the unit to ensure there is no pressure build up if the outlet hose is blocked.

Underground Fire Hydrant Control Valve

Markets

- Quarrying
- Mining

Features/Benefits

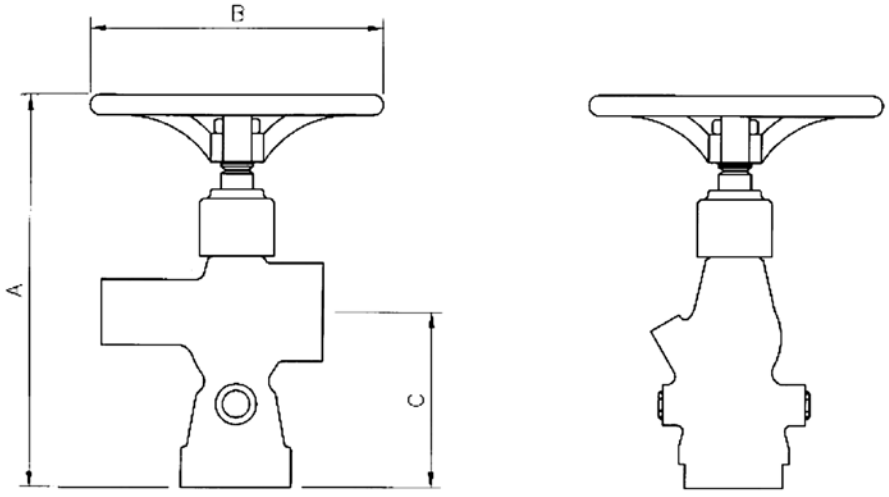
- 2½" VIC or flange inlet
- Outlet pressure is adjustable and can be pre-set
- Unit also incorporates integral shut-off valve and safety relief valve
- Controls delivery flow to maximum of 600 LPM

Applications

- Fitted at the required intervals in underground mines mains water supply as the outlets for fire fighting hoses

Specifications

Dimension	Unit	2½"
A	mm	306
B	mm	230
C	mm	135
Weight	kg	9.5



Pre Setting Bend

Code 14

The Parker Conflow Code 14 - pre setting bend is used for the setting up and subsequent checking of underground fire hydrants in mining and quarrying applications

The instantaneous inlet coupling is clipped into the hydrant outlet and the delivery nozzle is swivelled to point away to a safe area. When the hydrant is then opened the flow and pressure of the water emitting from the nozzle is indicated on the gauge.

The hydrant can be adjusted until the gauge indicates the correct flow and pressure for the nozzle size required.

Pre Setting Bend

Markets

- Quarrying
- Mining

Features/Benefits

- 2 ½" instantaneous coupling
- Maximum working pressure 105 bar
- ½" and ⅝" nozzles supplied. (¾" on special request)

Applications

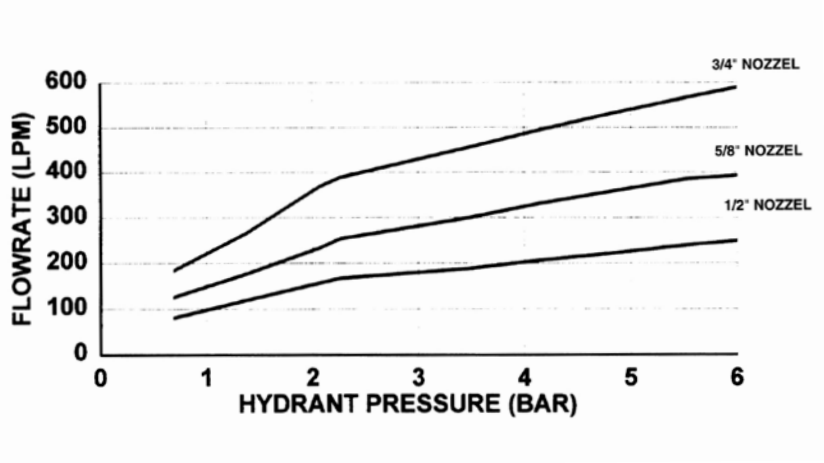
- For setting up and checking the deliveries of underground fire hydrants

Compatible Products

- Code 88 Flow/Pressure Pilot Gauge comes supplied
- Designed for easy setting and testing of adjustable hydrant valves (Code 12)

Specifications

Dimension	Unit	
A	mm	285
B	mm	195
Weight	kg	4.25 kg



Specifications cont.

Pressure (bar)	Flow rate (LPM)		
	½" Nozzle	5/8" Nozzle	¾" Nozzle
0.5	68	114	168
1	102	154	227
1.5	125	182	272
2	145	218	334
2.5	163	245	368
3	107	273	418
3.5	190	300	454
4	204	329	490
4.5	215	345	518
5	227	368	536
5.5	238	381	563
6	250	395	595
6.5	259	404	617

Instructions for setting hydrant using the code 14 pre-setting bend

1) Upon installation, unlock the Pre-setting dome and turn it in a clockwise direction
2) Connect the Pre-setting bend to the 2½" instantaneous coupling. Make sure that the nozzle is of the correct size
3) Open the hydrant until the desired volume or pressure is registering on the flow gauge
4) Rotate the Pre-setting dome by hand in an Anti-clockwise direction until it can move no further
5) Lock the Pre-setting dome into it's present position by tightening the lock screws with the key provided
6) Close the hydrant by turning the hand-wheel
7) The hydrant will now be limited to these chosen settings whenever it is fully opened

Weighted Lever Valve

Code 97

The Parker Conflow Code 97 weighted lever valve is used to supply water to small fire barrier and Auxillary Fan Systems.

The valve is operated by a lever, which falls under gravity due to a weight fixed to it. The wait is normally held in position with a wire rope, remotely secured and held in tension by the weight. Thermal links, spaced along the wire are activated by a rise in temperature, which relaxes the wire, allowing the weight to fall and open the valve.

Weighted Lever Valve

Markets

- Quarrying
- Mining

Applications

- To supply water to a mini fire barrier surrounding underground plant to deluge a fire created by overheating equipment.

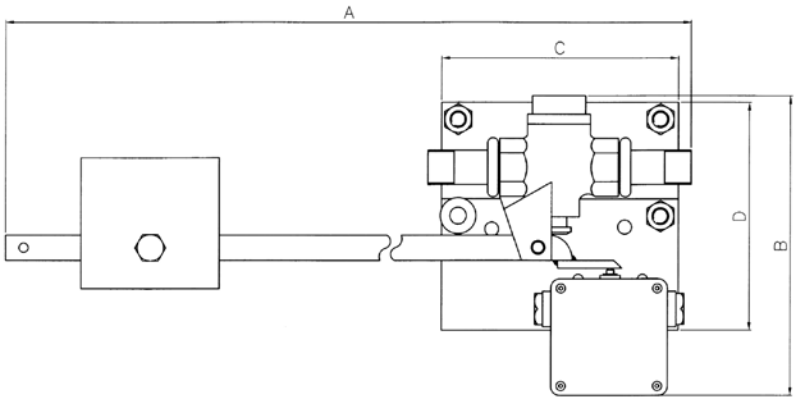
Features

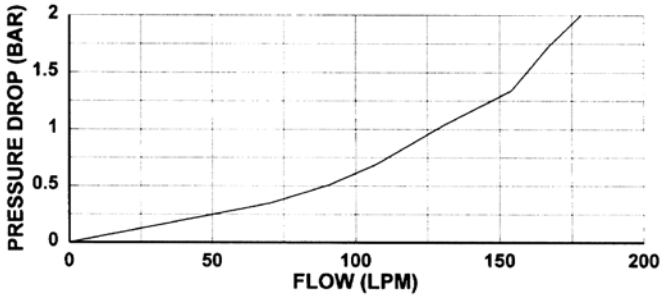
- 1” port size
- Maximum working pressure 105 bar
- Triggered by quartz thermal links @ 57°C
- Designed to be used as part of the Auxiliary Fan barrier and Mini Fire Barrier around pumping stations.

Specifications

Dimension	Unit	
A	mm	1050
B	mm	300
C	mm	23
D	mm	23
Weight	kg	22.5*

*Unit with switch attached





Weighted Lever Valve

Code 222A

The Parker Conflow Code 222A - Weighted Lever Valve is used to supply large volumes of water to fire barrier systems.

The valve is pilot operated so that the pressure energy of the system is used to open and close the valve itself.

A small pilot valve is used to divert system pressure to open and close the main valve thus achieving control of high volume fluid with minimum mechanical effort.

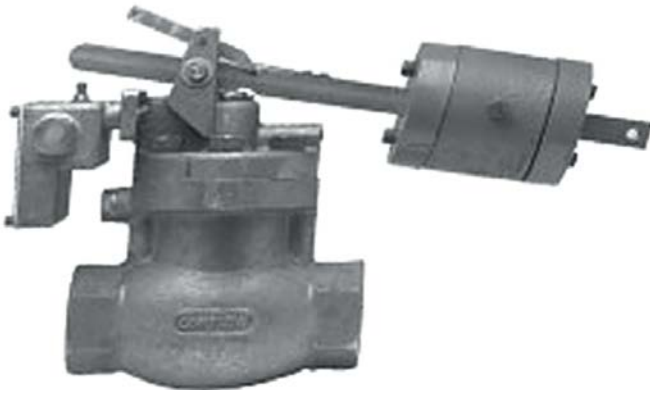
The pilot valve is operated by a lever which falls under gravity due to a weight fixed to it. The weight is normally held in position with a wire rope, remotely secured and held in tension by the weight. Thermal links, spaced along the wire are activated by a rise in temperature, which relaxes the wire allowing the weight to fall and open the valve.

Applications

- To supply water to a fire barrier or deluge system used to contain the spread of fire along roadways in all types of underground mine

Features

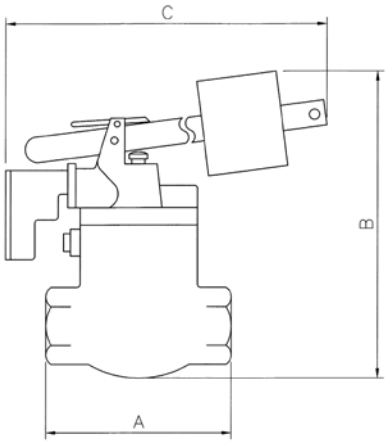
- 2” port sizes
- Maximum working pressure 105 bar
- Pilot operated
- Triggered by quartz thermal links @ 57°C
- Designed to be used as part of the Fire Barrier System (Code 222)

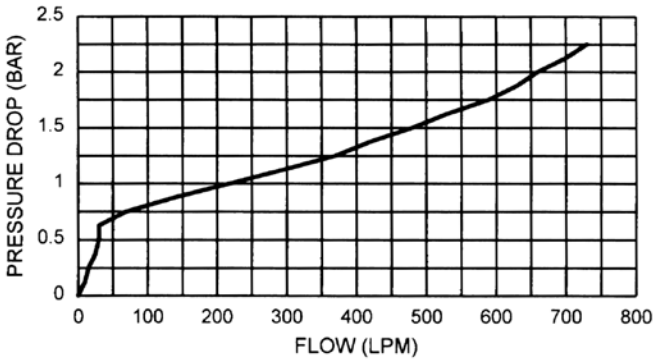


Weighted Lever Valve

Specifications

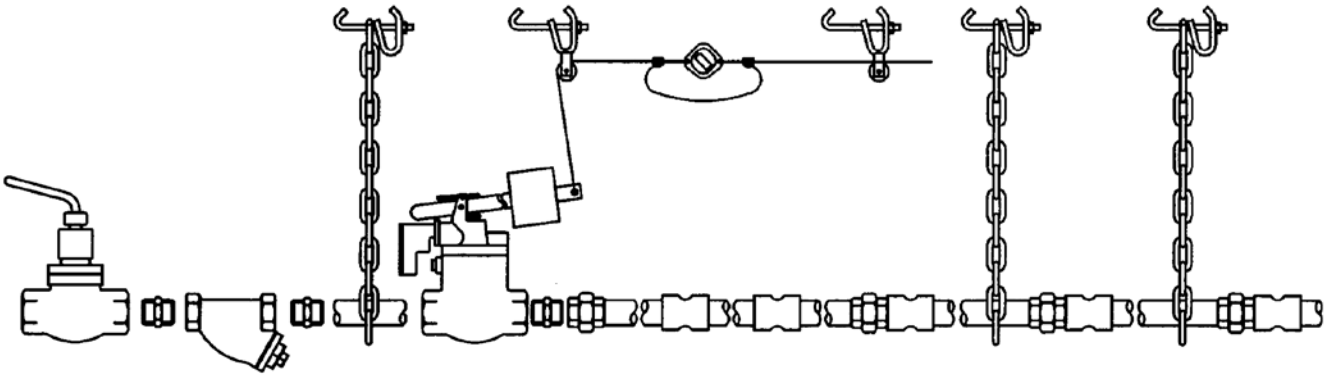
Dimension	Unit	2”
A	mm	223
B	mm	370
C	mm	400
Weight	kg	39





Extended Water Fire Barrier

Code 222S



The Parker Conflow Code 222S - Extended Water Fire Barrier is used to contain and prevent the spread of fire in underground roadways. The barrier consists of a structure of 2" metal pipes, which are usually situated towards the roof of a roadway in a central position.

Special sprays are sited at regular intervals along the length of the pipe so that, when energised, they create a curtain of water, which acts as a fire barrier across the roadway section. The barrier is energised using a pilot operated weighted lever valve, which is triggered by temperature sensitive links.

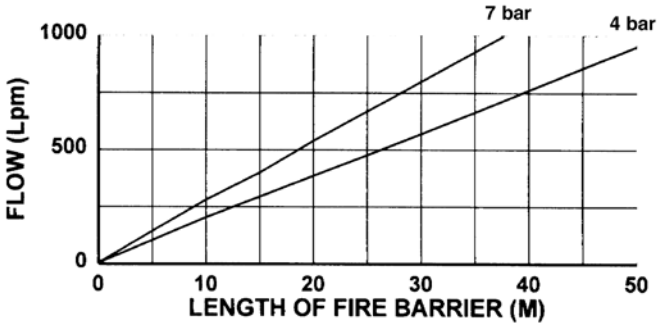
Applications

- Barriers are installed in main roadways ahead of potential fire sources and downstream of the flow of ventilation in all types of underground mines
- Shorter barriers are also fitted locally around conveyor drives and ventilation fans

Features

- 2" main feed pipework
- Barriers from 14m up to 55m in 2.7m lengths
- Spray sizes $^{3}/_{32}$" or $^{1}/_{16}$"
- Complete roadway coverage by elbow spray housings
- Weighted lever valve set to trigger @ 57°C

Specifications



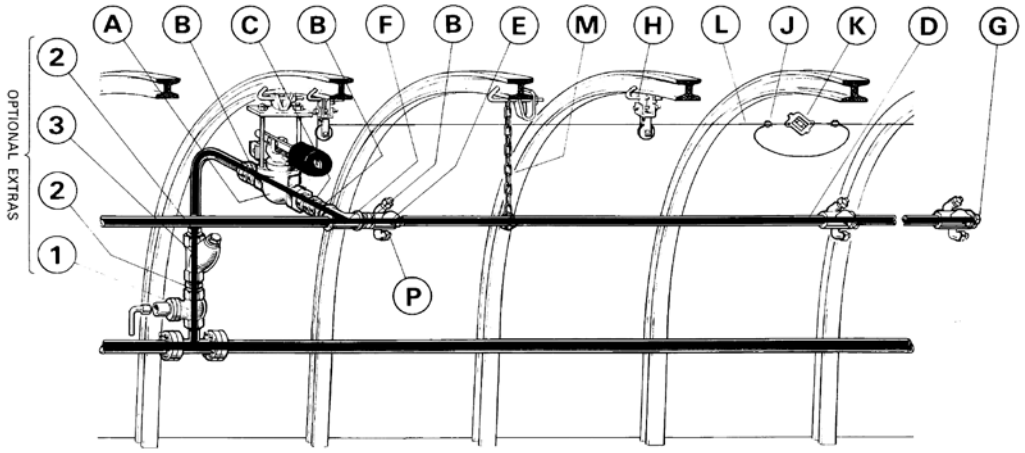
Specifications cont.

Standard items for Centre Feed Barrier

Part	Description	Ref. No	No. Off
A	Automatic Lever Valve c/w Switch	21 3269	1
B	2” BSP Male Hexagon Nipple	8442	2
C	2” BSP Female Connector	8430	1
D	2” BSP x 9’ Connecting Pipe	0510	As Required
E	Spray Housing c/w Sprays & Elbows	21 3289	As Required
F	2” BSP Equal Tee	8482	1
G	2” BSP Blank Plug	8527	2
H	Swivel Type Pulley c/w ‘J’ Bolt	3424	12
J	Special Wire Clips	3440	24
K	Fusible Link	3406	4
L	200 ft x ⅛” Wire Cable	3441	
M	Pipe Hanging Bracket c/w Chain	8630	8
N	2” BSP x 1’ Connecting Pipe	0636	1
P	½” BSP x 0.94” Slot Brass Spray	0391 /6	As Required

Part	Description	Ref. No	No. Off
1	Code 18 Key D P Stop Valve	83 7110	1
2	2” BSP Male hexagon Nipple	8442	2
3	Code 36H Strainer	58 1110	1

Items 1, 2 & 3 listed adjacent are not supplied as part of the standard unit but are available as optional extras if required



Portable Ash Instrument Analyser - Ash Probe Series

BM0600

The Ash Probe is a hand portable instrument for measuring the ash content of piles, wagons or trucks of coal. It provides the user with quick and accurate ash readings within seconds.

The Parker Ash Probe measures the natural gamma radiation emitted by the impurities that make up the ash content of coal (Thorium, Potassium, etc.). It does not contain a radiation source and is therefore perfectly safe and requires no special training to use. It also provides significant reductions in time delays in gaining accurate ash results.

Other clear benefits from using the Parker Ash Probe, range from financial savings in sampling and analysis costs to improved consistency in saleable product. This latter benefit is possible because the rapid results from the Parker Ash Probe allows plant operators to adjust washing densities quickly in order to maximize yield at a given ash content or blend coals more accurately in real time.

The Parker Ash Probe comprises two parts: the probe and the display unit. The probe is inserted into the coal pile and connected to the lightweight AshGraffix colour touch-screen display unit. Within a minute, the ash content of that area will have been measured and displayed. Taking measurements from several key areas of the pile or truck will give an accurate overall ash content.

Markets

- Mining
- Cement plants
- Steel plants using Coking Coal as fuel source
- Coal Preparation Plants
- Coal Briquette plants

Ash Probe

Applications

- Run of mine (ROM) coal
- Washed product (smalls, peas, beans, duff, singles, doubles etc)
- Screened coal (dry fines, PSF etc)
- Slurry
- Blended products
- Final product (e.g. composite ash pile)
- Discard
- Unknown coals prior to blending
- Rail or truck coal deliveries to blending plants
- Rail or truck coal deliveries to power stations, cement works and steel works
- Rail or truck coal deliveries to coking plants
- Rail or truck coal deliveries to washing plants

Features/Benefits

- Simple to use, easy to calibrate
- Much quicker than conventional sampling and analysis
- Reduced sampling effort, leading to reduced costs
- More information on ash and ash variability
- High resolution colour touch-screen display
- Multi language user interface with more languages being added all the time
- Can operate for a full working day on a single charge
- Measurement accuracy: better than 1% ash content
- Data can be written to a USB memory stick for offline analysis
- Data can be uploaded to a PC using the supplied software and cable (Windows XP/7/8/8.1 compatible)
- Environmental rating: IP65
- Stores data for up to 99 piles (99 samples each) or 600 wagons/trucks (12 samples each)
- Stores up to 100 sets of calibration coefficients
- Minimum Sample Measurement Time: 60 seconds
- Maximum Sample Measurement Time: 600 seconds
- Operating Temperature Range: -20°C to +50°C

How to Order

The correct part number is easily derived from the following number sequence

BM0600	S	E	C	L	03
Series	**Nose Cone Type**	**Battery Plug Type**	**Cable Temperature Type**	**Options**	**Cable Length**
BM0600 Ash Probe with AshGraffix	**A** Aluminium **S** Stainless Steel	**K** UK **U** 2 pin USA **E** European	**C** Cold Climate **N** Normal Climate	**L** With calibration kit **B** Spare cables	**03** 3 meters **10** 10 meters

Conveyor Belt Ash Instrument Analyser - Ash Eye

BM0800

The Parker Ash Eye is a coal quality monitoring system that attaches to conveyor belts to monitor the coal as it is moved from the mine to the stockpile or conveyor transportation, providing real time results of coal quality to the customer.

The Parker's Ash Eye coal quality monitoring system has no moving parts and produces trend data in real-time rather than by the traditional method of laboratory analysis. This measurement is vital for decision making. The system combines the signals from the two gamma sensors with those from a belt weigher to provide a fully on-line second by second calculated ash content. Unlike other ash monitors, the Parker Ash Eye does not contain any radioactive sources and is insensitive to iron or calcium variations. It can also be installed on steel corded belts (unlike dual energy gamma transmission systems).

Markets

- Quarrying
- Mining

Applications

- Run-of-Mine (ROM) Monitoring or Raw Coal Monitoring
- Control of diverting systems for high ash material
- Washed Coal - for input to washing plant control system
- Blending control systems
- Final product monitoring
- Monitoring Coal Deliveries at Power Plants, Steel Works & Cement Works
- Boiler feed monitoring

Ash Eye

Features/Benefits

- Simple, secure menu-driven operation, with automatic restart upon restoration of power.
- Real-time numerical displays of current ash content, the shift ash content, the current tonnes per hour flow rate and the total shift tonnes.
- Up to four calibrations to handle different coal types.
- Up to eight different coal types can be accommodated.
- User-definable shift pattern with comprehensive end-of-shift reporting.
- Downloading of information to Multi-Media-Card (MMC) or RS232 Serial port to allow more comprehensive user analysis (usually in conjunction with other user-supplied data).
- Optional serial output (RS232/RS485) of percentage ash, tonnage and various other house keeping data for onward transmission to the customer's computer control system or the optional Bretby Gammatech EyeGraffix software system.

Portable Contamination Analyser - Gamma Eye Series

BM0700

The Parker portable contamination analyser - Gamma Eye offers superior performance for sites where significant quantities of gamma contaminated material need to be assayed and segregated within a short time frame.

The Parker portable contimination analyser - Gamma Eye bucket monitor provides a quick assessment of the bulk gamma contamination of excavated material within the bucket of a mechanical digger.

This instrument contains a large scintillation crystal which is mounted within a substantial frame. The sensor is pre-calibrated for the contamination isotope of interest and can be set to alarm for discrete activity bands.

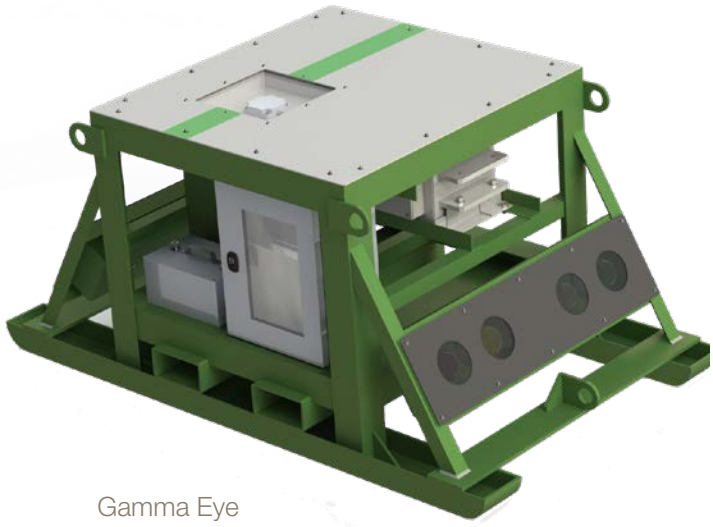
The driver of the mechanical digger rests the bucket containing the excavated material on the frame and after a few seconds it provides him with a visual indication of the level of gamma contamination in the bucket. This indication is provided by a traffic light system – red, amber and green denoting the band within which the gamma contamination occurs. On the basis of this information the driver deposits the load in the appropriate place for subsequent disposal or processing.

Markets

- Excavation
- Land reclamation

Applications

- On site Naturally Occurring Radioactive Materials (NORM) identification and segregation
- Land Reclamation work post survey stage
- Nuclear decommissioning



Gamma Eye

Features/Benefits

- Easily calibrated for a range of gamma contaminants
- User selectable alarm levels
- Automated initiation of counting
- Simple traffic light system to indicate alarm level reached
- Safe operation as no personnel need to be close to take meter readings
- Log of measurements maintained which can be downloaded to a PC
- Easy to generate and update background
- No moving parts
- 24 hour battery operation, powered by rechargeable sealed lead acid battery units
- Easy to transport around site

How to Order

Part Number	Options
BM0700	Without trailor
BM0700T	Supplied with a trailer for transporting to sites

Please contact us for other options.

Conveyor Belt Ash & CV Instrument Analyser - Heat Eye Series

BM0810

The Parker Heat Eye is an on-line instrument providing second-by-second measurement of the Ash, Moisture and Nett Calorific Value (Nett CV) ie the energy content of conveyed coal.

The Parker Heat Eye produces in real-time rather than by the traditional method of laboratory analysis. This measurement is vital for decision making. The Heat Eye combines the instantaneous ash and moisture measurements to obtain an instantaneous "total inerts" value. This total inerts value is converted into Nett CV by using a calibration based upon the correlation of total inerts with Nett CV previously measured by conventional means. Heat Eye comprises an Ash Eye fully integrated with a moisture meter (e.g. Callidan MA500 or Berthold LB456 etc) The Heat Eye contains no Radioactive sources – it uses Natural Gamma and Microwave technology.

Markets

- Quarrying
- Mining

Applications

- Run-of-Mine (ROM) Monitoring or Raw Coal Monitoring
- Control of diverting systems for high ash material
- Monitoring coal deliveries at power plants, steel works and cement works

How to Order

Part Number	Description
BM0810	Heat Eye with moisture meter but without belt weigher system
BM0270	Belt weigher for Heat Eye and Ash Eye

Please contact us for other options.

Features/Benefits

- Simple, secure menu-driven operation, with automatic restart upon restoration of power.
- Real-time numerical displays of current ash, moisture and CV along with current shift averages.
- Real-time numerical displays of the current tonnes per hour flow rate and the total shift tonnes.
- Up to four calibrations to handle different coal types.
- Up to eight different coal types can be accommodated.
- User-definable shift pattern with comprehensive end-of-shift reporting.
- Archival and retrieval of shift reports.
- Two 4 to 20mA Analogue outputs which can be set to any two of the measured parameters.
- Two Relay outputs (c/o contacts) which can be set to operate on a critical system fault, a non-critical system fault, the current ash content below a target band, within a target band or above a target band.

Fixed Laboratory Ash Instrument Analyser - Lab Ash Series

BM0900

The Parker Lab Ash is a laboratory instrument providing a quick measurement of the ash content of a crushed sample of coal. It is easy to use and provides accurate results within a few minutes.

The Parker Lab Ash instrument contains no radiation sources so can be safely used by any operator without the need for special permits or radiation protection infrastructure to be in place. Using the latest touch screen technology coupled with tried and tested software from the Parker Ash Probe product, the system is easy for the operator to sample, record the data and download to a PC or memory stick for reporting.

Markets

- Quarrying
- Mining
- Laboratories

Features/Benefits

- Simple to use
- Stores up to 300 sample measurements
- Facility to include: date, batch and sample name into each record
- Easy to calibrate on site using normal production samples
- Can store up to 9 different calibrations for multi-source applications
- PC Based software application provided for data download and remote configuration
- Quick ash results from the hourly samples (less than 5 minutes to get a result)
- Faster and therefore more accurate control of quality
- Reduce in-house sample analysis from hourly to split shift leading to less effort by laboratory staff thereby achieving lower costs
- Provides an independent check on both in-house and commercial sample analyses - enabling precision of all measurement methods to be assessed under ISO15239

Applications

- Any coal where a crushed sample is available; e.g. final product
- PSF
- Washed fines
- Imported coal etc

How to Order

The correct part number is easily derived from the following number sequence

BM0900	K	
Series	**Plug Type**	
BM0900 Lab Ash	**K** **U** **E**	UK mains plug USA mains plug European mains plug

Please contact us for other options.

Fluid Control Valves

Code 7

The Parker Conflow Code 7 - Maxway valve is an in-line valve that regulates and isolates fluid in pipelines and systems for mining and quarrying applications.

Parker Conflow's fluid control valve is a screw down type; adjusting the handwheel from closed to fully open can regulate the flow of fluid. The fully open position gives full flow capability thus creating little resistance in the pipeline. As well as the range of sizes, other type variations are available. One of these options is with a key fitting. This key replaces the handwheel and enables valve settings to be maintained. It also eliminates unauthorised interference. When the key is removed, accidental impact will not alter the setting. It is perfectly suited to regulating the distribution of all the water services on coal cutting machines.

Fluid Control Valve

Markets

- Quarrying
- Mining

Features/Benefits

- Heavy duty construction ideal for mineral processing
- In-line regulation and control of fluids
- Maximum working pressure 140 bar (for sizes up to 1")
- Hand wheel or key operation

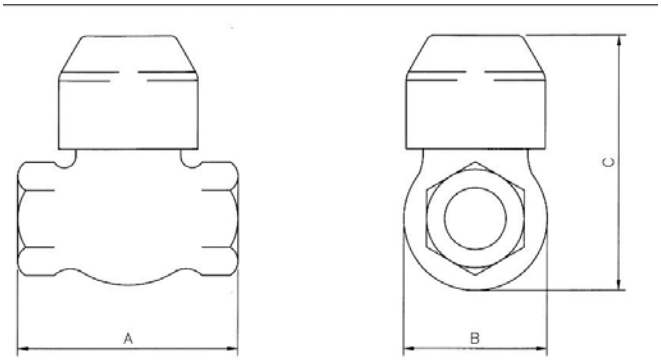
Applications

- Regulating the amount of water feeding a dust suppression system at conveyor points in a mine or quarry

Specifications

Handwheel Version

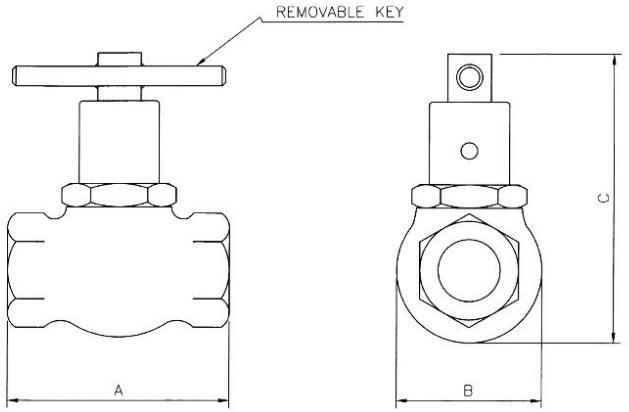
Dimension	Unit	1/2"	3/4"	1"	1¼"
A	mm	76	89	108	127
B	mm	38	48	63	80
C	mm	70	109	118	129
Weight	kg	0.68	1.25	2.44	4.33
Maximum Working Pressure	bar	140	140	140	70

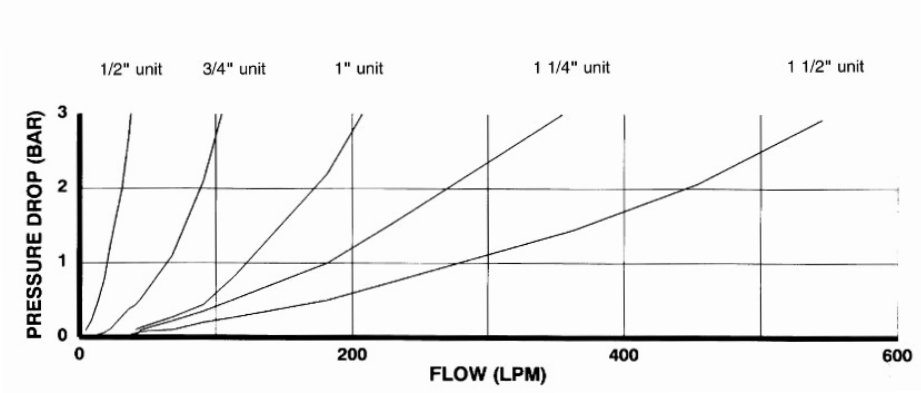


Specifications cont.

Key Operated Version

Dimension	Unit	1/2”	3/4”	1”	1 ¼”
A	mm	76	89	108	127
B	mm	38	48	63	80
C	mm	106	125	137	158
Weight	kg	0.68	1.25	2.44	4.33
Maximum Working Pressure	bar	140	140	140	70





Check Valves

Code 11

The Parker Conflow Code 11 - check valves are used in water dust suppression systems on mineral cutting machines to keep the pipelines "charged" with water so that the spray heads energise instantaneously when the supply valve is next turned on.

Parker Conflow's check valve is fitted into pipelines on systems where the flow of fluid is required in one direction only. The design is such that only the weight of the valve component needs to be overcome in the direction of fluid flow and hence the resistance across the unit is small. If system requirements necessitate the valve to be fitted vertically, then a light spring can be added.

The valve is suitable for both hydraulic and pneumatic systems and is designed especially for silent operation on equipment with pulsating or reverberating action (e.g. air compressors).

Check Valve

Markets

- Quarrying
- Mining

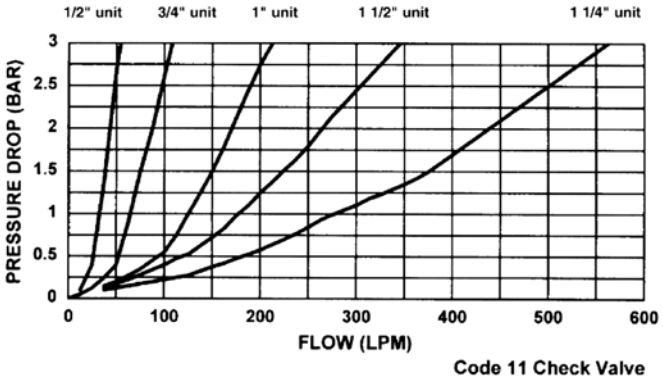
Features/Benefits

- Larger sized valves used in conjunction with Code 18
- ½" to 2" sizes Brass construction, 2" to 4" sizes Steel construction
- Suitable for use with air, water or oil
- Enables silent operation when used on equipment with pulsating or reverberating action

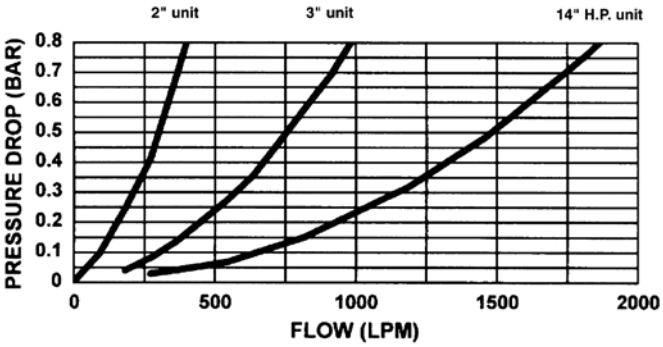
Applications

- On water dust suppression systems on mineral cutting machines to keep the pipelines "charged" with water so that the spray heads energise instantaneously when the supply valve is next turned on

Specifications



Code 11 Check Valve



Specifications cont.

Dimension	Unit	1/2"	¾"	1"	2"	3"	4"
A	mm	76	89	108	172	229	324
B	mm	38	48	63	140	180	230
C	mm	50	64	76	150	200	288
Weight	kg	0.37	0.77	1.13	6.01	16.44	-
Maximum Working Pressure	bar	70	50	17	17	17	125

Inline Check Valves

Code 1431

The Parker Conflow Code 1431 - inline check valves permit movement of flow media in one direction only in water dust suppression systems on mineral cutting machines to keep the pipelines "charged" with water.

Parker Conflow's inline check valve permits the movement of flow media in one direction only. A light spring is fitted to assist valve closure at low pressure differentials across the valve. The valve, being in-line, fits compactly into a pipe line with minimum obstruction. May be used horizontally or vertically.

Inline Check Valve

Markets

- Quarrying
- Mining

Features/Benefits

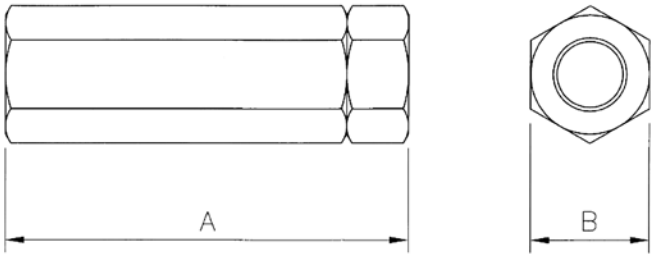
- Permits flow movement in one direction only
- Spring assisted closure
- Low Pressure units available
- For use with oil, water and air

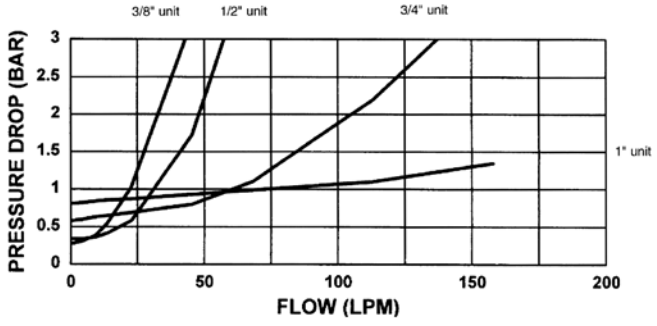
Applications

- On water dust suppression systems on mineral cutting machines to keep the pipelines "charged" with water so that the spray heads energise instantaneously when the supply valve is next turned on

Specifications

Dimension	Unit	3/8"	½"	¾"	1"
A	mm	90	93	126	137
B	mm	28	33	43	62
Weight	kg	0.33	0.64	1.40	2.80





Heavy Duty Stop Valves

Code 18/19

The Parker Conflow Codes 18 and 19 - heavy duty stop valves are used to shut off flow in pipelines on water mains in underground mines to isolate areas for maintenance and extension.

Parker Conflow's heavy duty stop valve is a screwdown type so that large flows in large diameter pipes can be isolated by the gradual shut off of the valve. This eliminates hydraulic shock waves or water hammer being created which would damage the steel pipes and fittings.

The fully open position gives a true full flow capability thus creating minimal resistance in the pipeline. The 4" unit incorporates a balanced pressure feature, which enables the valve to be opened and closed at high pressure with the minimum of effort.

Heavy Duty Stop Valve (Code 18)

Heavy Duty Stop Valve (Code 19)

Markets

- Quarrying
- Mining

Features/Benefits

- Maximum working pressure 105 bar (Code 18), 125 bar (Code 19)
- Victaulic, flanged or screwed ends
- Designed for underground water mains
- Robust, compact and full bore

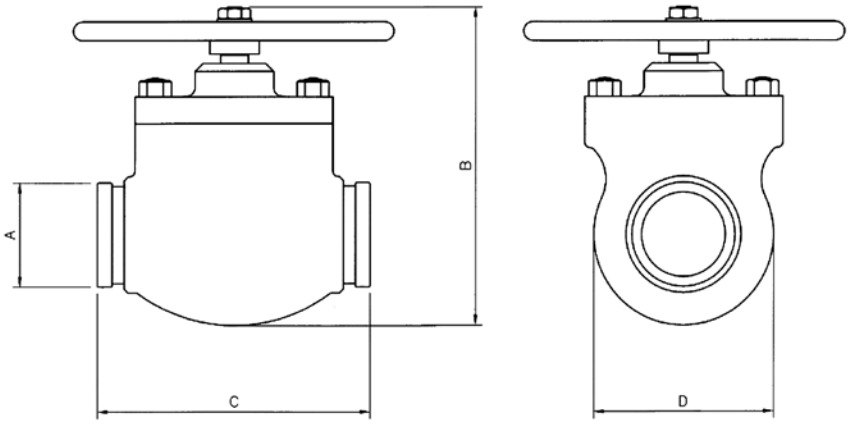
Applications

- On water mains in underground mines to isolate areas for maintenance and extension

Specifications

Heavy Duty Valves - Code 19

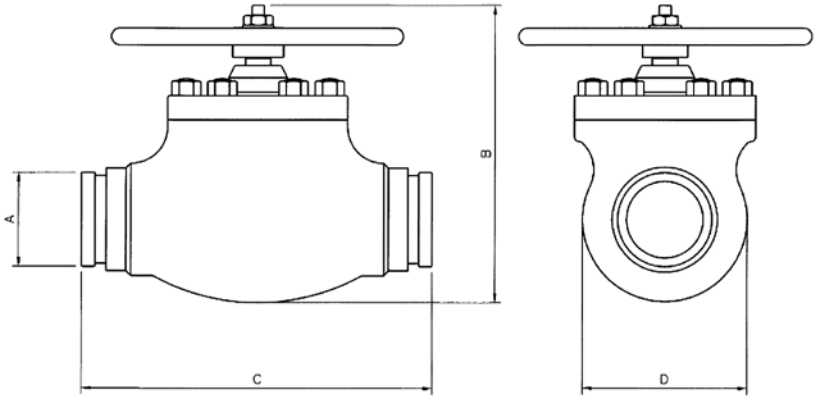
Dimension	Unit	
A	mm	4"
B	mm	385
C	mm	323
D	mm	211

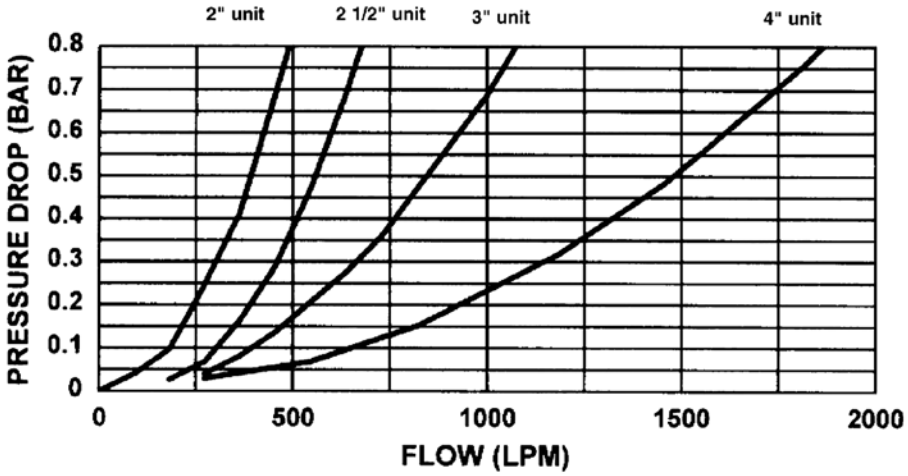


Specifications cont.

Heavy Duty Valves - Code 18

Dimension				
A	2” Victaulic	2 ½” Victaulic	3” Victaulic	4” Victaulic
B	268	302	384	395
C	328	334	384	455
D	137	182	215	225
* 4” units have balanced pressure features				





Ball Stop Valves

Code 39

With the Parker Conflow Code 39 - Ball Stop Valve fluid flow in a pipeline is completely stopped by turning the handle through 90°.

The main benefit in using this type of valve is its full bore capacity, i.e. when the valve is open the inside diameter of the valve is the same size as that of the adjoining pipe work, so that the pressure drop across the valve is negligible.

High quality components - CNC machined brass forged main body, stainless steel ball and Delrin ball seats ensure easy and reliable operation, tight shut off, and high pressure rating.

Ball Stop Valves

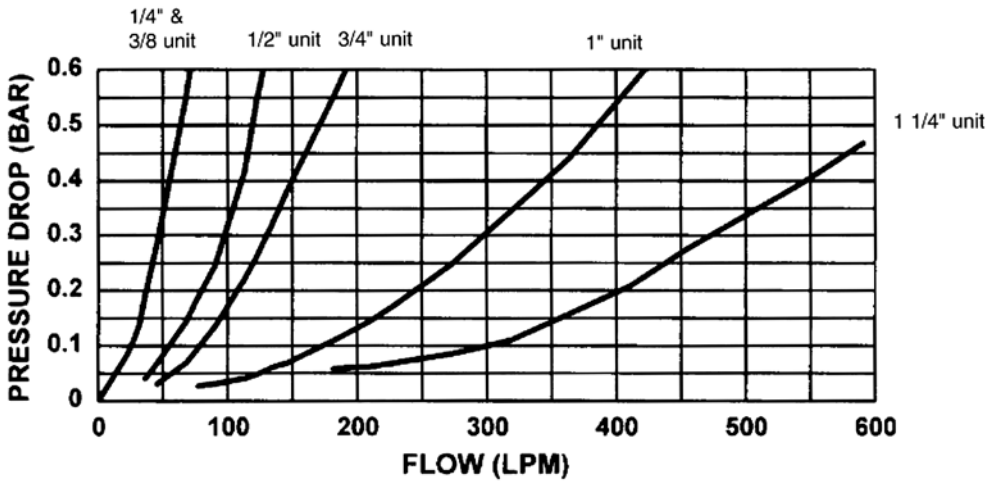
Applications

- On main inlet to water systems on mineral cutting machines where water flow needs to be controlled quickly and frequently, whenever the machine is in operation
- On coal face emulsion supply lines to isolate system

Features

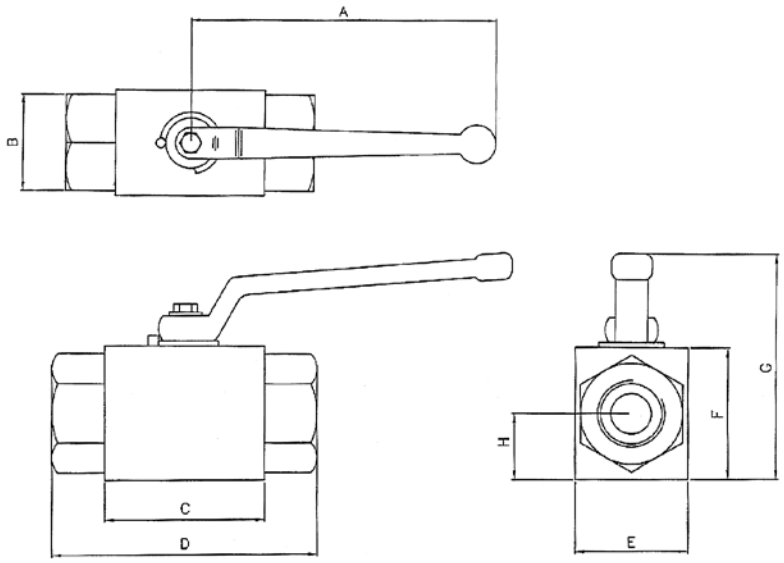
- Sizes from ¼" to 1¼" available
- Working pressures up to 344 bar (4" - 55 bar)
- Low pressure drop
- 90° ON - OFF movement
- Tight shut off

Specifications



Specifications cont.

Dimension	Unit	¼”	⅜”	½”	¾”	1”	1¼”
A	mm	110	114	180	185	220	225
B	mm	27 A/F	27 A/F	32 A/F	41 A/F	50 A/F	50 A/F
C	mm	42	42	59	64	78	78
D	mm	65	85	101	113	132	136
E	mm	30	30	35	45	55	55
F	mm	40	40	45	55	65	65
G	mm	90	90	90	95	110	110
H	mm	15	15	18	25	30	30



Directional Valves

Code 46

The Parker Conflow Code 46 - directional valve diverts incoming fluid to a choice of two outlet feeds in hydraulic systems, enabling incoming fluid to be directed, where appropriate, with a single handle movement of the valve.

Plastic valve seats enables tight shut off to be achieved to each outlet and, as there is no shut off during changeover, an intermediate position can be selected to feed all the outlets if required.

Directional Valve

Markets

- Quarrying
- Mining

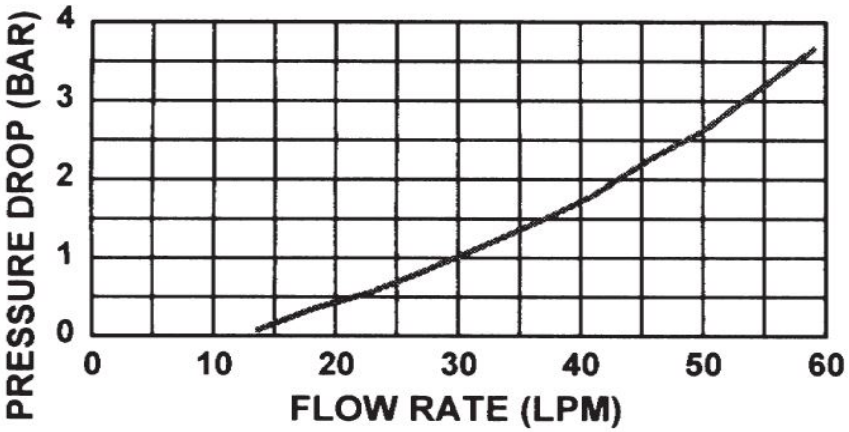
Features/Benefits

- 2 Position, 3 Port Directional Valve
- Reliable, tight shut off

Applications

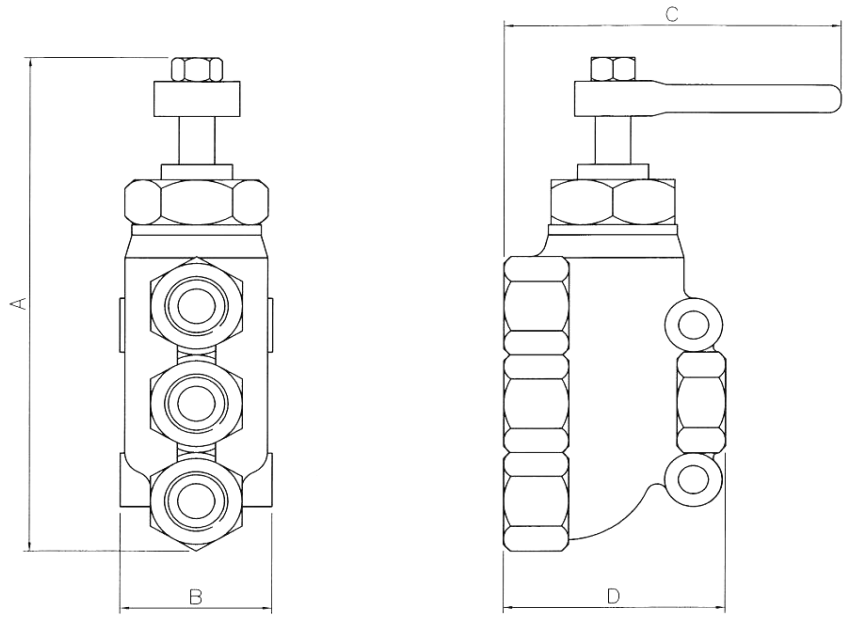
- On mineral cutting machine water circuits to select water through pre start warning sprays for start up and to change over to dust suppression sprays during normal operation

Specifications



Specifications cont.

Dimension	Unit	½”
A	mm	177
B	mm	355
C	mm	114
D	mm	75
Weight	kg	1.76



Ball Float Valves

Code 53

Ball Float Valve

The Parker Conflow Code 53 - ball float valve is designed to maintain a desired level of fluid in a water and emulsion tank supplying coal face equipment where the incoming pressures are high and where tanks need to be filled rapidly.

The opening and closing of the valve is achieved by a lever, which operates a plunger to push a poppet valve off its seat. The lever has a float attached, which rises and falls with the fluid in the tank, thus opening and closing the valve to maintain the level.

The larger valve sizes in this range are "pilot operated", which uses the energy in the supplied water to open and close the valve with only a small amount of force from the float lever. This means large flows and large pressures can be handled for rapid filling of tank systems.

Markets

- Quarrying
- Mining

Features/Benefits

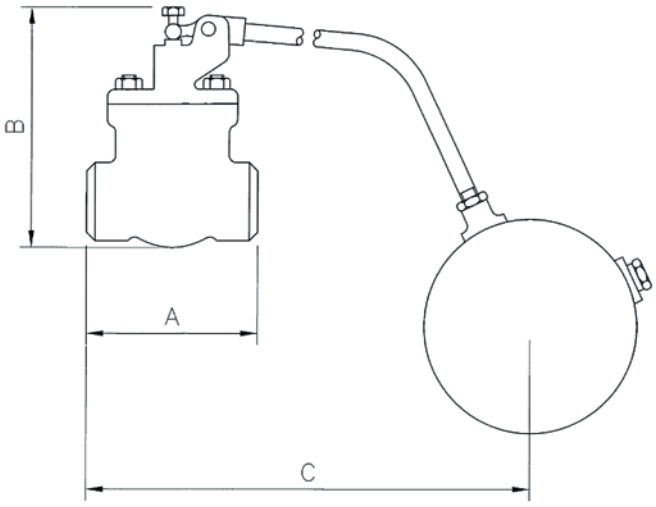
- ½" 1" and 2" sizes available
- Maximum working pressure 105 bar
- Suitable for use with high inlet pressures
- Maintains the correct water level in tanks
- Gunmetal cast bodies
- Unit available with Flat Float

Applications

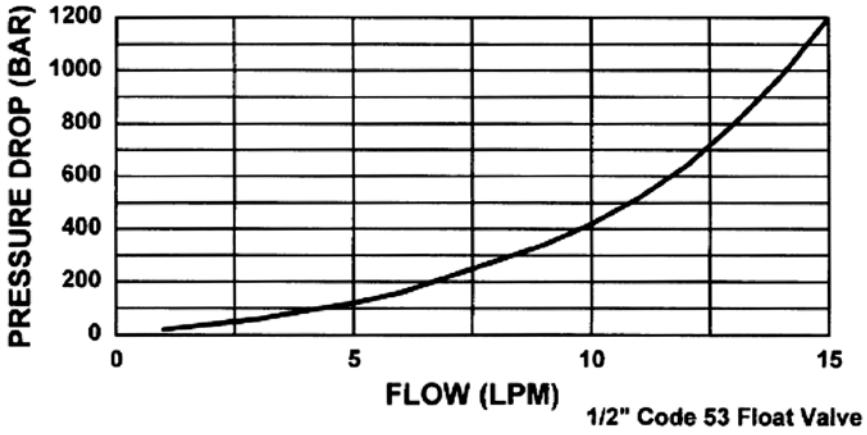
- Used on water and emulsion oil dispensing tanks supplying coal face equipment where the incoming water pressures are high and where tanks need to be filled rapidly

Specifications

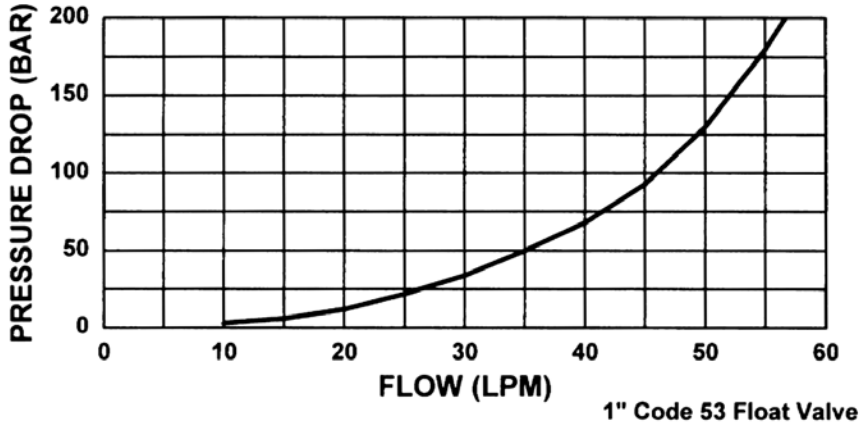
Dimension	Unit	A	B	C
A	mm	83	113	220
B	mm	110	178	310
C	mm	500	500	500
Weight	kg	1.87	4.99	15.42



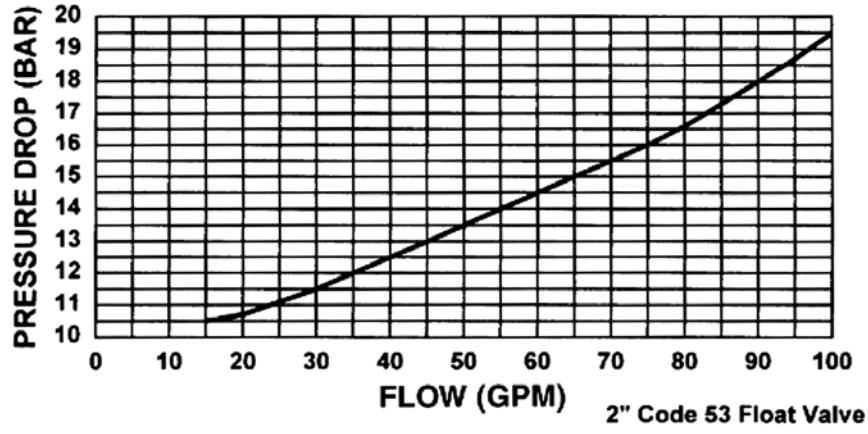
Specifications cont.



1/2" Code 53 Float Valve



1" Code 53 Float Valve



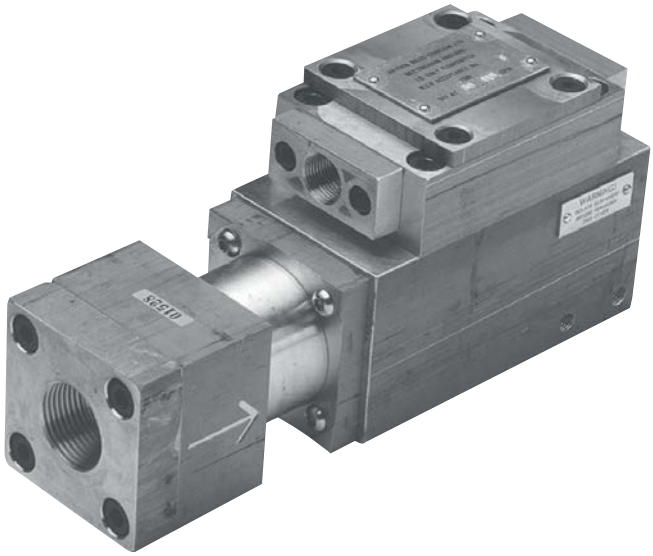
2" Code 53 Float Valve

Flow Switch

Code 240

The Parker Conflow Code 240 - flow switch is used in mining or quarrying applications to make, or break an electrical circuit with the presence, or absence, of any selected value of flow within its operating range

The flow switch is based on the Code 452 Flowmeter. In this case the moving magnet comes into close proximity with an electrical reed switch, which closes its contacts in the presence of a magnet. The position of this reed switch is set to coincide with a given flow, thus closing or opening the electrical contacts at this flow level. The unit can be used for any situation where a minimum, or maximum, flow condition needs to be satisfied.



Flow Switch

Markets

- Quarrying
- Mining

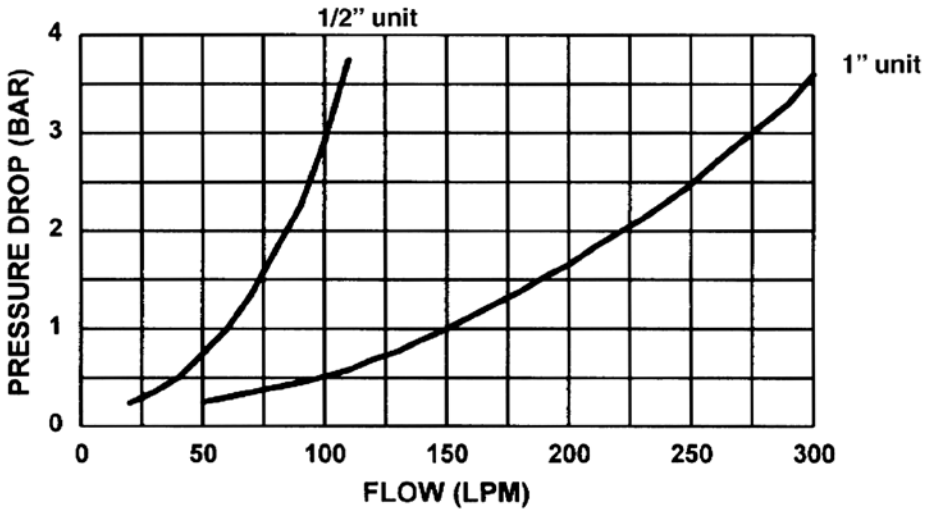
Features/Benefits

- ½" and 1" sizes available
- Maximum working pressure 207 bar
- Flow Switching range 9 LPM - 90 LPM
- Designed to monitor a minimum or maximum flow condition
- FLP/IS versions available
- Weight: 11.5kg

Applications

- To prevent an electric motor on a conveyor drive running if sufficient water is not circulating through the motor cooling jacket, and thus to prevent overheating
- To make a circuit on booster pumps
- To break the circuit for fire fighting on conveyors

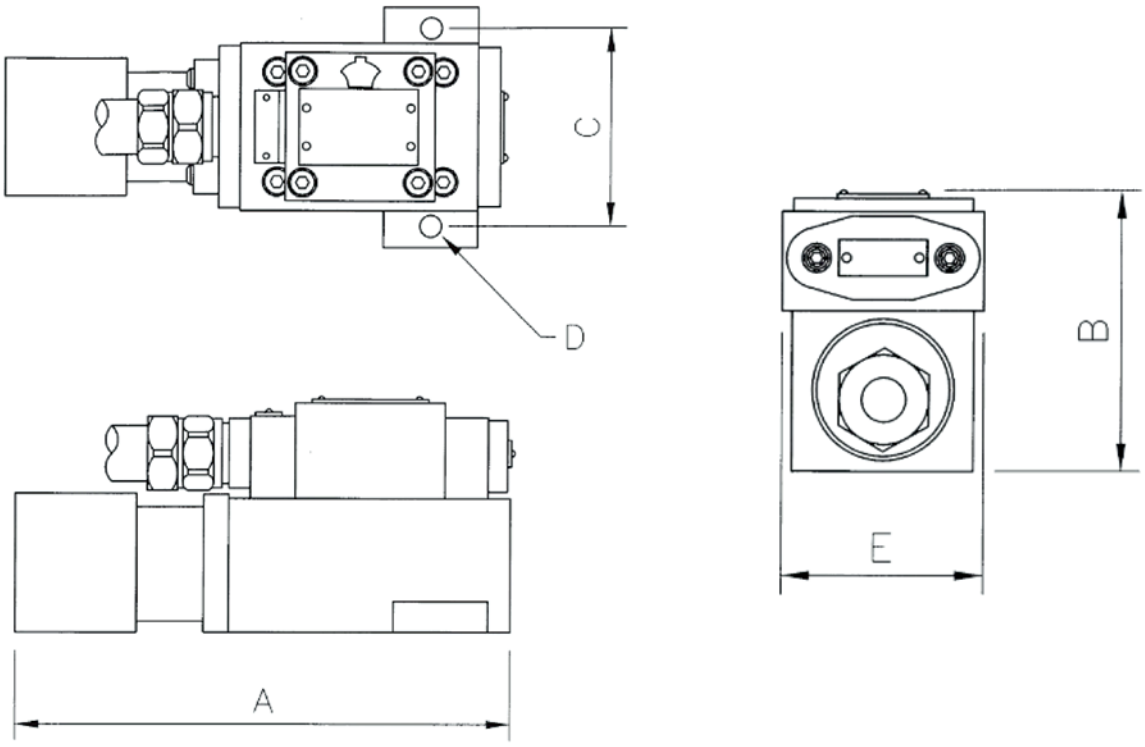
Specifications



Specifications cont.

Dimension	Unit	1/2”	1”
A	mm	250	250
B	mm	124	124
C	mm	95	95
D	mm	11	11
E	mm	90	90
Weight	kg	11.5	11.5

Reed Switch details
Type DRA 283 70-80 ATS pull in range
Actuating time (N.O) – 0.2 milliseconds
Contact rating – 250VA (AC or DC max)
Switching current – 2.0A (max0
Capacitance – 0.6Pf
Switching Voltage – 250AC (RMS) max
Breakdown Voltage 575DC max



Flowmeters

Code 452

The Parker Conflow Code 452 - flowmeters indicate the volume rate of flow of fluid in a pipeline or hydraulic system in mining or quarrying applications.

Parker Conflow's flowmeter is a variable orifice plate type unit, which uses the pressure drop across a spring loaded orifice plate to create the movement of a pointer across a dial. The orifice plate assembly houses a bar magnet, the movement of which is transferred to a disc magnet fitted to the pointer spindle. The magnetic link enables the pointer mechanism to be in a dry area and a minimum number of moving components are in the fluid.This design enables hydraulic oscillations and aggressive media to be catered for.

Markets

- Quarrying
- Mining

Features/Benefits

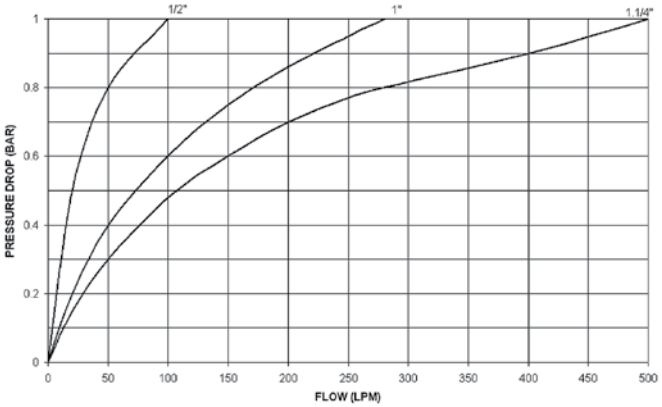
- Individually calibrated to ±2% of indicated reading
- Heavy duty construction
- Glycerine filled to damp needle pulsations and prevent misting of viewing window
- Units equipped with side ports, for pressure gauge fitting

Applications

- Monitoring water or oil flows to the various systems on coal cutting machines, AFC gearboxes and roof bolting machinery
- Monitoring water lines for dust suppression, motor cooling, ITP systems and fire fighting

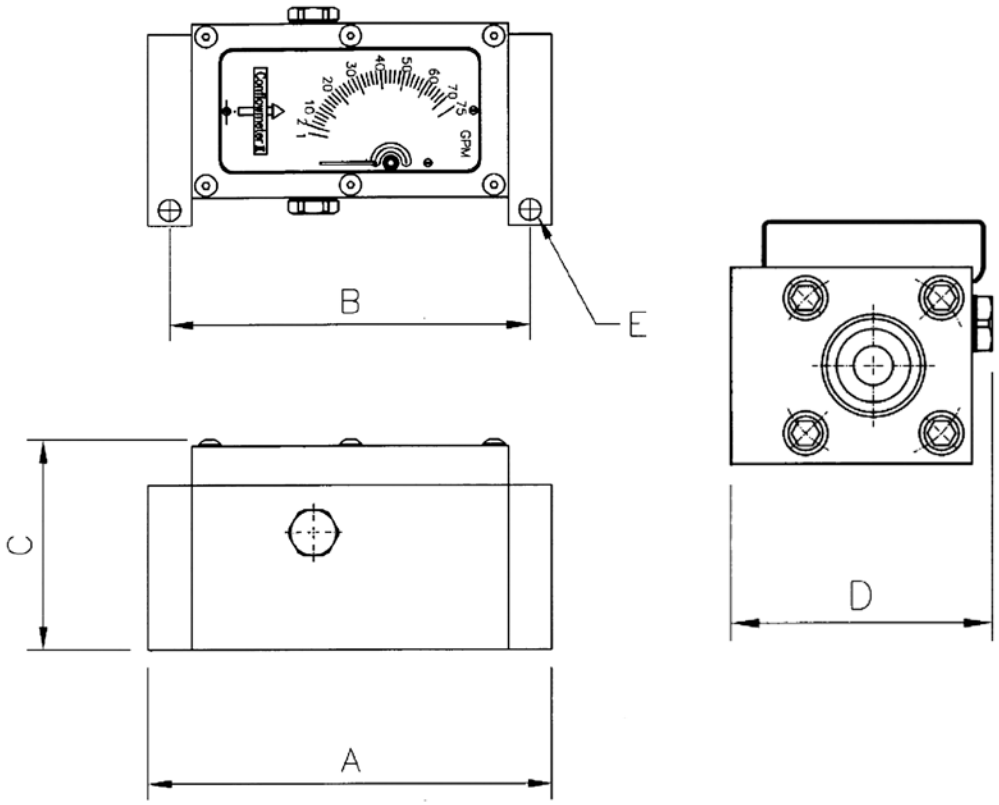
Flowmeter

Specifications



Specifications cont.

Dimension	Unit	½”	1”	1¼”	1½”	2”
A	mm	165	169	205	205	302
B	mm	148	149	185	185	262
C	mm	67	83	107	107	135
D	mm	74	85	110	110	125
E	mm	11.1	11.1	11.1	11.1	13.5
Weight	kg	3.81	4.61	11.23	11.07	25.5
Maximum Working Pressure	bar	315	315	275	275	140



Flow and Pressure Meters

Code 477

The Parker Conflow Code 477 - flow and pressure meters offer superior performance in on board monitoring of ITP systems on coal cutting machines as a diagnostic check to ensure pressure and flow of water circuit is above the required trip levels.

Parker Conflow's Code 477 is the Code 452 Flowmeter together with a pressure gauge block built in line on the outlet. This concept overcomes the normal problem of fitting a standard pressure gauge in a vulnerable position on the side of a flowmeter. The pressure gauge block encompasses the features of the Code 91 Mine Gauge with the addition of an isolating valve built in to the block.

This isolates the pressure gauge from the system so that the gauge tube is only subject to the system pressure when a reading needs to be taken. The isolating valve is also used to restrict the hydraulic pulsation in certain circumstances so that a steady pointer indication ensues.

Flow and Pressure meter

Markets

- Quarrying
- Mining

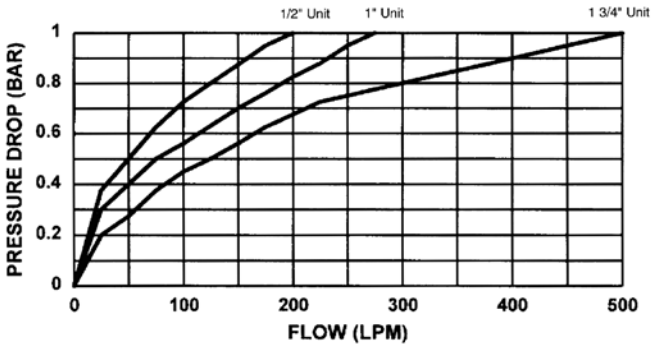
Features/Benefits

- Provides the ability to monitor Flow and Pressure within the water circuit
- Individually calibrated to ±2% of indicated reading
- Based on the reliable 452 Flowmeter
- Glycerine filled for steady reading
- Weight: 8.15 Kg to 14.1 Kg

Applications

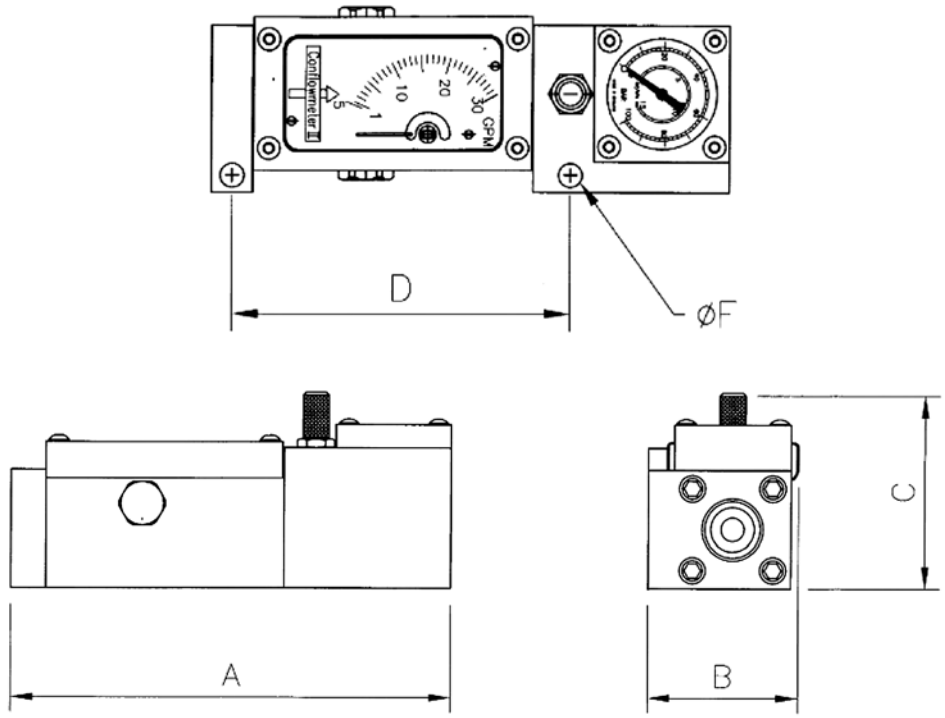
- On board monitoring of ITP systems on coal cutting machines as a diagnostic check to ensure pressure and flow of water circuit is above the required trip levels.

Specifications



Specifications cont.

Dimension	Unit	¾”	1”	1¼”	1½”
A	mm	234	243	250	205
B	mm	78	78	115	115
C	mm	105	105	122	122
D	mm	158	158	-	-
E	mm	11Ø	11Ø	11Ø	11Ø
Weight	kg	8.15	7.95	13.3	14.1
Maximum Working Pressure	bar	315	315	275	275



Emulsion Mixers

Code 4818

The Parker Conflow Code 4818 - emulsion mixer supplies a constant accurate percentage mix ratio of soluble oil and water that provides fire resistant hydraulic fluid to power roof supports on a coal face.

Parker Conflow's emulsion mixer which will supply this accurate mix over a wide flow range, requires no electrical power, as it is driven by its inlet water supply. The incoming water drives a rotary paddle wheel, which is connected through a set of transfer gears to a conventional gear pump mechanism. As the gear pump rotates, soluble oil is pulled into a mixing chamber where the soluble oil mixes with the incoming water to create an emulsion. By adjusting a regulator valve on the oil inlet, different mix concentrations can be achieved.

Emulsion Mixer

Markets

- Quarrying
- Mining

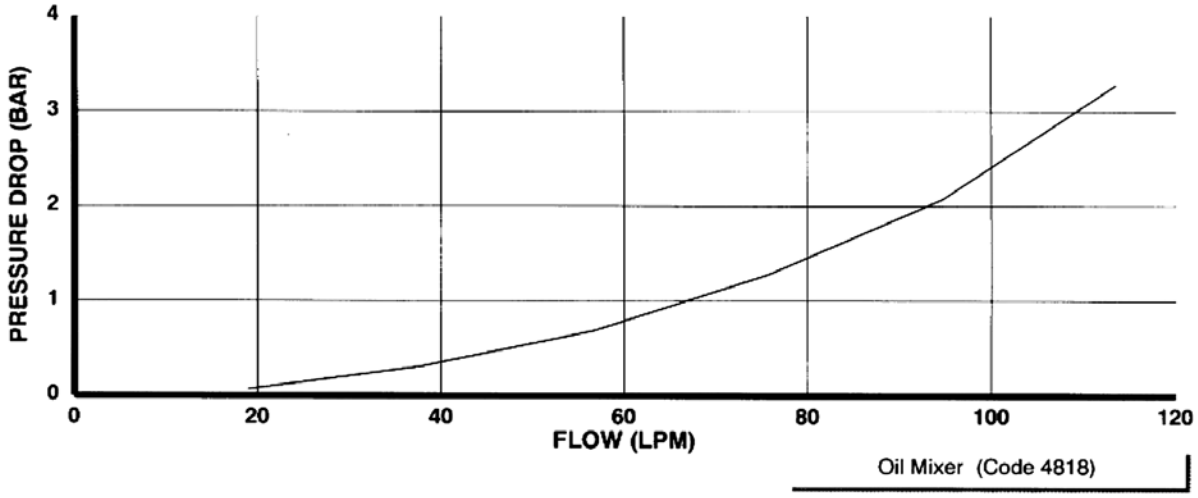
Features/Benefits

- ½" water inlet port, 1" emulsion outlet port ½" oil inlet port
- Driven by incoming water (NO power supply needed)
- Mix ratio's from 93:7 down to 99:1 can be accommodated
- Mix constant for flowrate from 22 to 135 LPM (5 to 30 gpm)
- Suitable for mineral or synthetic oils
- Weight: 23kg

Applications

- To provide fire resistant hydraulic fluid to power roof supports on a coal face
- To provide lubricant coolant for machining tools in any industrial application

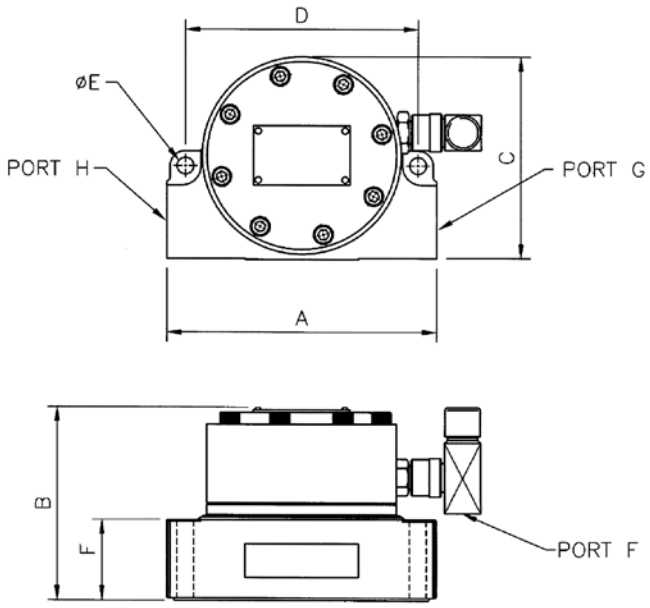
Specifications



Oil Mixer (Code 4818)

Specifications cont.

Dimension	Unit	
A	mm	225
B	mm	154
C	mm	164
D	mm	186
E	mm	14
F	mm	50
Port F	inch	½” BSP
Port G	inch	½” BSP
Port H	inch	1” BSP
Weight	kg	23



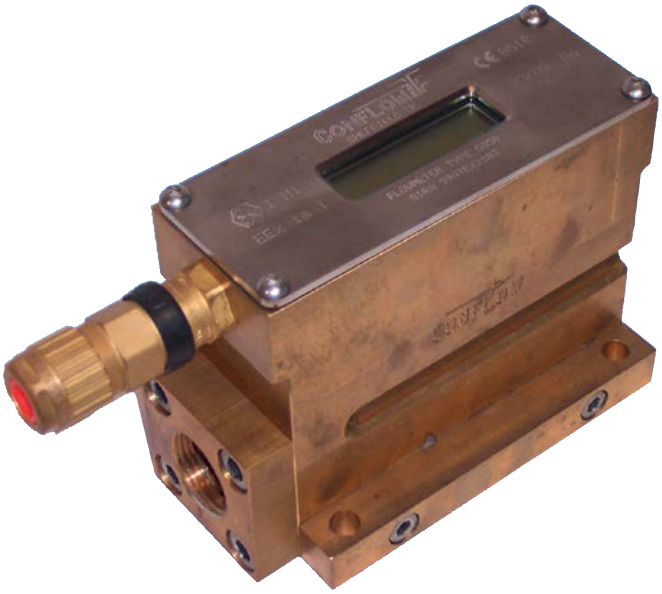
Electronic Flow Meters

Code 5050

The Parker Conflow Code 5050 - electronic flow meter gives a linear electrical signal corresponding to the volume rate of flow of fluid in the pipeline or system in mining and quarrying applications.

The principle of operation is based on the Parker Conflow Code 452 flowmeter. In this case the moving magnet causes a Hall Effect Diode to produce a signal dependent on the strength of the magnetic flux around it. In this way the flow of fluid through the meter is transduced to a directly proportional electronic signal. The unit incorporates an on board LCD display showing rate, pressure and temperature.

The transducer is also compatible with a wide range of instruments, data loggers, display devices and outstations to provide remote display of fluid flow, fluid temperature and totalization of flow with respect to time.



Electronic Flow Meter

Markets

- Quarrying
- Mining

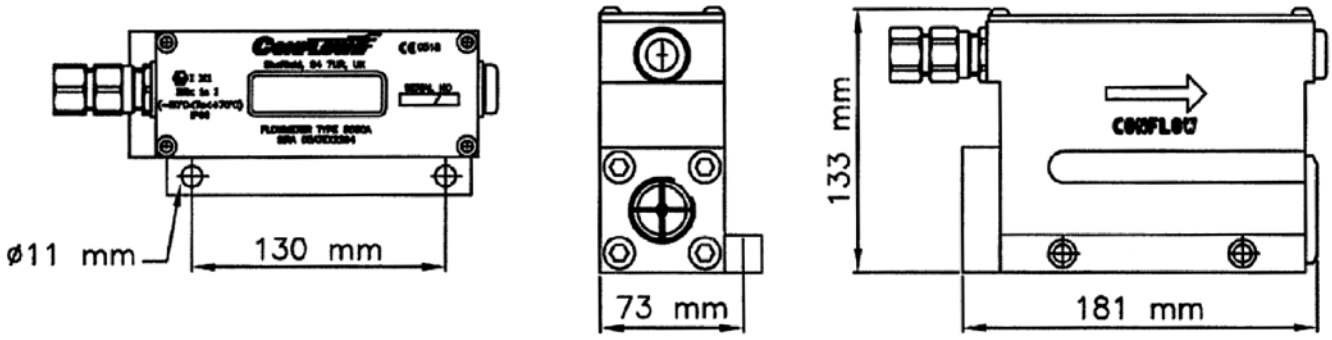
Features/Benefits

- ½", ¾",1" & 1¼" sizes available
- Maximum working pressure 400 Bar
- 4 – 20mA or 0.4 – 2 V.dc flow output versions
- Accuracy 1.5% of FSD (1%, 0-80°C)
- Cable Gland Entries
- I.S. Approved - Cert. ATEX 05ATEX2294, IECEX SIR05.0061 AN2Ex 06.3032x
- Unit available with or without pressure transducer

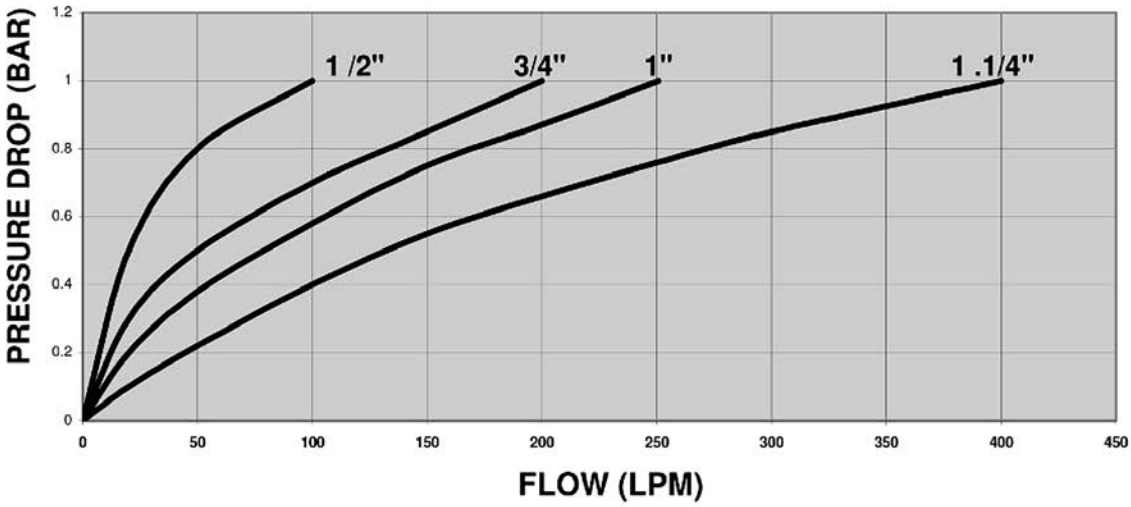
Applications

- Monitoring water or oil flows to the various systems on coal cutting machines, AFC gearboxes and roof bolting machinery
- Monitoring water lines for dust suppression, motor cooling, ITP systems and fire fighting

Specifications



Specifications cont.

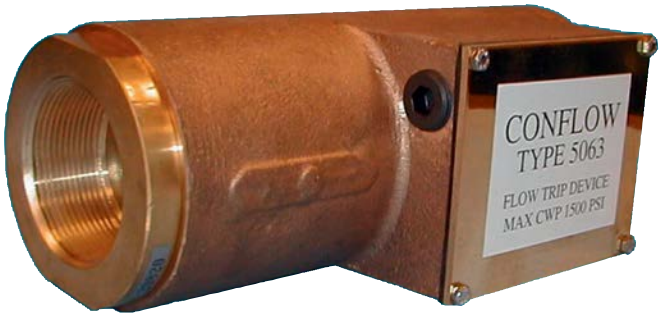


Flow Trip Device

Code 5063

The Parker Conflow Code 5063 - flow trip device is used for machinery isolation when fire fighting is taking place and senses the presence of a token flow and isolates pumps, motors and other machinery in mining and quarrying applications.

The switch incorporated into the device can be wired "normally open" or "normally closed". When water is flowing through the pipe the switch is tripped so that the machinery can be turned off and/or an alarm can be sounded according to the switch wiring option chosen. Once the switch has been triggered with a token flow, then the device will deliver the full flow of the pipeline. The tripping flow point can be selected easily by altering the position of the switch against a calibration scale.



Flow Trip Device

Markets

- Quarrying
- Mining

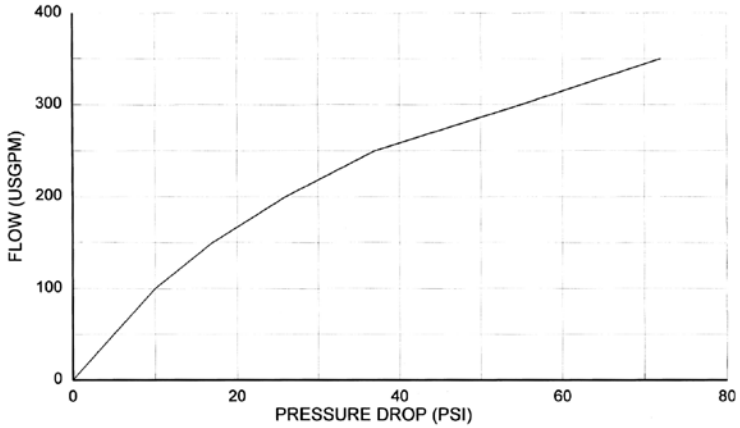
Features/Benefits

- 2" NPT or BSP versions available
- Flows up to 350 GPM
- N.O. And N.C. wiring options
- Customer set flow trip options of 5,10,15,20 & 25 GPM
- Weight: 8.5kg

Applications

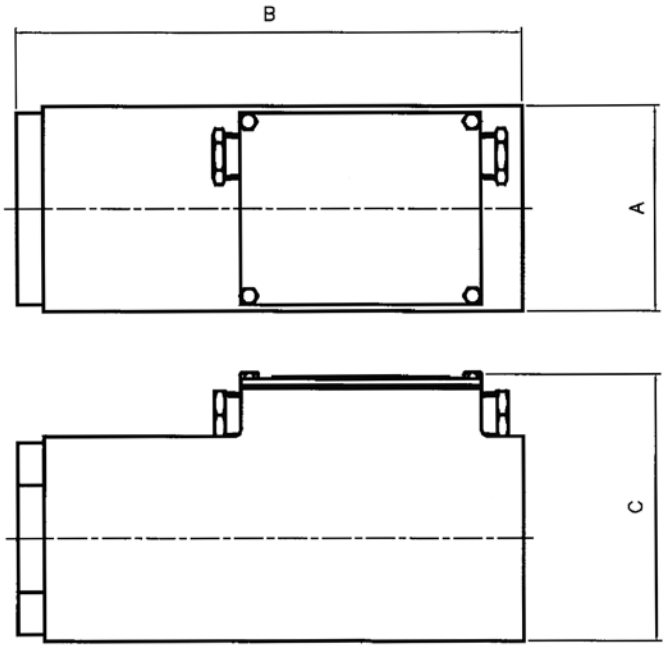
- Machinery isolation when fire fighting is taking place

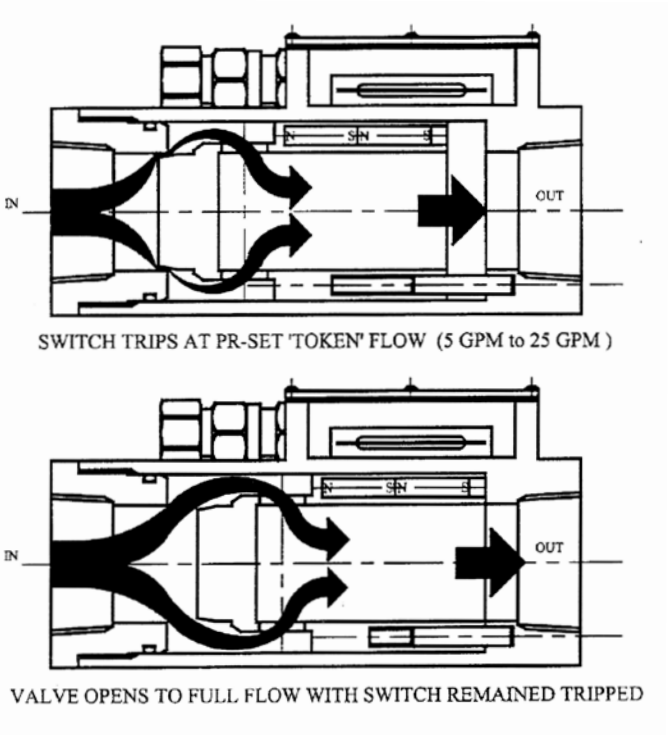
Specifications



Specifications cont.

Dimensions	Unit	
A	mm	Ø94
B	mm	230
C	mm	123
Weight	kg	8.5





SWITCH TRIPS AT PR-SET 'TOKEN' FLOW (5 GPM to 25 GPM)

VALVE OPENS TO FULL FLOW WITH SWITCH REMAINED TRIPPED

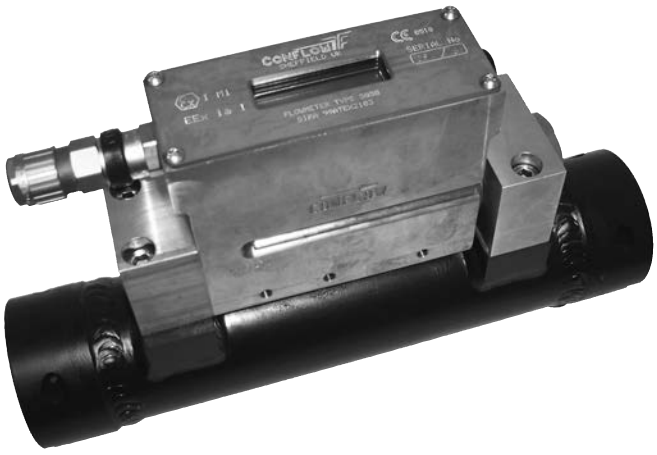
Electronic Bypass Flow Meters

Code 4912

The Parker Conflow Code 4912 - electronic bypass flow meter gives a linear electrical signal corresponding to the volume rate of flow of fluid in the pipeline in mining and quarrying applications.

Parker Conflow's electronic bypass flow meter is designed specially for high flow – high-pressure situations where a conventional in-line flowmeter is impractical. Although only a small percentage of the total flow passes through the meter, the dial indicates the complete amount due to the directly proportional relationship between the two flows.

The main body tube of the unit is simply a section of the same diameter as the pipeline, so that a minimal amount of pressure resistance is created across the meter.



Electronic Bypass Flow Meter

Markets

- Quarrying
- Mining

Features/Benefits

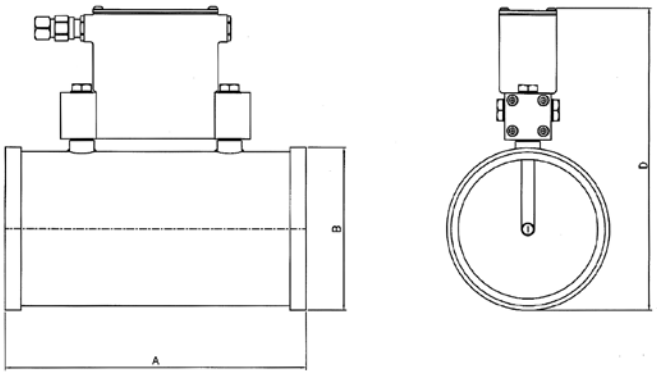
- 0.4-2Vdc or 4-20mA output signals
- Screwed, victaulic and Staplelock versions available.
- Cable Gland Entries
- I.S. Approved – Certification Nos.
- SIRA 05 ATEX2294
- IECEx SIR 05.0061
- Unit available with or without pressure transmitter.
- Suitable for flows up to 1000 GPM

Applications

- For feed lines on roof support systems where large flow and pressures are present
- For return lines on roof support systems where minimum resistance is a requirement.

Specifications

Dimension	Unit	1½"	2"	3"	4"
A	mm	355	355	355	355
B	mm	58	70	96	122
D	mm	138	250	275	302
Weight	kg	14	15	16	17

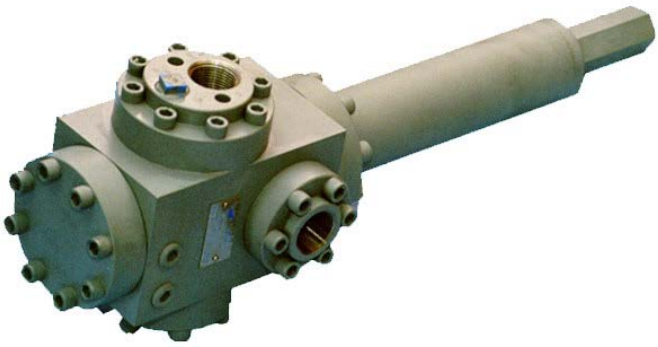


High Pressure Adjustable Reducing Valves

Code 41

The Parker Conflow Code 41 - high pressure adjustable reducing valves is designed for use on longwall tail drives and crawler tail pieces and features integral relief valve.

The Parker Conflow Code 41 - high pressure adjustable reducing valves is designed for use on longwall tail drives and crawler tail pieces and operates at pressures up to 5,500 PSI.



High Pressure Adjustable Reducing Valve

Markets

- Quarrying
- Mining

Features/Benefits

- Suitable for emulsion oils
- Operating pressures up to 5,500 PSI
- Flows to 30 GPM
- Unique feature of integral relief valve

Applications

- Longwall tail drives
- Crawler pieces

Adjustable Reducing Valves

Code 44

The Parker Conflow Code 44 - adjustable reducing valves provide a pre-determined outlet fluid pressure irrespective of variation of inlet pressure to reduce the water mains pressure to a level suitable for dust suppression in underground mines.

Parker Conflow's adjustable reducing valve operates on a simple throttling principle. The throttle adjustment is achieved by the downstream pressure acting on a spring-loaded piston to open and close the reducing valve. Thus the flow through the valve is reduced and increased as the inlet pressure fluctuates, in order to maintain constant downstream pressure. Adjustment of the set pressure is carried out by increasing or reducing the spring compression by turning the adjusting screw.

Adjustable Reducing Valve

Markets

- Quarrying
- Mining

Features/Benefits

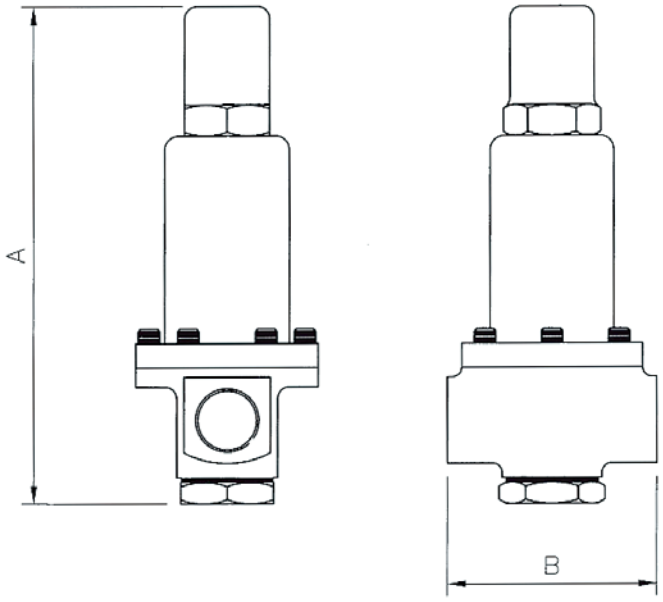
- Low, High and Extra High outlet pressure types
- Simple screw adjustment of pressure reduction
- Pressure reduction range up to 124 bar

Applications

- To reduce the water mains pressure to a level suitable for dust suppression in underground mines
- Pressure reduction for water circuits on cutting machines, i.e. motor cooling circuits, dust suppression circuits and machine mounted fire hoses

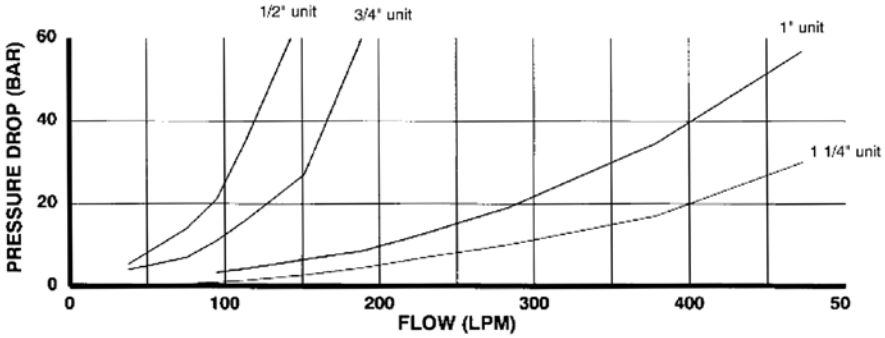
Specifications

Dimension	Unit	½"	¾ "	1"	1¼"
A	mm	250	311	325	325
B	mm	84	124	124	140
Weight	kg	3.4	8.6	9.3	9.7



Specifications cont.

Maximum upstream pressure (LOS & HOS types)	105 bar
Downstream adjustable Pressure range (LOS type)	1.4 to 21 bar
Downstream adjustable Pressure range (HOS type)	21 to 41 bar
Maximum upstream pressure (XOX types)	½" only 207 bar
	¾" only 137 bar
Downstream adjustable Pressure range (XOX type)	½" only 14-124 bar
	¾" only 21/41 bar



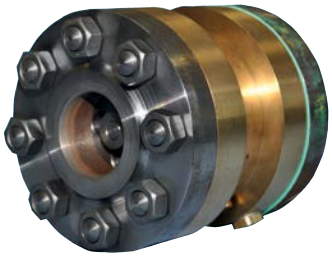
Ratio Reducing Valves

Code 61

The Parker Conflow Code 61 - ratio reducing valve is used to provide a reduced downstream fluid pressure in underground mines at the shaft bottom before distribution throughout the mine.

Parker Conflow's ratio reducing valve is made to a fixed ratio, to reduce the upstream pressure by a set proportion, making no allowance for inlet pressure variations. This Code 61 valve is used where the inlet pressure is basically constant or where pressure reduction is required but does not need to be closely maintained.

Fixed Ratio Reducing Valve



High Pressure Ratio Reducing Valve

Markets

- Quarrying
- Mining

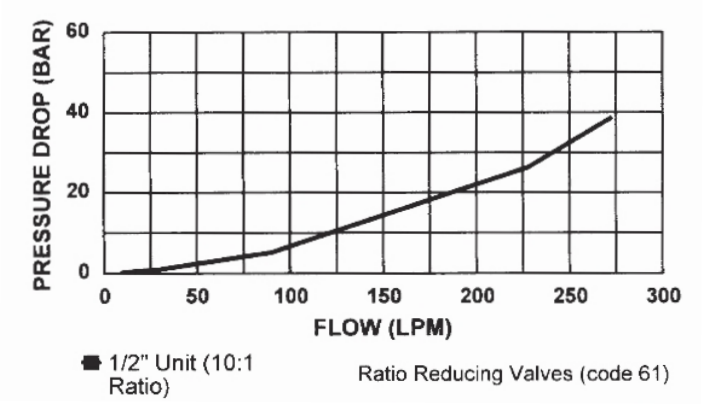
Features/Benefits

- Suitable for use with water and oil
- Compact in-line fitting
- Ratio reduction from 1.1:1 to 20:1 of inlet pressure

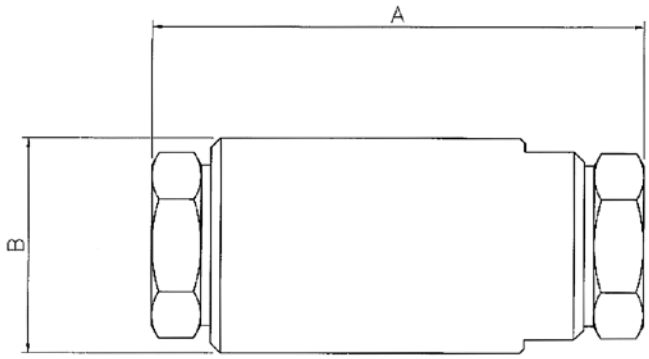
Applications

- To reduce the water mains pressure in underground mines at the shaft bottom before distribution throughout the mine. This is particularly useful in deep mines where the pressure head is high or where the pipe systems are not suitable for high pressures
- To control pressure in fire fighting systems

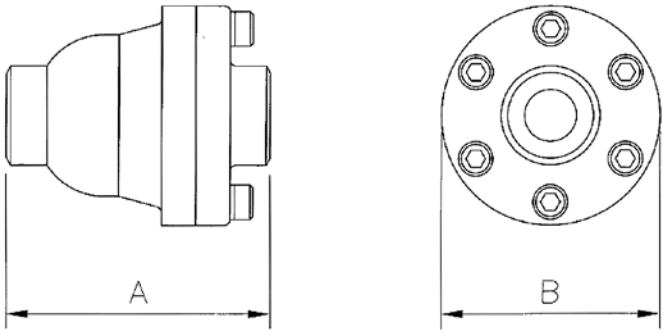
Specifications



Dimension	Unit	½”	1”	1½”	2	3	4
A	mm	101	146	184	172	172	267
B	mm	76	121	165	165	184	247
Weight	kg	1.81	4.76	8.61	20.41	24.95	34.02



High Pressure Unit



Standard Unit

Relief Valves

Code 63

The Parker Conflow Code 63 - relief valves provides superior protection for systems from reducing valve failure due to the ingress of debris and protecting motor cooling jackets from over pressure.

Parker Conflow's Code 63 relief valve is simple and reliable with a side discharge which can be hosed away to safety if necessary. The relief pressure is set by turning a spring adjuster. A range of different springs provides a wide range of pressure setting options. With ½", ¾" and 1" sizes available and a maximum working pressure of 40 bar, the Code 63 relief valve is perfectly suited to protect systems from reducing valve failure due to the ingress of debris.

Relief Valve

Markets

- Quarrying
- Mining

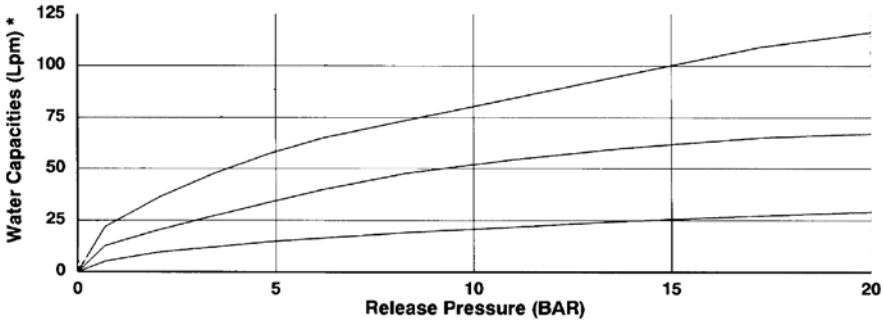
Features/Benefits

- Maximum working pressure 40 bar
- Adjustable pressure relief ranges up to 40 bar
- Brass construction
- Discharge to atmosphere or hose-away

Applications

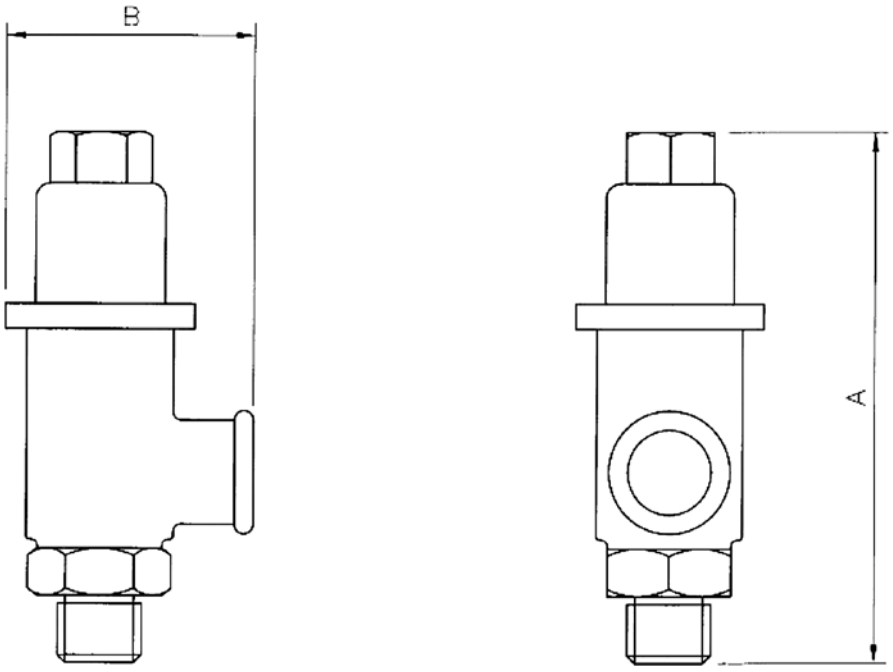
- Protection of motor cooling jackets from over pressure

Specifications



Specifications cont.

Dimension	Unit	½”	¾”	1”
A	mm	127	155	163
B	mm	53	60	74
Weight	kg	0.57	0.87	1.59



Hazardous Environment Pressure Gauge

Code 91

The Parker Conflow Code 91 - pressure gauge is a traditional bourdon tube type unit, but designed specially for hazardous environments such as mining and quarrying.

Parker Conflow's pressure gauge is exceptionally robust to withstand external damage in tough and arduous areas like underground mining. Internally, facilities for damping out hydraulic oscillations are built in to enable steady pressure readings to be taken close to triple ram pumps. When the gauge is screwed into place by means of the hexagon shank, the whole carcass of the unit can be rotated by hand until the most readable dial position is presented.

Hazardous Environment Pressure Gauge

Markets

- Quarrying
- Mining

Features/Benefits

- ⅜" BSP fitting (¼" available on request)
- Pressure ranges from 20 to 1000 bar
- Horizontal and vertical mountings
- Robust design, ideal for arduous mining conditions
- Case can be turned to give optimal viewing position
- Bezel rotates to set red line dial marker
- Constructed with safety blow out plug

Applications

- Checking water circuit system pressures on coal cutting machines
- Checking mains water pressures in underground mines at various points throughout the mine
- Checking feed and return line hydraulic pressures on roof support systems

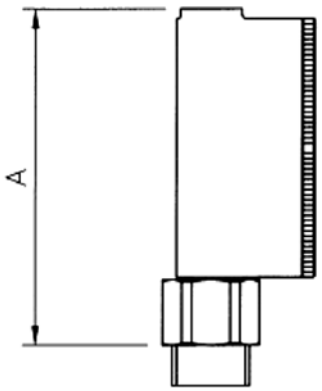
Specifications

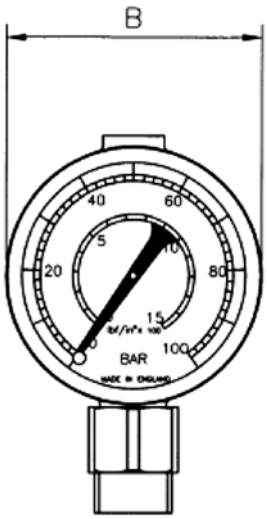
"H" Pattern		"V" Pattern			
psi	bar	psi	bar	psi	bar
1500	100	290	20	5000	Single scale
2250	150	750	50	6000	Single scale
3000	200	1500	100	10000	Single scale
4500	300	2250	150	15000	1000
6000	400	3000	200	-	-
-	-	4500	300	-	-

Specifications cont.

Code 91V

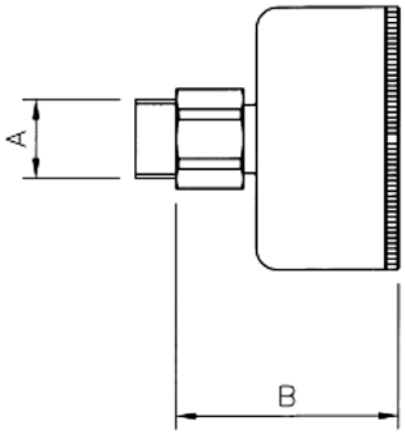
Dimension	Unit	⅜" BSP
A	mm	105
B	mm	85
Weight	kg	0.85

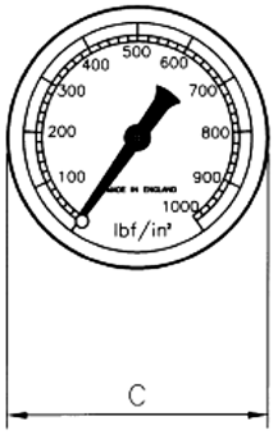




Code 91H

Dimension	Unit	⅜" BSP
A	mm	70
B	mm	82
Weight	kg	0.85





Pressure Check Valves

Code 103

The Parker Conflow Code 103 - pressure check valves provides a tapping point to enable the checking of hydraulic pressure on each leg and ram on powered roof supports on coal faces.

The action of screwing the adaptor in to the Code 103M pressure check valve, causes a probe to push the valve ball off its seat and allows system fluid to enter the pressure gauge to register a pressure reading, ensuring operator safety. Unscrewing the adaptor allows the ball to reseat thus isolating the system from the gauge again.

Pressure Check Valve
(Code 103NSA)

Pressure Check Valve
(Code 103NS)

Pressure Check Valve
(Code 103M)

Markets

- Quarrying
- Mining

Features/Benefits

- Enables periodical checks of on-line pressure without the need for any fixed gauges
- No interruption of the normal circuit

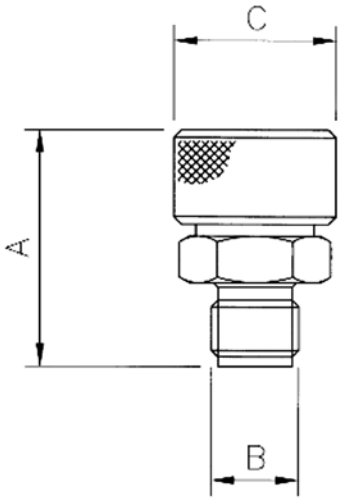
Applications

- Checking hydraulic pressure on each leg and ram on powered roof supports on coal faces
- Invaluable on applications where permanent gauges would get damaged

Specifications

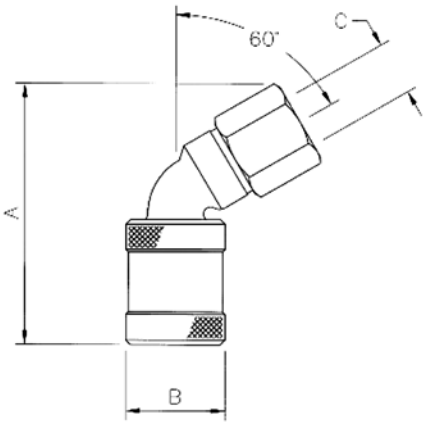
Code 103M

Dimension	Unit	3/8” BSP
A	mm	50
B	inch	⅜” BSP or NPT
C	mm	32
Weight	kg	0.17



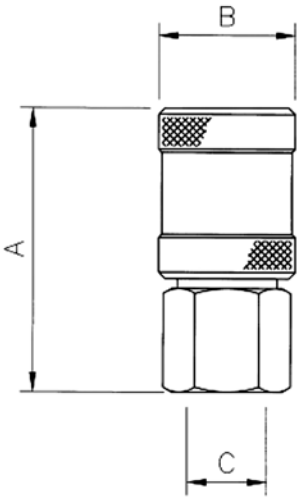
Code 103NSA

Dimension	Unit	3/8” BSP
A	mm	98
B	mm	37
C	inch	⅜” BSP or NPT
Weight	kg	0.40



Code 103NS

Dimension	Unit	3/8” BSP
A	mm	74
B	mm	37
C	inch	⅜” BSP or NPT
Weight	kg	0.30



Low Volume Reducing Valves

Code 4810

The Parker Conflow Code 4810 - low volume reducing valve is a compact valve which provides a pre-determined outlet fluid pressure irrespective of variation of inlet pressure.

Parker Conflow's low volume reducing valve operates on a simple throttling principle. The throttle adjustment is achieved by the downstream pressure acting on a spring-loaded piston to open and close the valve. Thus the flow through the valve is reduced and increased as the inlet pressure fluctuates, in order to maintain constant downstream pressure.

Adjustment of the set pressure is carried out by increasing or reducing the spring compression by turning the adjusting screw.

Low Volume Reducing Valve

Markets

- Paper
- Mining

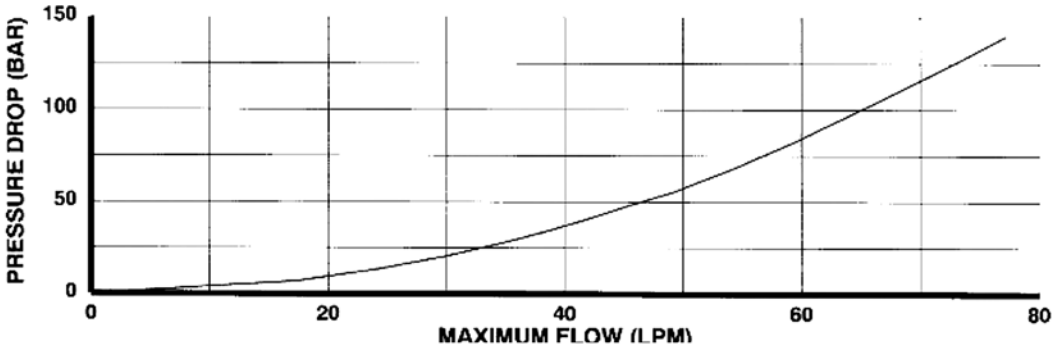
Features/Benefits

- ⅜" BSP female ports
- Maximum working pressure 140 bar
- Adjustable downstream pressure (1.5-14 bar)
- Suitable for flows up to 80 LPM
- High tensile brass body
- Stainless Steel and Delrin internals

Applications

- To supply low pressure water to felt cleaning sprays on paper making machines in the paper industry
- Water cooling systems on face conveyor gearboxes and motors, on Longwall faces in underground coal mines

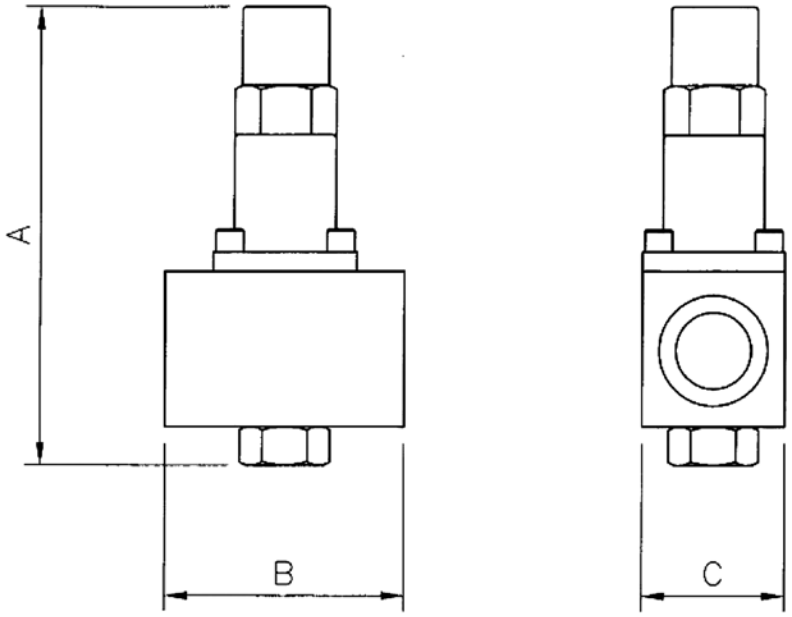
Specifications



Specifications cont.

Code 4810M

Description	Unit	3/8” BSP
A	mm	121
B	mm	63
C	mm	37
Weight	kg	0.98



Y Strainers

Code 36H

The Parker Conflow Code 36H - Y Strainers are robust in construction and a variety of screening elements are available to suit particular fluid conditions.

As the world leader in instrumentation technology, Parker Conflow has engineered the Y strainers to meet the stringent demands of the mining and quarrying industry. The larger sizes of this particular range of strainers can be adapted to suit victaulic, screwed or flanged connections as required. With sizes from ½" to 4" and working pressures up to 70 bar, it is perfect for first step in water filtration on main line and feed lines, as well as last chance filters on dust supression links in the mining and quarrying markets.

Y Strainer

Markets

- Quarrying
- Mining

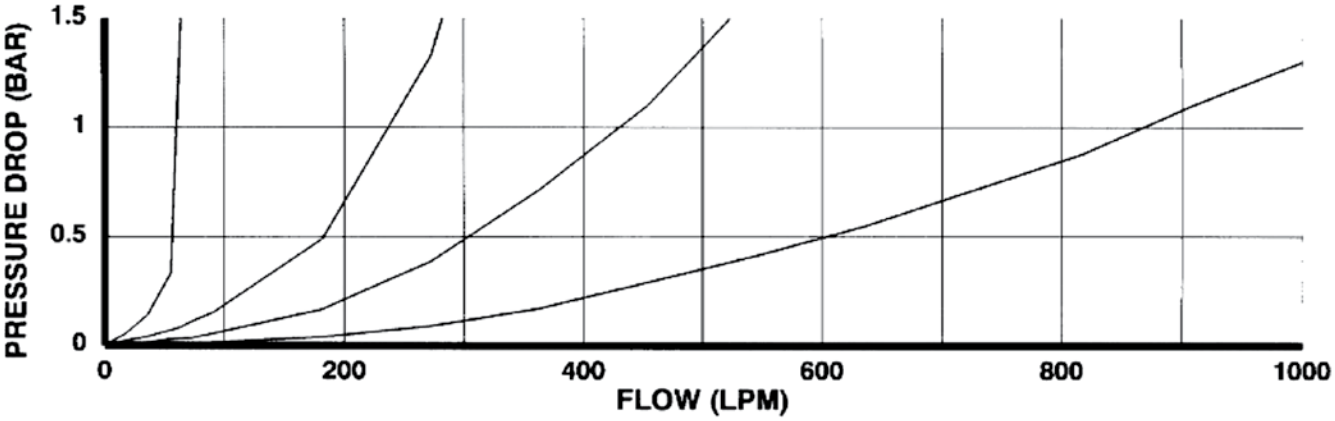
Features/Benefits

- Sizes from ½" to 4" available
- Maximum working pressure 70 bar (for sizes up to 2") and 55 bar (4")
- Robust cast strainer body
- Mesh Screen Sizes:
  - Standard 0.031"
  - Medium 0.021"
  - Course 0.062"
  - Fine 200 micron

Applications

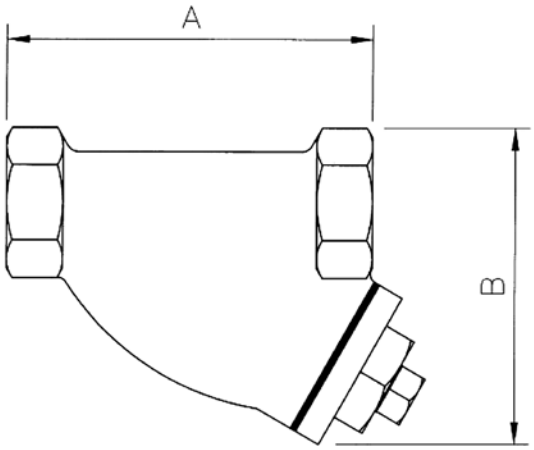
- First step in water filtration on main line and feed lines
- Last chance filters on dust suppression links

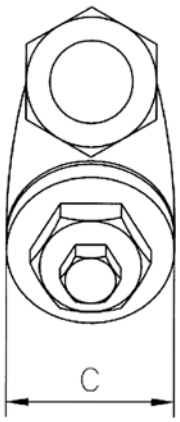
Specifications



Specifications cont

Dimension	Unit	1/2”	¾”	1”	1¼”	1½”	2”	4”
A	mm	98	121	149	178	197	237	406
B	mm	77	93	118	150	162	179	332
C	mm	51	58	83	95	110	134	204
Weight	kg	0.8	1.5	-	4.5	15.5	15.5	-





Hydrocyclone Filter

Code 555

The Parker Conflow Hydrocyclone Filter cleans debris from fluid lines without using a filter element.

The device has no moving parts, using the cyclone principle to separate the particles of dirt from the fluid.

It operates by introducing the contaminated fluid tangentially into the main body cylinder, giving rise to centrifugal forces which throw the dust particles to the outside of the vortex created by the fluid flow.

The particles are discharged into a collection chamber at the base, the resulting clean water flows upwards through the centre of the vortex and exits through the top of the unit.

Hydrocyclone Filter

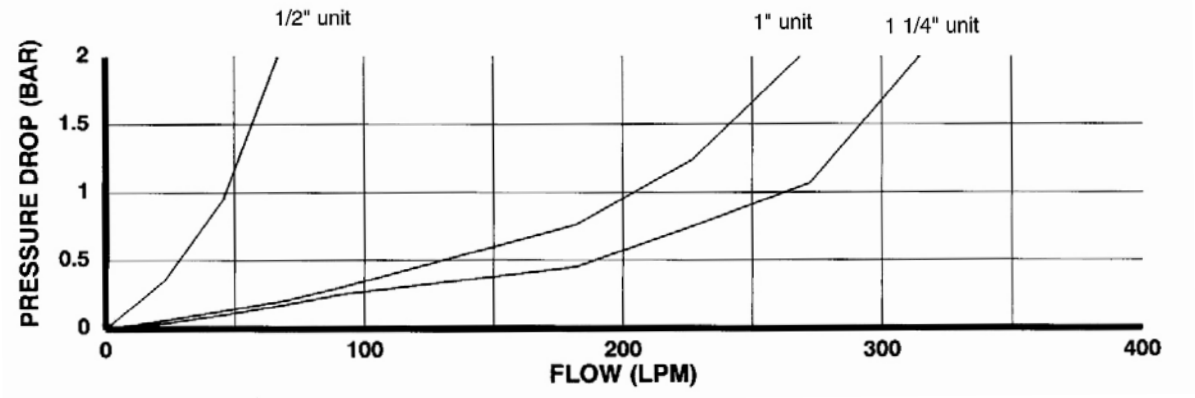
Product Features

- ½", 1" & 1¼" sizes available
- Maximum working pressure 70 bar
- Low maintenance
- Low pressure drop
- Extraction efficiency 95%

Applications

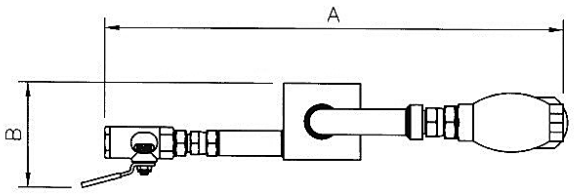
- Cleaning water feeding mineral faces with dust suppression equipment. The hydrocyclone is used as a primary filter to eliminate the larger dirt particles; finer filtration then takes place on board the machines
- Cleaning sand/silt from water supply lines
- Ideal for continuous miners, feeder breakers etc.

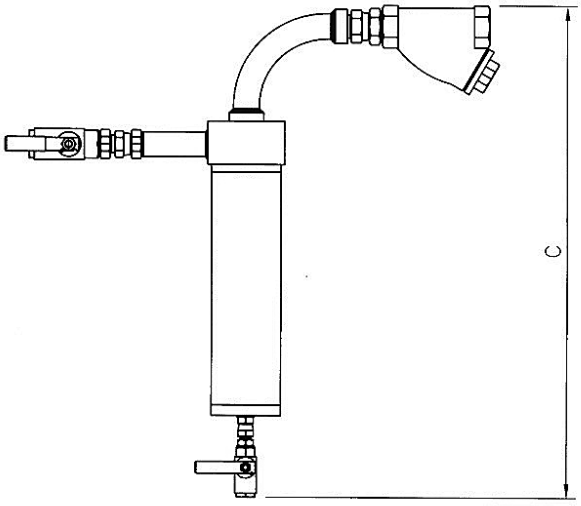
Specifications



Specifications cont.

Dimension	Unit	½”	1”	1¼”
A	mm	400	425	650
B	mm	88	110	190
C	mm	431	490	825



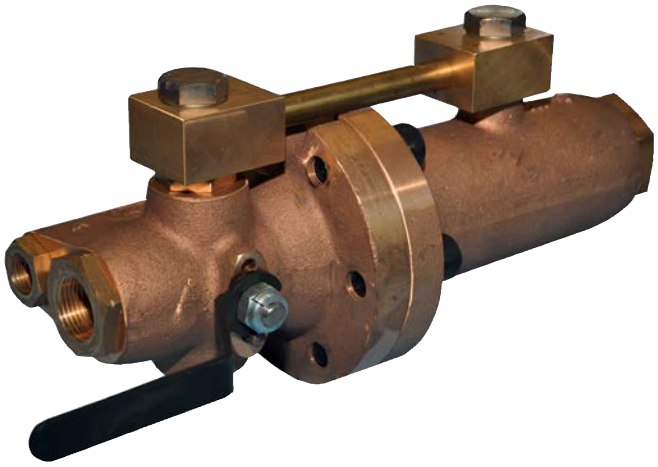


Reverse Flushers

Code 2166

The Parker Conflow Code 2166 - reverse flushers have been designed to provide filtration in water feed lines.

As the world leader in instrumentation fluid system technology, Parker Conflow has engineered the Code 2166 reverse flushers to meet the stringent demands of the mining and quarrying industry. The simple, positive action changeover valve provides reverse flushing to clear the main strainer screens without the flowline having to be shut off or the filter element removed. Due to the design of the main strainer screen the pressure drop across the unit is exceptionally low. With sizes 1" and 1-1/4" and working pressures up to 105 bar, it is perfect for cleaning water being supplied to belt line dust suppression systems and to longwall faces and continuous miners.



Reverse Flusher

Markets

- Quarrying
- Mining

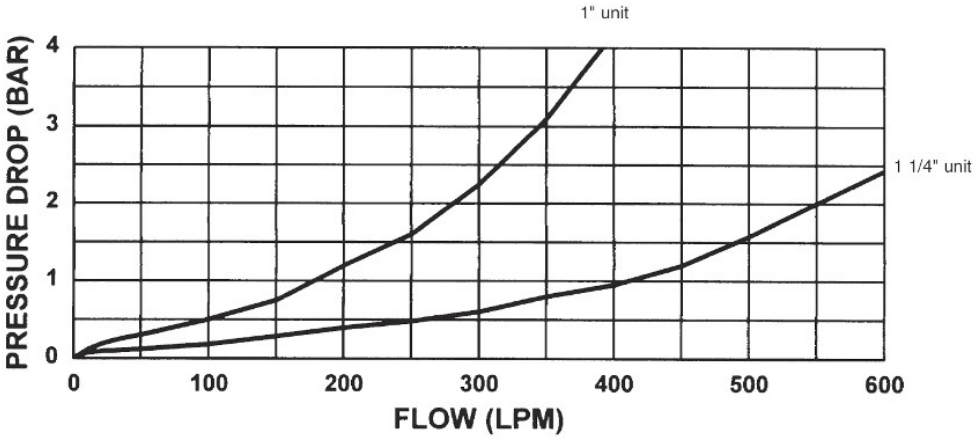
Features/Benefits

- 1" & 1¼" sizes available
- Maximum working pressure 105 bar
- Reverse flushing without the need for line shut-off or element removal
- Exceptionally low pressure drop
- Simple positive action

Applications

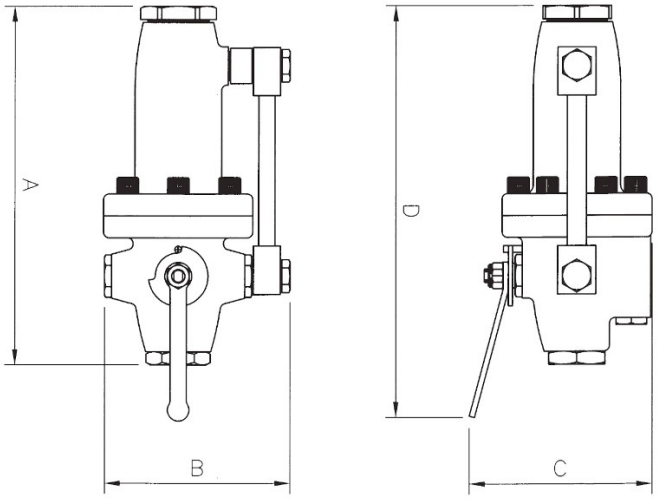
- Cleaning water being supplied to belt line dust suppression systems
- Cleaning water supplies to longwall faces and continuous miners

Specifications



Specifications cont.

Dimension	Unit	1”	1¼”
A	mm	356	425
B	mm	172	218
C	mm	169	215
D	mm	390	470
Weight	kg	17	30



Compact Reverse Flush Strainer

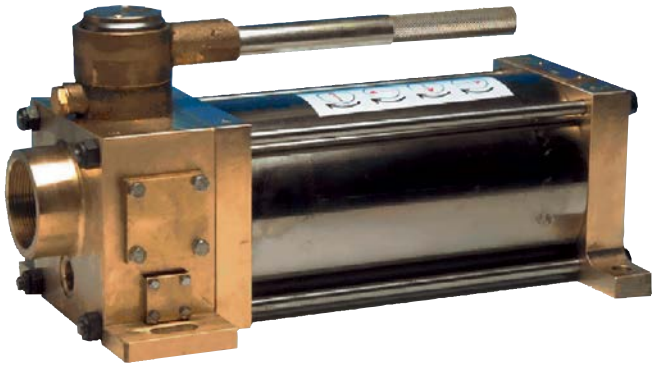
Code 4678

The Conflow Code 4678 - compact reverse flush strainer provides filtration in fluid systems with the minimum amount of downtime for element cleaning.

The unit includes a shut off valve prior to the filter element. Not only can this be used to isolate the system being fed, but the handle used for this purpose also controls the back flushing operation.

The control handle features a ratchet, which ensures the back flushing sequence takes place every time the valve is turned from ON to OFF.

The ratchet mechanism also enables the unit to be installed where space is limited. The element used is the 'V' wire type, which is especially effective for back flushing use.



Compact Reverse Flush Strainer

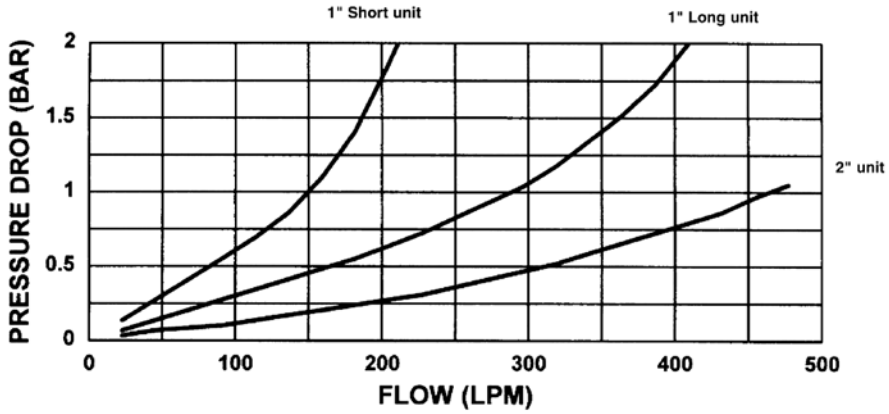
Features

- 1” version available
- Maximum working pressure 140 bar
- Low pressure drop
- Primary and secondary flush cycles
- Unique, ratchet handle operation
- ½” drain port

Applications

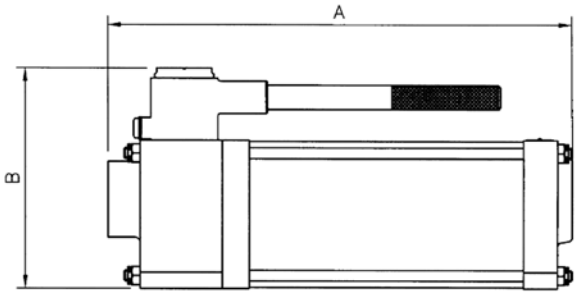
- Filtration of water to: - Longwall faces - shearers - continuous miners - belt sections - emulsion tanks

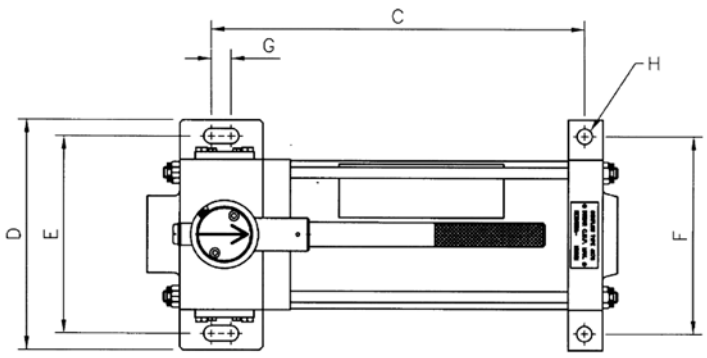
Specifications



Specifications cont.

Dimension	Unit	1”
A – Short version	mm	322
A – Long version	mm	361
B	mm	167
C	mm	226
D	mm	192
E	mm	162
F	mm	162
G	mm	15 dia.
Hø	mm	15
Weight – Short version	kg	20
Weight – Long version	kg	22





How to Order

Part Number	Connection	Filter	Version
060/7080/100J	1” BSP	100 Micron Filter	Short
060/7080/100LJ	1” BSP	100 Micron Filter	Long
060/7080/200LJ	1” BSP	200 Micron Filter	Long
060/7080/550	1” BSP	550 Micron Filter	Short
060/7083/550LJ	1” NPT	550 Micron Filter	Long

Please contact us for other options.

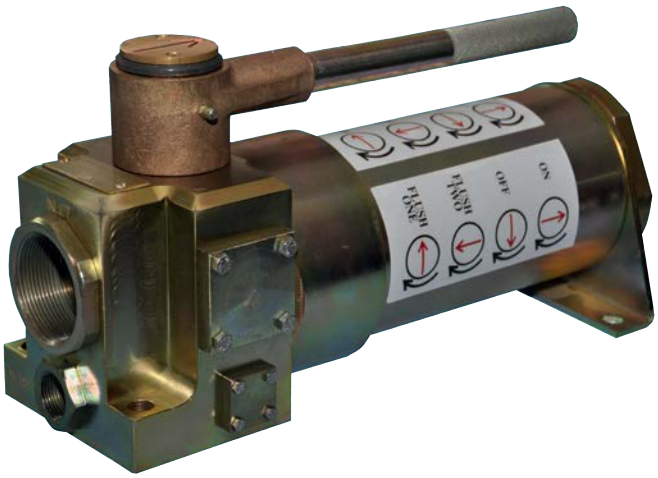
Reverse Flush Strainer

Code 5075

The Parker Conflow Code 5075 - reverse flush strainer provides filtration in fluid systems with the minimum amount of downtime for element cleaning.

As the world leader in instrumentation technology, Parker Conflow has engineered the reverse flush strainer to meet the stringent demands of the quarrying industry.

The reverse flusher includes a shut off valve prior to the filter element. Not only can this be used to isolate the system being fed, but the handle used for this purpose also controls the back flushing operation. The control handle features a ratchet, which ensures the back flushing sequence takes place every time the valve is turned from ON to OFF. The ratchet mechanism also enables the unit to be installed where space is limited. The element used is the 'V' wire type, which is especially effective for back flushing use.



Reverse Flush Strainer

Markets

- Quarrying
- Mining
- Industrial

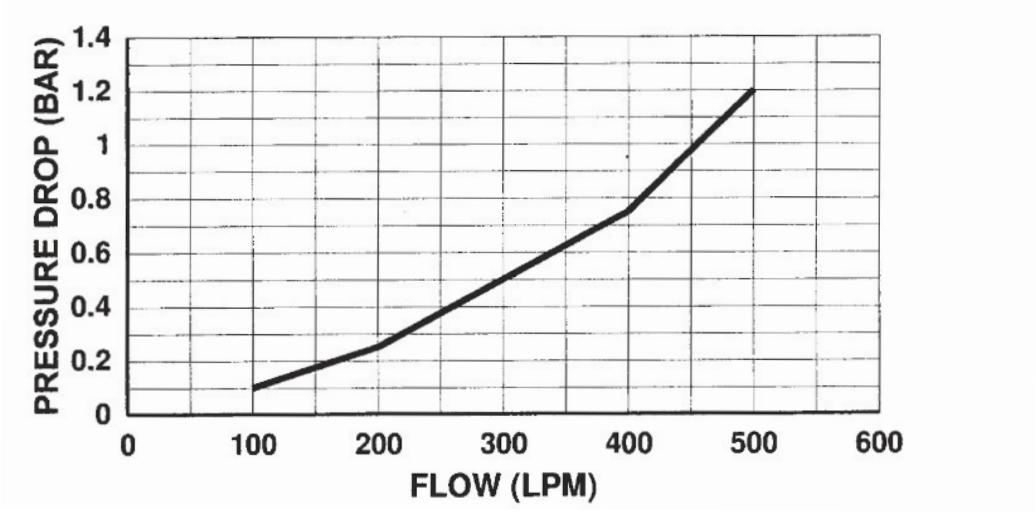
Applications

- Longwall faces
- Shearers
- Continuous miners
- Belt sections
- Emulsion tanks

Features

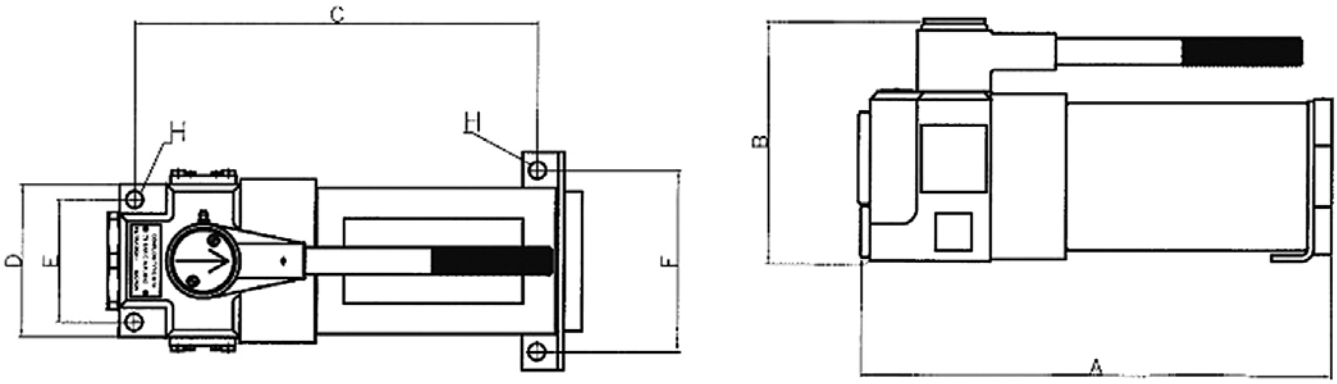
- 2" BSP & NPT versions available
- Maximum working pressure 70 bar
- Low pressure drop
- Primary and secondary flush cycles
- Unique, ratchet handle operation
- ¾" drain port

Specifications



Specifications cont.

Dimension	Unit	2”
A	mm	395
B	mm	197
C	mm	335
D	mm	135
E	mm	101.5
F	mm	150
H	mm	ø14
Weight	kg	26



How to Order

Part Number	Connection	Filter
CODE-5075-NPT-V1	2” NPT	500 Micron Filter
CODE-5075-NPT-V2	2” NPT	No Filter
CODE-5075-NPT-V3	2” NPT	200 Micron Filter
CODE-5075-NPT-V4	2” NPT	100 Micron Filter
CODE-5075-V1	2” BSP	100 Micron Filter
CODE-5075-V2	2” BSP	500 Micron Filter
CODE-5075-V3	2” BSP	200 Micron Filter
CODE-5075-V4	2” BSP	250 Micron Filter

Please contact us for other options.

Pot Strainers

Code 5151

The Parker Conflow Code 5151 - pot strainers provides incremental cleaning of supply water for use on miners, shearers, feeders and belt transfer points.

As the world leader in instrumentation fluid system technology, Parker Conflow has engineered the Code 5151 pot strainers to meet the stringent demands of the mining and quarrying industry. Incorporating the latest technolgy in water filtration, it features minimal moving parts for long life, reduced maintenance and reliability. With port sizes 1", 2 and 3" the pot strainer can be supplied as single duplex or triplex system to provide incremental cleaning it is perfect for regulating the amount of water feeding a dust suppression system at conveyor points in a mine or quarry.

Pot Strainer

Markets

- Quarrying
- Mining

Features/Benefits

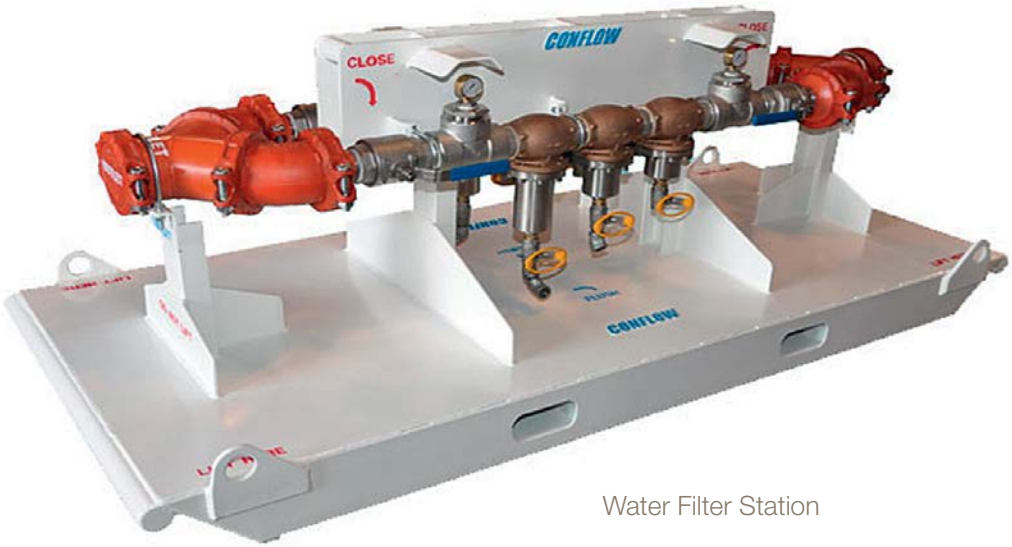
- Simple and reliable system
- Suitable for operating pressures to 70 bar
- Available in port sizes of 1”, 2” and 3” NPT/BSP
- Incorporates a “V” wire straining element with either 700, 500 or 200 micron
- Can be supplied as single, duplex or triplex system to provide incremental cleaning
- Element can be backflushed using simple ball valve
- Easily handed to suit installation

Applications

- Cleaning water being supplied to belt line dust suppression systems
- Cleaning water supplies to longwall faces and continuous miners

Water Filter Station

Custom designed skid mounted water filter station for use on longwall supply lines or operating faces demanding high water flows.



Water Filter Station

Features/Benefits

- 6” Victaulic inlet/outlet triplex strainer system incorporating Parker Conflow Code 5151 Pot Strainer with progressive filtration of 700 - 500 - 200 micron rating
- Incorporates “V” wire element suitable for high water pressure without collapsing when blocked
- Parallel line design to accommodate high flows with minimum pressure drop plus benefit of ability to isolate individual lines to perform maintenance
- Rated at 1,000 psi Flow capacity up to 500 gpm
- System includes line pressure gauges for monitoring flow blockage and lockable flushing ball valves
- Mounted on heavy duty skid

Pre Start Warning Unit

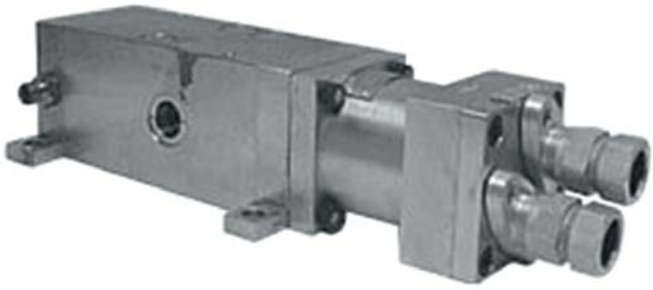
Code 2629

The Parker Conflow Code 2629 - Pre Start Warning Unit interrupts the electrical pilot circuit of a coal cutting machine so that the drive motor cannot start until a predetermined time has elapsed following the starting of the dust suppression water.

The device has been designed to provide a positive safety measure to eliminate accidents in the vicinity of the cutting drums of mineral cutting machinery.
It does this by utilising dust suppression water sprays to drive anyone working in the danger zone clear of the cutting drum.

These water sprays operate for a fixed time (7 seconds, within the pressure parameters 10-70 bar) before the pilot circuit is made and the cutting drum starts to rotate.

The standard unit is a pressure switch with a built in time delay. A flow switch can be added to cover situations where all the warning sprays may be blocked and no other machine safety system has been specified.



Pre Start Warning Unit

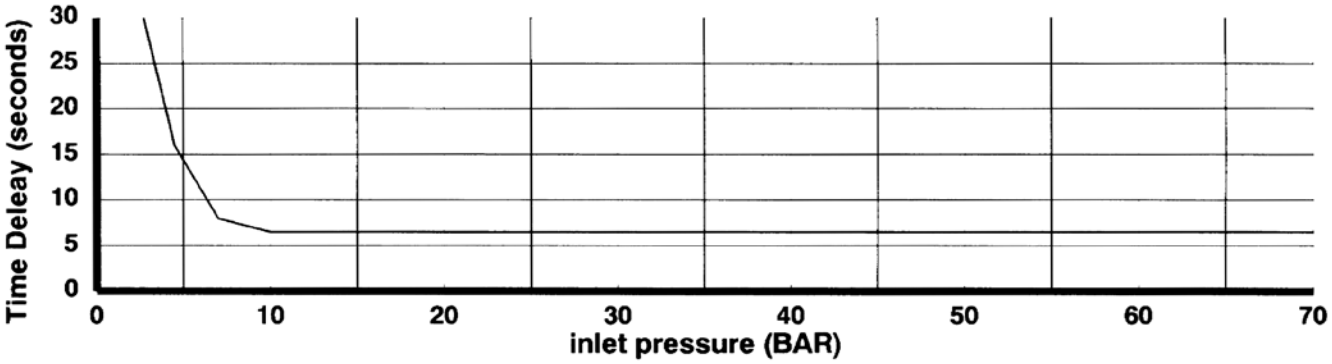
Typical Applications

- To prevent mineral cutting machines from operating unless dust suppression water is spraying for a warning period prior to start up.

Features

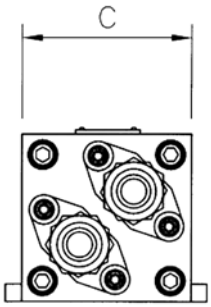
- ⅜" BSP water connections
- Maximum working pressure 70 bar
- Provides 7 second delay between attainment of hydraulic pressure and switching off electrical circuit
- Electrical switch rating: - 250Vac @ 5A
  : - 30Vdc @ 5A
- FLP Approved unit. Cert # 03ATEX1537

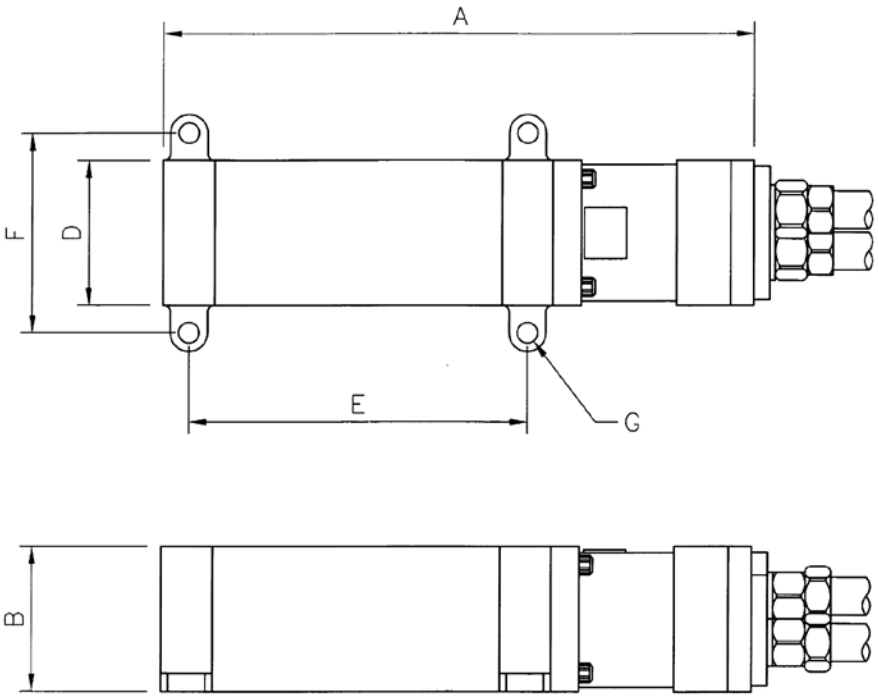
Specifications



Specifications cont.

Dimension	Unit	
A	mm	390
B	mm	100
C	mm	102
D	mm	102
E	mm	223
F	mm	136
G	mm	11Ø
Weight	kg	26



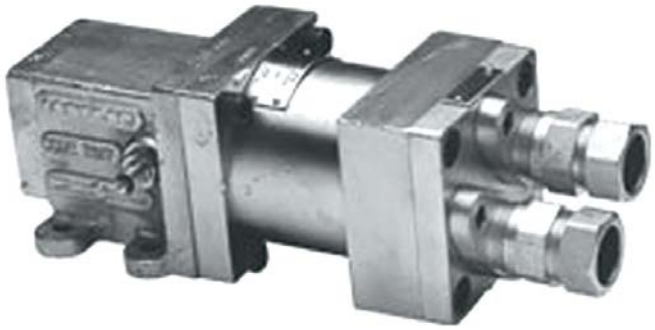


Pressure Switches

Code 2817

The Conflow Code 2817 - FLP Pressure Switch is used to make, or break, an electrical circuit with the presence, or absence of any pre selected pressure value within its operating range.

The principle of the design is a simple spring loaded piston which converts the incoming fluid pressure to a lateral movement. The diameter of the piston and the strength of the spring are selected to give the required piston movement for the desired pressure setting. Thus at a pre-determined hydraulic pressure the piston moves and contacts a microswitch, which is either 'normally open' or 'normally closed'. The compression of the spring can be adjusted to fine tune the pressure setting within its operating range.



Pressure Switch

Features

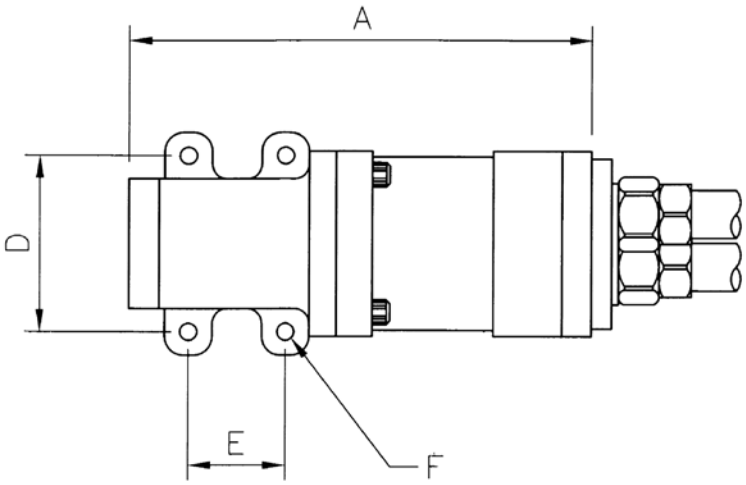
- ½" BSP water connections
- Maximum working pressure up to 210 bar
- Switches electrical circuit when minimum (or maximum) pressure conditions is reached
- FLP Approved - Cert # 03ATEX1537

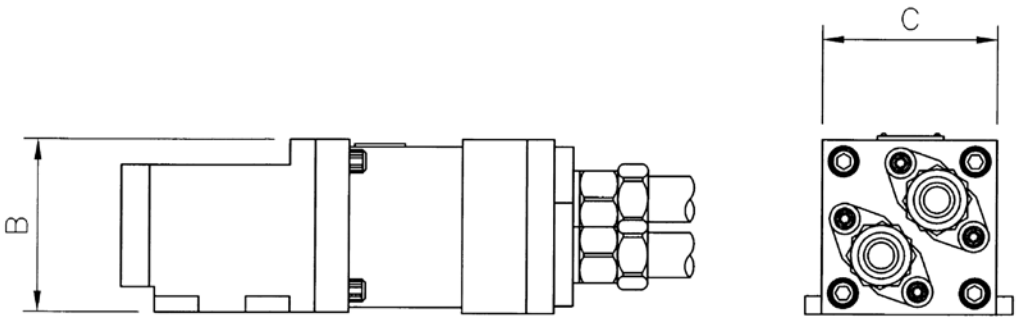
Applications

- To switch the rear lights on a tracked vehicle when the hydraulic circuit for reversing is selected. The pressure of this circuit being used to trip the switch and apply the rear lights for a reverse movement warning situation

Specifications

Dimension	Unit	
A	mm	249
B	mm	100
C	mm	100
D	mm	95
E	mm	53
F	mm	11Ø
Weight	kg	14





Specifications cont.

Fluid Connection	½" BSP Inlet (to be teed off from system pressure line to be monitored) ¼" BSP Inlet port (to be left unconnected or fitted with a short open ended hose to waste. **Note:** This is a safety bleed only and must not be connected to the pressure)
Electrical Connection	Hawke Gland Type G470/453/B/T
Maximum Fluid Pressure	Up to 210 Bar (according to pressure setting)
Pressure Switching Range	5 bar to 140 bar (any setting pressure is available in this range, please state when ordering).

Electrical ratings of Micro Switch

VCD Ratings		VAC Ratings	
15 Watts Max (resistive only) Max Voltage 250V Max Current 750 mA		15 VA Max (in rush or resistive) Max Voltage 250V Max Current 750 mA	
Volts (DC)	Mac current (mA)	Volts (AC)	Mac current (mA)
0.5 - 11	750	0.5 - 11	500
11 – 30	500	11 – 30	250
30 – 125	80	30 – 125	100
125 – 250	40	125 – 250	50

Pre-Start Warning Devices

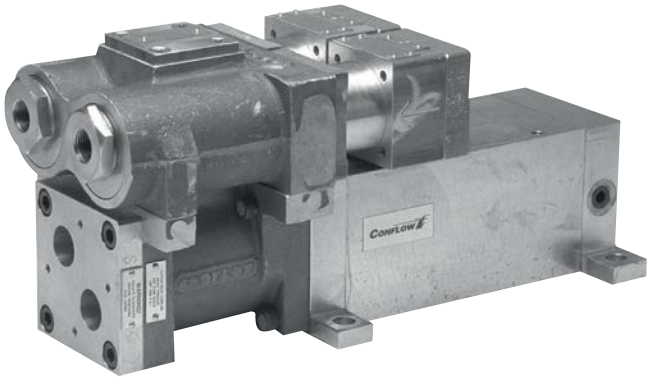
Code 4440 & 4450

The Conflow Code 4440 & 4450 Pre-Start Warning Devices are designed to provide a positive safety measure to eliminate accidents in the vicinity of the cutting drums of coal cutting machinery.

They do this by utilising dust suppression water jets to drive anyone working in the danger zone clear of the cutting drum, whether or not the person is mindful of the risks to which he is exposed. The machine cannot be started until the water jets have been in operation for a predetermined period.

The action of the Pre-Starting Warning Device is that it interrupts the electrical pilot circuit of the machine so that the drive motor cannot start until the predetermined time has elapsed following the turning on of the dust suppression water. This is normally seven seconds.

It should be noted that the system is a true pre-start interlock. Once the pre-start procedure has been completed and the machine is running with no one in the danger zone, the water can be turned off, if so desired e.g. to flit dry or run dry during maintenance checks. Connected in an alternative way, the water must always be flowing for the motor to run.



Pre-Start Warning Device

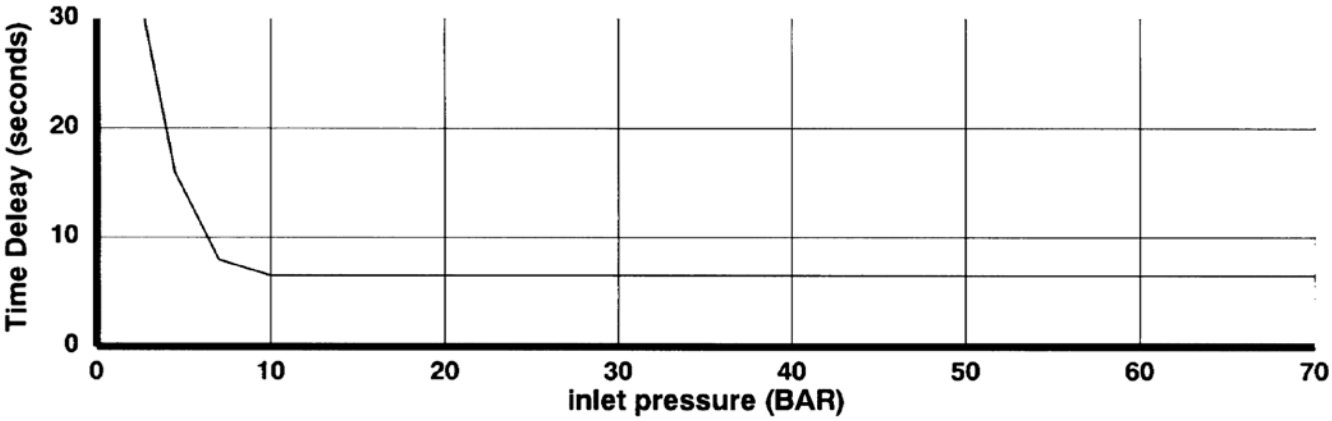
Features

- ½" BSP Water connections
- Maximum working pressure 140 bar
- Provides both Flow and Pressure switches
- 4450 version has two flow switches
- Incorporates a 7 second delay
- Operating range 10 - 70 bar
- FLP APPROVED - Cert. # 03ATEX1537

Applications

- To provide wet pre-start warning protection for personnel working near cutting drums

Specifications

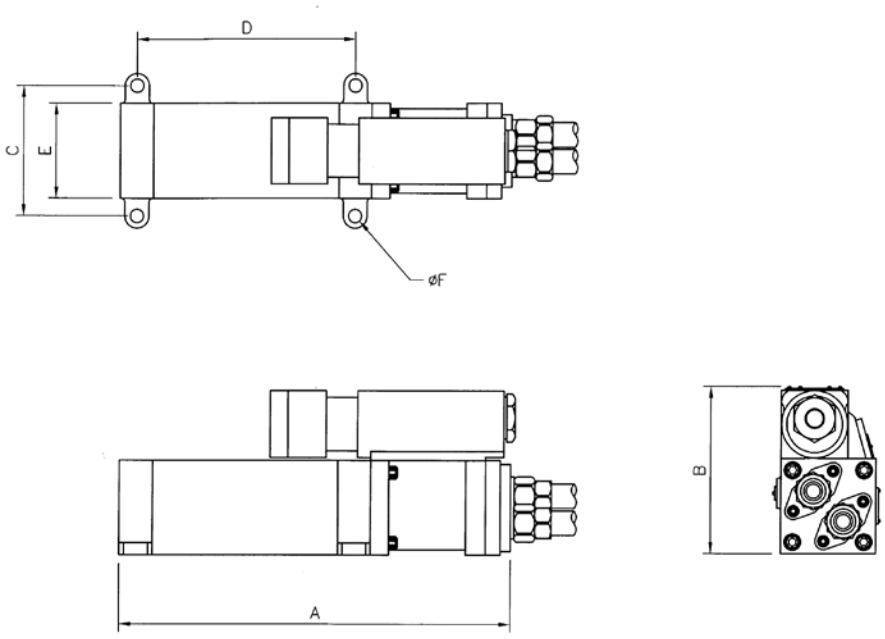


Specifications cont.

Code 4440

Dimension	Unit	
A	mm	395
B	mm	117
C	mm	137
D	mm	223
E	mm	101
F	mm	14
G	mm	-
Weight	kg	30

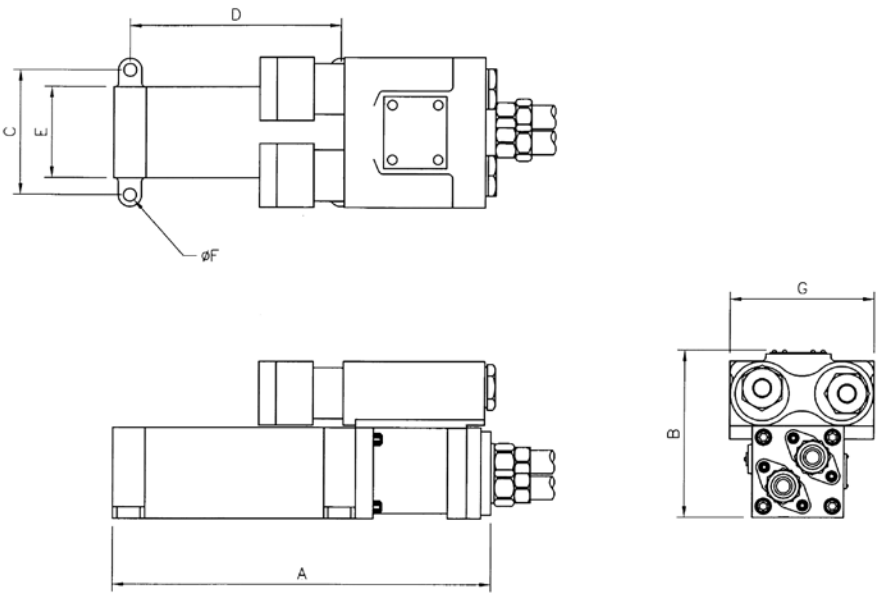
Pre-Start unit couples with one flow switch for single ended machines



Code 4450

Dimension	Unit	
A	mm	395
B	mm	197
C	mm	137
D	mm	223
E	mm	101
F	mm	14
G	mm	153
Weight	kg	42

Pre-Start unit couples with two flow switches for double-ended machines



Pressure/Flow Switch

Code 4900

The Conflow Code 4900 - Pressure/Flow Switch ensures electrical circuits only operate when minimum fluid pressure and flow requirements are satisfied.

The unit uses the same principle as the Code 240 flowswitch, but with an additional hydraulic pressure latch, which interrupts the flow if the system pressure does not rise above the required minimum value.

Even if the flow is above the required value the electrical switch does not make unless there is sufficient system pressure to lift the pressure latch and allow flow back into the main line.

The advantage of this unit is its compact size and its need to use only one electrical switch, giving distinct benefit when cabling up into machine circuitry and subsequent fault finding.

Pressure/Flow Switch

Features

- ¾" BSP Water connections
- Maximum working pressure 207 bar
- Electrical switch to interrupt mining machinery
- Monitors both Flow and Pressure conditions
- FLP APPROVED - Cert. # MECS93C5036

Applications

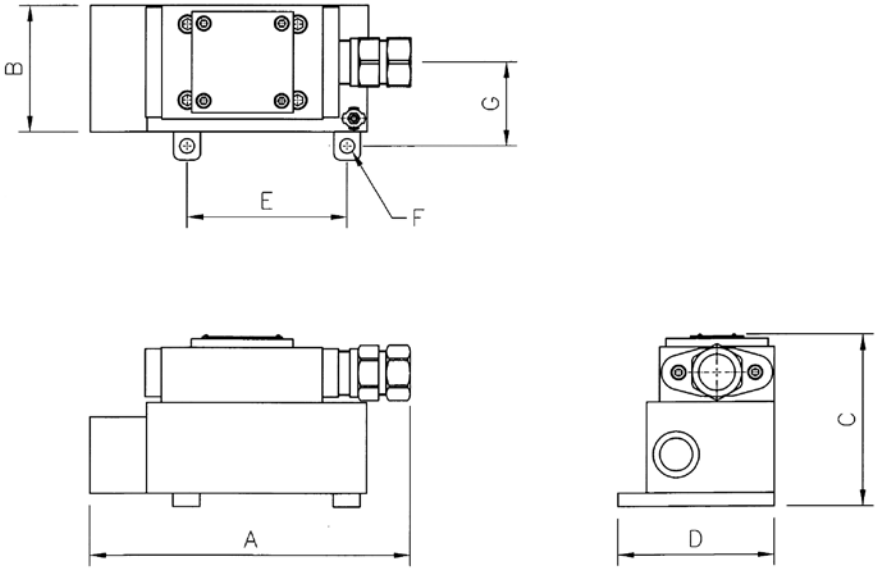
- To interrupt pilot electrical circuits on coal cutting machines if the minimum requirements for water flow and pressure on ITP systems are not met

Specifications

Fluid Connection	¾” BSP Inlet & Outlet
Electrical Connection	Hawke Gland Type G470/453/B/T
Max Fluid Pressure	207 bar
Flow Switching Range	9 LPM to 90 LPM
Pressure Switching Range	5 bar to 100 bar
Maximum Throughput	250 LPM
Maximum Current	5 ADC
Maximum Voltage	300 VDC

Specifications cont.

Dimension	Unit	
A	mm	235
B	mm	95
C	mm	133
D	mm	115
E	mm	120
F	mm	11
G	mm	65
Weight	kg	3



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