Applications

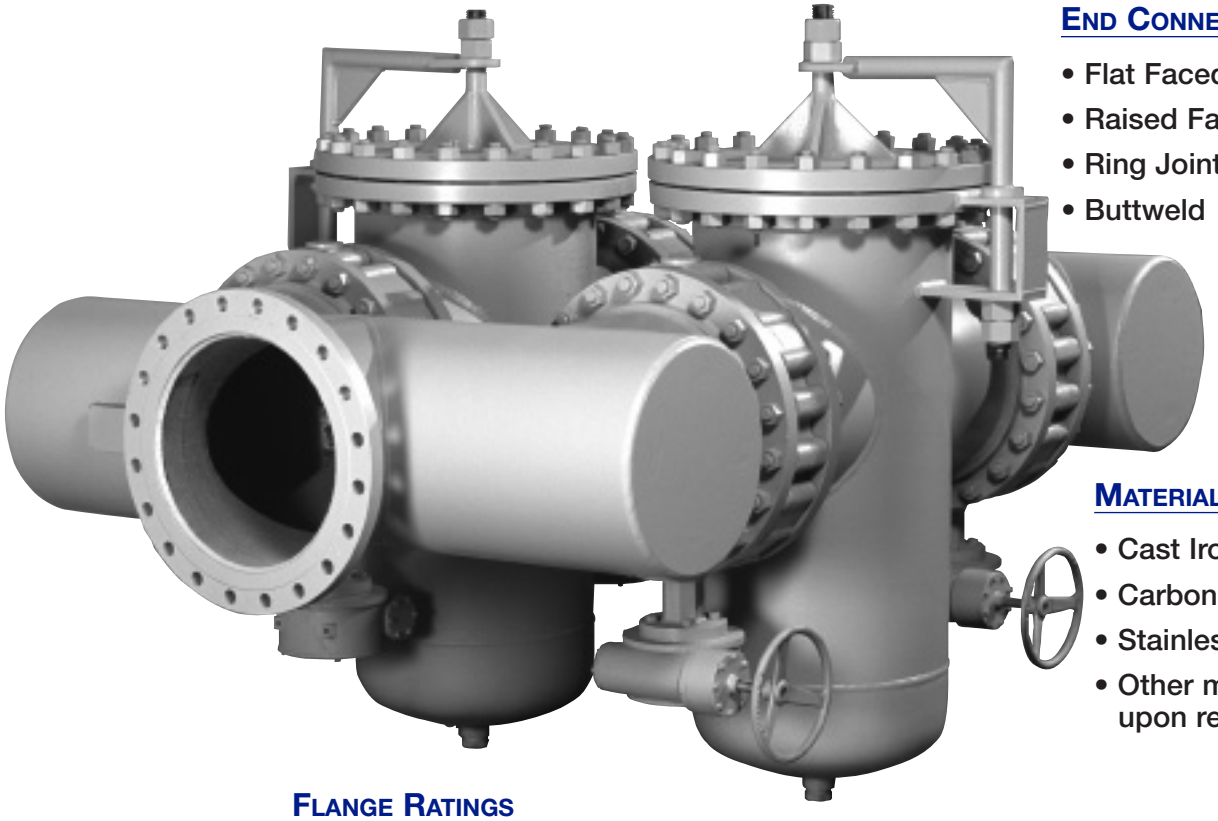
- Chemical Industry
- Process Industry
- Power Industry
- Oil & Gas
- Metals & Mining
- Water & Waste Water
- Pulp & Paper

Fabricated Duplex Strainers

Pressures to 1480 PSIG
Temperatures to 800ºF

Features

- Standard or Custom configurations
- Bolted or Welded Construction
- Compact and Economical units available
- Large strainer baskets



End Connections

- Flat Faced Flanged
- Raised Faced Flanged
- Ring Joint Flanged
- Buttweld

Materials

- Cast Iron
- Carbon Steel
- Stainless Steel
- Other materials upon request

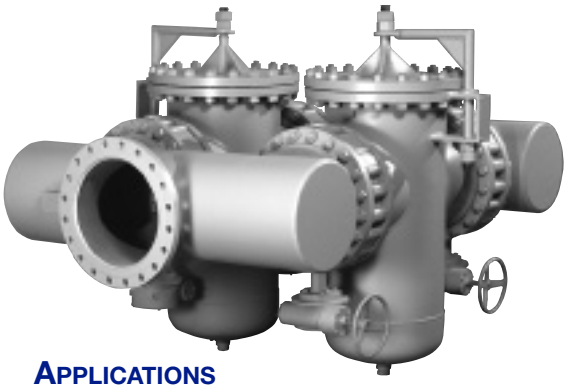
Flange Ratings

- ASME Class 125
- ASME Class 150
- ASME Class 300
- ASME Class 600
- Higher class ratings upon request

Sizes

- 2” (50mm) to 24” (600 mm)
- Larger sizes upon request

SSI Fabricated



FD SERIES
FABRICATED DUPLEX STRAINERS

PRESSURES TO 1480 PSIG (102 BARG)
TEMPERATURES TO 800ºF (427ºC)

Standard or Custom Configurations for tight installations, performance and/or economy

Bolted cast or fabricated headers and/or strainers

Four individual operated isolation valves are used to divert and isolate flow.

Drain connections furnished with plug as standard

SS Perforated baskets are standard

APPLICATIONS

Water, oil systems
Other liquid systems
Protection of pumps, meters, valves and other similar equipment

OPTIONS

Other Materials, Sizes and/or Configurations
Quick Opening Covers – *See page*
Other Shut off valves/check valves
Slave linked isolation valves
Other Scrren, Mesh or Wedgewire – *See page*
Vent and/or Differential Pressure Connections
Legs and other supports
Backflush or Backwash
"U" Stamped Vessels
Steam Jacketing
Air Vents
NACE MR010-75 Certification
External/Internal Coatings

MODELS *See FD Selection Chart on page*

FD1–Center I/O, Fabricated Headers and (FB2) Fabricated Strainers
FD2–Off-Center I/O, Cast Iron Headers and (125B1) Cast Strainers
FD3–Offset I/O, Fabricated Headers and Strainers
FD4–Center I/O, Fabricated Header and Cast (150B1) Cast Strainers
FD5–Center I/O, Fabricated Headers and (FB2) Fabricated Strainers
FD6–Off-Center I/O, Fabricated Headers and (150B1) Cast Strainers
FD7–Off-Center I/O, Fabricated Headers and (FB2) Fabricated Strainers
FDZ - Other

APPLICABLE CODES

Fabricated strainer and header bodies are Desinged/Manufactured to meet ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div I
Canadian Registration Numbers (CRN) upon request
Welders Certified to ASME Section IX

FD Series Ordering Code

Model			Material	Inlet Size	Class	I/O Connection	Dash	Cover	Perf	Mesh	Isolation Valves
F	D	1	T	H	1	R	-	H	4	2	D
1	2	3	4	5	6	7	8	9	10	11	12

Model - Position 1-3
FD1
FD2
FD3
FD4
FD5
FD6
FD7
FDZ

Material - Position 4
I - Cast Iron
C - Carbon Steel
L - Low Temp CS
V - 304 SS
T - 316 SS
M - Monel
H - Hastelloy
Z - Other

Inlet Size - Position 5
H - 2
J - 2-1/2
K - 3
M - 4
N - 5
P - 6
Q - 8
R - 10
S - 12
T - 14
U - 16
V - 18
W - 20
X - 22
Y - 24
Z - Other

Class - Position 6
1 - 150/125
3 - 300
4 - 600
5 - 900
Z - Other

I/O Connection - Position 7
B - Butt Weld
F - Flat Face Flange
N - NPT
J - Ring Joint Flange
R - Raised Face Flange
K - Socket Weld
Z - Other

Dash - Position 8
-

Cover - Position 9
A - None
B - Bolted
C - Bolted w/C-Clamp
D - Bolted w/Davit
J - Bolted w/Hinge

Quick Opening Covers
H - T - Bolt Hinged
T - Threaded Hinged
Y - Yoke Hinged
Z - Other

Perf - Position 10
A - None
B - 3/64
1 - 1/32
2 - 1/16
3 - 3/32
4 - 1/8
5 - 5/32
6 - 3/16
7 - 7/32
8 - 1/4
9 - 3/8
Z - Other

Mesh - Position 11
A - None
1 - 10
2 - 20
3 - 30
4 - 40
5 - 50
6 - 60
7 - 80
8 - 100
9 - 120
Z - Other

Isolation Valves - Position 12
D - DI Body, Soft Seated Butterfly Valve (standard)
C - CS Body, Metal Seated Butterfly Valves
T - SS Body, Metal Seated Butterfly Valves
Z - Other

NOTE: For any variation, use the part numbering system above but clearly indicate the additional requirements.

FD SERIES
FABRICATED DUPLEX STRAINERS
OPERATION/SELECTION

The Spence Strainer Fabricated Duplex Strainer is used in applications where fluid flow cannot be interrupted when the basket is removed for cleaning and/or maintenance. The Spence Strainer Duplex Strainer consists of the following parts:

- (2) Spence Basket Strainers
  (Fabricated FB Series or Cast 125B or Cast 150B Series)
- (2) Header assemblies – Inlet and outlet
- (4) Isolation shut off valves (BF Series Butterfly valves)

The unit is designed to allow changeover from one strainer to the other when cleaning or maintenance work is required. The changeover is accomplished by isolating the particular strainer via closing the two isolation valves around the strainer to provide a tight shut off between the strainer chamber.

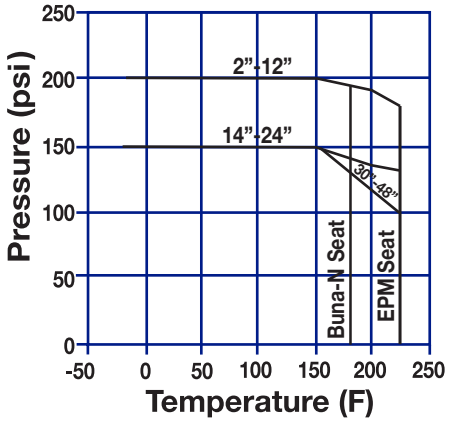
The Strainer and Header assemblies are custom designed and engineered to meet the specific requirements of the application. Many options are available including higher pressure ratings, quick opening covers, various types of isolation valves, special internal coatings and more. Spence Strainers offers seven standard model Duplex Strainers as well as our custom designed units to meet both your application and cost requirements as outlined below.

FD Series Selection Chart

Model	Size (inches)	Material	Inlet/Outlet Connections	Basket Strainers	Headers	Face-to-Face[2]	Cost[3]	Pressure Drop[4]	OAR[5]
FD1	2 - 24	CS, SS	Center	Fabricated	Welded	2	7	2	2
FD2[1]	2 - 16	Cast Iron	Off-Center	Cast	Bolted	3	1	1	3
FD3	2 - 24	CS, SS	Offset	Fabricated	Welded	1	6	2	1
FD4 (Standard unit)	2 - 12	CS, SS	Center	Cast	Welded	5	2	2	3
FD5 (Standard unti)	2 - 24	CS, SS	Center	Fabricated	Welded	5	4	2	2
FD6	2 - 12	CS, SS	Off-Center	Cast	Welded	4	3	1	3
FD7	2 - 24	CS, SS	Off-Center	Fabricated	Welded	4	5	1	2
FDZ	Custom Engineering and Fabricating								

1. All units have differential ports as standard except FD2.
2. 1 being shortest
3. 1 being lowest cost
4. 1 being lowest pressure drop
5. 1 being highest OAR

PRESSURE/TEMPERATURE CHART[1]
All Duplex models using BF Series Butterfly (EPDM-Seat Standard)



NOTES: For higher pressure classes and other materials, consult factory.

1. Ratings based on BF series Butterfly valves with Ductile Iron body, Ductile Iron disc, EPDM seat
– In most cases the isolation valve is the limiting item for the maximum pressure/ temperature ratings. For higher rated options and other materials / isolation valves please consult the factory.

FD1 SERIES
FABRICATED DUPLEX STRAINERS

SPECIFICATION

Fabricated strainer and header bodies shall be designed and manufactured to meet ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div I. The duplex strainer shall have four butterfly isolation valves with Ductile Iron trim. The strainer body and header shall be fabricated steel or other specified material and inlet/outlet connections shall be In-Line Center Design. The header shall be a receiver tank design. The strainer shall be a single basket type with a slant top design. The strainer shall be furnished with a bottom blowdown capability. The screen shall be size _____ perforated SS. The Duplex Strainer shall have an inlet size of _____ and Open Area Ratio of _____. The Duplex Strainer shall be Spence Strainers FD1_____.

MATERIALS OF CONSTRUCTION
(CARBON STEEL SHOWN[1])

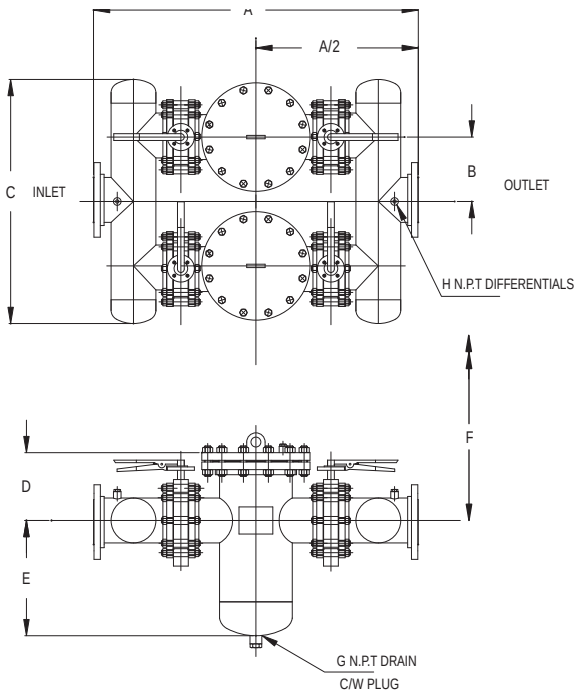
Basket Strainers
Standard ..... See FB2 on page

Headers
Pipe.....SA53S/B or SA106-B
Flanges.....SA105
Couplings SA105

Shutoff Valves
Standard[1] ..... See BF Butterfly valves on page
Ductile Iron Body (non wetted part)
Ductile Iron Disc, EPDM seats[3]

Hardware
Stud SA193-B7
Nut SA194-2H

1. Other Materials and/or Valves Available – contact factory.
2. For recommended spare parts - *See FB2 on page 4*
3. Material specification will change when NACE MR01-75 is required.
4. Lever are standard on 8" and lower, Gears on 10" and higher



Note: Standard Covers on basket strainers are bolted.

Inlet/Outlet Connections[5]: 2-24"
RF, FF, RTJ Flanged or Buttweld

5. Larger sizes available upon request. For Buttweld connection please specify mating pipe schedule

SCREEN OPENINGS
(Basket Strainers)

SIZE	STANDARD SCREEN	MATERIALS
2"- 12"	1/8" Perf.	304SS
14"- 24"	3/16" Perf.	304SS

Note: Other screens and mesh liners available upon request

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)*
150# Class flanges shown (For 300# and 600# dimensions and weights, contact factory)

SIZE	A	B	C	D	E	F	G NPT	H NPT	WEIGHT	
									Cover	Unit
2 (50)	27 15/16 (710)	5 3/16 (132)	20 (508)	6 (152)	8 7/8 (225)	22 1/8 (562)	1/2 (13)	1/2 (13)	17 (7.7)	177 (80)
3 (80)	36 1/16 (916)	6 1/8 (156)	24 (610)	6 1/4 (191)	11 5/8 (295)	20 3/4 (527)	1/2 (13)	1/2 (13)	26 (11.8)	403 (184)
4 (100)	40 3/8 (1025)	7 1/8 (181)	26 (660)	8 1/2 (184)	10 5/8 (270)	21 1/8 (537)	1/2 (13)	1/2 (13)	26 (11.8)	530 (243)
6 (150)	42 7/8 (1089)	9 7/8 (251)	36 (914)	9 5/8 (244)	12 1/2 (318)	27 1/4 (692)	3/4 (19)	1/2 (13)	45 (20.4)	737 (334)
8 (200)	53 (1347)	11 (279)	43 (1092)	10 15/16 (278)	19 1/2 (495)	36 1/8 (918)	1 (25)	1/2 (13)	70 (31.8)	1453 (659)
10 (250)	64 15/16 (1649)	13 3/8 (340)	55 (1397)	15 1/2 (394)	21 (533)	32 1/4 (819)	1 1/2 (38)	1/2 (13)	110 (49.9)	2016 (894)
12 (300)	76 1/4 (1937)	13 1/2 (343)	57 (11448)	15 5/8 (397)	22 (559)	46 7/8 (1191)	1 1/2 (38)	1/2 (13)	139 (63.1)	2974 (1323)
14 (350)	81 3/8 (2067)	14 5/8 (371)	60 (1524)	15 5/8 (397)	26 (660)	46 3/8 (1178)	1 1/2 (38)	1/2 (13)	180 (81.6)	4803 (2167)
16 (400)	96 5/16 (2447)	15 7/8 (403)	64 (1626)	15 3/4 (400)	30 (762)	55 (1397)	2 (51)	1/2 (13)	285 (129.3)	7053 (3199)
18 (450)	110 11/16 (2812)	19 7/8 (505)	82 (2083)	20 1/8 (511)	28 (711)	59 3/4 (1518)	2 (51)	1/2 (13)	285 (129.3)	7753 (3485)
20 (500)	115 3/4 (2940)	20 3/8 (518)	87 (2110)	23 5/8 (600)	32 (813)	66 1/2 (1689)	2 (51)	1/2 (13)	430 (195)	10304 (4671)
24 (600)	132 1/4 (3359)	21 3/8 (543)	94 (2388)	24 7/8 (632)	38 (965)	79 (2007)	2 (51)	1/2 (13)	965 (437.7)	15016 (6811)

* Weights and dimensions with Bolted Cover.
Dimensions shown are subject to change. Contact factory for certified prints when required.

FD3 SERIES
FABRICATED DUPLEX STRAINERS

SPECIFICATION

Fabricated strainer and header bodies shall be designed and manufactured to meet ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div I. The duplex strainer shall have four butterfly isolation valves with Ductile Iron trim. The strainer body and header shall be fabricated steel or other specified material and inlet/outlet connections shall be Off-Set Design to minimize the face-to-face dimension. The strainer shall be furnished with a bottom blowdown capability. The screen shall be size _____ perforated SS. The Duplex Strainer shall have an inlet size of _____ and Open Area Ratio of _____. The Duplex Strainer shall be Spence Strainers FD3_____.

MATERIALS OF CONSTRUCTION
(CARBON STEEL SHOWN[1])

Basket Strainers

Standard ..... See FB2 on page
Note: Design is different but materials are the same

Headers

Pipe .....SA53S/B or SA106-B
Flanges SA105
Couplings SA105

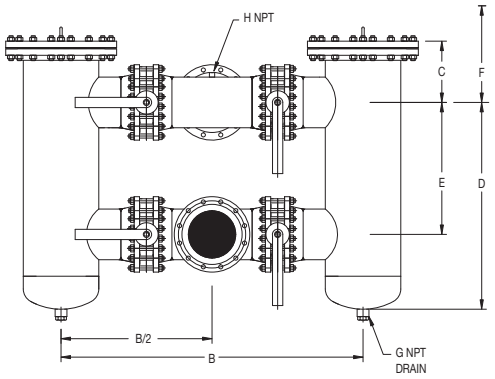
Shutoff Valves

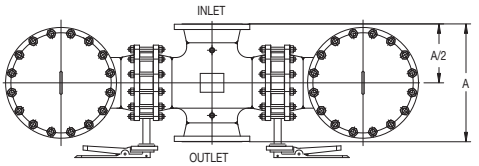
Standard[1] ..... See BF Butterfly valves on page
Ductile Iron Body (non wetted part)
Ductile Iron Disc, EPDM seats[3]

Hardware

Stud.....SA193-B7
Nut SA194-2H

1. Other Materials and/or Valves Available – contact Spence Strainers.
2. For recommended spare parts - See FB2 on page 5
3. Material specification will change when NACE MR01-75 is required.
4. Levers are standard on 8" and lower, Gears on 10" and higher





Note: Standard Covers on basket strainers are bolted.

Inlet/Outlet Connections[5]: 2-24"
RF, FF, RTJ Flanged or Buttweld

5. Larger sizes available upon request. For Buttweld connection please specify mating pipe schedule

SCREEN OPENINGS
(Basket Strainers)

SIZE	STANDARD SCREEN	MATERIALS
2"- 12"	1/8" Perf.	304SS
14"- 24"	3/16" Perf.	304SS

Note: Other screens and mesh liners available upon request

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)*

150# Class flanges shown (For 300# and 600# dimensions and weights, contact factory.)

SIZE	A	B	C	D	E	F	G NPT	H NPT	WEIGHT	
									Cover	Unit
2 (50)	10 (254)	26 (660)	6 (152)	20 (508)	14 (356)	32 (813)	3/4 (20)	1/2 (15)	26 (12)	280 (127)
3 (80)	12¼ (311)	30 (762)	8 (203)	22½ (572)	14½ (368)	38½ (978)	1 (25)	1/2 (15)	45 (20)	300 (136)
4 (100)	14¼ (362)	36 (914)	8 (203)	25½ (648)	17½ (445)	41½ (1054)	1 (25)	1/2 (15)	45 (20)	450 (204)
6 (150)	18¼ (464)	44 (1118)	10 (254)	31 (787)	21 (533)	51 (1295)	1 (25)	1/2 (15)	70 (32)	700 (318)
8 (200)	22 (559)	50 (1270)	12 (305)	35 (889)	23 (584)	59 (1499)	1 (25)	1/2 (15)	110 (50)	1400 (636)
10 (250)	25 (635)	64 (1626)	13 (330)	39 (991)	28 (660)	65 (1651)	1½ (40)	1/2 (15)	180 (82)	1850 (840)
12 (300)	29 (737)	72 (1829)	14 (356)	44 (1118)	30 (762)	72 (1829)	1½ (40)	1/2 (15)	220 (100)	2750 (1249)
14 (350)	32 (813)	76 (1930)	18 (457)	50 (1270)	32 (813)	86 (2184)	2 (50)	1/2 (15)	285 (129)	4000 (1816)
16 (400)	34 (864)	84 (2134)	20 (508)	54 (1372)	34 (864)	94 (2388)	2 (50)	1/2 (15)	430 (195)	5300 (2406)
18 (450)	38 (965)	94 (2388)	20 (508)	56 (1422)	36 (914)	96 (2438)	2 (50)	1/2 (15)	430 (195)	5900 (2679)
20 (500)	41⅜ (1051)	104 (2642)	24 (610)	64 (1626)	40 (1016)	112 (2845)	2 (50)	1/2 (15)	965 (438)	8000 (3632)
24 (600)	46 (1168)	122 (3099)	28 (711)	76 (1930)	48 (1219)	132 (3353)	2 (50)	1/2 (15)	1540 (699)	9000 (4086)

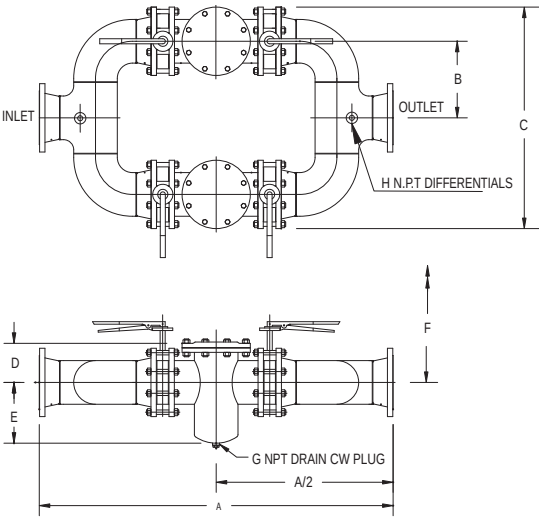
* Weights and dimensions with Bolted Cover.
Dimensions shown are subject to change. Contact factory for certified prints when required.

SSI Fabricated

FD5 SERIES
FABRICATED DUPLEX STRAINERS

SPECIFICATION

Fabricated strainer and header bodies shall be designed and manufactured to meet ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div I. The duplex strainer shall have four butterfly isolation valves with Ductile Iron trim. The strainer body and header shall be fabricated steel or other specified material and inlet/outlet connections shall be In-Line Center Design. The strainer shall be a single basket type with a slant top design. The strainer shall be furnished with a bottom blowdown capability. The screen shall be size _____ perforated SS. The Duplex Strainer shall have an inlet size of _____ and Open Area Ratio of _____. The Duplex Strainer shall be Spence Strainers FD5_____.



Note: Standard Covers on basket strainers are bolted.

MATERIALS OF CONSTRUCTION (CARBON STEEL SHOWN[1])

Basket Strainers

Standard ..... See FB2 on page
Note: Design is different but materials are the same

Headers

Pipe .....SA53S/B or SA106-B
Flanges SA105
Couplings SA105

Shutoff Valves

Standard[1] ..... See BF Butterfly valves on page
Ductile Iron Body (non wetted part)
Ductile Iron Disc, EPDM seats[3]

Hardware

Stud SA193-B7
Nut SA194-2H

1. Other Materials and/or Valves Available – contact Spence Strainers.
2. For recommended spare parts - See FB2 on page 6
3. Material specification will change when NACE MR01-75 is required.
4. Levers are standard on 8" and lower, Gears on 10" and higher

Inlet/Outlet Connections[5]: 2-24"
RF, FF, RTJ Flanged or Buttweld

5. Larger sizes available upon request. For Buttweld connection please specify mating pipe schedule

SCREEN OPENINGS
(Basket Strainers)

SIZE	STANDARD SCREEN	MATERIALS
2"- 12"	1/8" Perf.	304SS
14"- 24"	3/16" Perf.	304SS

Note: Other screens and mesh liners available upon request

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)*

150# Class flanges shown (For 300# and 600# dimensions and weights, contact factory.)

SIZE	A	B	C	D	E	F	G NPT	H NPT	WEIGHT	
									Cover	Unit
2 (50)	32 1⁵⁄₁₆ (834)	4⅝ (117)	15¼ (387)	6 (152)	8⅞ (225)	22⅛ (562)	1/2 (13)	1/2 (13)	17 (7.7)	177 (80.4)
3 (80)	41⁵⁄₁₆ (1049)	6½ (165)	20½ (521)	6¼ (159)	11⅝ (295)	20¾ (527)	1/2 (13)	1/2 (13)	26 (11.8)	401 (181.9)
4 (100)	46⅞ (1190)	8¼ (210)	25½ (648)	8½ (216)	10⅝ (270)	21⅛ (537)	1/2 (13)	1/2 (13)	26 (11.8)	532 (241.2)
6 (150)	57 (1448)	11¾ (298)	34½ (876)	9⅝ (244)	12½ (318)	27¼ (692)	3/4 (19)	1/2 (13)	45 (20.4)	774 (351.0)
8 (200)	69¼ (1760)	15⅛ (384)	43¾ (1111)	10 15⁄₁₆ (278)	19½ (495)	36⅛ (918)	1 (25)	1/2 (13)	70 (31.8)	1512 (685.8)
10 (250)	78 1⁄₁₆ (1998)	18⅝ (473)	53¼ (1353)	15½ (394)	21 (533)	32¼ (819)	1½ (38)	1/2 (13)	110 (49.9)	1965 (891.4)
12 (300)	94¾ (2407)	22⅛ (562)	63¼ (1607)	15⅝ (397)	22 (559)	46⅞ (1191)	1½ (38)	1/2 (13)	139 (63.1)	3019 (1369.6)
14 (350)	106½ (2705)	25⅛ (638)	71¼ (1810)	15⅝ (397)	26 (660)	46⅜ (1178)	1½ (38)	1/2 (13)	180 (81.6)	4099 (1859.3)
16 (400)	117⅝ (2980)	28⅛ (714)	79¾ (2026)	15¾ (400)	30 (762)	55 (1397)	2 (51)	1/2 (13)	285 (129.3)	5890 (2671.9)
18 (450)	132⅜ (3358)	31⅝ (803)	88¼ (2242)	20⅛ (511)	28 (711)	59¾ (1518)	2 (51)	1/2 (13)	285 (129.3)	6514 (2954.6)
20 (500)	144⅜ (3667)	35⅛ (892)	94¾ (2407)	23⅝ (600)	32 (813)	66½ (1689)	2 (51)	1/2 (13)	430 (195.0)	8463 (3838.9)
24 (600)	163¾ (4159)	41⅛ (1045)	114¼ (2902)	24⅞ (632)	38 (965)	79 (2007)	2 (51)	1/2 (13)	965 (437.7)	12654 (5739.9)

* Weights and dimensions with Bolted Cover.
Dimensions shown are subject to change. Contact factory for certified prints when required.

FD7 SERIES
FABRICATED DUPLEX STRAINERS

SPECIFICATION

Fabricated strainer and header bodies shall be designed and manufactured to meet ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div I. The duplex strainer shall have four butterfly isolation valves with Ductile Iron trim. The strainer body and header shall be fabricated steel or other specified material and inlet/outlet connections shall be In-Line Center Design. The strainer shall be a single basket type with a slant top design. The strainer shall be furnished with a bottom blowdown capability. The screen shall be size _____ perforated SS. The Duplex Strainer shall have an inlet size of _____ and Open Area Ratio of _____. The Duplex Strainer shall be Spence Strainers FD7_____.

MATERIALS OF CONSTRUCTION (CARBON STEEL SHOWN[1])

Basket Strainers

Standard ..... See FB2 on page

Headers

Pipe .....SA53S/B or SA106-B
Flanges SA105
Couplings SA105

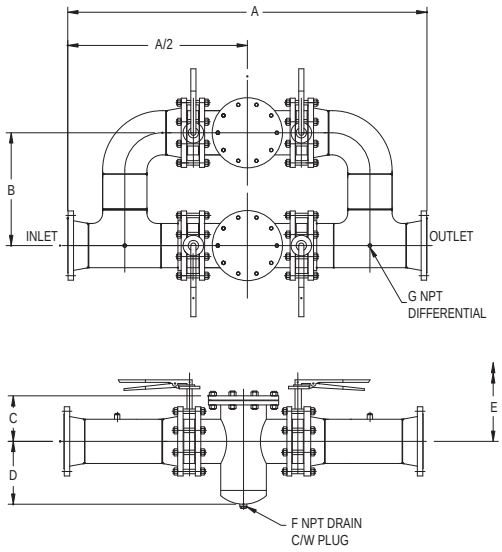
Shutoff Valves

Standard[1] ..... See BF Butterfly valves on page
Ductile Iron Body (non wetted part)
Ductile Iron Disc, EPDM seats[3]

Hardware

Stud SA193-B7
Nut SA194-2H

1. Other Materials and/or Valves Available – contact Spence Strainers.
2. For recommended spare parts - See FB2 on page 7
3. Material specification will change when NACE MR01-75 is required.
4. Levers are standard on 8" and lower, Gears on 10" and higher



Note: Standard Covers on basket strainers are bolted.

Inlet/Outlet Connections[5]: 2-24"
RF, FF, RTJ Flanged or Buttweld

5. Larger sizes available upon request. For Buttweld connection please specify mating pipe schedule

SCREEN OPENINGS
(Basket Strainers)

SIZE	STANDARD SCREEN	MATERIALS
2"- 12"	1/8" Perf.	304SS
14"- 24"	3/16" Perf.	304SS

Note: Other screens and mesh liners available upon request

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)*

150# Class flanges shown (For 300# and 600# dimensions and weights, contact factory.)

SIZE	A	B	C	D	E	F NPT	G NPT	WEIGHT	
								Cover	Unit
2 (50)	33 11/16 (856)	10 (254)	6 (152)	8 7/8 (225)	22 1/8 (562)	1/2 (13)	1/2 (13)	17 (7.7)	178 (80.5)
3 (80)	41 15/16 (1065)	12 (305)	6 1/4 (191)	11 5/8 (295)	20 3/4 (527)	1/2 (13)	1/2 (13)	26 (11.8)	399 (181.2)
4 (100)	47 (1194)	13 (330)	8 1/2 (184)	10 5/8 (270)	21 1/8 (537)	1/2 (13)	1/2 (13)	26 (11.8)	523 (237.3)
6 (150)	56 1/8 (1426)	17 (432)	9 5/8 (244)	12 1/2 (318)	27 1/4 (692)	3/4 (19)	1/2 (13)	45 (20.4)	744 (337.6)
8 (200)	67 1/8 (1706)	21 (533)	10 15/16 (278)	19 1/2 (495)	36 1/8 (918)	1 (25)	1/2 (13)	70 (31.8)	1451 (658.4)
10 (250)	75 9/16 (1919)	25 (635)	15 1/2 (394)	21 (533)	32 1/4 (819)	1 1/2 (38)	1/2 (13)	110 (49.9)	1868 (847.2)
12 (300)	90 5/8 (2302)	28 (711)	15 5/8 (397)	22 (559)	46 7/8 (1191)	1 1/2 (38)	1/2 (13)	139 (63.1)	2859 (1297)
14 (350)	100 3/8 (2550)	31 (787)	15 5/8 (397)	26 (660)	46 7/8 (1178)	1 1/2 (38)	1/2 (13)	180 (81.6)	4756 (2157.2)
16 (400)	109 3/16 (2774)	34 (864)	15 3/4 (400)	30 (762)	55 (1397)	2 (50)	1/2 (13)	285 (129.3)	6951 (3153)
18 (450)	123 1/16 (3126)	38 (965)	20 1/8 (511)	28 (711)	59 3/4 (1518)	2 (50)	1/2 (13)	285 (129.3)	7542 (3421.1)
20 (500)	134 1/4 (3410)	41 (1041)	23 5/8 (600)	32 (813)	66 1/2 (1689)	2 (50)	1/2 (13)	430 (195)	10045 (4556.5)
24 (600)	149 5/8 (3801)	47 (1194)	24 7/8 (632)	38 (965)	79 (2007)	2 (50)	1/2 (13)	965 (437.7)	14874 (6746.8)

* Weights and dimensions with Bolted Cover.
Dimensions shown are subject to change. Contact factory for certified prints when required.

SSI Fabricated

FD SERIES

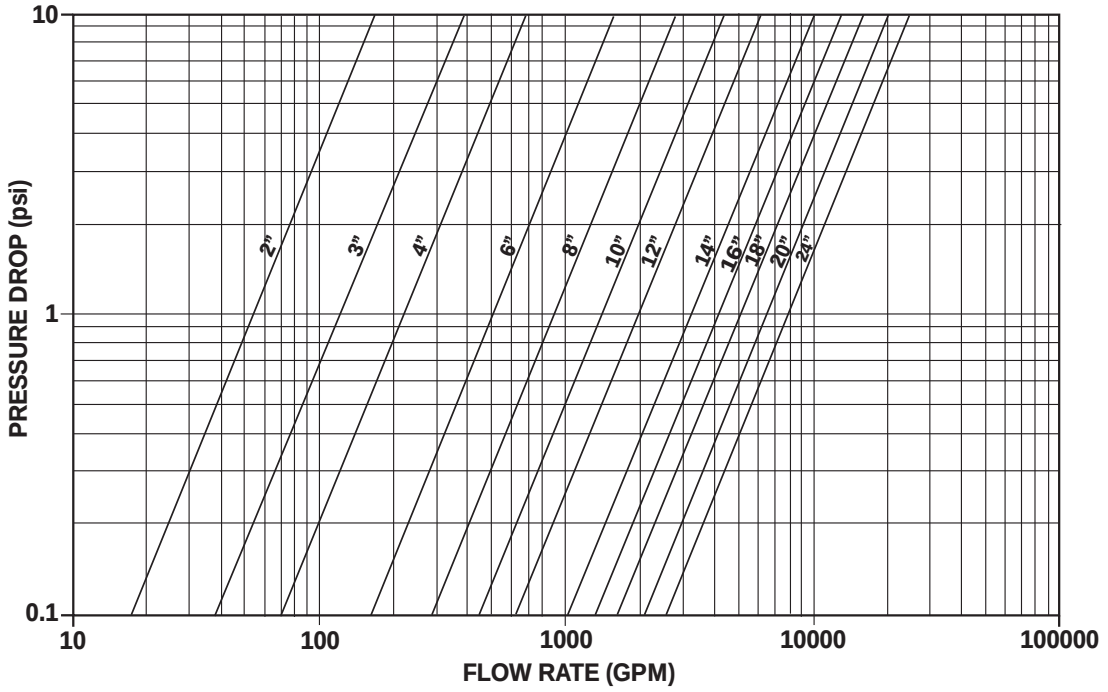
FABRICATED DUPLEX STRAINERS

PRESSURE DROP VS FLOW RATE

Water Service, Clean Basket, 1/32" - 1/4" Perforated Screen*

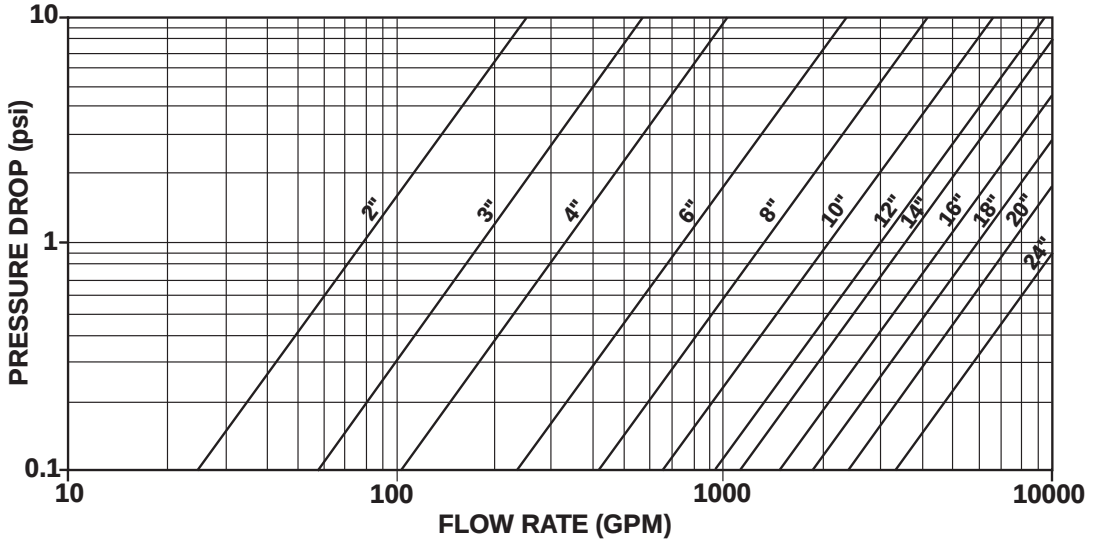
FD1
FD3
FD4
FD5

(Sizes 2" - 24")



FD2
FD6
FD7

(Sizes 2" - 24")



FD SERIES
FABRICATED DUPLEX STRAINERS
OPEN AREA RATIOS

FD1 / FD5 / FD7 - Uses FB2 Strainer

Size	Opening diameter (in)	Opening %	Nominal Outlet Area (in^2)	Gross Screen Area (in^2)	Free Screen Area (in^2)	Open Area Ratio (OAR)
2	1/8	40%	3.4	78	31	9.3
3	1/8	40%	7.4	133	53	7.2
4	1/8	40%	12.7	133	53	4.2
6	1/8	40%	28.9	266	106	3.7
8	1/8	40%	50.0	451	180	3.6
10	1/8	40%	78.9	562	225	2.9
12	1/8	40%	113.1	703	281	2.5
14	3/16	50%	137.9	938	469	3.4
16	3/16	50%	182.7	1204	602	3.3
18	3/16	50%	227.0	1429	715	3.1
20	3/16	50%	291.0	1916	958	3.3
24	3/16	50%	402.0	3393	1696	4.2

FD2 - Uses 125B Strainer

Size	Opening diameter (in)	Opening %	Nominal Outlet Area (in^2)	Gross Screen Area (in^2)	Free Screen Area (in^2)	Open Area Ratio (OAR)
2	3/64	36	3.14	29.4	10.6	3.5
2½	3/64	36	4.91	43.6	15.7	3.3
3	3/64	36	7.07	75.0	27.0	3.9
4	1/8	40	12.57	104.4	41.8	3.3
6	1/8	40	28.27	177.3	70.9	2.5
8	1/8	40	50.27	307.0	122.8	2.4
10	1/8	40	78.54	450.0	180.0	2.3
12	1/8	40	113.1	688.5	275.4	2.4
14	1/8	40	153.94	1019.1	407.6	2.6
16	1/8	40	201.06	1248.6	499.4	2.5

FD4 / FD6 - Uses 150B Strainer

Size	Opening diameter (in)	Opening %	Nominal Inlet Area (in^2)	Gross Screen Area (in^2)	Free Screen Area (in^2)	Open Area Ratio (OAR)
2	3/64	36	3.14	38.1	13.7	4.4
2½	3/64	36	4.91	41.6	15.0	3.0
3	3/64	36	7.07	59.6	21.5	3.0
4	1/8	40	12.57	119.9	48.0	3.8
6	1/8	40	28.27	177.4	71.0	2.5
8	1/8	40	50.27	296.5	118.6	2.4
10	1/8	40	78.54	413.5	165.4	2.1
12	1/8	40	113.10	730.3	292.1	2.6

NOTE: For FD3 open area ratio – please contact the factory.

OAR = Free Screen Area / Nominal Inlet Area

Free Screen Area = Opening % x Gross Screen Area

Values shown are approximate. Consult factory for exact ratios.

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