

TECHNICAL INFORMATION

Standard Cast Pipeline Strainers

Basket Effective Area

Strainer Model	Pipe Size	Perforation Size	Nominal Area of Pipe (sq in)	Gross Screen Area (sq in)	Free Area (sq in)	Ratio Free Area to Pipe Area
85	1/4	.045	.10	5.0	1.8	18.0
85	3/8	.045	.19	5.0	1.8	9.5
85	1/2	.045	.30	5.0	1.8	6.0
85	3/4	.045	.53	7.1	2.6	4.9
85	1	.045	.86	10.4	3.7	4.3
85	1-1/4	.045	1.49	15.1	5.5	3.7
85	1-1/2	.045	2.03	21.7	7.8	3.8
85	2	.045	3.35	30.4	10.9	3.3
85	2-1/2	.045	4.78	43.2	15.5	3.2
85	3	.045	7.39	70.7	25.5	3.4
85	4	.045	12.73	106.8	38.4	3.0
85	6	.045	28.70	241.7	87.0	3.0
85	8	.045	50.02	414.6	149.2	3.0
85	10	.045	71.80	652.2	234.8	3.3
30R	1-1/2	5/32	2.03	35.4	22.3	11.0
30R	2	5/32	3.35	50.9	32.1	9.6
30R	2-1/2	5/32	4.78	84.7	53.4	11.2
30R	3	5/32	7.39	84.7	53.4	7.2
30R	4	5/32	12.73	114.5	72.1	5.6
30R	5	5/32	20.0	158.1	99.6	5.0
30R	6	5/32	28.9	180.9	113.9	4.0
30R	8	5/32	50.03	275.6	171.8	3.4
50	5	3/16	20.0	216.1	106.0	5.4
50	6	3/16	28.9	265.4	132.7	4.6
50	8	3/16	50.02	506.7	253.4	5.1
52	10	3/16	78.8	800	400	5.1
52	12	3/16	113.1	1200	600	5.3
52	14	3/16	137.9	2000	1000	7.3
52	16	3/16	182.6	2000	1000	5.5
52	18	3/16	182.6	2000	1000	5.5
53BTX	3/4	1/32	0.53	19.8	5.5	10.4
53BTX	1	1/32	0.86	19.8	5.5	6.4
53BTX	1-1/4	1/8	1.49	45.0	22.0	14.4
53BTX	1-1/2	1/8	2.03	45.0	22.0	10.6
53BTX	2	1/8	3.35	65.0	31.0	9.3
53BTX	2-1/2	1/8	4.78	65.0	31.0	6.5
53BTX	3	3/16	7.39	110.3	55.1	7.4
53BTX	4	3/16	12.73	152.0	76.0	5.9

Strainer Model	Pipe Size	Perforation Size	Nominal Area of Pipe (sq in)	Gross Screen Area (sq in)	Free Area (sq in)	Ratio Free Area to Pipe Area
72	3/8	1/32	0.19	12.7	3.4	18.0
72	1/2	1/32	0.30	12.7	3.4	11.3
72	3/4	1/32	0.53	19.5	5.2	9.9
72	1	1/32	0.86	19.5	5.2	6.1
72	1-1/4	1/8	1.49	30.1	14.4	9.7
72	1-1/2	1/8	2.03	49.7	19.0	9.4
72	2	1/8	3.35	50.9	24.4	7.3
72	2-1/2	1/8	4.78	80.2	38.4	8.0
72	3	3/16	7.39	114.5	57.2	7.8
72	4	3/16	12.73	168.3	84.1	6.6
72	5	3/16	20.0	265.4	132.7	6.6
72	6	3/16	28.9	324.2	162.1	5.6
72	8	3/16	50.02	555.3	277.7	5.6
73	10	3/16	78.8	800	400	5.1
73	12	3/16	113.1	1200	600	5.3
73	14	3/16	137.9	2000	1000	7.3
73	16	3/16	182.6	2000	1000	5.5
73	18	3/16	182.6	2000	1000	5.5

Alloy Data

Metal Alloys used in Eaton Strainers

Carbon Steel – ASTM A-216 Grade WCB

Tensile Strength: 70,000 lb/sq in
 Yield: 36,000 lb/sq in
 Elongation: 22%
 Chemical Composition:
 C (Carbon) 0.30%
 Si (Silicon) 0.60%
 P (Phosphorus) 0.04%
 S (Sulfur) 0.045%
 Mn (Manganese) 1.00%
 Residual Elements 1.00% max

Cast Iron – ASTM A-126 Class B

Tensile Strength: 31,000 lb/sq in
 Compressive Strength: 109,000 lbs/sq in
 Tensile Modulus: 15 x 10⁶ lb/sq in
 Chemical Composition:
 C (Carbon) 3.20 - 3.40 %
 Si (Silicon) 2.10 - 2.30%
 P (Phosphorus) 0.15 - 0.30%
 S (Sulfur) 0.08 - 0.12%
 Mn (Manganese) 0.50 - 0.80%

Aluminum Bronze – ASTM B-148

Grade C95400
 Tensile Strength: 75,000 lb/sq in
 Yield: 30,000 lb/sq in
 Elongation: 12%
 Chemical Composition:
 Cu (Copper) 85%
 Fe (Iron) 4%
 Al (Aluminum) 11%

Ductile Iron - ASTM A-395

Grade 60-40-18
 Tensile Strength: 60,000 lb/sq in
 Yield: 40,000 lb/sq in
 Elongation: 18%
 Chemical Composition:
 C (Carbon) 3.20 - 4.0%
 Si (Silicon) 1.80 - 2.80%
 P (Phosphorus) 0.08% max.
 S (Sulfur) 0.03% max.
 Mn (Manganese) 0.03% max.

Stainless Steel – ASTM A-351

Grade CF8M
 Tensile Strength: 70,000 lb/sq in
 Yield: 30,000 lb/sq in
 Elongation: 30%
 Chemical Composition:
 C (Carbon) 0.08% max
 Si (Silicon) 1.5%
 P (Phosphorus) 0.040%
 Cr (Chromium) 18.0 - 21.0%
 Ni (Nickel) 9.0 - 12.0%
 Mn (Manganese) 1.50%
 S (Sulfur) 0.04%
 Mo (Molybdenum) 2.0 - 3.0%



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