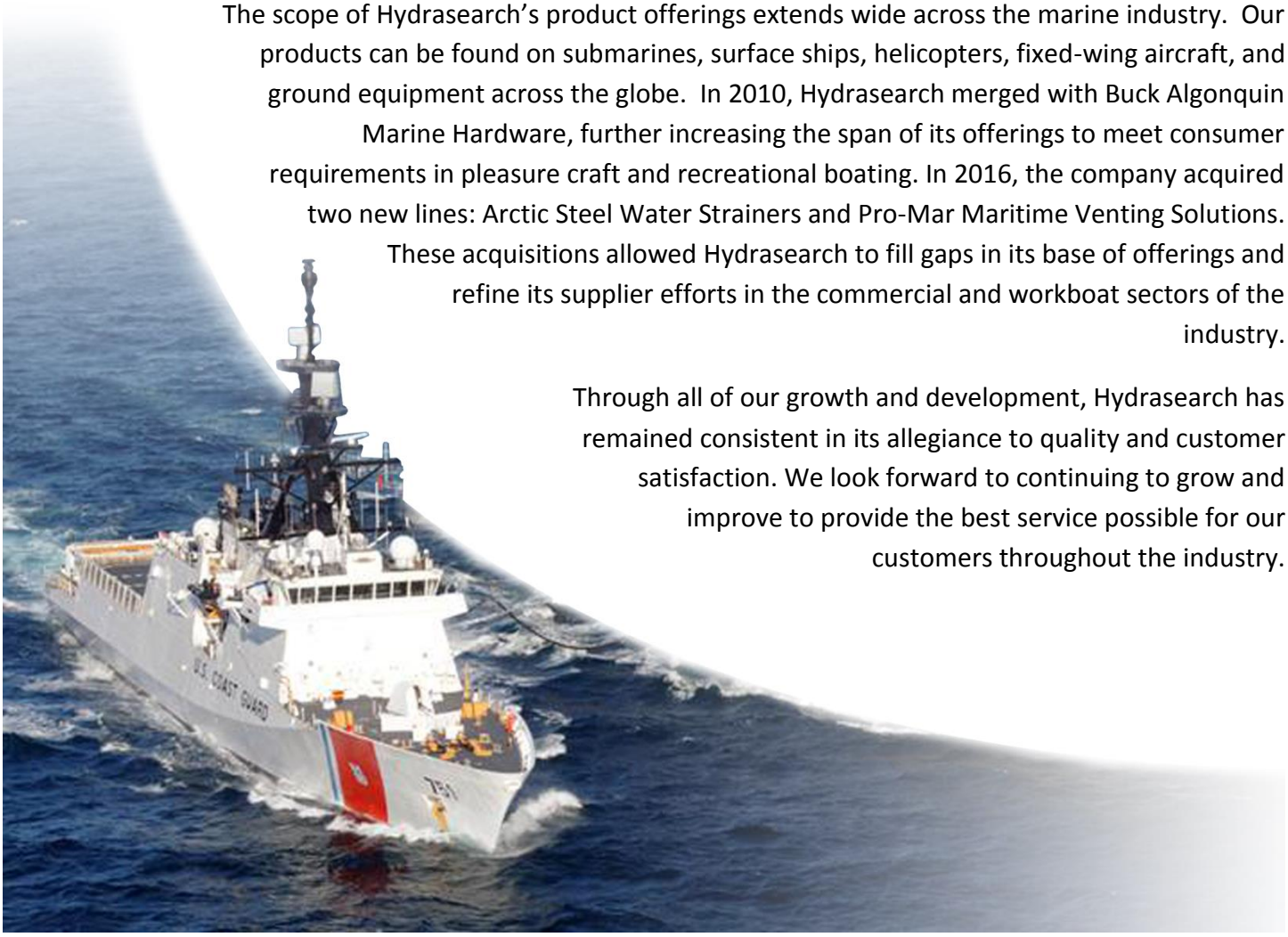
About

Since its inception in 1962, Hydrasearch Company, Inc. has been involved in the development and manufacturing of fluid systems and components utilized in demanding military and commercial applications. Founded in Annapolis, Maryland, home of the United States Naval Academy, Hydrasearch quickly established a close connection to our nation's defense through a commitment to making excellent quality a constant in both our products and our services.

As a subsidiary of Dixon Valve, a leading innovator in the hose coupling industry for over 100 years, Hydrasearch has grown to expand its product line, as well as its customer base, dramatically. In 1994, the company relocated to Stevensville, Maryland, and in early 2016 it moved once again. Still located in Stevensville, this new 65,000-sq. ft. facility houses our production, warehouse, and administration in an open and collaborative environment, allows for increased efficiency in production and energy use, and offers space for further expansion.

The scope of Hydrasearch's product offerings extends wide across the marine industry. Our products can be found on submarines, surface ships, helicopters, fixed-wing aircraft, and ground equipment across the globe. In 2010, Hydrasearch merged with Buck Algonquin Marine Hardware, further increasing the span of its offerings to meet consumer requirements in pleasure craft and recreational boating. In 2016, the company acquired two new lines: Arctic Steel Water Strainers and Pro-Mar Maritime Venting Solutions. These acquisitions allowed Hydrasearch to fill gaps in its base of offerings and refine its supplier efforts in the commercial and workboat sectors of the industry.



Through all of our growth and development, Hydrasearch has remained consistent in its allegiance to quality and customer satisfaction. We look forward to continuing to grow and improve to provide the best service possible for our customers throughout the industry.

Hydrasearch COMMERCIAL

Product Line

Inverted Vent Check Valves

Air Pipe Heads

Sea Water Strainers

AQ22 Rudders

Deck Drains

Sounding Tubes

Suction Bellmouths

Suction Strainers

100R5 Hydraulic Fittings

Threaded Foot Valves

Spring Loaded Check Valves

Brass Pipe Caps

Straub Pipe Coupling (Grip-L)

Wye Valve

Cast Angle Valves

Nozzles

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Air Pipe Heads

ABS Type Approved

Cast
(2" thru 4")

Designed to prevent seawater from entering tanks, while allowing air or vapor from within the tank to escape when the tank is being filled, and take in air when the tank is being discharged. Tank Vents are also needed for tanks in the storage mode to allow them to "breathe".

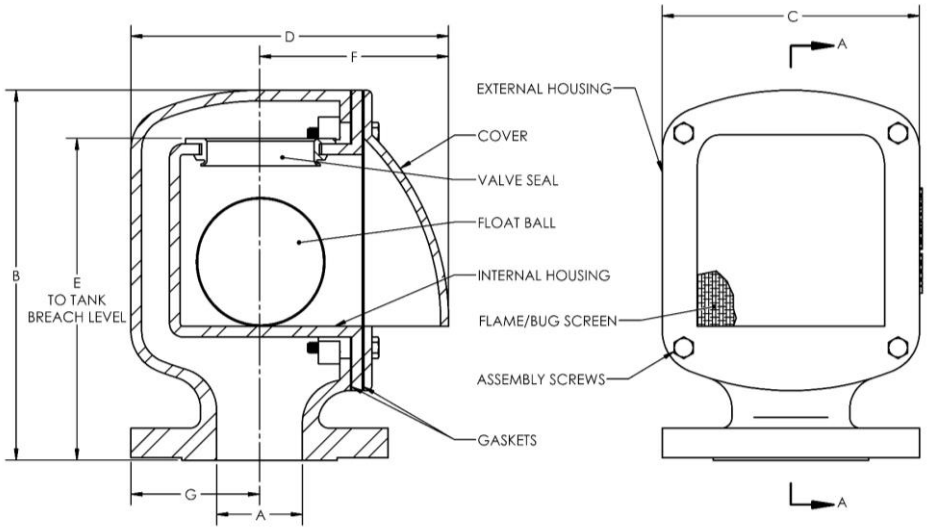
The Air Pipe Heads do not require a "gooseneck" pipe, reducing valuable weight and deck space requirements.

Corrosion resistant flame screens are also included to provide ignition protection when venting fuel oil tanks.

Fabricated
(5" Thru 12")

PRODUCT SPECIFICATIONS								MAX INLET AIR SPEED		FLOW RATE** AT 3.625 PSI
A (SIZE)	B	C	D	E	F	G	WEIGHT	(m/s)	(m3/hr)	(gpm)
2	10.00	7.00	6.25	8.75	4.00	3.00	32	36	261	150
2.5	10.25	7.00	6.25	9.00	4.00	3.50	34	22	251	160
3	12.25	9.00	8.75	11.00	5.75	3.75	53	27	441	315
4	12.50	9.00	8.75	11.00	5.75	3.75	58	15	447	325
FABRICATED										
5	15.63	11.38	11.00	14.00	6.50	5.00	90	19	1079	540
6	18.00	13.50	14.00	16.00	7.50	5.50	121	24	1973	780
8	22.50	16.50	16.00	20.00	9.50	6.75	195	27	3924	1410
10	24.50	20.50	21.75	21.75	12.50	8.00	280	33	7476	1900
12	29.00	23.50	25.75	25.75	13.50	9.50	365	26	8582	2700

**Water pumped through the Air Pipe Head



<u>Material Options</u>
Galvanized Steel
316SS

<u>Float</u>
304SS or HDPE

<u>Connections</u>
Threaded
Flanged
Butt-weld

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Inverted Vent Valves
Full Float (1.5"-4")

The PM-1 series is designed to prevent seawater from entering tanks, while allowing air or vapor from within the tank to escape when the tank is being filled, and take in air when tank is being discharged. Tank Vents are also needed for tanks in the storage mode to allow them to "breathe".

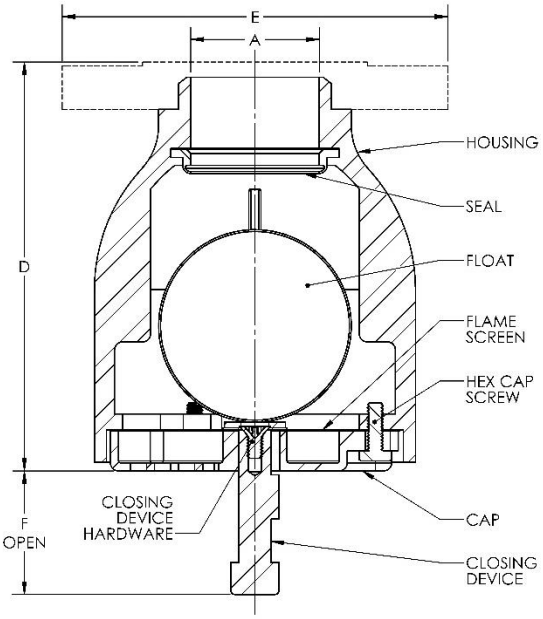
The classic inverted design (Gooseneck) offers the simplest means for your venting requirements. Corrosion resistant flame screens are also included to provide ignition protection when venting fuel oil tanks.

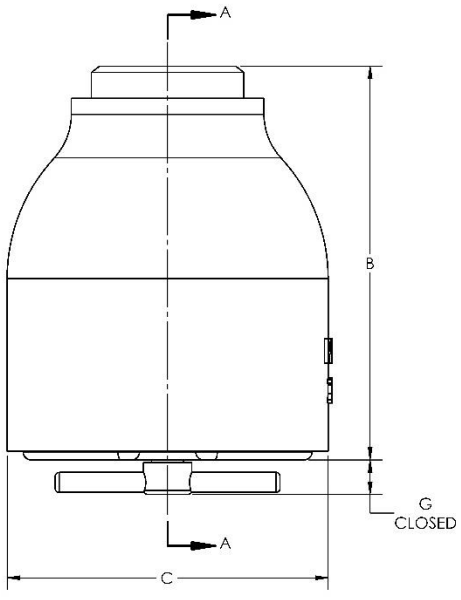
Hydrasearch's innovative design reduces the number of spare parts making disassembly and inspection faster and easier than other valves on the market.

PRODUCT SPECIFICATIONS								
A (SIZE)	B	C	D	E	F	G	***LBS.	FLANGED LBS.
1.5	4.625	4.000	4.750	5.000	1.500	.500	5	8
2	6.125	5.000	6.375	6.000	2.000	.500	9	12
2.5	6.250	5.500	6.625	7.000	1.875	.500	10.5	17.5
3	7.500	6.500	7.938	7.500	2.000	.500	15	22.5
4	8.875	8.000	9.313	9.000	2.500	.500	23	33.5

**Water pumped through the Vent Check Valve

***Weights based on Galvanized Steel and may vary with different material





Material Options
Galvanized Steel
316SS
B62 Bronze
535 Aluminum

Float
304SS or HDPE

Connections
Threaded
Flanged
Butt-weld

Standard Sizes
1.5", 2", 2.5", 3", 4"

Optional Closing Device

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Inverted Vent Valves

Half Float (5" – 12")

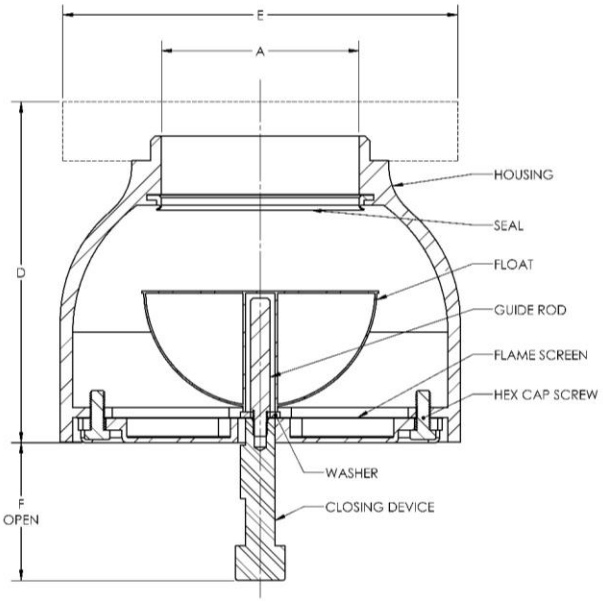
The half float design is the big brother to our full float design. The classic inverted design (Gooseneck) offers the simplest means for your venting requirements. Corrosion resistant flame screens are also included to provide ignition protection when venting fuel oil tanks.

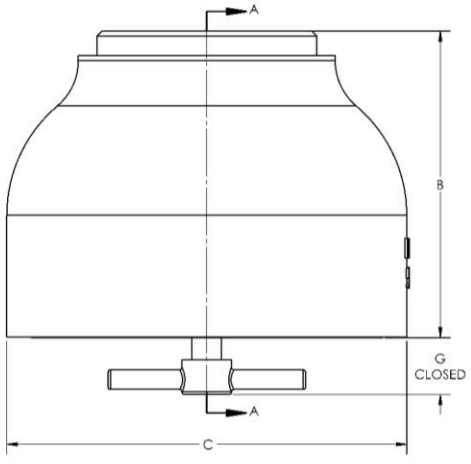
Advantages to Hydrasearch's innovative design!

- Rugged construction and increase durability
- Reduced number of spare parts make disassembly and inspection faster and easier than other valves on the market.
- Unique Closing Device lowers the cost and saves time by simply lifting the float into the checked position and locking it in place with a quarter turn.
- We have "flipped the float" allowing increase air intake capacity and improved sealing ability.

PRODUCT SPECIFICATIONS								
A (SIZE)	B	C	D	E	F	G	**LBS.	FLANGED LBS.
5	7.75	10.13	8.25	10.00	3.50	1.00	29	43
6	8.50	11.13	9.00	11.00	3.50	1.00	35	52
8	10.00	14.13	10.75	13.50	3.50	1.00	54	82
10	12.50	17.00	13.25	16.00	4.25	1.00	90	127
12	14.50	21.00	15.75	19.00	5.00	1.00	138	195

**Weights based on Galvanized Steel and may vary with different material





Material Options
Galvanized Steel
316SS
B62 Bronze
535 Aluminum

Float
304SS or HDPE

Connections
Threaded
Flanged
Butt-weld

Standard Sizes
5", 6", 8", 10", 12"

Optional Closing Device

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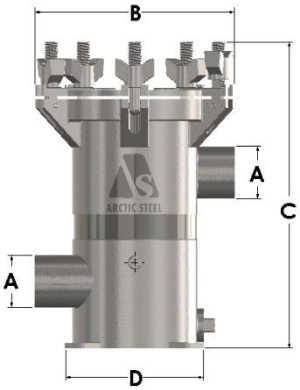
Arctic Steel Strainers

All Arctic Steel water strainers are cast with 2205 stainless steel. This provides an exceptional level of corrosion resistance. Additionally, our strainers undergo an electro polishing process which removes contaminants from the surface exposing the pure stainless steel, providing a rich chromium film, as is evident by the shine of our stainless steel. This gives our already robust strainers a defense against corrosion superior to others on the market.

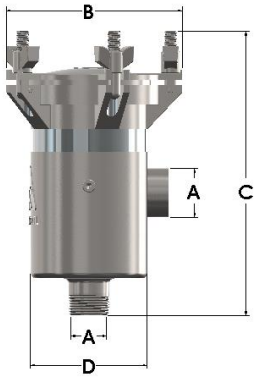
Arctic Steel water strainers are designed to be superior in every aspect. There is no welding to corrode in these robust one piece cast strainers. The inherent swirl action created by the offset outlet is designed to quickly scavenge air whilst maximizing the used area of the rugged full height basket. The efficient lid design ensures safe, quick and easy access for maintenance. Suitable for marine engines, generators, and A/C units.

- Free standing, base mounted (SISO).
- Offset inlet and outlet for improved performance (SISO)
- Electro-polished AISI 2205 cast stainless steel lid
- Secured by 5 wingnuts for safe, quick and easy access. No tools required.
- Swing down eye bolts eliminates need to remove nuts
- BSP or NPT threads available
- Cast anode connection point to combat galvanic corrosion
- Drain Plug
- Lower outlet position allows for applications that require a header tank or mounting above the waterline.



Available Options:

- Interchangeable polycarbonate lid.
- 316 Stainless Steel mounting brackets and extension arms



Available Options:

- Interchangeable polycarbonate lid.
- 316 Stainless Steel mounting brackets and extension arms.
- 316 Stainless Steel basket

SIDE IN SIDE OUT SPECIFICATIONS (F/F)						
Thread Size (A)	Weight (lb) Solid lid	Flow Rate @ 1.45 psi (US gpm)	Flow Rate @ 14.5 psi (US gpm)	B	C	D
1”	8	27	89	6	9.3	4.2
1.25”	15	40	126	8.3	10.6	5.3
1.5”	15.4	56	180	8.3	10.6	5.3
2”	16	89	282	8.3	10.6	5.3
2.5”	30	148	483	10	14.4	6.6
3”	32.6	228	743	10	14.4	6.6
4”	45.2	451	1450	11.3	18.8	8.7

ABS Basket standard on 1”, 1.25”, and 1.5”strainer

316 SS Basket standard on 2”, 2.5”, 3”, and 4”

BOTTOM IN SIDE OUT SPECIFICATIONS (M/F)						
Thread Size (A)	Weight (lb) Solid lid	Flow Rate @ 1.45 psi (US gpm)	Flow Rate @ 14.5 psi (US gpm)	B	C	D
1”	6.8	37	114	5.6	8.3	3.7
1.5”	7.1	86	272	5.6	8.3	3.7
2”	13.4	128	427	7.9	10.7	5.5
2.5”	13.7	169	569	7.9	107	5.5
3”	27.6	257	792	9.25	13.1	6.5
4”	40.8	487	1545	10.7	18.7	8.7
6”	66.8	841	2718	14.2	20.1	12.2

Offer standard with Full height, high impact ABS Basket

Flow rates calculated using clean ABS basket

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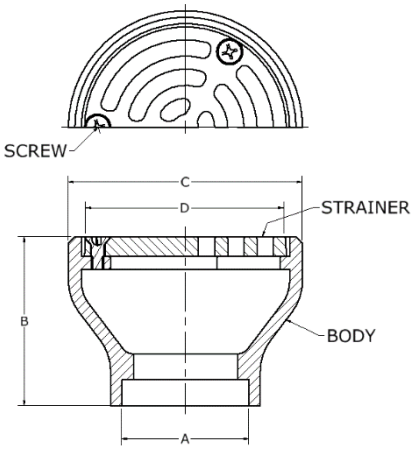
Deck Drains

Standard & 2:1 Ratio

(Series DD & DD21)



Body Materials:
Galvanized Carbon Steel
316 Stainless Steel
535 Aluminum

Strainer Materials:
B62 Bronze
316 Stainless Steel
535 Aluminum

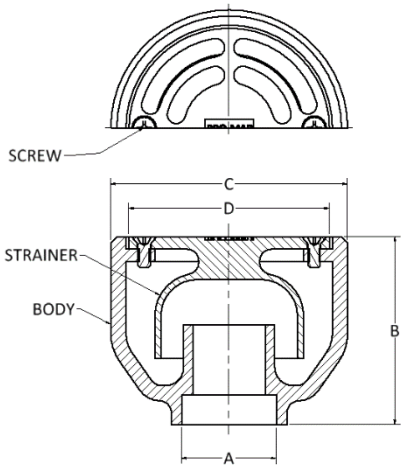
Connections:
Socketweld
Butt-weld
Threaded

DD Series (Standard) – Size Reference Chart					
"A" Size	B	C	D	OA Ratio	Weight (lbs.)
1.5	3.25	4.50	3.88	2.5:1	4
2	3.25	4.50	3.88	1.4:1	4
2.5	3.75	5.50	4.88	1.6:1	6
3	3.75	5.50	4.88	1.1:1	5
4	3.75	6.50	5.88	1.1:1	8
6	5.00	11.75	10.88	1.3:1	25

DD21 Series (2:1 Ratio) – Size Reference Chart					
"A" Size	B	C	D	OA Ratio	Weight (lbs.)
2	3.75	5.50	4.88	2.5:1	6
3	3.75	6.50	5.88	2:1	8
DDHX Series (Heavy Wall) – Size Reference Chart					
1.5	3.88	4.88	4.13	3:1	7
2	4.00	5.75	5.13	3:1	9
2.5	4.25	6.88	6.25	2.5:1	13

Heavy Wall

(Series DDXH – With Trap and Baffle)



Body Materials:
Galvanized Carbon Steel
316 Stainless Steel

Strainer Materials:
B62 Bronze
316 Stainless Steel

Connections:
Socketweld
Butt-weld
Threaded

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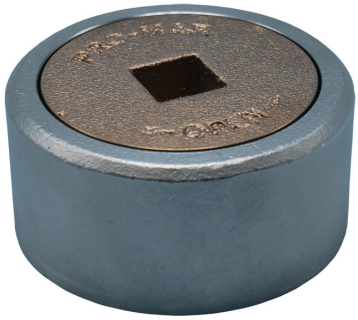
Sounding Tube



Sounding Tube deck fittings (ST Series) are designed to provide watertight closing devices which are always accessible under normal operating conditions to enable sounding of the tanks.

The ST series comes standard with a fabricated stainless steel fitting and a bronze plug. Optional Vent holes can be added to allow for venting without fully removing the plug. A Nitrile gasket is also included for fuel oil resistance and a positive seal.

Body Materials: Carbon Steel, Stainless Steel (316), and Aluminum

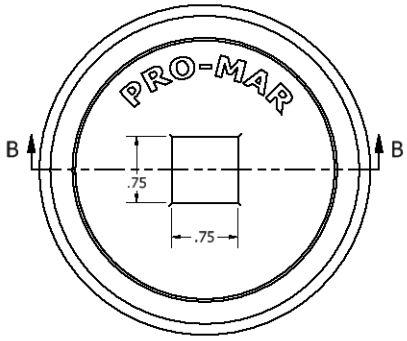
Plug Materials: Bronze, Stainless Steel (316)

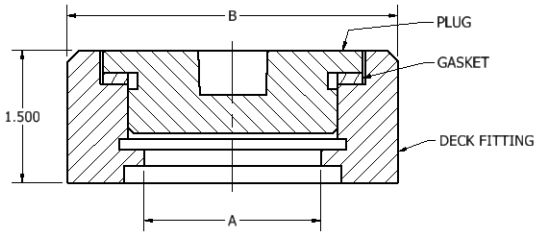
Connection: Socketweld

Standard Sizes: 1.5" through 3" (Other sizes available upon request)

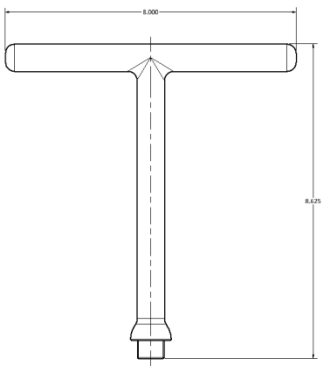
Options: Tether Chain & Venting Slots in Plug (Both available upon request)

T-Wrench: Galvanized Steel





DD Series - Size Reference Chart			
"A" Size	**B**	**Plug Thread**	**Weight (lbs.)**
1.5	3.25	2-11.5 NPSM	4
2	3.25	2-11.5 NPSM	4
2.5	4.75	3-8 NPSM	6.25
3	4.75	3-8 NPSM	6.25



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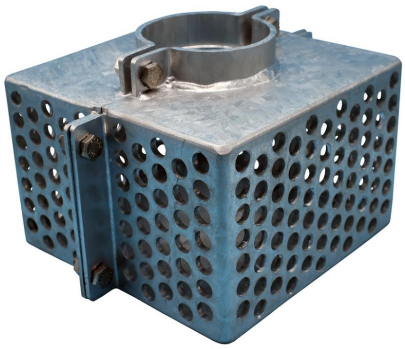
Suction Strainer Box

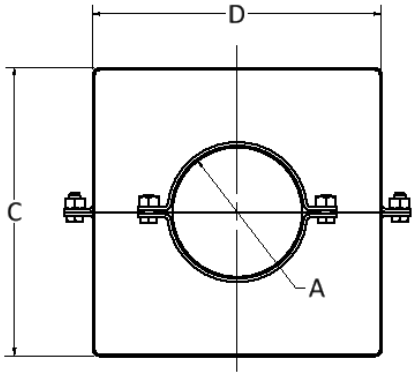
(Rosebox Strainer)



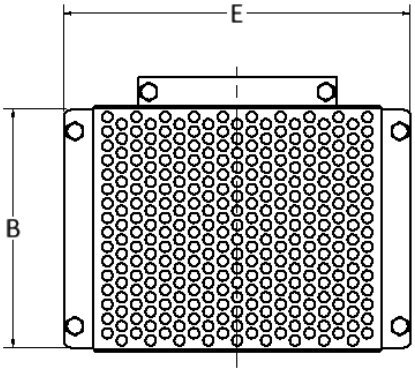
Suction Strainer Boxes are designed for use in ships' bilges and other such tank locations which require trash protection for suction pipes and pumps.

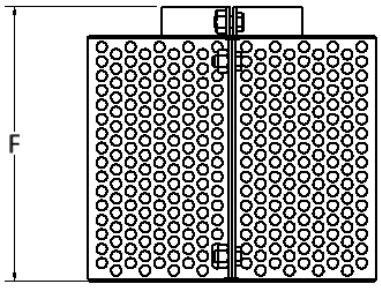
The SSB Series Comes Standard with an 11 gauge fabricated galvanized carbon steel housing and stainless steel fasteners.

Material Options: Carbon Steel, Stainless Steel, Aluminum
Connections: O.D. Compression Collar
Standard Sizes: 2" thru 12"



SIZE REFERENCE CHART							
A (Size)	B	C	D	E	F	WEIGHT	OA RATIO
2	4 ¾	6	6	7 ½	5 ¾	5 (lbs.)	11:1
2.5	4 ¾	6	6	7 ½	5 ¾	5	7:1
3	4 ¾	6	6	7 ½	5 ¾	5	5:1
4	9 ½	10	10	12	10 ½	15	10:1
5	9 ½	10	10	12	10 ½	15	6.5:1
6	9 ½	10	10	12	10 ½	15	4.5:1
8	11	18	18	20	12	18	5.7:1
10	11	18	18	20	12	18	3.6:1
12	11	18	18	20	12	18	2.5:1





For Alternate Materials and Design Options Please Contact the Manufacturer.

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Round Hole Strainer

Safety notes:

- Not for compressed air or other compressible gases
- WARNING: This product contains a chemical known to the State of California to cause birth defect or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling.

Part Number	Material	Size	Thread	Weight (lb.)
RHS20	Zinc Plated Steel	1-1/2”	NPSM	1.50
RHS25	Zinc Plated Steel	2”	NPSM	2.00
RHS30	Zinc Plated Steel	2-1/2”	NPSM	2.25
RHS35	Zinc Plated Steel	3”	NPSM	3.00
RHS40	Zinc Plated Steel	4”	NPSM	3.25
RHS60	Zinc Plated Steel	6”	NPSM	6.25
RHS80	Zinc Plated Steel	8”	NPSM	19.50
RHS100	Zinc Plated Steel	10”	NPSM	40.00
RHS120	Zinc Plated Steel	12”	NPSM	31.00
RRHS20	304 Stainless Steel	1 ½”	NPSM	1.50
RRHS25	304 Stainless Steel	2”	NPSM	2.00
RRHS35	304 Stainless Steel	3”	NPSM	3.00
RRHS40	304 Stainless Steel	4”	NPSM	3.25
RRHS60	304 Stainless Steel	6”	NPSM	6.25
RRHS80	304 Stainless Steel	8”	NPSM	19.50

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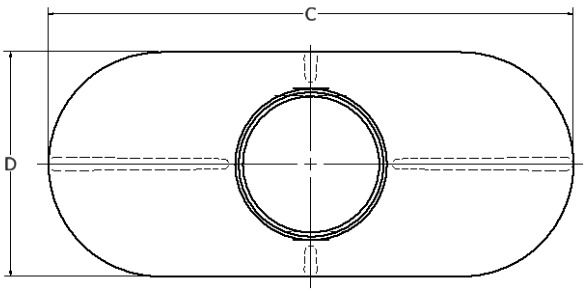
Suction Bellmouths

Suction bellmouths are designed for use in ships' bilges and other such tank locations and help to maintain efficient suction during final stripping of liquid cargo tanks

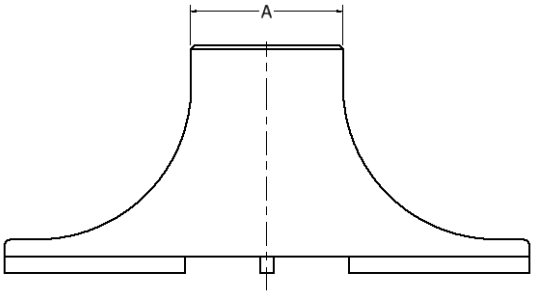
The suction bellmouth design prevents vortex and gas formation as well as minimizing Hydraulic loss while pumping liquids from holding tanks.

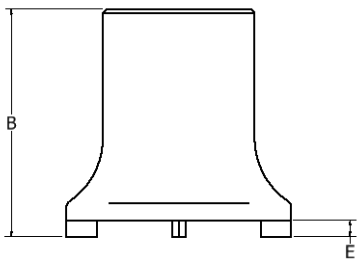
The suction bellmouth provides a 1.5:1 open area ratio to the pipe size while sitting on the bottom of the tank.

Material Options: Fully Cast Carbon Steel, Stainless Steel
Connections: Butt-weld (beveled end) and Flanged
Standard Sizes: 3" thru 12"
Other sizes available by special request



Size Reference Chart							
A (SIZE)	3	4	5	6	8	10	12
B	5	6.750	8.375	10	13.375	16.750	20
C	11.75	15.25	19.25	23.25	30.75	39.000	45.375
D	5.500	6.750	8.250	10	13.75	16.750	21.375
E	7/16	.500	.625	.750	1.000	1.250	1.500





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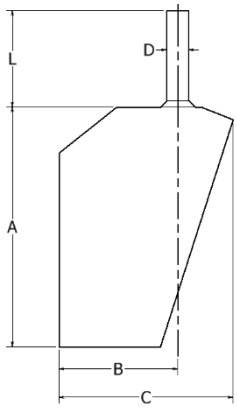
AQ-22 Marine Rudders

AQ-22 Rudders™ represent a major advancement in the marine industry. Designed for boat speeds up to 40 knots, these wedge section rudders are made of high strength and superior corrosion resistant AQ-22 stainless steel. Seven rudder sizes have been standardized so that a combination of speed and displacement may be accommodated for most all modern boat and yacht designs. This standardization of rudder design results in the economy of large production runs while at the same time providing custom design benefits.



HIGH STRENGTH ▪ SUPERIOR CORROSION RESISTANCE ▪ EXCELLENT PERFORMANCE

STOCK AQ-22 RUDDER SPECIFICATIONS								
Rudder Model	Diameter Inch (D)	Length Inch (L)	Wt. Stock Per Ft. lb./Ft.	Rudder Wt. Less Stock lb.	Rudder Length Inch (A)	Stock Location Inch (B)	Rudder Width Inch (C)	Estimated* Rudder Torque 40 Knots inch/lb.
I	1 ¼	15	4.17	19	13 ½	6 11/16	9 13/16	4,400
II	1 ½	18	6.01	30	16 ½	8 ¼	12	8,100
III	1 ¾	21	8.18	47	19	9 3/8	13 ⅜	12,200
IV	2 ¼	24	13.52	82	23 ⅜	11 ⅝	17	22,300
V	2 ¾	30	20.19	125	27	13 ⅜	19 ½	34,300
VI	4	34	42.71	200	31	15 ⅜	22 ⅜	52,200
VII	4 ½	38	54.05	275	34 ½	17	25	71,900

*Rudder torque has been increased 25% to allow for bearing friction.

What Are the Special Features of the AQ-22 Rudder Design?

The AQ-22 Rudders have incorporated a number of features of hydrodynamic shape that make it a superior performer throughout the design speed range. The wedge sections were selected to give positive steering forces for a full range of port and starboard rudder angles when operating behind a propeller or in freestream. The rudder continues to generate increasing side forces with rudder angles as high as 25 degrees at 40 knots; a condition where typical air foil section rudders have stalled.

The AQ-22 Rudder is also designed to trail or track in the slip stream should the steering gear fail at high speeds, unlike an airfoil section rudder with a normal stock location which could cause a snap turn during high speed runs should steering failure occur.

In profile, the top trailing edge of the rudder is cut away to minimize ventilation of the rudder during high speed turns. Rudder ventilation may cause a vessel to almost stop turning, even with increasing rudder angles at high speed. When the trailing edge of the AQ-22 Rudder is installed slightly ahead of the transom, ventilation is not likely to occur as might be experienced with rudders having other profiles and section shapes.

The AQ-22 Rudders incorporate hydrodynamic features cast in stainless steel to provide the strength and positive steering control not likely to be found in other designs.

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Rudder Selection

To select the correct AQ-22 rudder, an estimate of the maximum operating speed and displacement of the boat must be determined. If the displacement cannot be determined, boat length parameters for selecting the appropriate rudder are included in the charts.

The speed at which a boat is typically driven will impact the choice of rudder size. In general, the heavier and slower the boat, the larger the rudder required. Although the rudders have been designed to handle 40 knots, selecting a rudder which is too large will restrict the boat from achieving full speed, and one too small will lead to steering control difficulties.

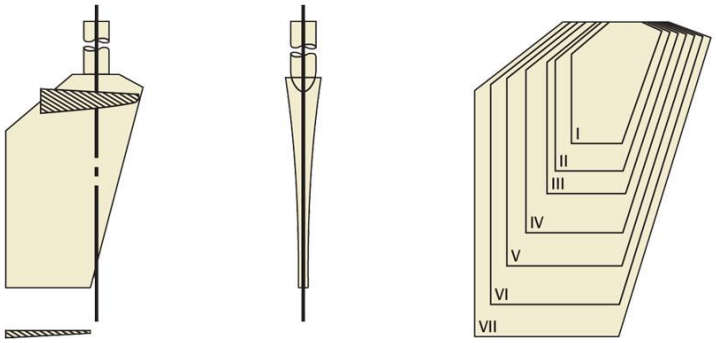
Typically, a single rudder is required for each propeller. However, there are triple screw craft in service operating successfully with one centerline rudder, or with two rudders, one located behind each outboard propeller.

In selecting the length of the rudder stock, consideration must be given to mounting the steering system quadrant or arm at the correct height leaving some room for the installation of emergency steering equipment. If a specific length is required, it must be stated when ordering the rudder. Otherwise, the length noted in the catalog will be supplied.

The charts have been formulated to assist in making the appropriate selection for one, two, or three rudder options. In the event the requirements of a particular boat are outside the parameters of the stock AQ-22 rudders, please contact the manufacturer for further information.

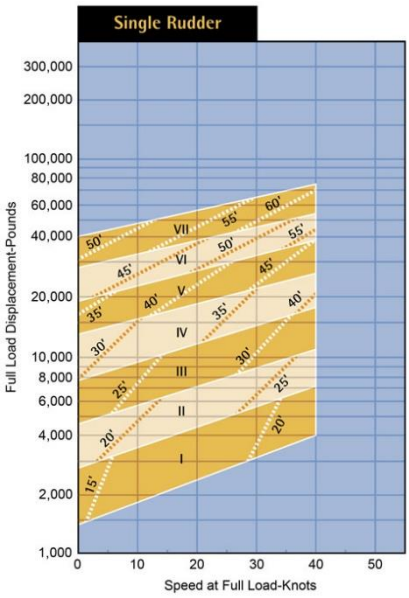
The following examples demonstrate the manner in which rudder selection should be determined.

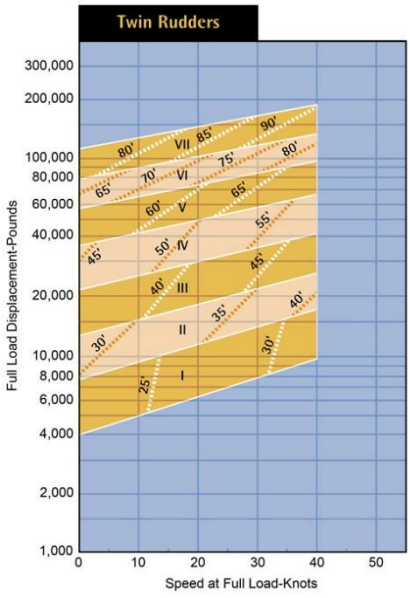
Boat Characteristics	AQ-22 Rudders
1. Assume speed of 25 knots, 28,000 lbs. displacement:	
One Rudder	Rudder V
Two Rudders	Rudder III
Three Rudders	Rudder II
2. Assume speed of 33 knots and a 38-foot boat:	
One Rudder	Rudder IV
Two Rudders	Rudder II
Three Rudders	Rudder I

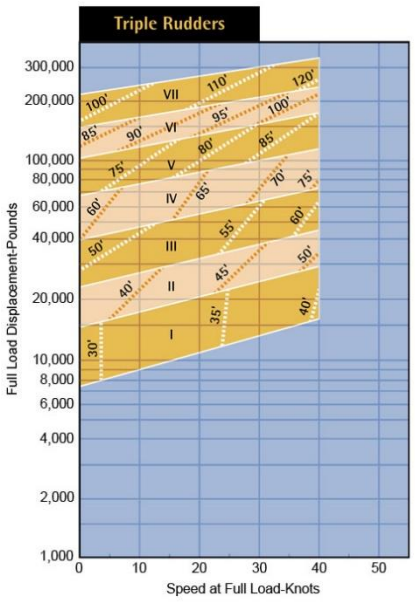


Notes Relative to Tables and Charts

- The numerical value of the stock length (L) has been chosen arbitrarily.
- Rudder weights are estimated.
- Rudder torque is included so that the force required at the tiller arm may be estimated.
- Dash lines indicate approximate boat length.
- Roman numerals indicate rudder model recommended.
- Consult the manufacturer for rudder requirements outside those of stock design.







100R5 Hydraulic Fittings

Hydrasearch is now offering 100R5 fittings! These 3-piece, reusable, hydraulic fittings are designed for use with 100R5 hydraulic hose, but can be used with other manufacturer's hose as well.

- We are stocking both brass and stainless steel.
- Sizes *1/4"* to *1-1/2"* (sizes -4 to -24) are available.
- These are 37 degree flared JIC fittings. They can be used for a 45-degree connection as well.
- 100R5 fittings are equivalent to Aeroquip's 411 series and Parker's 23 series.

These reusable 3-piece fittings are ideal for use in the marine industry because they can be repaired at sea. Unlike crimp fittings, which require an expensive press to install, reusable fittings require minimal tools.

Stainless Steel Fittings (8)

Equal to Aeroquip's 411 series, Parker's 23 series

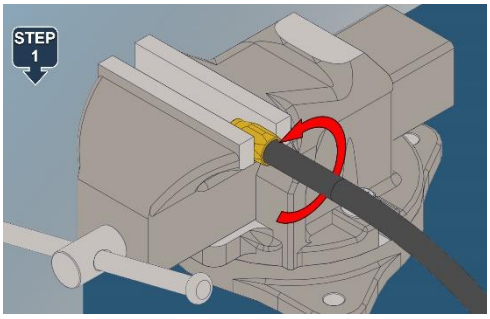
Use with the following hose: Aeroquip Hoses: 100R5, 302A, 303, 1503, 1540, 2580, 2651, FC234, FC300, FC321, FC350, FC355, FC558, FC802; Parker Hoses: 213, 285, 293; Hydrasearch Hose: 3H-8794 I.A.W. MIL-DTL-8794 (Synthetic yarn and wire reinforced hoses)

Brass Fittings (9)

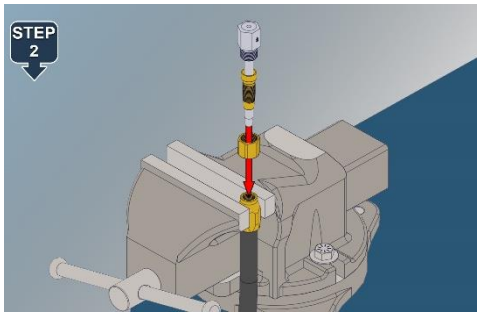
Equal to Aeroquip's 411 series, Parker's 23 series

Use with the following hose: Aeroquip Hoses: 100R5, 302A, 303, 1503, 1540, 2580, 2651, FC234, FC300, FC321, FC350, FC355, FC558, FC802; Parker Hoses: 213, 285, 293; Hydrasearch Hose: 3H-8794 I.A.W. MIL-DTL-8794 (Synthetic yarn and wire reinforced hoses)

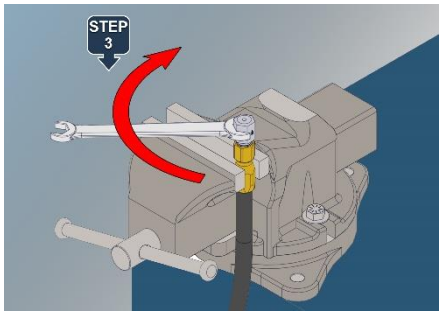
Screw Hose into Socket *(left hand thread)* until unit bottoms. Back out a ¼ turn.



Slide the insert onto the mandrel. Lubricate hose I.D. and insert sub-assembly



The insert is then threaded into the socket and hose. Leave a 1/16” gap so nut is free to swivel



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Electrically Actuated 2-Piece Stainless Ball Valves

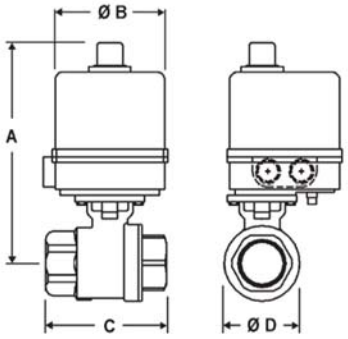
Features:

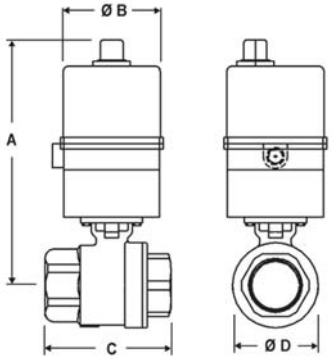
2-Piece Stainless Ball Valve

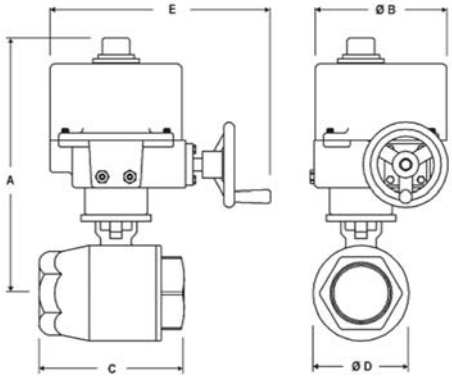
- RTFE seats and seals
- blow-out proof stem
- live-loaded stem packing
- ISO 5211 mounting pad
- pressure rating:
  ¼" - 2" 1000 PSI WOG
  2½" - 3" 800 PSI WOG
- temperature range:
  -40°F to 450°F (-40°C to 232°C)

Electric Actuator

- Powder coated aluminum alloy housing
- NEMA 4/4X waterproof and dustproof
- extended duty cycle induction motor
- high alloy steel gear train
- H-insulation class
- visual position indication
- space heater is standard
- manual override standard: ½" - 1½"
- temperature range: -41°F to 140°F (-40°C to 60°)
- ISO 9001, CS, CE and CSA-C US Certified
- RoHS compliant







Dimensions (inches)

Part Number	Size	A	B	C	D	E	Override
BV2HH-02511	¼"	7.79	4.50	2.56	1.40	NA	Standard
BV2HH-03811	3/8"	7.79	4.50	2.56	1.40	NA	Standard
BV2HH-05011	½"	7.74	4.50	2.95	1.40	NA	Standard
BV2HH-07511	¾"	7.84	4.50	3.15	1.75	NA	Standard
BV2HH-10011	1"	8.09	4.50	3.54	1.75	NA	Standard
BV2HH-12511	1 ¼"	8.29	4.50	4.33	2.58	NA	Standard
BV2HH-15011	1 ½"	8.69	4.50	4.72	2.97	NA	NA
BV2HH-20011	2"	11.13	4.50	5.51	2.73	NA	NA
BV2HH-25011-EP*	2 ½"	13.72	7.08	7.28	4.68	12.83	Hand wheel
BV2HH-25011	2 ½"	10.69	6.06	7.28	4.68	NA	NA
BV2HH-30011	3"	13.72	7.08	8.07	5.44	12.83	Hand wheel

*for 110VAC 2½" with manual override use -EP

Caution!

Even though there are torque safety factors built into our automated ball valve packages, actual service conditions must also be considered when selecting the proper product for the appropriate application. For example: Severe service conditions such as dirty water, dirty air, all slurries, raw sewage water, oils, and other viscous fluids can have a dramatic affect in raising the torque requirements of ball valves as much as 75% and therefore larger actuators may be required. Please consult Dixon® when dealing with these types of applications.

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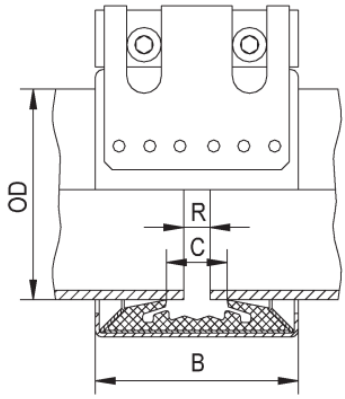
Straub Grip-L
Axial Restraint Pipe Coupling

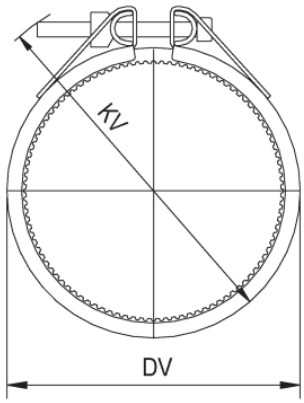
Application:
- Suitable for pipes within the lower pressure range.

Features:
- Joins like or dissimilar pipe materials
- Accommodates up to 5° of pipe misalignment
- Vary gap between pipe ends
- Absorbs vibration, water and hammer sound
- Special patented grip ring for superior holding power on hard-surfaced pipes
- 5 year limited warranty
- Reusable
- EPDM sealing sleeve temperature range: -4°F to 176°F (-20°C to 80°C)
- NBR and FKM sleeves available, contact Hydrasearch for information

Materials:
- Casing: AISI 316Ti; screws: AISI 316 L; bolts AISI 316 Ti; anchoring ring: AISI 301; sealing sleeve: EPDM standard

Specifications:
- American Bureau of Shipping (ABS) up to 232 PSI on ¾"-5"; 188 PSI on 6"; 145 PSI on 8"
- Underwriters Laboratories (UL)
- National Sanitation Foundation (NSF)
- Built to ASTM 1476, Type 2, Class 2 Specification





Size	Pipe OD Range		Working Pressure	Coupling Dimensions		Assembled Dimensions		Maximum Distance Between Pipe End	316 Ti Stainless Steel
	Actual	Min to max	**PSI**	B	C	DV	KV	R	Part #
¾"	1.05"	1.04" to 1.08"	**670**	1.8"	0.7"	1.7"	2.8"	0.2"	STR20000*
1"	1.31"	1.31" to 1.35"	**550**	1.8"	0.7"	2.0"	3.0"	0.2"	STR20100*
1 ½"	1.90"	1.88" to 1.92"	**440**	2.4"	1.0"	2.6"	3.9"	0.2"	STR20300*
2"	2.37"	2.35" to 2.40"	**320**	3.0"	1.5"	3.1"	4.3"	0.4"	STR20450*
2 ½"	2.87"	2.85" to 2.90"	**450**	3.7"	1.6"	3.9"	5.3"	0.4"	STR20500
3"	3.50"	3.46" to 3.54"	**320**	3.7"	1.6"	4.4"	5.9"	0.4"	STR20650
4"	4.50"	4.46" to 4.54"	**232**	3.7"	1.6"	5.4"	6.7"	0.4"	STR20900
5"	5.50"	5.51" to 5.62"	**232**	4.3"	2.1"	6.5"	8.3"	0.4"	STR21150
6"	6.63"	6.56" to 6.69"	**232**	4.3"	2.1"	7.6"	9.1"	0.4"	STR21350
8"	8.63"	8.54" to 8.71"	**232**	5.6"	3.1"	9.8"	11.6"	0.4"	STR21400

* only has one bolt

Note: All Straub couplings require the correct use of a torque wrench for a safe and proper installation. Straub couplings must be torqued to the specified value as printed on each individual coupling. Failure to do so can result in serious injury or death.

Not for steam or refrigerant service

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Spring-Loaded Check Valves

With Stainless Steel Strainer

Product Details

Features

- Soft seat for bubble tight shutoff, spring loaded for fast seating action
- Flow profile designed to minimize head loss
- cracking pressure: 0.50 PSI
- NBR seat
- pressure rating: ½" - 2" 400 PSI WOG; 3" - 4" 175 PSI WOG
- temperature range: 10°F to 210°F (-10°C to 100°C)

Safety notes

- WARNING: This product contains a chemical known to the State of California to cause birth defect or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling.

Without Strainer

Part Number	Material	Size	Thread	Weight (lb.)
BVFS20	Brass	1-1/2”	Female NPT	1.970
BVFS25	Brass	2”	Female NPT	2.400
BVFS35	Brass	3”	Female NPT	7.810
BVFS40	Brass	4”	Female NPT	12.395

Without Strainer

CV050	Brass	1/2”	Female NPT	0.3375
CV075	Brass	3/4”	Female NPT	0.5200
CV100	Brass	1”	Female NPT	0.7500
CV125	Brass	1-1/4””	Female NPT	1.1800
CV150	Brass	1-1/2”	Female NPT	1.6300
CV200	Brass	2”	Female NPT	2.3400
CV300	Brass	3”	Female NPT	6.7300
CV400	Brass	4”	Female NPT	12.080

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Cast Iron Threaded Foot Valve

Safety notes:

- Must be installed in the vertical position
- For water service only
- WARNING: This product contains a chemical known to the State of California to cause birth defect or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling.

Part Number	Material	Size	Thread	Weight (lb.)
DFVS20	Painted Cast Iron	1-1/2”	NPT	3.10
DFVS25	Painted Cast Iron	2”	NPT	5.41
DFVS30	Painted Cast Iron	2-1/2”	NPT	6.98
DFVS35	Painted Cast Iron	3”	NPT	9.49
DFVS40	Painted Cast Iron	4”	NPT	15.52
DFVS60	Painted Cast Iron	6”	NPT	37.80
DFVS80	Painted Cast Iron	8”	NPT	85.10

Replacement Parts for Cast Iron Threaded Foot Valve

Flapper Assembly ● Valve ● Strainer ● Seat Plate

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Global Angle Valves

Underwriter's Listed, Factory Mutual Approved. New York City Board of Standards and Appeals Approved, ULC

2½" with cast finish shown

AV150-I
AV250-I

Female Inlet

- Male NH outlet
- NPT inlet thread only
- Aluminum handwheel
- Working pressure: **300 PSI** at **70°F (21°C)**
- Alloy = Yellow DZR brass

Available finish:

- Cast (standard)
- Polished = -P
- Chrome = -C

1½" with cast finish shown

AVF150-I
AVF250-I

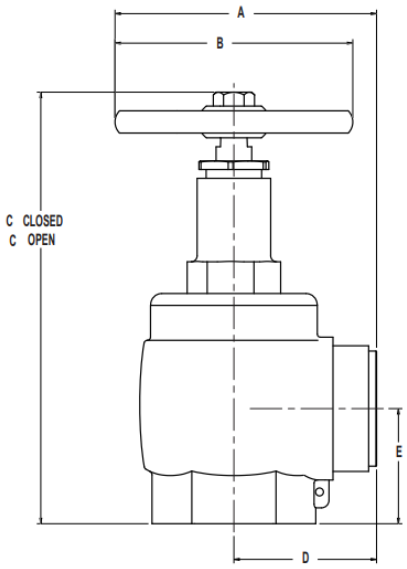
Double Female

- NPT inlet and outlet only
- Aluminum handwheel
- Working pressure: **300 PSI** at **70°F (21°C)**
- Alloy = Yellow DZR Brass

Available finish:

- Cast (standard)
- Polished = -P
- Chrome = -C

Size	A	B	C (Closed)	C (Open)	D	E	Wt. in Lbs.
1 ½"	4.13"	3.75"	6.80"	7.78"	2.25"	1.81"	4.4
2 ½"	5.69"	5.00"	9.00"	10.72"	3.19"	2.59"	9.5



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www.hydrasearch.com; www.pro-marinc.com

Wye Valve
¼ Turn Ball Type

Features:

- Cast Brass
- Rocker lug swivel
- Operates easily under high pressure
- Handles are not field replaceable
- Seals on the ball are field adjustable and field replaceable
- Maximum operating pressure: 175 PSI (water only) at 70°F (21°C)

Specification:

- Meets NSN specifications # 4210-00-255-0234

Inlet Female	(2) Outlets Male	Cast Brass	
		Part #	Weight (lb.)
2 ½" NST (NH)	1 ½" NPSH	S7337S	12.06

⚠ Safety Notes

- WARNING: This product contains a chemical known to the State of California to cause birth defect or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling.

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Brass Pipe Cap

Construction

- Pin Lug
- Chain included

Safety notes:

- Not intended for pressure applications
- WARNING: This product contains a chemical known to the State of California to cause birth defect or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling.

Part Number	Material	Size	Thread**	Weight (lb.)
FC150	Cast Brass	1-1/2”	NPSH	0.40
FC200	Cast Brass	2”	NPSH	0.88
FC250	Cast Brass	2-1/2”	NPSH	1.19
FC300	Cast Brass	3”	NPSH	2.65
FC400	Cast Brass	4”	NPSH	3.55
FC600	Cast Brass	6”	NPSH	10.94

**Thread is Compatible with NPSM

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Nozzles

Industrial Wash-down Nozzle

Features:

- Maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- Delivers 30° - 60° - 90° for pattern
- Shutoff – straight stream - fog
- Supplied with bumper

Size	Thread	90° Spray GPM @100 PSI	Part Number
1 ½"	NPSH NST (NH)	88 (+/- 12) 88 (+/- 12)	WDN150 WDN150NST

with bumper

without bumper

Fog Nozzles

Features:

- Shutoff – straight stream - fog
- Maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- Brass stem
- Material - Polycarbonate
- (1) Standard Flow
- (2) 120° spray GPM @ 100 PSI

Size	Thread	90° Spray GPM @100 PSI	Part Number (with Bumper)	Part Number (Without Bumper)
¾"	GHT	8.0	FNB75GHT (1,2)	- - -
¾"	NPS	30.9	FNB75S (2)	- - -
1"	NPS	11.4	FNB100S (2)	FN100S
1"	NPS	30.9	HGB100S	- - -
1 ½"	NPS	83.6	FNB150S	FN150S
1"	NST (NH)	11.4	FNB100NST	FN100NST
1"	NST (NH)	30.9	HGB100NST	- - -
1 ½"	NST (NH)	83.6	FNB150NST	FN150NST

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