

EB AIR FIN TUBE RADIATION

HYDRONIC HEATING SYSTEM

OMNI GUARD | SECURE FLOW | ELITE ENCLOSURE OPTIONS

CATALOG-2023_V4

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*STANDARD FIN TUBE ENCLOSURE
OPTIONS:*

Omni Guard:

- Standard functionality, flexible options
- Wall or floor mountable
- Louver openings for airflow
- Available in **Slope Top, Flat Top design.**

Secure Flow:

- Security-focused design, **Anti Ligature Design**
- Radius bends for safety
- Ideal for hospitals, clinics
- Perforated hole pattern for ventilation

Elite:

- **Premium designs**, heavy gauge materials
- Enhances aesthetics, maintains functionality

ENCLOSURE NOMENCLATURE:

Family	FT	Fin Tube Radiation
Enclosure Family	OG	Omni Guard
	SC	Secure Flow
	ET	Elite
Enclosure Type	SL	Slope Top w/ Open Bottom
	FT	Flat Top w/ Top Outlet w/ Open Bottom
	FF	Flat Top w/ Top Outlet w/ Open Bottom
	FTF	Flat Top w/ Top & Front Outlet w/ Open Bottom
	SS	Slope Top w/ Slope Bottom Inlet w/ Bar grill inlet and Outlet
	PB	Pedestal Base w/ Top Bar grille Cover Type ENC
Fin Size	A	2.72" x 3.50" Fin size
	B	2.72" x 5.00" Fin size
	C	3.875" x 3.875" Fin size
Enclosure Height	8	8.00" Height
	12	12.00" Height
	18	18.00" Height
	24	24.00" Height
Enclosure Material	ST	Steel
	SS	Stainless Steel
Enclosure Gauge	18	18 ga thick
	16	16 ga thick
Back Panel	NBP	No Back Panel
	BP	w/ Back Panel
Paint Finish	STD	Standard Paint
	SPL	Special Paint
Revision	A.0	A.0

ELEMENT NOMENCLATURE:

Element Tube Dia	075	0.75" Copper Tube
	100	1" Copper Tube
	125	1.25" Copper Tube
Fin Thickness	1	0.011" thick
	2	0.020" thick
FPF	40	40 Fins per Feet
	50	50 Fins per Feet

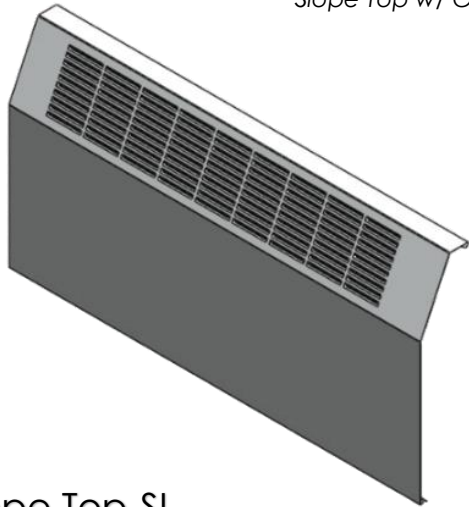
ACCESSORIES OPTIONS:

- No. of Endcaps**
- No. of Panel joiner**
- No. of Inside Corner**
- No. of Outside Corner**
- Tier Brackets**
- Main Brackets**
- Hanger strip**

OMNI GUARD ENCLOSURE MODELS

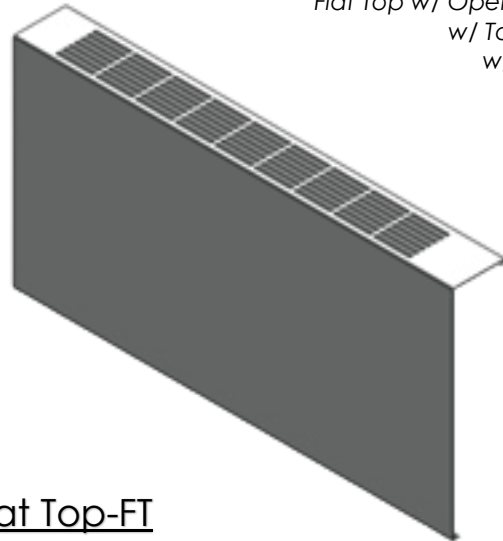
The Omni Guard Enclosures offer standard functionality with the flexibility to adapt to various settings. These enclosures come with options for sloped or flat tops, providing versatility in installation. Whether mounted on walls or floors, these enclosures ensure optimal placement for your requirements. The outlet can be positioned at the front or the top, catering to different layout preferences. Additionally, the inlet and outlet are designed with louver openings, ensuring efficient airflow while maintaining security.

*Slope Top w/ Open Bottom
w/ Louvers
Page 4*



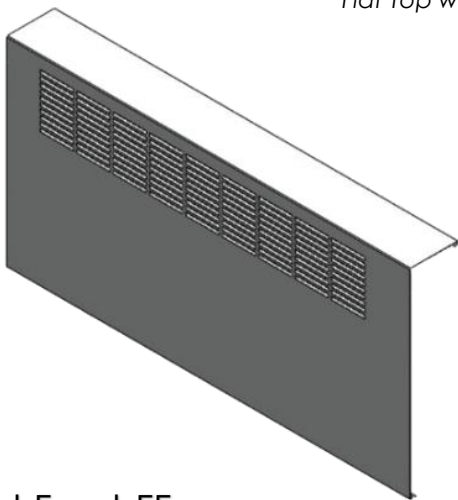
Slope Top-SL

*Flat Top w/ Open Bottom
w/ Top Outlet
w/ Louvers
Page 6*



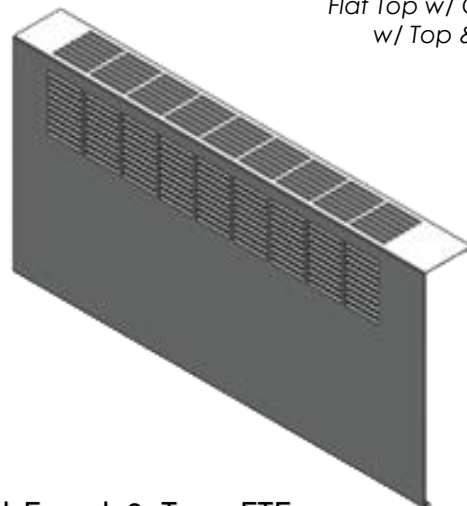
Flat Top-FT

*Flat Top w/ Open Bottom
w/ Front Outlet
w/ Louvers
Page 8*



Flat Front-FF

*Flat Top w/ Open Bottom
w/ Top & Front Outlet
w/ Louvers
Page 10*



Flat Front & Top-FTF

SUBMITTAL & SELECTION OF UNIT

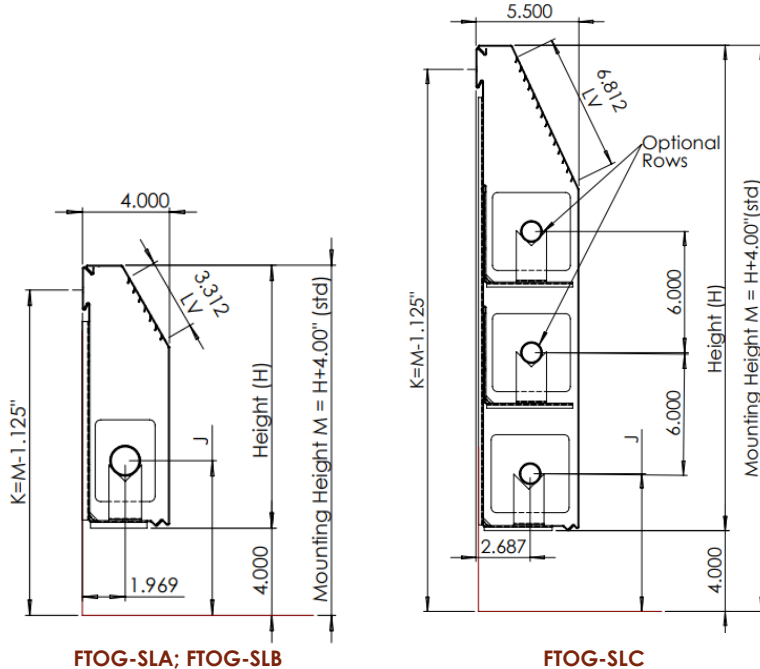
OMNI GAURD SPECIFICATION

NOMENCLATURE:

Fin Tube	Enclosure Type:	Enclosure Model:
FT	OG	
	Omni Guard- OG Secure Flow- SF Elite- ET	Slope Top- SL Flat Top- FT Flat Front- FF Flat Front & Top- FTF

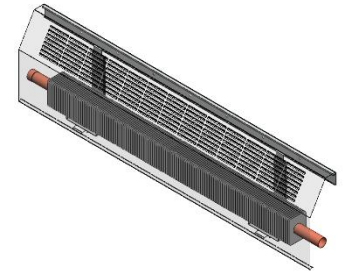
Enclosure	Element	Accessories
<p><u>Material Options:</u></p> <ul style="list-style-type: none"> ■ 14-gauge cold rolled steel ■ 16-gauge cold rolled steel (STD) ■ 18-gauge cold rolled steel ■ 16-gauge stainless steel ■ 18-gauge stainless steel ■ 16-gauge Aluminium <p><u>Finish Options:</u></p> <ul style="list-style-type: none"> ■ Powder Coat Finish (STD) ■ Special Finish <p><u>Length:</u></p> <ul style="list-style-type: none"> ■ 2'0" thru 8'0" in 6" Increments ■ Enter Length: _____ ■ Special Length: _____ <p><u>Back Panel Options:</u></p> <ul style="list-style-type: none"> ■ No Back Panel (STD) ■ w/ non-painted Back Panel ■ w/ Preprinted Back Panel 	<p><u>Element Material:</u></p> <ul style="list-style-type: none"> ■ Cu/Al (Mechanically Expanded) (STD) <p><u>Element Tube Diameter:</u></p> <ul style="list-style-type: none"> ■ Ø 0.750" ■ Ø 1.000" ■ Ø 1.250" <p><u>Element Fin Size:</u></p> <ul style="list-style-type: none"> ■ 2.72" x 3.50" Fin size(A) ■ 2.72" x 5.00" Fin size(B) ■ 3.875" x 3.875" Fin size(C) <p><u>Element Fin Thickness:</u></p> <ul style="list-style-type: none"> ■ 0.011" thick ■ 0.020" thick (STD) <p><u>Element Fins per Foot:</u></p> <ul style="list-style-type: none"> ■ 50 FPF (STD) <p><u>Length:</u></p> <ul style="list-style-type: none"> ■ 1'0" thru 8'0" in 6" Increments ■ Enter Length: _____ 	<p><u>Element Material:</u></p> <ul style="list-style-type: none"> ■ Endcaps Enter QTY: _____ ■ Panel Joiner Enter QTY: _____ ■ Inside Corner Enter QTY: _____ ■ Outside Corner Enter QTY: _____ ■ Tier Brackets Enter QTY: _____ ■ Main Brackets Enter QTY: _____ ■ Hanger-strip Enter QTY: _____ <div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p><i>Job Name:</i></p> <p><i>Job Number:</i></p> <p><i>Customer:</i></p> <p><i>Date:</i></p> </div>

OMNI GUARD STANDARD ENCLOSURE WITH SLOPE TOP, OPEN BOTTOM INLET, LOUVERED OUTLET



Element Tube Dia	Fin Designation	Height (H)	Element Location (J)
3/4	A	8",12",18"	7.25
1	A	8",12",18"	7.375
1-1/4	A	8",12",18"	7.5
3/4	B	12",18",24"	7.5
1	B	12",18",24"	7.625
1-1/4	B	12",18",24"	7.75
3/4	C	12",18",24"	7.25
1	C	12",18",24"	7.375
1-1/4	C	12",18",24"	7.5

FTOG-SL Dimensions



COPPER ELEMENT TUBE WITH ALUMINUM FINNS

EAT: 65°F, FPS: 3, Ratings are in BTU/HR/LIN FT

Fin Size 2.72"x 3.50"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	A	50	8	1	995	854	777	686	645	509	449	397
			12	1	1075	922	840	741	697	550	485	429
			18	1	1180	1013	922	813	765	604	533	471
			18	2@6	1610	1382	1258	1110	1044	824	727	642
1" Copper		50	8	1	980	841	766	675	635	501	442	391
			12	1	1065	914	832	734	690	545	481	425
			18	1	1175	1008	918	810	762	601	530	469
			18	2@6	1560	1339	1219	1075	1011	799	704	622
1-1/4" Copper		50	8	1	975	837	762	672	632	499	440	389
			12	1	1060	909	828	731	687	542	478	423
			18	1	1155	991	902	796	749	591	521	461
			18	2@6	1480	1270	1156	1020	959	758	668	590

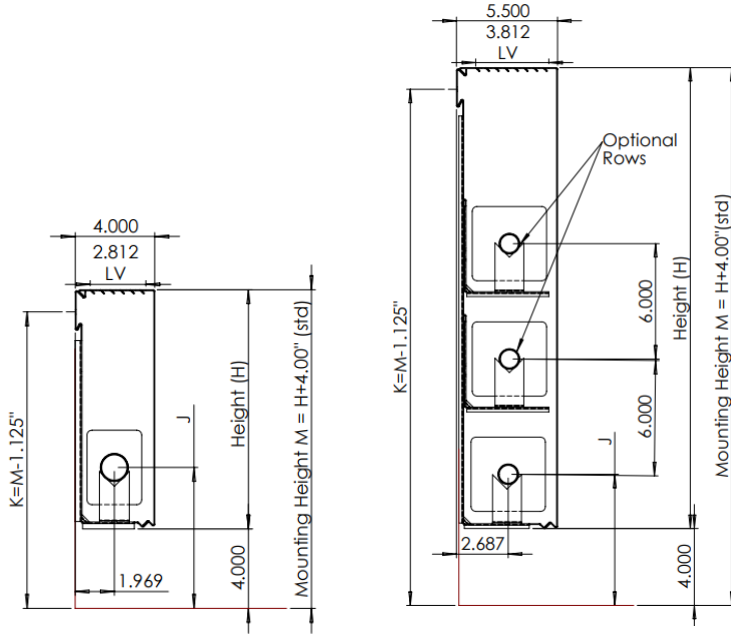
**HYDRONIC HEATING SYSTEM
FIN TUBE RADIATION**



Fin Size 2.75"x 5.00"													
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)							
						200°	190°	180°	170°	160°	150°	140°	
3/4" Copper	B	50	12	1	1627	1396	1271	1122	1055	833	735	649	
			18	1	1987	1705	1553	1370	1288	1017	897	793	
			18	<u>2@6</u>	2482	2130	1940	1711	1609	1271	1121	991	
			24	<u>2@6</u>	2626	2254	2052	1811	1703	1345	1186	1048	
			24	<u>3@6</u>	2966	2546	2318	2045	1923	1519	1339	1184	
1" Copper		50	12	1	1929	1656	1507	1330	1251	988	871	770	
			18	1	2045	1755	1598	1410	1326	1047	923	816	
			18	<u>2@6</u>	2416	2074	1888	1666	1566	1237	1091	964	
			24	<u>2@6</u>	2554	2192	1996	1761	1656	1308	1153	1019	
			24	<u>3@6</u>	2893	2483	2261	1995	1876	1481	1307	1155	
1-1/4" Copper		50	12	1	1874	1608	1464	1292	1215	959	846	748	
			18	1	1983	1702	1550	1367	1286	1015	895	791	
			18	<u>2@6</u>	2343	2011	1831	1616	1519	1200	1058	935	
			24	<u>2@6</u>	2474	2123	1933	1706	1604	1267	1117	987	
			24	<u>3@6</u>	2790	2395	2180	1924	1809	1429	1260	1113	
Fin Size 3.875"x 3.875"													
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)							
						200°	190°	180°	170°	160°	150°	140°	
3/4" Copper	C	50	12	1	1830	1571	1430	1262	1186	937	826	730	
			18	1	2150	1845	1680	1482	1394	1101	971	858	
			18	<u>2@6</u>	2815	2416	2200	1941	1825	1441	1271	1123	
			24	1	2030	1742	1586	1399	1316	1039	917	810	
			24	<u>2@6</u>	2985	2562	2333	2058	1935	1528	1348	1191	
1" Copper		50	50	12	1	1897	1628	1482	1308	1230	971	857	757
				18	1	2226	1910	1740	1535	1443	1140	1005	888
				18	<u>2@6</u>	2913	2500	2277	2009	1889	1492	1316	1163
				24	<u>2@6</u>	3095	2656	2419	2134	2007	1585	1398	1235
				24	<u>3@6</u>	3560	3056	2782	2455	2308	1823	1608	1421
1-1/4" Copper		50	50	12	1	1954	1677	1527	1347	1267	1000	882	780
				18	1	2302	1976	1799	1587	1492	1179	1039	919
				18	<u>2@6</u>	3012	2585	2354	2077	1953	1542	1360	1202
				24	<u>2@6</u>	3195	2742	2497	2203	2072	1636	1443	1275
				24	<u>3@6</u>	3668	3148	2867	2529	2378	1878	1657	1464

The ratings are based on the finned length with 65°F incoming air, 1 PSI steam, or an average water temperature of 215°F at a water velocity of 3 feet per second. The finned length is the specified element length minus 5 inches (3 inches of the end on each side). The bottom of the enclosure is mounted minimum of 2 inches above the floor. Not suitable for steam applications; please consult with the manufacturer.

OMNI GUARD ENCLOSURE WITH FLAT TOP, OPEN BOTTOM INLET, LOUVERED TOP OUTLET

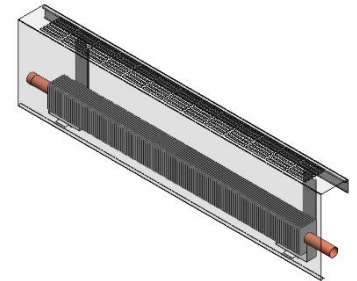


FTOG-FTA; FTOG-FTB

FTOG-FTC

Element Tube Dia	Fin Designation	Height (H)	Element Location (J)
3/4	A	8",12",18"	7.25
1	A	8",12",18"	7.375
1-1/4	A	8",12",18"	7.5
3/4	B	12",18",24"	7.5
1	B	12",18",24"	7.625
1-1/4	B	12",18",24"	7.75
3/4	C	12",18",24"	7.25
1	C	12",18",24"	7.375
1-1/4	C	12",18",24"	7.5

FTOG-FT Dimensions



COPPER ELEMENT TUBE WITH ALUMINUM FINNS

EAT: 65°F, FPS: 3, Ratings are in BTU/HR/LIN FT

Fin Size 2.72" x 3.50"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	A	50	8	1	843	724	659	582	547	432	381	337
			12	1	911	782	712	628	591	467	412	364
			18	1	1000	858	782	690	649	512	452	399
			18	2@6	1364	1171	1067	941	885	699	616	545
1" Copper		50	8	1	875	751	684	604	567	448	395	349
			12	1	951	816	743	656	617	487	430	380
			18	1	1049	901	820	724	680	537	474	419
			18	2@6	1393	1196	1089	961	903	713	629	556
1-1/4" Copper		50	8	1	848	728	663	585	550	434	383	339
			12	1	922	791	720	636	598	472	416	368
			18	1	1004	862	785	693	651	514	454	401
			18	2@6	1287	1105	1006	888	835	659	581	514

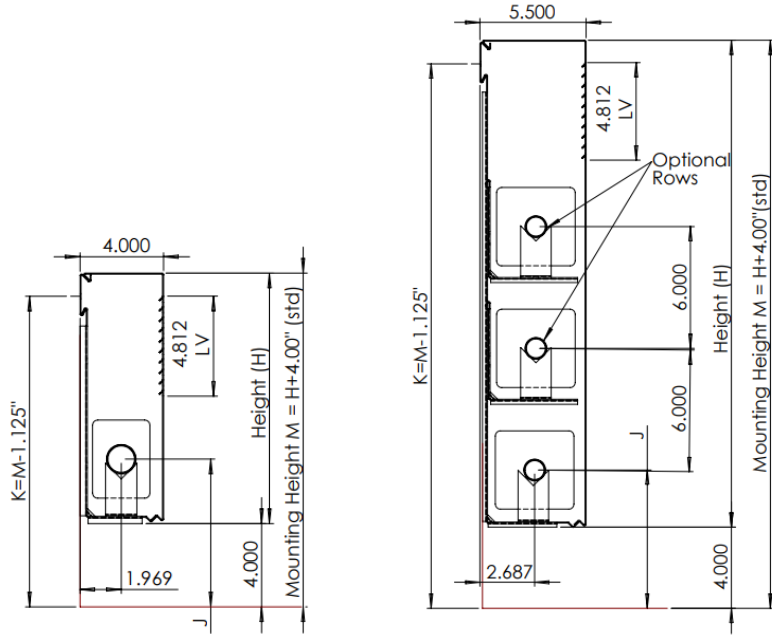
**HYDRONIC HEATING SYSTEM
FIN TUBE RADIATION**



Fin Size 2.75"x 5.00"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	B	50	12	1	1575	1352	1231	1086	1021	806	711	628
			18	1	1838	1577	1436	1267	1192	941	830	733
			18	<u>2@6</u>	2238	1921	1749	1543	1451	1146	1011	893
			24	<u>2@6</u>	2277	1954	1779	1570	1476	1166	1028	909
			24	<u>3@6</u>	2518	2161	1968	1736	1633	1289	1137	1005
1" Copper		50	12	1	1544	1325	1206	1064	1001	790	697	616
			18	1	1784	1531	1394	1230	1157	913	805	712
			18	<u>2@6</u>	2149	1844	1679	1482	1393	1100	970	858
			24	<u>2@6</u>	2375	2038	1856	1638	1540	1216	1072	948
			24	<u>3@6</u>	2645	2270	2067	1824	1715	1354	1194	1056
1-1/4" Copper		50	12	1	1416	1215	1106	976	918	725	639	565
			18	1	1631	1400	1274	1124	1057	835	736	651
			18	<u>2@6</u>	1979	1698	1546	1365	1283	1013	894	790
			24	<u>2@6</u>	2180	1871	1704	1503	1413	1116	984	870
			24	<u>3@6</u>	2419	2076	1890	1668	1568	1238	1092	965
Fin Size 3.875"x 3.875"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	C	50	12	1	1618	1389	1264	1116	1049	828	730	646
			18	1	1880	1613	1469	1296	1219	962	849	750
			18	<u>2@6</u>	2373	2037	1854	1636	1539	1215	1072	947
			24	<u>2@6</u>	2410	2068	1883	1662	1563	1234	1088	962
			24	<u>3@6</u>	2770	2377	2165	1910	1796	1418	1251	1106
1" Copper		50	12	1	1735	1489	1356	1196	1125	888	783	692
			18	1	1995	1712	1559	1376	1293	1021	901	796
			18	<u>2@6</u>	2495	2141	1950	1720	1618	1277	1127	996
			24	<u>2@6</u>	2765	2373	2161	1907	1793	1416	1249	1104
			24	<u>3@6</u>	3180	2729	2485	2193	2062	1628	1436	1269
1-1/4" Copper		50	12	1	1745	1498	1364	1203	1131	893	788	696
			18	1	2010	1725	1571	1386	1303	1029	908	802
			18	<u>2@6</u>	2515	2159	1965	1734	1631	1288	1136	1004
			24	<u>2@6</u>	2780	2386	2173	1917	1802	1423	1255	1110
			24	<u>3@6</u>	3195	2742	2497	2203	2072	1636	1443	1275

The ratings are based on the finned length with 65°F incoming air, 1 PSI steam, or an average water temperature of 215°F at a water velocity of 3 feet per second. The finned length is the specified element length minus 5 inches (3 inches of the end on each side). The bottom of the enclosure is mounted minimum of 2 inches above the floor. Not suitable for steam applications; please consult with the manufacturer.

OMNI GUARD ENCLOSURE WITH FLAT TOP, OPEN BOTTOM INLET, LOUVERED FRONT OUTLET

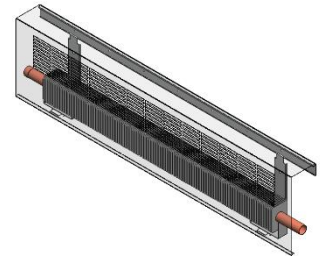


FTOG-SLA; FTOG-FFB

FTOG-FFC

Element Tube Dia	Fin Designation	Height (H)	Element Location (J)
3/4	A	8",12",18"	7.25
1	A	8",12",18"	7.375
1-1/4	A	8",12",18"	7.5
3/4	B	12",18",24"	7.5
1	B	12",18",24"	7.625
1-1/4	B	12",18",24"	7.75
3/4	C	12",18",24"	7.25
1	C	12",18",24"	7.375
1-1/4	C	12",18",24"	7.5

FTOG-FF Dimensions



COPPER ELEMENT TUBE WITH ALUMINUM FINS

EAT: 65°F, FPS: 3, Ratings are in BTU/HR/LIN FT

Fin Size 2.72"x 3.50"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	A	50	8	1	975	837	763	673	633	500	441	389
			12	1	1054	905	824	727	684	540	476	421
			18	1	1157	993	904	798	750	593	523	462
			18	<u>2@6</u>	1578	1355	1234	1089	1024	808	713	630
1" Copper		50	8	1	907	779	709	626	589	465	410	362
			12	1	986	847	771	680	640	505	446	394
			18	1	1088	934	850	750	706	557	492	434
			18	<u>2@6</u>	1444	1240	1129	996	937	740	653	577
1-1/4" Copper		50	8	1	867	744	677	598	562	444	392	346
			12	1	942	809	737	650	611	483	426	376
			18	1	1027	881	803	708	666	526	464	410
			18	<u>2@6</u>	1316	1129	1028	907	853	674	594	525

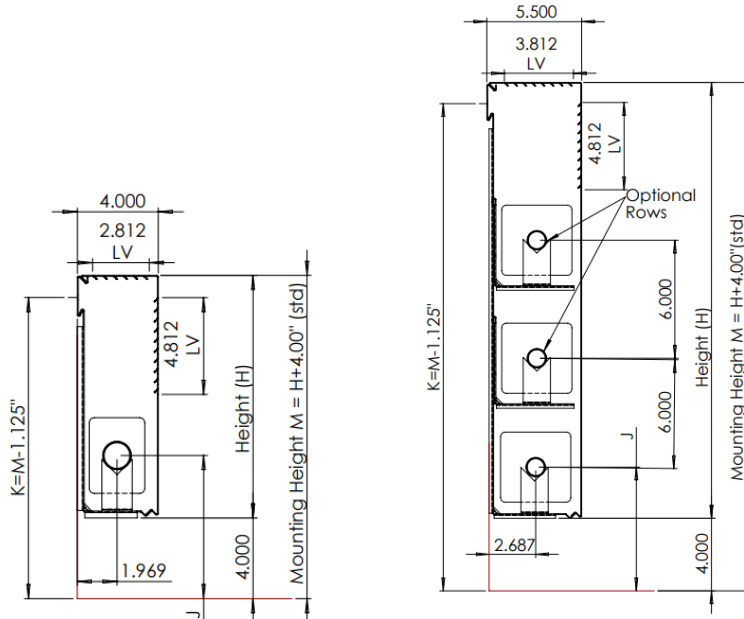
**HYDRONIC HEATING SYSTEM
FIN TUBE RADIATION**



Fin Size 2.75"x 5.00"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	B	50	12	1	1705	1463	1332	1176	1105	873	770	680
			18	1	2009	1724	1570	1385	1302	1028	907	802
			18	<u>2@6</u>	2456	2108	1919	1694	1592	1257	1109	980
			24	<u>2@6</u>	2524	2166	1972	1740	1636	1292	1140	1007
			24	<u>3@6</u>	2791	2396	2181	1925	1810	1429	1260	1114
1" Copper		50	12	1	1679	1441	1312	1158	1088	859	758	670
			18	1	1879	1613	1468	1296	1218	962	848	750
			18	<u>2@6</u>	2271	1949	1775	1566	1472	1163	1025	906
			24	<u>2@6</u>	2375	2038	1856	1638	1540	1216	1072	948
			24	<u>3@6</u>	2645	2270	2067	1824	1715	1354	1194	1056
1-1/4" Copper		50	12	1	1537	1319	1201	1060	996	787	694	613
			18	1	1723	1479	1346	1188	1117	882	778	687
			18	<u>2@6</u>	2088	1792	1632	1440	1354	1069	943	833
			24	<u>2@6</u>	2180	1871	1704	1503	1413	1116	984	870
			24	<u>3@6</u>	2419	2076	1890	1668	1568	1238	1092	965
Fin Size 3.875"x 3.875"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	C	50	12	1	1780	1528	1391	1227	1154	911	804	710
			18	1	2080	1785	1625	1434	1349	1065	939	830
			18	<u>2@6</u>	2756	2365	2154	1900	1787	1411	1245	1100
			24	<u>2@6</u>	2887	2478	2256	1991	1872	1478	1304	1152
			24	<u>3@6</u>	3320	2850	2595	2289	2153	1700	1499	1325
1" Copper		50	12	1	1825	1566	1426	1258	1183	934	824	728
			18	1	2130	1828	1664	1469	1381	1090	962	850
			18	<u>2@6</u>	2620	2249	2047	1807	1699	1341	1183	1046
			24	<u>2@6</u>	2805	2408	2192	1934	1819	1436	1267	1119
			24	<u>3@6</u>	3230	2772	2524	2227	2094	1654	1459	1289
1-1/4" Copper		50	12	1	1835	1575	1434	1265	1190	939	829	732
			18	1	2145	1841	1676	1479	1391	1098	969	856
			18	<u>2@6</u>	2640	2266	2063	1820	1712	1352	1192	1054
			24	<u>2@6</u>	2825	2425	2208	1948	1832	1446	1276	1127
			24	<u>3@6</u>	3240	2781	2532	2234	2101	1659	1463	1293

The ratings are based on the finned length with 65°F incoming air, 1 PSI steam, or an average water temperature of 215°F at a water velocity of 3 feet per second. The finned length is the specified element length minus 5 inches (3 inches of the end on each side). The bottom of the enclosure is mounted minimum of 2 inches above the floor. Not suitable for steam applications; please consult with the manufacturer.

OMNI GUARD ENCLOSURE WITH FLAT TOP, OPEN BOTTOM INLET, LOUVERED FRONT & TOP OUTLET

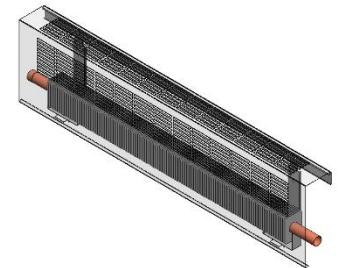


FTOG-FTFA; FTOG-FTFB

FTOG-FTFC

Element	Fin Designation	Height (H)	Element Location (J)
3/4	A	8",12",18"	7.25
1	A	8",12",18"	7.375
1-1/4	A	8",12",18"	7.5
3/4	B	12",18",24"	7.5
1	B	12",18",24"	7.625
1-1/4	B	12",18",24"	7.75
3/4	C	12",18",24"	7.25
1	C	12",18",24"	7.375
1-1/4	C	12",18",24"	7.5

FTOG-FTF Dimensions



COPPER ELEMENT TUBE WITH ALUMINUM FINS

EAT: 65°F, FPS: 3, Ratings are in BTU/HR/LIN FT

Fin Size 2.72"x 3.50"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	A	50	8	1	1005	863	786	693	652	515	454	401
			12	1	1086	932	849	749	704	556	491	434
			18	1	1192	1023	932	822	773	610	538	476
			18	2@6	1626	1396	1271	1122	1055	833	735	649
1" Copper		50	8	1	907	779	709	626	589	465	410	362
			12	1	986	847	771	680	640	505	446	394
			18	1	1088	934	850	750	706	557	492	434
			18	2@6	1444	1240	1129	996	937	740	653	577
1-1/4" Copper		50	8	1	863	741	674	595	560	442	390	345
			12	1	938	805	733	647	608	480	424	375
			18	1	1022	877	799	705	663	524	462	408
			18	2@6	1310	1124	1024	903	849	671	592	523

**HYDRONIC HEATING SYSTEM
FIN TUBE RADIATION**



Fin Size 2.75"x 5.00"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	B	50	12	1	1700	1459	1328	1172	1102	870	768	678
			18	1	1955	1678	1528	1348	1267	1001	883	780
			18	<u>2@6</u>	2454	2106	1918	1692	1591	1256	1108	979
			24	<u>2@6</u>	2648	2273	2069	1826	1717	1356	1196	1057
			24	<u>3@6</u>	2936	2520	2294	2025	1904	1503	1326	1172
1" Copper		50	12	1	1615	1386	1262	1113	1047	827	729	644
			18	1	1884	1617	1472	1299	1221	964	851	752
			18	<u>2@6</u>	2282	1959	1783	1573	1480	1168	1030	911
			24	<u>2@6</u>	2432	2087	1901	1677	1577	1245	1098	971
			24	<u>3@6</u>	2698	2316	2108	1860	1749	1381	1218	1077
1-1/4" Copper		50	12	1	1580	1356	1235	1089	1024	809	713	630
			18	1	1735	1489	1356	1196	1125	888	783	692
			18	<u>2@6</u>	2094	1797	1636	1444	1358	1072	946	836
			24	<u>2@6</u>	2240	1922	1750	1545	1452	1147	1011	894
			24	<u>3@6</u>	2484	2132	1941	1713	1611	1272	1122	991
Fin Size 3.875"x 3.875"												
Tube Size	Fin Catalog Designation	Fins Per Ft	Enclosure Height	Rows of Element	Steam Heat 215°F	Hot Water (Average)						
						200°	190°	180°	170°	160°	150°	140°
3/4" Copper	C	50	12	1	1603	1376	1253	1105	1039	821	724	640
			18	1	2005	1721	1567	1382	1300	1026	905	800
			18	<u>2@6</u>	2602	2233	2033	1794	1687	1332	1175	1038
			24	<u>2@6</u>	2807	2409	2194	1936	1820	1437	1268	1120
			24	<u>3@6</u>	3230	2772	2524	2227	2094	1654	1459	1289
1" Copper		50	12	1	1815	1558	1418	1251	1177	929	819	724
			18	1	2115	1815	1653	1458	1371	1083	955	844
			18	<u>2@6</u>	2640	2266	2063	1820	1712	1352	1192	1054
			24	<u>2@6</u>	2820	2420	2204	1945	1828	1444	1274	1125
			24	<u>3@6</u>	3250	2790	2540	2241	2107	1664	1468	1297
1-1/4" Copper		50	12	1	1825	1566	1426	1258	1183	934	824	728
			18	1	2135	1832	1668	1472	1384	1093	964	852
			18	<u>2@6</u>	2670	2292	2087	1841	1731	1367	1206	1066
			24	<u>2@6</u>	2845	2442	2223	1962	1845	1457	1285	1135
			24	<u>3@6</u>	3275	2811	2559	2258	2124	1677	1479	1307

The ratings are based on the finned length with 65°F incoming air, 1 PSI steam, or an average water temperature of 215°F at a water velocity of 3 feet per second. The finned length is the specified element length minus 5 inches (3 inches of the end on each side). The bottom of the enclosure is mounted minimum of 2 inches above the floor. Not suitable for steam applications; please consult with the manufacturer.

CORRECTION FACTORS AND FEATURES

OMNI GUARD ENCLOSURE WITH SINGLE TUBE HEATING ELEMENT

HEATING ELEMENTS

- **Materials:** Copper tube with aluminum fin elements.
- **Tube Sizes:** Available in 3/4-inch, 1 inch, and 1-1/4-inch outer diameter seamless copper tubing.
- **Fin Sizes:** Options include 2-3/4 x 3-1/2 inches, 2-3/4 x 5 inches, or 3-7/8 x 3-7/8 inches, with 50 fins per foot.
- **Fin Attachment:** Fins are unpainted and bonded to the tube via mechanical expansion.
- **Maximum Lengths:** 8 feet for 3/4 and 1-inch diameter tubes. 10 feet for 1-1/4-inch diameter tubes.
- **Maximum Working Pressure at 300°F:** 145 psi for 3/4-inch, 1-inch, 1-1/4-inch tubes.

HANGER STRIP AND SUPPORT BRACKETS

- **Wall Supports:** Attach to 20-gauge galvanized steel hanger strip and can be placed at any location along the strip.
- **Installation:** One fastener required for each wall support to ensure proper securing.
- **Support Assembly:** Element support assemblies and return pipe hangers available as optional.
- **Materials:** Enclosure and element support are made from galvanized 14, 16, 18-gauge steel with stiffening ribs.
- **Tube Cradles Bracket:** Provide two-point support, allowing over 2-1/2 inches of lateral movement. Cradles slides are secured with rivets.

FIN TUBE ENCLOSURES

- **Materials:** Standard commercial enclosures are made from 18 gauge cold-rolled steel.
- **Lengths:** Available in 2 to 8 feet lengths, in 12-inch increments.
- **Air Discharge Louvers:** Spaced 3-1/4 inches apart with a pencil-proof design.
- **Finish:** Enclosures have a snow-white color with a baked-on powder coat paint finish.
- **Design Features:** Interlocking slip-joints ensure smooth joints with no fasteners needed. Friction clips and back-up strips include stiffening angles for added joint reinforcement.

ACCESSORIES

- **Materials:** Made from 14, 18, or 20 gauge cold-rolled steel, depending on the piece.
- **Finish:** Accessories are cleaned, phosphatized, and finished with powder coat paint to match enclosures.
- **Design:** Valve compartments, end caps, and end enclosures use slip joints for attachment. Corners and extensions are telescoping and overlap adjacent.

CORRECTION FCATORS

Table: CF-GCF

Fluid Temperature °F	Glycol Correction Factors		
	% Solution	Ethylene	Propylene
200°F	20	0.952	0.988
	30	0.921	0.968
	40	0.888	0.943
	50	0.852	0.912
180°F	20	0.946	0.982
	30	0.913	0.961
	40	0.879	0.934
	50	0.842	0.902
140°F	20	0.934	0.97
	30	0.898	0.946
	40	0.861	0.916
	50	0.821	0.881

Table: CF-HP

Avg Hot Water/Steam °F	Heating Correction Factors
215°	1.00
200°	0.86
190°	0.78
180°	0.69
170°	0.65
160°	0.51
150°	0.45
140°	0.40

Table: CF-GPM

Nominal Pipe Dia	GPM
3/4" Copper	4.95
1" Copper	8.25
1-1/4" Copper	12.32

- If the unit is to be installed at a different height than recommended, Correction factors to be used to determine change in performance.