

# GUARDIAN

## Submittal

Style "GSBS"  
Slope Top Enclosures  
Element Ratings

Fully Perforated Enclosure

### Specification

**ENCLOSURE:**

- STYLE : "GSBS"
- OUTLET: Slope Fully Perforated
- LENGTHS: 2' thru 8' in 6" Increments
- MATERIAL  14 Ga. C.R.S. Std.  
 12 Ga. C.R.S. Opt'l.
- FINISH:  Baked Primer  
 Factory Baked Powder Opt'l.

- ACCESSORIES:** All overlapping, extend to wall at top. Bottom returns to wall, holes provided for fasteners.
- 14 Ga. Std.
  - 12 Ga. Opt'l.

**ELEMENT:**

- TYPE: Cu/Al (Mechanically Expanded)
- LENGTHS: 2'0" thru 12'6" in 1" Increments.
- 3/4" Cu Tube Available up to 8'0" Max.
- One End Flared, Std.
- See Catalog for Working Pressures.

**ELEMENT:**

- TYPE: Steel (Mechanically Expanded)
- LENGTHS: 2'0" thru 12'6" in 1" Increments.
- NPT Threads Both Ends (standard)
- Beveled Ends for Field Weld
- See Catalog for Working Pressures.

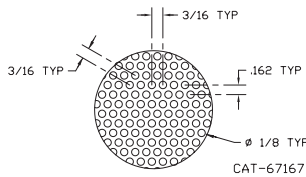
**BACKPLATE:**

- TYPE:  Partial Backplate
- LENGTHS: 8' Only
- MATERIAL:  14 Ga. Painted Std.  
 12 Ga. Opt'l.
- TYPE:  Full Backplate
- LENGTHS: 2' thru 8' in 6" Increments
- MATERIAL:  14 Ga. Painted Std.  
 12 Ga. Opt'l.

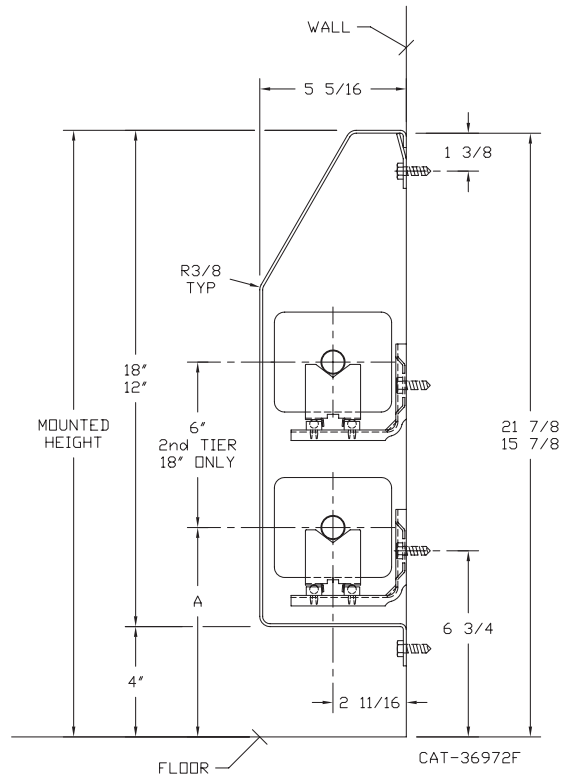
- BRACKETS:**  Wall Mtd B.B. Hanger

- GSBS-12     GSBS-18

ELEMENT TUBE SIZE	FIN SIZE HEIGHT x WIDTH	CRADLE NUMBER	A
3/4 COPPER	3 5/8 x 4 1/4	2	7 9/16
3/4 COPPER	4 1/4 x 4 1/4	3A	7 15/16
1" COPPER	3 5/8 x 4 1/4	2	7 3/4
1" COPPER	4 1/4 x 4 1/4	2	7 3/4
1 1/4 COPPER	3 5/8 x 4 1/4	2	7 7/8
1 1/4 COPPER	4 1/4 x 4 1/4	2	7 7/8
1" STEEL	4 1/4 x 4 1/4	2	7 7/8
1 1/4 STEEL	4 1/4 x 4 1/4	2	8 1/16
2" STEEL	4 1/4 x 4 1/4	1	7 13/16



PERFORATION DETAIL  
SCALE 2=1, IPS 113  
Ø 1/8 HOLES ON  
3/16 STAGGERED CENTERS



COMMERCIAL HYDRONIC PRODUCTS  
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(413) 564-5535

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PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 PO NUMBER: \_\_\_\_\_

# Sloping Top Enclosures – Fully Perforated – GSBS

**ELEMENT RATINGS**  
All Ratings are Based on 3 FPS Velocity

TUBE SIZE	CATALOG DESIGNATION	FIN SIZE HEIGHT X WIDTH	FINS PER FT.	FIN THICKNESS IN INCHES	ENCLOSURE DEPTH AND HEIGHT IN INCHES	TIERS AND CENTERS IN INCHES	MOUNTING HEIGHT IN INCHES	STEAM 215° FACTOR 1.00	HOT WATER (AVG.)										
									200°	190°	180°	170°	160°	150°	140°	130°	120°	110°	100°
									CORRECTION FACTORS FOR AVERAGE WATER TEMPERATURES										
									0.86	0.78	0.69	0.61	0.53	0.45	.40	.33	.26	.20	.15
3/4"	C3/4-433	3-5/8" x 4-1/4"	32	.020	12B	1	16	1030	890	800	710	630	550	460	410	340	270	210	150
					18B	1	22	1080	930	840	750	660	570	490	430	360	280	220	160
					"	2 @ 6 CL	"	1910	1640	1490	1320	1170	1010	860	760	630	500	380	290
3/4"	C3/4-434	3-5/8" x 4-1/4"	40	.020	12B	1	16	1240	1070	970	860	760	660	560	500	410	320	250	190
					18B	1	22	1290	1110	1010	890	790	680	580	520	430	340	260	190
					"	2 @ 6 CL	"	2230	1920	1740	1540	1360	1180	1000	890	740	580	450	330
3/4"	C3/4-435	3-5/8" x 4-1/4"	50	.020	12B	1	16	1350	1160	1050	930	820	720	610	540	450	350	270	200
					18B	1	22	1400	1200	1090	970	850	740	630	560	460	360	280	210
					"	2 @ 6 CL	"	2390	2060	1860	1650	1460	1270	1080	960	790	620	480	360
1"	C433	3-5/8" x 4-1/4"	32	.020	12B	1	16	1070	920	830	740	650	570	480	430	350	280	210	160
					18B	1	22	1120	960	870	770	680	590	500	450	370	290	220	170
					"	2 @ 6 CL	"	1990	1710	1550	1370	1210	1050	900	800	660	520	400	300
1"	C434	3-5/8" x 4-1/4"	40	.020	12B	1	16	1210	1040	940	830	740	640	540	480	400	310	240	180
					18B	1	22	1250	1080	980	860	760	660	560	500	410	330	250	190
					"	2 @ 6 CL	"	2170	1870	1690	1500	1320	1150	980	870	720	560	430	330
1"	C435	3-5/8" x 4-1/4"	50	.020	12B	1	16	1350	1160	1050	930	820	720	610	540	450	350	270	200
					18B	1	22	1400	1200	1090	970	850	740	630	560	460	360	280	210
					"	2 @ 6 CL	"	2380	2050	1860	1640	1450	1260	1070	950	790	620	480	360
1-1/4"	C1433	3-5/8" x 4-1/4"	32	.020	12B	1	16	1120	960	870	770	680	590	500	450	370	290	220	170
					18B	1	22	1170	1010	910	810	710	620	530	470	390	300	230	180
					"	2 @ 6 CL	"	2070	1780	1610	1430	1260	1100	930	830	680	540	410	310
1-1/4"	C1434	3-5/8" x 4-1/4"	40	.020	12B	1	16	1230	1060	960	850	750	650	550	490	410	320	250	180
					18B	1	22	1280	1100	1000	880	780	680	580	510	420	330	260	190
					"	2 @ 6 CL	"	2210	1900	1720	1520	1350	1170	990	880	730	570	440	330
1-1/4"	C1435	3-5/8" x 4-1/4"	50	.020	12B	1	16	1350	1160	1050	930	820	720	610	540	450	350	270	200
					18B	1	22	1400	1200	1090	970	850	740	630	560	460	360	280	210
					"	2 @ 6 CL	"	2390	2060	1860	1650	1460	1270	1080	960	790	620	480	360
3/4"	C3/4-43	4-1/4" SQ.	32	.020	12B	1	16	1140	980	890	790	700	600	510	460	380	300	230	170
					18B	1	22	1190	1020	930	820	730	630	540	480	390	310	240	180
					"	2 @ 6 CL	"	2200	1890	1720	1520	1340	1170	990	880	730	570	440	330
3/4"	C3/4-44	4-1/4" SQ.	40	.020	12B	1	16	1250	1080	980	860	760	660	560	500	410	330	250	190
					18B	1	22	1300	1120	1010	900	790	690	590	520	430	340	260	200
					"	2 @ 6 CL	"	2250	1940	1760	1550	1370	1190	1010	900	740	590	450	340
3/4"	C3/4-45	4-1/4" SQ.	50	.020	12B	1	16	1380	1190	1080	950	840	730	620	550	460	360	280	210
					18B	1	22	1440	1240	1120	990	880	760	650	580	480	370	290	220
					"	2 @ 6 CL	"	2460	2120	1920	1700	1500	1300	1110	980	810	640	490	370
1"	C43	4-1/4" SQ.	32	.020	12B	1	16	1130	970	880	780	690	600	510	450	370	290	230	170
					18B	1	22	1180	1010	920	810	720	630	530	470	390	310	240	180
					"	2 @ 6 CL	"	2230	1920	1740	1540	1360	1180	1000	890	740	580	450	330
1"	C44	4-1/4" SQ.	40	.020	12B	1	16	1430	1230	1120	990	870	760	640	570	470	370	290	210
					18B	1	22	1480	1270	1150	1020	900	780	670	590	490	380	300	220
					"	2 @ 6 CL	"	2560	2200	2000	1770	1560	1360	1150	1020	840	670	510	380
1"	C45	4-1/4" SQ.	50	.020	12B	1	16	1470	1260	1150	1010	900	780	660	590	490	380	290	220
					18B	1	22	1530	1320	1190	1060	930	810	690	610	500	400	310	230
					"	2 @ 6 CL	"	2590	2230	2020	1790	1580	1370	1170	1040	850	670	520	390
1-1/4"	C143	4-1/4" SQ.	32	.020	12B	1	16	1180	1010	920	810	720	630	530	470	390	310	240	180
					18B	1	22	1230	1060	960	850	750	650	550	490	410	320	250	180
					"	2 @ 6 CL	"	2320	2000	1810	1600	1420	1230	1040	930	770	600	460	350
1-1/4"	C144	4-1/4" SQ.	40	.020	12B	1	16	1400	1200	1090	970	850	740	630	560	460	360	280	210
					18B	1	22	1460	1260	1140	1010	890	770	660	580	480	380	290	220
					"	2 @ 6 CL	"	2520	2170	1970	1740	1540	1340	1130	1010	830	660	500	380
1-1/4"	C145	4-1/4" SQ.	50	.020	12B	1	16	1440	1240	1120	990	880	760	650	580	480	370	290	220
					18B	1	22	1500	1290	1170	1040	920	800	680	600	500	390	300	230
					"	2 @ 6 CL	"	2550	2190	1990	1760	1560	1350	1150	1020	840	660	510	380
1"	S43	4-1/4" SQ.	32	.032	12B	1	16	1120	960	870	770	680	590	500	450	370	290	220	170
					18B	1	22	1160	1000	900	800	710	610	520	460	380	300	230	170
					"	2 @ 6 CL	"	2140	1840	1670	1480	1310	1130	960	860	710	560	430	320
1"	S44	4-1/4" SQ.	40	.032	12B	1	16	1260	1080	980	870	770	670	570	500	420	330	250	190
					18B	1	22	1310	1130	1020	900	800	690	590	520	430	340	260	200
					"	2 @ 6 CL	"	2260	1940	1760	1560	1380	1200	1020	900	750	590	450	340
1"	S45	4-1/4" SQ.	50	.032	12B	1	16	1340	1150	1050	920	820	710	600	540	440	350	270	200
					18B	1	22	1390	1200	1080	960	850	740	630	560	460	360	280	210
					"	2 @ 6 CL	"	2320	2000	1810	1600	1420	1230	1040	930	770	600	460	350
1-1/4"	S143	4-1/4" SQ.	32	.032	12B	1	16	1110	950	870	770	680	590	500	440	370	290	220	170
					18B	1	22	1150	990	900	790	700	610	520	460	380	300	230	170
					"	2 @ 6 CL	"	2120	1820	1650	1460	1290	1120	950	850	700	550	420	320
1-1/4"	S144	4-1/4" SQ.	40	.032	12B	1	16	1250	1080	980	860	760	660	560	500	410	330	250	190
					18B	1	22	1300	1120	1010	900	790	690	590	520	430	340	260	200
					"	2 @ 6 CL	"	2250	1940	1760	1550	1370	1190	1010	900	740	590	450	340
1-1/4"	S145	4-1/4" SQ.	50	.032	12B	1	16	1310	1130	1020	900	800	690	590	520	430	340	260	200
					18B	1	22	1360	1170	1060	940	830	720	610	540	450	350	270	200
					"	2 @													