



ONYX VALVE

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“Fluid Handling Specialists”

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Duckbill Check Valves



Table of Contents

	Model	Configuration	Page
	DBS	<ul style="list-style-type: none"> • Slip-On Check Valve 	Page 1
	DBF	<ul style="list-style-type: none"> • Flanged Check Valve • Exterior Mounted 	Page 2
	DBCP	<ul style="list-style-type: none"> • Flanged Check Valve • In-Line Mounted 	Page 3
	DBRS	<ul style="list-style-type: none"> • Reverse Slip-In Check Valve 	Page 4
	DBMJ	<ul style="list-style-type: none"> • Fully Enclosed Check Valve 	Page 5
	DBMJ-F	<ul style="list-style-type: none"> • Fully Enclosed Check Valve 	Page 6
	WCV	<ul style="list-style-type: none"> • Flanged Check Valve • Inserted between Mat-ting Flanges 	Page 7
	FLOW CHART	<ul style="list-style-type: none"> • Flow Charts 	Page 8-10

Series DBS

Slip-On Check Valve

The series DBS rubber check valve effectively ensures mono-directional flow of slurries, sewerage, sludge and other hard to handle fluids.

The valve consists of an elastomer duckbill with a slip-on connection. This simple rugged design eliminates the mechanical parts which can wear and jam in conventional check valves.

Performance Features:

- Low pressure drop.
- Corrosion resistant
- Frost proof
- Silent operation.

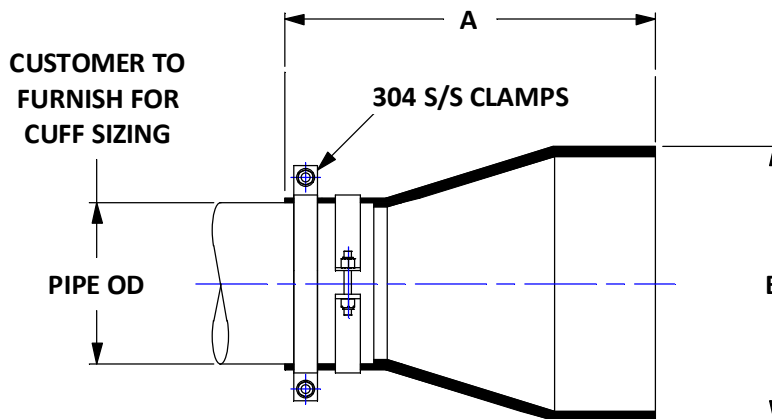
Options:

- Sleeve Elastomer
- 316 Stainless steel pipe clamps

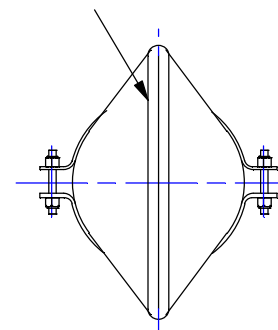
Standard Duckbill Design : P2 Max = 25 feet head.
For available Higher pressure, consult factory.



Updated
2-26-2015



**INSTALL VALVE IN
VERTICAL
UPRIGHT POSITION**



All dimensions are in inches. Weights are in Lbs.

Size	1	1.5	2	2.5	3	4	5	6	8	10	12	14
A	3.00	6.00	6.00	8.00	8.50	12.00	14.00	16.00	19.25	25.00	26.25	31.50
B	2.00	3.50	4.00	5.00	6.25	7.75	11.00	13.00	15.25	19.00	23.00	25.50
Wt, lb	3	4	5	8	10	15	17	20	25	35	60	75

Size	16	18	20	24	30	36	42	44	48	54	60
A	36.50	40.00	44.00	49.00	66.00	73.25	76.00	76.00	77.50	97.00	100.00
B	29.00	32.00	37.00	43.00	56.00	63.00	73.00	73.00	79.50	97.00	97.00
Wt, lb	120	140	300	400	550	850	950	1,125	1,300	1,700	1,700

Valve dimensions above are valid for standard pipe diameters only.
Dimensions are subject to change without notice.

Series DBF

Flanged Check Valve

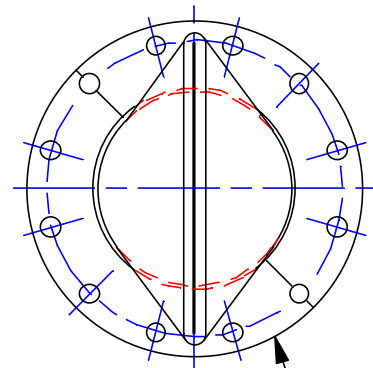
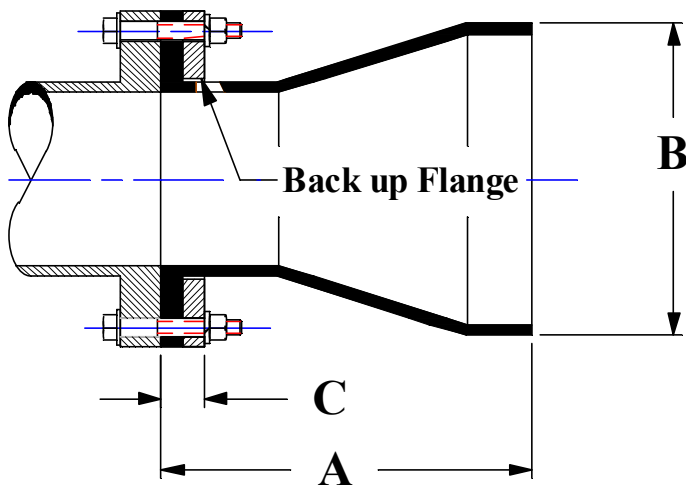
The series DBF rubber check valve effectively ensures mono-directional flow of slurries, sewerage, sludge and other hard to handle fluids.

The valve consists of an elastomer duckbill with a flanged connection. The back up flange is galvanized carbon steel, with 304 or 316 stainless steel as options. This simple rugged design eliminates the mechanical parts which can wear and jam in conventional check valves. They are available in a variety of elastomers.

Standard Duckbill Design : P2 Max = 25 feet head.
For available Higher pressure, consult factory.



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2-26-2015



**Flange is 125 Lb.
ANSI Standard
Flat Face.**

All dimensions are in inches. Weights are in Lbs.

SIZE	1	1.5	2	2.5	3	4	5	6	8	10	12	14
A	3.00	6.37	6.37	7.50	9.25	12.75	18.00	16.75	20.00	25.00	26.25	31.50
B	2.00	3.50	4.00	5.00	6.25	7.87	11.00	13.00	14.25	19.00	23.00	25.50
C	0.75			0.87	1.12				1.62			
Wt, lb	3	4	5	8	10	15	17	20	25	35	60	75

SIZE	16	18	20	24	30	36	42	44	48	54	60	
A	32.25	38.25	44.00	49.00	60.00	65.00	66.00	72.00	64.75	97.00	100.00	
B	29.00	31.50	36.00	43.00	56.00	63.00	76.00	76.00	63.75	97.00	97.00	
C	1.62		1.75	1.75	1.75	2.00				2.50		
Wt, lb	120	200	300	400	600	900	1,000	1,200	1,400	1,800		

Dimensions are subject to change without notice.

Series DBCP

In - Line Check Valve

The series DBCP in-line check valve is a simple, reliable, cost effective method of backflow prevention. The series DBCP check valve is designed to be installed between two mating flanges. The simple maintenance-free elastomer with a flanged connection eliminates the mechanical parts which can wear and jam in conventional check valves. For installation at the end of pipe line, the valve can be ordered with optional back up flanges.



Performance Features:

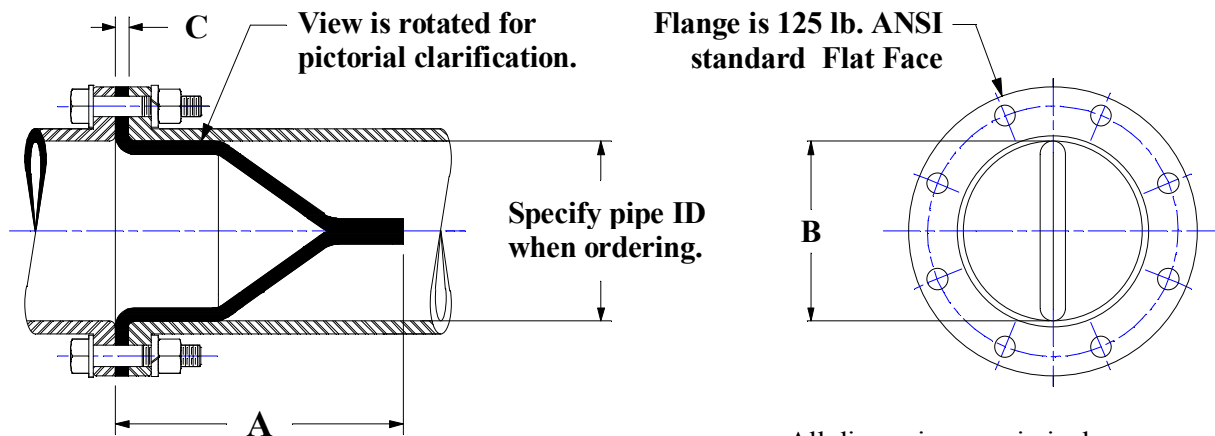
- Low pressure drop
- Frost proof
- Silent operation
- Corrosion resistant

Options:

- Sleeve Elastomer
- Back up Flange available for service at the end of pipe line

Standard Duckbill Design : P2 Max = 25 feet head.

For available Higher pressure, consult factory.



All dimensions are in inches.

SIZE	2	2.5	3	4	5	6	8	10
A	6.00	8.00	8.50	13.00	14.00	15.00	18.00	20.00
B	1.87	2.25	2.87	3.75	4.75	5.75	7.50	9.50
C	0.37		0.75			0.87		
Wt, lb	5	8	10	15	17	20	25	35

SIZE	12	14	16	18	20	24	30	36
A	24.00	24.00	27.00	28.00	32.00	40.00	45.00	50.00
B	11.25	12.50	14.00	16.00	18.00	22.00	28.75	34.75
C	1.00		1.25		1.50			
Wt, lb	60	75	120	200	300	400	450	500

Dimensions are subject to change without notice.

Series DBRS

Reverse Slip-In Check Valve

The series DBRS slip-in check valve, like the series DBCP, offers a cost effective method of backflow prevention. It is designed for installation inside of a non-flanged pipe secured by expanding band clamp. The series DBRS slip-in check valve eliminates the mechanical parts which can wear and jam in conventional check valves.



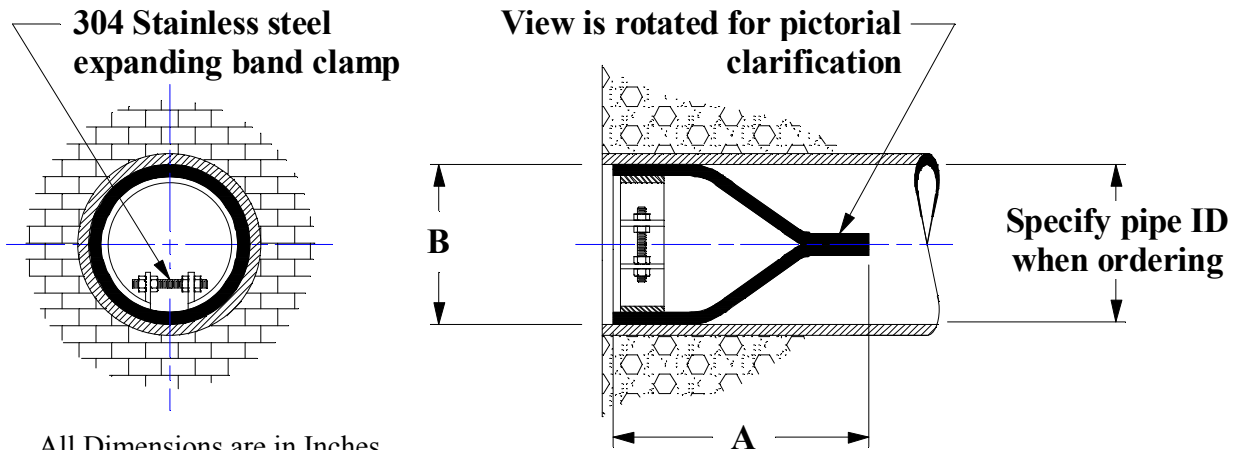
Performance Features:

- Low pressure drop
- Frost proof
- Silent operation
- Corrosion resistant

Options:

- Sleeve Elastomer
- 316 Stainless steel expanding band clamp

Standard Duckbill Design : P2 Max = 25 feet head.
For available Higher pressure, consult factory.



All Dimensions are in Inches.

Size	2	2.5	3	4	5	6	8	10	12	14
A	6.00	6.00	8.50	12.00	15.00	15.00	17.00	19.00	20.00	20.00
B	1.87	2.25	2.75	3.75	4.75	5.75	7.62	9.62	11.50	13.50
Wt, lb	5	8	10	15	17	20	25	35	60	90

Size	16	18	20	24	30	32	36	42	48	60
A	23.00	26.00	29.00	32.00	51.00	57.00	63.00			
B	15.50	17.50	19.50	23.00	29.00	31.00	35.00			
Wt, lb	120	200	300	400	550	600	650			

Dimensions are subject to change without notice.

Series DBMJ

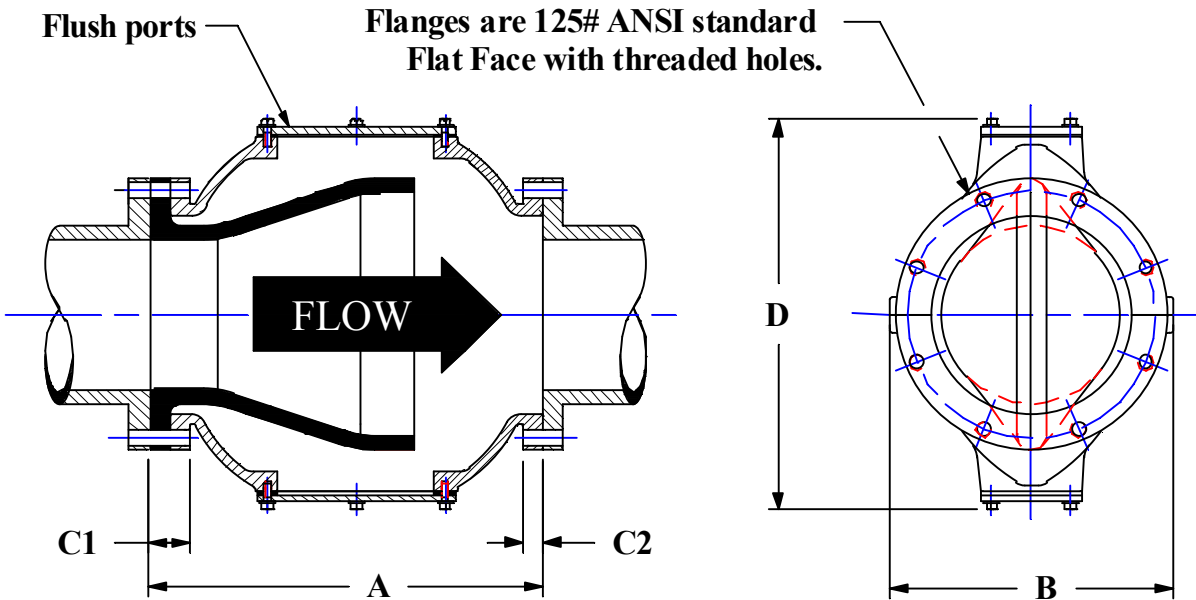
Fully Enclosed Check Valve

The series DBMJ check valve effectively ensures mono-directional flow of slurries, sewerage, sludge and other hard to handle fluids.

The valve consists of an elastomer duckbill type check valve inside an iron housing. This simple rugged design eliminates the mechanical parts which can wear and jam in conventional check valves. They are available in a variety of elastomer compounds, with a grey iron housing.



Standard Duckbill Design : P2 Max = 25 feet head.
For available Higher pressure, consult factory.



All dimensions are in inches. Weights are in lbs.

SIZE	3	4	6	8	10	12
A	11.25	11.50	14.00	19.50	24.50	27.50
B	7.75	9.00	11.50	14.00	19.00	21.50
C1	1.12	1.12	1.12	1.25		
C2	0.75	0.75	0.75	1.00		
D	9.25	12.87	16.00	19.87	23.00	25.00
Wt, lb	50	90	180	260	440	650

Dimensions are subject to change without notice.

Series DBMJ-F

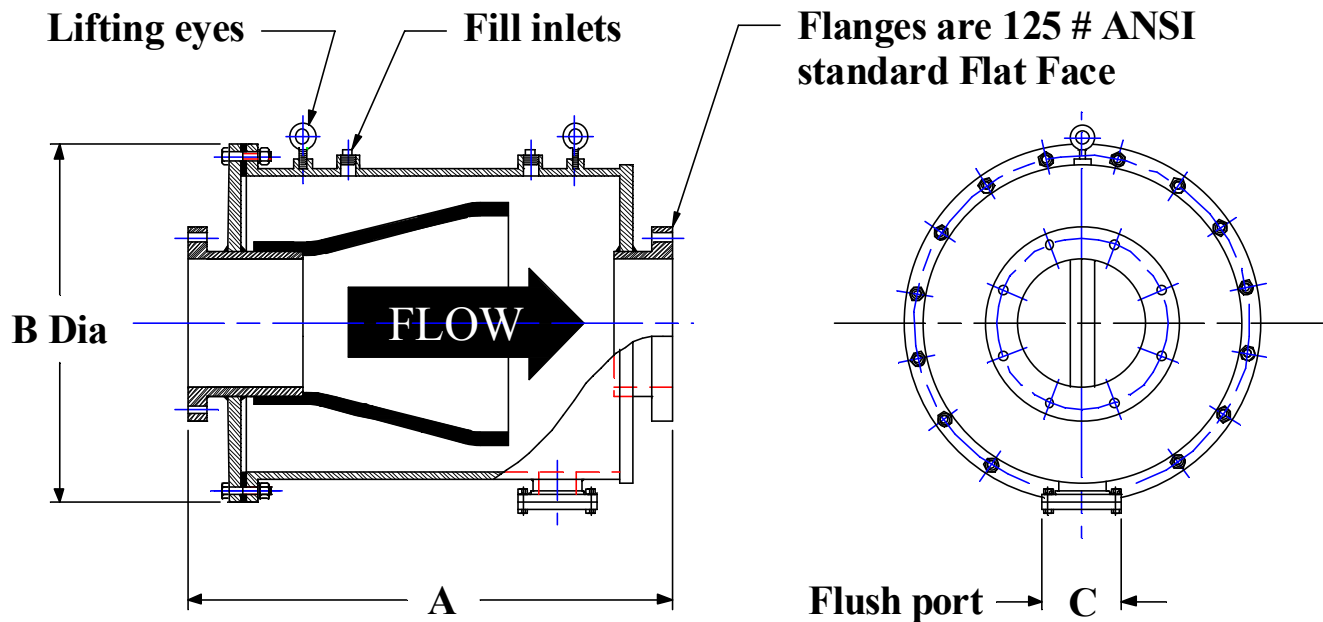
Fully Enclosed Check Valve

The series DBMJ-F check valve effectively ensures mono-directional flow of slurries, sewerage, sludge and other hard to handle fluids.

The valve consists of an elastomer duckbill type check valve inside a steel housing. This simple rugged design eliminates mechanical parts which can wear and jam in conventional check valves. They are available in a variety of elastomer compounds, with a carbon steel fabricated housing.



Standard Duckbill Design : P2 Max = 25 feet head.
For available Higher pressure, consult factory.



All dimensions are in inches. Weights are in Lb.

Size	14	16	18	20	24	30	36	42	48	54	60
A	35.00	47.00	45.00	50.00	60.00	70.00	85.00	90.00	100.00	110.00	120.00
B	28.00	32.00	35.00	43.00	50.00	66.00	77.00	90.00	102.00	126.00	130.00
C	3.00			6.00							
Wt, lb	800	950	1300	1800	2100	2400	3500	5000	6500	7250	9000

Dimensions are subject to change without notice.

Series WCV Check Valve

Wafer-Style Check Valve

- The Wafer-style series WCV Check valve is an entirely new valve design specifically engineered for water application. The WCV Check valve operates solely on line pressure and back pressure to open and close, no outside energy source is required. As line pressure builds, the elastomeric flapper disc is pushed away, allowing the water to pass. The memory of the rubber will cause the flapper disc to return flat, and back pressure will seal the flapper against the plate to prevent back-flow. The WCV Check valve is designed to be inserted between two mating flanges.



- Material of construction

Flapper disc : Pure gum rubber

EPDM(NSF certified), Buna-N(NSF certified)

Disc plate : Epoxy coated carbon steel (standard)

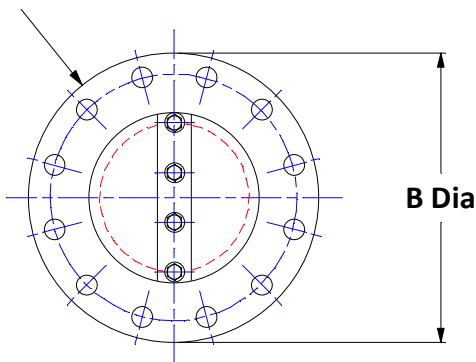
304 or 316 stainless steel (optional)

Maximum Backpressure Limits

- 0" → 3" = 175 psi
- 4" → 8" = 150 psi
- 10" → 12" = 100 psi
- 14" → 24" = 75 psi
- 30" and Larger = 50 psi

- Installation : For horizontal pipe, orient the center rib in vertical position as shown below.

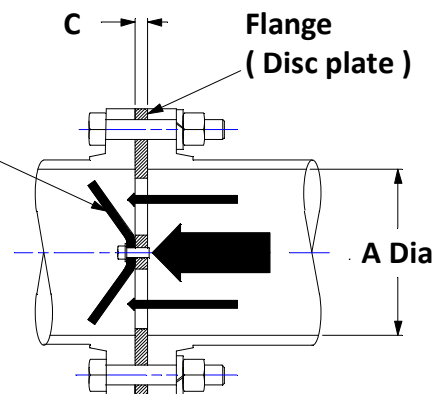
Flange is 125#ANSI standard Flat Face



Flapper disc View is rotated for pictorial clarification



Updated 2-26-2015



All dimensions are in inches.

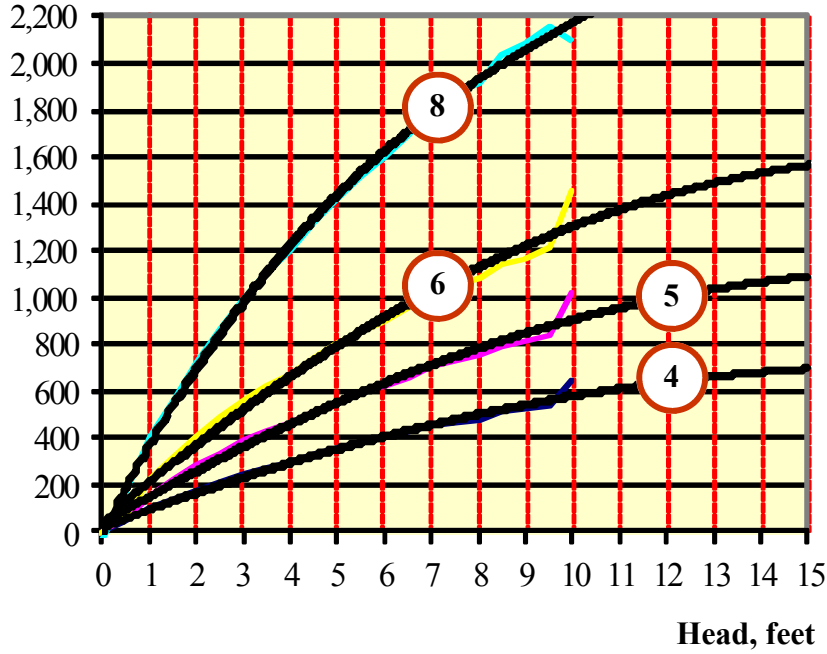
Size	4	5	6	8	10	12	14	16	18	20	24	30	36
A	4.00	5.00	6.00	7.90	10.00	12.00	13.25	15.25	17.25	19.25	23.25	29.25	35.25
B	9.00	10.00	11.00	13.50	16.00	19.00	21.00	23.50	25.00	27.50	32.00	38.75	46.00
C	0.50				0.62			0.75			1.00		
Cv	225	400	575	1200	1800	2520	3200	4200	5400	7500	11000	18000	26000

Dimensions are subject to change without notice.

Flow Chart

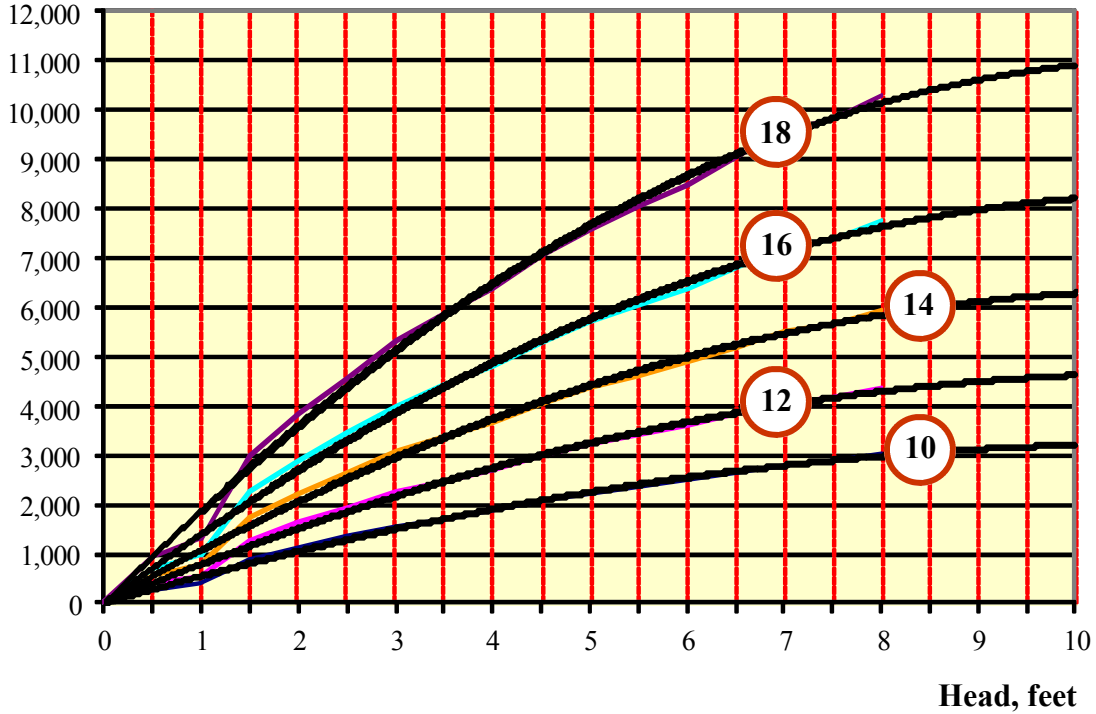
Flow, gpm

Duckbill Flow 4" - 8"



Flow, gpm

Duckbill Flow 10" - 18"

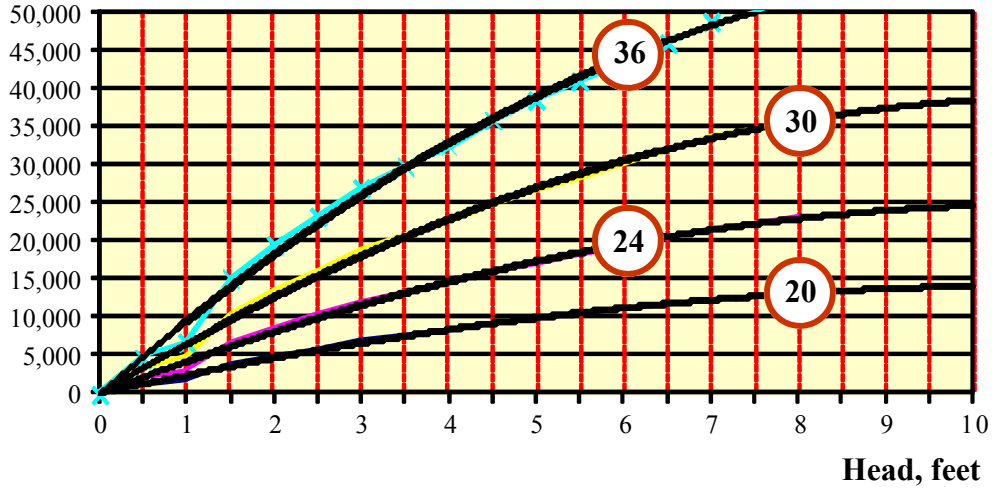


Note: For valves DBCP and DBRS, use a flow chart for a valve half the actual size. For example, for a 20" DBCP, use the 10" flow chart.

Flow Chart

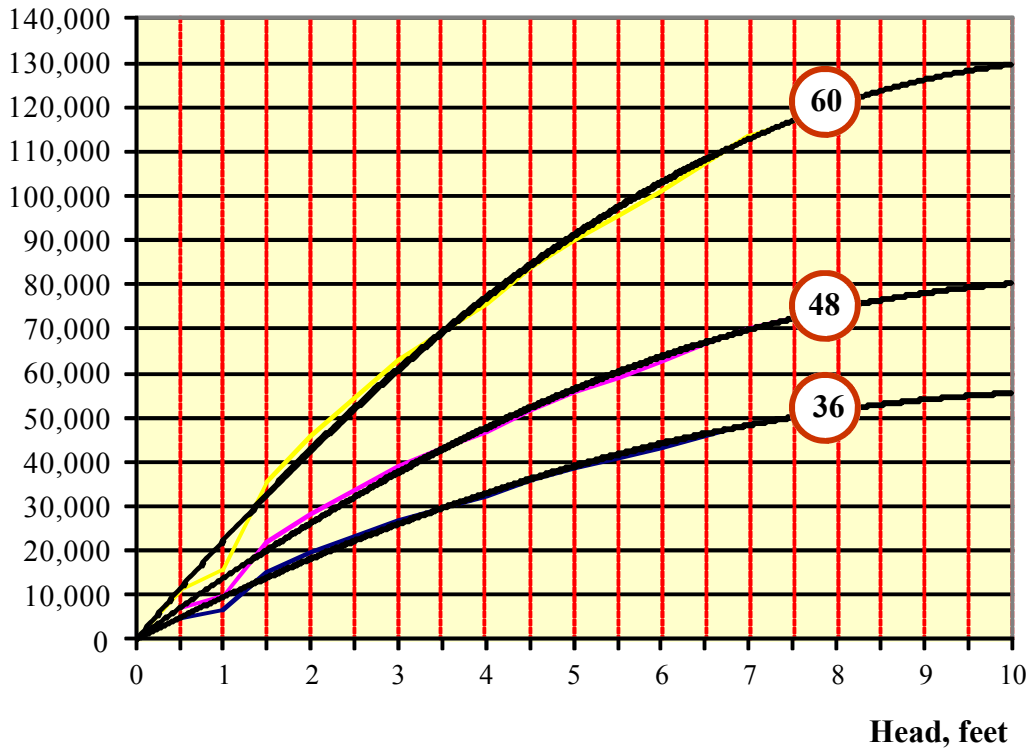
Flow, gpm

Duckbill Flow 20" - 36"



Flow, gpm

Duckbill Flow 36" - 60"



Note: For valves DBCP and DBRS, use a flow chart for a valve half the actual size. For example, for a 20" DBCP, use the 10" flow chart.



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