

## Applications

- Process Industry
- Power Industry
- Chemical Industry
- Oil and Gas
- Metals and Mining
- Water and Waste Water
- Pulp and Paper
- Marine
- Steel Mills

# Temporary Strainers

Pressures to 3705 PSIG  
Temperatures to 800°F

## FEATURES

- Cone, basket & plate strainers
- 100% to 300% open area range (OAR) as standard
- Custom engineered designs available

## MATERIALS

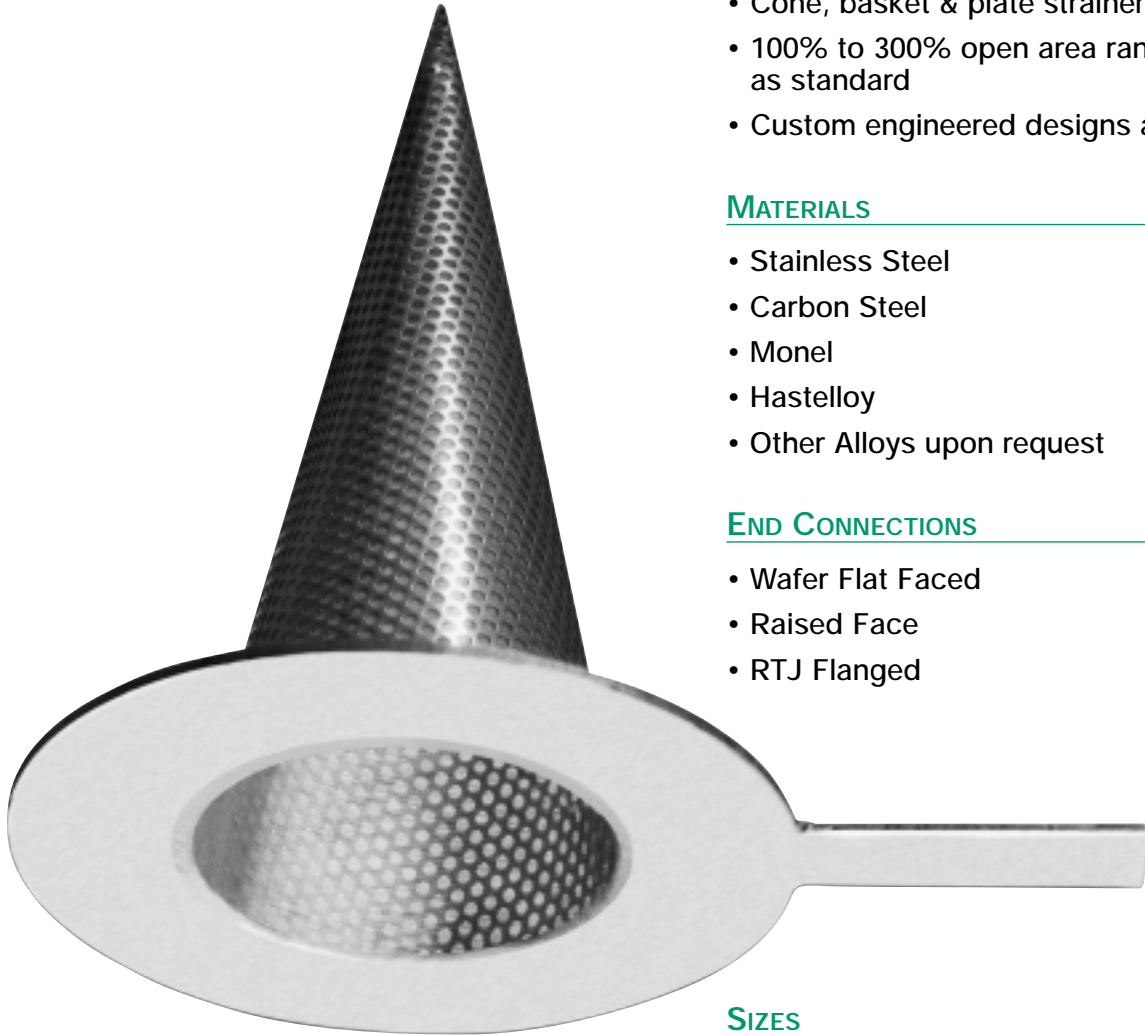
- Stainless Steel
- Carbon Steel
- Monel
- Hastelloy
- Other Alloys upon request

## END CONNECTIONS

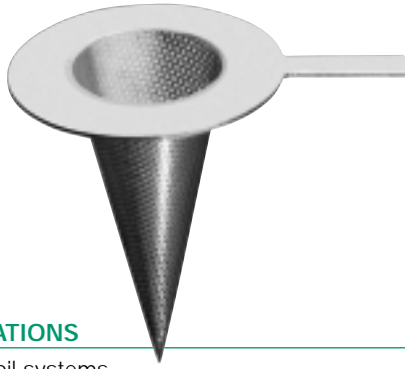
- Wafer Flat Faced
- Raised Face
- RTJ Flanged

## SIZES

- 3/4" (20mm) up to 24" (600mm) as standard
- Larger sizes available upon request



TEMPORARY  
STRAINERS



# TC, TB AND TP SERIES TEMPORARY STRAINERS

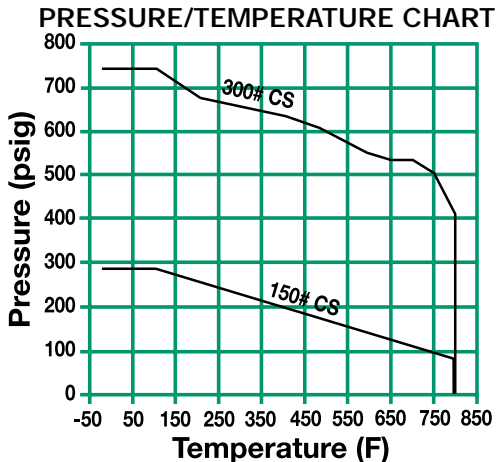
PRESSURES TO 3600 PSIG (244.9 BARG)  
TEMPERATURES TO 800°F (427°C)

## APPLICATIONS

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

## OPTIONS

- Custom engineered designs
- Customer specified Open Area
- Other Materials, Sizes and/or Configurations
- Other Screen and/or Mesh – See page 152



- Standard and custom designs
- Primarily used for new pipeline start-up or where solid loading is minimal.
- Filtration down to 40 Microns available
- Available in conical, basket and plate configurations
- 100% to 300% open area range (OAR) as standard
- 304SS construction is standard. Construction in other materials is available
- May be installed in horizontal or vertical pipelines

## MODELS *See Construction Details on page 152*

- T\*1 – 100% open area - Flow inside to outside
  - T\*2 – 100% open area - Flow outside to inside
  - T\*3 – 100% open area – Bidirectional flow
  - T\*4 – 150% open area – Flow inside to outside
  - T\*5 – 150% open area – Flow outside to inside
  - T\*6 – 150% open area – Bidirectional flow
  - T\*7 – 200% open area – Flow inside to outside
  - T\*8 – 200% open area – Flow outside to inside
  - T\*9 – 200% open area – Bidirectional flow
  - T\*A – 300% open area – Flow inside to outside
  - T\*B – 300% open area – Flow outside to inside
  - T\*C – 300% open area – Bidirectional flow
  - T\*Z – Custom Configuration
- \* TC – Temporary Cone, TB – Temporary Basket, TP – Temporary Plate

## APPLICABLE CODES

- Canadian Registration Numbers (CRN) available

Note: Temporary Strainers are designed for start up service of new or revamped piping systems. Temporary Strainers are not intended to be used in a permanent application. Contact factory when permanent applications are required.

## TC, TB, and TP Series Ordering Code

Model			Material	Inlet Size	Class	Connec- tion	Dash	Cover	Perf	Mesh
1	2	3	4	5	6	7	8	9	10	11
T	B	1	V	M	1	W	-	A	4	A

**Model** - Position 1 - 3  
 T\*1 - 100% I/O flow  
 T\*2 - 100% O/I flow  
 T\*3 - 100% Bidirectional  
 T\*4 - 150% I/O flow  
 T\*5 - 150% O/I flow  
 T\*6 - 150% Bidirectional  
 T\*7 - 200% I/O flow  
 T\*8 - 200% O/I flow  
 T\*9 - 200% Bidirectional  
 T\*A - 300% I/O flow  
 T\*B - 300% O/I flow  
 T\*C - 300% Bidirectional  
 T\*Z - Custom Configuration

\* TC - Temporary Cone  
 TB - Temporary Basket  
 TP - Temporary Plate -  
 Only TP1, TP2, TP3

**Material** - Position 4  
 V - 304 SS (standard)  
 C - Carbon Steel  
 T - 316 SS  
 M - Monel  
 H - Hastelloy  
 Z - Other

**Inlet Size\*** - Position 5  
 D - 3/4 Q - 8  
 E - 1 R - 10  
 G - 1½ S - 12  
 H - 2 T - 14  
 J - 2½ U - 16  
 K - 3 V - 18  
 M - 4 W - 20  
 N - 5 Y - 24  
 P - 6 Z - Other

\* Contact factory for other sizes.

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

**Connection** - Position 7  
 W - Wafer Flat Face  
 Smooth Finish  
 (Designed to fit  
 between RF Flanges)  
 Z - Other

**Dash** - Position 8

**Cover** - Position 9  
 A - None

**Perf** -  
 Position 10  
 B - 3/64"  
 1 - 1/32"  
 2 - 1/16"  
 3 - 3/32"  
 4 - 1/8"  
 5 - 5/32"  
 6 - 3/16"  
 7 - 7/32"  
 8 - 1/4"  
 9 - 3/8"  
 Z - Other

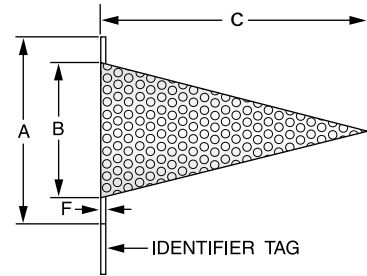
**Mesh** -  
 Position 11  
 A - None  
 1 - 10  
 2 - 20  
 3 - 30  
 4 - 40  
 5 - 50  
 6 - 60  
 7 - 80  
 8 - 100  
 9 - 120  
 Z - Other

Note: Any item outside this range must be a special and must be called out on the order (select "Z" and fill special field).

# TC SERIES TEMPORARY CONE STRAINERS

## SPECIFICATION

The strainer body shall be fabricated 304 stainless steel or other specified material. The strainer shall be the conical type with an extended identifier tag handle. The screen shall be size \_\_\_\_\_ perforated SS with \_\_\_\_\_ mesh liner. The flow shall be \_\_\_\_\_. The Strainer shall have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Temporary Cone Strainer shall be SSI TC Series.



CONICAL TYPE (TC)

## MATERIALS OF CONSTRUCTION (304 STAINLESS STEEL SHOWN \*)

Ring .....	A240-304
Handle .....	A240-304
Perforated Plate .....	A240-304
Mesh (optional).....	A276-304

\* Other material available - consult factory

Connections: 3/4" - Custom  
150#, 300#, 600#, 900# and 1500#  
Wafer Flat Faced Smooth Flanges  
are standard  
Designed to fit between RF Flanges

## SCREEN OPENINGS

SIZE	STANDARD SCREEN	MATERIALS
3/4" - 8"	1/8" Perf.	22 Gauge <sup>1</sup>
10" - 24"	1/8" Perf.	16 Gauge <sup>1</sup>

Note: Other screens and mesh liners available upon request

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

SIZE	A				B	C				F <sup>1</sup>	Weight
	150/300#	600#	900#	1500#		100%	150%	200%	300%		
3/4 (20)	2 1/2 (54)	2 1/2 (64)	2 3/4 (67)	2 3/4 (67)	3/4 (16)	1 1/2 (29)	1 2/3 (43)	2 1/4 (57)	3 3/4 (86)	1/2 (3)	0.5 (0.2)
1 (25)	2 1/2 (64)	2 3/4 (70)	3 (76)	3 (76)	3/4 (19)	1 1/2 (41)	2 1/2 (64)	3 1/3 (84)	5 (127)	1/2 (3)	0.5 (0.2)
1 1/2 (40)	3 1/4 (83)	3 3/4 (92)	3 3/4 (95)	3 3/4 (95)	1 1/4 (32)	2 1/2 (56)	3 3/4 (86)	4 1/2 (114)	6 1/4 (171)	1/2 (3)	0.5 (0.2)
2 (50)	4 (102)	4 1/4 (108)	5 1/2 (140)	5 1/2 (140)	1 3/4 (44)	3 (76)	4 1/2 (114)	6 (152)	9 1/2 (232)	1/2 (3)	0.5 (0.2)
2 1/2 (65)	4 3/4 (121)	5 (127)	6 3/4 (162)	6 3/4 (162)	2 1/4 (57)	3 3/4 (81)	5 (127)	6 3/4 (170)	10 1/2 (257)	1/2 (3)	1 (0.5)
3 (80)	5 1/4 (133)	5 3/4 (146)	6 1/2 (165)	6 1/2 (171)	2 3/4 (70)	4 (102)	6 1/4 (159)	8 1/2 (216)	12 1/4 (324)	1/2 (3)	1 (0.5)
4 (100)	6 3/4 (171)	7 1/2 (191)	8 (203)	8 1/8 (206)	3 3/4 (95)	5 1/2 (130)	7 1/2 (200)	10 1/2 (270)	17 (432)	1/2 (3)	2 (0.9)
5 (125)	7 3/4 (194)	9 3/4 (238)	9 3/4 (244)	9 3/4 (251)	4 3/4 (117)	6 1/2 (165)	10 1/2 (257)	14 (356)	21 (533)	1/2 (3)	2 (0.9)
6 (150)	8 3/4 (219)	10 3/4 (263)	11 1/4 (286)	11 (279)	5 3/4 (137)	8 1/2 (207)	13 (330)	17 (432)	26 (660)	1/2 (3)	3 (1.4)
8 (200)	10 3/4 (276)	12 3/4 (318)	14 (356)	13 3/4 (349)	7 3/4 (187)	10 3/4 (259)	16 (406)	22 (559)	33 (838)	1/2 (3)	5 (2.3)
10 (250)	13 3/4 (337)	15 3/4 (397)	17 (432)	17 (432)	9 3/4 (238)	13 (330)	20 (508)	27 (686)	40 (1016)	1/2 (3)	7 (3.2)
12 (300)	16 (406)	17 3/4 (454)	19 1/2 (495)	20 3/4 (517)	11 (279)	16 (406)	24 (610)	33 (838)	49 (1245)	1/2 (3)	11 (5.0)
14 (350)	17 3/4 (441)	19 (483)	20 3/4 (517)	22 3/4 (575)	12 1/4 (311)	17 (432)	27 (686)	36 (914)	54 (1372)	1/2 (3)	12 (5.4)
16 (400)	20 3/4 (511)	21 3/4 (555)	22 3/4 (572)	25 1/2 (638)	14 (356)	20 (508)	31 (787)	41 (1041)	62 (1575)	1/2 (3)	16 (7.3)
18 (450)	21 3/4 (540)	23 3/4 (603)	25 (635)	27 3/4 (702)	15 3/4 (400)	23 (584)	35 (889)	47 (1194)	71 (1803)	1/2 (3)	20 (9.1)
20 (500)	23 3/4 (597)	26 3/4 (676)	27 3/4 (695)	29 3/4 (753)	17 1/2 (445)	25 (635)	39 (991)	53 (1346)	79 (2007)	1/2 (3)	26 (11.8)
24 (600)	27 3/4 (708)	30 3/4 (784)	32 3/4 (835)	35 3/4 (899)	21 1/4 (540)	30 (762)	47 (1194)	63 (1600)	95 (2413)	1/2 (3)	30 (13.6)

Dimensions shown are subject to change. Contact factory for certified prints when required.

\*Dimensions shown using 1/8" perf and no mesh. Open Area percentage will change with alternate perf and/or mesh. The change will equal the ratio of the open area of the perf/mesh compared to the open area of 1/8" mesh.

For Open Area percentages for perf/mesh see page 152

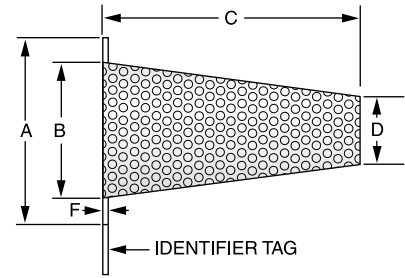
Please contact factory for further information.

1. Thicker material available upon request Please contact factory.

# TB SERIES TEMPORARY BASKET STRAINERS

## SPECIFICATION

The strainer body shall be fabricated 304 stainless steel or other specified material. The strainer shall be the basket type with an extended identifier tag handle. The screen shall be size \_\_\_\_\_ perforated SS with \_\_\_\_\_ mesh liner. The flow shall be \_\_\_\_\_. The Strainer shall have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Temporary Cone Strainer shall be SSI TB Series.



**BASKET TYPE (TB)**

## MATERIALS OF CONSTRUCTION (304 Stainless Steel Shown \*)

Ring .....	A240-304
Handle .....	A240-304
Perforated Plate .....	A240-304
Mesh (optional) .....	A276-304

\* Other material available - consult factory

Connections: 3/4" - Custom  
150#, 300#, 600#, 900# and 1500#  
Wafer Flat Faced Smooth Flanges  
are standard  
Designed to fit between  
RF Flanges

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

SIZE	A				B	C				D	F <sup>1</sup>	Weight
	150/300#	600#	900#	1500#		100%	150%	200%	300%			
3/4 (20)	2 1/2 (54)	2 1/2 (64)	2 3/4 (67)	2 3/4 (67)	5/8 (16)	3/4 (19)	1 1/8 (29)	1 1/2 (38)	2 1/4 (57)	1/2 (8)	1/8 (3)	0.5 (0.2)
1 (25)	2 1/2 (64)	2 3/4 (70)	3 (76)	3 (76)	3/4 (19)	1 1/8 (29)	1 1/2 (43)	2 1/4 (57)	3 3/8 (86)	3/8 (10)	1/8 (3)	0.5 (0.2)
1 1/2 (40)	3 1/4 (83)	3 3/8 (92)	3 3/4 (95)	3 3/4 (95)	1 1/4 (32)	1 1/2 (38)	2 1/4 (57)	3 (76)	4 1/2 (114)	5/8 (16)	1/8 (3)	0.5 (0.2)
2 (50)	4 (102)	4 1/4 (108)	5 1/2 (140)	5 1/2 (140)	1 3/4 (44)	2 (51)	3 (76)	4 (102)	6 (152)	7/8 (22)	1/8 (3)	0.5 (0.2)
2 1/2 (65)	4 3/4 (121)	5 (127)	6 3/8 (162)	6 3/8 (162)	2 1/4 (57)	2 1/2 (56)	3 3/8 (86)	4 1/2 (114)	6 3/4 (171)	1 1/8 (29)	1/8 (3)	1 (0.5)
3 (80)	5 1/4 (133)	5 3/4 (146)	6 1/2 (165)	6 1/2 (171)	2 1/2 (70)	2 3/4 (70)	4 1/4 (1)	5 1/2 (145)	8 1/2 (216)	1 3/8 (35)	1/8 (3)	1 (0.5)
4 (100)	6 3/4 (171)	7 1/2 (191)	8 (203)	8 1/8 (206)	3 3/4 (95)	3 3/8 (89)	5 1/2 (136)	7 1/2 (183)	11 (279)	1 7/8 (48)	1/8 (3)	2 (0.9)
5 (125)	7 3/4 (194)	9 3/8 (238)	9 3/4 (244)	9 3/4 (251)	4 3/8 (117)	4 1/2 (114)	6 3/4 (171)	9 3/8 (232)	14 (356)	2 1/2 (59)	1/8 (3)	2 (0.9)
6 (150)	8 3/4 (219)	10 3/8 (263)	11 1/4 (286)	11 (279)	5 1/2 (137)	5 1/2 (140)	8 1/2 (216)	11 3/8 (289)	17 (432)	2 3/4 (68)	1/8 (3)	3 (1.4)
8 (200)	10 3/8 (276)	12 1/2 (318)	14 (356)	13 3/4 (349)	7 1/2 (187)	7 (178)	10 3/8 (272)	15 (381)	22 (559)	3 3/8 (94)	1/8 (3)	5 (2.3)
10 (250)	13 1/4 (337)	15 3/8 (397)	17 (432)	17 (432)	9 3/8 (238)	8 3/4 (219)	14 (356)	18 (457)	27 (686)	4 3/8 (119)	1/8 (3)	7 (3.2)
12 (300)	16 (406)	17 3/8 (454)	19 1/2 (495)	20 3/8 (517)	11 (279)	10 1/2 (267)	17 (432)	22 (559)	33 (838)	5 1/2 (140)	1/8 (3)	11 (5.0)
14 (350)	17 3/8 (441)	19 (483)	20 3/8 (517)	22 1/2 (575)	12 1/4 (311)	11 1/2 (292)	18 (457)	24 (610)	36 (914)	6 1/8 (156)	1/8 (3)	12 (5.4)
16 (400)	20 3/8 (511)	21 3/8 (555)	22 1/2 (572)	25 3/8 (638)	14 (356)	14 (356)	21 (533)	28 (711)	42 (1067)	7 (178)	1/8 (3)	16 (7.3)
18 (450)	21 3/4 (540)	23 3/8 (603)	25 (635)	27 3/8 (702)	15 3/8 (400)	16 (406)	24 (610)	32 (813)	47 (1194)	7 3/8 (200)	1/8 (3)	20 (9.1)
20 (500)	23 1/2 (597)	26 3/8 (676)	27 3/8 (695)	29 3/8 (753)	17 1/2 (445)	17 (432)	27 (686)	35 (889)	53 (1346)	8 3/8 (222)	1/8 (3)	26 (11.8)
24 (600)	27 3/8 (708)	30 3/8 (784)	32 3/8 (835)	35 3/8 (899)	21 1/4 (540)	21 (533)	32 (813)	42 (1067)	64 (1626)	10 3/8 (270)	1/8 (3)	30 (13.6)

## SCREEN OPENINGS

SIZE	STANDARD SCREEN	MATERIALS
3/4" - 8"	1/8" Perf.	22 Gauge <sup>1</sup>
10" - 24"	1/8" Perf.	16 Gauge <sup>1</sup>

Note: Other screens and mesh liners available upon request

The Open Area % is calculated as follows:

$$OA\% = \left[ \frac{\text{Screen Area} \times \text{Open Area \%}}{\text{Area of Sch. 40/std. pipe}} \right] \times 100$$

Note: Open Area % for 1/8" perf is 40%.

Dimensions shown are subject to change. Contact factory for certified prints when required.

\*Dimensions shown using 1/8" perf and no mesh. Open Area percentage will change with alternate perf and/or mesh. The change will equal the ratio of the open area of the perf/mesh compared to the open area of 1/8" mesh.

For Open Area percentages for perf/mesh see page 152

Please contact factory for further information.

1. Thicker material available upon request Please contact factory.

# TP SERIES TEMPORARY PLATE STRAINERS

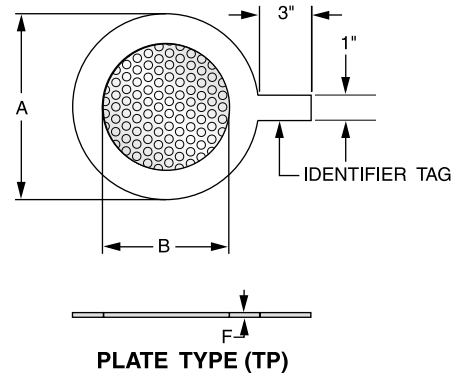
## SPECIFICATION

The strainer body shall be fabricated 304 stainless steel or other specified material. The strainer shall be the plate type with an extended identifier tag handle. The screen shall be size \_\_\_\_\_ perforated SS with \_\_\_\_\_ mesh liner. The flow shall be \_\_\_\_\_. The Strainer shall have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Temporary Cone Strainer shall be SSI TP Series.

## MATERIALS OF CONSTRUCTION (304 Stainless Steel Shown \*)

Ring .....A240-304  
 Handle .....A240-304  
 Perforated Plate .....A240-304  
 Mesh (optional) .....A276-304

\* Other material available - consult factory



Connections: 3/4" - Custom  
 150#, 300#, 600#, 900# and 1500#  
 Wafer Flat Faced Smooth Flanges  
 are standard  
 Designed to fit between  
 RF Flanges

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

SIZE	A				B	D	F <sup>1</sup>	Weight
	150/300#	600#	900#	1500#				
¾ (20)	2½ (64)	2½ (64)	2½ (67)	2½ (67)	⅝ (16)	⅜ (8)	⅜ (3)	0.5 (0.2)
1 (25)	2½ (64)	2¾ (70)	3 (76)	3 (76)	¾ (19)	⅜ (10)	⅜ (3)	0.5 (0.2)
1½ (40)	3¼ (83)	3¾ (92)	3¾ (95)	3¾ (95)	1¼ (32)	⅝ (16)	⅜ (3)	0.5 (0.2)
2 (50)	4 (102)	4¼ (108)	5½ (140)	5½ (140)	1¾ (44)	⅞ (22)	⅜ (3)	0.5 (0.2)
2½ (65)	4¾ (121)	5 (127)	6¾ (162)	6¾ (162)	2¼ (57)	1⅜ (29)	⅜ (3)	1 (0.5)
3 (80)	5¼ (133)	5¾ (146)	6½ (165)	6¾ (171)	2¾ (70)	1⅜ (35)	⅜ (3)	1 (0.5)
4 (100)	6¾ (171)	7½ (191)	8 (203)	8½ (206)	3¼ (95)	1⅞ (48)	⅜ (3)	2 (0.9)
5 (125)	7¾ (194)	9¾ (238)	9¾ (244)	9¾ (251)	4¾ (117)	2½ (59)	⅜ (3)	2 (0.9)
6 (150)	8¾ (219)	10¾ (263)	11¼ (286)	11 (279)	5¾ (137)	2¾ (68)	⅜ (3)	3 (1.4)
8 (200)	10¾ (276)	12½ (318)	14 (356)	13¾ (349)	7¾ (187)	3⅞ (94)	⅜ (3)	5 (2.3)
10 (250)	13¼ (337)	15¾ (397)	17 (432)	17 (432)	9¾ (238)	4¾ (119)	⅜ (3)	7 (3.2)
12 (300)	16 (406)	17¾ (454)	19½ (495)	20¾ (517)	11 (279)	5½ (140)	⅜ (3)	11 (5.0)
14 (350)	17¾ (441)	19 (483)	20¾ (517)	22¾ (575)	12¼ (311)	6⅜ (156)	⅜ (3)	12 (5.4)
16 (400)	20¾ (511)	21¾ (555)	22½ (572)	25½ (638)	14 (356)	7 (178)	⅜ (3)	16 (7.3)
18 (450)	21¼ (540)	23¾ (603)	25 (635)	27¾ (702)	15¾ (400)	7⅞ (200)	⅜ (3)	20 (9.1)
20 (500)	23¾ (597)	26¾ (676)	27¾ (695)	29¾ (753)	17½ (445)	8¾ (222)	⅜ (3)	26 (11.8)
24 (600)	27¾ (708)	30¾ (784)	32¾ (835)	35¾ (899)	21¼ (540)	10¾ (270)	⅜ (3)	30 (13.6)

Dimensions shown are subject to change. Contact factory for certified prints when required.

## SCREEN OPENINGS

SIZE	STANDARD SCREEN	MATERIALS
3/4" - 8"	1/8" Perf.	22 Gauge <sup>1</sup>
10" - 24"	1/8" Perf.	16 Gauge <sup>1</sup>

Note: Other screens and mesh liners available upon request

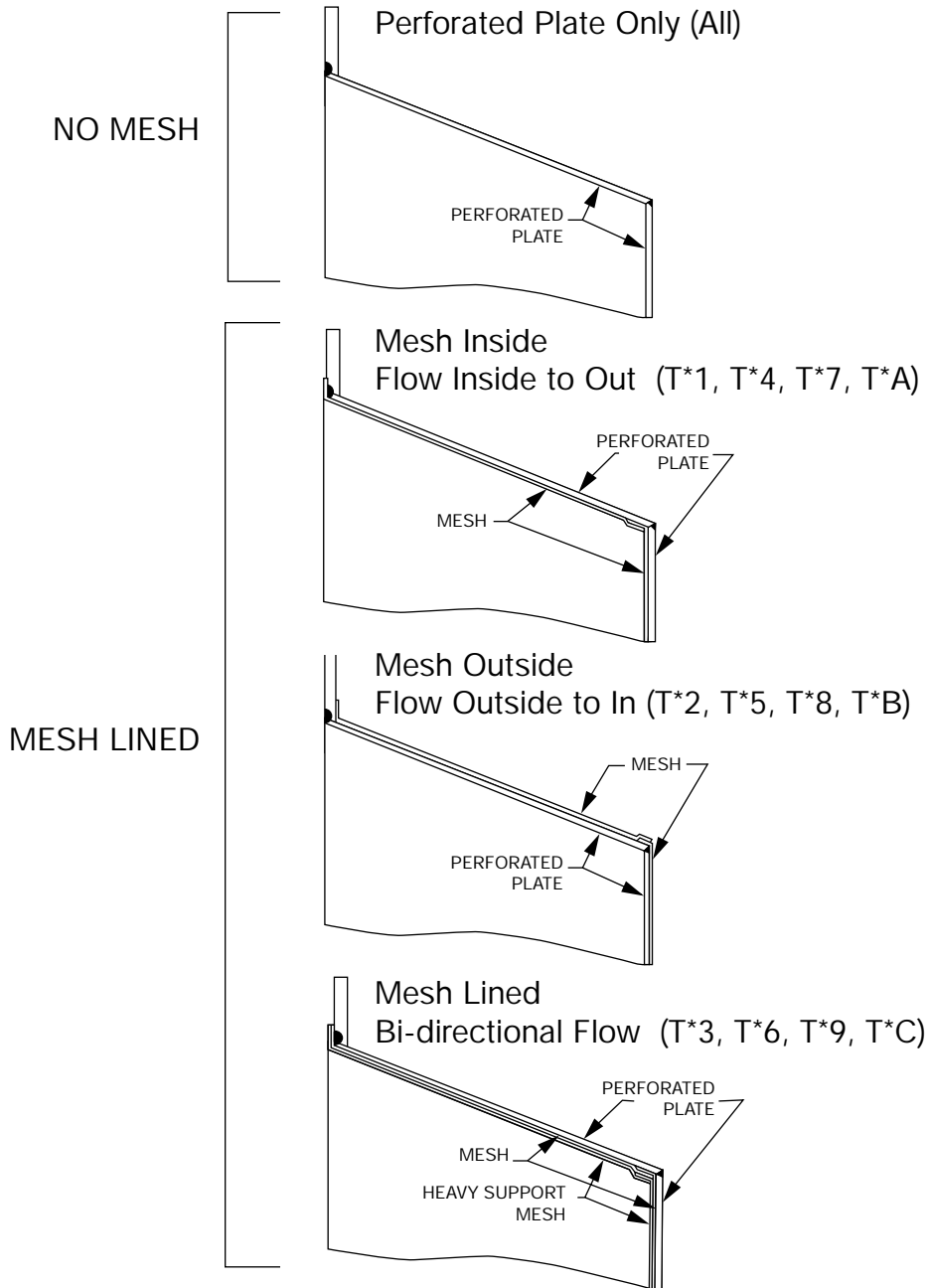
The Open Area % is calculated as follows:

$$OA\% = \left[ \frac{\text{Screen Area} \times \text{Open Area \%}}{\text{Area of Sch. 40/std. pipe}} \right] \times 100$$

Note: Open Area % for 1/8" perf is 40%.

1. Thicker material available upon request Please contact factory.

# TC, TB AND TP SERIES TEMPORARY STRAINERS STANDARD CONSTRUCTION DETAILS

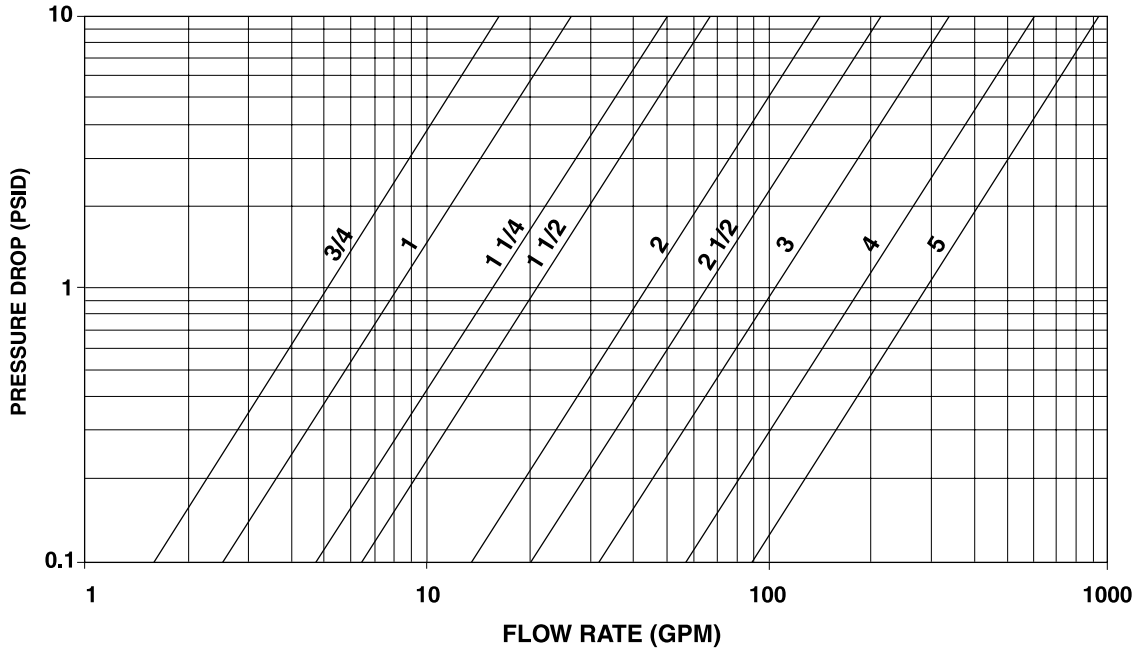


- \* TC - Temporary Cone
- TB - Temporary Basket
- TP - Temporary Plate (Only TP1, TP2, TP3)

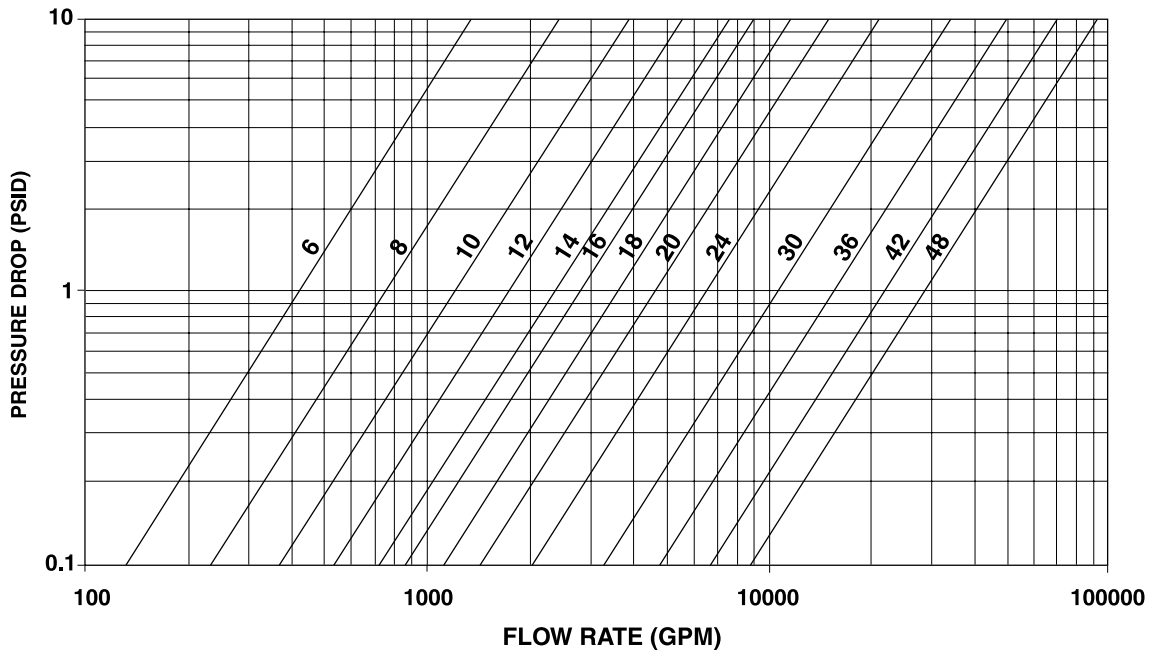
# TC, TB AND TP SERIES TEMPORARY STRAINERS PRESSURE DROP VS FLOW RATE

Water Service Clean Screen, 1/32" - 1/4" perforator Screen\*

(SIZES 3/4" - 5")



(SIZES 6" - 48")



\* For Gas, Steam or Air Service, consult factory.

Correction Factors for Other Viscous Liquids  
and/or Mesh Liners  
Page 153

Correction Factors for Clogged Screens  
Page 153


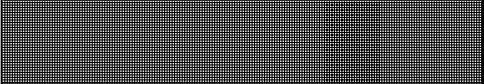
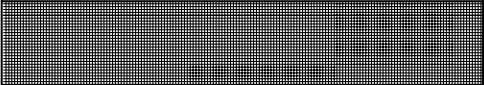
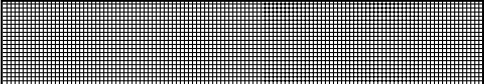
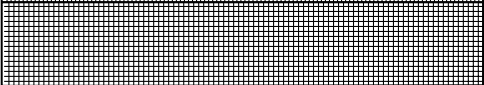
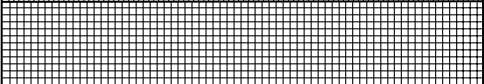
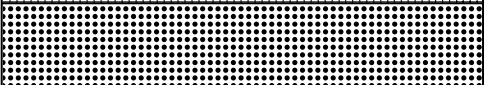
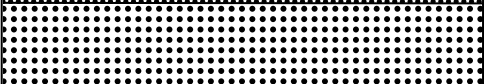
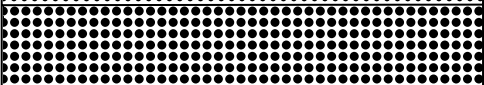
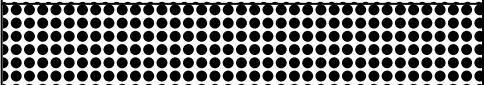




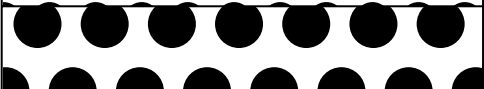
TEMPORARY  
STRAINERS





# TEMPORARY STRAINER TECHNICAL INFORMATION

# SCREEN OPENINGS

	100 Mesh - 30% O.A. 0.006" Openings
	80 Mesh - 36% O.A. 0.008" Openings
	60 Mesh - 38% O.A. 0.010" Openings
	40 Mesh - 41% O.A. 0.016" Openings
	30 Mesh - 45% O.A. 0.022" Openings
	20 Mesh - 49% O.A. 0.035" Openings
	0.027" Dia. - 23% O.A.
	0.033" Dia. - 28% O.A.
	3/64" Dia. - 36% O.A.
	1/16" Dia. - 37% O.A.
	3/32" Dia. - 39% O.A.
	1/8" Dia. - 40% O.A.
	5/32" Dia. - 58% O.A.
	3/16" Dia. - 50% O.A.
	1/4" Dia. - 40% O.A.

## FACTORS TO CONSIDER

### 1 Purpose

If the strainer is being used for protection rather than direct filtration, standard screens will suffice in most applications.

### 2 Service

With services that require extremely sturdy screens, such as high pressure/temperature applications or services with high viscosities, perforated screens without mesh liners are recommended. If a mesh liner is required to obtain a certain level of filtration, then a trapped perf/mesh/perf combination is recommended.

### 3 Filtration Level

When choosing a perf. or a mesh/perf. combination, attention should be given to ensure overstraining does not occur. As a general rule, the specified level of filtration should be no smaller than half the size of the particle to be removed. If too fine a filtration is specified, the pressure drop through the strainer will increase very rapidly, possibly causing damage to the screen.

Screen openings other than those shown above are readily available. Various mesh sizes as fine as 5 micron and perforated plate as coarse as 1/2" Dia. are in inventory.

Screens are available in a wide range of materials. Screens of carbon steel, stainless steel (304, 316), alloy 20, monel 400, hastelloy C and titanium grade 2 are in inventory.

Custom manufactured screens are available upon request. Please consult factory.

# TEMPORARY STRAINER

## PRESSURE DROP CORRECTION FACTORS

### Mesh Lined Baskets and/or Fluids with a Viscosity other than Water

Centistokes	SSU	Unlined Perforated Basket	20 Mesh Lined Basket	40 Mesh Lined Basket	60 Mesh Lined Basket	80 Mesh Lined Basket	100 Mesh Lined Basket	200 Mesh Lined Basket
2	30 (water)	1	1.05	1.2	1.4	1.6	1.7	2
100	500	1.6	1.7	1.9	2.1	2.4	2.6	3.1
216	1000	1.7	2	2.2	2.4	2.6	2.8	3.3
433	2000	1.9	2.2	2.4	2.7	2.9	3.2	3.8
650	3000	2	2.3	2.6	2.9	3.2	3.5	4.1
1083	5000	2.2	2.6	3	3.5	4	4.5	5.3
2200	10000	2.5	3	3.5	4.2	5	6	7.1

1. Obtain water pressure drop from graphs on appropriate product page.
2. Multiply the pressure drop obtained from (1) by the specific gravity of the liquid.
3. Multiply the pressure drop from (2) by the appropriate correction factor for the mesh liner and/or viscosity.

#### Example

**Model:** TCIVMIW-A44  
**Size:** 4"  
**Filtration:** 1/8" perforated screen  
 40 Mesh lines  
**Flow rate:** 200 GPM  
**Fluid:** Water  
**SG:** 1  
**Viscosity:** 30 SSI

#### Answer

- A) From Pressure Drop Chart, pressure drop of water is 1.25 psid
- B) Multiply by specific gravity;  $1.25 \times 1 = 1.25$  psid
- C) From chart above, multiply  $1.25 \times 1.2$  (correction factor) = 1.5 psid

## CORRECTION FACTORS FOR CLOGGED SCREENS

% Clogged	Ratio of Free Screen Area to Pipe Area						
	10:1	8:1	6:1	4:1	3:1	2:1	1:1
10							3.15
20						1.15	3.9
30						1.4	5
40						1.8	6.65
50					1.25	2.5	9.45
60				1.15	1.8	3.7	14.5
70				1.75	2.95	6.4	26
80		1.1	1.75	3.6	6.25	14	58
90	2.3	3.45	6	13.5	24	55	

\* Multiply values obtained from Pressure Drop Charts by the appropriate values shown below.

#### Example

**Strainer Size:** 6"  
**Model:** TCIVPIW-A4A  
**Filtration:** 1/8" Perf.  
**Flow rate:** 200 GPM  
**Service:** Water  
**% Clogged:** 60%

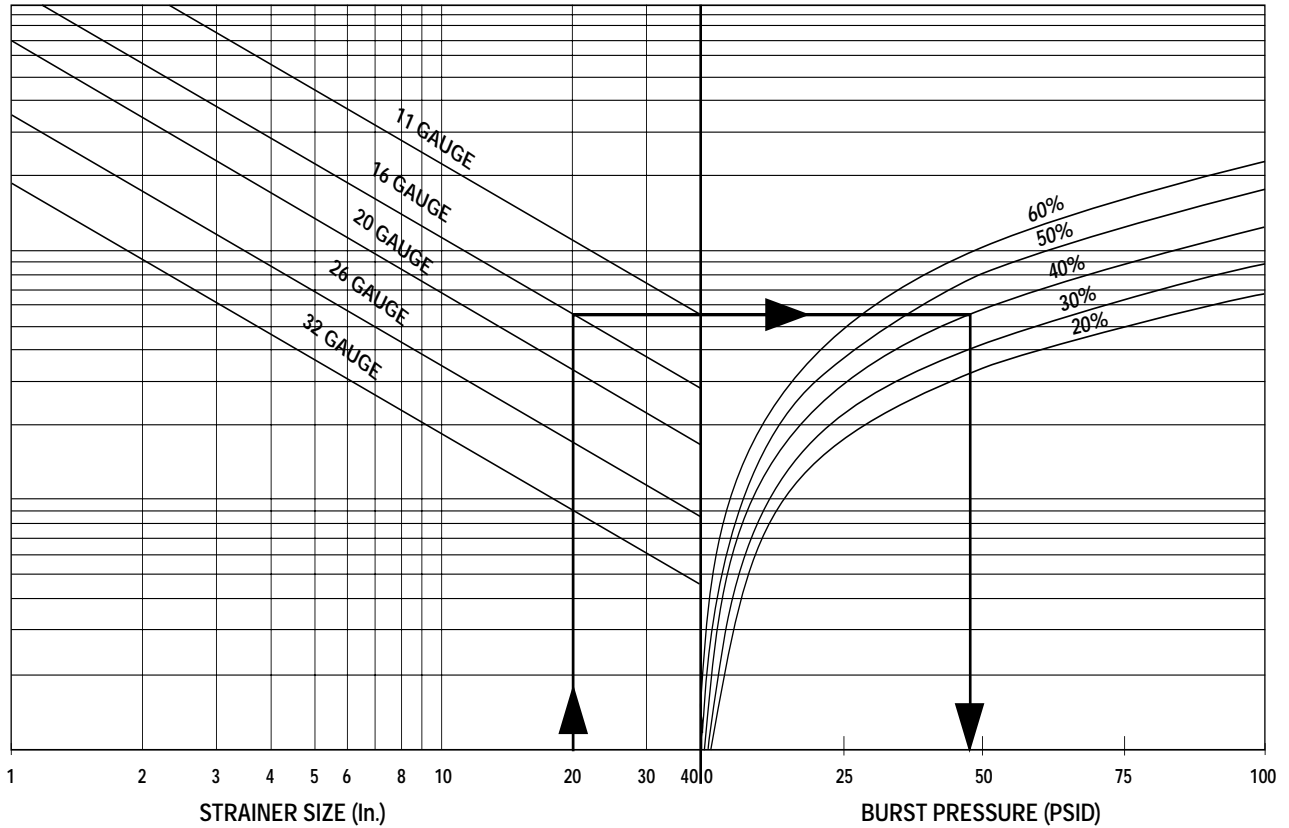
#### Answer

- A) The Pressure Drop Chart indicates a drop of .13 psid with standard screen.
- B) The Effective Area of TCI is 100% or 1:1.
- C) Using Chart above we read the correction factor of 1:1 to be 14.5 at 60% clogged.
- D) Total pressure drop equals  $.13 \times 14.5 = 1.885$  psid.

# TC SERIES

## TEMPORARY STRAINER

### BURST PRESSURE



Notes:

1. The above chart is to be used for strainers manufactured from perforated plate and is based on the formula:

$$P = \frac{2St \cos \delta}{D + 1.2t \cos \delta}$$

SOURCE: ASME Section VIII, Div. 1., Appendix 1.

P = Burst Pressure, psi.  
 S = Reduced allowable stress  
 t = Thickness of perforated plate, in.  
 D = Dimension B - See page 145, in.  
 δ = 15 degree

2. The above chart is based on standard dimensions. Higher burst pressure ratings are available. Please contact factory.
3. The above chart is based on a screen material of stainless steel. No safety factor is incorporated. It is the responsibility of the user to determine an acceptable safety factor.
4. See Screen Openings Chart for % Open Area's of inventoried perforated plate.

#### Example:

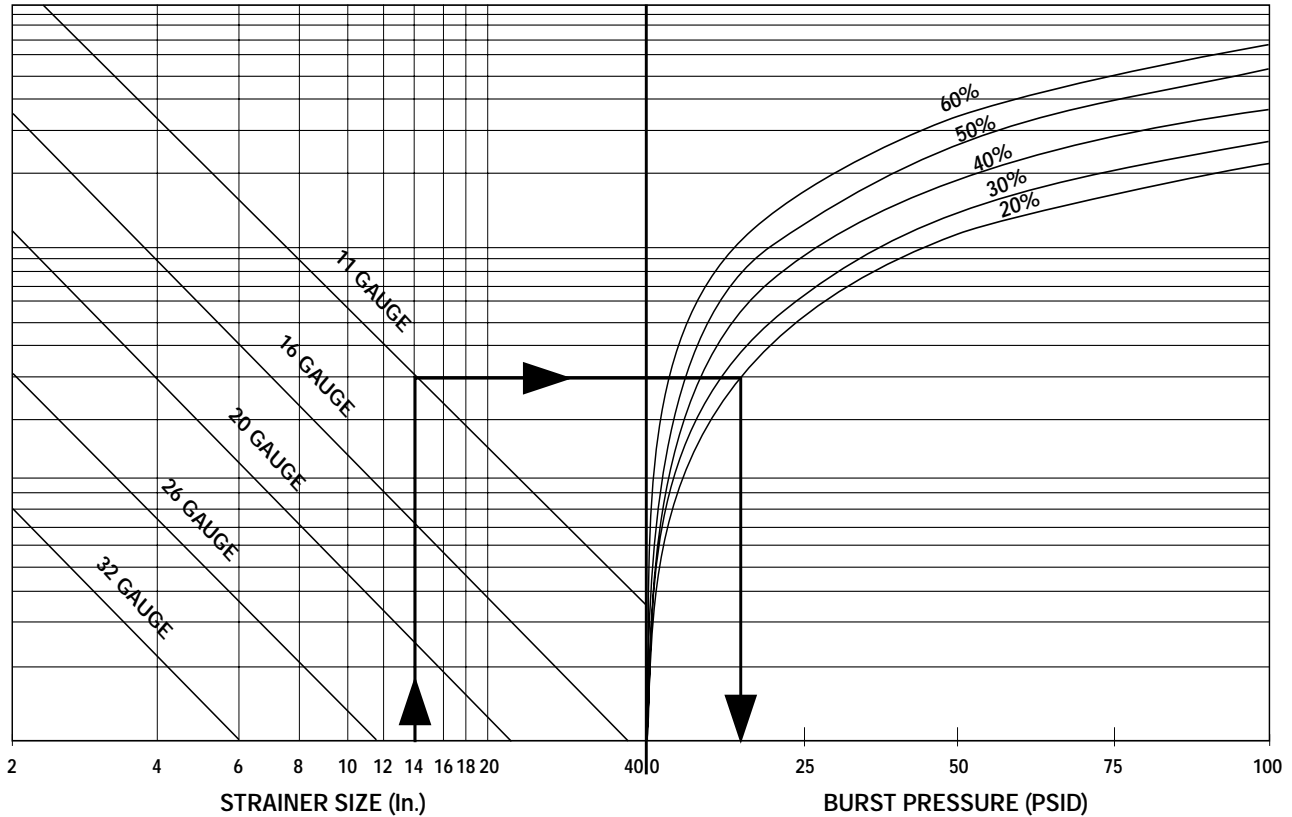
Strainer Size: 20"  
 Screen Thickness: 16 gauge  
 Screen Material Open Area: 40%

- A) Locate Strainer size.
- B) Follow vertical line to gauge thickness.
- C) Follow horizontal line to required perforation open area.
- D) Follow vertical line downward to read burst pressure.
- E) Burst pressure equals 48 psid.

# TB SERIES

## TEMPORARY STRAINER

### BURST PRESSURE



**Notes:**

1. The above chart is to be used for strainers manufactured from perforated plate and is based on the formula:

$$t = d \sqrt{\frac{0.3P}{S}}$$

SOURCE: ASME Section VIII, Div. 1., UG-34.

- t = Thickness of perforated plate, in.
- d = Dimension B - See page 146 in.
- P = Burst Pressure, psi
- S = Reduced allowable stress, psi

2. The above chart is based on standard dimensions. Higher burst pressure ratings are available. Please contact factory.
3. The above chart is based on a screen material of stainless steel. No safety factor is incorporated. It is the responsibility of the user to determine an acceptable safety factor.
4. See Screen Openings Chart for % Open Area's of inventoried perforated plate.

<p><b>Example:</b></p> <p>Strainer Size: 14"</p> <p>Screen Thickness: 11 gauge</p> <p>Screen Material Open Area: 20%</p>	<ol style="list-style-type: none"> <li>A) Locate Strainer size.</li> <li>B) Follow vertical line to gauge thickness.</li> <li>C) Follow horizontal line to required perforation open area.</li> <li>D) Follow vertical line downward to read burst pressure.</li> <li>E) Burst pressure equals 15 psid.</li> </ol>
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**TEMPORARY STRAINERS**



# TEMPORARY STRAINER

## CHECKLIST

Please take the factors listed below into account when selecting a strainer. Kindly photocopy this page and fill out the pertinent information, to your best ability, so that we can recommend a Strainer to suit your specific requirements.

- |   |  |
|---|--|
| <p>1. Fluid to be strained _____</p> <p>2. Flow rate _____</p> <p>3. Density of fluid _____</p> <p>4. Viscosity of fluid _____</p> <p>5. Fluid working pressure _____<br/>Maximum pressure _____</p> <p>6. Fluid Working Temp. _____<br/>Maximum Temp. _____</p> <p>7. Preferred material of strainer construction _____</p> <p>8. Present Pipeline size &amp; material _____</p> <p>9. Nature of solids to be strained out _____</p> <p>10. Size of solids to be strained out _____<br/>Size of mesh or Perf. Req. _____</p> | <p>11. Clearance Limitation Above _____ Below _____<br/>Left side facing inlet _____ Right side facing inlet _____</p> <p>12. Maximum pressure drop with clean screen _____</p> <p>13. Expected cleaning frequency _____</p> <p>14. Any other information deemed relevant _____<br/>_____<br/>_____</p> <p>Name _____</p> <p>Company _____</p> <p>Address _____</p> <p>City/Town _____</p> <p>State _____ Zip Code _____</p> <p>Telephone ( _____ ) _____</p> <p>Fax ( _____ ) _____</p> |
|---|--|



# TEMPORARY STRAINERS

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

The temporary strainer is a device temporarily installed in a pipeline to remove sediment and debris from fluids. The temporary strainer is to be used for piping start-up applications only. The strainer is not to be used permanently installed in the process piping. If a permanent strainer is required after start-up, please contact the factory and/or refer to the SSI complete product line of pipeline strainers for your application.

### STRAINER INSTALLATION INSTRUCTION

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- Unpack the strainer. Inspect for any damage occurring during transit. Report damage to the carrier.
  - Ensure all machined surfaces are free of defects and that the inside of the strainers is free of foreign materials.
  - Verify that the correct size and flange rating for the application.
  - Review the application and chemical compatibility of the process fluid to the materials of construction of the strainer.
  - If the strainer application has a mesh liner, it is important to note the position of this mesh liner.
- As specified at the time of order, the mesh liner is on the inside or outside of the strainer.
- Install the strainer into the pipeline between the pipe flanges. Insure that the mesh lining (if provided) is facing the flow.
  - Be sure to install necessary gaskets and bolting. Torque bolts properly by using standard piping practices.
  - Expel air for the pipeline where the strainer is installed. Start system gradually. This will eliminate sudden shock to the strainer and other equipment in the line. Close any open pipeline vents after air is expelled.

### MAINTENANCE INSTRUCTIONS

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- For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition.
  - Once the pressure drop reaches an unacceptable value, the strainer should be clean and/or removed.
  - A pressure gauge installed before and after the strainer in line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.
- Slowly close the pipeline valves upstream and downstream for the strainer. Make sure these valves are tightly closed.
  - Relieve the fluid pressure from the pipeline where the strainer is installed. The pipeline must be drained and internal pressure relieved prior to removing the strainer. Proceed to remove the strainer.

**WARNING:** *This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.*

NOTES:

