

- Quiet operation
- Zero maintenance
- Design prevents backflow
- Will seal around solids
- Designed to withstand wear
- Tough enough for abrasive slurries

The Series CPF Flanged Check Valve is designed to be efficient, quiet and tough. It requires no external power sources, thereby reducing operating costs. The simple design means there are no moving mechanical parts to break down or jam, reducing maintenance costs.

CPF Valves easily handle corrosive or abrasive materials such as raw sewage, sludges or slurries. Their flexible design allows solids to pass through unhindered and can even seal around solids trapped in the valve.

Series CPF Flanged Check Valves are versatile and can be installed either horizontally or vertically. Drilling is available in all flange standards.

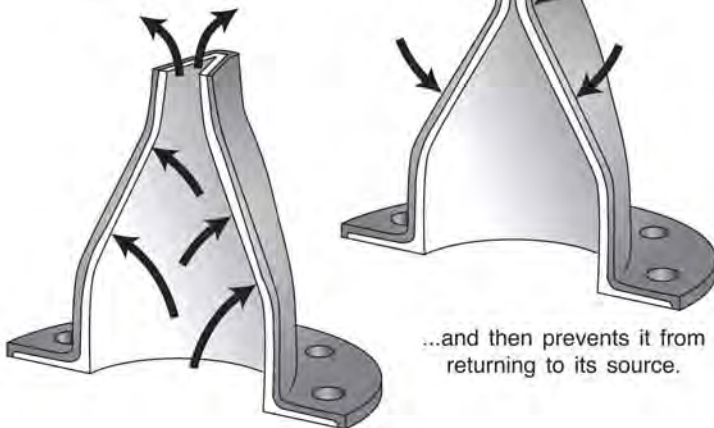


### Typical Applications

Sewer Interceptors - Wet Wells - Mine Tailing Systems - Dredging - Scrubber Systems - Outfall Lines - Wet/Dry Wells

Manufactured with an integral full-faced rubber flange connection and metal backing flange, Series CPF check valves can be attached directly to a tank, pipe, or headwall.

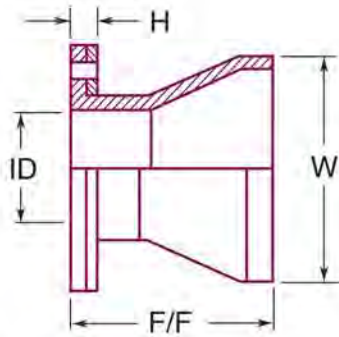
The CPF Series valve allows material to flow through...



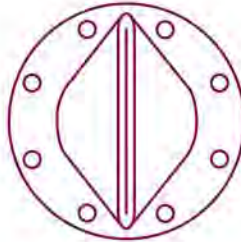
The heart of the Stayflow Series CPF Backflow Preventer is a fabric reinforced rubber "duckbill" sleeve manufactured with top quality materials. This flexible sleeve provides maximum flow with a minimum pressure drop across the valve at all times.

Unlike conventional check valves - which require frequent maintenance to replace worn seats, hinge pins, balls or flappers - there is little or no maintenance with CPF Valves.

Available in a variety of styles and reinforced elastomers, the Stayflow Series CPF Backflow Preventer can be adapted to almost any application.



Drilling available in all flange standards.



For engineering specifications or when placing your order, please provide the following information:

	Minimum	Maximum
Flow Rate	<input type="text"/>	<input type="text"/>
Flow Velocity	<input type="text"/>	<input type="text"/>
Line Pressure	<input type="text"/>	<input type="text"/>
Back Pressure	<input type="text"/>	<input type="text"/>
Media	<input type="text"/>	
Discharge:	<input type="checkbox"/> Atmosphere	<input type="checkbox"/> Water
Type of Backing Ring:	<input type="checkbox"/> SS304	<input type="checkbox"/> SS316
	<input type="checkbox"/> Carbon Steel	<input type="checkbox"/> Other

<b>ID<sup>1</sup></b>	1	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16
<b>F/F<sup>1</sup></b>	3	3-7/8	5-1/4	6-1/4	7-1/2	9	11	12	14	16	18	20	23
<b>H<sup>1</sup></b>	7/8	7/8	7/8	7/8	1-1/8	1-1/8	1-1/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
<b>W<sup>1</sup></b>	2-1/8	2-5/8	3-7/8	4-5/8	5-1/2	7-3/8	8-3/4	10-1/2	13-3/4	17	19-5/8	24-3/4	26-1/2
<b>Weight<sup>2</sup></b>	2.5	4	5	8	11	15	17	21	25	37	59	75	124
<b>ID<sup>1</sup></b>	18	20	24	28	30	32	36	42	48	54	60	63	72
<b>F/F<sup>1</sup></b>	25	32	41	44	46	52	58	61	70	74	80	88	97
<b>H<sup>1</sup></b>	1-3/8	1-7/8	1-7/8	1-7/8	1-7/8	1-7/8	1-7/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8
<b>W<sup>1</sup></b>	29-3/4	31-1/2	43	46	49	51	55-1/4	66-1/4	74-1/2	78-1/4	85	92	105
<b>Weight<sup>2</sup></b>	205	315	400	475	551	602	654	950	997	1070	1271	1310	1480

<sup>1</sup> - inches      <sup>2</sup> - pounds (approx.)

Dimensions can be revised to suit custom specifications.

\*Dimensions are for clearance purposes only. Actual product dimensions may vary based upon specific application requirements.

Consult factory for other sizes.

### Elastomer Selection Guide

#### Ethylene Propylene Rubber (EPDM)

Most effective for applications involving water, steam or diluted acids.

#### Viton (FKM)

Resists solvents, halogenated hydrocarbons, oxygen, weather, ozone, oils and chemicals.

#### Buna N (NBR)

Resistant to kerosene, moderate chemicals, fats, oils, grease and many hydrocarbons.

#### Pure Gum Rubber (PGR) / Natural Rubber (NR)

Good abrasion resistance, tensile strength and resiliency. Also suitable when dealing with organic acids, alcohols, ketones and most moderate chemicals.

#### Hypalon (CSM)

Resists strong acids and bases, ozone, weathering, heat and oxidizing chemicals.

#### Butyl (CIIR)

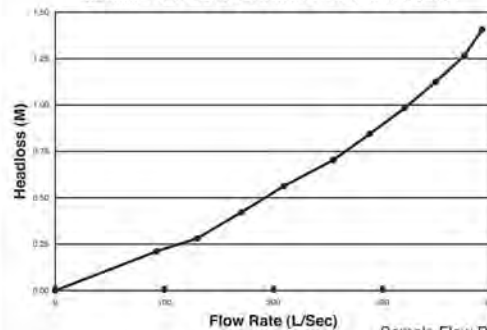
Good resistance to animal and vegetable fats, strong and oxidizing chemicals, oils, heat and greases.

#### Neoprene (CR)

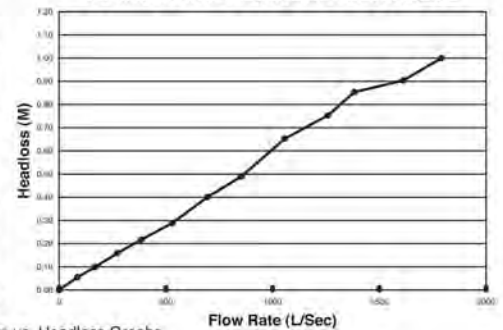
Generally resistant to oil and grease, moderate chemicals, fats, many hydrocarbons and ozone. Resistant to barnacle growth.

When placing your order, please indicate sleeve material by appending elastomer abbreviation (CR, NR, etc) to the model name.  
IE: Series CPF-CR

300mm CPF / CPO DUCKBILL CHECK VALVE



600mm CPF / CPO DUCKBILL CHECK VALVE



Sample Flow Rate vs. Headloss Graphs.  
Other valve sizes available upon request.  
Based on flow testing at Utah State University.

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- Quiet operation
- Zero maintenance
- Design prevents backflow
- Will seal around solids
- Designed to withstand wear
- Tough enough for abrasive slurries

The Series CPI In-Line Check Valve is designed to be efficient, quiet and tough. It requires no external power sources, thereby reducing operation costs. The valve's simple design means there are no moving mechanical parts to break down or jam reducing maintenance costs.

CPI Valves easily handle corrosive or abrasive materials such as raw sewage, sludges or slurries. Their flexible design allows solids to pass through unhindered and can even surround solids trapped in the valve.

Series CPI In-Line Check Valves are versatile and can be installed either horizontally or vertically. Drilling is available in all flange standards.

The series CPI/IN is also available as an insert type check valve. An internal clamp is used to fasten the check valve to the inside of an existing pipe.

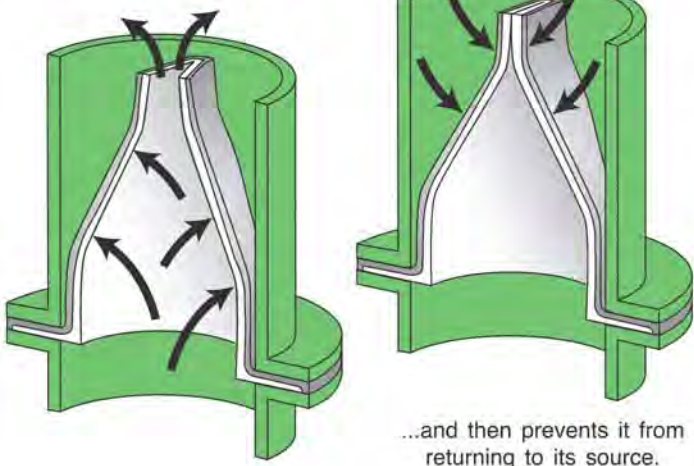


### Typical Applications

Sewer Interceptors - Wet Wells - Mine Tailing Systems - Dredging - Scrubber Systems - Outfall Lines - Wet/Dry Wells

Manufactured with an integral full-faced rubber flange connection, CPI valves are mounted between existing pipe flanges, thereby eliminating the need for a valve body.

The CPI Series valve allows material to flow through...

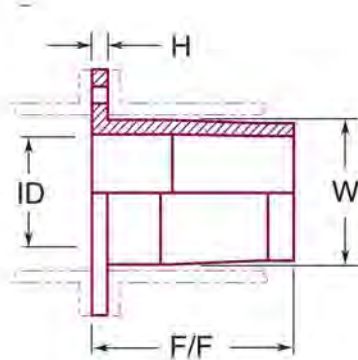


...and then prevents it from returning to its source.

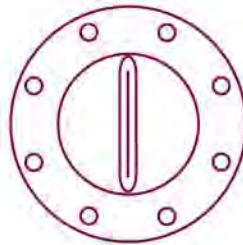
The heart of the Stayflow Series CPI Backflow Preventer is a fabric reinforced rubber "duckbill" sleeve manufactured with top quality materials. This flexible sleeve provides maximum flow with a minimum pressure drop across the valve at all times.

Unlike conventional check valves - which require frequent maintenance to replace worn seats, hinge pins, balls or flappers - there is little or no maintenance with CPI Valves.

Available in a variety of styles and reinforced elastomers, the Stayflow Series CPI Backflow Preventer can be adapted to almost any application.



Drilling available in all flange standards.



For engineering specifications or when placing your order, please provide the following information:

	Minimum	Maximum
Flow Rate	<input type="text"/>	<input type="text"/>
Flow Velocity	<input type="text"/>	<input type="text"/>
Line Pressure	<input type="text"/>	<input type="text"/>
Back Pressure	<input type="text"/>	<input type="text"/>
Media	<input type="text"/>	<input type="text"/>

PIPE SIZE	2	3	4	5	6	8	10	12	14	16	18	20	24
ID <sup>1</sup>	1-1/4	2-1/4	3	4	5	6-5/8	8-5/8	10	11-1/2	13-1/2	15-1/4	17	20-1/2
F/F <sup>1</sup>	6	7-1/2	13	14-1/2	16	18	20	21	22	24	27	30	33
H <sup>1</sup>	1/2	1/2	3/4	3/4	3/4	3/4	3/4	1	1	1	1	1-3/16	1-3/8
W <sup>1*</sup>	1-7/8	2-7/8	3-7/8	4-7/8	5-7/8	7-5/8	9-5/8	11-7/8	12-3/4	14-3/4	16-3/4	18-3/4	22-3/4

<sup>1</sup> inches    <sup>2</sup> psi

Dimensions can be revised to suit custom specifications. Consult factory for other sizes.

\*Dimensions are for clearance purposes only. Actual product dimensions may vary based upon specific application requirements.

### Elastomer Selection Guide

#### Ethylene Propylene Rubber (EPDM)

Most effective for applications involving water, steam or diluted acids.

#### Viton (FKM)

Resists solvents, halogenated hydrocarbons, oxygen, weather, ozone, oils and chemicals.

#### Buna N (NBR)

Resistant to kerosene, moderate chemicals, fats, oils, grease and many hydrocarbons.

#### Pure Gum Rubber (PGR) / Natural Rubber (NR)

Good abrasion resistance, tensile strength and resiliency. Also suitable when dealing with organic acids, alcohols, ketones and most moderate chemicals.

#### Hypalon (CSM)

Resists strong acids and bases, ozone, weathering, heat and oxidizing chemicals.

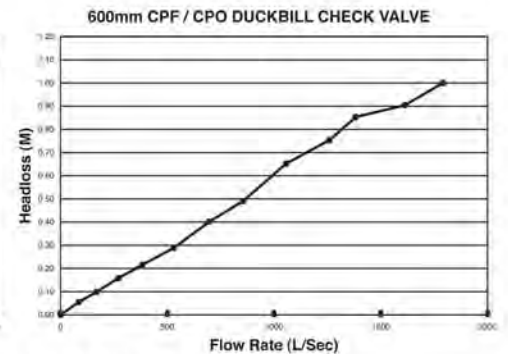
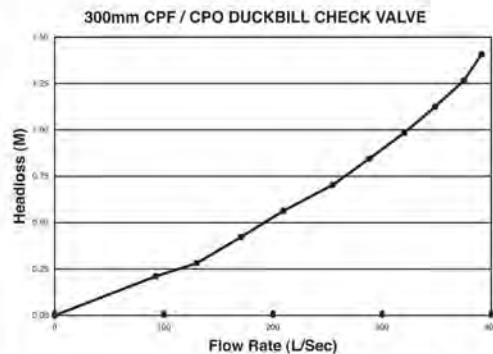
#### Butyl (CIIR)

Good resistance to animal and vegetable fats, strong and oxidizing chemicals, oils, heat and greases.

#### Neoprene (CR)

Generally resistant to oil and grease, moderate chemicals, fats,

When placing your order, please indicate sleeve material by appending elastomer abbreviation (CR, NR, etc) to the model name.  
IE: Series CPI-CR



Sample Flow Rate vs. Headloss Graphs. (Note: Adjust flow rate down for CPI valves) Other valve sizes available upon request. Based on flow testing at Utah State University.

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- Quiet operation
- Zero maintenance
- Design prevents backflow
- Will seal around solids
- Designed to withstand wear
- Tough enough for abrasive slurries

The Series CPJ Jacket Check Valve is designed to be efficient, quiet and tough. It requires no external power sources, thereby reducing operation costs. The valve's simple design means there are no moving mechanical parts to break down or jam, reducing maintenance costs.

CPJ Valves easily handle corrosive or abrasive materials such as raw sewage, sludges or slurries. Their flexible design allows solids to pass through unhindered and can even surround solids trapped in the valve.

Series CPJ Jacket Check Valves are versatile and can be installed either horizontally or vertically. Drilling is available in all flange specifications. Contact Stayflow to discuss your requirements.

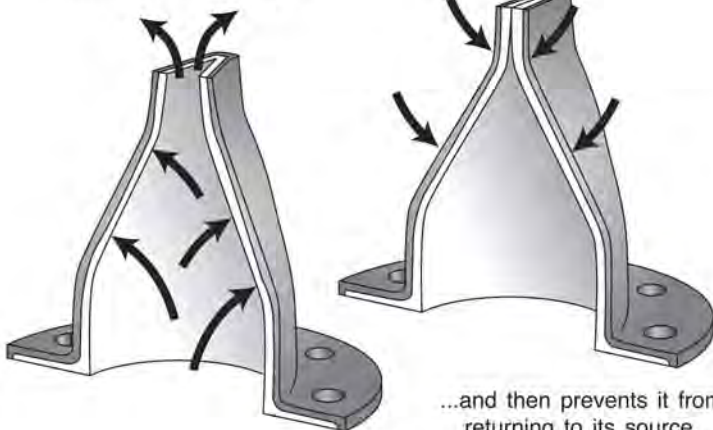


### Typical Applications

Sewer Interceptors - Wet Wells - Mine Tailing Systems - Dredging - Scrubber Systems - Outfall Lines - Wet/Dry Wells

The rugged full metal body and one-piece rubber valve combine quiet performance with lasting durability. The modular design of CPJ Series Valves allows them to fit easily into existing piping systems.

The CPJ Series valve allows material to flow through...

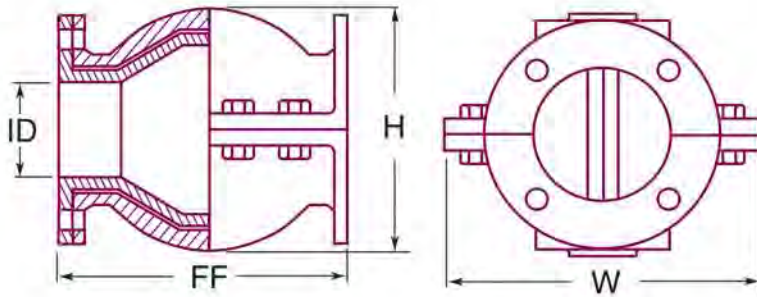


...and then prevents it from returning to its source.

The heart of the Stayflow Series CPJ Backflow Preventer is a fabric reinforced rubber "duckbill" sleeve manufactured with top quality materials. This flexible sleeve provides maximum flow with a minimum pressure drop across the valve at all times.

Unlike conventional check valves - which require frequent maintenance to replace worn seats, hinge pins, balls or flappers - there is little or no maintenance with CPJ Valves.

Available in a variety of styles and reinforced elastomers, the Stayflow Series CPJ Backflow Preventer can be adapted to almost any application.



For engineering specifications or when placing your order, please provide the following information:

	Minimum	Maximum
Flow Rate	<input type="text"/>	<input type="text"/>
Flow Velocity	<input type="text"/>	<input type="text"/>
Line Pressure	<input type="text"/>	<input type="text"/>
Back Pressure	<input type="text"/>	<input type="text"/>
Media	<input type="text"/>	
Material of Body:	<input type="checkbox"/> Iron <input type="checkbox"/> Aluminum	

ID <sup>1</sup>	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16	18	20	24
F/F <sup>1</sup>	4-1/2	5-1/2	6-1/2	8-1/2	9-1/2	11-1/4	11-3/4	15-3/4	19	21	23	25	29	33	38	41-1/2	49-1/2
H <sup>1</sup>	4-1/4	4-5/8	5	7-1/8	7-1/2	8-1/8	10-5/8	11-1/2	13-1/2	18	22-3/8	25	27-1/2	29	32-5/8	36-1/2	47
W <sup>1*</sup>	5-3/4	6-1/4	6-1/2	8-1/2	9	10	11-3/4	11-3/4	15-1/4	17-1/2	19-3/8	21-1/2	24	25	28-1/4	29	37-1/2
Weight <sup>2</sup> (Cast Iron)	9	11	17	32	40	51	88	137	180	257	440	640	790	930	1285	1714	2110

1 - inches    2 - pounds (approx.)

Dimensions can be revised to suit custom specifications.  
Consult factory for other sizes.

\*Dimensions are for clearance purposes only. Actual product dimensions may vary based upon specific application requirements.

### Elastomer Selection Guide

#### Ethylene Propylene Rubber (EPDM)

Most effective for applications involving water, steam or diluted acids.

#### Viton (FKM)

Resists solvents, halogenated hydrocarbons, oxygen, weather, ozone, oils and chemicals.

#### Buna N (NBR)

Resistant to kerosene, moderate chemicals, fats, oils, grease and many hydrocarbons.

#### Pure Gum Rubber (PGR) / Natural Rubber (NR)

Good abrasion resistance, tensile strength and resiliency. Also suitable when dealing with organic acids, alcohols, ketones and most moderate chemicals.

#### Hypalon (CSM)

Resists strong acids and bases, ozone, weathering, heat and oxidizing chemicals.

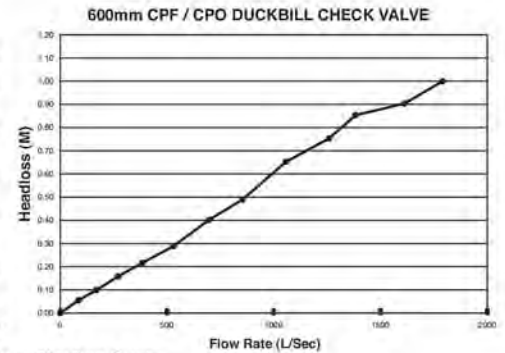
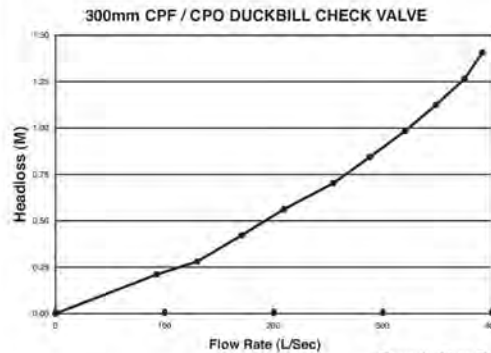
#### Butyl (CIIR)

Good resistance to animal and vegetable fats, strong and oxidizing chemicals, oils, heat and greases.

#### Neoprene (CR)

Generally resistant to oil and grease, moderate chemicals, fats, many hydrocarbons and ozone. Resistant to barnacle growth.

When placing your order, please indicate sleeve material by appending elastomer abbreviation (CR, NR, etc) to the model name.  
IE: Series CPJ-CR



Sample Flow Rate vs. Headloss Graphs.  
Other valve sizes available upon request.  
Based on flow testing at Utah State University.

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- Quiet operation
- Zero maintenance
- Design prevents backflow
- Will seal around solids
- Designed to withstand wear
- Tough enough for abrasive slurries

The Series CPO Slip-On Check Valve is designed to be efficient, quiet and tough. It requires no external power sources, thereby reducing operation costs. The valve's simple design means there are no moving mechanical parts to break down or jam, reducing maintenance costs.

CPO Valves easily handle corrosive or abrasive materials such as raw sewage, sludges or slurries. Their flexible design allows solids to pass through unhindered and can even surround solids trapped in the valve.

Series CPO Slip-On Check Valves are versatile and can be installed either horizontally or vertically.

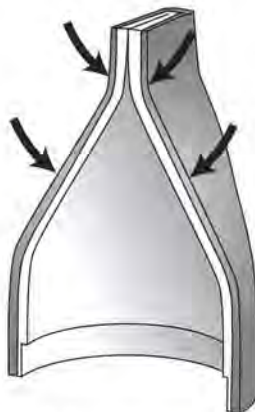
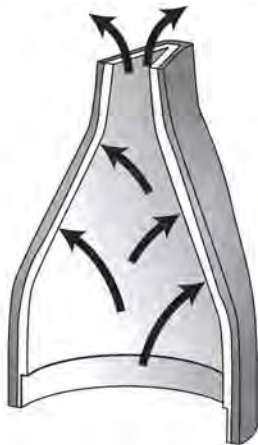


### Typical Applications

Sewer Interceptors - Wet Wells - Mine Tailing Systems - Dredging - Scrubber Systems - Outfall Lines - Wet/Dry Wells

Designed to mount directly on existing piping, the Series CPO Valve is held in place with durable stainless steel clamps.

The CPO Series valve allows material to flow through...

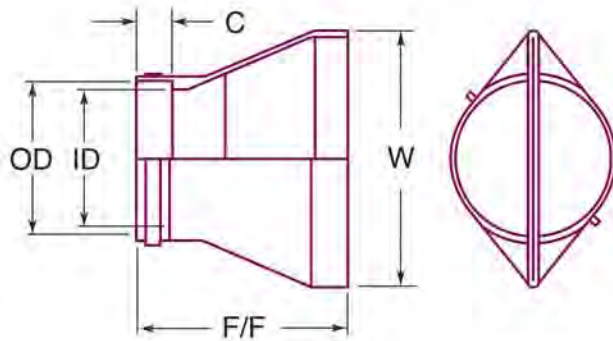


...and then prevents it from returning to its source.

The heart of the Stayflow Series CPO Backflow Preventer is a fabric reinforced rubber "duckbill" sleeve manufactured with top quality materials. This flexible sleeve provides maximum flow with a minimum pressure drop across the valve at all times.

Unlike conventional check valves - which require frequent maintenance to replace worn seats, hinge pins, balls or flappers - there is little or no maintenance with CPO Valves.

Available in a variety of styles and reinforced elastomers, the Stayflow Series CPO Backflow Preventer can be adapted to almost any application.



For engineering specifications or when placing your order, please provide the following information:

	Minimum	Maximum
Flow Rate	<input type="text"/>	<input type="text"/>
Flow Velocity	<input type="text"/>	<input type="text"/>
Line Pressure	<input type="text"/>	<input type="text"/>
Back Pressure	<input type="text"/>	<input type="text"/>
Media	<input type="text"/>	
Mounting Pipe:	<input type="text"/> I.D.	<input type="text"/> O.D.
Discharge:	<input type="checkbox"/> Atmosphere	<input type="checkbox"/> Water
Type of Clamp:	<input type="checkbox"/> SS316	<input type="checkbox"/> Other

<b>ID<sup>1</sup></b>	1/2	3/4	1	1-1/2	2	2-1/2	3	4	5	6	8	10	12	14	16	18
<b>F/F<sup>1</sup></b>	2-1/2	3	3-1/4	4-1/2	5-3/4	7-1/2	9	12	13	15	17	18	24	26-1/2	28	31
<b>C<sup>1</sup></b>	1	1	1	1	1-1/2	2	3	3	3	4	4	4	6	6	6	6
<b>W<sup>1*</sup></b>	1	1-1/2	2-1/8	2-5/8	3-7/8	4-5/8	5-1/2	7-3/8	8-3/4	10-1/2	13-3/4	17	19-5/8	24-3/4	26-1/2	29-3/4
<b>Weight<sup>2</sup></b>	.25	.75	1.5	3.8	4.75	7.6	10.45	14.25	16.15	20	23.75	35.15	56	71.25	118	195
<b>ID<sup>1</sup></b>	20	24	28	30	32	36	42	48	54	60	63	70	72	78	84	94
<b>F/F<sup>1</sup></b>	32	41	44	46	52	58	61	70	74	80	88	95	97	100	102	105
<b>C<sup>1</sup></b>	8	8	8	10	10	10	12	12	12	12	12	14	14	18	18	18
<b>W<sup>1*</sup></b>	31-1/2	43	46	49	51	55-1/4	66-1/4	74-1/2	78-1/4	85	92	100	105	107	111	150
<b>Weight<sup>2</sup></b>	299	380	451	523	572	621	902	947	1016	1207	1245	1300	1356	1500	1750	2000

1 - inches    2 - pounds (approx.)

\* Dimensions are for clearance purposes only. Actual product dimensions may vary based upon specific application requirements.

Dimensions can be revised to suit custom specifications.

Consult factory for other sizes.

### Elastomer Selection Guide

**Ethylene Propylene Rubber (EPDM)**  
Most effective for applications involving water, steam or diluted acids.

**Viton (FKM)**  
Resists solvents, halogenated hydrocarbons, oxygen, weather, ozone, oils and chemicals.

**Buna N (NBR)**  
Resistant to kerosene, moderate chemicals, fats, oils, grease and many hydrocarbons.

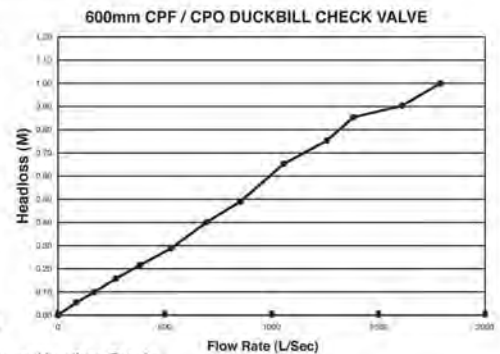
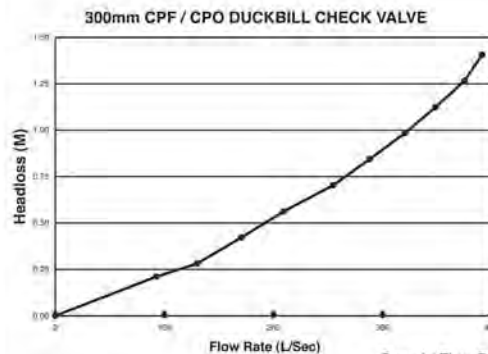
**Pure Gum Rubber (PGR) / Natural Rubber (NR)**  
Good abrasion resistance, tensile strength and resiliency. Also suitable when dealing with organic acids, alcohols, ketones and most moderate chemicals.

**Hypalon (CSM)**  
Resists strong acids and bases, ozone, weathering, heat and oxidizing chemicals.

**Butyl (CIIR)**  
Good resistance to animal and vegetable fats, strong and oxidizing chemicals, oils, heat and greases.

**Neoprene (CR)**  
Generally resistant to oil and grease, moderate chemicals, fats,

When placing your order, please indicate sleeve material by appending elastomer abbreviation (CR, NR, etc) to the model name.  
e.g: Series CPO-CR



Sample Flow Rate vs. Headloss Graphs.  
Other valve sizes available upon request.  
Based on flow testing at Utah State University.

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ISO 9001 Certified



- **Protects against flooding**
- **Eliminates reverse flows through piping systems**
- **Controls the spread of odour & gases**
- **Easy to install, even in existing pipes and chambers**
- **No mechanical parts**
- **Self-cleaning - minimal maintenance**

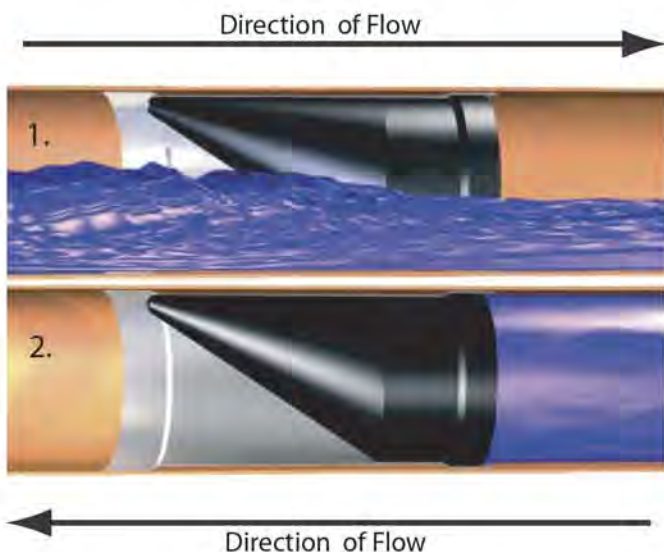
The WaStop backflow valve consists of two parts, the elastomer sleeve (rubber membrane) and the pipe.

The pipe is made of either plastic or stainless steel. The standard sleeve is made of a specially formulated blend of elastomers which gives it exceptional shape retention and chemical resistance. The sleeve folds up and out of the way with very little pressure. Inversely the sleeve is able to resist several meters of pressure in the opposite direction.



### Typical Applications

The WaStop can be used to prevent sewer gas, effluent, sand or seaweed backflow into cellars or storm water drains. The WaStop can be used to protect against overflows in manholes, storm water drains, storm water tanks, sewage works, drainage pipes, culvert systems and ditches. The WaStop can even be used for water tower overflow pipes to protect against the entrance of animals and insects.



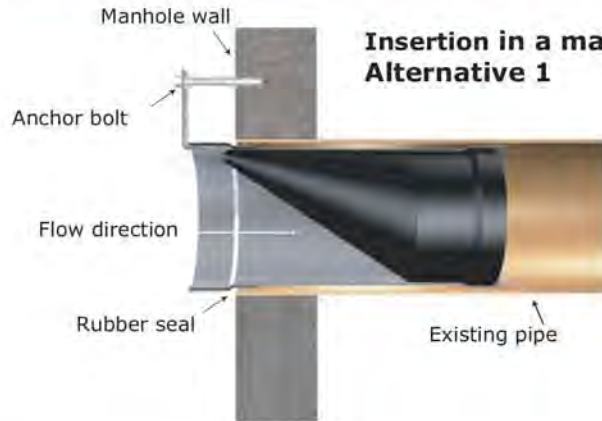
### How the Valve Works

1. Flow into the inlet side of the valve causes a small pressure build-up against the rubber sleeve which in turn causes the sleeve to open just enough to allow the liquid to flow unhindered.
2. Reverse flow fills the 'cone' portion of the elastomeric sleeve, pressing it against the inside walls of the pipe and creating a seal. Neither fluid nor gases can pass back into the inlet side of the pipe.

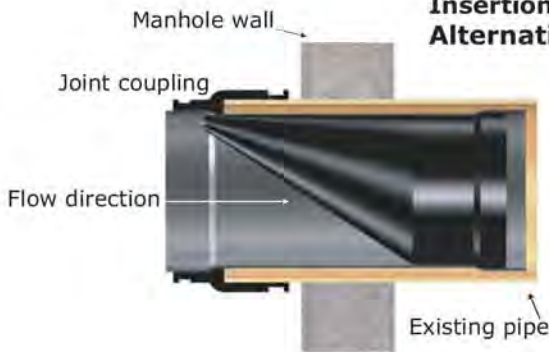
### Insertion in existing pipe



### Insertion in a manhole Alternative 1



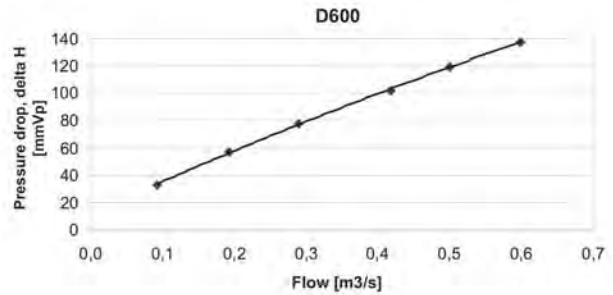
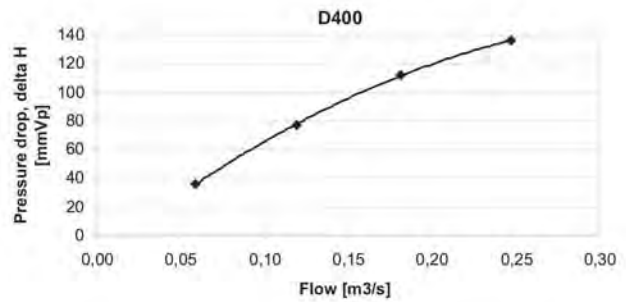
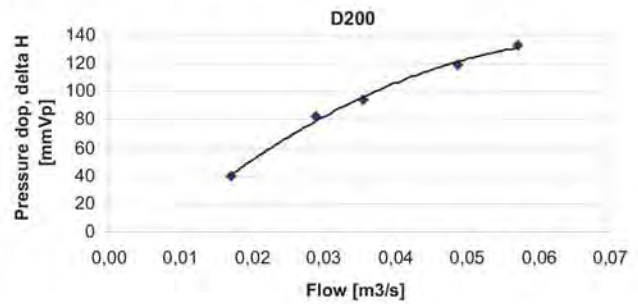
### Insertion in a manhole Alternative 2



#### Dimensions

DN	ID	L
110	4"	9.5"
160	6"	12"
200	8"	16"
250	10"	18"
300	12"	24"
400	16"	31"
500	20"	39"
600	24"	47"
800	32"	59"
1000	40"	83"

Sample Flow Rate vs. Headloss Graphs.  
Other valve sizes available upon request.  
Based on flow testing by Vattenfall Utveckling AB.



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