

# **Contents**

# **Table of Contents**

Table of Contents		1
Service Application	ons	2
Commitment to C	Quality	2
<b>Production Capal</b>	bilities and Engineering Expertise	3
Y Type Strainers		.4-18
Cast Y Strainers	S	.4-15
Pressure Drop	Charts	4
Threaded	Class 250 Cast Iron	5
	Class 150, 300 Cast Bronze	6
	Class 600 Carbon Steel, Stainless Steel	7
	Class 1500 Chrome-Moly, Stainless Steel	8
Flanged	Class 125 Cast Iron	9
	Class 150 Carbon Steel, Stainless Steel	10
	Class 300 Carbon Steel, Stainless Steel	11
	Class 600 Carbon Steel, Stainless Steel	12
	Class 900 Carbon Steel, Stainless Steel, LCC.	13
	Class 1500 Carbon Steel, Stainless Steel, LCC	14
High Pressure	e Socket Weld	
	Class 2500 Carbon Steel, Stainless Steel	15
Fabricated Y S	trainers	16-18
Flanged	Class 150, 300 Carbon Steel, Stainless Steel	16
	Class 600 Carbon Steel, Stainless Steel	17
	Class 150, 300 Carbon Steel, Stainless Steel	
	(Standard Buttweld Fittings)	
Basket Strainers		19-31
	ainers	
	Charts	
Threaded	Class 125 Cast Iron	
	Class 150 Stainless Steel	
Flanged	Class 125 Ductile Iron	
	Class 125 Cast Iron	
	Class 150 Carbon Steel, Stainless Steel	
	Class 300 Carbon Steel, Stainless Steel	
	ket Strainers	26-31
Flanged	Class 150 Carbon Steel, Stainless Steel	
	(Quick Opening Eye Bolts)	
	Class 150, 300 Carbon Steel, Stainless Steel	
	Class 600 Carbon Steel, Stainless Steel	28
	Class 150, 300 Carbon Steel, Stainless Steel	
	(Quick Opening Hinged Cover)	
	ner Options	
Pressure Drop	o Charts	31

Fabricated Dual Basket Strainers	32-34
BDB (Bolted), DBH150, DBH150SS	33
Class 150 - Short Face to Face	
Class 150 - with Optional Knife Gate Valves	34
Fabricated Tee Strainers	
Class 150, 300 Carbon Steel, Stainless Steel	35
Class 150, 300 Carbon Steel, Stainless Steel	
(Quick Opening Hinged Cover)	36
Class 150, 300 Carbon Steel, Stainless Steel	
(Angled Flow Design)	37
Pressure Drop Charts	38
Fabricated Sanitary Basket Strainers	39-40
Class 150 Stainless Steel (Try Clamp)	39
Class 150 Duplex Basket Stainless Steel (Try Clamp	)40
Custom Strainer Screen Selection	41-42
Overview and Quad Reverse Cone Strainer	41
Custom Basket/Screen Types	42
Perforated Material and Mesh, Conversion Charts	43
Duplex Strainers	44-48
Duplex Strainers - 3/4" to 4"	44-45
Product Information	44
Ordering Selection Table	44
Dimensional Data	45
Duplex Strainers - 5" to 8"	46-47
Product Information and Ordering Selection Table	46
Options and Dimensional Data	47
Duplex Strainer Pressure Drop Charts	48
Automatic Strainers	49-57
The Web Automatic Self-Cleaning Strainers	49-50
Sequence of Operation	49
Application and Features	
Wedge Wire Straining Element - Features and Advantages	350
Straining Element Selection and Model Information	51
The Spyder-Clean Automatic Self-Cleaning Strainers	52
Spyder-Clean Advantage	52
Application and Features	52
Specifications / Dimensions / Weights	53-54
Specifications and Options	
The Web Automatic Cast Self-Cleaning Strainers	
Sequence Controllers	
Warranty Back	<b>Cover</b>



# **Service Applications**

# **Commitment to Quality**

### **Service Applications**



Sewage Treatment Industry



Chemical Plants

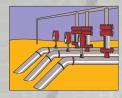


Food Processing Facilities





Cement Manufacturing



Petrochemical



Steel Mills



Pulp and Paper

#### **Commitment to Quality**

Sure Flow Equipment Inc. features complete custom engineered design and fabrication expertise within a quality focused state-of-the-art manufacturing facility. Commitment to quality, customer satisfaction and continual improvement is integral to our manufacturing processes and ensures custom engineered strainers meet your design specifications and stringent quality requirements. We've made it easy for you to place your order with confidence.

Sure Flow Equipment Inc. provides industry with Custom Engineered Fabricated Strainers to many design codes. Custom products are designed and manufactured to ASME BPVC SECTION VIII, DIV 1, Current Edition. ASME "U" Code Stamp is available on certain products as specified in this brochure.

The Sure Flow Equipment Inc. list of Certifications includes:

ISO 9001:2015 Certificate of Registration

ASME "U" Code Stamp Certificate of Authorization

(ASME Boiler and Pressure Vessel Code; ASME Section VIII, Div 1, Current Edition);

National Board Certified authorized to apply the "NB" Mark for pressure vessels and/or pressure retaining items manufactured in accordance with ASME, BPVC, Section VIII, Div 1, Current Edition.

TSSA Certificate of Authorization (Technical Standards & Safety Authority) for the manufacture of pressure vessels in accordance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 and CSA Standard B51, Boiler, Pressure Vessel and Pressure Piping Code.

CE Mark is available

CRN's (Canadian Registration Numbers) are available upon request

Compliance to USMCA (United States-Mexico-Canada Agreement) is available upon request

C-TPAT Certified (Customs-Trade Partnership Against Terrorism)

Recognized by PIP (Partners In Protection) for our C-TPAT status



# **Production Capabilities and Engineering Expertise**

### **Head Office and Production Facility**

- 100,000 Square foot facility
- Central distribution centre
- All finished products
- Complete machine shop, lathe, vertical and horizontal boring
- 12 Welding stations with Jib cranes
- Fully equipped with overhead cranes
- 40 Foot drive in dock, dock height door and service door
- 20 Foot paint booth

### **Welding Capabilities**

- MIG (GMAW)
- TIG (GTAW)
- · Submerged Arc Welding (SAW)
- Flux-Core (FCAW)
- Stick Electrode (SMAW)

#### **Additional Services**

- Heat Tracing and Treatment
- Full Material Traceability
- Stress Relieving
- Oxygen Service Cleaning and Degreasing
- Machining
- Steel Painting includes Tank Linings, Protective Coatings, Chemical Corrosion Resistance
- Sand Blasting
- Plasma Cutting
- Water Jet Cutting (Carbon Steel, Stainless Steel and Aluminum thickness up to 1")
- Contour Beveling

#### **Testing**

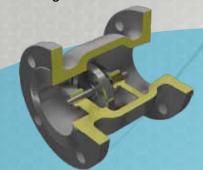
- RT, UT, MT, LP
- · Film Thickness Testing
- Adhesion Testing
- Holiday Testing
- Hydrostatic, Pneumatic
- Hardness Testing
- PMI Positive Material Identification
- Non-Destructive Testing
- Automated Marking System

To provide you with the most elite Strainer, Check Valve, Butterfly Valve, and a variety of other industrial valves, Sure Flow uses an in-house handheld PMI Positive Material Identification Analyzer. Within five seconds we can provide a full traceability of any alloy; plus download the analysis to provide a



### **Engineering Expertise**

- Full in-house design, Engineering Department
- CAD services to design and build specialty products
- CFD Computational Fluid Dynamics software program
- 3D Product Models



# 3D Computerized Product Models

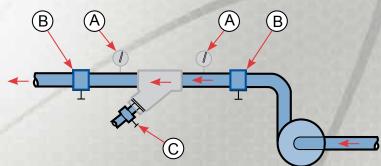
This capability enables our Sure Flow Engineering Department to provide a better illustration of the installation, flow and positioning of our custom engineered products.



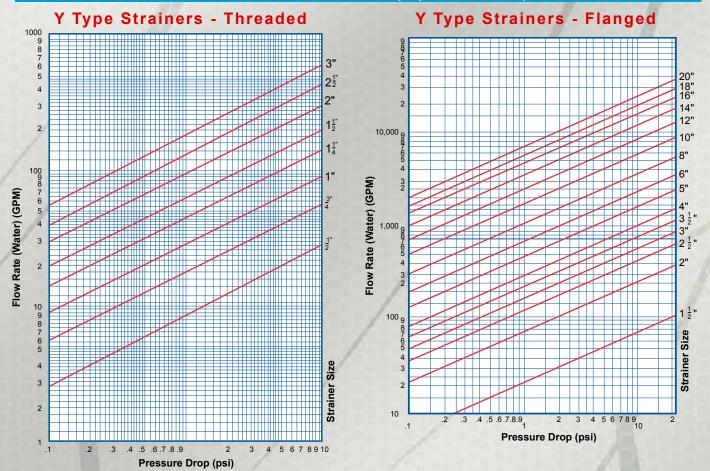
# **Y Strainers**

"Y" Strainers take their name from their configuration. They are most commonly used in pressurized lines, gas or liquid, but can also be used in suction or vacuum conditions. They are intended for applications where small amounts of solid particulate are expected, and where clean-out will be infrequent. If solids will flush easily from the screen, and fluid can be exhausted to atmosphere, a blow-down valve on the drain port will allow clean-out without removal of the screen, and without interrupting the process flow.

- A. Pressure gauges to indicate clogged screen
- B. Isolation valves for servicing strainer
- C. Optional manual or auto blow-down



#### Flow Rate Vs. Pressure Drop (Clean Screen)



**Note:** These charts are for theoretical calculations **ONLY**. Please contact our office with your exact specifications and you will be provided with factory calculations.

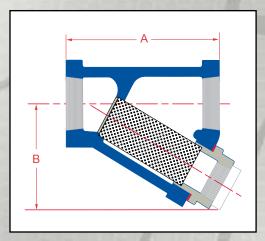


#### T250 - Cast Iron

#### **NPT End Connections**



Sure Flow threaded strainers in Cast Iron feature a machined seat which ensures a perfect fit for the removable, stainless steel screen. All sizes come complete with NPT blow-off with plug, which can be replaced with a ball valve for on-line blow-down of particulate.



#### Notes:

· Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Cast Iron - Body, Cover and Plug

- High Tensile ASTM A126 Class B

All screens are Stainless Steel

Dimensions (Inches)							
	Size	A	В	Blow-Off	Shipping		
Inches	Prefix	^	ь	NPT	Weight (LBS)		
1/2	0050	3 3/16	2 1/16	3/8	5		
3/4	0075	3 3/4	2 7/16	1/2	6		
1	0100	4	2 5/8	1/2	8		
1 1/4	0125	5	3 3/8	3/4	13		
1 1/2	0150	5 3/4	3 7/8	3/4	15		
2	0200	7	4 3/4	1	24		
2 1/2	0250	9 1/4	5 7/8	1 1/2	37		
3	0300	10	6	1 1/2	48		

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0200
 T250
 032

2" Threaded Y Strainer, Cast Iron, ASME Class 250, 20 Mesh Screen

Operating Pressures and Temperatures						
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG			
T250	1/2" - 3"	250 @ 400 °F	400 @ 150 °F			

Standard Screens						
Size	Standard	Opening				
1/2" - 2"	20 mesh	0.032"				
2 1/2" - 3"	3/64" perf	0.045"				

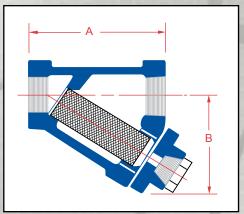


#### TB150 / TB300 - Bronze

#### **NPT and Sweat End Connections**



Sure Flow threaded strainers in Cast Bronze feature a machined, tapered seat which ensures a perfect fit for the removable, stainless steel screen. All sizes come complete with NPT blow-off with plug, which can be replaced with a ball valve for on-line blow-down of particulate.



Notes:

- Must specify if for steam service
- For Socket Weld add suffix "SW" to model number

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

### Construction

Cast Bronze - Body, Cover and Plug

- ASTM B62

All screens are Stainless Steel

	Dimensions (Inches)												
I	Siz	ze		А			В		Blow-Off NPT			Shipping Weight (LBS)	
I	Inches	Prefix	150	150SW	300	150	150SW	300	150	150SW	300	150	300
	1/4	0025	3 3/16	3 3/8	1	2 3/16	2 3/8		3/8	3/8	-	2	
1	3/8	0038	3 3/16	3 3/8	-	2 3/16	2 3/8		3/8	3/8	-	2	
	1/2	0050	3 3/16	3 3/8	3	2 3/16	2 3/8	2 5/16	3/8	3/8	3/8	2 1/2	2 1/2
	3/4	0075	3 15/16	4 5/16	3 7/16	2 3/4	2 3/4	2 1/2	3/8	3/8	3/8	3	3
	1	0100	4 9/16	5	4 1/16	2 15/16	3 3/16	3 1/8	1/2	1/2	3/4	5	6
1	1 1/4	0125	5 5/16	5 15/16	4 7/8	3 9/16	3 11/16	3 5/8	1/2	1/2	3/4	9	9
	1 1/2	0150	6 3/16	6 15/16	5 3/4	3 13/16	4 1/8	4 1/8	1/2	1/2	3/4	10	11
	2	0200	7 1/2	8 11/16	6 3/4	5 7/16	5 3/16	5	1/2	1/2	3/4	16	19
	2 1/2	0250	9 1/16		7 1/2	5 15/16		5 1/4	1/2		1 1/4	29	29
	3	0300	10 3/16		8 1/2	6 5/16		6 1/2	1/2		1 1/4	38	42

# **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0150
 TB150
 032

1 1/2" NPT, Y Strainer, Bronze, ASME Class 150, 20 Mesh Screen

Operating Pressures and Temperatures							
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG				
TB150	1/4" - 3"	150 @ 358 °F	300 @ 150 °F				
TB300	1/2" - 3"	300 @ 417 °F	400 @ 150 °F				

Standard Screens						
Size	Standard	Opening				
1/4" - 2"	20 mesh	0.032"				
2 1/2" - 3"	3/64" perf	0.045"				



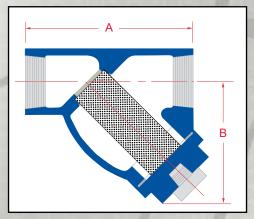
## YT6 / YT6SS / YT6A20 - Cast Steel / Cast 316 Stainless Steel / Alloy 20

#### **NPT or Socket Weld Connections**



Threaded or Socket Weld strainers in Cast Steel and Cast Stainless Steel are rated for up to 1480 psi for

Water, Oil or Gas. A machined, tapered seat ensures a perfect fit for the removable, stainless steel screen. All sizes come complete



with blow-off and plug, which can be replaced with a ball valve for on-line blow-down of particulate.

#### Notes:

- Must specify if for steam service
- For Socket Weld add suffix "SW" to model number

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

**Cast Steel** - Body, Cover and Plug

- ASTM A216 Grade WCB

Stainless Steel - Body, Cover and Plug

- ASTM A351 Grade CF8M

Alloy 20 - Body, Cover and Plug

- ASTM A351 Grade CN7M

All screens are Stainless Steel

	Dimensions (Inches)							
S	Size		В	Blow-Off	Shipping			
Inches	Prefix	А	В	NPT	Weight (LBS)			
1/2	0050	3 1/4	2 3/16	1/4	4			
3/4	0075	3 5/8	2 3/4	1/4	5			
1	0100	4 1/4	3 3/16	1/2	6			
1 1/4	0125	5 1/4	3 7/8	1/2	8			
1 1/2	0150	6 1/4	4 3/4	1/2	10			
2	0200	7 5/8	6	3/4	18			
2 1/2	0250	8 3/8	7	1 1/4	25			
3	0300	9 1/2	8 1/2	1 1/4	30			

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0150
 YT6SS
 032

1 1/2" NPT, Y Strainer, 316 SS, ASME Class 600, 1/32" Perf Screen

П								
	Operating Pressures and Temperatures							
	Туре	Size	psi @ Temp Steam*	psi @ Temp WOG				
	YT6	1/2" - 3"	600 @ 486 °F	1480 @ 100 °F				
	YT6SS	1/2" - 3"	600 @ 486 °F	1440 @ 100 °F				
	YT6A20	1/2" - 3"	600 @ 486 °F	1500 @ 100 °F				

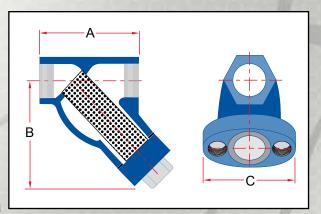
Standard Screens					
Size	Standard	Opening			
1/2" - 1"	1/32" perf	0.032"			
1 1/4" - 2"	1/32" perf	0.032"			
2 1/2" - 3"	3/64" perf	0.045"			



### YTC1500CM / YTC1500SS - Cast Chrome-Moly / Cast 316 Stainless Steel

#### **NPT or Socket Weld Connections**

Sure Flow Class 1500
ASME Strainers are
available in Stainless
Steel and Chrome-Moly
WC6. A bolted cover
allows for quick,
easy screen
removal and
a machined,
tapered seat
ensures a



perfect fit for the removable stainless steel screen.
This Strainer may be installed in vertical or horizontal pipelines with the blow-off connection at the lower end of the screen.

Blow-off drain to be in NPT or Socket Weld. Please specify.

#### Notes:

Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

**Chrome-Moly** - Body, Cover - ASTM A217 Grade WC6 **Stainless Steel** - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

	Dimensions (Inches)							
Si	ize	A B	С	Shipping				
Inches	Prefix		D	C	Weight (LBS)			
1/2	0050	3 5/8	3 7/8	4	16			
3/4	0075	4 1/4	4 9/16	4 7/8	19			
1	0100	4 7/8	5 5/16	5 5/8	23			
1 1/2	0150	6 3/8	6 5/8	7 9/16	38			
2	0200	8 5/8	8 1/2	9 1/8	68			
2 1/2	0250	9	8 3/4	9 1/4	95			
3	0300	9 3/4	10 1/16	9 9/16	114			

# Ordering Information

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0200
 YTC1500CM
 032

2" NPT, Y Strainer, Cast Chrome-Moly, ASME Class 1500, 1/32" Perf Screen

Operating Pressures and Temperatures							
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG				
YTC1500CM	1/2" - 3"	1500 @ 596 °F	3750 @ 100 °F				
YTC1500SS	1/2" - 3"	1500 @ 596 °F	3600 @ 100 °F				

	Standard Screens					
Size	Standard	Opening				
1/2" - 2"	1/32" perf	0.032"				
2 1/2" - 3"	3/64" perf	0.045"				

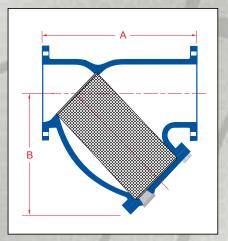


#### YF125 - Cast Iron

### **Class 125 Flanged End Connections**



Sure Flow Cast Iron Flanged Strainers feature a machined seat which ensures a perfect fit for the removable, stainless steel screen. All sizes come complete with flanged blow-off cover, gasket & plug. May be installed in vertical or horizontal pipelines with blow-off connection at the lower end of



#### Notes:

· Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

### Construction

Cast Iron - Body, Cover and Plug

- High Tensile ASTM A126 Class B

All screens are Stainless Steel

	Dimensions (Inches)						
S	Size	۸	В	Blow-Off NPT	Chinning Waight (LDC)		
Inches	Prefix	АВ		BIOW-OII NP I	Shipping Weight (LBS)		
2	0200	7 7/8	5 1/4	1/2	21		
2 1/2	0250	10	6 1/2	1	32		
3	0300	10 1/8	7	1	39		
4	0400	12 1/8	8 1/4	1 1/2	69		
5	0500	15 5/8	11 1/4	2	110		
6	0600	18 1/2	13 1/2	2	153		
8	0800	21 5/8	15 1/2	2	284		
10	1000	25 3/4	18 1/2	2	426		
12	1200	29 7/8	21 3/4	2	667		
14	1400	33 1/4	25	2	903		
16	1600	38 3/8	26 1/2	2	1254		
18	1800	43 1/8	31	2	1642		
20	2000	49 1/2	36 1/4	2	2615		

# **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 YF125
 125

4" Flanged, Y Strainer, Cast Iron, Class 125 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures							
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG				
YF125	2" - 12"	125 @ 344 °F	200 @ 150 °F				
YF125	14" - 20"	125 @ 344 °F	150 @ 150 °F				

Standard Screens						
Size	Standard	Opening				
2" - 3"	2" - 3" 3/64" perf					
4" - 20"	1/8" perf	0.125"				

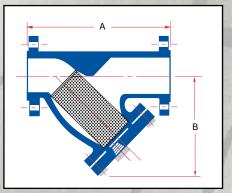


#### YF150 / YF150SS - Cast Steel / Cast 316 Stainless Steel

### **Class 150 Flanged End Connections**

Sure Flow Class 150 ASME Flanged strainers are available in Carbon

Steel and Stainless Steel. A machined, tapered seat ensures a perfect fit for the removable, stainless steel screen. Size 2" and larger come complete with flanged blow-off cover, gasket & plug. 1 1/2" and smaller come



complete with solid threaded cover and gasket. May be installed in vertical or horizontal pipelines with blow-off connection at the lower end of the screen.

#### Notes:

- Must specify if for steam service
- Sizes 14" and larger are available in Cast Steel only.

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB Stainless Steel - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

	Dimensions (Inches)						
	ze	А	В	Blow-Off	Shipping		
Inches	Prefix			NPT	Weight (LBS)		
1/2	0050	6	2 9/16	1/4	9		
3/4	0075	7 1/2	3	1/4	11		
1	0100	7 3/8	3 3/8	1/4	15		
1 1/2	0150	7 1/4	4 3/4	1/2	18		
2	0200	8 5/8	4 7/8	1/2	30		
2 1/2	0250	10 1/4	7 1/2	3/4	44		
3	0300	11 5/8	7 3/4	1	60		
4	0400	14 1/4	9 1/8	1 1/2	96		
5	0500	17 5/8	11	2	150		
6	0600	18 5/8	13 3/8	2	174		
8	0800	24 3/8	14 5/8	2	264		
10	1000	26	17 1/4	2	414		
12	1200	30 3/8	21	2	615		
14	1400	36	27 3/16	2	720		
16	1600	41 9/16	30 1/4	2	956		
18	1800	46	35 11/16	2	1130		
20	2000	49 1/2	40	2	1500		
24	2400	58 3/8	44 1/2	2	1990		

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 YF150SS
 125

4" Flanged, Y Strainer, Cast Stainless Steel, Class 150

ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures							
Туре	Type Size psi @ Temp Steam* psi @ Temp WOG						
YF150	1/2" - 24"	150 @ 358 °F	285 @ 100 °F				
YF150SS	1/2" - 12"	150 @ 358 °F	275 @ 100 °F				

Standard Screens						
Size	Standard	Opening				
1/2" - 1 1/2"	1/32" perf	0.032"				
2" - 3"	2" - 3" 3/64" perf					
4" - 24"	1/8" perf	0.125"				

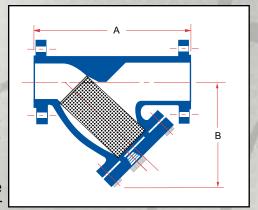


#### YF300 / YF300SS - Cast Steel / Cast 316 Stainless Steel

### **Class 300 Flanged End Connections**



Sure Flow Class 300 ASME Flanged strainers are available in Carbon Steel and Stainless Steel. A machined, tapered seat ensures a perfect fit for the removable, stainless steel screen. All sizes come complete with flanged blow-off cover, gasket & plug. May be installed in vertical or



horizontal pipelines with blow-off connection at the lower end of the screen.

#### Notes:

#### Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB Stainless Steel - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

	Dimensions (Inches)						
Si	Size		,	Blow-Off	Shipping		
Inches	Prefix	Α	В	NPT	Weight (LBS)		
1	0100	7 7/8	4 1/8	1/4	23		
1	0100H	7 7/8	4 1/8	1/4	24		
1 1/2	0150	7 9/16	4 3/8	1/2	27		
2	0200	9 3/4	6 1/8	1/2	47		
2	0200H	9 3/4	6 1/2	1/2	50		
2 1/2	0250	10 11/16	7 7/16	1	64		
3	0300	12 9/16	9	1 1/4	87		
3	0300H	13 1/2	9 1/16	1 1/4	94		
4	0400	14 5/8	11	1 1/2	165		
4	0400H	16 5/8	11 3/16	1 1/2	170		
5	0500	18 1/2	15 3/8	2	186		
6	0600	19 3/4	15 1/2	2	260		
8	0800	25	16 1/4	2	385		
10	1000	29 1/8	19 1/4	2	610		
12	1200	33 3/4	24	2	1300		

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 YF300SS
 125

4" Flanged, Y Strainer, Cast Stainless Steel, Class 300 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures							
Type Size psi @ Temp psi @ Temp Steam* WOG							
YF300	1" - 12"	300 @ 417 °F	740 @ 100 °F				
YF300SS							

Standard Screens						
Size Standard Opening						
1" - 3"	1" - 3" 3/64" perf					
4" - 12" 1/8" perf 0.125"						

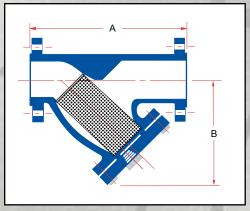


#### YF600 / YF600SS - Cast Steel / Cast 316 Stainless Steel

## Class 600 Flanged or RTJ End Connections



Sure Flow Class 600
ASME Flanged Cast Y
Strainers are available in
both Carbon Steel and
Stainless Steel. They
provide economical
protection for Water,
Oil or Gas service. A
machined, tapered
seat ensures a perfect
fit for the removable,
stainless steel screen.



These strainers may be installed in vertical or horizontal pipelines with the blow-off connection at the lower end of the screen.

#### Notes:

Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB Stainless Steel - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

	Dimensions (Inches)						
Si	ize		,	Blow-Off	Shipping Weight (LBS)		
Inches	Prefix	Α	В	NPT			
2	0200	11	6 1/8	1/2	53		
2 1/2	0250	12	7 1/4	1	79		
3	0300	13 1/2	8	1 1/4	100		
4	0400	17 15/16	9 3/8	1 1/2	210		
5	0500	22 1/4	12 3/8	2	330		
6	0600	25 5/8	17 1/4	2	410		
8	0800	31 3/4	18 1/2	2	834		
10	1000	37 11/16	21 5/8	2	1200		
12	1200	42	26 3/4	2	1445		

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0500
 YF600SS
 125

5" Flanged, Y Strainer, Cast Stainless Steel, Class 600 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures					
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG		
YF600	2" - 12"	600 @ 486 °F	1480 @ 100 °F		
YF600SS	2" - 12"	600 @ 486 °F	1440 @ 100 °F		

Standard Screens				
Size	Size Standard			
2" - 3"	3/64" perf	0.045"		
4" - 12"	0.125"			

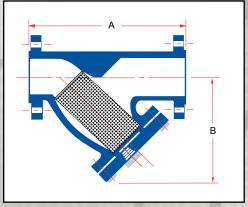


YF900 / YF900SS - Cast Steel / Cast 316 Stainless Steel YF900LCC - Cast Low Temperature Carbon Steel

### Class 900 Flanged or RTJ End Connections



Sure Flow Class 900
ASME Flanged Cast Y
Strainers are available
inboth Carbon Steel and
Stainless Steel. They
provide economical
protection for Water,
Oil or Gas service. A
machined, tapered seat
ensures a perfect fit for the
removable, stainless steel
screen. These strainers may



be installed in vertical or horizontal pipelines with the blow-off connection at the lower end of the screen.

#### Notes:

- · Must specify if for steam service
- Units are standard with no drain.
- YF1500 is substituted for 2" size

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB
Stainless Steel - Body, Cover - ASTM A351 Grade CF8M
Low Temperature Carbon Steel - Body, Cover - ASTM A352 Grade LCC
All screens are Stainless Steel

Dimensions (Inches)					
Si	ze	A	В	Blow-Off NPT	Shipping Weight (LBS)
Inches	Prefix	ζ			
2	0200	15 1/4	11 11/16	optional	152
3	0300	20 1/4	14 1/2	optional	196
4	0400	23 1/4	18 1/8	optional	360

For YF900 6-inch size and YF900 8-inch size:

FWT900 6-inch size and FWT900 8-inch size Fabricated Y Strainers are used.

			tion

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 YF900SS
 125

4" Flanged, Y Strainer, Cast Stainless Steel, Class 900 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures					
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG		
YF900	2"	1500 @ 596 °F	3705 @ 100 °F		
1 1 900	3" - 4"	900 @ 532 °F	2220 @ 100 °F		
YF900SS	2"	1500 @ 596 °F	3600 @ 100 °F		
1190033	3" - 4"	900 @ 532 °F	2160 @ 100 °F		
VE0001.00	2"	1500 @ 596 °F	3750 @ 100 °F		
YF900LCC	3" - 4"	900 @ 532 °F	2250 @ 100 °F		

	Standard Screens				
Size	Standard	Opening			
2" - 3"	3/64" perf	0.045"			
4"	1/8" perf	0.125"			

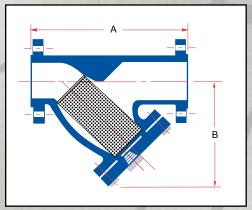


YF1500 / YF1500SS - Cast Steel / Cast 316 Stainless Steel YF1500LCC - Cast Low Temperature Carbon Steel

### Class 1500 Flanged or RTJ End Connections



Sure Flow Class
1500 ASME Flanged
Cast Y Strainers are
available in both
Carbon Steel and
Stainless Steel. They
provide economical
protection for Water,
Oil or Gas service. A
machined, tapered seat
ensures a perfect fit for
the removable, stainless



steel screen. These strainers may be installed in vertical or horizontal pipelines with the blow-off connection at the lower end of the screen.

#### Notes:

- Must specify if for steam service
- Units are standard with no drain.

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB
Stainless Steel - Body, Cover - ASTM A351 Grade CF8M
Low Temperature Carbon Steel - Body, Cover - ASTM A352 Grade LCC
All screens are Stainless Steel

	Dimensions (Inches)					
S	ize	Α	В	Blow-Off	Shipping Weight	
Inches	Prefix	ζ	ט	NPT	(LBS)	
2	0200	15 1/4	11 11/16	optional	152	
3	0300	20 1/4	14 1/2	optional	290	
4	0400	23 1/4	18 1/8	optional	504	

For YF1500 6-inch size and YF1500 8-inch size:

FWT15006-inch size and FWT15008-inch size Fabricated Y Strainers are used.

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0200
 YF1500
 045

2" Flanged, Y Strainer, Cast Steel, Class 1500 ASME Flanges, 3/64" Perf Screen

Operating Pressures and Temperatures					
Туре	Size	psi @ Temp Steam*	psi @ Temp WOG		
YF1500	2" - 4"	1500 @ 596 °F	3705 @ 100 °F		
YF1500SS	2" - 4"	1500 @ 596 °F	3600 @ 100 °F		
YF1500LLC	2" - 4"	1500 @ 596 °F	3750 @ 100 °F		

Standard Screens				
Size	Standard	Opening		
2" - 3"	3/64" perf	0.045"		
4"	1/8" perf	0.125"		



# High Pressure Y Strainers

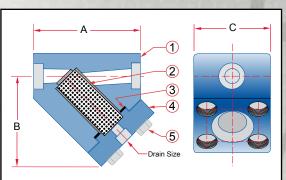
# YBC2500 / YBC2500SS - Carbon Steel / Stainless Steel

Socket Weld or NPT Threaded End Connections



The high strength forged carbon steel or stainless steel construction is designed for higher pressure construction is

applications. If all stainless steel needed, add "SS" to the



model number. Stainless steel spiral wound gasket is standard.

#### Notes:

- Higher ASME pressure ratings available
- Larger sizes available
- Unit is Standard with no drain

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction					
Item	1	2	3	4	5
Description	Body	Screen	Gasket	Cover	Bolting

Dimensions (Inches)						
S	Size	A	В	С	Blow-Off	Shipping Weight
Inches	Prefix	A	D	C	Drain	(LBS)
1/2	0050	5 1/2	4 7/8	4 3/8	optional	124
3/4	0075	6	5 1/2	4 3/4	optional	124
1	0100	7 1/4	6 7/8	5 1/8	optional	124
1 1/4	0125	7 3/4	7 11/16	5 1/8	optional	140
1 1/2	0150	8 3/8	7 3/4	6	optional	140
2	0200	9 1/4	9 1/16	6 3/4	optional	140
2 1/2	0250	11	10 1/8	7 3/4	optional	190
3	0300	14 11/16	12 5/16	10 1/2	optional	190

### **Ordering Information**

Example: Include full description

Size Model Screen (Prefix) Number **Opening** 0150 **YBC2500** 045

1 1/2" High Pressure Y Strainer, Carbon Steel, ASME Class 2500, 3/64" Perf Screen

Operating	peratures		
Туре	Size	psi @ Temp WOG	
YBC2500	1/2" - 3"	6170 @ 100 °F	
YBC2500SS	1/2" - 3"	6000 @ 100 °F	

Standard Screens							
Size	Standard	Opening					
1/2" - 3" 3/64" perf 0.045"							



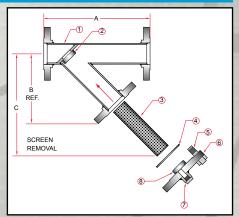
# **Fabricated Y Strainers**

### FW150 / FW300 - Carbon Steel FW150SS / FW300SS - Stainless Steel



Sure Flow Fabricated "Y" Strainers can be designed to your specific application in Carbon Steel or Stainless Steel, along with other materials such as exotic alloys. Pipe sizes 2" to 24" in Class 150 and Class 300 ASME flanges

are standard with the capability to supply larger pipe sizes and/or



higher ASME pressure ratings. Screen sizes can be tailored to hold sufficient solids for the required time between clean-outs. Flange sizes can be chosen to fit existing piping, or to achieve the required clean pressure drop. Hinge covers are also available for quick opening. Please contact factory for details.

#### Notes

- Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

ĺ	Construction										
I	Item	1	2	3	4	5	6	7	8		
	Description	Body Assembly	Screen Guide	Screen	Gasket	Bolting	Blind Flange	Drain Assembly	Screen Guide		

	Dimensions (Inches)									
Si	ze	А	В	С						
Inches	Prefix	150 and 300	150 and 300	150 and 300						
2	0200	12	8 1/2	12						
2 1/2	0250	13	10	14						
3	0300	15	11	16 1/2						
4	0400	18	13	18						
5	0500	18	14 1/2	21						
6	0600	24	16	23						
8	0800	30	21	30						
10	1000	34	23	33						
12	1200	36	24	38						
14	1400	36	30 1/2	43						
16	1600	41 9/16	32	51						
18	1800	46	35	57						
20	2000	49 1/2	39	61						
24	2400	58 3/8	44	70						

### **Ordering Information**

Example: Include full description

Size Model Screen
(Prefix) Number Opening
1400 FW300 125

14" "Y" Strainer, Carbon Steel, Class 300 ASME Flanges, 1/8" Perf Screen, Bolted Cover

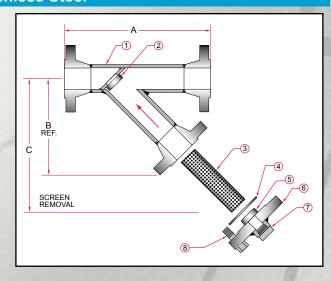
	Operating Pressures and Temperatures										
	Туре	Size	psi @ Temp Steam	psi @ Temp WOG							
	FW150	2" - 24"	150 @ 366 °F	285 @ 100 °F							
	FW150SS	2" - 24"	150 @ 366 °F	275 @100 °F							
Ś	FW300	2" - 24"	300 @ 422 °F	740 @ 100 °F							
	FW300SS	2" - 24"	300 @ 422 °F	720 @100 °F							



# Fabricated Y Strainers

### FW600 - Carbon Steel FW600SS - Stainless Steel





#### Notes:

- · Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction												
ltem 1 2 3 4 5 6 7 8												
Description	Body Assembly	Screen Guide	Screen	Gasket	Screen Guide	Blind Flange	Drain Assembly	Bolting				

	Dimensions (Inches)										
	Size	۸		0							
Inches	Prefix	Α	В	С							
2	0200	16	14	19							
2 1/2	0250	17	15	21							
3	0300	19	17	24							
4	0400	22	20	28							
5	0500	26 28	24 26	34							
6	0600			37							
8	0800	34	32	45							
10	1000	40	34	48							
12	1200	44	36	50							
14	1400	50	38	53							
16	1600	55	41	58							
18	1800	60	45	63							
20	2000	65	50	70							
24	2400	75	55	77							

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0800
 FW600
 125

8" Y Strainer, Carbon Steel,	Class 600 ASME Flanges,
1/8" Perf Screen.	

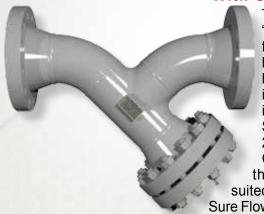
Operating Pressures and Temperatures										
Type Size psi @ Temp psi @ Temp Steam WOG										
FW600	2" - 24"	600 @ 489 °F	1480 @ 100 °F							
FW600SS 2" - 24" 600 @ 489 °F 1440 @100 °F										



# **Fabricated Y Strainers**

### FWT150 / FWT300 - Carbon Steel FWT150SS / FWT300SS - Stainless Steel

#### With Standard Buttweld Fittings



The Sure Flow Fabricated "FWT" Y strainer differs from the "FW" Y strainer by incorporating standard buttweld components into its construction. Fabricated in Carbon or Stainless Steel, pipe sizes 2" through 24" and in Class 150 and Class 300 ASME flanges, the standard strainer is

suited for many applications. Sure Flow also has the capability to

supply larger pipe sizes and/or higher ASME pressure ratings where

Screen Removal Clearance 6

needed. Screen sizes can be tailored to hold sufficient solids for the required time between clean-outs. Flange sizes can be chosen to fit existing piping, or to achieve the required clean pressure drop. Hinge covers are also available for quick opening. Alternate materials of construction are available. Please contact factory for details.

#### Notes:

- · Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction											
Item	1	2	3	4	5	6	7				
Description	Body Assembly	Screen Guide	Screen	Bolting	Gasket	Blind Flange	Drain Assembly				

	Dimensions (Inches)											
Si	ze	ı	Ą		В		С					
Inches	Prefix	150	300	150	300	150	300					
2	0200	13 1/4	13 3/4	9	9 7/16	12	12 1/4					
2 1/2	0250	15 11/16	16 1/4	10 5/8	10 15/16	14 1/8	14 1/4					
3	0300	17 1/8	17 7/8	11 9/16	12 3/16	15 5/8	16					
4	0400	20 3/8	21 1/8	13 5/8	14 1/2	18 1/2	19					
5	0500	24 9/16	25 5/16	15 7/8	16 13/16	22 1/2	22 1/2					
6	0600	27 3/4	28 1/2	17 3/4	18 15/16	25 1/2	25 1/2					
8	0800	35	35 3/4	22	23 1/16	31	31 1/2					
10	1000	41 3/8	42 1/2	25 7/8	27 5/16	36 3/4 3	37 1/8					
12	1200	48 3/4	49 15/16	30 5/16	31 13/16	42 7/8	43 3/4					
14	1400	55 7/16	56 11/16	33 11/16	35 7/16	47 3/8 48	48 3/4					
16	1600	61 3/16	62 5/8	36 15/16	38 7/8	52 7/8	53 7/8					
18	1800	68 1/2	70	40 15/16	43 1/8	59 1/2 60						
20	2000	78 1/4	76 5/8	45 1/16	47 3/16	65 1/2	66 1/4					
24	2400	87 1/4	88 1/2	51 5/8	54 1/16	73 1/4	75 1/8					

#### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 FWT150
 125

4" Y Strainer, Carbon Steel, Class 150 ASME Flanges, 1/8" Perf Screen.

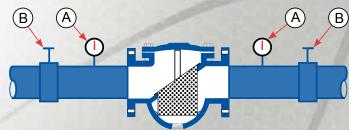
Operating Pressures and Temperatures										
Type	Size	psi @ Temp Steam	psi @ Temp WOG							
FWT150	2" - 24"	150 @ 366 °F	285 @ 100 °F							
FWT150SS	2" - 24"	150 @ 366 °F	275 @100 °F							
FWT300	2" - 24"	300 @ 422 °F	740 @ 100 °F							
FWT300SS	2" - 24"	300 @ 422 °F	720 @100 °F							

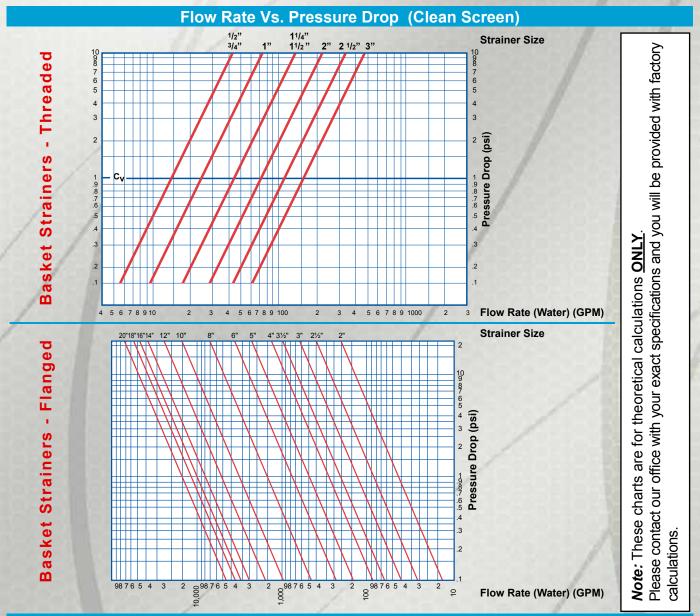


# **Basket Strainers**

Basket Strainers feature top removal of the screen. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal. They are intended for applications where larger amounts of solid particulate are expected, and where clean-out will be frequent. Most models have a standard or optional "Quick Release Cover" to allow fast and easy screen removal without the use of tools. For easily flushable solids, a modified cone-bottom basket can be fitted, with automatic or manual blow-down through the drain port. This will allow clean-out without removal of the screen, and without interrupting the process flow.

- A. Pressure gauges to indicate clogged screen
- B. Isolation valves for servicing strainer





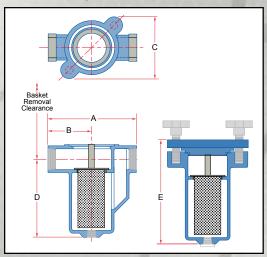


# **Cast Simplex Strainers**

#### BTC125 - Cast Iron

### NPT Threaded and Quick Open Swivel Clamp Cover

Sure Flow Basket Strainers feature top removal of the screen. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal. They are intended for applications where larger amounts of solid particulate are expected, and where



clean-out will be frequent. Models are standard with "Swivel Clamp Cover" to allow fast and easy screen removal without the use of tools. Covers have BUNA-N O-ring seals eliminating the need to change gaskets each time the strainer is serviced.

#### Notes:

Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Cast Iron - Body, Cover - ASTM A126 Class B
BUNA-N - Cover O-Ring
All screens are Stainless Steel

	Dimensions (Inches)											
Si	ze	A	В	С	D	Е	Drain	Basket Removal	Shipping			
Inches	Prefix							Clearance	Weight (LBS)			
1/2	0050	6 3/8	2 13/16	5 7/16	5 1/4	7	1/2	5 7/8	18			
3/4	0075	6 7/8	3 5/16	5 7/16	5 1/4	7 5/8	1/2	6 1/2	18			
1	0100	6 7/8	3 5/16	5 7/16	5 1/4	7 5/8	1/2	6 1/2	18			
1 1/4	0125	8 3/8	4 1/8	5 7/8	7 3/8	9 3/4	3/4	9	30			
1 1/2	0150	8 3/8	4 1/8	5 7/8	7 3/8	9 3/4	3/4	9	30			
2	0200	9 5/8	4 1/2	6 5/8	7 1/8	9 3/4	1	9 1/4	50			
2 1/2	0250	12 3/4	5 3/8	8 3/16	8 5/8	12	1 1/2	11 3/8	65			
3	0300	13 1/4	5 3/8	8 5/16	12	15 3/4	1 1/2	15	70			

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0150
 BTC125
 032

1 1/2" NPT, Basket Strainer, Cast Iron, 1/32" Perf Screen

Operating Pressures and Temperatures						
Туре	Size	psi @ Temp WOG				
BTC125	1/2" - 3"	200 @ 150 °F				

Standard Screens						
Size	Standard	Opening				
1/2" - 3"	1/32" perf	0.032"				

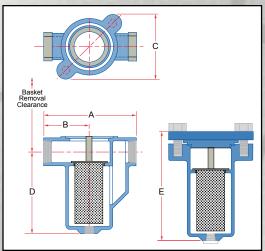


# **Cast Simplex Strainers**

#### BTC150SS - Cast 316 Stainless Steel

### NPT Threaded and Quick Open Swivel Clamp Cover

Sure Flow Basket Strainers feature top removal of the screen. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal. They are intended for applications where larger amounts of solid particulate



are expected, and where clean-out will be frequent. Models are standard with a bolted "Swivel Clamp Cover" to allow fast and easy screen removal with minimal tools. Covers have Viton O-ring seals, eliminating the need to change gaskets each time the strainer is serviced.

#### Notes:

Must specify if for steam service

SURE PLOW

55/39°

97 8W

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

**Stainless Steel** - Body, Cover - ASTM A351 Grade CF8M **Viton** - Cover O-Ring

All screens are Stainless Steel

	Dimensions (Inches)								
Size		А	В	С	D	Е	Drain	Basket Removal	Shipping
Inches	Prefix	ζ	ם	)	ט	_	Dialli	Clearance	Weight (LBS)
1/2	0050	6 3/8	2 13/16	5 7/16	5 1/4	7	1/2	5 7/8	18
3/4	0075	6 7/8	3 5/16	5 7/16	5 1/4	7 5/8	1/2	6 1/2	18
1	0100	6 7/8	3 5/16	5 7/16	5 1/4	7 5/8	1/2	6 1/2	18
1 1/4	0125	8 3/8	4 1/8	5 7/8	7 3/8	9 3/4	3/4	9	30
1 1/2	0150	8 3/8	4 1/8	5 7/8	7 3/8	9 3/4	3/4	9	30
2	0200	9 5/8	4	6 5/8	7 1/8	9 3/4	1	9 1/4	50
2 1/2	0250	12 3/4	5 3/8	8 3/16	8 5/8	12	1 1/2	11 3/8	65
3	0300	13 1/4	5 3/8	8 5/16	12	15 3/4	1 1/2	15	70

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0150
 BTC150SS
 032

1 1/2" NPT, Basket Strainer, Cast Stainless Steel, 1/32" Perf Screen

Operating Pressures and Temperatures					
Туре	Size	psi @ Temp WOG			
BTC150SS	1/2" - 3"	275 @ 100 °F			

Standard Screens						
Size	Opening					
1/2" - 3"	1/32" perf	0.032"				

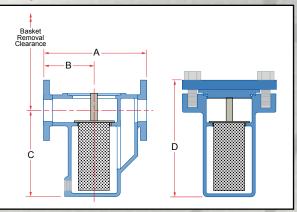


# **Cast Simplex Strainers**

#### **BFH125 - Ductile Iron**

Quick Open Swivel Clamp Cover

The Sure Flow model BFH125 Basket Strainers are a High Capacity design featuring Class 125 ASME Flanged end connections and top removal of the screen. The screen is



in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal. They are intended for applications where larger amounts of solid particulate are expected, and where clean-out will be frequent. Models are

standard with a bolted "Swivel Clamp Cover" to allow fast and easy screen removal.

#### Notes:

· Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Ductile Iron - Body, Cover

- ASTM A536 Class 65-45-12

**BUNA-N** - Cover O-Ring All screens are Stainless Steel

Dimensions (Inches)								
Size		A B		C	Blow Off	Basket Removal	Shipping Weight	
Inches	Prefix	, , , , , , , , , , , , , , , , , , ,		Ü		NPT	Clearance	(LBS)
2	0200	10 1/2	4 1/4	7 5/8	11 13/16	1	8 3/4	59
3	0300	13 1/8	4 15/16	10 5/8	15 13/16	1	11 11/16	101
4	0400	16 3/4	6 5/16	10 3/4	17 1/16	1	12	197
6	0600	19 5/8	7 1/2	18 3/8	26	1	19 3/8	362

# **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0200
 BFH125
 045

2" Basket Strainer, Cast Iron,

Class 125 ASME Flanges, 3/64" Perf Screen

Operating Pressures and Temperatures						
Туре	Size	psi @ Temp WOG				
BFH125	2" - 6"	150 @ 150 °F				

Standard Screens							
Size	Standard	Opening					
2" - 3"	3/64" perf	0.045"					
4" - 6"	1/8" perf	0.125"					

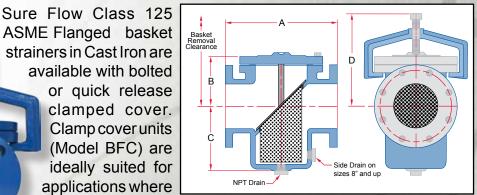


# **Cast Basket Strainers**

#### BF125 / BFC125 - Cast Iron

#### BFC Model has Quick Release Cover

ASME Flanged basket strainers in Cast Iron are available with bolted or quick release clamped cover. Clamp cover units (Model BFC) are ideally suited for applications where



frequent clean-out of the basket is expected. Having a spare, clean basket on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

#### Notes:

- Must specify if for steam service
- Drain location may differ from image shown
- Quick Release Clamp Cover only available on sizes 2" 12"

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Cast Iron - Body, Cover - ASTM A126 Class B All screens are Stainless Steel

	Dimensions (Inches)							
Si Inches	ze Prefix	А	В	С	D	Blow Off NPT	Basket Removal Clearance	Shipping Weight (LBS)
2	0200	8 1/8	3 3/4	5	7 1/2	3/4	10	34
2 1/2	0250	8 1/4	4 5/16	5 3/8	8	3/4	11	43
3	0300	9 7/8	4	6 1/2	8	3/4	11 1/2	60
4	0400	11 1/2	6 9/16	8	10 1/2	1	17 3/4	120
5	0500	13 1/8	7	8	11 1/2	1	18 5/8	140
6	0600	14 7/8	6 5/8	8 5/8	12	1	18 1/8	164
8	0800	18 11/16	9	11 3/4	15	1	26	330
10	1000	20 1/8	10 1/2	13 3/4	15	1	30 1/4	470
12	1200	26 1/4	13 1/8	16 3/8	17 1/2	1	37 3/4	820
14	1400	30 1/4	14 1/2	23	-	2	46 1/8	1300
16	1600	33 1/8	15 9/16	23 1/4	-	2	49 1/4	1600
18	1800	33 1/8	16 1/2	23 1/4	1	2	55 1/2	2260
20	2000	33 1/8	20 1/8	23 5/8	-	2	61 7/8	2980

#### **Ordering Information**

Example: Include full description

Size Model Screen (Prefix) Number **Opening BF125** 125 0400

4" Basket Strainer, Cast Iron, Class 125 ASME Flanges, 1/8" Perf Screen

I	Operating Pressures and Temperatures							
I	Туре	Size	psi @ Temp WOG					
	BF125	2" - 12"	200 @ 150 °F					
	BF125	14" - 20"	150 @ 150 °F					
ſ	BFC125	2" - 12"	50 @ 150 °F					

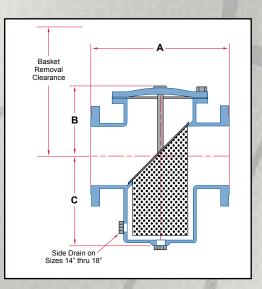
Standard Screens							
Size	Standard	Opening					
2" - 3"	3/64" perf	0.045"					
4" - 20"	1/8" perf	0.125"					



#### BF150 / BF150SS - Cast Steel / Cast 316 Stainless Steel

Sure Flow Class 150 ASME

Flanged basket strainers are available in Cast Steel and Cast Stainless Steel. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal.



#### Notes:

- Must specify if for steam service
- 1" 1 1/2" only available in Stainless Steel
- Drain location may differ from image shown Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB Stainless Steel - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

				Dimension	is (Inches)			
la els	Size		А	A B		Blow Off NPT	Basket Removal	Shipping Weight (LBS)
Inche	es	Prefix					Clearance	Weight (LDO)
1		0100	6 1/8	2 5/8	3 3/4	1/2	8 3/4	16
1 1/	2	0150	6 1/2	3 1/8	4 1/2	1/2	10 3/4	22
2		0200	8 1/8	4	5 3/8	1	13	34
2 1/	2	0250	8 3/4	4 7/16	5 3/4	1	13	43
3		0300	9 7/8	5 1/4	7 1/8	1	18	60
4		0400	11 1/2	5 13/16	8 3/8	1	19	120
6		0600	14 7/8	7 1/4	9	1	24	164
8		0800	18 11/16	9 5/8	12 1/8	1	31	330
10		1000	20 1/8	11	14 1/8	1	37	470
12		1200	26 1/4	12 5/8	16 3/4	1	41	820
14		1400	47 1/8	19 3/4	34 3/8	2	72	2520
16		1600	47 1/8	19 3/4	34 3/8	2	72	2640
18		1800	49 1/2	22	58	2	100	2940

### **Ordering Information**

Example: Include full description

Size Model Screen Opening (Prefix) **Number** 0400 **BF150SS** 125

4" Basket Strainer, Cast Stainless Steel, Class 150 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures							
Туре	Size	psi @ Temp WOG					
BF150	2" - 18"	285 @ 100 °F					
BF150SS	1" - 18"	275 @ 100 °F					

Standard Screens								
Size	Opening							
1" - 3"	3/64" perf	0.045"						
4" - 18"	1/8" perf	0.125"						

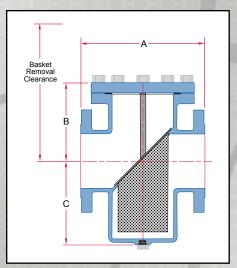


# **Cast Basket Strainers**

#### BF300 / BF300SS - Cast Steel / Cast 316 Stainless Steel



Sure Flow Class 300
ASME Flanged basket strainers are available in Cast Steel and Cast Stainless Steel. The screen is in the form of a basket, with a lifting handle, so that all particulate captured and retained by the screen can be easily removed for disposal.



Must specify if for steam service

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

#### Construction

Carbon Steel - Body, Cover - ASTM A216 Grade WCB Stainless Steel - Body, Cover - ASTM A351 Grade CF8M All screens are Stainless Steel

	Dimensions (Inches)											
Size  Inches Prefix		А	В	С	Blow Off NPT	Basket Removal Clearance	Shipping Weight (LBS)					
Г	2	0200	8 1/2	5 7/16	5 3/8	1	13 1/4	45				
Г	2 1/2	0250	8 11/16	6 7/16	5 3/4	1	15 3/8	65				
	3	0300	9 9/16	7	7 1/8	1	17 5/8	81				
	4	0400	11 3/4	8 3/16	8 3/8	1	21	135				
	6	0600	14 3/4	9 15/16	9 1/8	1	23 3/4	235				
E	8	0800	18 1/8	11 5/8	12 1/4	1	29 1/8	440				

For BF300 10-inch size and BF300 12-inch size:

BW300 10-inch size and BW300 12-inch size Fabricated Basket Strainers are used.

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0400
 BF300SS
 125

4" Basket Strainer, Cast Stainless Steel, Class 300 ASME Flanges, 1/8" Perf Screen

Operating Pressures and Temperatures								
Туре	psi @ Temp WOG							
BF300	2" - 8"	740 @ 100 °F						
BF300SS	2" - 8"	720 @ 100 °F						

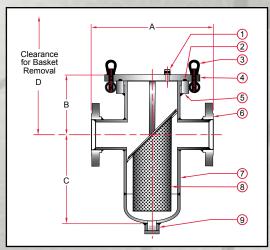
Standard Screens								
Size	Opening							
2" - 3"	3/64" perf	0.045"						
4" - 8"	1/8" perf	0.125"						





### With Quick Opening Eye Bolts

Sure Flow Fabricated Flanged
Basket Strainers were initially developed for the petrochemical market. With continuous success they have now become a standard product available off the shelf in most sizes. The unique quick-opening closure and venting allows the field operator, in a timely and safe fashion, to remove the basket for cleaning. An o-ring seal provides positive sealing of the cover.



#### Notes:

- · Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction										
Item	1	2	3	4	5	6	7	8	9	
Description	Vent Assembly	O-Ring	Quick Open Eye Bolts	Cover Plate	Ring Flange	Outlet Nozzle	Body Assembly	Basket	Drain Assembly	

	Dimensions (Inches)										
	Size		A	В	С	D					
Inches	Prefix	Body	A	D		U					
2	0200	6	12	7	11	22					
2 1/2	0250	6	12	7 1/2	11	25					
3	0300	6	12	7 7/8	13	26					
4	0400	8	14 7/8	8 5/8	13	27					
5	0500	8	14 7/8	9 3/8	17	31 1/2					
6	0600	10	18 3/4	10 5/16	20	36					
8	0800	12	20 1/8	11 7/8	23	40 3/4					
10	1000	14	25 3/8	13 1/4	26	46					
12	1200	16	27 5/8	16 5/16	29	55					
14	1400	18	29 1/8	17 3/8	32	60					
16	1600	20	33 5/8	19	34	64					
18	1800	24	38 5/8	20 3/4	39	70					
20	2000	24	38 5/8	21 5/8	39	72					
24	2400	30	46	24 5/8	45	83					

### **Ordering Information**

Example: Include full description

Size Model Screen
(Prefix) Number Opening
0200 BWEB150SS 045

2" Basket Strainer,	Stainless	Steel,	Class	150 ASME
Flanges, 3/64" Perf	Screen			

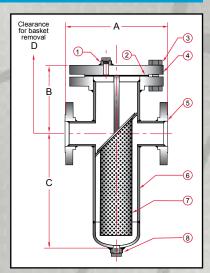
Operating Pressures and Temperatures								
Туре	Size	psi @ Temp WOG						
BWEB150	2" - 24"	100 @ 150 °F						
BWEB150SS	2" - 24"	100 @ 150 °F						



### BW150 / BW300 - Carbon Steel BW150SS / BW300SS - Stainless Steel

Sure Flow Fabricated Flanged Basket Strainers can be designed to your specific application.

Strainers are available in Carbon Steel and Stainless Steel. 2" to 24" pipe sizes in Class 150 and Class 300 are available. ASME flanges are standard, with the capability to supply larger pipe sizes and/or higher ASME pressure ratings. Basket size can be tailored to hold sufficient solids for the required time between clean-outs. Flange sizes can be selected to fit existing piping, or to achieve the required clean pressure drop. Maintenance reducing features include Automatic Flush and Hinged Cover, with or without Davit Assembly.



#### Notes:

- Higher ASME pressure ratings available
- Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction										
Item	1	2	3	4	5	6	7	8		
Description	Vent Assembly	Gasket	Bolting	Cover	Inlet / Outlet Flange	Body Assembly	Basket	Drain Assembly		

	Dimensions (Inches)									
	Size		1	4		3	С		D	
Inches	Prefix	Body	150	300	150	300	150	300	150	300
2	0200	6	14	14	7	9	12	12	23	26
2 1/2	0250	6	15	15	8	9	12 1/2	12 1/2	24	26
3	0300	6	15	15	8	9	12 1/2	12 1/2	24	26
4	0400	8	16	16	8 1/4	9 1/2	14	14	28	28
5	0500	10	16	17 1/2	9 1/2	11	15	15	32	33 1/2
6	0600	10	20	21	9 1/2	11	17	17	34	33 1/2
8	0800	12	22	23	11	14	21	21	41	42 1/2
10	1000	16	32	33	14	14 1/2	25	25	47 1/2	49
12	1200	18	35	36	14 1/2	18	28	28	53	54 1/2
14	1400	20	37	38	15 3/4	19	33	33	61	62 3/4
16	1600	24	42	43	18 1/4	22	36	36	63	69 3/4
18	1800	24	42	43	18 1/4	22	39	36	70	71 3/4
20	2000	30	43	50	23 1/4	28	44	44	82	84 1/2
24	2400	36	52	53	27 1/4	31	60	60	98	106 1/2

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0800
 BW150SS
 125

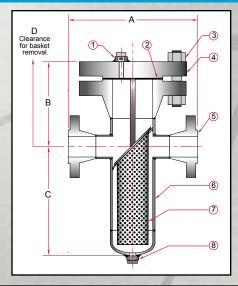
8" Basket Strainer, Stainless Steel, Class 150 ASME Flanges, 1/8" Perf Screen

I	Operating Pressures and Temperatures										
	Туре	Size	psi @ Temp Steam	psi @ Temp WOG							
ĺ	BW150	2" - 24"	150 @ 366 °F	285 @ 100 °F							
ĺ	BW150SS	2" - 24"	150 @ 366 °F	275 @100 °F							
1	BW300	2" - 24"	300 @ 422 °F	740 @ 100 °F							
	BW300SS	2" - 24"	300 @ 422 °F	720 @100 °F							









#### Notes:

- Higher ASME pressure ratings available
- Sizes 8" and up come standard with flat bottom
- Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction								
Item	1	2	3	4	5	6	7	8
Description	Vent Assembly	Gasket	Bolting	Cover	Inlet / Outlet Flange	Body Assembly	Basket	Drain Assembly

	Dimensions (Inches)						
	Size		^			,	
Inches	Prefix	Body	Α	В	С	D	
2	0200	6	18 3/8	10 7/16	12	28	
2 1/2	0250	6	18 3/8	10 1/2	12	28	
3	0300	6	23 7/8	10 3/4	15 3/4	31 1/2	
4	0400	8	23 7/8	12 3/16	17 3/8	38	
5	0500	8	28	14	17 3/8	40	
6	0600	10	29 7/8	14 7/8	21 3/8	42 1/2	
8	0800	12	37	15 7/8	23 3/8	50 1/4	
10	1000	16	42 1/2	20	27 1/4	57 1/2	
12	1200	18	44	22 7/8	30 3/8	66	
14	1400	20	46	25	35	72	
16	1600	24	54	27 3/4	42 1/4	85	
18	1800	24	57	30	47	90 1/2	
20	2000	30	60	34	50	98	
24	2400	36	68	38	54	112	

# **Ordering Information**

Example: Include full description

Size Model Screen
(Prefix) Number Opening
0400 BW600SS 125

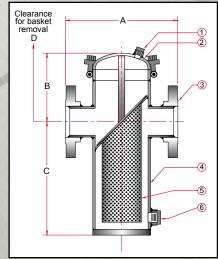
	Operating Pressures and Temperatures					
	Туре	Size	psi @ Temp Steam	psi @ Temp WOG		
	BW600	2" - 24"	600 @ 489 °F	1480 @ 100 °F		
	BW600SS	2" - 24"	600 @ 489 °F	1440 @100 °F		
4				279/00		

<sup>4&</sup>quot; Basket Strainer, Stainless Steel, Class 600 ASME Flanges, 1/8" Perf Screen.









#### Notes:

- Higher ASME pressure ratings available
- Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction						
Item	1	2	3	4	5	6
Description	Vent Assembly	Quick Open Cover	Inlet/Outlet Flange	Body Assembly	Basket	Drain Assembly

			Dimensions (Inches	3)		
	Size		А	В	С	D
Inches	Prefix	Body	150 and 300	150 and 300	150 and 300	150 and 300
2	0200	6	14	8 5/8	12 1/4	26
2 1/2	0250	6	15	8 5/8	12 3/4	26
3	0300	6	15	8 5/8	12 3/4	26
4	0400	8	16	9 1/2	14 5/16	28
5	0500	10	16	11 1/4	15 5/8	32
6	0600	10	20	11 1/4	17 3/8	34
8	0800	12	22	13	21 5/8	42
10	1000	16	32	15 3/4	25 7/8	50
12	1200	18	35	17 3/4	28	56
14	1400	20	37	19 3/4	34 1/8	65
16	1600	24	42	23 1/4	36	67
18	1800	24	42	23 1/4	40 1/4	76
20	2000	30	43	27 3/4	45 1/8	82
24	2400	36	52	27 3/4	61 1/2	102

### **Ordering Information**

Example: Include full description

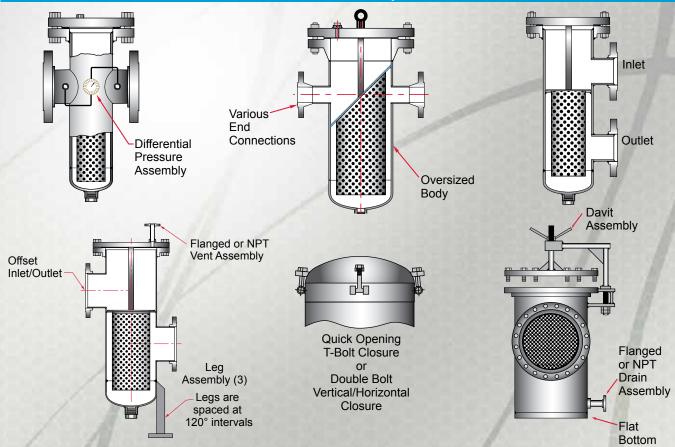
Size Model Screen (Prefix) Number **Opening** 1200 **BWH300SS** 

12" Basket Strainer, Stainless Steel, Class 300 ASME Flanges, 1/8" Perf Screen, Hinged Cover

	Operating Pressures and Temperatures						
	Туре	Size	psi @ Temp Steam	psi @ Temp WOG			
	BWH150	2" - 24"	150 @ 366 °F	285 @ 100 °F			
	BWH150SS	2" - 24"	150 @ 366 °F	275 @100 °F			
1	BWH300	2" - 24"	300 @ 422 °F	740 @ 100 °F			
	BWH300SS	2" - 24"	300 @ 422 °F	720 @100 °F			



### **Custom Strainer Options**



#### **Optional Features**

- Quick opening covers
- Body materials of Stainless Steel or special alloys
- Custom Baskets of 316SS, Monel, and special alloys
- Davit Assembly
- Various end connections available including Weld Neck Flanges, Socket Weld and Ring Type Joint connections
- Larger sizes available
- Single or multiple baskets
- Oversized body design to reduce pressure drop
- Automatic air vent
- Pressure gauges or differential pressure switches
- Special internal and external coatings
- · Many codes and designs are available

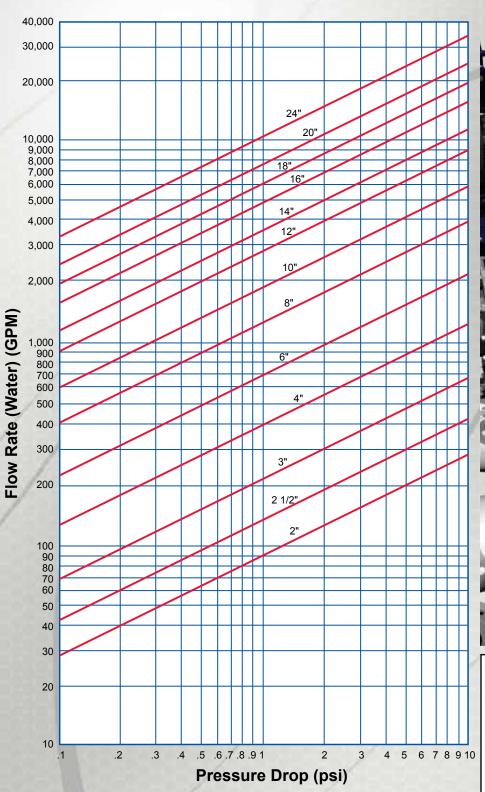
### **Special Construction**

- · Backwash connections
- High pressure Class 600, Class 900, Class 1500 and Class 2500
- Special perf or mesh as low as 5 microns





### Flow Rate Vs. Pressure Drop (Clean Screen)





**Note:** These charts are for theoretical calculations **ONLY**.

Please contact our office with your exact specifications and you will be provided with factory calculations.



### Cast Iron, Carbon Steel, Stainless Steel

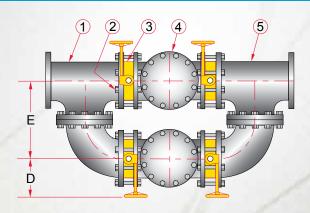
Sure Flow Dual Basket Strainers are an innovative and economical alternative to conventional Duplex Strainers. Dual Basket Strainers are designed for applications where flow cannot be interrupted to service the strainer basket. Rather than stopping the line to clean and replace the basket, the Dual Basket Strainer allows for flow to be redirected through a second basket while the initial basket is serviced. The changeover is accomplished by use of a handwheel (or lever) operator on a Buna lined (standard) butterfly valve. This arrangement provides a bubble-tight shut off between basket chambers, essential for use in gas or negative head pump suction systems. Standard units are available in Cast Iron with Class 125 ASME flanged connections as well as in Carbon or Stainless Steel with Class 150 ASME flanged connections. Selecting a Sure Flow Fabricated Dual Basket Strainer allows for pressure ratings, basket sizes and flange sizes to be customized in order to

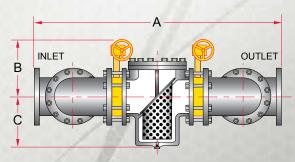
Strainer allows for pressure ratings, basket sizes and flange sizes to be customized in order to meet specific design requirements. Additions are available for Dual Basket Strainers such as automatic air vents, quick opening covers, special internal coatings, back wash connections and more. Our staff will help select the best Sure Flow Dual Basket Strainer for each unique application Sure Flow Model BDB Dual Basket Strainers are a bolted design. The standard version comes in Cast Iron material with Class 125 flanged connections and is available in sizes 2" through 18". Baskets can be supplied with bolted or quick release clamp covers. Sure Flow Model DB Dual Basket Strainers are a welded design. They are a very economical alternative to standard uni-casting Duplex Strainers. They are available in Carbon and Stainless Steel materials. These strainers are custom fabricated allowing for many options. The strainers are available in



up to Class 2500 ASME pressure ratings. The included valves can be selected to suit the application for which the strainer is required.

### Type BDB - Bolted Dual Basket Strainer Cast Iron





Dimensions (Inches)						
Si	ze			С	6	Е
Inches	Prefix	Α	В	O	D	E
2	0200	29 1/2	11	5	6	9 1/8
2 1/2	0250	31 7/8	11	5 3/8	6	10 1/8
3	0300	35 1/2	11	6 1/2	6	11 1/8
4	0400	41 5/8	11 7/8	8	6	13 1/8
5	0500	47 1/2	11 7/8	8	6 1/8	15 1/8
6	0600	52	11 11/16	8 5/8	6 1/8	16 1/8
8	0800	61	17 1/16	11 3/4	9	18 1/8
10	1000	70 3/4	10 1/2	13 3/4	11	22 1/8
12	1200	83	13 1/16	16 3/8	11	24 1/8
14	1400	96 1/2	15 11/16	22 3/8	11	28 1/8
16	1600	104 3/4	16 11/16	23 5/8	11	30 1/8
18	1800	123 3/4	27 7/16	28	11	33 1/8
20	2000	124	29 11/16	32	11	36 1/8
24	2400	141 3/4	32 7/8	32 3/8	11	44 1/8

Larger sizes are available.

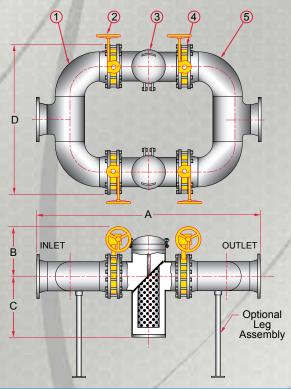
	Construction			
Item Description				
1	Inlet Manifold			
2	Bolting			
3	Butterfly Valves			
4	Strainers			
5	Outlet Manifold			

#### Notes:

Also available is our model BDBC125 with clamp covers. Consult factory for details.

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

# Type DBH150 / DBH150SS - Fabricated Dual Basket Strainer Carbon Steel, Stainless Steel



	Dimensions (Inches)							
S	ize	Α	В	С	D			
Inches	Prefix	A	Б	C	U			
2	0200	36 3/8	10 7/8	12 1/4	15			
2 1/2	0250	40 5/8	11 3/8	12 3/4	18			
3	0300	42 1/2	11 5/8	12 3/4	20 1/4			
4	0400	48 3/8	12 3/8	14 5/16	25 1/4			
6	0600	61 5/8	13 1/2	17 3/8	34 1/4			
8	0800	72 3/4	17 3/4	21 5/8	43 1/2			
10	1000	90 1/2	18 7/8	25 7/8	53			
12	1200	103 1/8	20 1/2	28	63			
14	1400	111 5/8	23 1/2	34 1/8	71			
16	1600	126	29	36	79 1/2			
18	1800	135 1/2	30	40 1/4	88			
20	2000	145 3/4	32	45 1/8	97 1/2			
24	2400	171 7/8	36	61 1/2	114			

Larger sizes are available.

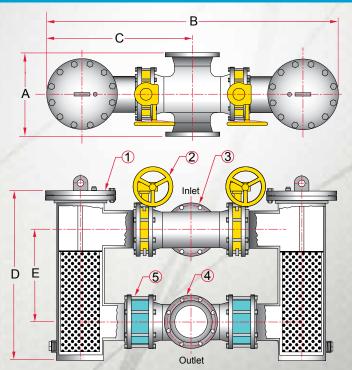
Construction				
Item Description				
1	Inlet Manifold			
2	Butterfly Valves			
3	Strainers			
4	Check Valves			
5	Outlet Manifold			

#### Notes:

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.



### **DB150 - Short Face to Face Dual Basket Assembly**



Dimensions (Inches)						
Siz	e	Λ	В	С	7	Е
Inches	Prefix	Α	Б	C	D	_
2	0200	10	35 3/8	17 11/16	21	10
2 1/2	0250	11 1/2	37 1/8	18 9/16	22 1/2	10
3	0300	12 1/4	38 1/4	19 1/8	23	10
4	0400	14 1/4	45 1/8	22 9/16	27 1/2	11
5	0500	16 3/4	52 7/8	26 7/16	30	12
6	0600	18 1/4	54 7/8	27 7/16	32	13
8	0800	22	64 3/8	32 3/16	37	15
10	1000	25	74	37	42	18
12	1200	29	83 1/2	41 3/4	47 1/2	21
14	1400	32	91 5/8	45 13/16	52	23
16	1600	34	97 7/8	48 15/16	54	25
18	1800	38	108 7/8	54 7/16	60	27
20	2000	41 3/8	123 5/8	61 13/16	65	29
24	2400	46	144	77	74	34

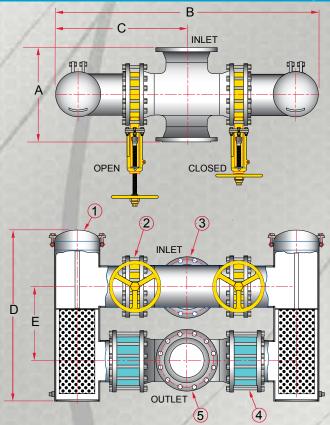
Larger sizes are available.

Construction				
Item Description				
1	Strainer Assemblies			
2	Butterfly Valves			
3	Inlet Manifold			
4	Outlet Manifold			
5	Check Valves			

#### Notes:

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

### **DBH150 - Knife Gate Operated Dual Basket Assembly**



Dimensions (Inches)								
Size		^	,		,	١		
Inches	Prefix	Α	В	С	D	E		
2	0200	10	33 1/2	16 3/4	23 5/8	10		
2 1/2	0250	11 1/2	35	17 1/2	24 5/8	10		
3	0300	12 1/4	37 1/8	18 9/16	24 7/8	10		
4	0400	14 1/4	39 1/2	19 3/4	27 5/8	11		
5	0500	16 3/4	47	23 1/2	30	12		
6	0600	18 1/4	50 3/8	25 3/16	32	13		
8	0800	22	61	30 1/2	37 3/8	15		
10	1000	25	70	35	43 5/8	18		
12	1200	29	79 1/4	39 5/8	50	21		
14	1400	32	87	43 1/2	54 5/8	23		
16	1600	34	94	47	60 5/8	25		
18	1800	38	102	51	65	27		
20	2000	41 3/8	117 3/4	58 7/8	71	29		
24	2400	46	134 1/2	67 1/4	80 5/8	34		

Larger sizes are available.

Construction						
Item	n Description					
1	Quick Open Strainer Assembly					
2	Knife Gate Valves					
3	Inlet Manifold					
4	4 Check Valves					
5	5 Outlet Manifold					

#### Notes:

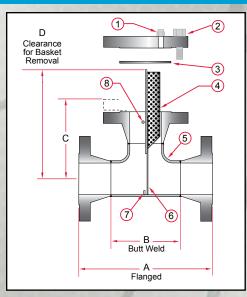
Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.



# **Fabricated Tee Strainers**

# TW150 / TW300 - Carbon Steel TW150SS / TW300SS - Stainless Steel





#### Notes:

- · Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction								
Item	Item         1         2         3         4         5         6         7         8							
Description	Vent Assembly	Bolting	Gasket	Basket Assembly	Body Assembly	Body Ring	Screen Guide	Cross Bar

Dimensions (Inches)									
Size		1	4	В		С		D	
Inches	Prefix	150	300	150	300	150	300	150	300
2	0200	10	10 1/2	5	5	5 7/8	6 1/4	13	13
2 1/2	0250	11 1/2	12	6	6	6 3/4	7 1/8	13	13
3	0300	12 1/4	13	6 3/4	6 3/4	7 3/16	7 3/4	14	14
4	0400	14 1/4	15	8 1/4	8 1/4	8 3/16	8 7/8	16	16
5	0500	16 3/4	17 1/2	9 3/4	9 3/4	9 7/16	10 1/4	19	19
6	0600	18 1/4	19	11 1/4	11 1/4	10 1/4	11 1/16	22	22
8	0800	22	22 3/4	14	14	12 1/4	13 1/8	25	25
10	1000	25	26 1/4	17	17	13 13/16	15 1/8	29	29
12	1200	29	30 1/4	20	20	15 7/8	17 1/4	31	31
14	1400	32	33 1/4	22	22	17 1/2	18 7/8	38	38
16	1600	34	35 1/2	24	24	18 9/16	20 1/8	41	41
18	1800	38	39 1/2	27	27	20 11/16	22 1/4	46	46
20	2000	41 3/8	42 3/4	30	30	22 9/16	24	51	51
24	2400	46	47 1/4	34	34	25	26 1/2	56	56

# **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 2400
 TW300
 125

24" Tee Strainer, Carbon Steel, Class 300 ASME Flanges, 1/8" Perf Screen.

Operating Pressures and Temperatures							
Туре	Size	psi @ Temp Steam	psi @ Temp WOG				
TW150	2" - 24"	150 @ 366 °F	285 @ 100 °F				
TW150SS	2" - 24"	150 @ 366 °F	275 @100 °F				
TW300	2" - 24"	300 @ 422 °F	740 @ 100 °F				
TW300SS	2" - 24"	300 @ 422 °F	720 @100 °F				

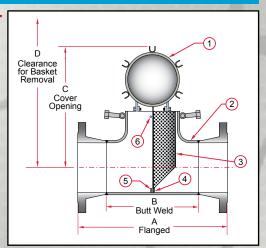


## **Fabricated Tee Strainers**

## TWH150 / TWH300 - Carbon Steel TWH150SS / TWH300SS - Stainless Steel

#### With Quick Opening Hinged Cover

The Sure Flow Tee Strainer is a custom fabricated compact strainer. It is designed to remove foreign particles from pipelines. Sure Flow Tee Strainers provide the ultimate protection for pumps, valves, and other related equipment. The Sure Flow Tee Strainer can be fabricated to meet your specifications.



The standard Sure Flow Tee Strainer is constructed of Carbon or Stainless Steel material. Sure Flow also has vast experience in fabricating these strainers from Chrome-Moly material. Other materials, end connections and accessories are available.

#### Notes:

- Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction							
Item	1	2	3	4	5	6	
Description	Quick Open Hinge Cover	Body Assembly	Basket	Body Ring	Screen Guide	Cross Bar	

	Dimensions (Inches)							
S	ize		A		В			
Inches	Prefix	150	300	150	300	С	D	
6	0600	18 1/4	19	11 1/4	11 1/4	15 1/2	22	
8	0800	22	22 3/4	14	14	19 1/4	25	
10	1000	25	26 1/4	17	17	23 1/4	29	
12	1200	29	30 1/4	20	20	26 7/8	31	
14	1400	32	33 1/4	22	22	29 3/8	38	
16	1600	34	35 1/2	24	24	32 3/8	41	
18	1800	38	39 1/2	27	27	36 15/16	46	
20	2000	41 3/8	42 3/4	30	30	40 5/8	51	
24	2400	46	47 1/4	34	34	47 1/8	56	

#### **Ordering Information**

Example: Include full description

Size Model Screen
(Prefix) Number Opening
2000 TWH150 125

20" Tee Strainer, Carbon Steel, Class 150 ASME Flanges, 1/8" Perf Screen, Hinged Cover

	Operating Pressures and Temperatures					
T	уре	Size	psi @ Temp Steam	psi @ Temp WOG		
TW	H150	6" - 24"	150 @ 366 °F	285 @ 100 °F		
TWH	150SS	6" - 24"	150 @ 366 °F	275 @100 °F		
TW	H300	6" - 24"	300 @ 422 °F	740 @ 100 °F		
TWH	300SS	6" - 24"	300 @ 422 °F	720 @100 °F		



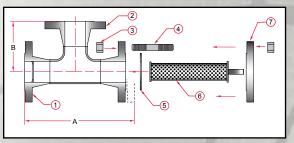
## **Fabricated Tee Strainers**

## TWA150 / TWA300 - Carbon Steel TWA150SS / TWA300SS - Stainless Steel

## **Angled Flow Design**



The Sure Flow TWA Strainer is similar to the standard Tee strainer except that it is designed for angled flow. The Strainer can



be fabricated with a standard bolted cover or a quick opening hinged cover (TWHA). The Sure Flow TWA Strainer can be fabricated to meet your specifications. The standard Strainer is constructed of Carbon or Stainless Steel material. Sure Flow also has vast experience in fabricating these strainers from Chrome-Moly material. Other materials, end connections and accessories are available.

#### Notes:

- · Higher ASME pressure ratings available
- · Larger sizes available

Manufacturer reserves the right to modify dimensions, materials, or design. Consult factory for certification.

Construction							
Item	1	2	3	4	5	6	7
Description	Inlet Flange	Outlet Flange	Hex Nuts	Studs	Gasket	Basket Assembly	Cover

	Dimensions (Inches)							
Si	ze		A	1	В			
Inches	Prefix	150	300	150	300			
2	0200	10 7/8	11 1/2	5	5 1/4			
2 1/2	0250	12 1/2	13 1/8	5 3/4	6			
3	0300	13 5/16	14 1/4	6 1/8	6 1/2			
4	0400	15 5/16	16 3/8	7 1/8	7 1/2			
5	0500	17 13/16	19	8 3/8	8 3/4			
6	0600	19 3/8	20 9/16	9 1/8	9 1/2			
8	0800	23 1/4	24 1/2	11	11 3/8			
10	1000	26 5/16	28 1/4	12 1/2	13 1/8			
12	1200	30 3/8	32 3/8	14 1/2	15 1/8			
14	1400	33 1/2	35 1/2	16	16 5/8			
16	1600	35 9/16	37 7/8	17	17 3/4			
18	1800	39 11/16	42	19	19 3/4			
20	2000	43 3/16	45 3/8	20 3/4	21 3/8			
24	2400	48	50 1/8	23	23 5/8			

### **Ordering Information**

Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 1000
 TWA150
 125

10" Tee Strainer, Carbon Steel, Class 150 ASME Flanges, 1/8" Perf Screen.

	Operating Pressures and Temperatures					
	Туре	Size	psi @ Temp Steam	psi @ Temp WOG		
I	TWA150	2" - 24"	150 @ 366 °F	285 @ 100 °F		
	TWA150SS	2" - 24"	150 @ 366 °F	275 @100 °F		
	TWA300	2" - 24"	300 @ 422 °F	740 @ 100 °F		
	TWA300SS	2" - 24"	300 @ 422 °F	720 @100 °F		
			1.67	7,000		



# Fabricated Tee Type Strainers

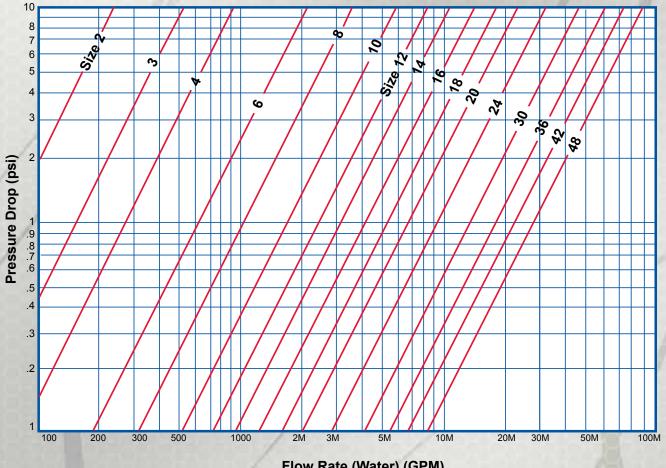
## Flow Rate Vs. Pressure Drop (Clean Screen)

For Liquids more viscous than water or where wire cloth liner is added, multiply the pressure drop in charts by:

Correction Factors						
Viscosity	Perforated	Perforat	Perforated with Wire Cloth			
(SSU)	(1/8" Holes)	40 Mesh	60 Mesh	80 Mesh		
30	1.00	1.32	1.53	1.62		
270	1.30	1.61	1.83	2.00		
385	1.44	1.76	2.00	2.20		
500	1.58	1.92	2.13	2.41		
1,000	1.66	2.22	2.41	2.63		
2,000	1.86	2.41	2.72	2.91		



(Perforated basket 1/8" dia. holes on 3/16" centers)

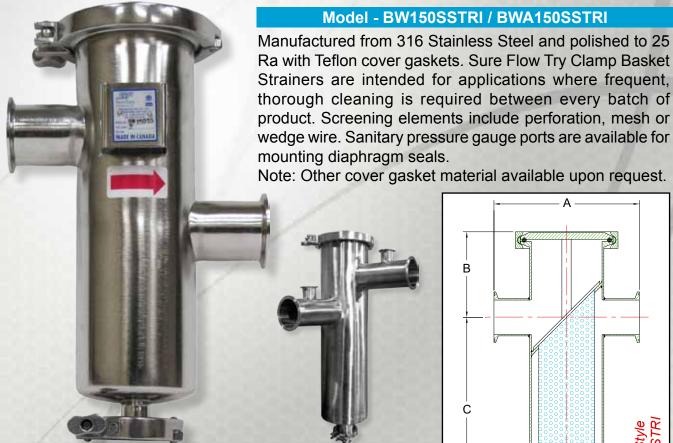


Flow Rate (Water) (GPM)

Note: These charts are for theoretical calculations ONLY. Please contact our office with your exact specifications and you will be provided with factory calculations.



## **Fabricated Sanitary Basket Strainers**



Dimensions (Inches)								
	Size		Α	В	С	D	Е	F
Inches	Prefix	Body	A	۵	٥	ם	Ш	
1/2	0050	4	7	3 1/2	6	3 1/2	2 1/2	3 1/2
3/4	0075	4	7	3 1/2	6	3 1/2	2 1/2	3 1/2
1	0100	4	7	3 1/2	6	3 1/2	2 1/2	3 3/4
1 1/2	0150	4	7	3 1/2	6	3 1/2	2 1/2	3 3/4
2	0200	4	7	3 1/2	6	3 1/2	3	4
2 1/2	0250	4	7	3 1/2	6	3 1/2	3 1/2	4 1/2
3	0300	6	10	5	11	5	5	6
4	0400	6	10	5	11	5	5	6

Larger sizes available.

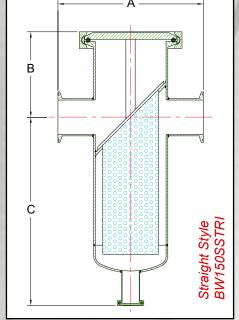
Manufacturer reserves the right to modify dimensions, materials, or design. Contact factory for certification.

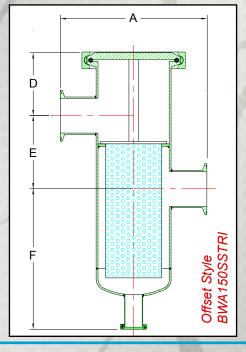
#### **Ordering Information**

Example: Include full description

Size Model Screen (Prefix) Number Opening **BW150SSTRI** 125 0200

Basket Strainer, Stainless Steel, 2" Sanitary Try Clamp with 1/8" Perf Screen.







## **Fabricated Sanitary Duplex Strainers**

#### Model - DB150SSTRI

The Sure Flow Equipment Try Clamp Duplex Strainer performs the same function as an industrial Duplex Strainer. The configuration can be changed to meet the specific application requirements.



Dimensions (Inches)						
Si	Size		В			
Inches	Prefix	А	D			
1/2	0050	24	6			
3/4	0075	25	6			
1	0100	27	6			
1 1/2	0150	29	6			
2	0200	32	6			
2 1/2	0250	34	6			
3	0300	38	11			

Larger sizes available.

Manufacturer reserves the right to modify dimensions, materials, or design. Contact factory for certification.

### **Ordering Information**

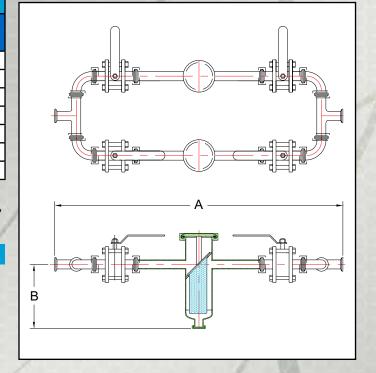
Example: Include full description

 Size
 Model
 Screen

 (Prefix)
 Number
 Opening

 0250
 DB150SSTRI
 125

Dual Basket Strainer, Stainless Steel, 2 1/2" Sanitary Try Clamp with 1/8" Perf Screen.





## **Custom Strainer Screens**

## **Custom Engineered Strainers, Screens and Baskets**

Sure Flow Equipment offers a wide assortment of screen types to meet all your filtration or screening needs. Over the course of the last two decades we have manufactured Cone/Conical Strainers, Basket/Hat Strainers, Reverse/Straight Flow Strainers, Plate Strainers, Media Retention Nozzles, Resin

Traps, Submerged Intake Screens, Foot Valve Screens, Wedge Wire Screens, Multiple Layer Screens and many more custom styles.

The woven screen can be supplied in a perforated material, or for finer filtration, in a mesh material. These choices include Stainless Steel, Alloy 20, Titanium, Hastelloy, Monel or any other exotic material.

Not all applications are suitable for off the shelf items. At Sure Flow



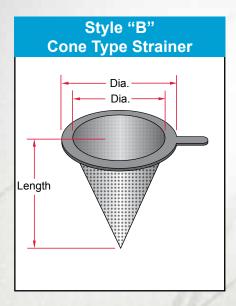


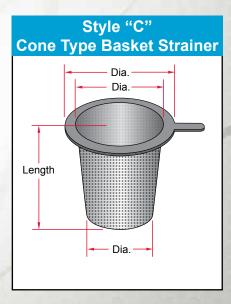
This Custom Engineered Strainer accomplishes fine mesh filtration by compressing the effective flow area of a 20 foot long Cone Strainer into a compact 4 foot Strainer. The Quad Reverse Cone Strainer is simple to clean, conserves space and with an open area of 300% this Stainless Steel Strainer provides exceptional flow filtration design and functionality.

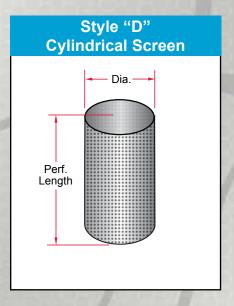


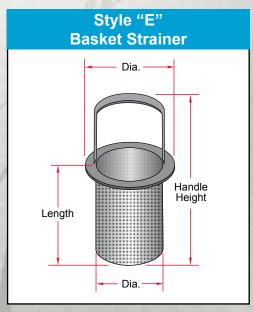


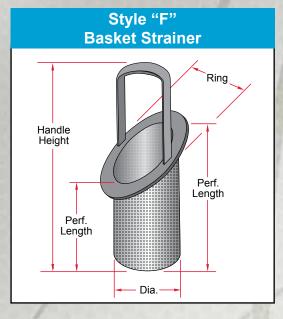
## **Custom Strainer Screens**











### When ordering specify:

- Pipe Size
- Pressure Rating/Flange Rating
- · Perforation or Mesh size
- Material
- Style Cone, Basket, etc.
- Direction of flow Straight or Reverse
- Percentage of open area or length

We manufacture Strainer Baskets, Screens, Tubes, Cones and Tee Strainers in Stainless Steel, Monel, Titanium and other exotic metals. Sure Flow Equipment Inc. can customize baskets to fit your unique requirements.

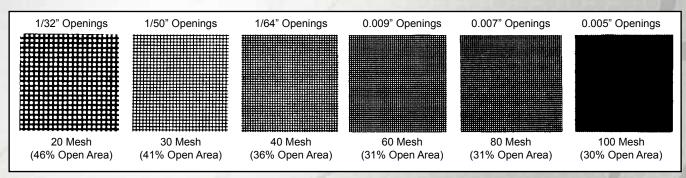
Please send us your prints, samples or simply give us your requirements and specifications and let us design the strainer for you.

Custom product not subject to return, credit or refund



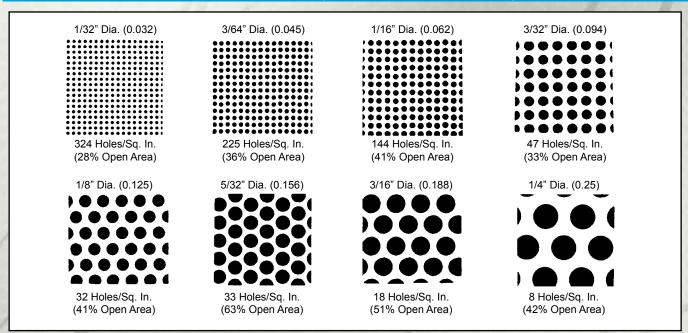
## Perforated Material and Mesh

### Mesh (Available In All Materials)



Mesh sizes other than shown - available on request

## Perforated Plate (Available In All Materials)



### **Mesh to Inch to Micron Conversion Chart**

Meshes/Lineal Inch US and ASTM	Actual Opening		
Std. Sieve No.	Inches	Microns	
10	.075	1905	
12	.060	1524	
14	.051	1295	
16	.045	1143	
18	.039	991	
20	.034	864	
24	.028	711	
30	.020	508	
35	.018	457	
40	.015	381	
50	.011	279	

Meshes/Lineal Inch US and ASTM	Actual Opening			
Std. Sieve No.	Inches	Microns		
60	.009	229		
70	.008	203		
80	.007	178		
100	.006	152		
120	.0046	117		
130	.0043	109		
140	.0042	107		
150	.0041	104		
160	.0038	97		
170	.0035	89		
180	.0033	84		

Meshes/Lineal Inch US and ASTM	Actual Opening		
Std. Sieve No.	Inches	Microns	
200	.0029	74	
250	.0024	61	
300	.0018	46	
400	.0015	38	
120 x 400	.0016	40	
80 x 700	.0012	30	
200 x 600	.0010	25	
165 x 1400	.0007	17	
200 x 1400	.0004	10	
325 x 2300	.0002	5	



Cast Iron, Cast Steel, Cast 316 Stainless Steel, Cast Bronze
Threaded (T) and Flanged (F) ● Sizes 3/4" to 4"

Type **D125CIT & D125CIF** Cast Iron; **D150TCS & D150FCS** Cast Steel; **D150TSS & D150FSS** Cast 316 Stainless Steel; **D150TBZ & D150FBZ** Cast Bronze



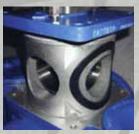
A minimum
of parts,
e a s i l y
replaced,
m a k e s
s e r v i c e
a s n a p .
Exploded
view shows
simplicity of
design.

The Sure Flow Duplex Strainer removes dirt and debris from pipelines and protects sensitive system components. The duplex features a design that makes strainer basket servicing a no-hassle operation. The duplex keeps the chamber from overflowing during service. This gives you time to clean or replace the strainer basket without ever having to worry about leakage and overflow. And ... without overflow, there's no need to clean up after servicing the strainer basket.

A unique flow diverter valve cartridge design isolates the two strainer basket chambers and prevents fluid bypass. An easy-to-turn handle operates the cartridge and diverts the system flow from one chamber to the other — the flow in the pipeline is never shut off.

When a strainer basket needs to be cleaned, the lever handle is turned to take it out of service and to divert the flow through the other chamber. The position of the handle clearly indicates at all times which chamber is in service.

No special tools are needed to access the strainer basket for cleaning. The chamber is first drained and then the cover is lifted and swung clear of the chamber opening. The dynamic diverter cartridge seals prevent fluid bypass into the out-of-service chamber — making for easy, hassle-free strainer basket servicing.



Should the diverter valve require service, it slides right out the top of the strainer body.



Standard body vent on top of strainer makes venting quick and easy.

	Sure Flow Duplex Strainer Selection Table (Sizes 3/4" to 4")													
Body and Cartridge	Connections		Sizes	Rating	Seat/	Diverter								
Material	Connections	Inches	Prefix	Rating	Seals	Balls								
Cast Iron (CI)	Threaded (T)	3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2	0075, 0100, 0125, 0150, 0200, 0250	ASME CL.125										
Cast non (Ci)	Flanged (F)	langed (F) 1, 1 1/4, 1 1/2, 0100, 0125, 0150, 0200, 0250, 0300, 200 psig		200 psig @ 150 °F	Teflon/	Stainless								
Bronze (BZ) Carbon Steel (CS)	Threaded (T)	3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2	0075, 0100, 0125, 0150, 0200, 0250	ASME CL.150	Buna N*	Steel								
Stainless Steel (SS)	Flanged (F)	1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4	0100, 0125, 0150, 0200, 0250, 0300, 0400	200 psig @ 150 °F										

\* Viton® standard for stainless steel.

## **Ordering Information**

Example: Include full description

SizeModelScreen(Prefix)NumberOpening0400D125CIF156

4" Flanged Duplex Strainer, Cast Iron, Class 125 ASME Flanges, 5/32" Perf Screen

#### Notes:

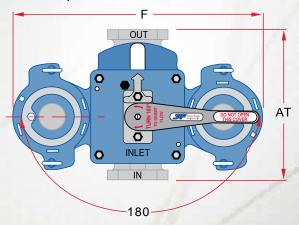
Manufacturer reserves the right to modify dimensions, materials, or design. Please contact Sure Flow Equipment Inc. for certifications.



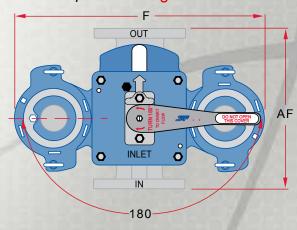




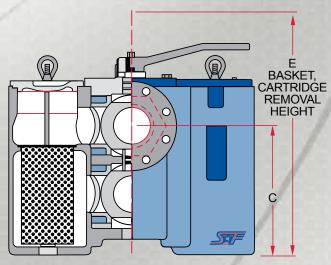
Top View: Threaded Model



Top View: Flanged Model



Front View: Flanged and Threaded Models



	Dimensional Data (Inches)														
C:	ze								Shipping W	/eight (lbs.)					
51	ze	AF	AT	С	Е	F	Cast	Iron	Bro	nze	Carbon & SS				
Inches	Prefix						Flanged Threaded		Flanged	Threaded	Flanged	Threaded			
3/4	0075	-	5 1/2	5	13 3/8	10 1/2	-	45	-	56	-	52			
1	0100	6 7/8	5 1/2	5	13 3/8	10 1/2	52	45	65	56	65	52			
1 1/4	0125	6 7/8	7 1/2	6 13/16	17	13 1/4	-	90	-	115	-	110			
1 1/2	0150	9 3/8	7 1/2	6 13/16	17	13 1/4	109	90	130	115	120	110			
2	0200	10 5/8	10	8 3/8	21 3/4	17 3/8	190	180	230	220	210	195			
2 1/2	0250	10 3/4	10	8 3/8	21 3/4	17 3/8	210	180	260	220	235	195			
3	0300	13 1/2	-	8 7/8	26 1/2	22 3/4	340	-	380	-	460	-			
4	0400	16	-	13 1/4	33	24 3/4	430	-	535	-	460	-			

<sup>1/4&</sup>quot; NPT cover vent taps are standard on all strainers.

Dimensions and weights are for reference only. Please contact Sure Flow Equipment Inc. for certified drawings.



<sup>1/4&</sup>quot; NPT basket well drain connectors are standard on all strainer sizes.

Cast Iron, Cast Steel and Cast 316SS, Cast Bronze Flanged (F) • Sizes 5", 6", 8"

Type DF125CI Cast Iron; DF150CS Cast Steel; DF150SS Cast 316SS; DF150BZ Cast Bronze

The Sure Flow Duplex Strainer is a simple, economical, and trouble free design that has been time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated plug valve with integral straining baskets.

Switching the flow from one basket to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that it is impossible for this operation to stop the flow because of the unique port design in the diverter plug. The entire switching operation takes less than 30 seconds. No tools are needed. The plug is automatically positioned each time in exactly the right spot by integral stops.

> Before operating the handle a manual, integral lifting jack, built into the strainer is used to lift the diverter plug off of its seat. After the switching operation the lifting jack is used to reseat the plug. The lifting jack is specially designed to lift and seat the plug easily, even under high pressures. A built-in stop limits the distance the

diverter plug can be raised. This minimizes the possibility of material bypassing the plug while it is rotated. It also prevents debris from building up under the

plug and making it difficult to reseat.

Other important features of the Sure Flow Duplex Basket Strainers design include quick opening, swing away yoke design covers. No tools are required to remove the covers for guick and easy access to the strainer baskets, and they go back on just as fast as they came off.

Draining of the basket chambers is simplified with the standard NPT drain taps. All sizes are provided with mounting legs to bolt the strainer to the floor for a rock solid installation.

The Sure Flow Duplex Basket Strainer is your best choice for most applications. Its rugged design and ease of operation have made it the duplex strainer of choice around the world in hundreds of different industries.

٠.															
	Sure Fl	Sure Flow Duplex Strainer Selection Table (Sizes 5", 6", 8")													
	Dody Material	Connections	S	Sizes	Dlug Material	Coolo	Doting								
	Body Material	Connections	Inches	Prefix	Plug Material	Seals	Rating								
1	Iron (CI)	Flanged CL.125		0500, 0600, 0800	Iron (CI)		200 psig								
	Bronze (BZ)	Flanged CL.150	5, 6, 8	0500, 0600, 0800	or Bronze (BZ)	Buna N	@ 100 °F 5" and 6"								
	Carbon Steel (CS)	Flanged CL.150	6, 8	0600, 0800	Bronze (BZ) or Stainless Steel (SS)		sizes 150 psig @ 100 °F								
	Stainless Steel (SS)	Flanged CL.150	6, 8	0600, 0800	Stainless Steel (SS)	Viton®	8" size								

Cv Factors*									
Size	Value								
5"	300								
6"	420								
8"	900								

- \* For water with clean perforated basket.
- For Liquid Service 5/32" SS perf basket standard for all sizes.

### **Ordering Information**

Example: Include full description

Size Model Screen (Prefix) Number **Opening** 0600 DF125CI 156

Manufacturer reserves the right to modify dimensions, materials, or design. Please contact Sure Flow Equipment Inc. for certifications.

6" Flanged Duplex Strainer, Cast Iron, Class 125 ASME Flanges, 5/32" Perf Screen



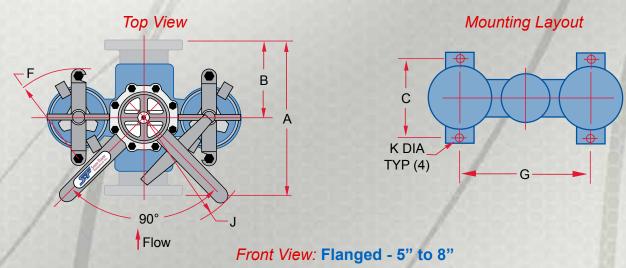
### **Options**

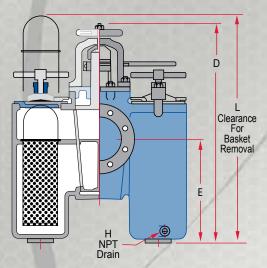
- Ductile iron construction
- ▲ Basket perforations from 1/32" to 1/2"
- Basket mesh from 10 to 400
- Monel baskets
- ▲ Viton®, PTFE, or EPDM seals
- Vent valves

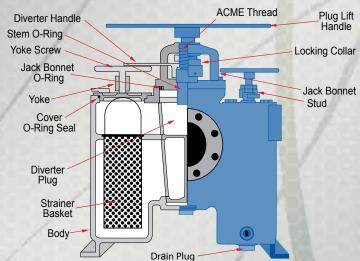
- Drain valves
- ▲ 1/4" NPT taps
- ▲ Magnetic basket inserts
- ▲ Pressure differential gauge and switch connections
- Steam jacket

	Dimensional Data (Inches)															
Si	ze			Shipping Weight (					bs.)							
Inches	Prefix	Α	В	С	D	Е	F	G	Ξ	J	K	L	Cast Iron	Bronze	Carbon Steel	Stainless Steel
5	0500	18 3/8	9	9 3/4	33 1/4	14 3/4	10 1/4	17 3/16	3/8	19 3/4	9/16	41	463	473	-	-
6	0600	22	12 7/8	12 1/2	36 1/4	19 1/2	11 3/4	20 3/4	3/8	19 3/4	5/8	42	575	699	690	738
8	0800	25	14	17	50 5/8	23 1/16	-	30 3/4	1/2	28	15/16	56	1725	2070	1851	1920

Dimensions and weights are for reference only. Please contact Sure Flow Equipment Inc. for certified drawings.





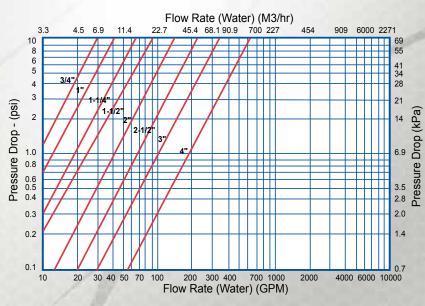




## Flow Rate Vs. Pressure Drop (Clean Screen)

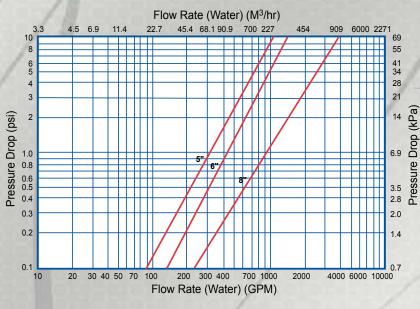
These curves are for clean baskets, without mesh liners - and with WATER flowing through the strainer. For mesh-lined baskets and/or other fluids, you must first compute a correction factor.

## Model D125 and D150 Duplex - 3/4" Through 4"





## Model DF125 and DF150 Duplex - 5" Through 8"





#### Notes:

Pressure drop curves are based on water flow with standard screens. For other fluids and/or screen openings, the figure shall be multiplied by the following correction factors.

These charts are for theoretical calculations **ONLY**.

Please contact our office with your exact specifications and you will be provided with factory calculations.



# The Web Automatic Self-Cleaning Strainers

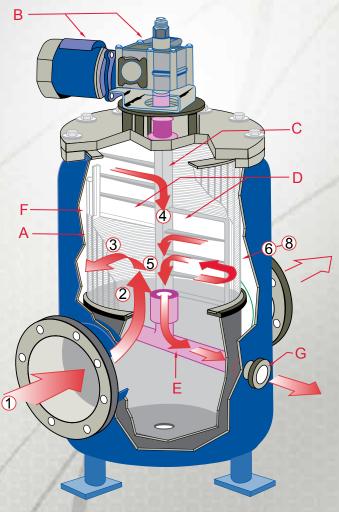
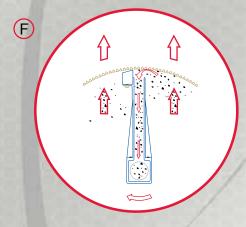


Figure 1 - Cut-away of Web showing fluid flow during operation



Port/straining element interface during backwashing cycle.

#### The Web

The Web, Motorized, Automatic, Self-Cleaning Strainer, provides continuous debris removal from fluid piping systems that demand full time uninterrupted flow.

The Web is particularly effective in fluid applications where unattended service, high solids loading and/or uninterrupted flow requirements deem a basket strainer and its attendant maintenance problems impractical.

Any of the Model SFA Strainers, applied correctly, will prove efficient and cost effective compared to simplex/duplex strainers or other automatic straining systems.

### **Sequence of Operation**

- Debris laden fluid enters through inlet to inner chamber. (Fig. 1)
- 2. Dirty fluid flows upward and outward through the strainer element (A).
- Debris is retained on the flat face of the strainer element, while strained fluid continues to outer chamber and exits through strainer outlet. (See inset)
- During backwash or cleaning cycle, the motor/ gear reducer (B) is engaged and drives the hollow drive shaft (C) and hollow port (D) around the inner circumference of the strainer element.
- 5. The backwash assembly C, D, and E are opened to atmospheric pressure by opening the backwash control valve (not shown).
- Flow reversal occurs at the port/straining element (F) interface because of the pressure differential described in 5. (See Inset)
- 7. Debris is effectively vacuumed from the full length of the straining element by a vigorous reverse fluid flow and into the hollow port; down the hollow drive shaft and out the backwash outlet (G).
- 8. The hollow port continues to sweep the full length of the strainer element until the cleaning cycle has ended.
- 9. The strainer will provide continuous uninterrupted fluid flow during the cleaning operation.
- 10. The cleaning cycle can be set for continuous or intermittent backwash.



## The Web Automatic Self-Cleaning Strainers



#### **Application**

The Web is part of a line of Motorized, Automatic Self-Cleaning Strainers. The Web allows for continuous uninterrupted and unattended debris removal

The Web's unique strainer element design permits installation in virtually any piping system operating at a positive pressure.

The Web can operate through a wide range of operating pressures (5 psig minimum) and solids loading with effective debris removal and backwashing across the entire pressure range. Additionally, only one drain/backwash connection is required for installation, effectively eliminating the expense of a separate backwash pressure connection.

Strainers are used to protect equipment such as valves, pumps, meters, heat exchangers or spray nozzles, as well as in-feed water and process water applications or virtually any similar application.

The Web Model SFA Automatic Self-Cleaning Strainers are fabricated in pipe sizes ranging from 1" to 48" to suit most application requirements.

#### **Proven Features Include:**

- Patented rugged screen and mechanical assist backwash mechanism extends useful service life.
- Unique clog-resistant straining element reduces maintenance downtime.
- Unique adjustable accelerator plate aids cleaning in difficult applications.
- All internal replacement parts supplied in corrosion resistant material.
- Efficient new design reduces maintenance requirements; requires fewer parts.
- Flats for manual operation in case of power failure.
- Low rpm backwash mechanism provides more efficient cleaning, less wear of internals.

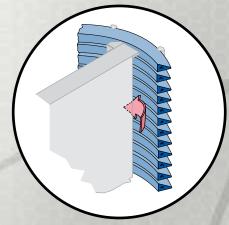


Figure 2 - Wedge Wire Straining Element Cross-Section

### **Straining Element**

The Webs feature a revolutionary reverse rolled wedge-wire straining element (Fig. 2) that is extremely rugged and more clog-resistant than conventional strainer elements that use perforated plate or wire mesh screens.

This proven state-of-the-art straining media is fabricated by wrapping vertical rods with wedge shaped profile wire. Each intersection of rod and wire is welded to produce an extremely rugged one-piece element. This forms a continuous slot that allows only two point contact with debris particles to reduce clogging.

The wedge shaped profile wire reduces the possibility of retaining debris smaller than the screen opening which historically has been the cause of premature clogging or failure of competitive screen designs.

#### **Advantages of Wedge Wire Straining Element**

- Maximum effective flow area and maximum operating efficiency are maintained throughout service life.
- Maintenance costs are reduced drastically due to reduced clogging and stapling of fibrous material.
- Long-lived straining element provides reduced operating costs over entire service life.
- Rigid element prevents flexing which can cause premature element failure.
- Efficient, effective debris collection at media/screen interface.



## Straining Element Selection/Model Information



Figure 3 - Wedge-Wire Straining Elements

## **Straining Element Selection**

The Model SFA Straining Element (Fig. 3) is an extremely rugged, single-piece unit available in a variety of standard and custom openings and materials.

Screen opening should be selected based on the amount of protection necessary, and not on the smallest opening available. By specifying a smaller opening than needed, more debris will be retained and subsequently result in longer cleaning durations and increased backwash fluid loss. Also, smaller than necessary screen openings will reduce open screen area and increase pressure loss.

The screen opening should be approximately one-third (1/3) to one half (1/2) the largest size particle that can safely pass downstream. Example: A strainer protecting spray nozzles with a 1/16" orifice would be supplied with a 1/32" screen opening.

### **Straining Element Selection Guide**

		Standard		
Slot Opening (inches)	Fraction Equivalent inches (mm)	Mesh Equivalent	Micron Equivalent	% Open Area
0.003	(80.0)	200	75	9
0.006	(0.15)	100	149	16.5
0.010	(0.25)	50	250	17.5
0.015	1/64 (0.4)	40	385	24
0.020	(0.5)	35	500	30
0.032	1/32 (0.8)	20	795	40
0.062	1/16 (1.6)	10	1590	51
0.125	1/8 (3.2)	6	3205	67
0.187	3/16 (4.8)	4	4795	72
0.250	1/4 (6.4)	3	6410	78

Other slot openings are available upon request.

Standard screen material is 304 Stainless Steel. 316 Stainless Steel, 316L Stainless Steel, Monel and other materials are available upon request.

#### **Model Information**

	The WEB Base Unit	
Model	Body Material	Size Range
SFA10	Cast Iron	2" - 10"
SFA20	Carbon Steel	1" - 10"
SFA30	Carbon Steel	10" - 36"

Т	The WEB With Spyder-Clean											
Model	Body Material	Size Range										
SFA11	Cast Iron	2" - 10"										
SFA31	Carbon Steel	1 1/2" - 36"										



# The Spyder-Clean Advantage

### The Spyder-Clean

The Spyder-Clean is part of a line of Motorized, Automatic Self-Cleaning Strainers. The Spyder-Clean provides continuous uninterrupted and unattended debris removal making it ideal for fluid piping systems which demand added cleaning abilities. It is very effective in system applications where operating pressure is low (under 5 psig) or where the debris is difficult to remove. Like all our Automatic Strainers, the Model SFA11 and SFA31 Strainers provide unattended service. The addition of external backwash on the Model SFA11 and SFA31 results in superior self-cleaning attributes compared to other automatic strainers.

#### **Application**

The Spyder-Clean's unique backwash system permits installation in a broad range of applications. It is well suited for applications with a relatively low pressure as well as those with a very high pressure and from coarse, easily removed debris to fine, sticky debris.

In a low pressure mode (such as on the suction side of a pumping system), the Spyder-Clean system is mounted on the leading edge of the strainer backwash arm. External fluid is directed at an incident angle over the inside surface of the straining element through the high pressure nozzle assembly. The high velocity of this spray assists in cleaning of the wedge-wire straining element. External source backwash pressure must be a minimum of 30 psi over operating pressure.

Spyder-Clean Strainers are used to protect equipment such as pumps, motors, heat exchangers or spray nozzles They are also useful in process applications such as cooling towers or virtually any similar application.

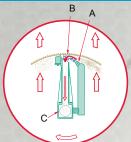
The Model SFA31 Spyder-Clean Self-Cleaning Strainer is fabricated in pipe sizes ranging from 1" through 36" enabling it to suit the requirements of many applications. The Spyder-Clean system is an economical choice that can be easily retrofitted to any Sure Flow Equipment Self-Cleaning Strainer (size 6" and larger) currently in service.

## The Unique Spyder-Clean Advantage

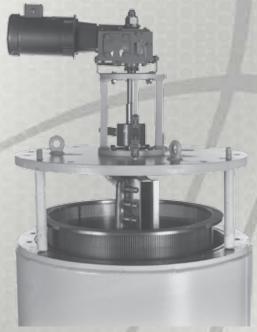
The external source of backwash fluid is introduced by opening the control valve (not shown) connecting the spray nozzles (A) at the leading edge (B) of the backwash assembly.

A "Jet" spray action occurs at the straining element inside surface (see insert) in addition to the flow reversal at the port/straining element interface.

Debris is effectively removed from the full-length of the straining element by a vigorous "Spyder-Clean" fluid flow into the hollow port, down the hollow drive shaft and out the backwash outlet.



Cross-Sectional View of Port/Straining Element During Backwash Cycle



The innovative internals of the Spyder-Clean showing ease of maintenance.

#### **Proven Features Include**

- A unique patented spray assisted/ mechanical backwash mechanism for extended service life.
- A clog-resistant straining element (wedge-wire configuration) to reduce maintenance downtime and operator assisted attention.
- All internal replacement parts supplied in corrosion resistant materials (special material available on request).
- An efficient, effective cleaning mechanism which reduces annual maintenance, requiring fewer parts.
- A low rpm backwash cycle provides more efficient cleaning, less wear (no contact between rotating parts) and longer duty cycle on motors and speed reducers.
- Any existing Sure Flow Equipment Self-Cleaning Strainer (6" and up) can be converted to Spyder-Clean.

The W	The WEB c/w The Spyder-Clean Model SFA31 Automatic Self-Cleaning Strainer Typical Backwash Flow and External Source Requirement													
Strainer Size 1", 1-1/2" 4" 6" 8" 10/12" 14/16" 18/20" 24" 30" 36"														
Backwash Line Size	1"	1"	1-1/2"	1-1/2"	2"	3"	3"	4"	4"	6"				
Backwash Flow in GPM	8-12	15-20	30-40	60-75	110-150	170-210	250-310	400-490	550-700	750-900				
External Backwash Source GPM	10-15	10-15	10-15	10-15	25-35	40-50	50-60	60-70	85-95	115-125				
External Line Size	3/4"	3/4"	3/4"	1"	1"	1"	1-1/4"	1-1/2"	1-1/2"	2"				

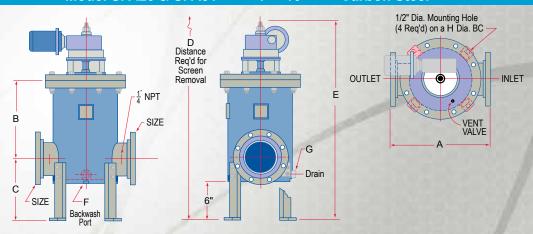


## Specifications / Dimensions / Weights

## Model SFA20 & SFA31

#### 1" - 10"

### **Carbon Steel**



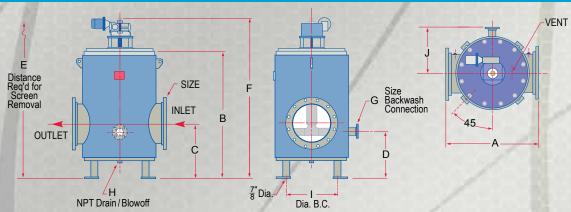
Model No.	Size	Α	В	С	D	Е	F	G	Н	Approx	. Wts. (LI	os.)	Motor
wodel No.	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	Dry	Wet	Cov.	H.P.
0100-SFA20	1-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	295	440	130	1/4
0150-SFA20	1 1/2-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	300	445	130	1/4
0200-SFA20	2-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	305	450	130	1/4
0250-SFA20	2 1/2-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	310	455	130	1/4
0300-SFA20	3-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	315	460	130	1/4
0400-SFA20	4-150	16 1/2	14 1/4	10	59	36 1/2	1 NPT	1 NPT	11 7/8	325	470	130	1/4
0600-SFA20/31	6-150	20	15 5/8	11	65	38	1 1/2 NPT	1 NPT	16	560	750	170	1/4
0800-SFA20/31	8-150	28	18	16	74	46 1/2	1 1/2 NPT	1 NPT	21 1/4	825	1065	180	1/4
1000-SFA20/31	10-150	28	18	16	74	46 1/2	1 1/2 NPT	1 NPT	21 1/4	840	1080	180	1/4

Threaded (NPT) Inlet/Outlet connections available.

#### Model SFA30 & SFA31

#### 10" - 20"

### **Carbon Steel**

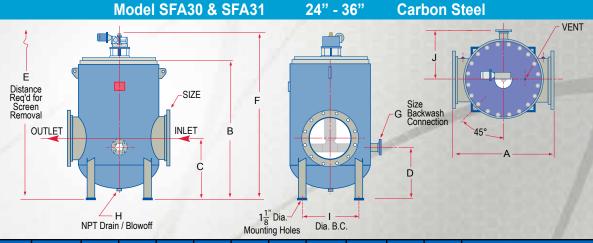


Model No.	Size	Α	В	С	D	Е	F	G	Н	11		Appro	ox. Wts.	(Lbs.)	Motor	
Model No.	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	Dry	Wet	Cov.	H.P.	
1000-SFA30/31	10-150	36	43	17 1/2	14 1/2	75	55 1/2	2 NPT	1 1/2 NPT	26	14 3/4	1595	2245	285	1/4	
1200-SFA30/31	12-150	36	43	17 1/2	14 1/2	75	55 1/2	2 NPT	1 1/2 NPT	26	14 3/4	1650	2305	285	1/4	
1400-SFA30/31	14-150	44	51 1/2	19 1/2	15 1/2	94	69	3-150	1 1/2 NPT	32	21 3/4	2525	3800	510	1/4	
1600-SFA30/31	16-150	44	51 1/2	19 1/2	15 1/2	94	69	3-150	1 1/2 NPT	32	21 3/4	2620	3895	510	1/4	
1800-SFA30/31	18-150	48	66	24	20 7/8	113	87	3-150	2 NPT	38	25 1/4	3225	5470	700	1/4	
2000-SFA30/31	20-150	48	66	24	20 7/8	113	87	3-150	2 NPT	38	25 1/4	3295	5545	700	1/4	

Dimensions subject to change without notice. Contact factory for certified drawings.



## Specifications / Dimensions / Weights

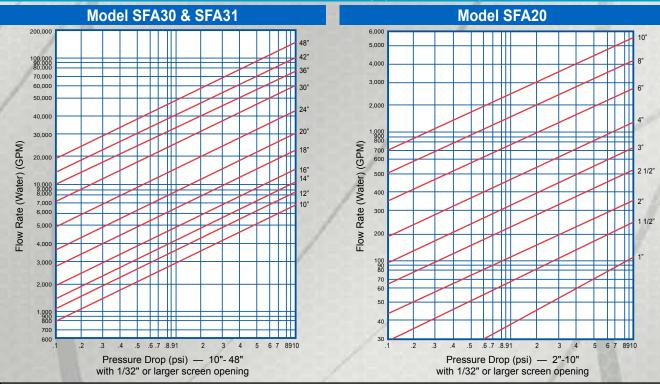


Model No.	Size	Α	В	С	D	Е	F	G	H	1	_	Appro	_bs.)	Motor	
woder No.	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	Dry	Wet	Cov.	H.P.
2400-SFA30/31	24-150	56	77	33	28	122	98	4-150	2 NPT	44	28	4,500	8,475	610	1/3
3000-SFA30/31	30-150	66	94	39	34 1/4	150	115	4-150	2 NPT	54	33	6,525	13,625	1,275	1/3
3600-SFA30/31	36-150	86	120	48	40 1/2	210	132	6-150	2 NPT	72	43	12,050	26,975	1,650	1/2

Larger sizes available upon request. Dimensions subject to change without notice. Contact factory for certified drawings.

Typical Backwash Flow Requirement												
	Model SFA10 / SFA20 (1" - 8")				Model SFA30 (10" - 36")							
Strainer Size	1", 1-1/2" 2" or 3"	4"	6"	8"	10/12"	14/16"	18/20"	24"	30"	36"		
Backwash Line Size	1"	1"	1-1/2"	1-1/2"	2"	3"	3"	4"	4"	6"		
Backwash Flow in GPM	8-12	15-20	30-40	60-75	110-150	170-210	250-310	400-490	550-700	750-900		

## Flow Rate Vs. Pressure Drop (Clean Screen)



NOTE: These charts are for theoretical calculations ONLY. Please contact our office with your exact specifications and you will be provided with factory calculations.



# Specifications and Options

### **Typical Strainer Specifications**

The strainer shall be Model SFA20/SFA30/ SFA31 Self-Cleaning, Motorized Type. (Fig. 4)

The body and cover shall be fabricated (carbon steel), designed, manufactured and tested generally to ASME Section VIII Standards, using qualified ASME Section IX welders.

Housing to be suitable for a design pressure of 150 psig. Inlet and outlet connections shall be flanged and conform to ASME B16.5 standards. The strainer shall have a single backwash connection and drain connections. Unit to be complete with factory supplied steel support legs for bolting to concrete or steel base.

Strainer shall be \_\_\_\_\_ size capable of handling \_\_\_\_ gpm of fluid at a \_\_\_\_ psig pressure loss with clean straining elements.

The straining element will be manufactured from corrosion resistant (304 Stainless Steel) reverse rolled slotted wedge wire screen designed with \_\_\_\_\_ inch openings. The wide or flat cross section of the wedge wire shall face the direction of flow providing for a continuous smooth flat surface to trap debris. The straining media shall be free of pockets, tubes, collector bars, etc. that accumulate and trap debris permanently.

All internal parts will be of corrosion resistant (304 Stainless Steel). The strainer shall be provided with drive shaft and hollow port assembly fitted with all necessary bearings and seals.

The drive arm and hollow port assembly including the adjustable accelerator plate will be free running at a maximum speed of two (2) rpm and not contact with screen surface. Port assembly shall be factory and field adjustable for positive effective cleaning and shear capability.

Note: Sizes 1" through 16" have (1) backwash hollow port. Sizes 18" and up will have (2) backwash hollow ports.

Drive shaft will be supported at the top with roller bearings located in a double reduction gear reducer and at the bottom with a water lubricated guide bearing.

The gear reducer shall be driven by a \_\_\_\_\_hp, \_\_\_\_v, \_\_\_\_v, \_\_\_\_Ph, 50/60 Hz, TEFC motor.



Fig. 4

### **Strainer Options Available**

Cover Lift Recomm Assemblies -

Recommended for remote locations.

ASME -

ASME Section VIII, Division 1. 10 CFR 50 Appendix

B. ASME Section II, Class 3.

Materials of

Consult factory for stainless steel, copper,

Construction - nickel, monel, or other requirements.

Control

Control Panel with Nema 4 Enclosure,

Package -

Backwash Valve with Electric Operator, Single Element

Differential Pressure Switch.

Design -

High Pressure applications - Consult factory.

Spyder-Clean -Low Pressure and Special Application.

Skid

All equipment desired, including strainers,

Packages -

valves, controls, wiring, piping and skids may be combined

as a complete, custom package. Size of the project has

no limitation.



## The Web Automatic Cast Self-Cleaning Strainers



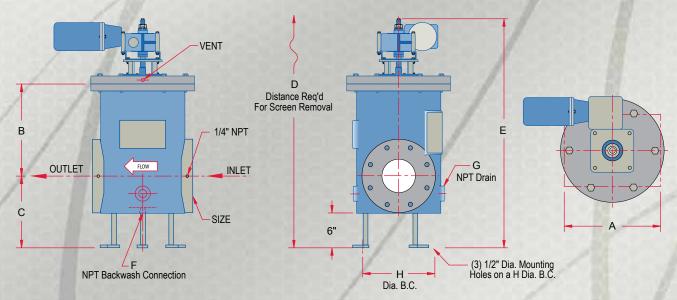
### **Engineered for Excellence**

Sure Flow Equipment places priority on designing products that are both high in quality and that serve to be an economical choice. These principles were kept in mind when creating the Model SFA10 Automatic Cast Self-Cleaning Strainer. This model is an example of Sure Flow Equipment's commitment to meet our customers' constantly evolving requirements.

#### Quality

Automatic Self-Cleaning Strainers continue to be meticulously manufactured in order to meet the highest level of quality possible. The Model SFA10 Automatic Self-Cleaning Strainer coheres with Sure Flow Equipment's objective of providing consistent and trouble free service. This strainer model is designed and constructed in compliance with ANSI and ASME Section VIII, Division 1. The ASME Code "U" Stamp is also available on these models.

#### Model SFA10 & SFA11 2" - 10" Cast Iron



Model No.	Size (in)	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	H (in)	Approximate Wts. (Lbs.)			Motor
										Dry	Wet	Cover	H.P.
0200-SFA10/11	2-125/150FF	23 7/8	14	10 1/2	60	37	1 NPT	1 NPT	13 1/4	370	520	130	1/4
0250-SFA10/11	2 1/2-125/150FF	23 7/8	14	10 1/2	60	37	1 NPT	1 NPT	13 1/4	375	530	130	1/4
0300-SFA10/11	3-125/150FF	23 7/8	14	10 1/2	60	37	1 NPT	1 NPT	13 1/4	380	540	130	1/4
0400-SFA10/11	4-125/150FF	11 7/8	14	10 1/2	60	37	1 NPT	1 NPT	13 1/4	300	425	130	1/4
0600-SFA10/11	6-125/150FF	15 7/8	15 7/8	11 1/2	62	39	1 1/2 NPT	1 NPT	16 1/4	590	690	170	1/4
0800-SFA10/11	8-125/150FF	32 5/8	20 3/4	14	75	47 1/2	1 1/2 NPT	1 NPT	21 1/4	1160	1435	180	1/4
1000-SFA10/11	10-125/150FF	20 5/8	20 3/4	14	75	47 1/2	1 1/2 NPT	1 NPT	21 1/4	875	1120	180	1/4

Dimensions subject to change without notice. Contact factory for certified drawings.



# Sequence Controllers

### **Design and Construction**

The Sequence Controller has been designed with the customers' specific requirements in mind. The Sequence Controller provides an effective automatic backwashing cycle with minimal water loss.

The Sequence Controller has been constructed with state-of-the-art industrial components. This allows for the replacement of individual components without having to replace an entire circuit board. The components are more durable and reliable and adjustments can be made with ease.



- Enclosure Nema 4
- · Adjustable Cycle Timer
- Off-delay Timer
- Motor Starters with Auxiliary Contact and Overload Relay
- · Selector Switch
- · Indicating Lights
- Fuses
- Terminal Block

#### **Modes of Operation**

The Sequence Controller provides two modes of operation; intermittent and continuous. By turning the selector switch, the mode of operation can be selected.

#### **Automatic Intermittent Position**

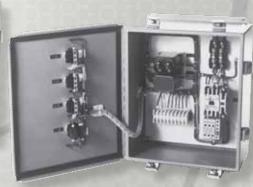
With the selector in the "Auto" position, the drive motor will start and the backwash valve opens as determined by the adjustable cycle timer or by the differential pressure switch.

The differential pressure switch is normally factory set at 1 - 1-1/2 psig over the anticipated clean pressure drop. Should a high differential pressure occur during the timed off period, the differential pressure switch will override the cycle timer and start or continue the backwash until the differential pressure is satisfied.

After the differential pressure has been satisfied, the strainer will continue to backwash for an additional 60 seconds (time delay relay).

The automatic self-cleaning strainer would start a backwash cycle based on the timed sequence selected on the adjustable cycle timer. The timed sequence should be determined by each installation and the conditions experienced. The adjustable cycle timer can be programmed from 15 minutes to a 10-hour cycle (off) and for 1 to 10 minutes duration (on). Adjustments can be made as conditions warrant. The default factory settings for timers are 2 hours OFF and 2 minutes ON.





#### **Continuous Operation**

Continuous mode can be achieved by moving the selector switch to the "Manual" position. In continuous mode the backwash valve will be open and the drive motor will be running resulting in continuous backwash. This mode of operation may be necessary if the installation experiences high solid loadings.

In either intermittent of continuous mode of operation the backwash assembly is specifically designed to rotate at 2 rpm to allow for effective backwashing in less time. This decreases the amount of backwash water that is lost

### **Standard Control Package**

The Sequence Controller Control Package consists of:

- · Control Panel with Nema 4 Enclosure
- Backwash Valve with Electric Operator
- Single Element Differential Pressure Switch

#### **Options**

- 230V, 380V, 460V, 575V
- 50 or 60 hertz
- · Dual Element Differential Pressure Switch
- Nema 4X (Fibreglass or Stainless Steel), Nema 7 or 9 (Explosion Proof), Nema 12, Nema 3 Enclosures
- Circuit Breakers, Disconnect Switch, Transformer
- Reset Buttons
- Alarms
- · PLC Interface and/or Pump Interlock
- Extra Contact and Relays
- Backwash Valve can be supplied with Pneumatic Operator
- · Backwash Valve available in numerous materials
- Differential Pressure Switches available with Mercury, Snap Action, Diaphragm or Piston Contacts.

#### Codes / Standards

The Sequence Controller can be manufactured to UL Listings, CSA, JIC, NEMA Standards.





## Sure Flow Equipment Inc. – Limited Warranty

All products are warranted to be free of defects in material and workmanship for a period of one year from the date of shipment, subject to below. All custom products are not subject to return, credit or refund. If the purchaser believes a product to be defective, the purchaser shall:

(a) Notify the manufacturer within ten(10) days after receipt of merchandise, state the alleged defect and request permission to return the product. Merchandise will not be accepted for return without a "Return Code" clearly marked on the outside of the package. Contact the office to obtain a return code. Merchandise will not be accepted for return or credit later than six (6) months after invoicing.

If permission is given, return the product with the transportation prepaid. Collect shipments will not be accepted. Goods must be returned prepaid.

If a shipment is received in a damaged or deficient condition, a claim must be filed with the delivering carrier and noted on the freight bill before you accept the merchandise. All other claims must be made in writing and received by Sure Flow Equipment Inc. within ten (10) days after receipt of merchandise

If the product is accepted for return and found to be defective, the manufacturer will, at its discretion, either repair or replace the product, F.O.B. factory, within 60 days of receipt, or issue credit for the purchase price. Sure Flow Equipment Inc. shall not be liable for failure to deliver or delays in delivering occasioned by acts of God, war, labor difficulties, inability to obtain materials or any other causes whatsoever beyond our control.

Other than to repair, replace or credit as described above, purchaser agrees that manufacturer shall not be liable for any loss, costs, expenses, or damages of any kind arising out of the product, its use, installation or replacements, labeling, instructions, information or technical data of any kind, description of product use, sample or model, warnings or lack of any of the foregoing.

NO OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ARE MADE OR AUTHORIZED. NO AFFIRMATION OF ACT, PROMISE, DESCRIPTION OF PRODUCT OR USE OR SAMPLE OR MODEL SHALL CREATE ANY WARRANTY FROM MANUFACTURER, UNLESS SIGNED BY THE PRESIDENT OF MANUFACTURER.

CANCELLATIONS:

Cancelled orders will be subject to a charge of at least 35%.

Cancelled custom orders will be subject to a charge of 100% of quoted price.

SPECIAL DOCUMENTATION: A charge will apply for non-standard, special documentation requests such as Material Test Reports (MTR's) and Certificates of Conformance (COC's).

MINIMUM BILLING: \$100.00 NET

Product shipping weights are approximate and subject to variances depending on packaging methods/requirements.



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