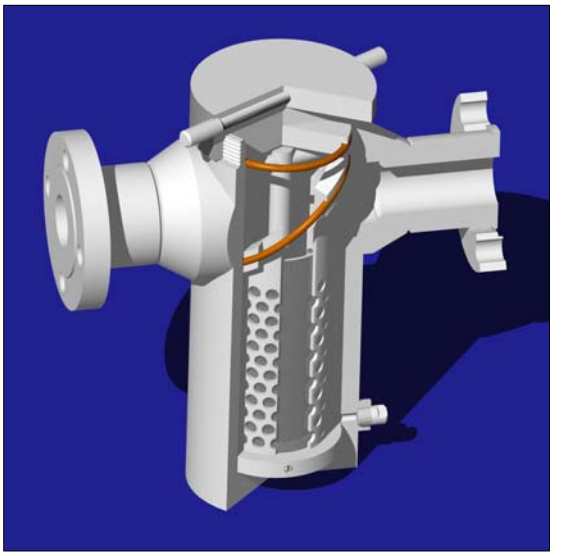
FLUOR-O-FLO®

PVDF & PTFE Basket Strainers

Removable PTFE Strainer Cartridge with Fluoropolymer Screen

Flanged • NPT • Tri-Clamp • Socket Weld



Micromold's Basket Strainers remove particles or debris from process lines handling extremely corrosive or high-purity fluids. They are similar in construction to our Y-Strainers, but with about three times the particulate capacity.

To ensure maximum corrosion resistance and purity, all wetted materials are fluoroplastics. Both PVDF and PTFE Basket Strainers are available in 1/2" through 3" pipe sizes.

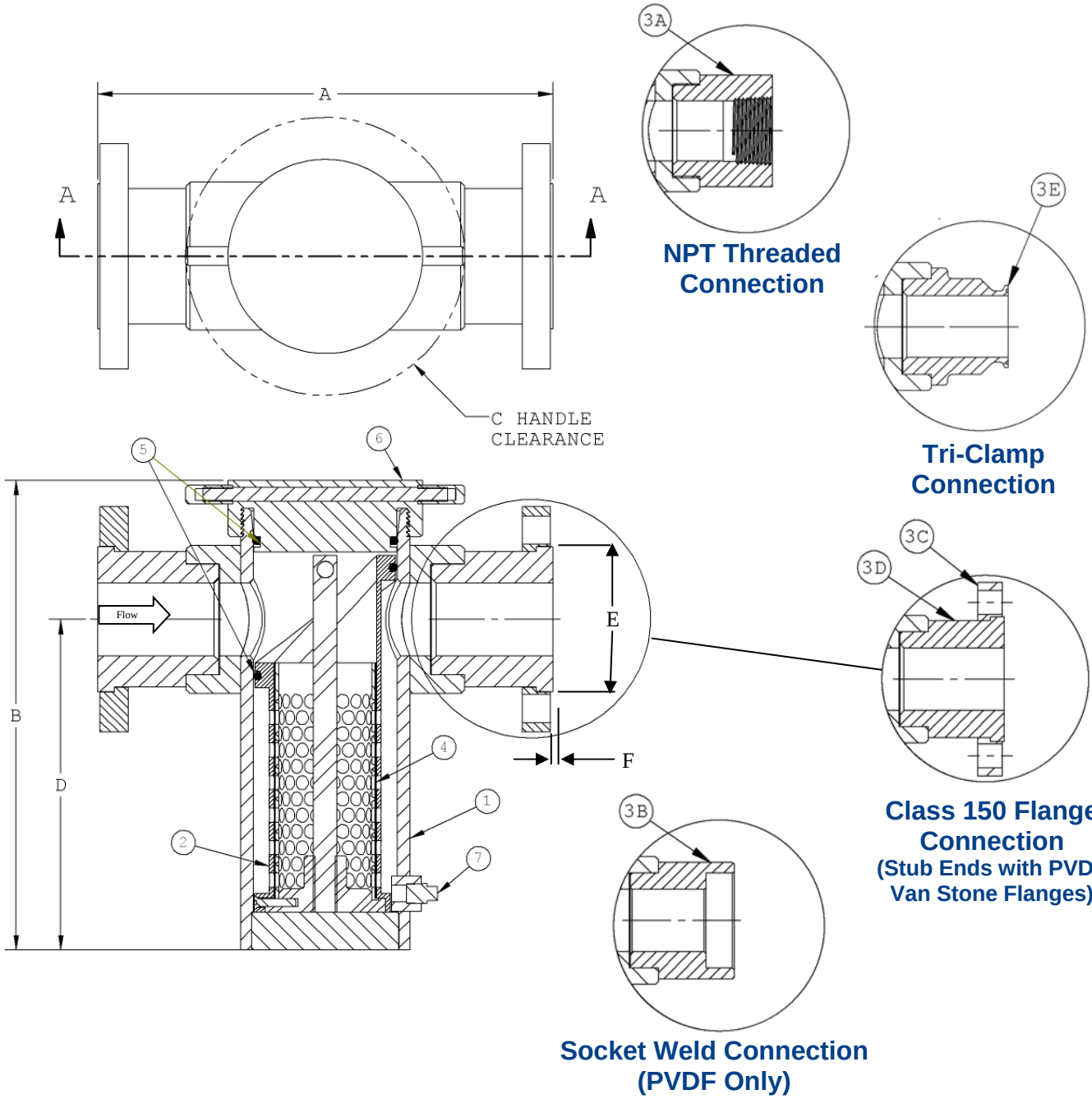
Easily cleaned, removable PTFE cartridges securely support ETFE screens in standard 11, 17, 30 or 51 mesh sizes. Standard PEEK screens available in mesh sizes ranging from 400 to 65 (12 to 155 microns). Other mesh sizes and types available on special order.

Open area ratio of screen to pipe meets or exceeds 6:1 for all sizes when used with 48% or higher open area mesh as compared with 2:1 for our Y-Strainer product lines.

Standard end connections fit NPT threaded, flanged, Tri-Clamp, and socket– or butt-weld (PVDF units only) piping systems. We can provide virtually any connection (True-Union, etc.) on special order.

Also available:
FLUOR-O-FLO® PVDF & PTFE Basket Strainers

- Sales Bulletin
- Installation and Maintenance Guide
- Strainer Screens Technical Bulletin



Connection Availability & Size Ranges

Strainer Material	NPT/ Flanged/ Tri-Clamp	Socket Weld
PVDF	1/2" – 3"	1/2" – 3" (20 - 90 mm)
PTFE	1/2" – 3"	N/A

All flanges are Van Stone type with stub ends (rotatable)

Dimensions

Nominal Size		A (in.)	B (in.)	C (in.)	D PVDF (in.)	D PTFE (in.)	E (in.)	F (in.)	PLUG NPT (in.)
(in.)	(mm)								
1/2"	**20**	10.3	7.7	7.5	5.1	4.8	1.62	0.065	1/4
3/4"	**25**	10.3	7.7	7.5	5.1	4.8	1.99	0.065	1/4
1"	**32**	10.3	7.7	7.5	5.1	4.8	2.37	0.065	1/4
1-1/4"	**40**	12.1	12.5	8.5	8.8	8.8	2.74	0.065	1/4
1-1/2"	**50**	12.1	12.5	8.5	8.8	8.8	3.12	0.065	1/4
2"	**63**	12.1	12.5	8.5	8.8	8.8	3.87	0.065	1/4
3"	**90**	14.6	16.4	10.6	10.8	11.6	5.12	0.065	1/4

Construction

Item No.	PVDF Basket Strainers	PTFE Basket Strainers
1	PVDF Body	MICROFLON™ PTFE Body
2	Removable PTFE Cartridge	Removable PTFE Cartridge
3A	PVDF NPT Connector	PTFE NPT Connector
3B	PVDF Socket Weld Connector	N/A
3C	PVDF Flange (Other materials available)	PVDF Flange (Other materials available)
3D	PVDF Stub End	PTFE Stub End
3E	PVDF Tri-Clamp Connector	PTFE Tri-Clamp Connector
4	Fluoropolymer Screen	Fluoropolymer Screen
5	FEP Encapsulated Silicone Rubber O-Ring	FEP Encapsulated Silicone Rubber O-Ring
6	PVDF Cap w/Handles	PTFE Cap w/Handles
7	PTFE Drain Plug	PTFE Drain Plug

Engineering Specifications

FLOUR-O-FLO® basket strainers shall be (PVDF or virgin PTFE) construction with (socket weld, NPT threaded, Tri-Clamp, or flanged) end connections . The strainers shall have covers removable without the use of tools to facilitate cleaning, and have an FEP encapsulated silicone rubber o-ring seal. Basket strainers to have a minimum 6:1 ratio of open area to the size-corresponding cross-sectional pipe area when used with a mesh screen having a minimum open area of 48%. Basket strainers shall have a removable PTFE strainer cartridge with FEP encapsulated silicone rubber o-ring seal and having a handle to facilitate removal. Removable PTFE strainer cartridges shall have perforated PTFE inner and outer cartridge components to secure screen mesh. As manufactured by MICROMOLD PRODUCTS, INC.

PVDF Basket Strainer Part Numbers and Pressure Ratings*

Nominal Size		ANSI Class 150 Flanged	NPT Threaded	Tri-Clamp	IPS Socket Weld (in. sizes)	Metric Socket Weld (mm sizes)	Pressure Ratings (psi)
(in.)	(mm)						
1/2"	20	S-BK04FLNNN	S-BK04FTNNN	S-BK04TCNNN	S-BK04SINNN	S-BK04SMNNN	150
3/4"	25	S-BK06FLNNN	S-BK06FTNNN	S-BK06TCNNN	S-BK06SINNN	S-BK06SMNNN	150
1"	32	S-BK08FLNNN	S-BK08FTNNN	S-BK08TCNNN	S-BK08SINNN	S-BK08SMNNN	150
1-1/4"	40	S-BK10FLNNN	S-BK10FTNNN	S-BK10TCNNN	S-BK10SINNN	S-BK10SMNNN	100
1-1/2"	50	S-BK12FLNNN	S-BK12FTNNN	S-BK12TCNNN	S-BK12SINNN	S-BK12SMNNN	100
2"	63	S-BK16FLNNN	S-BK16FTNNN	S-BK16TCNNN	S-BK16SINNN	S-BK16SMNNN	100
3"	90	S-BK24FLNNN	S-BK24FTNNN	S-BK24TCNNN	S-BK24SINNN	S-BK24SMNNN	60

PTFE Basket Strainer Part Numbers and Pressure Ratings*

Nominal Size		ANSI Class 150 Flanged	NPT Threaded	Tri-Clamp	Pressure Ratings (psi)
(in.)	(mm)				
1/2"	20	S-BT04FLNNN	S-BT04FTNNN	S-BT04TCNNN	50
3/4"	25	S-BT06FLNNN	S-BT06FTNNN	S-BT06TCNNN	50
1"	32	S-BT08FLNNN	S-BT08FTNNN	S-BT08TCNNN	50
1-1/4"	40	S-BT10FLNNN	S-BT10FTNNN	S-BT10TCNNN	35
1-1/2"	50	S-BT12FLNNN	S-BT12FTNNN	S-BT12TCNNN	35
2"	63	S-BT16FLNNN	S-BT16FTNNN	S-BT16TCNNN	35
3"	90	S-BT24FLNNN	S-BT24FTNNN	S-BT24TCNNN	25

Standard Mesh Specifications

Particle sizes strained: 1 to 25,400 microns (0.00003" to 1") using either membranes, mesh screens, or drilled holes. Please refer to our *Strainer Screens Technical Bulletin* for details.

*NNN refers to mesh size of screen. Pressure Ratings are maximum long-term operating pressures at room temperature.

Strainer Screens

For FLUOR-O-FLO® Fluoroplastic

Y-Strainers • Basket Strainers • In-Line Strainers

Screens for Micromold FLUOR-O-FLO® fluoroplastic Y, basket, and in-line type strainers are available in a wide variety of sizes and materials.

Particle sizes strained: 1 to 25,400 microns (0.00004" to 1") using either porous membranes, monofilament mesh screens, or drilled holes.

Standard screens: Standard mesh screens are shown in the table following. Coarse mesh available in ETFE, finer mesh available in PEEK:

Material	Nominal Particle Size (Microns)	Nominal Particle Size (Inches)	Approximate Mesh Size (Holes/Lineal inch)
ETFE	1,800	0.071	11
	1,000	0.039	17
	590	0.023	30
	300	0.012	51
PEEK	155	0.0061	65
	85	0.0033	80
	35	0.0014	345
	12	0.0005	400

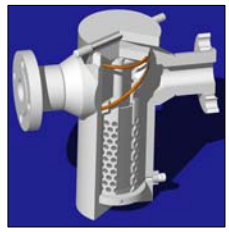
Chemical resistance:

- ETFE: At ambient temperatures, same as PTFE. Consult factory for higher temperatures.
- PEEK: At ambient temperatures, compatible with almost all chemicals. Consult factory for further details including higher temperatures.

Non-standard options:

- In stock leftovers: We often have leftovers from special jobs. If you don't see what you want, just ask.
- Additional mesh sizes: On special order, other ETFE and PEEK mesh sizes are available.
- Other screen materials: Woven mesh, perforated, and porous membrane screens are available in a variety of other materials and sizes (e.g., PTFE, Hastelloy, Alloy 20, Monel, Tantalum).

For additional information on any of the above, please contact the factory.



PVDF & PTFE Basket Strainers

INSTALLATION AND MAINTENANCE GUIDE

Installation Tips

1. Flow Orientation: Observe flow direction--Inlet and outlet markings are on the connecting bosses.

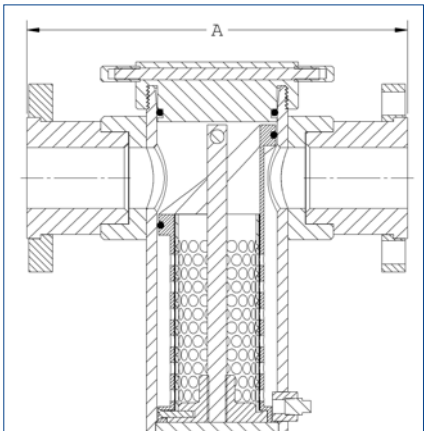
2. Axial Alignment: To avoid damage to the housing - ensure that the inlet and outlet piping centerlines are in alignment. For flanged units, ensure connecting flanges are parallel with the strainer's sealing surfaces.

3. Connection Spacing: Observe end-connection spacing, given in table to the right. For flanged units, do not rely on bolts to draw connecting pipes to strainer. Err on the side of less, rather than more spacing to minimize stresses on the housing welds. Allowance for NPT thread, or Socket Weld insertion will further reduce the spacing.

4. Flanged Connection Gaps or Misalignment: If the gap between rigidly mounted inlet and outlet piping flanges is too large to accommodate the strainer (e.g., gap of 1/16" or more), or if the inlet and outlet piping flanges are not carefully aligned (e.g. angular deviation of 2° or more), Micromold can make spacers to fill the gap, fix the alignment, or both. For information on purchasing such spacers, provide the centerline distance plus the angular gap to be filled to your distributor who will provide you with a quotation from Micromold.
If the gap is less than 1/16" or the misalignment is less than 2°, 1/16" gaskets at each end are satisfactory to fill the gap/ misalignment.

5. NPT Threaded Connections: When tightening male NPT threaded pipe or fittings into the female NPT threads of the basket strainer, it is important to minimize the stress on the outlet bosses. To accomplish this, while using a wrench to tighten the male NPT side, grip the strainer side using a strap wrench around the strainer's female NPT outlet boss.

NOTE: We strongly recommend use of Formula-8 Teflon PTFE paste sealant, available from Micromold, on PTFE-to-PTFE NPT threaded joints.



Operating Pressures

Maximum operating pressure varies with temperature, strainer size and material. As a general rule, maximum long-term operating pressures at room temperature are shown in the table below. Short-term operating pressures can be substantially higher with PTFE units since creep would not be a factor. For guidance in higher temperature environments, contact the factory.

End Connection Spacing and Maximum Long-Term Operating Pressures at Room Temperature

Nominal Size		*End Connection Spacing Dim A*	*PVDF Strainer*	*PTFE Strainer*
(in.)	(mm)	(inches)	(PSI)	(PSI)
1/2"	20	10.3	150	50
3/4"	25	10.3	150	50
1"	32	10.3	150	50
1-1/4"	40	12.1	100	35
1-1/2"	50	12.1	100	35
2"	63	12.1	100	35
3"	90	14.6	60	25

O-ring Replacement: For O-ring replacement, please refer to our Technical Bulletin 4.2-3b Strainer O-Ring Replacement, which can be found in the Literature Tab of our website www.micromold.com.

O-ring AS 568 Dash Numbers

Nominal Size		*PVDF and PTFE Basket Strainer*	*PVDF and PTFE Basket Strainer*
(in.)	(mm)	Cartridge[1] O-ring	Cap[2] O-ring
1/2"	20	-335	-333
3/4"	25	-335	-333
1"	32	-335	-333
1-1/4"	40	-344	-341
1-1/2"	50	-344	-341
2"	63	-344	-341
3"	90	-361	-356

[1]Standard cartridge o-ring: FEP encapsulated hollow-core silicone rubber
[2]Standard cap o-ring: FEP encapsulated solid-core silicone rubber.