



Knight Corporation

Precision Crafted Filter/Strainer Vessels To Meet All Of Today's Liquid Filtration Needs



Available In All The Standard Models And Sizes



For over 25 years, Knight Corporation has been providing the liquid filtration industry with the highest quality Liquid Filter Vessel in the marketplace. Customer satisfaction is, and always will be our top priority. We answer all inquiries immediately, and give our customers the support they need in record time.

Knight filter/strainer vessels are available in all the standard models and sizes used in the filtration industry today. They are designed to be used with a basket strainer, for particle retention down to 74 microns, or with a filter bag, for particle retention down to 1/2 micron.

Basket Options

Knight offers baskets that will strain or filter a wide variety of fluids and retain solids of almost any size. All baskets and mesh linings are made of stainless steel.

304 stainless steel baskets and linings will be supplied with carbon and 304 stainless vessels. 316 stainless steel baskets and linings will be supplied with 316 stainless vessels.

Available for all size vessels, and are easily removed and cleaned.

- Plain perforated strainer baskets are available in the following perforation sizes: 1/4, 3/16, 9/64, 3/32 and 1/16 inch.
- Perforated strainer basket with wire mesh lining, high quality wire is used in mesh sizes: 20, 30, 40, 50, 60, 70, 80, 100, 150 and 200.
- Filter bag basket has 9/64" perforations, for a 51% open area. They accept standard size filter bags which are available from Knight Corporation.

Standard Features

- Large strainer/filter area, easy to clean heavy-duty baskets
- Low pressure drop operation
- Permanently piped
- Covers that can be easily removed without tools, making the basket or bag easy to clean or replace
- Covers are O-ring sealed to prevent bypassing of unfiltered liquid
- Seals are available in Buna N, Ethylene Propylene, Viton Fluoroelastomer or Teflon Fluorocarbon Resin
- Choice of carbon steel, 304 or 316 stainless steel vessels
- Electropolished or satin finished to resist adhesion of dirt and scale.
- Stands have adjustable height legs
- Hydrostatically tested to 1½ times their working pressure
- ASME code stamp is available for 150 to 300 psi

Special Options

- Vessels with higher pressure ratings
- Most models are available as parallel systems, where two or more units are piped together with valves to permit continuous use of either unit while servicing the other
- Liquid displacers, which promote minimal product loss and easy cleaning, are available for most models
- Other options include: filter hold-down devices, sanitary construction, different outlet connections, flanged connections, stands with extra height legs, heat jacketing, and adapters for holding filter cartridges

The following model descriptions and flow tables can be used to aid in selection, and make comparisons between the various styles.

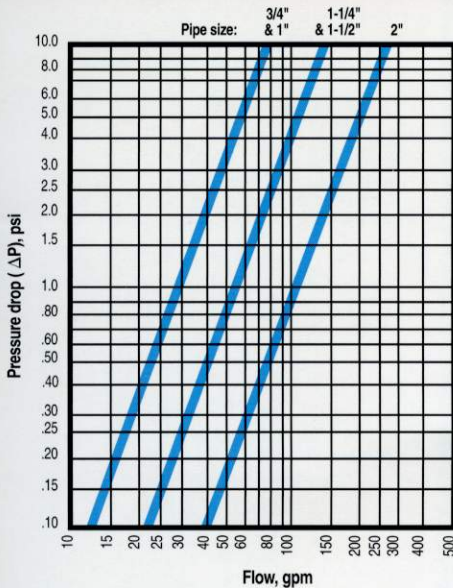
GK, PK:

For flow rates to 50 gpm

- Pipe sizes 3/4 thru 2-inch, NPT or flanged
- Two basket depths: 6 or 12 inches (nominal)
- Three pressure ratings: 200 psi (with clamp cover) and 300 or 500 psi (with eyenut cover)
- Adjustable tripod legs must be ordered separately
- ASME code stamp available

BASKET DATA

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)
6	3.9	0.5	65
12	3.9	1.0	130



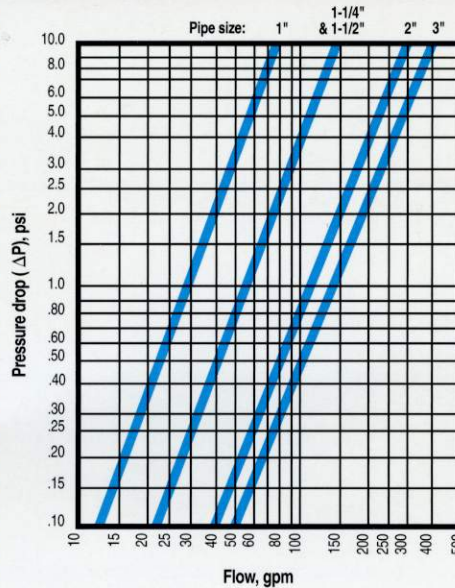
JK, AK and UK:

For flow rates to 100 gpm

- Delivers 3.4 square feet of basket or bag surface area without need for ASME code construction
- Pipe sizes 1 thru 3-inch, NPT or flanged
- Three basket depths: 12, 18 or 30 inches (nominal)
- ASME code stamp available

BASKET DATA

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)
12	5	1.3	235
18	5	2.0	350
30	5	3.4	630



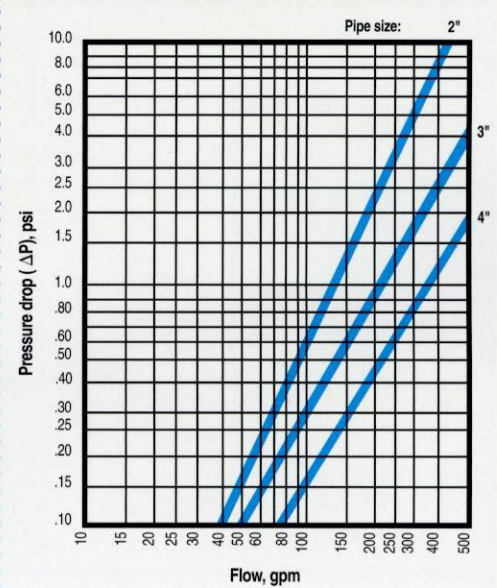
CK, RK:

For flow rates to 220 gpm

- Pipe sizes 2 thru 4-inch, NPT or flanged
- Two basket depths: 15 or 30 inches (nominal)
- Pressure ratings: 125., 150 and 300 psi
- ASME code stamp available

BASKET DATA

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)
15	6.7	2.3	500
30	6.7	4.4	1000



FOLLOW THESE EASY STEPS:

1. Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the appropriate graphs above.
2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table below. This is the adjusted (clean) pressure drop for all baskets, without filter bags.

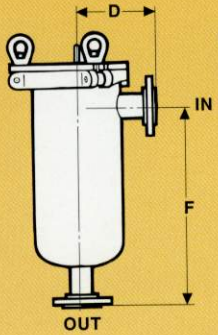
Unit	Bag	Filter Area
PK-6	P3S	.5 sq. ft.
GK-12	P4S	1.0 sq. ft.
JK-12	P7S	1.8 sq. ft.
AK-18	P8S	2.0 sq. ft.
UK-30	P9S	3.4 sq. ft.
CK-15	P1S	2.2 sq. ft.
RK-30	P2S	4.4 sq. ft.

	Viscosity, cps								
	1 (H ₂ O)	50	100	200	400	600	800	1000	2000
All unlined baskets	.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80
40 mesh lined	.73	.95	1.20	1.40	1.50	1.80	1.90	2.00	2.30
60 mesh lined	.77	1.00	1.30	1.60	1.70	2.10	2.20	2.30	2.80
80 Mesh lined	.93	1.20	1.50	1.90	2.10	2.40	2.60	2.80	3.50
100 mesh lined	1.00	1.30	1.60	2.20	2.40	2.70	3.00	3.30	4.40
200 mesh lined	1.30	1.70	2.10	3.00	3.40	3.90	4.40	5.00	6.80

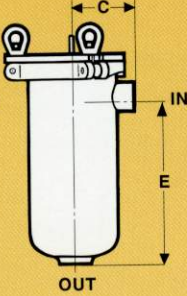
Piping Arrangements/Outlet Choices & Cover Types

STYLE 1 >>>>>>

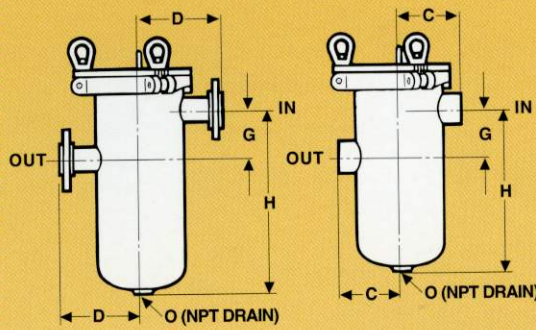
FLANGED
(150 lb. ANSI)



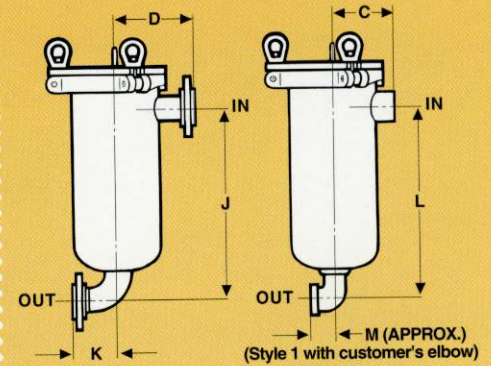
THREADED
(NPT)



STYLE 2 >>>>>>



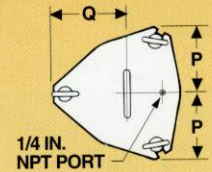
STYLE 3 >>>>>>



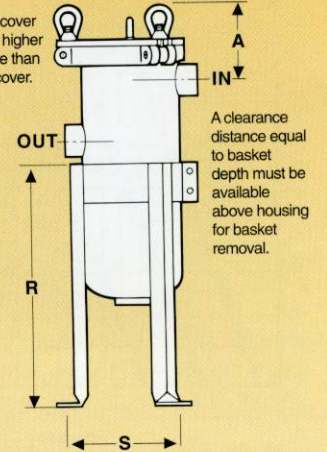
MODEL DIMENSIONS IN INCHES

Model	Pipe Size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T
PK 6 Bag Size P3S	3/4	5.5	5.2	3.5	5.0	10.1	12.0	3.0	10.1	10.4	4.0	11.2	1.3	4.5	1/2	3.5	3.6	14.0	6.8	5.6
	1	5.5	5.2	3.5	5.0	10.1	12.0	3.0	10.1	10.9	4.0	11.5	1.5							
	1-1/4	6.0	5.8	3.5	5.0	9.4	12.0	4.3	9.5	10.5	4.0	11.1	1.8							
	1-1/2	6.0	5.8	3.5	5.0	9.3	12.0	4.3	9.5	10.8	4.0	11.3	2.0							
2	6.0	5.8	3.5	5.0	9.3	12.0	4.3	9.5	11.6	4.0	11.8	2.3								
GK 12 Bag Size P4S	3/4	5.5	5.2	3.5	5.0	16.1	18.0	3.0	16.1	16.4	4.0	17.2	1.3	4.5	1/2	3.5	3.6	14.0	6.8	5.6
	1	5.5	5.2	3.5	5.0	16.1	18.0	3.0	16.1	16.9	4.0	17.5	1.5							
	1-1/4	6.0	5.8	3.5	5.0	15.4	18.0	4.3	15.5	16.5	4.0	17.1	1.8							
	1-1/2	6.0	5.8	3.5	5.0	15.3	18.0	4.3	15.5	16.8	4.0	17.3	2.0							
2	6.0	5.8	3.5	5.0	15.3	18.0	4.3	15.5	17.6	4.0	17.8	2.3								
JK 12 Bag Size P7S	1	6.1		4.3	6.0	17.3	19.8	4.3	17.3	18.1	5.0	18.6	1.5	6.0	3/4	5.0	5.3	18.0	9.5	
	1-1/4	6.1		4.3	6.0	17.3	19.8	4.8	17.3	18.4	5.0	19.0	1.8							
	1-1/2	6.1	N/A	4.3	6.0	17.3	19.8	4.8	17.3	18.8	5.0	19.3	2.0							N/A
	2	6.1		4.3	6.0	17.2	19.7	4.8	17.3	19.6	5.0	19.7	2.3							
3	7.0		4.3	6.0	18.2	20.7	6.6	18.2	22.0	4.8	21.9	3.1								
AK 18 Bag Size P8S	1	6.1		4.3	6.0	23.3	25.8	4.3	23.3	24.1	5.0	24.6	1.5	6.0	3/4	5.0	5.3	18.0	9.5	
	1-1/4	6.1		4.3	6.0	23.3	25.8	4.8	23.3	24.4	5.0	25.0	1.8							
	1-1/2	6.1	N/A	4.3	6.0	23.3	25.8	4.8	23.3	24.8	5.0	25.3	2.0							N/A
	2	6.1		4.3	6.0	23.2	25.7	4.8	23.3	25.6	5.0	25.7	2.3							
3	7.0		4.3	6.0	24.4	26.7	6.6	24.2	28.0	4.8	27.9	3.1								
UK 30 Bag Size P9S	1	5.5		4.3	6.0	35.3	37.8	4.3	35.3	36.1	5.0	36.6	1.5	6.0	3/4	5.0	5.3	18.0	9.5	
	1-1/4	6.0		4.3	6.0	35.3	37.8	4.8	35.3	36.4	5.0	37.0	1.8							
	1-1/2	6.1	N/A	4.3	6.0	35.3	37.8	4.8	35.3	36.8	5.0	37.3	2.0							N/A
	2	6.1		4.3	6.0	35.2	37.7	4.8	35.3	37.6	5.0	37.7	2.3							
3	7.0		4.3	6.0	36.2	38.7	6.6	36.2	40.0	4.8	39.9	3.1								
CK 15 Bag Size P1S	2	6.6		5.9	7.5	20.9	23.5	4.8	21.0	23.2	3.3	23.1	2.3	8.6	1	5.8	6.3	22.0	12.0	
	3	7.4	N/A	6.8	7.5	21.7	24.6	6.6	21.9	25.5	4.8	25.9	3.1							
	4	7.4		6.8	8.6	21.5	25.1	8.4	21.9	26.8	6.3	27.6	3.8							
RK 30 Bag Size P2S	2	6.6		5.9	7.5	35.9	38.5	4.8	36.0	38.2	3.3	38.1	2.3	8.6	1	5.8	6.3	22.0	12.0	9.5
	3	7.4	N/A	6.8	7.5	36.7	39.6	6.6	36.9	40.5	4.8	40.9	3.1							
	4	7.4		6.8	8.6	36.5	40.1	8.4	36.9	41.8	6.3	42.6	3.8							

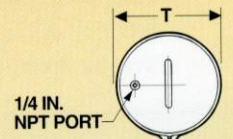
EYENUT COVER >>>



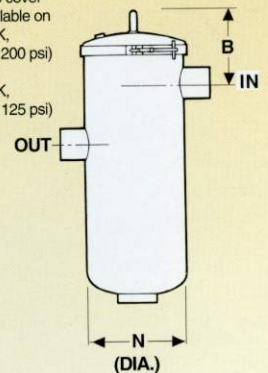
Eyenut cover permits higher pressure than clamp cover.



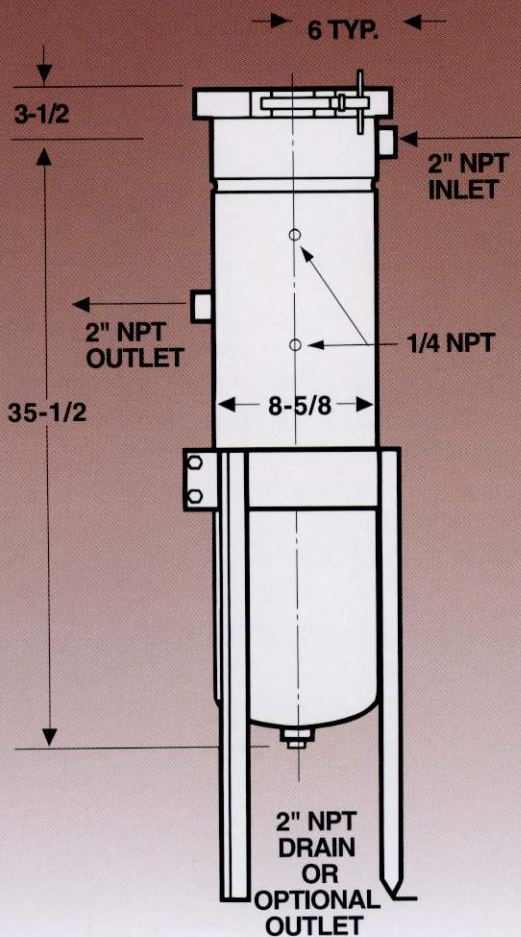
CLAMP COVER >>>>



Clamp cover is available on GK-PK, (rated 200 psi) and CK-RK, (rated 125 psi)



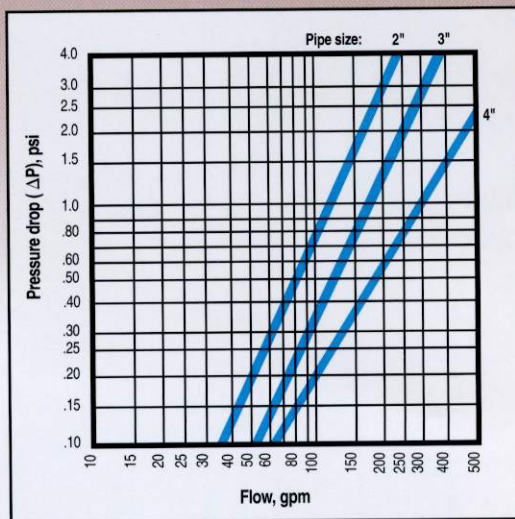
KLC Vessels



The Knight KLC is our low cost, high capacity filter bag vessel. The unique design of KLC offers you the option of a side or bottom outlet. There is a 2 inch outlet on the side, with a 2 inch plugged drain at the bottom of the vessel. The outlet can be changed to the bottom by simply moving the plug from the drain to the side outlet.

Standard Features

- Permanently piped vessels can be opened without special tools.
- Choice of carbon or stainless steel
- Large area bag and basket for high dirt holding capacity
- Choice of Buna N, EPR or Viton seals
- Adjustable height legs
- 125 psi rated vessel
- Basket material is compatible with vessel
- Bag surface area is 5.6 square feet
- Uses standard 12 size bag, supplied by Knight Corporation
- 2 inch NPT ports

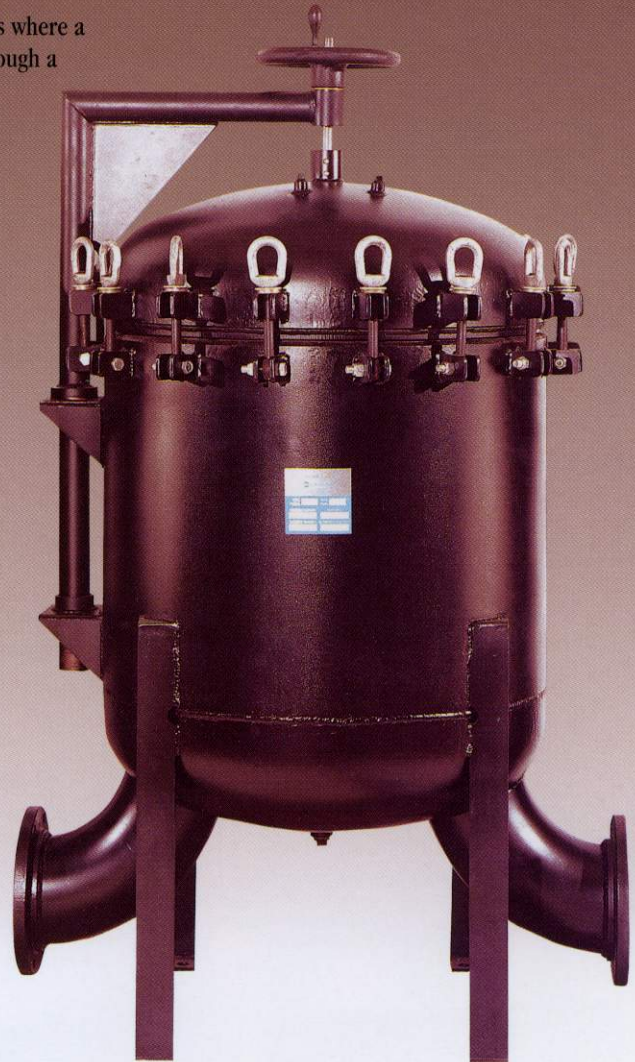
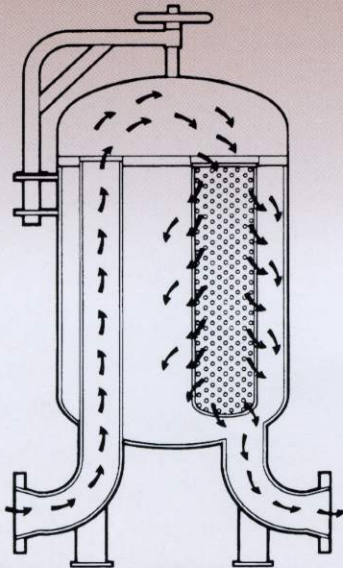


Knight Multi-Bag Vessels

The Knight Multi-Bag vessels are designed to handle those high flow applications where a single bag unit is not sufficient. Our multi-bag system enables high flow rate through a single unit. Like the smaller size filtering vessels, it is a standard 150 psi unit. Capacity ranges from 2 to 23 baskets with flanged inlet/outlet piping ranging in size from 2 to 12 inches.

Standard Features

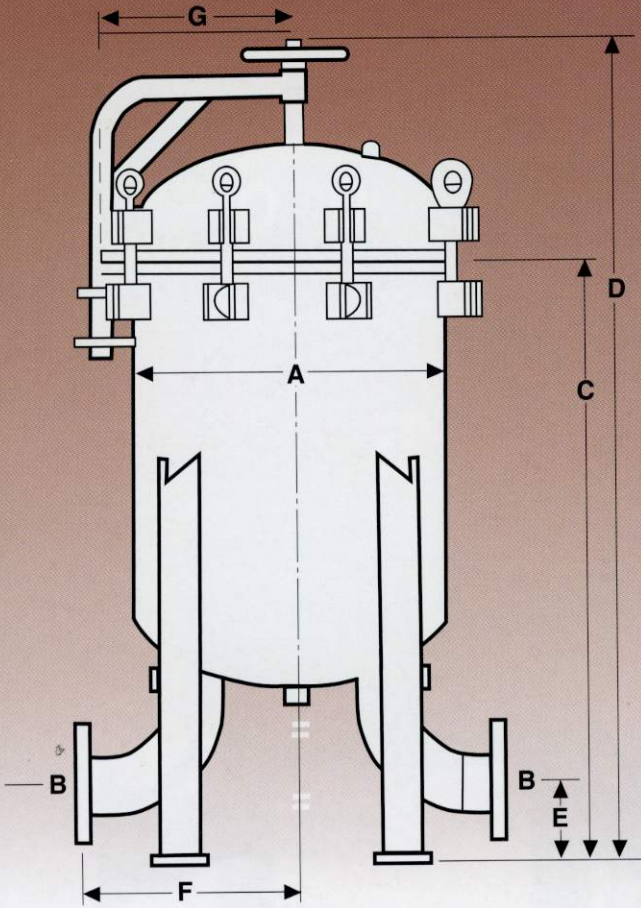
- Low pressure drop operation
- No hidden areas or parts enables fast and thorough clean-up
- Permanently piped, flanged inlet/outlet piping
- Bottom inlet/outlet piping customized to your specifications
- Uses P2 size bags, supplied through Knight Corporation
- Covers are O-ring sealed to prevent bypassing of unfiltered liquid
- Choice of carbon steel, 304 or 316 stainless steel vessels
- Satin finished to resist adhesion of dirt and scale
- Hydrostatically tested to 1½ times their working pressure
- ASME code stamp is available for 150 to 300 psi



BASKET SPECIFICATIONS

Model No.	Number of baskets	Straining filtering area ft ²	Standard pipe sizes available, in.	Nominal flow rate gpm
MK22	2	8.8	2, 3, 4	200
MK32	3	13.2	2, 3, 4	300
MK42	4	17.6	3, 4, 6	400
MK62	6	26.4	3, 4, 6	600
MK82	8	35.2	4, 6, 8	800
MK122	12	52.8	6, 8, 10	1200
MK172	17	74.8	8, 10, 12	1700
MK232	23	101.2	8, 10, 12	2300

Multi-Bag Vessels Dimensions



PIPE SIZE	PORTS NPT
2	1/2
3	3/4
4	1

DIMENSIONS IN INCHES							
Diameter in inches A	Pipe Sizes B	C	D	E	F	G	Approximate Weight
16	2	40.2	55.2	4.50	10.5	10.9	400
	3	42.6	57.6	5.25	12.4	10.9	425
	4	44.8	59.9	6.00	14.0	10.9	450
18	2	40.6	56.1	4.50	11.1	11.9	410
	3	43.0	58.5	5.25	13.0	11.9	435
	4	45.3	60.8	6.00	14.6	11.9	460
22	3	43.9	60.4	5.25	13.8	14.0	500
	4	46.2	62.7	6.00	15.4	14.0	515
	6	50.4	66.9	7.00	18.9	14.0	560
24	3	44.2	61.2	5.25	14.9	15.0	535
	4	46.5	63.5	6.00	16.6	15.0	555
	6	50.6	67.6	7.00	20.1	15.0	590
30	4	47.6	66.1	6.00	18.7	18.0	665
	6	51.9	70.4	7.00	22.2	18.0	705
	8	56.4	74.9	8.25	25.7	18.0	850
36	6	53.4	73.4	7.00	24.1	21.0	870
	8	57.9	77.9	8.25	27.6	21.0	1010
	10	62.4	82.4	9.50	30.6	21.0	1150
42	8	59.2	80.7	8.25	29.5	24.0	1960
	10	63.5	85.0	9.50	32.5	24.0	2070
	12	68.0	89.5	11.00	36.1	24.0	2200

*All dimensions are approximate, please consult factory before installation.



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