

## Conley Product Bulletin

### RUGGED TOP OF THE LINE PERFORMANCE ~ AFFORDABLE COST

#### Conley Strainer Types

- Inline basket strainers in sizes from 1 ½" through 30"
- Inline Y-type basket strainers in sizes from 1 ½" through 4"

#### Description

- Conley basket strainers were introduced in 1994
- Extra heavy wall filament wound for service up to 150 psi
- 60 mil double Nexus® reinforced corrosion barrier (inner liner)
  - Premium epoxy resin liner
  - Premium vinyl ester resin liner
  - Premium novolac vinyl ester resin liner
  - Premium furan resin liner
  - Optional 100 mil liner available
- Premium aromatic amine cured epoxy cages for operating temperatures up to 275°F
- Color coding available
  - Conductive strainers available
- Fire-resistant strainers available
  - Abrasion-resistant liners available

#### Typical Applications

- Waste water treatment
- Steel pickling
- Solvents
- Petrochemical
- Pharmaceutical
- Chemical processing
- Jet fuel
- Gasoline – Diesel – Fuel Oil
- Cooling water
- Industrial waste
- Food and beverages
- Brine (salts) and brackish water

#### Performance



- Excellent chemical resistance inside and outside to a variety of caustics, acids, brines, and petroleum products ~ See the chemical resistance chart for fluid services
- Hydrostatic pressure testing at 225 psi

#### Specifications

- FRP standard basket
- Optional 316 stainless steel or polypropylene baskets available
- Basket perforations in 316 SS available from 325 mesh to ½" diameter
- Basket perforations in polypro available with 1/32", 1/16", 1/8" and 3/16" diameters
- O-ring standard is Viton with optional Hypalon, EPDM, and Buna-N
- Flanges conform to ANSI B16.5 bolt hole pattern
- Standard drain plug
- Optional pressure gage ports

#### Listings

- U.S. Federal Regulation FDA 21 CFR 175.300
- U.S. Federal Regulation FDA 21 CFR 177.2420



## Conley Basket Strainers

**Conley Basket Strainers** offer three distinct advantages.

- 1) All glass fiber construction – no metal working parts to corrode.
- 2) Ease of serviceability – basket access cap is “*Fiber-Forged*” with a hex nut and slot combination for easy removal.
- 3) Baskets – standard FRP or 316 stainless steel or polypropylene are available with most any size perforation.

**Conley Basket Strainers** are available in Epoxy, Vinyl Ester, and Furan resin liner systems in standard 60 mil or optional 100 mil liner thicknesses. All liners are reinforced with multiple layers of Nexus®.

## Conley Basket Strainers

**Conley Basket Strainers** offer complete corrosion protection both internally and externally.

**Corrosion resistance** plays an important part of Conley Basket Strainers with the availability of Epoxy, Vinyl Ester or Furan liner systems in standard 60 mil or optional 100 mil liner thicknesses. All liners are reinforced with multiple layers of Nexus®.

**Light weight** is another feature of Conley Basket Strainers; weighing approximately one-third of their metal counterparts.



## O-Ring Materials

### VITON® Fluorelastomer

Fluorocarbon; excellent chemical compatibility with a wide range of temperature and concentrations. Can be used in most applications of mineral acids, chlorinated hydrocarbons, salt solutions and petroleum oils. Temperature rating of 20°F to 300°F.

### HYPALON®

Chlorosulfonated polyethylene; recommended for sodium chloride, chromic acid, hydrofluoric acid, sulphuric acid, hydrocarbon oils, salts, and others. Temperature rating of -5°F to 150°F.

### EPDM

Ethylene-propylene diene; recommended for ozone, phosphate, ester, ketones, alcohols, glycols, concentrated sulphuric acid, bleaching (20%), alkaline solutions in general, treated water (with caustic soda, sodium sulphate, chlorine), and hot water. Temperature rating of -30°F to 250°F.

### BUNA-N

Nitrile rubber; a general purpose elastomer recommended for sealing of water, oil, mild solvents and petroleum products. Not recommended for strong acids, ketones or halogenated hydrocarbons. Excellent abrasion and tear resistance. Temperature rating of -40°F to 200°F.

## INSTALLATION

The following is the proper procedure for installation of Conley Basket Strainers. Conley Basket Strainers mate with all Class 150 ANSI B16.5 flat face flanges. Use only full face gaskets with a minimum thickness of 1/8" and having a Durometer rating of 50-70 on the Shore "A" scale. Always use a spacer ring if mating with raised face flanges.

- 1) Make sure all surfaces on both the strainer and flange mating surface are clean.
- 2) Check bolt holes of mating flanges for alignment. **Do not** attempt to install strainers that do not have proper alignment.
- 3) Check flange dimensions versus strainer dimensions and include proper allowance of space for gaskets.
- 4) Use SAE flat washers under both bolt and nuts.
- 5) Insert lubricated bolts.
- 6) Check mating flange faces for excessive distance or gap. **Do not** attempt to install strainers that have excessive distances or gaps to mating flanges.
- 7) Tighten nuts/bolts diametrically in stages using a torque wrench. Uniform tightness across the face of the flange will eliminate gasket leaks.

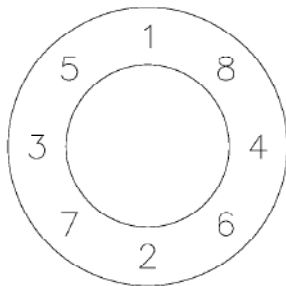


## BOLT TORQUE REQUIREMENTS

Flange Size	Recommended Torque
1 1/2"	15 ft lbs
2"-4"	25 ft lbs
6"	45 ft lbs



## TORQUE SEQUENCE



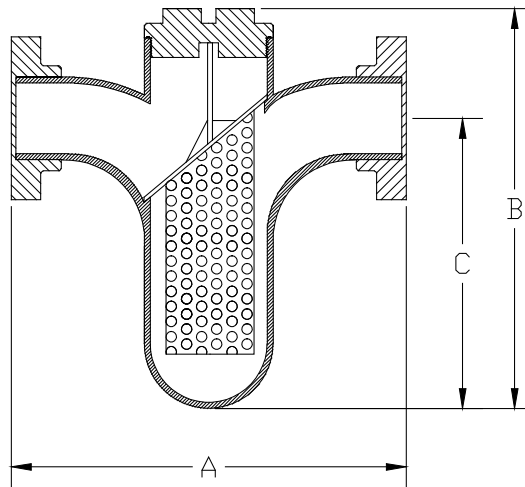
**Basket Strainer  
Dimensional Data\*  
and Pressure  
Ratings<sup>(1)</sup> from -50°  
to 275°F**

<sup>(1)</sup>Static pressure rating; steady (stationary) pressure is created when using a gear pump, turbine pump, centrifugal pump, etc.  
<sup>(2)</sup>Vacuum Service: A full vacuum within the pipe is equivalent to 14.7 psi external pressure at sea level. Contact Conley Corp for higher external pressure ratings.

NOM PIPE DIA	I.D. (IN)	NOM LINER THK (IN)	A FACE to FACE (IN)	B HEIGHT (IN)	C HEIGHT (IN)	WT (LBS)	INT PRESS (PSI)	VAC PRESS (PSI) <sup>(2)</sup>
1 1/2"	1.38	0.060	13 5/8"	11 15/16"	8"	13.5	150	1370
2"	1.88	0.060	13 5/8"	11 15/16"	8"	13.5	150	675
3"	3.00	0.060	19"	16 7/16"	10 1/2"	25	150	160
4"	4.00	0.060	19 3/4"	20 1/2"	14 7/8"	31	150	123
6"	6.00	0.060	20"	26 1/2"	18 1/2"	50	150	82
8"	8.00	0.060	22 9/16"	33 1/2"	25 1/4"	70	150	45

SIZE IN.	A	B	C	WT. LBS.
1-1/2	13-5/8	11-15/16	8	13.5LB.
2	13-5/8	11-15/16	8	13.5LB.
3	19	16-7/16	10-1/2	25 LB.
4	19-3/4	20-1/2	14-7/8	31 LB.
6	20	26-1/2	18-1/2	50 LB.
8	22-9/16	33-1/2	25-1/4	70 LB.

FOR TECHNICAL INFORMATION  
ON STRAINERS SIZES 10"  
THROUGH 30" CONTACT  
CONLEY VALVE DIVISION  
AT 800-331-5502



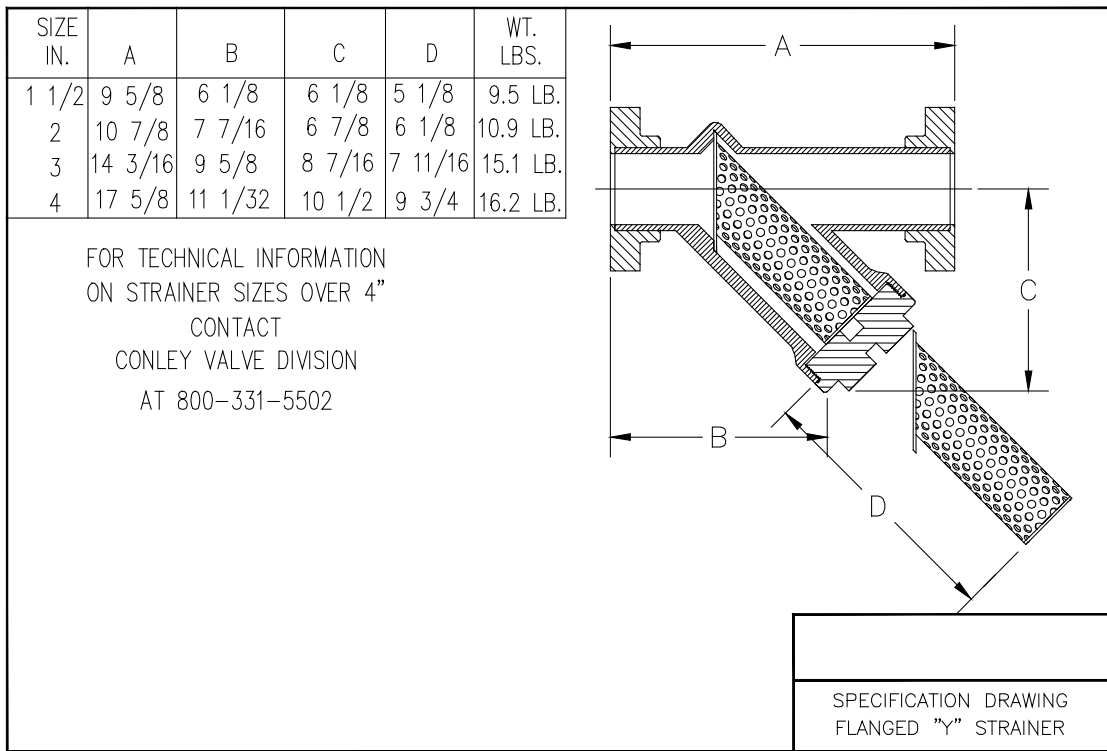
SPECIFICATION DRAWING  
FLANGED BASKET STRAINER



**Y Strainer**  
**Dimensional Data\***  
**and Pressure**  
**Ratings<sup>(1)</sup> from -50°**  
**to 275°F**

<sup>(1)</sup>Static pressure rating; steady (stationary) pressure is created when using a gear pump, turbine pump, centrifugal pump, etc.  
<sup>(2)</sup>Vacuum Service: A full vacuum within the pipe is equivalent to 14.7 psi external pressure at sea level. Contact Conley Corp for higher external pressure ratings.

NOM PIPE DIA	I.D. (IN)	NOM LINER THK (IN)	A FACE to FACE (IN)	B DIM (IN)	C HEIGHT (IN)	D DIM (IN)	INT PRESS (PSI)	VAC PRES (PSI) <sup>(2)</sup>
1 1/2"	1.38	0.060	9 5/8"	6 1/8"	6 1/8"	5 1/8"	150	1370
2"	1.88	0.060	10 7/8"	7 7/16"	6 7/8"	6 1/8"	150	675
3"	3.00	0.060	14 3/16"	9 5/8"	8 7/16"	7 11/16"	150	160
4"	4.00	0.060	17 5/8"	11 1/32"	10 1/2"	31	150	123



## Optional O-Ring Materials

Available in:

- EPDM
- Hypalon
- Buna N
- Other common elastomers

## Factory Tested Replacement Parts

Conley Valve Division has a full range of replacement parts ready to install with minimum down time.

## Typical Properties

TEMPERATURE	75°F	250°F	
PROPERTY	VALUE	VALUE	METHOD
HYDROSTATIC DESIGN BASIS	16,000 psi	8,000 psi	ASTM D2992 PROCEDURE B
HYDROSTATIC BURST (WALL STRESS @ 72°F)	32,000 psi	24,000 psi	ASTM D1599
DEGREE OF CURE	175°C (347°F) T <sub>g</sub>		DMA
HEAT DEFLECTION TEMPERATURE	150°C (302°F)		ISO 75-3
FLOW FACTOR (HAZEN-WILLIAMS)	150		
SURFACE ROUGHNESS	1.7 X 10 <sup>-5</sup> FEET		
MANNING'S "n"	0.009 INCH		





ISO 9001:2008  
CERTIFIED  
Conley  
Composites  
Tulsa, Oklahoma  
USA

This product data sheet and recommendations it contains are based on data reasonably believed to be reliable. It is intended that this data be used by competent personnel having acceptable training in accordance with current industry practice and operating conditions. Variation in environment, application or installation, changes in operating procedures, or extrapolation of data may cause unsatisfactory results. Conley Corporation makes no representation or warranty, express or implied, including warranties of merchantability or fitness for purpose, as to accuracy, adequacy or completeness of the recommendations or information contained herein. Conley Corporation assumes no liability whatsoever in connection with this literature or the information or recommendations it contains.

---



2795 East 91st Street  
Tulsa, Oklahoma 74137 USA  
Phone: 1 (918) 299-5051  
Fax: 1 (918) 299-5907  
[www.conleyfrp.com](http://www.conleyfrp.com)  
E-Mail: [sales@conleyfrp.com](mailto:sales@conleyfrp.com)