

Convector

Steam and Hot Water Unit Heaters





Convector Radiation

Turbonics Convectors are engineered for both forced hot water and two-pipe steam heating system installation with heating elements of lightweight non-ferrous construction. They are available in (7) basic types to meet a wide range of heating applications in institutional buildings, hospitals, hotels, office buildings, schools, apartments and other structures. A variety of cabinet enclosure styles permits the selection of an attractive and functional installation to blend with any building interior — modern or traditional.

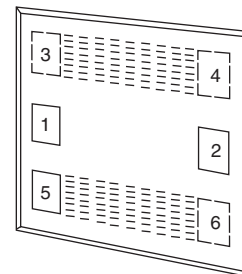
Designed for maximum flexibility of installation arrangement, Turbonics Convectors are available in free-standing, semi-recessed, wall hung and fully recessed models. Enclosures are formed from heavy-gauge steel with a durable baked powder prime finish.



END POCKET

End Pockets — End pockets may be provided at each or either end of Turbonics institutional convectors to protect and conceal valves, traps and piping. A left-hand end pocket is illustrated. The liner is extended and a baffle welded to the back of the liner. The cabinet front is extended and grille is offset in length to line up with heating element. Length of end pocket is determined by using a standard element. Specify right or left hand. Available in 4" increments only. One end pocket only on 64" long units. No end pockets available on SR-A or RF-A 64" units.
Note: Fronts and liners increase in length but the coil length remains the same.

Access Doors — Access Doors (4 1/4" square) may be provided in the front panel of the convectors for inspection or operation of valves, traps, or air vents. These doors are hinged on top. Concealed 1/4 turn locking device is provided with an Allen-head operator. Access doors are available in the standard locations illustrated. For units 24" or less in height, not all positions are available, consult factory. See table 5 on page 14 for derating factors.



ACCESS DOOR LOCATIONS

Heating Elements — Heating elements are available in three nominal depths — 4" with 2-tube element, 6" with 3-tube element, 8" with 4-tube element. Fins of .010" aluminum have integral collars to assure uniform spacing. Tubes are mechanically expanded into collars to permit maximum heat transfer. Both headers are cast bronze with single - 3/4" NPT tappings. A dual top and bottom 3/4" tapped header is available. This option allows for supply and return piping to come from the top or bottom. Combined with the standard single header, piping direction is no longer a problem. Heating element assembly is protected by formed shield plates front and back running the entire length of element, and supported in enclosure by a welded bracket to eliminate strain on piping or element.

Tamper-Resistant Fasteners — Our Convector are provided with friction fit slip joiners. Hex Head Locks, to fasten fronts securely may be provided on special applications.

Concealed Fasteners — are available with Hex-head operator. Head of operator recessed 1/8" inside cabinet. Fastener engages keeper, spot welded to inside of liner.

Damper — The assembly consists of a triple lead screw and a heavy gauge damper blade, flanged top and bottom for additional rigidity, that covers the entire louvered area of the enclosure.

Damper assemblies are available with either a knob operator or a tamper resistant operator which is simply operated with a hex key. The later is particularly valuable in school or institutional work where only supervisory operation is desired.

Institutional convectors are specially constructed to satisfy the requirements of strength and safety demanded by institutional building application.

Heavy Gauge Steel — To withstand the abuse often received on this type of application, institutional convectors are available in heavy gauge steel upon specific request. (Front and back available in 18, 16 and 14-gauge)

Perforated Outlet and/or Inlet — Consult factory for unit styles offered with 14-gauge perforated front panels.

Dual Inlet Header — Allows piping from either top or bottom.

Non-Standard Sizes — Sizes other than standard can be provided for institutional buildings. Please consult factory with requirements.

Insulation — 1/2" thick fiber-glass insulation is available on convector backs, or sides and tops for special application. (Top does not apply to sloping models)

Special Finish — All our Convectors are thoroughly cleaned after fabrication and provided with a high quality baked powder prime finish. As an option, cabinet may be finished in one of the standard Convector colors also in baked powder.



STANDARD FASTENER FOR RECESSED UNITS



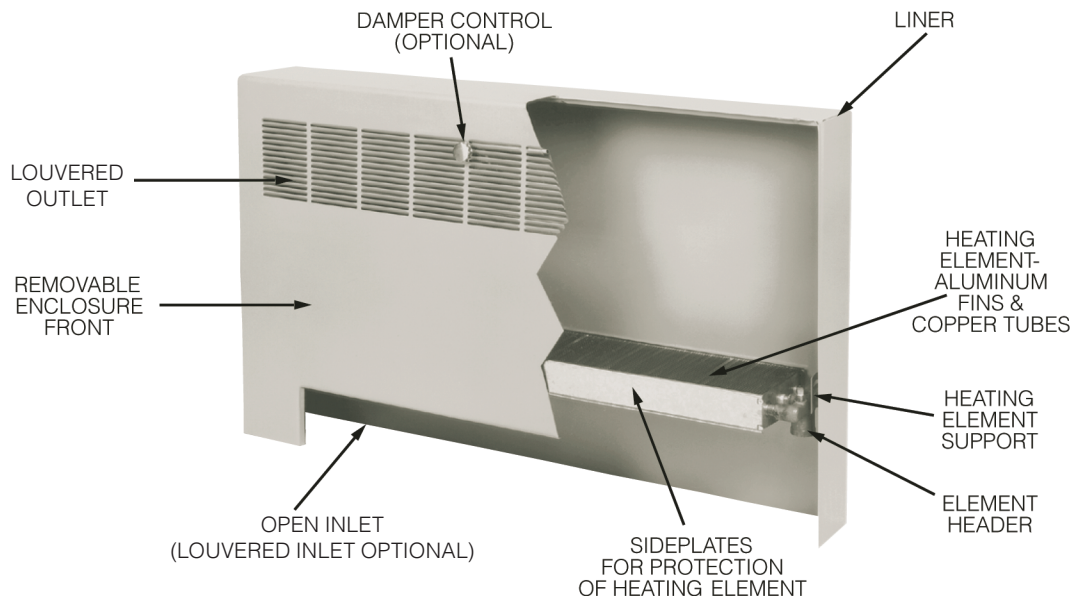
KNOB OPERATED DAMPER OPERATOR



INSTITUTIONAL DAMPER OPERATOR

ENCLOSURES

Features of enclosure construction are shown below. Note that the element support provides a simple and inexpensive means of leveling the heating element or giving it an appropriate pitch for steam installation. Enclosures are formed steel with front of 18-gauge, back and sides of 20-gauge thickness. Enclosure fronts are separate and fastened by friction fit slip joiners at sides of the front piece. Back, top and sides are an integral welded structure in all models, except wall hung slope top model, which has top integral with front. Design details of individual units are shown on succeeding pages.



Types of Convectors



FS-A/FSG-A

Type FS-A: The type FS-A Free-Standing Cabinet Enclosure is designed to be used exposed and fitted flush against the wall. Readily installed without alteration of wall interior, the FS-A enclosure is frequently used for system modernization where it is desirable to avoid the expense of recessing the unit in the wall. Open inlet shown is standard. Unit may be provided with louvered inlet, (FSG-A). See page 15.



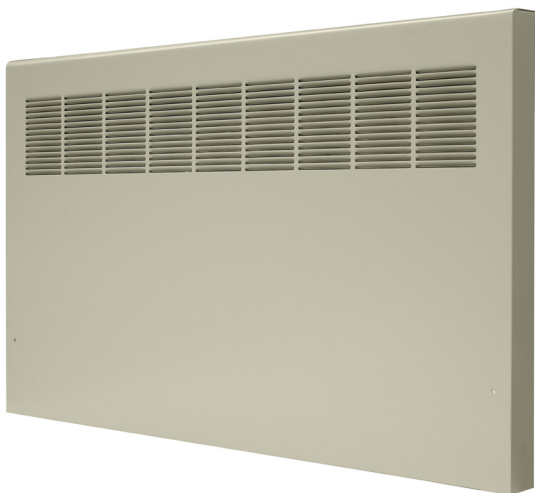
W-A

Type W-A: The W-A Convector is a completely exposed wall hung unit with flat top. Louvered outlet is in the face of the enclosure. Enclosure front wraps around unit and fastens to sides of cabinet with clips. Air inlet is through open bottom of unit enclosure. See page 16.



SR-A/SRG-A

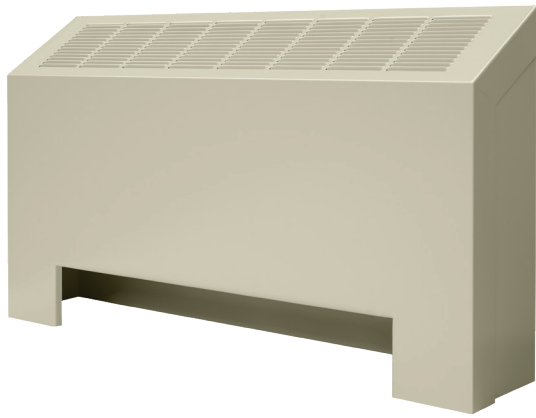
Type SR-A Semi-Recessed: Cabinet design is similar to FS-A model. Enclosure projects only 2 1/4" from wall. Enclosure front fastens to brackets on unit liner installed in wall recess. Open inlet shown is standard. Unit may be provided with louvered inlet, (SRG-A). See page 17.



PW-A/PWG-A

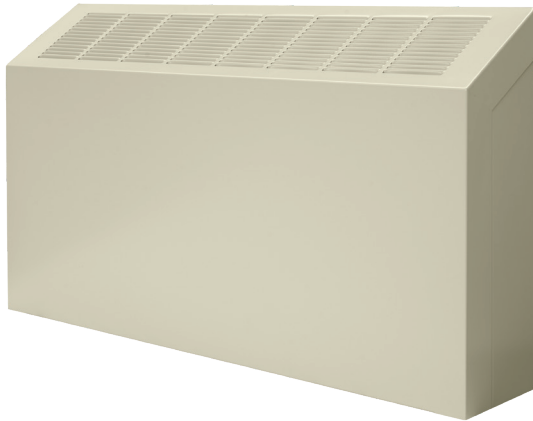
Type PW-A: This is a partially recessed unit with rounded flange front and louvered outlet, standard for wall mounting as illustrated. Cabinet extends only 2 1/4" from wall. Enclosure front fastens to brackets on unit liner installed in wall recess. Air inlet is through open bottom of unit (PW-A). Unit may be provided with louvered inlet, (PWG-A). See page 18.

Types of Convectors



SF-A/SFG-A

Type SF-A: The Type SF-A Free-Standing Cabinet Enclosure is designed to be used exposed and fitted flush against the wall. Readily installed without alteration of wall interior, the SF-A enclosure is frequently used for system modernization where it is desirable to avoid the expense of recessing the unit in the wall. Open inlet shown is standard. Unit may be provided with louvered inlet, (SFG-A). See page 19.



SW-A

Type SW-A: This model is fully exposed wall hung with outlet louvers located in sloping top. Enclosure wraps around unit and fastens to sides with clips. Air inlet is through open bottom of unit. Slope of top is 30°. See page 16.



RF-A/RF-G-A AND FWG-A

Type RF-A: Designed to be fully recessed within the wall. The flanged edge metal front contains the louvered outlet and inlet opening and is fastened by screws. It is easily removable for heating element access. The standard unit is arranged for floor mounting with open inlet opening, (RF-A). Unit may be provided with louvered inlet (RF-G-A shown). See page 21.

Type FWG-A unit is similar, but for wall mounting with louvered inlet. All units extend 13/16" from wall. See page 21.

Convactor Ratings

TABLE 1

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE FS-A				
		18"	20"	24"	26"	32"
4	20	2230	2495	2830	2930	3120
	24	2760	3145	3625	3720	3985
	28	3310	3815	4345	4465	4775
	32	3865	4490	5110	5255	5665
	36	4370	5160	5880	6025	6505
	40	4895	5810	6600	6790	7320
	44	5425	6480	7390	7560	8160
	48	5950	7105	8110	8350	8975
	52	6550	7800	8855	9070	9745
	56	7030	8450	9625	9865	10630
6	20	3240	3625	4250	4390	4850
	24	4030	4560	5375	5570	6170
	28	4850	5520	6480	6670	7370
	32	5615	6480	7610	7870	8690
	36	6430	7390	8690	9025	9935
	40	7250	8375	9815	10200	11230
	44	8065	9290	10920	11350	12480
	48	8880	10250	12025	12455	13705
	52	9745	11185	13105	13535	14905
	56	10510	12145	14230	14735	16225
8	20	4030	4535	5040	5135	5570
	24	5110	5760	6360	6575	7105
	28	6385	6960	7680	7895	8520
	32	7560	8185	9025	9310	10055
	36	8710	9385	10390	10705	11545
	40	9865	10630	11760	12070	13055
	44	11040	11830	13055	13440	14545
	48	11950	12935	14400	14810	16080
	52	13465	14230	15670	16105	17425
	56	14615	15505	17090	17570	19010

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE FSG-A				
		18"	20"	24"	26"	32"
4	20	2163	2420	2773	2871	3089
	24	2677	3051	3553	3646	3945
	28	3211	3701	4258	4376	4727
	32	3749	4355	5008	5150	5608
	36	4239	5005	5762	5905	6440
	40	4748	5636	6468	6654	7247
	44	5262	6286	7242	7409	8078
	48	5772	6892	7948	8183	8885
	52	6354	7566	8678	8889	9648
	56	6819	8197	9433	9668	10524
6	20	3046	3408	4038	4171	4753
	24	3788	4286	5106	5292	6047
	28	4559	5189	6156	6337	7223
	32	5278	6091	7230	7477	8516
	36	6044	6947	8256	8574	9736
	40	6815	7873	9324	9690	11005
	44	7581	8733	10374	10783	12230
	48	8347	9635	11424	11832	13431
	52	9160	10514	12450	12858	14607
	56	9879	11416	13519	13998	15901
8	20	3667	4127	4687	4776	5403
	24	4650	5242	5915	6115	6892
	28	5810	6334	7142	7342	8264
	32	6880	7448	8393	8658	9753
	36	7926	8540	9663	9956	11199
	40	8977	9673	10937	11225	12663
	44	10046	10765	12141	12499	14109
	48	10875	11771	13392	13773	15598
	52	12253	12949	14573	14978	16902
	56	13300	14110	15894	16340	18440

Convector Ratings

TABLE 2

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, WALL MOUNTED, NOMINAL HEIGHT TYPE W-A				
		14"	18"	20"	26"	32"
4	20	2495	2830	2930	3120	3265
	24	3145	3625	3720	3985	4150
	28	3815	4345	4465	4775	5040
	32	4490	5110	5255	5665	5950
	36	5160	5880	6025	6505	6865
	40	5810	6600	6790	7320	7730
	44	6480	7390	7560	8160	8640
	48	7105	8110	8350	8975	9530
	52	7800	8855	9070	9745	10345
	56	8450	9625	9865	10630	11305
60	9120	10345	10610	11400	12120	
64	9790	11135	11400	12290	13080	
6	20	3625	4250	4390	4850	5040
	24	4560	5375	5570	6170	6410
	28	5520	6480	6670	7370	7655
	32	6480	7610	7870	8690	9025
	36	7390	8690	9025	9935	10345
	40	8375	9815	10200	11230	11665
	44	9290	10920	11350	12480	12985
	48	10250	12025	12455	13705	14305
	52	11185	13105	13535	14905	15505
	56	12145	14230	14735	16225	16920
60	13055	15310	15840	17425	18145	
64	14040	16440	17065	18770	19585	
8	20	4535	5040	5135	5570	5810
	24	5760	6360	6575	7105	7465
	28	6960	7680	7895	8520	8930
	32	8185	9025	9310	10055	10560
	36	9385	10390	10705	11545	12120
	40	10630	11760	12070	13055	13655
	44	11830	13055	13440	14545	15190
	48	12935	14400	14810	16080	16800
	52	14230	15670	16105	17425	18145
	56	15505	17090	17570	19010	19850
60	16655	18335	18840	20375	21215	
64	17880	19750	20330	21960	22895	

DEPTH IN INCHES	LENGTH IN INCHES	SLOPE TOP, WALL MOUNTED, NOMINAL HEIGHT TYPE SW-A				
		14"	18"	20"	26"	32"
4	20	2930	3120	3215	3335	3505
	24	3720	3960	4080	4250	4415
	28	4490	4775	4895	5110	5305
	32	5305	5640	5760	6050	6290
	36	6070	6455	6625	6960	7250
	40	6840	7320	7510	7850	8110
	44	7630	8135	8350	8735	9070
	48	8400	8975	9190	9625	9985
	52	9145	9745	9935	10440	10850
	56	9935	10655	10850	11400	11830
60	10705	11400	11615	12190	12815	
64	11495	12310	12530	13150	13920	
6	20	4510	4970	5090	5425	5690
	24	5710	6290	6480	6960	7175
	28	6890	7560	7750	8330	8690
	32	8110	8905	9120	9840	10130
	36	9290	10175	10490	11255	11615
	40	10490	11470	11810	12670	13150
	44	11665	12790	13105	14160	14665
	48	12840	14040	14470	15550	16105
	52	14015	15290	15720	16895	17590
	56	15215	16655	17135	18410	19150
60	16345	17880	18360	19730	20570	
64	17570	19270	19775	21265	22080	
8	20	5760	6120	6310	6770	7030
	24	7345	7825	8040	8665	9000
	28	8880	9410	9650	10415	10825
	32	10440	11135	11400	12310	12790
	36	12050	13250	13105	14135	14690
	40	13560	14425	14830	15985	16585
	44	15120	16030	16510	17760	18430
	48	16680	17710	17905	19610	20375
	52	18190	19250	19750	21335	22225
	56	19750	21000	21550	23255	24215
60	21290	22510	23110	24960	26040	
64	22895	24265	24935	26880	28010	

Convactor Ratings

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE SR-A				
		16"	18"	22"	24"	30"
4	20	2230	2495	2830	2930	3120
	24	2760	3145	3625	3720	3985
	28	3310	3815	4345	4465	4775
	32	3865	4490	5110	5255	5665
	36	4370	5160	5880	6025	6505
	40	4895	5810	6600	6790	7320
	44	5425	6480	7390	7560	8160
	48	5950	7105	8110	8350	8975
	52	6550	7800	8855	9070	9745
	56	7030	8450	9625	9865	10630
6	20	3240	3625	4250	4390	4850
	24	4030	4560	5375	5570	6170
	28	4850	5520	6480	6670	7370
	32	5615	6480	7610	7870	8690
	36	6430	7390	8690	9025	9935
	40	7250	8375	9815	10200	11230
	44	8065	9290	10920	11350	12480
	48	8880	10250	12025	12455	13705
	52	9745	11185	13105	13535	14905
	56	10510	12145	14230	14735	16225
8	20	4030	4535	5040	5135	5570
	24	5110	5760	6360	6575	7105
	28	6385	6960	7680	7895	8520
	32	7560	8185	9025	9310	10055
	36	8710	9385	10390	10705	11545
	40	9865	10630	11760	12070	13055
	44	11040	11830	13055	13440	14545
	48	11950	12935	14400	14810	16080
	52	13465	14230	15670	16105	17425
	56	14615	15505	17090	17570	19010

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE SRG-A				
		16"	18"	22"	24"	30"
4	20	2163	2420	2773	2871	3089
	24	2677	3051	3553	3646	3945
	28	3211	3701	4258	4376	4727
	32	3749	4355	5008	5150	5608
	36	4239	5005	5762	5905	6440
	40	4748	5636	6468	6654	7247
	44	5262	6286	7242	7409	8078
	48	5772	6892	7948	8183	8885
	52	6354	7566	8678	8889	9648
	56	6819	8197	9433	9668	10524
6	20	3046	3408	4038	4171	4753
	24	3788	4286	5106	5292	6047
	28	4559	5189	6156	6337	7223
	32	5278	6091	7230	7477	8516
	36	6044	6947	8256	8574	9736
	40	6815	7873	9324	9690	11005
	44	7581	8733	10374	10783	12230
	48	8347	9635	11424	11832	13431
	52	9160	10514	12450	12858	14607
	56	9879	11416	13519	13998	15901
8	20	3667	4127	4687	4776	5403
	24	4650	5242	5915	6115	6892
	28	5810	6334	7142	7342	8264
	32	6880	7448	8393	8658	9753
	36	7926	8540	9663	9956	11199
	40	8977	9673	10937	11225	12663
	44	10046	10765	12141	12499	14109
	48	10875	11771	13392	13773	15598
	52	12253	12949	14573	14978	16902
	56	13300	14110	15894	16340	18440

Convactor Ratings

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE PW-A				
		18"	20"	24"	26"	28"
4	20	2230	2495	2830	2930	3120
	24	2760	3145	3625	3720	3985
	28	3310	3815	4345	4465	4775
	32	3865	4490	5110	5255	5665
	36	4370	5160	5880	6025	6505
	40	4895	5810	6600	6790	7320
	44	5425	6480	7390	7560	8160
	48	5950	7105	8110	8350	8975
	52	6550	7800	8855	9070	9745
	56	7030	8450	9625	9865	10630
6	20	3240	3625	4250	4390	4850
	24	4030	4560	5375	5570	6170
	28	4850	5520	6480	6670	7370
	32	5615	6480	7610	7870	8690
	36	6430	7390	8690	9025	9935
	40	7250	8375	9815	10200	11230
	44	8065	9290	10920	11350	12480
	48	8880	10250	12025	12455	13705
	52	9745	11185	13105	13535	14905
	56	10510	12145	14230	14735	16225
8	20	4030	4535	5040	5135	5570
	24	5110	5760	6360	6575	7105
	28	6385	6960	7680	7895	8520
	32	7560	8185	9025	9310	10055
	36	8710	9385	10390	10705	11545
	40	9865	10630	11760	12070	13055
	44	11040	11830	13055	13440	14545
	48	11950	12935	14400	14810	16080
	52	13465	14230	15670	16105	17425
	56	14615	15505	17090	17570	19010

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE PWG-A				
		18"	20"	24"	26"	28"
4	20	2163	2420	2773	2871	3089
	24	2677	3051	3553	3646	3945
	28	3211	3701	4258	4376	4727
	32	3749	4355	5008	5150	5608
	36	4239	5005	5762	5905	6440
	40	4748	5636	6468	6654	7247
	44	5262	6286	7242	7409	8078
	48	5772	6892	7948	8183	8885
	52	6354	7566	8678	8889	9648
	56	6819	8197	9433	9668	10524
6	20	3046	3408	4038	4171	4753
	24	3788	4286	5106	5292	6047
	28	4559	5189	6156	6337	7223
	32	5278	6091	7230	7477	8516
	36	6044	6947	8256	8574	9736
	40	6815	7873	9324	9690	11005
	44	7581	8733	10374	10783	12230
	48	8347	9635	11424	11832	13431
	52	9160	10514	12450	12858	14607
	56	9879	11416	13519	13998	15901
8	20	3667	4127	4687	4776	5403
	24	4650	5242	5915	6115	6892
	28	5810	6334	7142	7342	8264
	32	6880	7448	8393	8658	9753
	36	7926	8540	9663	9956	11199
	40	8977	9673	10937	11225	12663
	44	10046	10765	12141	12499	14109
	48	10875	11771	13392	13773	15598
	52	12253	12949	14573	14978	16902
	56	13300	14110	15894	16340	18440

Convector Ratings

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	SLOPE TOP, FREE STANDING, NOMINAL HEIGHT *TYPE SF-A				
		18"	20"	24"	26"	32"
4	20	2810	2930	3120	3215	3335
	24	3600	3720	3960	4080	4250
	28	4320	4490	4775	4895	5110
	32	5110	5305	5640	5760	6050
	36	5905	6070	6455	6625	6960
	40	6650	6840	7320	7510	7850
	44	7345	7630	8135	8350	8735
	48	8135	8400	8975	9190	9625
	52	8830	9145	9745	9935	10440
	56	9625	9935	10655	10850	11400
60	10250	10705	11400	11615	12190	
64	10990	11495	12310	12530	13150	
6	20	4370	4510	4970	5090	5425
	24	5425	5710	6290	6480	6960
	28	6530	6890	7560	7750	8330
	32	7535	8110	8905	9120	9840
	36	8905	9290	10175	10490	11255
	40	9985	10490	11470	11810	12670
	44	11185	11665	12790	13105	14160
	48	12335	12840	14040	14470	15550
	52	13535	14015	15290	15720	16895
	56	14950	15215	16655	17135	18410
60	15790	16345	17880	18360	19730	
64	16850	17570	19270	19775	21265	
8	20	5495	5760	6120	6310	6770
	24	7200	7345	7825	8040	8665
	28	8640	8880	9410	9650	10415
	32	10225	10440	11135	11400	12310
	36	11760	12050	13250	13105	14135
	40	13200	13560	14425	14830	15985
	44	14785	15120	16030	16510	17760
	48	16320	16680	17710	17905	19610
	52	17710	18190	19250	19750	21335
	56	19370	19750	21000	21550	23255
60	20735	21290	22510	23110	24960	
64	22390	22895	24265	24935	26880	

DEPTH IN INCHES	LENGTH IN INCHES	SLOPE TOP, FREE STANDING, NOMINAL HEIGHT *TYPE SFG-A				
		18"	20"	24"	26"	32"
4	20	2726	2842	3058	3151	3302
	24	3492	3608	3881	3998	4208
	28	4190	4355	4680	4797	5059
	32	4957	5146	5527	5645	5990
	36	5728	5888	6326	6493	6890
	40	6451	6635	7174	7360	7772
	44	7125	7401	7972	8183	8648
	48	7891	8148	8796	9006	9529
	52	8565	8871	9550	9736	10336
	56	9336	9637	10442	10633	11286
60	9943	10384	11172	11383	12068	
64	10660	11150	12064	12279	13019	
6	20	4108	4239	4722	4836	5317
	24	5100	5367	5976	6156	6821
	28	6138	6477	7182	7363	8163
	32	7083	7623	8460	8664	9643
	36	8371	8733	9666	9966	11030
	40	9386	9861	10897	11220	12417
	44	10514	10965	12151	12450	13877
	48	11595	12070	13338	13747	15239
	52	12723	13174	14526	14934	16557
	56	14053	14302	15822	16278	18042
60	14843	15364	16986	17442	19335	
64	15839	16516	18307	18786	20840	
8	20	5000	5242	5692	5868	6567
	24	6552	6684	7277	7477	8405
	28	7862	8081	8751	8975	10103
	32	9305	9500	10356	10602	11941
	36	10702	10966	12323	12188	13711
	40	12012	12340	13415	13792	15505
	44	13454	13759	14908	15354	17227
	48	14851	15179	16470	16652	19022
	52	16116	16553	17903	18368	20695
	56	17627	17973	19530	20042	22557
60	18869	19374	20934	21492	24211	
64	20375	20834	22566	23190	26074	

Convactor Ratings

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE RF-A				
		18"	20"	24"	26"	32"
4	20	2230	2495	2830	2930	3120
	24	2760	3145	3625	3720	3985
	28	3310	3815	4345	4465	4775
	32	3865	4490	5110	5255	5665
	36	4370	5160	5880	6025	6505
	40	4895	5810	6600	6790	7320
	44	5425	6480	7390	7560	8160
	48	5950	7105	8110	8350	8975
	52	6550	7800	8855	9070	9745
	56	7030	8450	9625	9865	10630
6	20	3240	3625	4250	4390	4850
	24	4030	4560	5375	5570	6170
	28	4850	5520	6480	6670	7370
	32	5615	6480	7610	7870	8690
	36	6430	7390	8690	9025	9935
	40	7250	8375	9815	10200	11230
	44	8065	9290	10920	11350	12480
	48	8880	10250	12025	12455	13705
	52	9745	11185	13105	13535	14905
	56	10510	12145	14230	14735	16225
8	20	4030	4535	5040	5135	5570
	24	5110	5760	6360	6575	7105
	28	6385	6960	7680	7895	8520
	32	7560	8185	9025	9310	10055
	36	8710	9385	10390	10705	11545
	40	9865	10630	11760	12070	13055
	44	11040	11830	13055	13440	14545
	48	11950	12935	14400	14810	16080
	52	13465	14230	15670	16105	17425
	56	14615	15505	17090	17570	19010

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE RFG-A				
		18"	20"	24"	26"	32"
4	20	2163	2420	2773	2871	3089
	24	2677	3051	3553	3646	3945
	28	3211	3701	4258	4376	4727
	32	3749	4355	5008	5150	5608
	36	4239	5005	5762	5905	6440
	40	4748	5636	6468	6654	7247
	44	5262	6286	7242	7409	8078
	48	5772	6892	7948	8183	8885
	52	6354	7566	8678	8889	9648
	56	6819	8197	9433	9668	10524
6	20	3046	3408	4038	4171	4753
	24	3788	4286	5106	5292	6047
	28	4559	5189	6156	6337	7223
	32	5278	6091	7230	7477	8516
	36	6044	6947	8256	8574	9736
	40	6815	7873	9324	9690	11005
	44	7581	8733	10374	10783	12230
	48	8347	9635	11424	11832	13431
	52	9160	10514	12450	12858	14607
	56	9879	11416	13519	13998	15901
8	20	3667	4127	4687	4776	5403
	24	4650	5242	5915	6115	6892
	28	5810	6334	7142	7342	8264
	32	6880	7448	8393	8658	9753
	36	7926	8540	9663	9956	11199
	40	8977	9673	10937	11225	12663
	44	10046	10765	12141	12499	14109
	48	10875	11771	13392	13773	15598
	52	12253	12949	14573	14978	16902
	56	13300	14110	15894	16340	18440

Convactor Ratings

STEAM RATINGS IN BTU/H (215°F at 65°F EAT)

DEPTH IN INCHES	LENGTH IN INCHES	FRONT OUTLET, NOMINAL LINER HEIGHT *TYPE FWG-A				
		18"	20"	24"	26"	32"
4	20	2165	2420	2775	2870	3090
	24	2675	3050	3550	3645	3945
	28	3215	3700	4255	4375	4730
	32	3750	4355	5010	5150	5605
	36	4235	5005	5760	5905	6440
	40	4750	5635	6470	6655	7245
	44	5260	6285	7245	7410	8080
	48	5775	6890	7950	8185	8885
	52	6355	7565	8680	8890	9645
	56	6820	8195	9430	9665	10525
60	7425	8845	10135	10395	11285	
64	7890	9500	10915	11170	12165	
6	20	3045	3405	4035	4170	4750
	24	3790	4285	5105	5290	6045
	28	4555	5190	6155	6340	7220
	32	5280	6090	7230	7480	8515
	36	6045	6950	8255	8575	9735
	40	6815	7875	9325	9690	11005
	44	7580	8730	10375	10785	12230
	48	8345	9635	11425	11835	13430
	52	9160	10515	12450	12860	14605
	56	9880	11415	13520	14000	15900
60	10715	12275	14545	15050	17075	
64	11460	13200	15620	16210	18395	
8	20	3670	4130	4685	4775	5400
	24	4650	5240	5915	6115	6890
	28	5810	6335	7140	7345	8265
	32	6880	7445	8390	8660	9755
	36	7930	8540	9665	9955	11200
	40	8975	9675	10935	11225	12665
	44	10045	10765	12140	12500	14110
	48	10875	11770	13390	13770	15600
	52	12250	12950	14575	14975	16900
	56	13300	14110	15890	16340	18440
60	14350	15155	17050	17520	19765	
64	15265	16270	18370	18905	21300	

Miscellaneous Capacity and Selection Data

For assistance with ratings and selection, please use our online Specifier.

Selection

1. Determine the conditions of the system. (If hot water, the average temperature, temp. drop, etc.)
2. Determine the MBH capacity of the unit as required for each location as shown on plans or based on heat loss calculations.
3. Refer to the ratings on pages 6 - 12 for the specific style of convector.
4. Locate in table the required capacity and read convector size from columns showing Depth, Length, Height.
5. To calculate ratings for other temperatures, use correction factors from Table 3 for desired AWT and multiply by 215°F rating from ratings table.

Table 4

CORRECTION FACTORS FOR STEAM PRESSURES OTHER THAN 1 PSI GAUGE*						
FACTOR	PRESSURE PSI GAUGE					
	5	10	15	20	25	50
BTU PER SQ. FT.	269	301	327	351	374	463

*Apply factor to Tables 1, 1A, 2 and 2A (pages 6 & 7) to obtain rating at other than 1 psi gauge.

Note: Max Recommended operating pressure 150 PSIG, (365.9°F).

For conversion from steam to hot water, use table factors as multiplier rather than a divisor.

Table 3

CONVECTOR CORRECTION FACTORS Based on Section 35.4 ASHRAE HVAC Systems and Equipment					
AVERAGE WATER TEMPERATURE (°F)	ENTERING AIR TEMPERATURE (°F)				
	55°	60°	(STD) 65°	70°	75°
100°	0.17	0.14	0.12	0.09	0.07
110°	0.23	0.20	0.17	0.14	0.12
120°	0.29	0.26	0.23	0.20	0.17
130°	0.35	0.32	0.29	0.26	0.23
140°	0.43	0.39	0.35	0.32	0.29
150°	0.50	0.46	0.43	0.39	0.35
160°	0.58	0.54	0.51	0.47	0.43
170°	0.67	0.63	0.58	0.54	0.51
180°	0.76	0.71	0.67	0.63	0.58
190°	0.85	0.81	0.76	0.71	0.67
200°	0.95	0.90	0.85	0.81	0.76
210°	1.05	1.00	0.95	0.90	0.85
215° (STD)	1.10	1.05	1.00	0.95	0.90
220°	1.15	1.10	1.05	1.00	0.95
230°	1.26	1.20	1.15	1.10	1.05
240°	1.37	1.32	1.26	1.21	1.15
250°	1.47	1.43	1.37	1.32	1.27

Table 5

CORRECTION FACTORS FOR ACCESS DOORS								
Length	Free Standing, Non-Recessed Non-Standard Access Door Locations				Semi-Recessed or Fully Recessed Non-Standard Access Door Locations			
	3 or 4	3 & 4	5 or 6	5 & 6	3 or 4	3 & 4	5 or 6	5 & 6
	20"	0.940	0.880	0.820	0.650	0.975	0.950	0.925
24"	0.950	0.910	0.860	0.720	0.980	0.960	0.940	0.880
28"	0.960	0.920	0.890	0.770	0.982	0.968	0.948	0.902
32"	0.970	0.940	0.890	0.800	0.985	0.972	0.955	0.918
36"	0.970	0.940	0.920	0.830	0.988	0.975	0.962	0.925
40"	0.970	0.950	0.920	0.850	0.990	0.978	0.970	0.932
44"	0.980	0.950	0.930	0.860	0.990	0.980	0.970	0.940
48"	0.980	0.960	0.940	0.880	0.990	0.982	0.970	0.948
52"	0.980	0.960	0.950	0.890	0.992	0.985	0.978	0.955
56"	0.980	0.960	0.950	0.890	0.992	0.985	0.978	0.955
60"	0.980	0.970	0.950	0.900	0.992	0.985	0.978	0.955
64"	0.980	0.970	0.950	0.910	0.992	0.988	0.978	0.962

Table 6

WATER FLOW IN GPM	PRESSURE LOSS IN FEET OF WATER		
	4 INCH MODELS	6 INCH MODELS	8 INCH MODELS
.25	0.044	—	—
.50	0.160	0.070	0.046
1	0.597	0.270	0.167
2	2.220	1.047	0.616
3	—	2.260	1.367
4	—	3.793	2.380
5	—	—	3.673

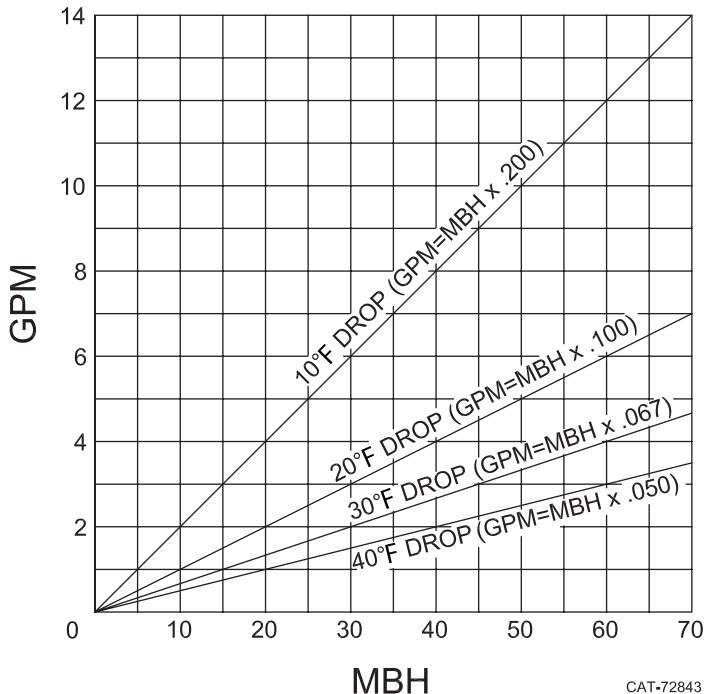
Charted figures showing pressure drop through Convectors with forced hot water. Used for determining pressure head requirement. Based on 64" length units, but applicable to shorter units, as most loss is due to headers.

REFER TO PAGE 22 FOR ELEMENT & PIPING INFORMATION

Miscellaneous Capacity and Selection Data

GALLONS PER MINUTE OF HOT WATER REQUIRED

Table 7



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The chart above may be used to determine the approximate GPM required for the desired MBH with various water temperature drops.

Formulas shown in chart with temperature drops may also be used for determining GPM.

EXAMPLE: $\left\{ \begin{array}{ll} \text{MBH} & 15 \\ \text{Temperature drop} & 10^\circ\text{F} \\ \text{Factor from formula} & .200 \\ 15 \times .200 = 3.0 \text{ GPM} \end{array} \right.$

Where systems are designed for low flow rates (velocity) it has been determined by ASHRAE and the Hydronics Institute (I.B.R.) that a minimum flow rate of .25 F.P.S. should be observed. No formal test information is available for performance below the .25 F.P.S. at this point in time.

REF:

$$\begin{aligned} \text{BTU} &= \text{GPM} \times 500 \times \text{TD} \\ \text{GPM} &= (\text{BTU} \div 500) \div \text{TD} \\ \text{TD} &= (\text{BTU} \div 500) \div \text{GPM} \end{aligned}$$

CORRECTIONS WHEN USING GLYCOL SOLUTION IN SYSTEM

		Propylene Glycol
1. Heat transfer @ 180°F, with no increase in flow rate	20% solution	.982*
	30% solution	.961*
	40% solution	.934*
	50% solution	.902*
2. GPM req'd @ 180°F, (no correction to pump curve)	20° Δt	110%*
3. Pump head req'd @ 180°F, with increase in GPM		123%*
4. Freezing Point	50% by volume	-37°F
	40%	-14°F
	30%	+ 2°F
	20%	+15°F

*Compared To Water.

OUTPUT-FLOW RATE CORRECTIONS

Table 8

Convactor Depth	Tubes per Element	Minimum Flow Rate	MBH Based on			
		(0.25 Ft./Sec.)	TD & Minimum Flow Rate			
4	2	.15	10TD	20TD	30TD	40TD
6	3	.225	1.125	2.250	3.375	4.500
8	4	.30	1.500	3.000	4.500	6.000

Note: Table 8 shows MBH which result at specific water temperature drops and minimum water flow rates which are required to maintain turbulent flow within element tubes. If the MBH output rating capacities shown on pages 6 to 13 fall below those shown in Table 8 for minimum flow rates, this indicates that the GPM required at a 20°F Water Temperature drop is less than the minimum GPM required to maintain turbulent flow.

Example: From page 12, 20°F water temperature drop
170°F AWT, 65°F EAT
Unit FSA-18, 8"deep, 20" long
BTU = 2335

This capacity rating is less than the MBH (3,000) shown in Table 8 for a 20°F TD and the minimum flow rate of .30 GPM. Applying the following formula to the example above, we may determine the GPM required for a 20°F TD at 2335 BTU.

$$\text{GPM} = \frac{2335 \text{ BTU}}{500 \times 20\text{TD}} \quad \text{GPM} = .23$$

Again, this GPM is too low to maintain turbulent flow within the element tubes. Therefore, use Min. GPM of .30 per Table 8. The water temperature drop which may be expected when using the Min. GPM can be determined using the following formula:

$$\text{TD} = \frac{2335 \text{ BTU}}{500 \times .30} \quad \text{TD} = 15.6^\circ\text{F}$$

Note: By using the higher flow rate, a lower water temperature drop will be experienced. Because of this, the average water temperature will be higher and result in a somewhat higher output capacity. For many installations, the use of the minimum GPM from Table 8 will be satisfactory, without further consideration. However, if required, a closer approximation may be obtained by dividing by two and subtracting the result from the entering water temperature of 180°F.

$$\text{i.e. } 180 - \frac{15.6}{2} = 172.2^\circ\text{F AWT}$$

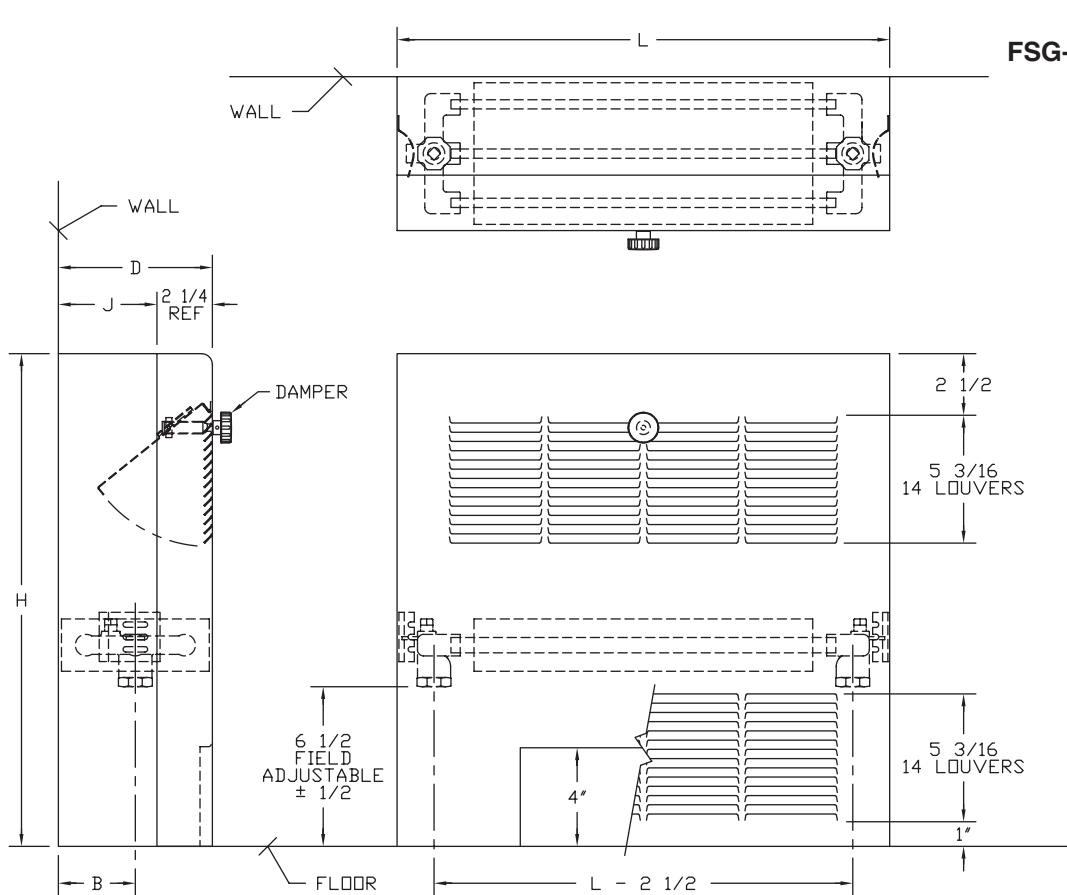
Then, the new MBH rating may be determined by interpolation between the ratings shown on page 12 for the unit at 170°F AWT and 180°F AWT. In the above example, the new rating would be 2415 BTU which would be very close to the actual performance without resorting to further iterations.

Convector Design/Installation Data

TYPE FS-A / FSG-A

MODEL	D	L	H	B	J
4xx-18	4-1/4	20,24,28,	18	2-1/8	2
4xx-20		32,36,40,	20		
4xx-24		44,48,52,	24		
4xx-26		56,60,64,	26		
4xx-32			32		
6xx-18	6-1/4	20,24,28,	18	3-1/8	4
6xx-20		32,36,40,	20		
6xx-24		44,48,52,	24		
6xx-26		56,60,64,	26		
6xx-32			32		
8xx-18	8-1/4	20,24,28,	18	4-1/8	6
8xx-20		32,36,40,	20		
8xx-24		44,48,52,	24		
8xx-26		56,60,64,	26		
8xx-32			32		

NOTE: When adding end pockets, liner and front length increase.



FS-A = OPEN INLET
FSG-A = LOUVERED INLET

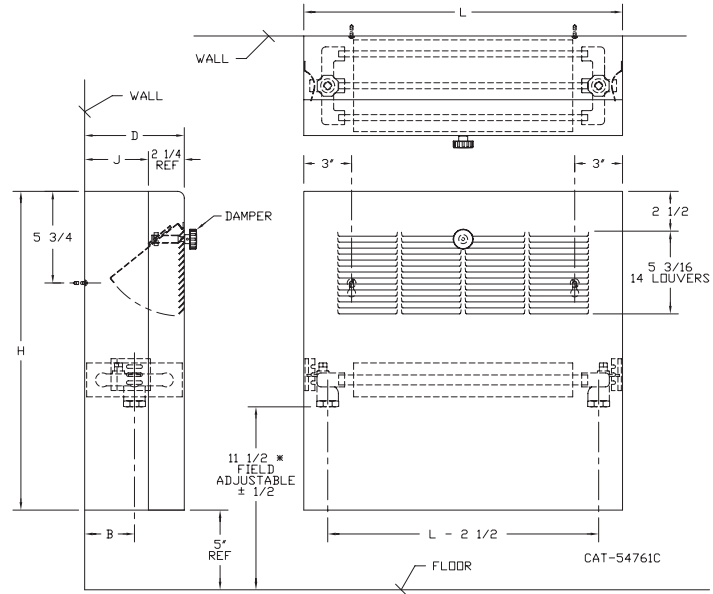
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Convector Design/Installation Data

TYPE W-A

W-A

MODEL	D	L	H	B	J
4xx-14	4-1/4	20,24,28,	14	2-1/8	2
4xx-18		32,36,40,	18		
4xx-20		44,48,52,	20		
4xx-26		56,60,64,	26		
4xx-32			32		
6xx-14	6-1/4	20,24,28,	14	3-1/8	4
6xx-18		32,36,40,	18		
6xx-20		44,48,52,	20		
6xx-26		56,60,64,	26		
6xx-32			32		
8xx-14	8-1/4	20,24,28,	14	4-1/8	6
8xx-18		32,36,40,	18		
8xx-20		44,48,52,	20		
8xx-26		56,60,64,	26		
8xx-32			32		



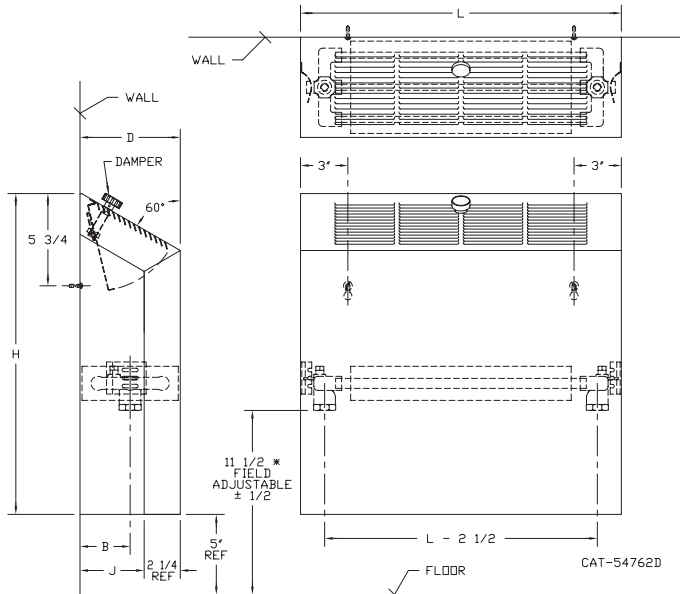
* 7-1/2" For 14" High Units

NOTE: When adding end pockets, liner and front length increase.

TYPE SW-A

SW-A

MODEL	D	L	H	B	J
4xx-14	4-1/4	20,24,28,	14	2-1/8	2
4xx-18		32,36,40,	18		
4xx-20		44,48,52,	20		
4xx-26		56,60,64,	26		
4xx-32			32		
6xx-14	6-1/4	20,24,28,	14	3-1/8	4
6xx-18		32,36,40,	18		
6xx-20		44,48,52,	20		
6xx-26		56,60,64,	26		
6xx-32			32		
8xx-14	8-1/4	20,24,28,	14	4-1/8	6
8xx-18		32,36,40,	18		
8xx-20		44,48,52,	20		
8xx-26		56,60,64,	26		
8xx-32			32		



* 7-1/2" For 14" High Units

NOTE: When adding end pockets, liner and front length increase.

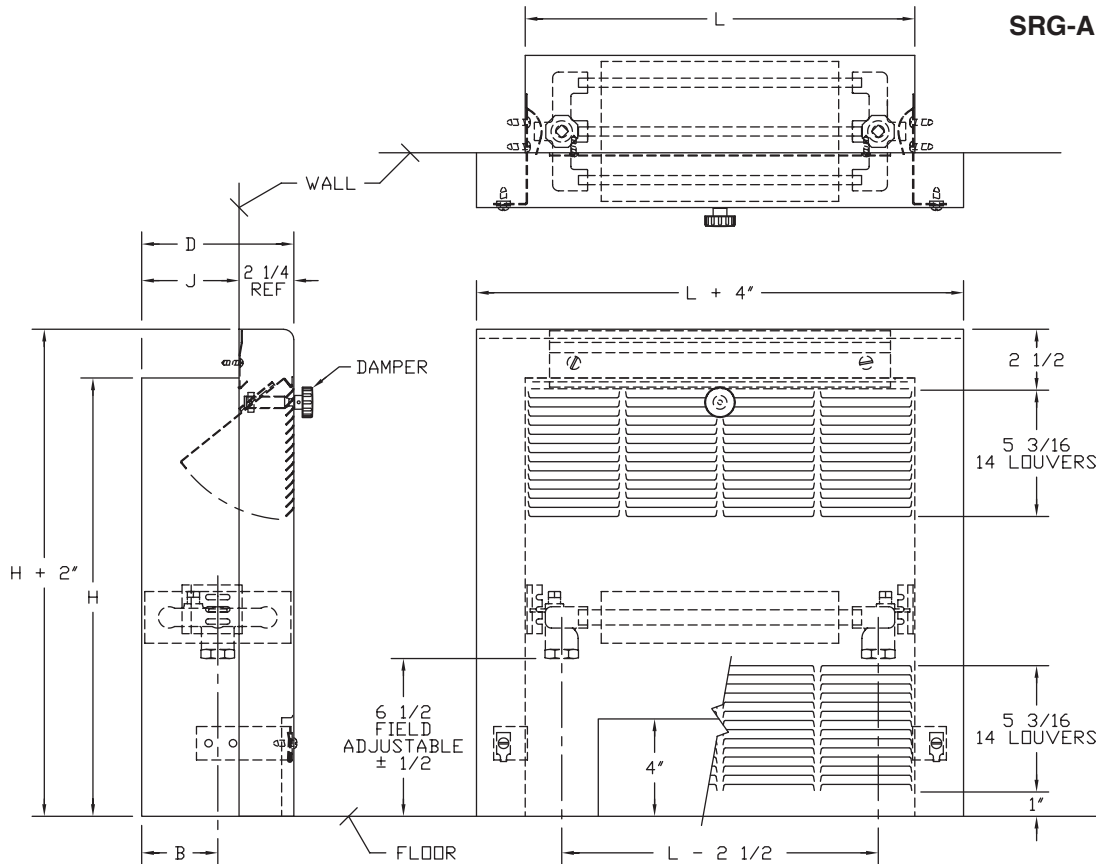
Convactor Design/Installation Data

TYPE SR-A / SRG-A

MODEL	D	L	H	B	J
4xx-16	4-1/4	20,24,28,	16	2-1/8	2
4xx-18		32,36,40,	18		
4xx-22		44,48,52,	22		
4xx-24		56,60,64,	24		
4xx-30			30		
6xx-16	6-1/4	20,24,28,	16	3-1/8	4
6xx-18		32,36,40,	18		
6xx-22		44,48,52,	22		
6xx-24		56,60,64,	24		
6xx-30			30		
8xx-16	8-1/4	20,24,28,	16	4-1/8	6
8xx-18		32,36,40,	18		
8xx-22		44,48,52,	22		
8xx-24		56,60,64,	24		
8xx-30			30		

NOTE: Order by Liner Dimensions — L x H.
When adding end pockets, liner and front length increase.

SR-A = OPEN INLET
SRG-A = LOUVERED INLET



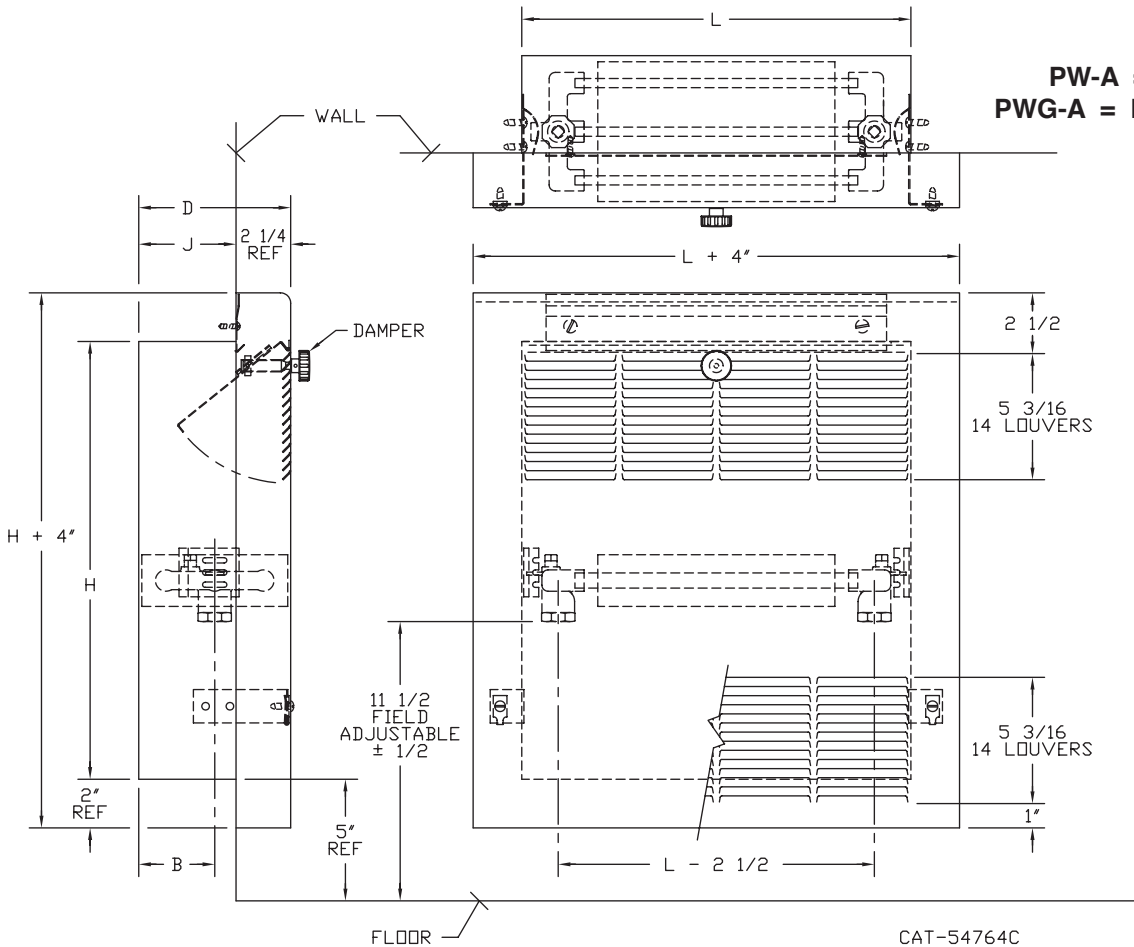
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Convector Design/Installation Data

TYPE PW-A / PWG-A

MODEL	D	L	H	B	J
4xx-18	4-1/4	20,24,28,	18	2-1/8	2
4xx-20		32,36,40,	20		
4xx-24		44,48,52,	24		
4xx-26		56,60,64,	26		
4xx-28			28		
6xx-18	6-1/4	20,24,28,	18	3-1/8	4
6xx-20		32,36,40,	20		
6xx-24		44,48,52,	24		
6xx-26		56,60,64,	26		
6xx-28			28		
8xx-18	8-1/4	20,24,28,	18	4-1/8	6
8xx-20		32,36,40,	20		
8xx-24		44,48,52,	24		
8xx-26		56,60,64,	26		
8xx-28			28		

NOTE: Order by Liner Dimensions — L x H.
When adding end pockets, liner and front length increase.



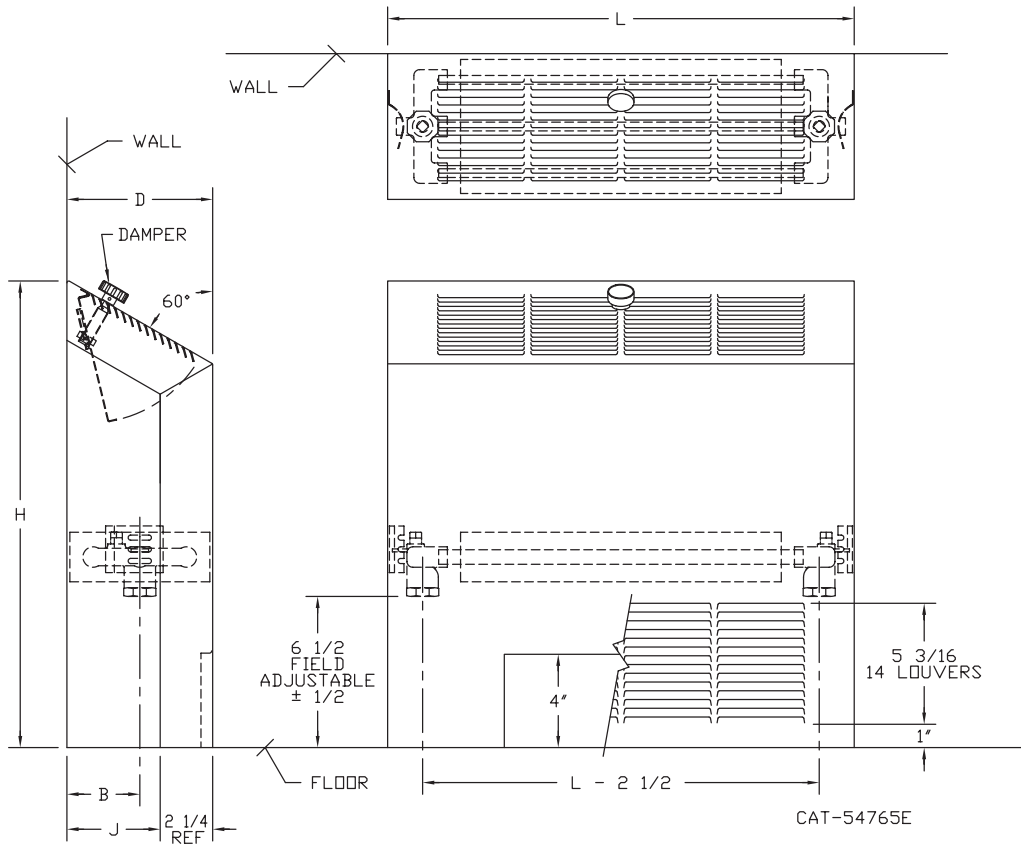
Convector Design/Installation Data

TYPE SF-A / SFG-A

MODEL	D	L	H	B	J
4xx-18 4xx-20 4xx-24 4xx-26 4xx-32	4-1/4	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	2-1/8	2
6xx-18 6xx-20 6xx-24 6xx-26 6xx-32	6-1/4	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	3-1/8	4
8xx-18 8xx-20 8xx-24 8xx-26 8xx-32	8-1/4	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	4-1/8	6

NOTE: When adding end pockets, liner and front length increase.

SF-A = OPEN INLET
SFG-A = LOUVERED INLET



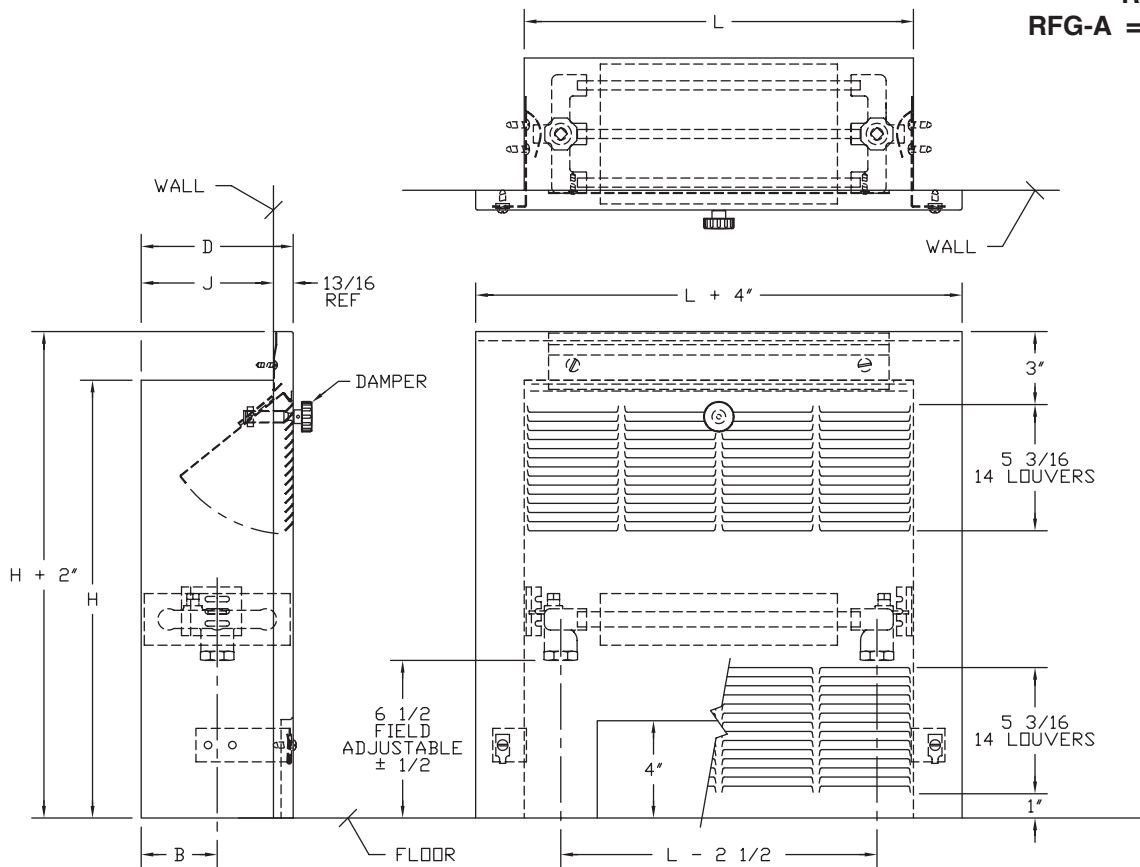
Convector Design/Installation Data

TYPE RF-A / RFG-A

MODEL	D	L	H	B	J
4xx-18 4xx-20 4xx-24 4xx-26 4xx-32	4-13/16	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	2-1/8	4
6xx-18 6xx-20 6xx-24 6xx-26 6xx-32	6-13/16	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	3-1/8	6
8xx-18 8xx-20 8xx-24 8xx-26 8xx-32	8-13/16	20,24,28, 32,36,40, 44,48,52, 56,60,64,	18 20 24 26 32	4-1/8	8

NOTE: Order by Liner Dimensions — L x H.
When adding end pockets, liner and front length increase.

RF-A = OPEN INLET
RFG-A = LOUVERED INLET



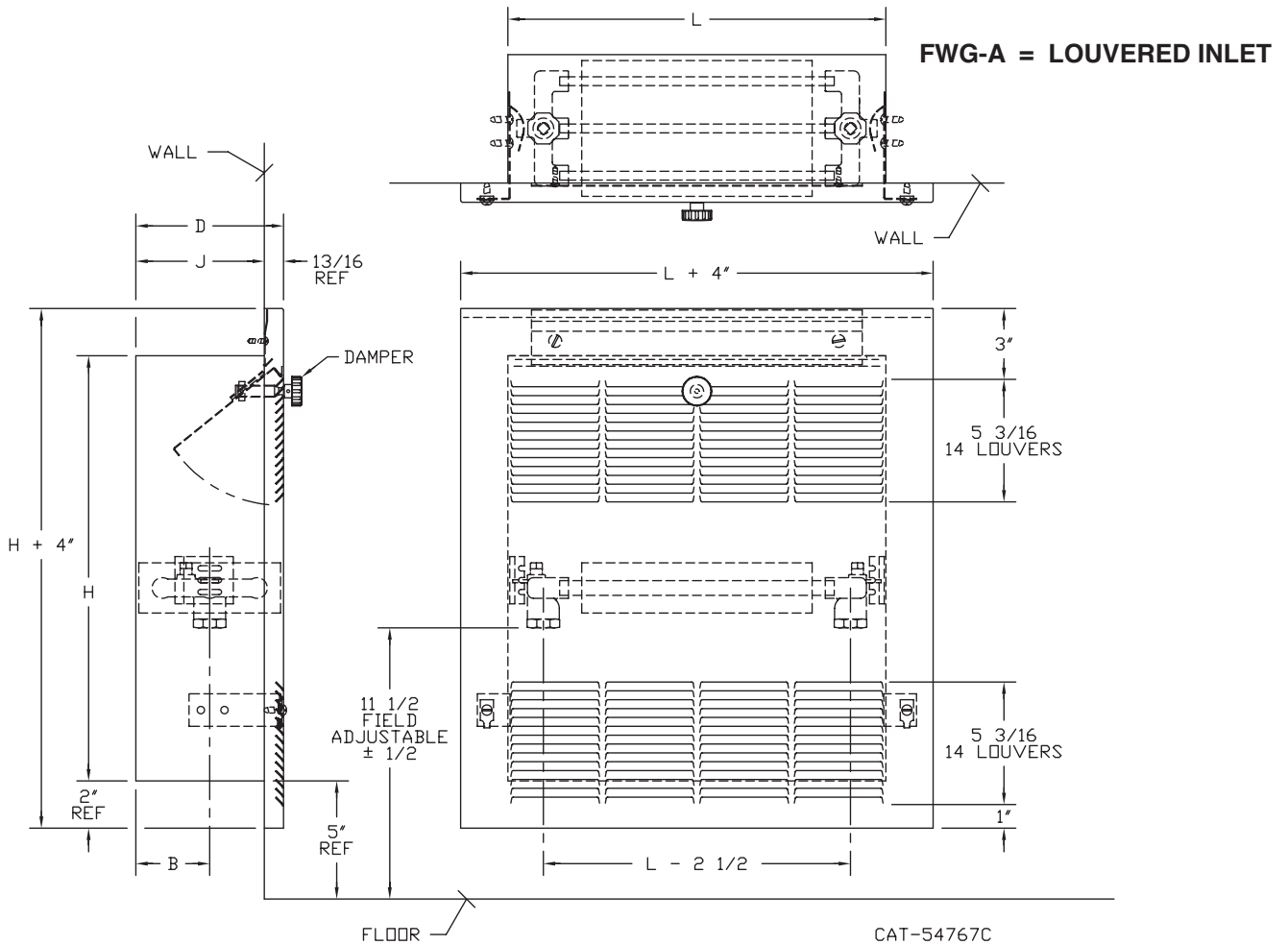
CAT-54766D

Convector Design/Installation Data

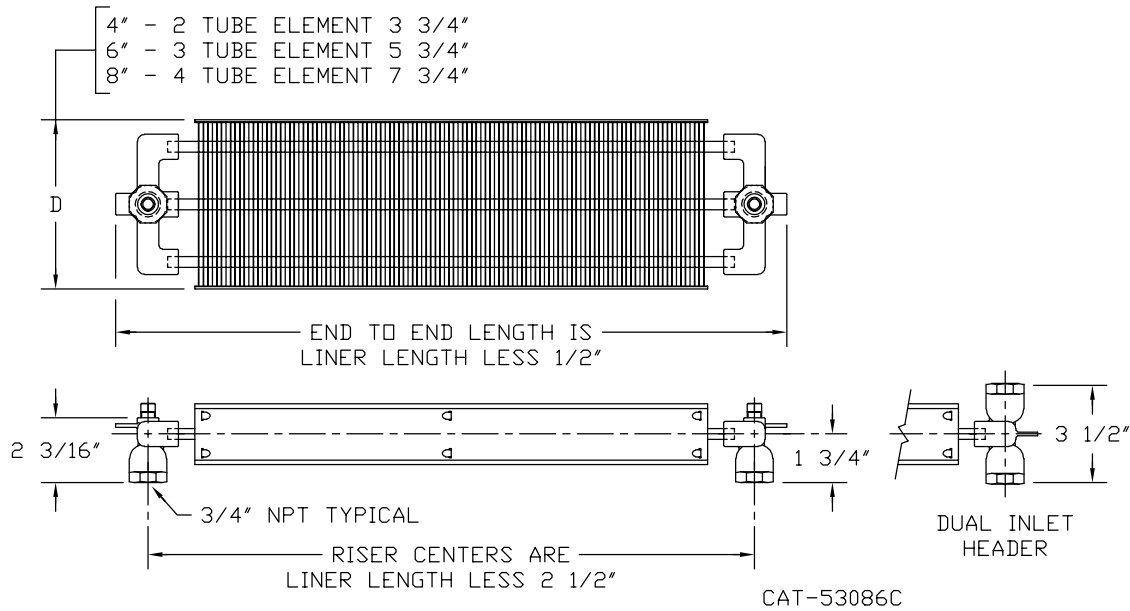
TYPE FWG-A

MODEL	D	L	H	B	J
4xx-18	4-13/16	20,24,28,	18	2-1/8	4
4xx-20		32,36,40,	20		
4xx-24		44,48,52,	24		
4xx-26		56,60,64,	26		
4xx-32			32		
6xx-18	6-13/16	20,24,28,	18	3-1/8	6
6xx-20		32,36,40,	20		
6xx-24		44,48,52,	24		
6xx-26		56,60,64,	26		
6xx-32			32		
8xx-18	8-13/16	20,24,28,	18	4-1/8	8
8xx-20		32,36,40,	20		
8xx-24		44,48,52,	24		
8xx-26		56,60,64,	26		
8xx-32			32		

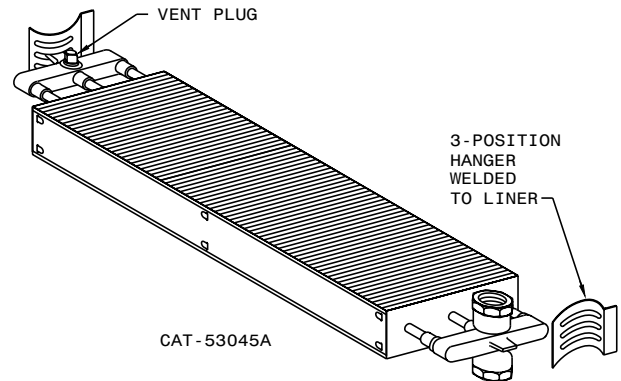
NOTE: Order by Liner Dimensions — L x H.
When adding end pockets, liner and front length increase.



Convactor Design/Installation Data



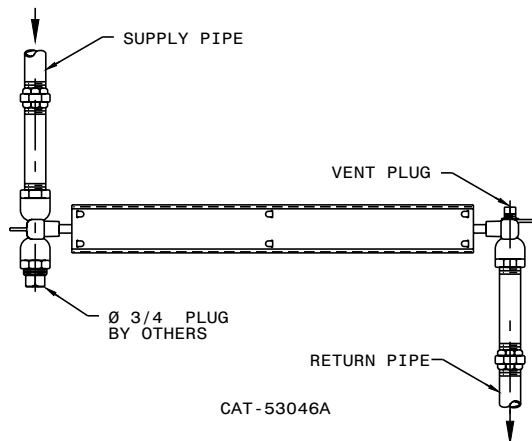
NOTE: When ordering convectors with end pockets, always refer to the standard unit length. The overall physical length will increase by 4" for each end pocket. The coil length will remain the standard size. Coil fins are 2 1/2" high by width shown above and are mechanically bonded to copper tube at 6 fins per inch.



Non-ferrous convactor heating elements consist of aluminum fins specially collared and mechanically bonded to 3/8" diameter copper tubes as the primary radiating surface. The tubes are joined at each end by cast bronze headers for connection to the system risers. One header is provided with 1/4" NPT tapping for venting, the other header

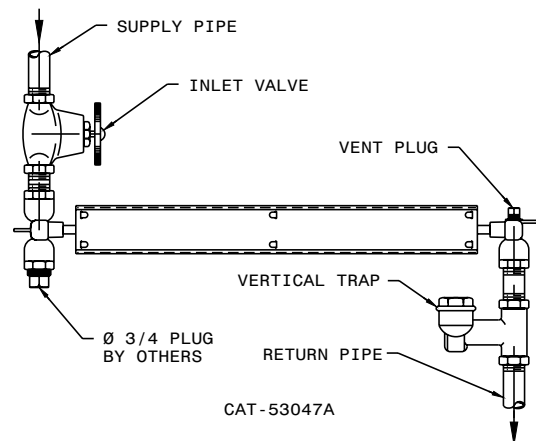
is supplied with a 1/4" NPT galvanized plug. All elements have steel side plates for appearance and strength. Standard heating element is supplied with two single 3/4" NPT headers. An optional dual inlet header is available. This allows for piping to come in from the top or bottom of element. Specify DH header one end when required.

HOT WATER SYSTEM



STEAM SYSTEM

(Not recommended for one pipe steam)



Convector Specifications

CONVECTOR RADIATORS

Furnish and install Convectors where shown on plans.

HEATING ELEMENTS

Convector heating elements shall be non-ferrous consisting of 3/8" diameter copper tubing and .010 thick aluminum plate fins with full-flanged collars. The tubes shall be expanded mechanically into fin collars to form a permanent thermal bond. Fins shall be protected front and back by formed shield plates running entire length of element. Headers shall be cast bronze provided with bottom threaded piping connections. Heating elements shall be tested by manufacturer at 100 P.S.I. air pressure under water. Elements shall be supported from brackets on sides of cabinet which shall allow for proper pitching of the element.

CABINETS GENERAL

Cabinets shall be formed from cold rolled steel and shall be suitably braced and reinforced where necessary to provide stiffness, and accurately fitted to prevent air leakage. Cabinet front shall be flanged top and bottom for added rigidity. Top edge of cabinet fronts shall be smoothly formed with 3/8" inside radius. Air outlet louvers (and inlet louvers where required) shall be the venetian type. 18-gauge cold rolled steel heating element support brackets shall be spot welded to inside ends of all Convector cabinets.

After fabrication, all cabinets shall be thoroughly cleaned, and provided with a high quality baked powder prime finish. Accessory items shall be included as noted per job requirements.

WALL MOUNTED TO FLOOR CABINETS

— TYPE FS-A & FSG-A

Type FS-A Convectors shall be constructed from not less than 18-gauge CRS fronts and tops and 20-gauge CRS back, sides. The front shall wrap around the sides of the cabinet and shall fasten at sides with concealed friction-fit fasteners. Air outlet louvers of venetian type shall be in top face of front panel. Air inlet shall be through (opening in lower section of front panel Type FS-A) (venetian type louvers stamped in lower section of front panel — same length and height as air outlet louvers Type FSG-A).

WALL HUNG FLAT-TOP CABINETS

— TYPE W-A

Type W-A Convectors shall be constructed from not less than 18-gauge CRS fronts and tops, and 20-gauge CRS back, sides. The front shall wrap around the sides of the cabinet and shall fasten at sides with concealed friction-fit fasteners. Air outlet louvers of venetian type shall be at top of front panel. Air inlet shall be through open bottom. Back panel has stiffener with key-hole for added support and for mounting to wall.

WALL HUNG SLOPE TOP CABINETS

— TYPE SW-A

Type SW-A cabinets shall be constructed from not less than 18-gauge CRS front and top and 20-gauge CRS back and sides. The front shall wrap around the sides of the cabinet and shall fasten at sides with concealed friction-fit slip joints. Air outlet louvers of venetian type shall be in slope top. Type SW-A air inlet shall be through open bottom. Back shall be provided with holes for mounting on wall. Back panel has stiffener with key-hole for added support and for mounting to wall.

WALL MOUNTED TO FLOOR SLOPE TOP CABINETS

— TYPES SF-A & SFG-A

Type SF-A & SFG-A cabinets shall be constructed from not less than 18-gauge CRS front and top and 20-gauge CRS back and sides. The front shall wrap around the sides of the cabinet and shall fasten at sides with concealed friction-fit fasteners. Air outlet louvers of venetian type shall be in slope top.

Type SF-A air inlet shall be through opening in bottom of front panel.

Type SFG-A air inlet shall be through venetian type louvers stamped in front panel, same length and height as air outlet louvers.

PARTIALLY RECESSED CABINETS

— TYPE SR-A & SRG-A, PW-A & PWG-A

Type SR-A & PW-A Convectors shall be constructed from not less than 18-gauge CRS wrap-around fronts and 20-gauge galvanealed* recessed liner. Depth of cabinet front from wall shall be 2 1/4". Front shall have radiused front edges and shall extend back to wall and fasten to brackets on liner with screws. Front shall be provided with venetian type air outlet grille (and open air inlet, SR-A) (and integral inlet air grille, SRG-A & PWG-A). Convectors shall be 3 side overlap (for floor mount models, SR-A & SRG-A) and 4 side overlap for wall mounting, model (PWG-A).

FULLY RECESSED CABINETS

— TYPE RF-A & RFG-A & FWG-A

Convectors shall be constructed from not less than 18-gauge CRS fronts and not less than 20-gauge galvanealed liner*. Fronts shall engage into horizontal securing strip as well as utilizing two front positive locking screws. Fronts shall be provided with venetian type air outlet louvers and integral inlet air louvers (open air inlet for RF-A). Metal front cabinets shall be three (3) side overlap for floor mounting RF-A and RFG-A models. Wall mounting model FWG-A shall be four (4) sided front cabinets.

All enclosure styles are available with heavy gauge CRS.

Fronts: 18-gauge standard

16-gauge, 14-gauge optional

Liners: 20-gauge standard

18-gauge, 16-gauge, 14-gauge optional

*When heavy gauge liners are selected for partially recessed and fully recessed units, the liners are supplied in painted CRS.

Convector Specifications

DAMPERS

Provide factory installed knob-operated dampers for Convectors where noted. The operator is to be a fast-action, triple lead screw, knob operated for ease of adjustment.

ACCESS DOORS

Where noted, Convectors shall be provided with access doors. Access doors shall be 4 1/4" x 4 1/4" and shall be located in the non-louvered area*. Access doors shall be hinged on top with straight shaft type hinge and secured by a concealed 1/4 turn hex-head operator.

On units 24" high or less, consult factory for available door locations. For units without end pockets at access door locations, an adjustment must be made in the output ratings stated on pages 6 thru 12. See Table 5 on page 13 for derating percentage reductions. No access door available on 14" high units.

*Note: Refer to page 2 for Standard Access Door Locations.

For units with 14, 16 or 18 inch high liners and gridded (louvered) inlet, a louver bank will be omitted. When Access Doors 3, 4, 5 or 6 are selected, see Table 5 for derating factors.

END POCKETS

Where noted, Convectors shall be provided with 4" end pockets (right end only) (left end only) (both ends). End pocket shall consist of the cabinet extended in length as noted with 20-gauge CRS baffle spot welded to back of cabinet extending from heating element to air outlet louvers. One end pocket only 64" long units. No end pockets on 64" SR-A or RF-A units.

Note: When ordering convectors with end pockets always refer to the standard unit length. The overall physical length will increase by 4" for each end pocket. The coil length will remain the standard size.

UNIT SIZE SELECTION

Example: Required, a type SW-A convector having an MBH capacity of 14.0, 190°F average water temperature with 20°F temperature drop. Turn to page 10, and using the table for 190°F average water locate a rating of 14.0 or greater. In the columns at the left edge of the table you will find the depth and length of the unit and in the space at the top of the column containing the rating, you will find the height of the unit. It will be noted that several units meet the requirements listed. Select the size which best suits the application.

INSTITUTIONAL CABINETS

Furnish and install institutional-type Convectors where indicated. Cabinets shall be as described previously under the specific type except that tamper-resistant fasteners (Hex Head Screws) (Hex Head Concealed Locks) shall be provided. (Dampers and access doors where required shall be provided with Hex Head operators).

OPTIONAL EQUIPMENT

Among optional equipment features available with these Convectors are the following:

1. Damper with Knob Operator. Detailed description on page 3.
2. Access Door. Provided only when specifically ordered, hinged for easy access to valves or vents.*
3. Knock-outs on sides of cabinet are optional and will be provided only when specifically ordered.

Special models of these Convectors can also incorporate such special design features as integral inlet grilles, insulation, special gauge thickness of enclosure, special fasteners to meet unusual requirements, and various institutional type features as described on page 3.

*Note: Refer to page 2 for Standard Access Door Locations.

For units with 14, 16 or 18 inch high liners and gridded (louvered) inlet, a louver bank will be omitted. When Access Doors 3, 4, 5 or 6 are selected, see Table 5 for derating factors.

Example: Required, an FS-A convector having 40.5 EDR at 215°F steam. Select size 6-40-24 from table #1 on page 6, which furnishes 40.9 EDR, or any other size furnishing 40.5 or more EDR. If the requirements are given in BTU's per hour (steam system) divide the BTU requirements by 240 to obtain the EDR capacity required and select the convector direct from Table 1 and 2.

In the interest of product improvement we reserve the right to make changes without notice.