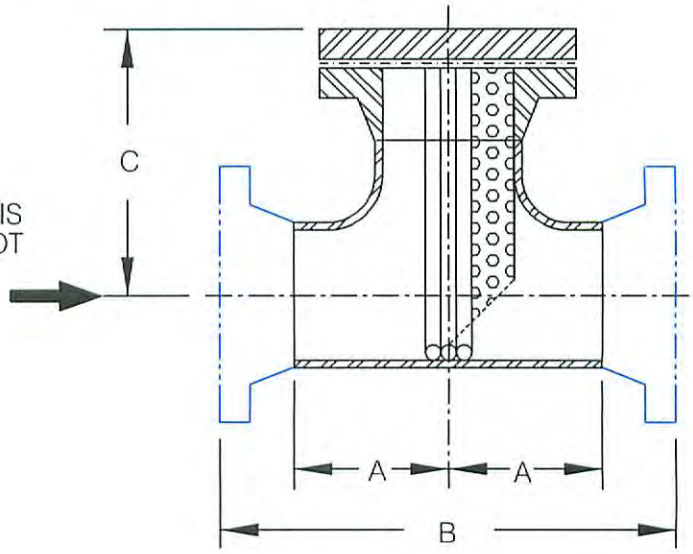
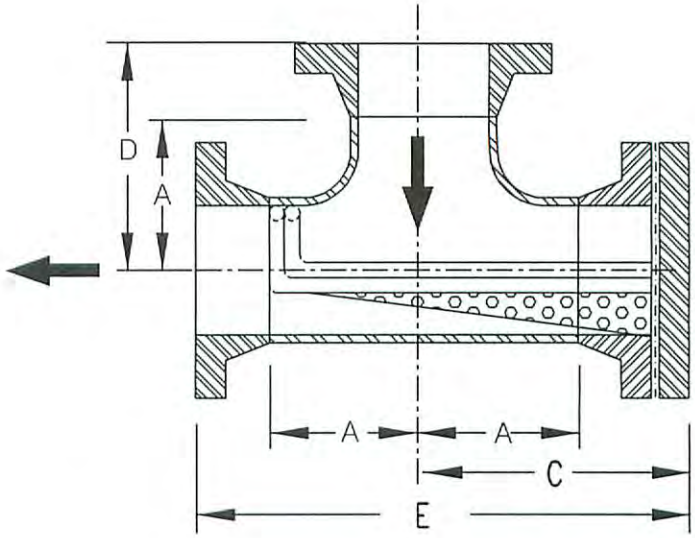
TEE TYPE STRAINERS

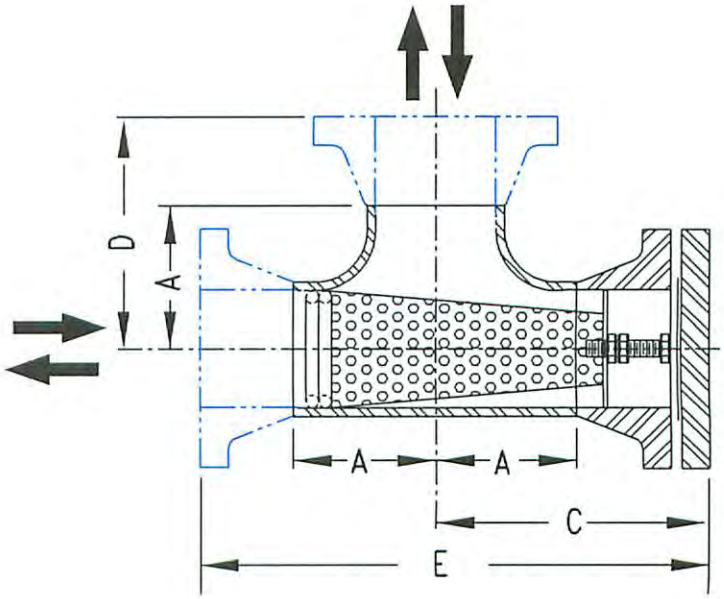
TEE STRAIGHT FLOW
"MODEL TS"
(DOUBLE RUNNER RODS ARE USED ON THIS MODEL SO THAT FLOW REVERSAL WILL NOT CREATE ANY PROBLEMS.)



TEE ANGLE FLOW
"MODEL TA"



TEE ANGLE MODIFIED
(BI-DIRECTIONAL FLOW)
"MODEL TAM"



TEE TYPE STRAINERS

DIMENSIONAL DATA

PIPE SIZE	A	B					C				
		150#	300#	600#	900#	1500#	150#	300#	600#	900#	1500#
2"	2 1/2"	10 1/4"	10 3/4"	11 1/2"	13 3/4"	13 3/4"	6"	6 3/8"	7 1/8"	8 3/4"	8 3/4"
2.5"	3"	11 3/4"	12 1/4"	13"	15"	15"	6 7/8"	7 1/4"	8"	9 1/2"	9 1/2"
3"	3 3/8"	12 1/2"	13 1/4"	14"	15 1/2"	16 3/4"	7 5/16"	7 7/8"	8 5/8"	9 5/8"	10 5/8"
4"	4 1/8"	14 1/2"	15 1/4"	17"	18"	18 3/4	8 5/16"	9"	10 1/2"	11 1/8"	11 7/8"
5"	4 7/8"	17"	17 3/4"	19 1/2"	20 1/2"	22 3/4"	9 9/16"	10 3/8"	11 7/8"	12 5/8"	14 5/8"
6"	5 5/8"	18 1/2"	19 1/4"	21 1/4"	23"	25 1/2"	10 3/8"	11 3/16"	12 7/8"	14 1/16"	16 3/8"
8"	7"	22 1/4"	23"	25 1/4"	27 1/2"	31 1/2"	12 3/8"	13 1/4"	15 3/16"	16 5/8"	19 3/4"
10"	8 1/2"	25 1/4"	26 1/2"	29 3/4"	32 1/4"		13 15/16"	15 1/4"	17 3/4"	19 1/4"	
12"	10"	29 1/4"	30 1/2"	33"	36 1/2"		16"	17 3/8"	19 1/2"	21 3/4"	
14"	11"	32 1/4"	33 1/2"	35 3/4"			17 5/8"	19"	21"		
16"	12"	34 1/4"	35 3/4"	38 3/4"			18 11/16"	20 1/4"	22 3/4"		
18"	13 1/2"	38 1/4"	39 3/4"	42 1/4"			20 13/16"	22 3/8"	24 3/4"		
20"	15"	41 5/8"	43"	45 3/4"			22 5/8"	24 1/8"	26 3/4"		
24"	17"	46 1/4"	47 1/2"	50 3/4"			25 1/8"	26 5/8"	29 3/4"		

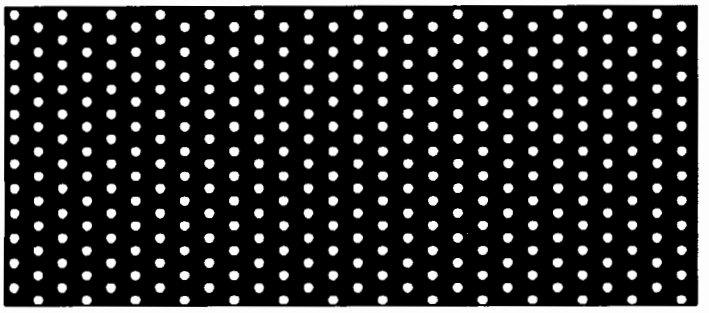
PIPE SIZE		D					E				
		150#	300#	600#	900#	1500#	150#	300#	600#	900#	1500#
2"	2 1/2"	5 1/8"	5 3/8"	5 3/4"	6 7/8"	6 7/8"	11 1/8"	11 3/4"	12 5/8''	15 3/8"	15 3/8"
2.5"	3"	5 7/8"	6 1/8"	6 1/2"	7 1/2"	7 1/2"	12 3/4"	13 3/8"	14 1/4"	16 5/8"	16 5/8"
3"	3 3/8"	6 1/4"	6 5/8"	7"	7 3/4"	8 3/8"	13 9/16"	14 1/2"	15 3/8"	17 1/8"	18 3/4"
4"	4 1/8"	7 1/4"	7 5/8"	8 1/2"	9"	9 3/8"	15 9/16"	16 5/8"	18 5/8"	19 7/8"	20 3/4"
5"	4 7/8"	8 1/2"	8 7/8"	9 3/4"	10 1/4"	11 3/8"	18 1/16"	19 1/4"	21 3/8"	22 5/8"	25 3/4"
6"	5 5/8"	9 1/4"	9 5/8"	10 5/8"	11 1/2"	12 3/4"	19 5/8"	20 13/16"	23 1/4"	25 5/16"	28 7/8"
8"	7"	11 1/8"	11 1/2"	12 5/8"	13 3/4"	15 3/4"	23 1/2"	24 3/4"	27 9/16"	30 1/8"	35 1/4"
10"	8 1/2"	12 5/8"	13 1/4"	14 7/8"	16 1/8"		26 9/16"	28 1/2"	32 3/8"	35 1/8"	
12"	10"	14 5/8"	15 1/4"	16 1/2"	18 1/4"		30 5/8"	32 5/8"	35 3/4"	39 3/4"	
14"	11"	16 1/8"	16 3/4"	17 7/8"			33 3/4"	35 3/4"	38 5/8"		
16"	12"	17 1/8"	17 7/8"	19 3/8"			35 13/16"	38 1/8"	41 7/8"		
18"	13 1/2"	19 1/8"	19 7/8"	21 7/8"			39 15/16"	42 1/4"	45 5/8"		
20"	15"	20 13/16'	21 1/2"	22 7/8"			43 7/16"	45 5/8"	49 3/8"		
24"	17"	23 1/8"	23 3/4"	25 3/8"			48 1/4"	50 3/8"	54 7/8"		

DIMENSIONS SHOWN ARE (REFERENCE DIMENSIONS) FOR ESTIMATING PURPOSES ONLY.
ACTUAL DIMENSIONS WILL BE PROVIDED ON "AS-BUILT" DRAWINGS, AVAILABLE WITH ORDER.
THE DIMENSIONS ABOVE ARE ONLY APPLICABLE WITH RAISED FACE WELD NECK (RFWN) FLANGES.
DIMENSIONS 'C' AND 'E' INCLUDES 1/8" THK GASKET THICKNESS AND 1/8" WELD GAP.

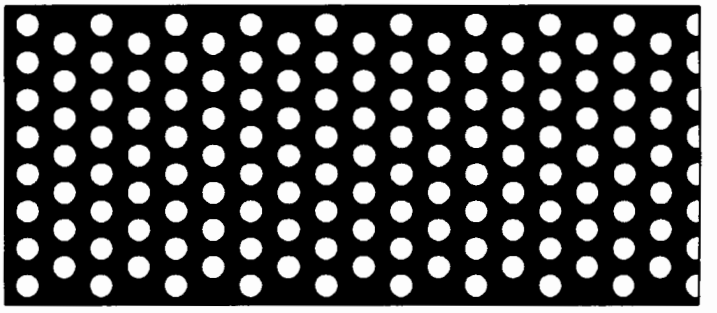
REV.NO.: 02 03/06/03

DWG. NO.: CATTDIMS.DWG

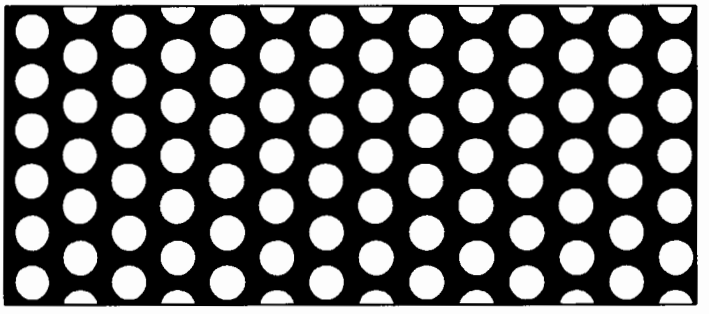
BASE MATERIALS FOR STRAINERS



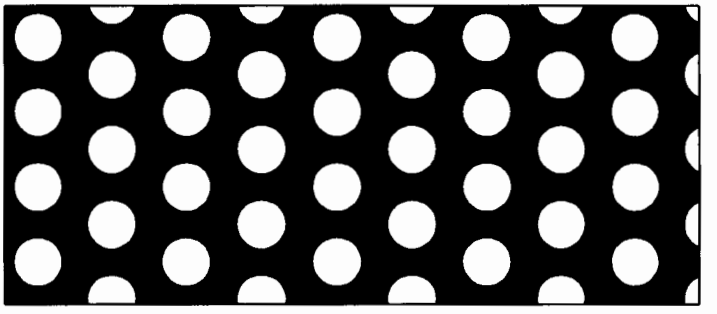
1/16"ø on 1/8" ctrs.



1/8"ø on 3/16" ctrs.



3/16"ø on 1/4" ctrs.



1/4"ø on 3/8" ctrs.

PERFORATED MATERIALS

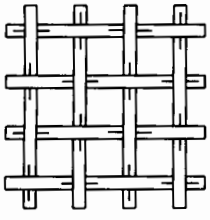
Gage	Perforation	Holes/sq. in.	% of Open Area	Material Range
20	1/16"ø on 1/8" ctrs.	74.0	22.7%	Carbon Steel, 304SS, 316SS
16	1/8"ø on 3/16" ctrs.	33.0	40.3%	Carbon Steel, 304SS, 316SS 304L, 316L, Monel
16	3/16"ø on 1/4" ctrs.	18.5	51.0%	Carbon Steel, 304SS, 316SS
16	1/4"ø on 3/8" ctrs.	8.0	40.3%	Carbon Steel, 304SS, 316SS
14	1/8"ø on 3/16" ctrs.	33.0	40.3%	Carbon Steel, 304SS, 316SS
14	3/16"ø on 1/4" ctrs.	18.5	51.0%	Carbon Steel, 304SS, 316SS
14	1/4"ø on 3/8" ctrs.	8.0	40.3%	Carbon Steel, 304SS, 316SS
12	1/8"ø on 3/16" ctrs.	33.0	40.3%	Carbon Steel
11	1/8"ø on 3/16" ctrs.	33.0	40.3%	304SS, 316SS
11	1/4"ø on 3/8" ctrs.	8.0	40.3%	Carbon Steel, 304SS, 316SS

OTHER PERFORATIONS AVAILABLE UPON REQUEST.

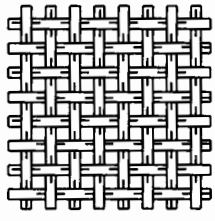
WIRE MESH TYPE BASE MATERIAL
(Available From Stock)

Mesh	Wire Diameters		Width of Opening		% of Opening	Material Range
	in.	mm.	in.	mm.		
2	.063	1.6	.437	11.10	76.4%	Carbon Steel, 304SS, 316SS
3	.063	1.6	.270	6.86	65.5%	Carbon Steel, 304SS, 316SS
4	.063	1.6	.187	4.75	56.0%	Carbon Steel, 304SS, 316SS
5	.063"	1.6	.137	3.48	46.9%	Carbon Steel, 304SS, 316SS
6	.047	1.19	.120	3.50	51.8%	Carbon Steel, 304SS, 316SS
8	.047	1.19	.078	1.98	38.9%	Carbon Steel, 304SS, 316SS

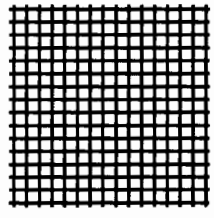
OTHER SIZES AND MATERIALS AVAILABLE UPON APPLICATION.



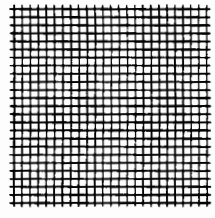
4 Mesh
.072



8 Mesh
.047



10 Mesh
.025



20 Mesh
.016

WIRE MESH LINER MATERIAL
(Available From Stock)

Mesh	Wire Diameters		Width of Opening		% of Opening	Material Range
	in.	mm.	in.	mm.		
10	.025	.640	.075	1.91	56.3%	304SS, 316SS
20	.016	.406	.034	.86	46.2%	304SS, 316SS
30	.013	.330	.020	.52	37.1%	304SS, 316SS
40	.010	.254	.015	.38	36.0%	304SS, 316SS
50	.009	.229	.011	.28	30.3%	304SS, 316SS
60	.0075	.191	.009	.23	30.5%	304SS, 316SS
80	.0055	.140	.007	.19	31.4%	304SS, 316SS
100	.0045	.114	.006	.14	30.3%	304SS, 316SS

OTHER SIZES AND MATERIALS AVAILABLE UPON APPLICATION.

RADAFAB TEE STRAINER OPEN AREAS

		T.S.			T.A.			T.A.M.		
LINE SIZE	SQ. IN. OF PIPE	GROSS SQ. IN.	% OF OPEN AREA	% INCREASE PER 1" ADDED TO LENGTH	GROSS SQ. IN.	% OF OPEN AREA	% INCREASE PER 1" ADDED TO LENGTH	GROSS SQ. IN.	% OF OPEN AREA	LENGTH
2	3.36	15	179	29.4	14	171	47	22	262	5 3/4"
2.5	4.79	21	177		20	195	43			
3	7.39	30	162	11.5	30	193	34	48	260	7 3/4"
4	12.73	48	151	16.6	51	189	27	83	261	9 3/4"
6	28.9	96	133	11.3	105	177	18	167	231	13"
8	50	158	126	8.4	178	185	14	278	222	16"
10	78.6	237	120	6.9	275	190	11	433	220	19 1/2"
12	113.1	336	119	5.8	397	189	9	619	219	23"
14	138	408	118	5.2	476	198	8	766	222	25 1/2"
16	183	521	114	2.6	606	196	7	183	209	27 1/2"
18	234	664	114	4	791	193	7	1223	209	31"
20	291	805	111	3.6	970	190	6	1513	208	34 1/4"
24	425	1130	106	3	1185	179	5	2064	194	38 1/2"

NOTES:

1.) BASED ON PERFORATED PLATE WITH OPEN AREA RATIO OF 40.3% (e.g. 1/8" DIA. HOLES ON 3/16" CENTERS).

2.) ALL VALUES ARE APPROXIMATE.

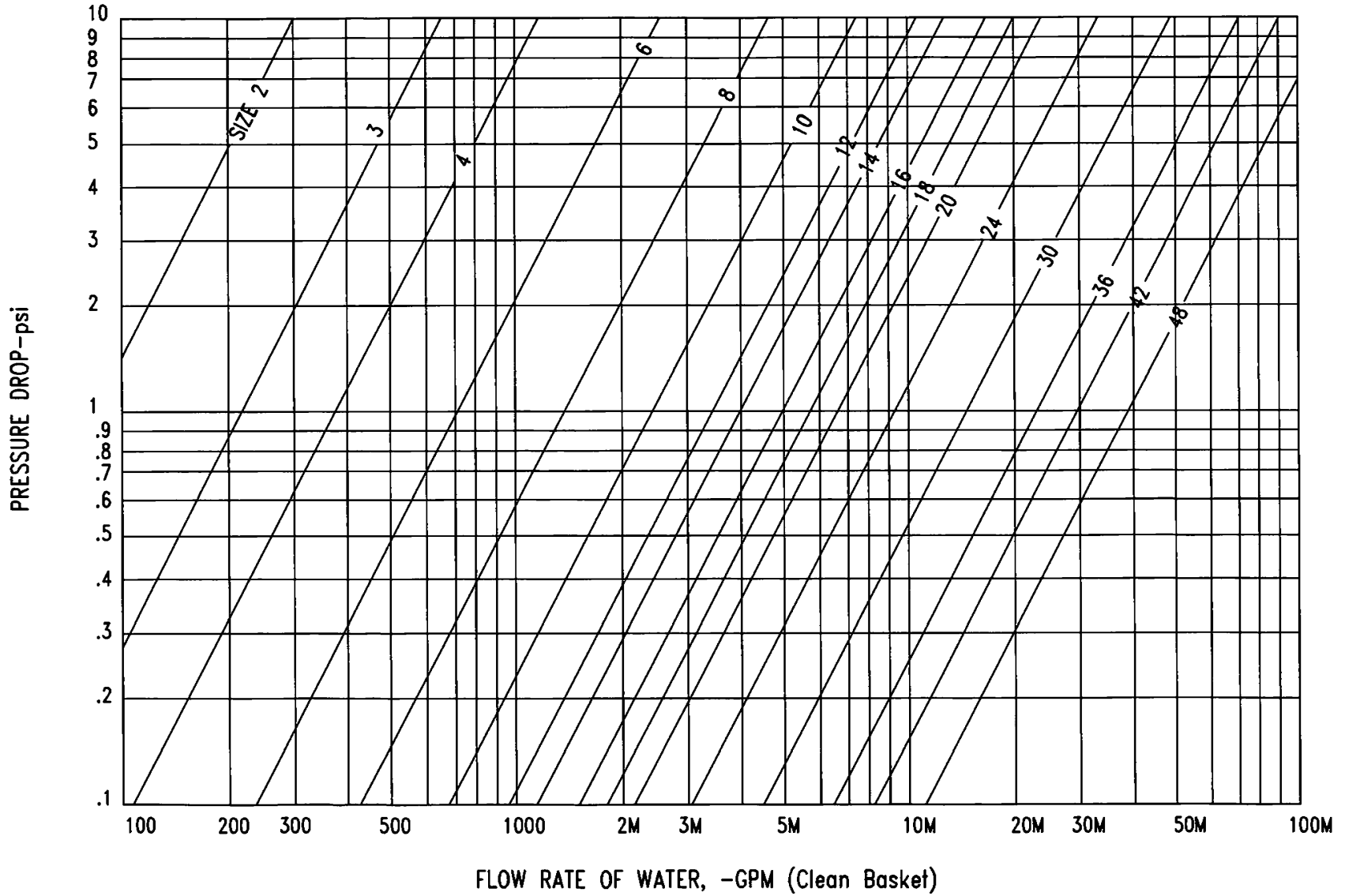
3.) REDUCE BY 15% IF MESH IS ADDED.

CORRECTION FACTOR:
FOR LIQUIDS MORE VISCOUS THAN WATER
OR WHERE WIRE CLOTH LINER IS ADDED
MULTIPLY PRESSURE IN CHARTS BY:

VISCOSITY (SSU)	PERFORATED (1/8" HOLES)	PERFORATED W/ WIRE CLOTH		
		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
1000	1.66	2.22	2.41	2.63
2000	1.86	2.41	2.72	2.91

TEE TYPE STRAINERS
PRESSURE DROP FOR LIQUIDS

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



Rev.0 01/07/03

Dwg. No.: CATTPD

Closure Design Options

To accommodate most applications Yale® closures are available for HORIZONTAL, VERTICAL or ANGLE installations.

Horizontal closures are equipped with side arm hinges or jib arm hinges depending on closure size and pressure rating.

Side arm hinges are hinged on the left side (facing the closure) unless ordered otherwise.

Jib arm hinges will permit the cap to swing to either side after opening, thus providing greater installation and operational flexibility.

Six inch and larger closure caps for vertical installations are suspended from a davit hinge by a threaded center pin having the same thread pitch as the closure.

Angled closure hinges are custom designed to match the specified incline or decline angle.

All closure hinges are adjusted at the factory to support the entire weight of the closure cap. This prevents the cap from resting on the threads of the mating hub and allows even the heaviest of caps to be easily rotated off and on the threaded hub. If field adjustment is necessary, the horizontal jib and the 26" and larger vertical davit have adjustment in two planes permitting fast, positive positioning of the cap relative to the hub. Twenty-four inch and smaller vertical davits have adjustments in the vertical plane only.

Angled Closure
(Inclined shown, declined available)

NOTE: From pipeline horizontal centerline, incline angles up, decline angles down.

Twelve inch and smaller closures can be ordered with any of the following options or combinations.

- Cap and hub only
- Cap and hub with chain and swivel
- Cap and hub with Figure 500 bleeder plug
- Cap and hub with PAV
- Cap and hub with hinge (excluding 2")
- Closure caps 12" and smaller can be center drilled and tapped 1/4", 1/2" or 3/4" NPT.
- Cap pins on vertically hinged closures can be drilled and tapped as follows: Sizes 8" to 14" drilled 1/4" thru and tapped 3/8" NPT; sizes 16" and larger, drilled 1/2" thru and tapped 1/2" NPT. Larger NPT couplings available upon request.

Horizontal Closure
(Side arm hinge shown)

Vertical Closure

R&M ENERGY SYSTEMS
A Unit of Robbins & Myers, Inc.

R&M Energy Systems
10906 F.M. 2920
Tomball, Texas, U.S.A. 77375-8934
(800) 654-5603
(281) 351-2222 • Fax: (281) 351-6557

R&M Energy Systems Canada
3703 - 98th Street
Edmonton, Alberta T6E 5N2
(877) 465-9500
(780) 465-9500 • Fax: (780) 465-9535

Alberta Government

ABSA
the pressure equipment safety authority

Certificate of Authorization Permit

Quality Management System

Expiry Date: **November 4, 2026**

Reg. No.: **AQP-1181**

RADAFAB OILFIELD & INDUSTRIAL SUPPLY INC.

7652 - 40 STREET S.E.
CALGARY, ALBERTA

having complied with the provisions of the SAFETY CODES ACT, is hereby authorized to perform the activities identified in the following table:

	Construction	Repair	Alter
Pressure Vessels			
ASME Section VIII-1 Pressure Vessels	Shop	Shop	Shop
Miniature Vessels in accordance with CSA B51	Shop	- - -	- - -
Pressure Piping			
ASME B31.3 Process Piping	Shop	Shop	Shop
Fittings			
Category A,E,H	Shop	Shop	Shop

Government of Alberta
PROVINCE OF ALBERTA

As a condition of this permit, the holder is required to participate in interim audits by a safety codes officer to verify that the quality management system is being maintained in a manner acceptable to a safety codes officer.

Dated at Edmonton, this 13th day of July, 2023

Chief Inspector and Administrator

Certificate No.: 15962

Form No. AB-121
Rev.(2015/09)