

# SIMPLEX BASKET STRAINER \* FLANGED ENDS (FF)

### ANSI CLASS 150 \* ALUMINUM BRONZE \* LEAD FREE\*

Meets LEAD-FREE(1) requirements!

# MODEL: BAF1

## FEATURES

(ALUMINUM BRONZE) SIZES: 2" ~ 12"

#### **ASTM BI48 BODY MATERIAL**

ALUMINUM BRONZE IS STRONGER AND LESS LIKELY TO CORRODE THAN OTHER BRONZE ALLOYS, MAKING IT A PREFERRED CHOICE FOR SEA WATER AND OTHER APPLICATIONS WHERE CORROSION IS A CONCERN. BECAUSE OF ITS COPPER CONTENT, MARINE ORGANISMS CANNOT COLONIZE ON THE MATERIAL. ADDITIONALLY, STAYFLOW'S BAF1 IS USED FOR POTABLE WATER APPLICATIONS AS IT MEETS LEAD FREE STATUTES REQUIRING THAT THE LEAD CONTENT IN THE WETTED SURFACES IS 0.25% OR LESS AS DETERMINED BY A WEIGHTED AVERAGE.

#### HIGH QUALITY DESIGN

THE BAF1 BASKET STRAINER BOASTS MANY UNIQUE DESIGN FEATURES INCLUDING: INLET/OUTLET BOSSES WITH GAUGE TAPS (6" AND UP), SPOT-FACED FLANGE BOLT HOLES, PLUGGED BOTTOM DRAIN AND COVER VENT, CAST-IN SUPPORT LEGS (6" AND UP), ENCAPSULATED COVER GASKET, AND AN OPTIONAL QUICK-OPENING COVER DESIGN.

#### MINIMAL PRESSURE LOSS

PRESSURE LOSS IS MINIMIZED BY PROVIDING A SLANTED STRAINING ELEMENT DESIGN (SIZES 21/2" AND UP) AND STRAIGHT FLOW PATH. PLUGGED, NPT TAPS ARE PROVIDED (NEAR THE INLET AND OUTLET ON BOTH SIDES OF SIZES 6" AND UP) ALLOWING FOR THE QUICK MOUNTING OF PRESSURE GAUGES TO MONITOR PRESSURE LOSS.

#### LARGE STRAINING CAPACITY

WITH ITS LARGE BODY AND SIZEABLE STRAINING ELEMENT, THE BAF1 HAS THE ABILITY TO STORE LARGE QUANTITIES OF DEBRIS WITHOUT AFFECTING PRESSURE LOSS - THUS MAXIMIZING TIME BETWEEN SERVICING.

#### NUMEROUS STRAINING ELEMENT OPTIONS

STRAINING ELEMENTS ARE AVAILABLE IN A VARIETY OF PERFORATIONS, MESHES, AND MATERIALS. SPECIAL DESIGNS ARE ALSO AVAILABLE INCLUDING MAGNETIC, WEDGE WIRE, DRILLED PERFORATIONS, AND PLEATED STRAINING ELEMENTS. THE STANDARD MATERIAL FOR STRAINING ELEMENTS IS TYPE 304 STAINLESS STEEL.

TECHNICAL

150

PRESSURE/ TEMPERATURE RATING (2) AB - ASTM B148 GR. 9D - CLASS 150

WOG (Non-shock): 225 PSI @ 150 °F

- The BAF1 meets requirements for lead free use in potable water systems. The lead content in the wetted surfaces is 0.25% or less as determined by a weighted average. For more information on lead free requirements, contact Titan Flow Control.
- 2. The above listed temperatures are theoretical and may vary during actual operating conditions. These ratings are based on ANSI B16.24 for ASTM B62. The body material of the BAF1 is Aluminum Bronze B148 which may slightly exceed these ratings.

MARKETS: POTABLE WATER, WATER & WASTEWATER, PULP & PAPER, CHEMICAL & PETROCHEMICAL, PETROLEUM, OIL & GAS, TRANSPORTATION, GOVERNMENT, MARINE INDUSTRY (SEAWATER), AND FOOD INDUSTRY

GENERAL APPLICATION: SIMPLEX BASKET STRAINERS ARE INSTALLED INTO A PIPELINE SYSTEM TO REMOVE UNWANTED DEBRIS FROM THE PIPELINE FLOW. BASKET STRAINERS ARE COMMONLY USED IN HORIZONTAL PIPELINES WHERE DEBRIS LOADING IS HIGH AND THE COLLECTION OF SOLIDS IS REQUIRED. STRAINING IS ACCOMPLISHED VIA A PERFORATED OR MESH LINED STRAINING ELEMENT, INTERNAL TO THE BASKET STRAINER. IN GENERAL, THE SIZE OF THE PERFORATION OR MESH SHOULD BE SLIGHTLY SMALLER THAN THE SMALLEST DEBRIS PARTICLE TO BE REMOVED. IT IS IMPORTANT TO NOTE THAT THE CORRECT SIZE OF A BASKET STRAINER IS DETERMINED BY ITS JOB FUNCTION, NOT BY THE SIZE OF THE PIPELINE.

The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.



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#### SIMPLEX BASKET STRAINER

#### **BAF1** - (Aluminum Bronze)

Flanged Ends • Flat Face • Aluminum Bronze

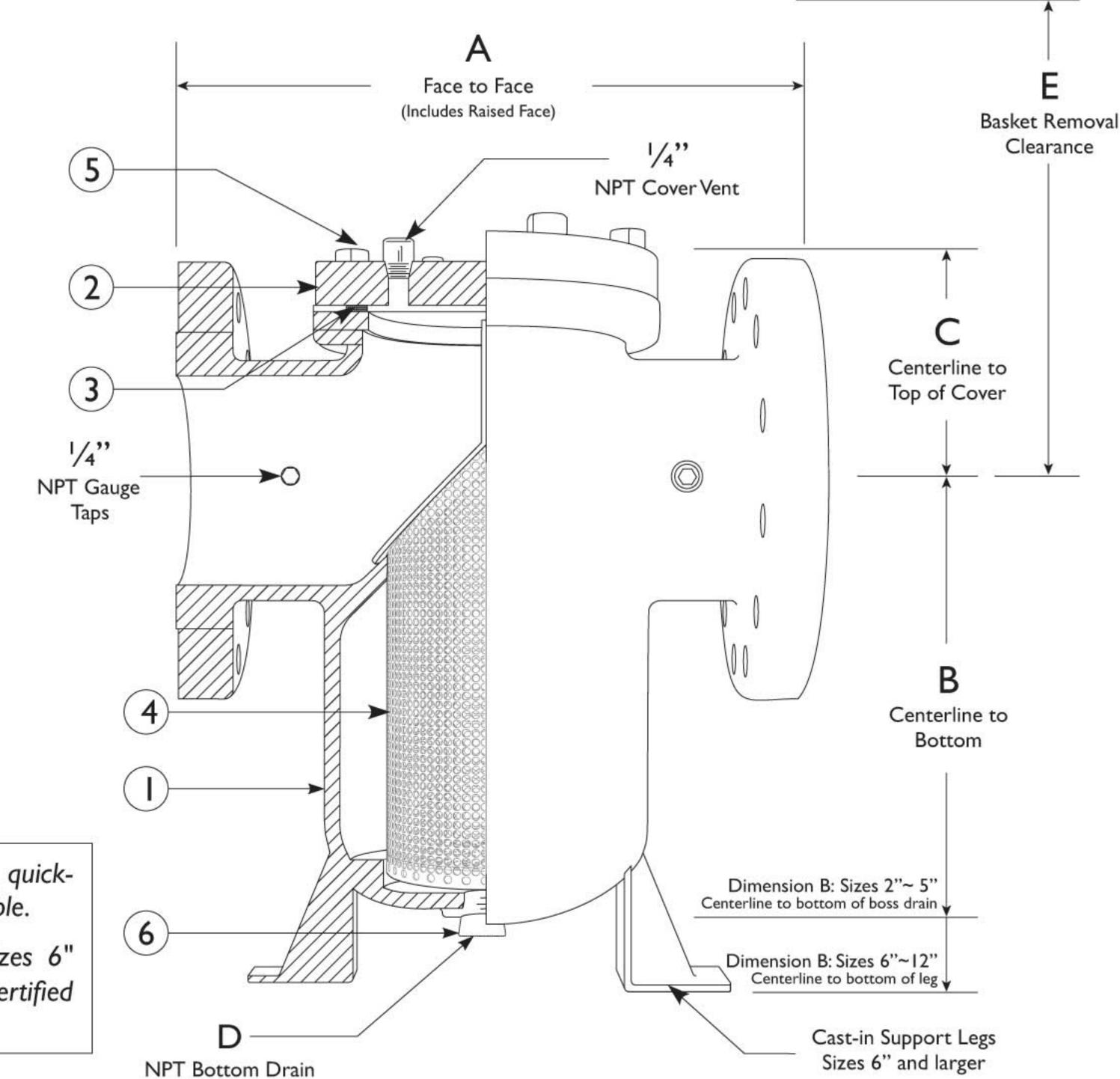
ANSI Class 150

| BILL OF MATERIALS (1) |                          |   |  |  |  |  |
|-----------------------|--------------------------|---|--|--|--|--|
| No.                   | PART                     | BAF1  |  |  |  |  |
| 1                     | Body                     | Aluminum Bronze<br>ASTM B148                                |  |  |  |  |
| 2                     | Cover (3)                | Aluminum Bronze<br>ASTM B148                                |  |  |  |  |
| 3                     | Cover Gasket (2) (3) (6) | PTFE  |  |  |  |  |
| 4                     | Straining Element (2)    | Type 304 Stainless Steel<br>(Other materials are available) |  |  |  |  |
| 5                     | Hex Bolt (4)             | Silicon Bronze  |  |  |  |  |
| 6                     | Plug                     | Stainless Steel (5)   |  |  |  |  |

- 1. Equivalent or better materials may be substituted 5. NPT Plug also available in other at the manufacturer's discretion.
- 2. Denotes recommended spare parts.
- 3. Bolted cover is shown. For information on clamp cover, please contact factory.
- 4. 302 stainless steel bolts are available.
- materials.
- 6. Carbon Fiber Compressed gasket may be substituted at the manufacturer's discretion.

Bolted cover is shown. Full rated, quickopening, clamp cover is also available.

Illustration is representative of sizes 6" through 12". Please ask for certified drawings when required.



|           | DIMENSIONS AND PERFORMANCE DATA (1) |                |       |       |        |        |     |        |        |      |      |
|-----------|-------------------------------------|----------------|-------|-------|--------|--------|-----|--------|--------|------|------|
|           | SIZE                                | in             | 2     | 2 1/2 | 3      | 4      | 5   | 6      | 8      | 10   | 12   |
| SIZE      | SIZE                                | mm             | 50    | 65    | 80     | 100    | 125 | 150    | 200    | 250  | 300  |
|           | A DIMENSION                         | in             | 8.50  | C/F   | 8.75   | 11.187 | C/F | 13.875 | 17.375 | C/F  | C/F  |
| FA        | FACE TO FACE (2)                    | mm             | 216   | C/F   | 222    | 285    | C/F | 353    | 442    | C/F  | C/F  |
|           | B DIMENSION                         | in             | 5.875 | C/F   | 5.25   | 7.875  | C/F | 11.5   | 15.0   | C/F  | C/F  |
|           | CTR. LINE TO BOTTOM                 | mm             | 150   | C/F   | 134    | 201    | C/F | 294    | 382    | C/F  | C/F  |
|           | C DIMENSION                         | in             | 5.00  | C/F   | 5.50   | 6.125  | C/F | 6.75   | 8.5    | C/F  | C/F  |
| CTR. LINE | CTR. LINE TO TOP                    | mm             | 127   | C/F   | 140    | 156    | C/F | 172    | 215    | C/F  | C/F  |
|           | <b>D</b> DIMENSION                  | in             | .50   | C/F   | .75    | 1.00   | C/F | 1.25   | 1.50   | C/F  | C/F  |
| N         | NPT BLOW-OFF                        | mm             | 15    | C/F   | 20     | 25     | C/F | 32     | 40     | C/F  | C/F  |
|           | E DIMENSION                         | in             | 11.00 | C/F   | 11.625 | 15.312 | C/F | 18.875 | 25.0   | C/F  | C/F  |
|           | SCREEN REMOVAL                      | mm             | 280   | C/F   | 295    | 390    | C/F | 480    | 635    | C/F  | C/F  |
|           | ASSEMBLED WEIGHT                    | lb             | 24.0  | C/F   | 38.0   | 64.0   | C/F | 128.0  | 227.0  | C/F  | C/F  |
| AP        | APPROXIMATE                         | kg             | 10.9  | C/F   | 17.2   | 29.0   | C/F | 58.0   | 102.9  | C/F  | C/F  |
|           | Flow Coefficient                    | C <sub>v</sub> | 45    | 90    | 140    | 290    | 500 | 800    | 1600   | 2800 | 3700 |

#### 1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings.

2. Face to face values have a tolerance of  $\pm 0.06$  in ( $\pm 2.0$  mm) for sizes 10" and lower and a tolerance of ±0.12 in (±3.0 mm) for sizes 12" and larger.

#### Aluminum Bronze (ASTM B148) is a preferred

**Body Material Application Notes:** 

- material for lead-free basket strainers, meeting requirements for potable water systems by containing 0.25% lead or less by average weight on all wetted parts of the strainers.
- Aluminum Bronze is strong and corrosion resistant, meeting the needs of many various applications, such as seawater and marine.

#### Additional Design & Technical Notes:

- Cover vent, provided on all sizes, is 1/4" NPT is furnished with plug.
- Bottom drain is furnished with plug. See table to the right for sizes.
- Plugged I/4" NPT gauge taps (inlet and outlet) are provided on sizes 6" and larger.
- Cast-in support legs are provided on sizes 6" and larger.
- Slanted screen is provided on sizes 2 1/2" and up; 2" sizes have straight screen.
- Optional cover designs, steam jacketed designs and epoxy coatings are available.
- Standard material for straining elements is Type 304 Stainless Steel. Other materials are available upon request.
- Designed for horizontal pipelines only.

#### PRESSURE - TEMPERATURE RATING (1)

**AB-B148 ANSI CLASS 150** 

WOG (Non-shock)

225 PSI @ 150 °F

1. Pressure - Temperature Ratings are provided for a general reference. They are based on ANSI B16.24 for ASTM B62. The body material of the BAF1 is Aluminum Bronze B148 which may slightly exceed these ratings.

#### REFERENCED STANDARDS & CODES

| CODE             | DESCRIPTION   |
|------------------|---|
| ASME/ANSI B16.24 | Cast Copper Alloy Pipe Flanges and Flanged Fittings |

| STANDARD SCREEN SELECTIONS |              |           |             |           |  |
|----------------------------|--------------|-----------|-------------|-----------|--|
| Size                       | Liquid       | Open Area | Steam       | Open Area |  |
| 2" ~ 4"                    | 1/16 (.0625) | 41%       | 3/64 (.045) | 36%       |  |
| 5" ~ 12"                   | 1/8 (.125)   | 40%       | 30 Mesh(1)  | 44.8 %    |  |

1. For 10" and above, consult factory on screen selections for steam.

