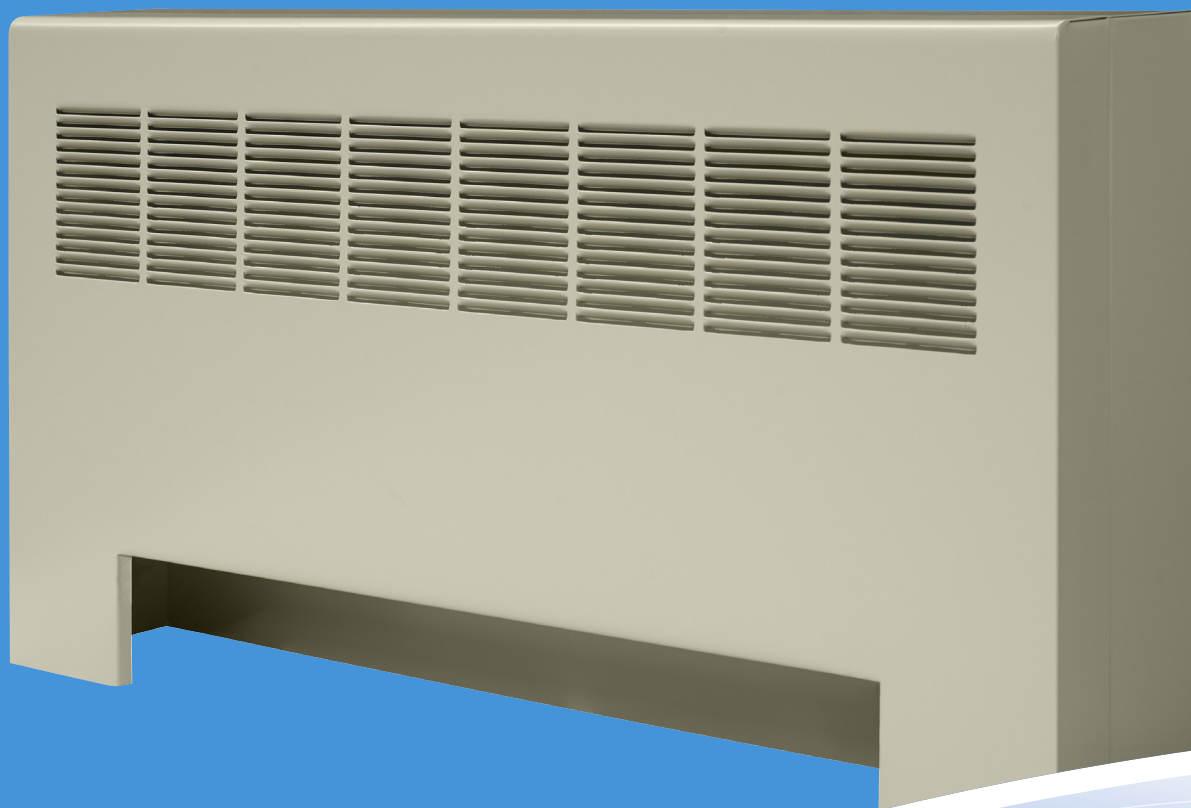


# CONVECTOR HEATERS



CONVECTOR HEATERS

**Vulcan**  
RADIATOR

# Vulcan Convector Radiation

Sterling 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.

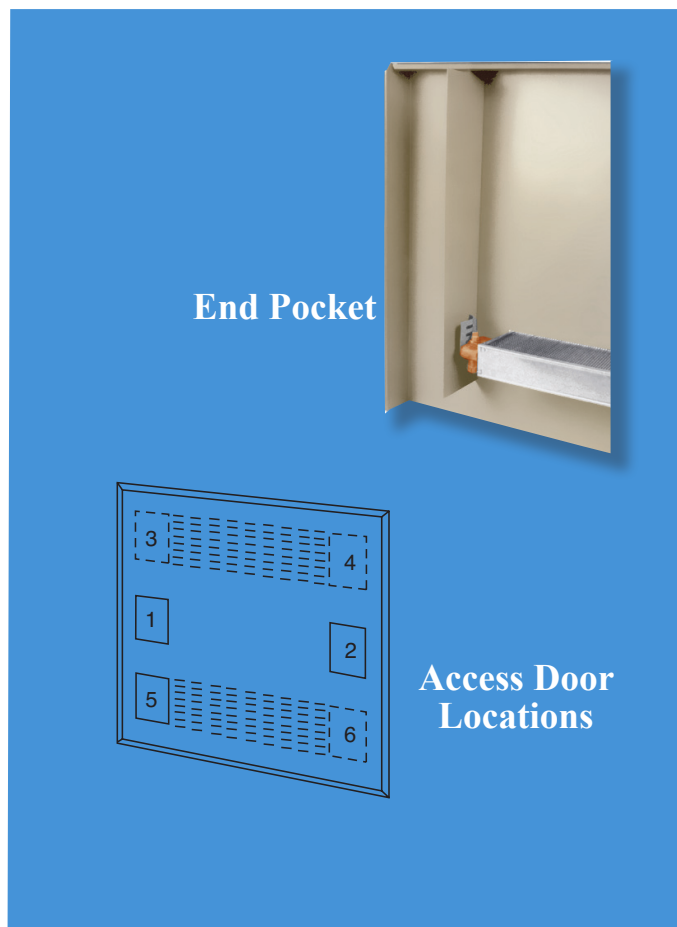
Designed for maximum flexibility of installation arrangement, Sterling Convectors are available in free-standing, semi-recessed, wall hung and fully recessed models. Enclosures are formed from heavy-gauge steel with a durable baked powder prime finish.

**End Pockets** — End pockets may be provided at each or either end of Sterling 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.

**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 Convectors 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)

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

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



**Standard Fastener for Recessed Units**



**Institutional Damper Operator**



**Knob Operated Damper Operator**

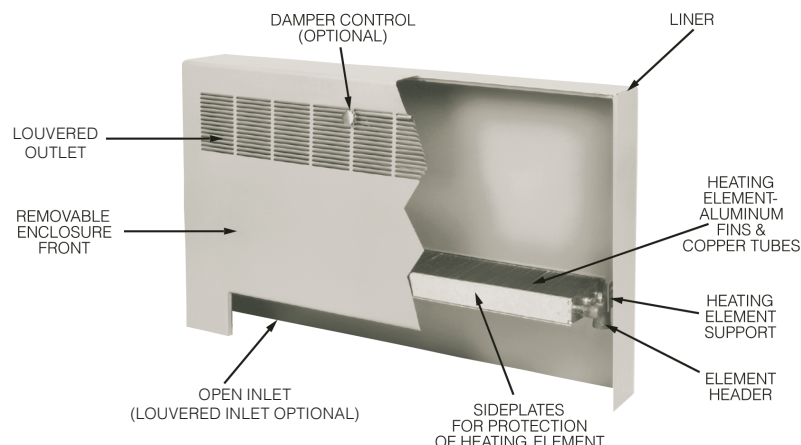
**Dual Inlet Header** — Allows piping from either top or bottom.

**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.

## 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.



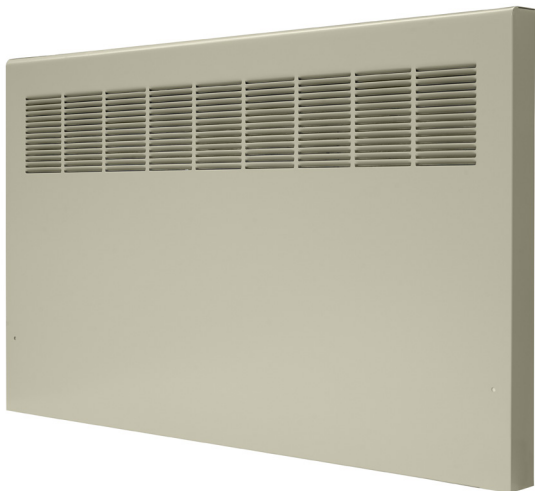
## **W-A**

**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**

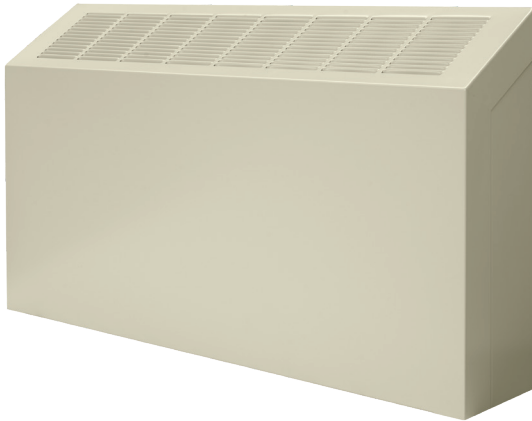
**Type PW-A:** This is a partially recessed unit with rounded flange front and louvered outlet, standard for wall mounting as illustrated. Cabinet extends only 2 1/4" from wall. Enclosure front fastens to brackets on unit liner installed in wall recess. Air inlet is through open bottom of unit (PW-A).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



# Convector Ratings

TABLE 1

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7655                                             | 9120  | 10345 | 10610 | 11400 |
|                       | 64                     | 8135                                             | 9790  | 11135 | 11400 | 12290 |
| 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 |
|                       | 60                     | 11400                                            | 13055 | 15310 | 15840 | 17425 |
|                       | 64                     | 12190                                            | 14040 | 16440 | 17065 | 18770 |
| 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 |
|                       | 60                     | 15770                                            | 16655 | 18335 | 18840 | 20375 |
|                       | 64                     | 16775                                            | 17880 | 19750 | 20330 | 21960 |

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7425                                              | 8846  | 10138 | 10398 | 11286 |
|                       | 64                     | 7891                                              | 9496  | 10912 | 11172 | 12167 |
| 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 |
|                       | 60                     | 10716                                             | 12272 | 14545 | 15048 | 17077 |
|                       | 64                     | 11459                                             | 13198 | 15618 | 16212 | 18395 |
| 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 |
|                       | 60                     | 14351                                             | 15156 | 17052 | 17521 | 19764 |
|                       | 64                     | 15265                                             | 16271 | 18368 | 18907 | 21301 |

# Convector Ratings

TABLE 2

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, WALL MOUNTED, NOMINAL HEIGHT<br>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<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | SLOPE TOP, WALL MOUNTED, NOMINAL HEIGHT<br>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 |

# Convector Ratings

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7655                                             | 9120  | 10345 | 10610 | 11400 |
|                       | 64                     | 8135                                             | 9790  | 11135 | 11400 | 12290 |
| 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 |
|                       | 60                     | 11400                                            | 13055 | 15310 | 15840 | 17425 |
|                       | 64                     | 12190                                            | 14040 | 16440 | 17065 | 18770 |
| 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 |
|                       | 60                     | 15770                                            | 16655 | 18335 | 18840 | 20375 |
|                       | 64                     | 16775                                            | 17880 | 19750 | 20330 | 21960 |

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7425                                              | 8846  | 10138 | 10398 | 11286 |
|                       | 64                     | 7891                                              | 9496  | 10912 | 11172 | 12167 |
| 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 |
|                       | 60                     | 10716                                             | 12272 | 14545 | 15048 | 17077 |
|                       | 64                     | 11459                                             | 13198 | 15618 | 16212 | 18395 |
| 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 |
|                       | 60                     | 14351                                             | 15156 | 17052 | 17521 | 19764 |
|                       | 64                     | 15265                                             | 16271 | 18368 | 18907 | 21301 |



# Convector Ratings

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7655                                             | 9120  | 10345 | 10610 | 11400 |
|                       | 64                     | 8135                                             | 9790  | 11135 | 11400 | 12290 |
| 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 |
|                       | 60                     | 11400                                            | 13055 | 15310 | 15840 | 17425 |
|                       | 64                     | 12190                                            | 14040 | 16440 | 17065 | 18770 |
| 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 |
|                       | 60                     | 15770                                            | 16655 | 18335 | 18840 | 20375 |
|                       | 64                     | 16775                                            | 17880 | 19750 | 20330 | 21960 |

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7425                                              | 8846  | 10138 | 10398 | 11286 |
|                       | 64                     | 7891                                              | 9496  | 10912 | 11172 | 12167 |
| 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 |
|                       | 60                     | 10716                                             | 12272 | 14545 | 15048 | 17077 |
|                       | 64                     | 11459                                             | 13198 | 15618 | 16212 | 18395 |
| 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 |
|                       | 60                     | 14351                                             | 15156 | 17052 | 17521 | 19764 |
|                       | 64                     | 15265                                             | 16271 | 18368 | 18907 | 21301 |

# Convector Ratings

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | SLOPE TOP, FREE STANDING, NOMINAL HEIGHT<br>*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<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | SLOPE TOP, FREE STANDING, NOMINAL HEIGHT<br>*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 |

# Convector Ratings

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7655                                             | 9120  | 10345 | 10610 | 11400 |
|                       | 64                     | 8135                                             | 9790  | 11135 | 11400 | 12290 |
| 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 |
|                       | 60                     | 11400                                            | 13055 | 15310 | 15840 | 17425 |
|                       | 64                     | 12190                                            | 14040 | 16440 | 17065 | 18770 |
| 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 |
|                       | 60                     | 15770                                            | 16655 | 18335 | 18840 | 20375 |
|                       | 64                     | 16775                                            | 17880 | 19750 | 20330 | 21960 |

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 |
|                       | 60                     | 7425                                              | 8846  | 10138 | 10398 | 11286 |
|                       | 64                     | 7891                                              | 9496  | 10912 | 11172 | 12167 |
| 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 |
|                       | 60                     | 10716                                             | 12272 | 14545 | 15048 | 17077 |
|                       | 64                     | 11459                                             | 13198 | 15618 | 16212 | 18395 |
| 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 |
|                       | 60                     | 14351                                             | 15156 | 17052 | 17521 | 19764 |
|                       | 64                     | 15265                                             | 16271 | 18368 | 18907 | 21301 |

# Convector Ratings

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

| DEPTH<br>IN<br>INCHES | LENGTH<br>IN<br>INCHES | FRONT OUTLET, NOMINAL LINER HEIGHT<br>*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 hot water capacity tables on page 8 thru 12 which list capacities at the conditions for the job, for the model convector required.
4. Locate in table the required capacity and read convector size from columns showing Depth, Length, Height.
5. To calculate ratings for temperatures not listed, use correction factors from Table 3 for desired AWT and multiply by 215°F rating.

**Table 4**

| CORRECTION FACTORS FOR STEAM PRESSURES OTHER THAN 1 PSI GAUGE*                                    |                    |      |      |      |      |      |
|---------------------------------------------------------------------------------------------------|--------------------|------|------|------|------|------|
|                                                                                                   | PRESSURE PSI GAUGE |      |      |      |      |      |
|                                                                                                   | 5                  | 10   | 15   | 20   | 25   | 50   |
| FACTOR                                                                                            | 1.12               | 1.25 | 1.36 | 1.46 | 1.56 | 1.93 |
| 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<br>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<br>Non-Standard Access Door Locations |       |        |       | Semi-Recessed or Fully Recessed<br>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  | 0.850 |
| 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         |

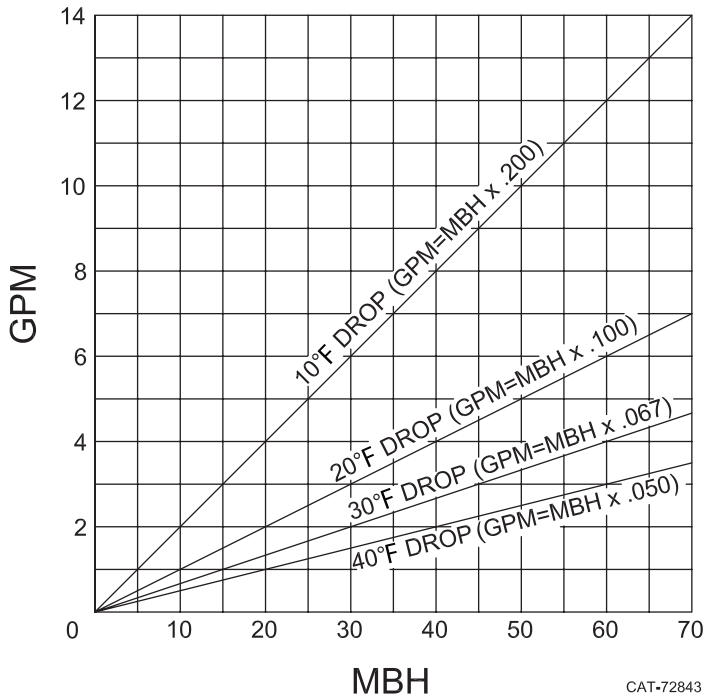
Charted figures showing pressure drop through Convectors with forced hot water. Used for determining pressure head requirement. Based on 64" length units, but applicable to shorter units, as most loss is due to headers.

**REFER TO PAGE 22 FOR  
ELEMENT & PIPING INFORMATION**

# Miscellaneous Capacity and Selection Data

## GALLONS PER MINUTE OF HOT WATER REQUIRED

**Table 7**



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

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 (0.25 Ft./Sec.) | MBH Based on TD & Minimum Flow Rate |       |       |       |
|-----------------|-------------------|-----------------------------------|-------------------------------------|-------|-------|-------|
|                 |                   | GPM                               | 10TD                                | 20TD  | 30TD  | 40TD  |
| 4               | 2                 | .15                               | 0.750                               | 1.500 | 2.250 | 3.000 |
| 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.

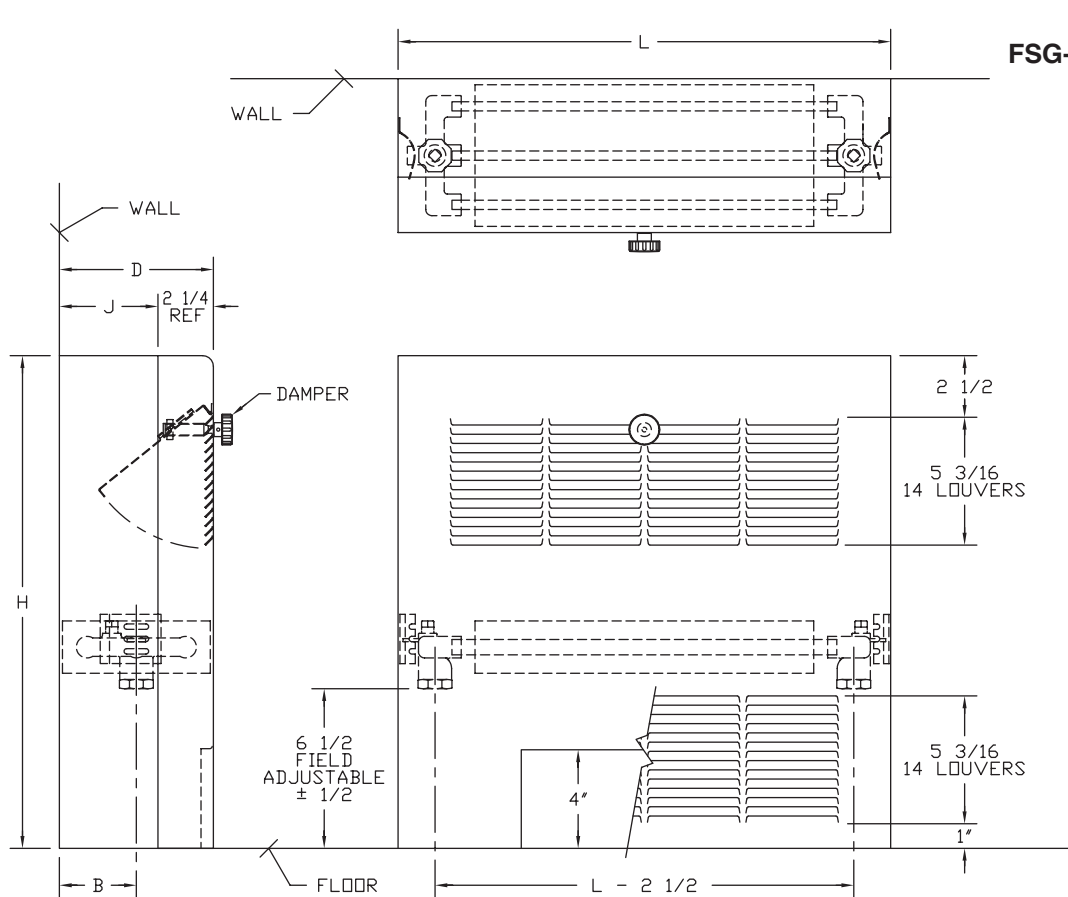


# Convector Design/Installation Data

## TYPE FS-A / FSG-A

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

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



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

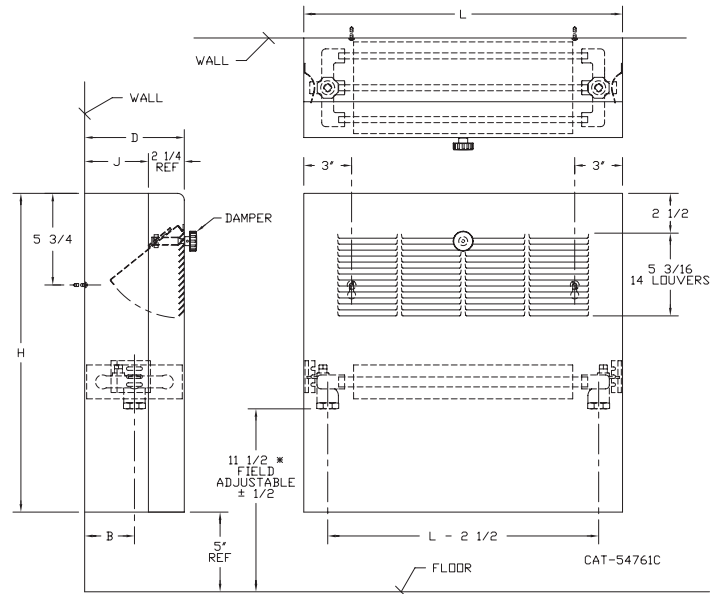
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# Convector Design/Installation Data

**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 |       |   |



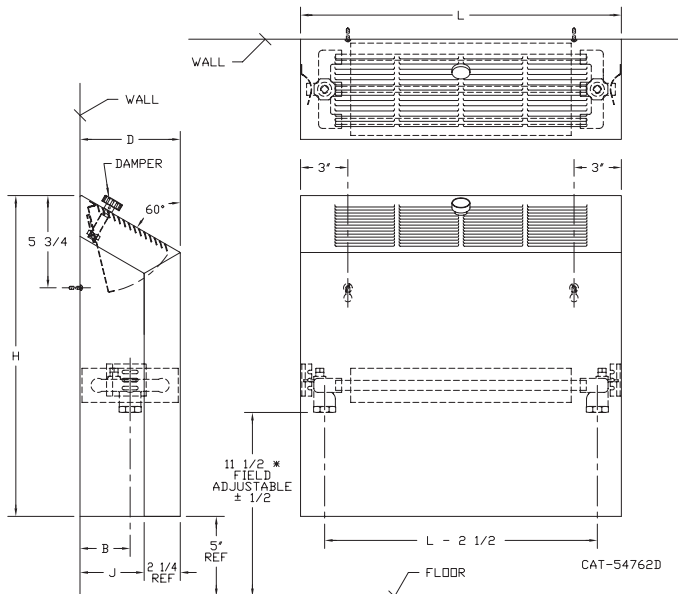
\* 7-1/2" For 14" High Units

**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.

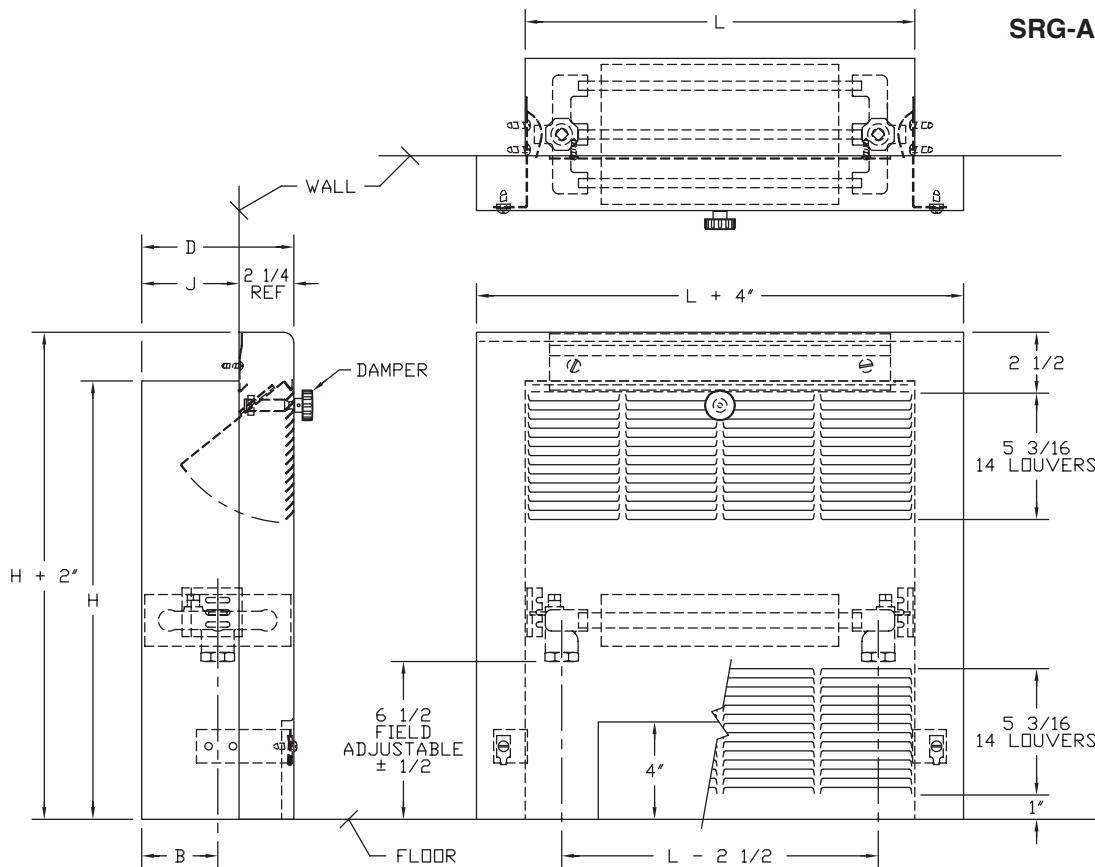
# Convector Design/Installation Data

## 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**



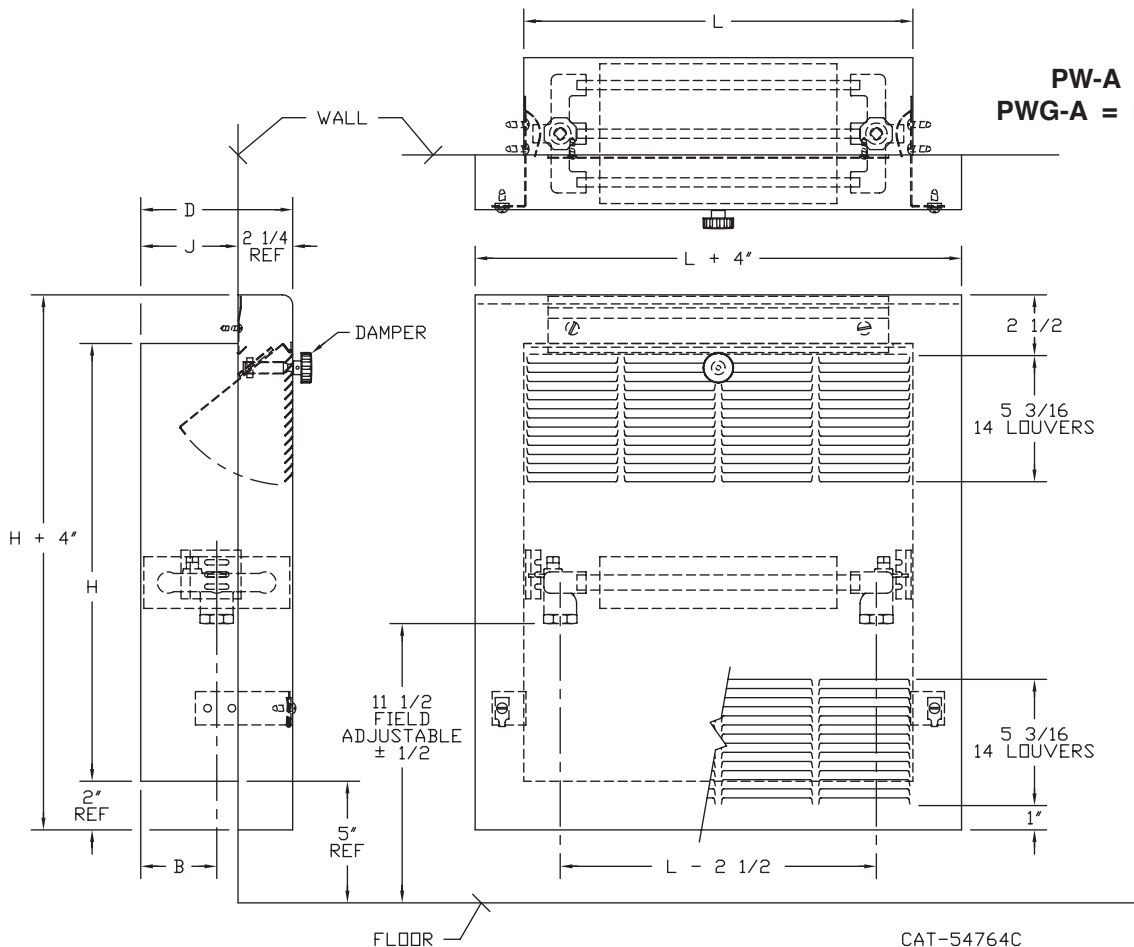
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# Convector Design/Installation Data

## 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.



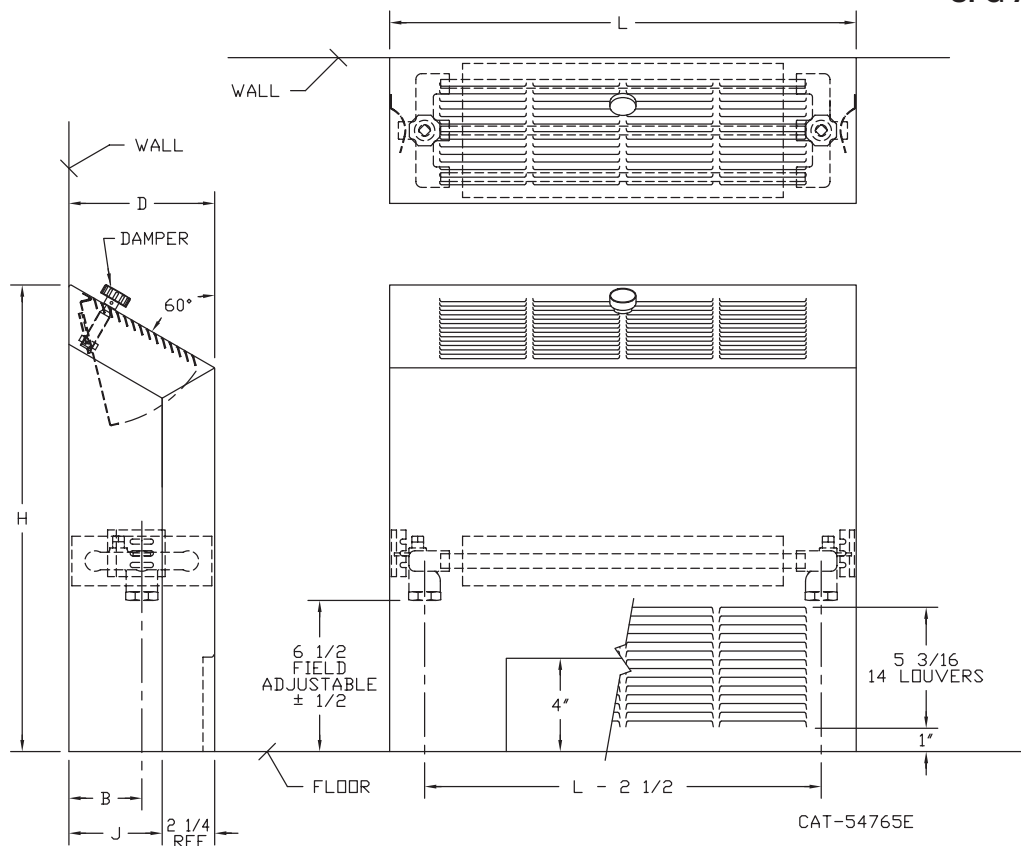
# Convector Design/Installation Data

## TYPE SF-A / SFG-A

| MODEL  | D     | L         | H  | B     | J |
|--------|-------|-----------|----|-------|---|
| 4xx-18 | 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.

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



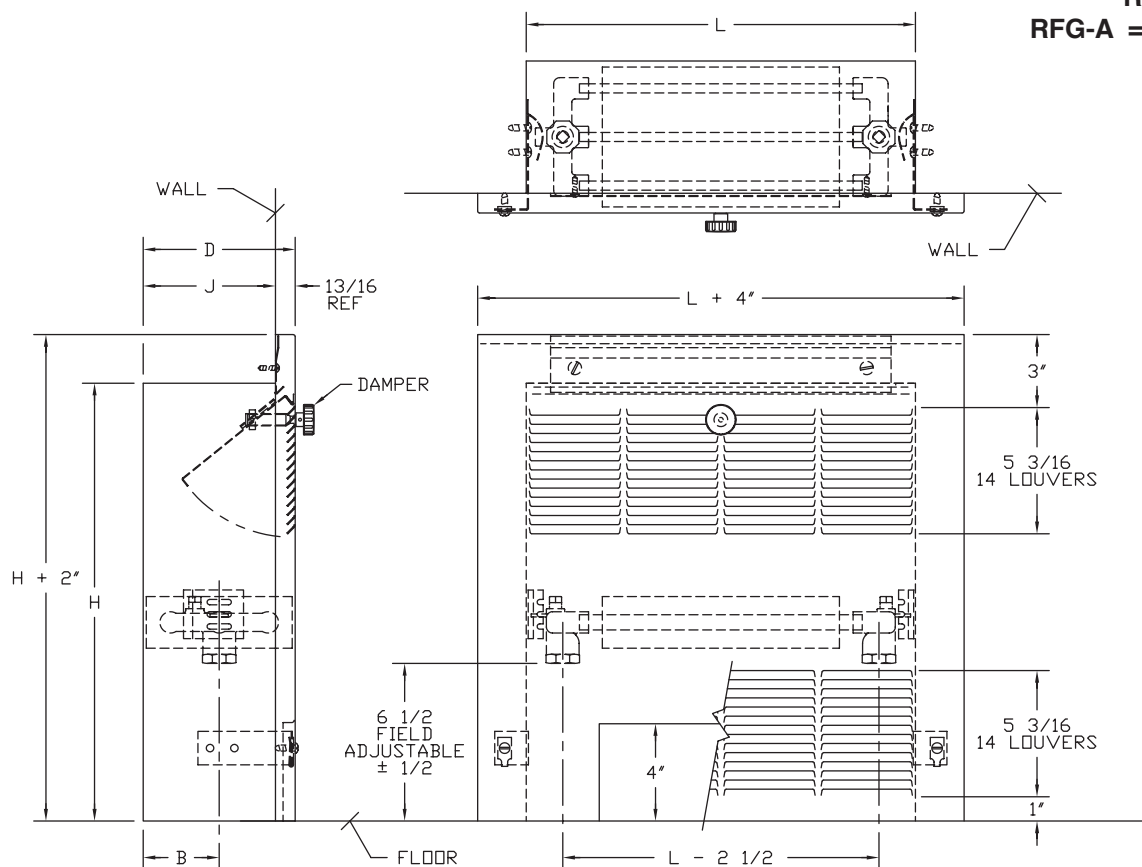
# Convector Design/Installation Data

## TYPE RF-A / RFG-A

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



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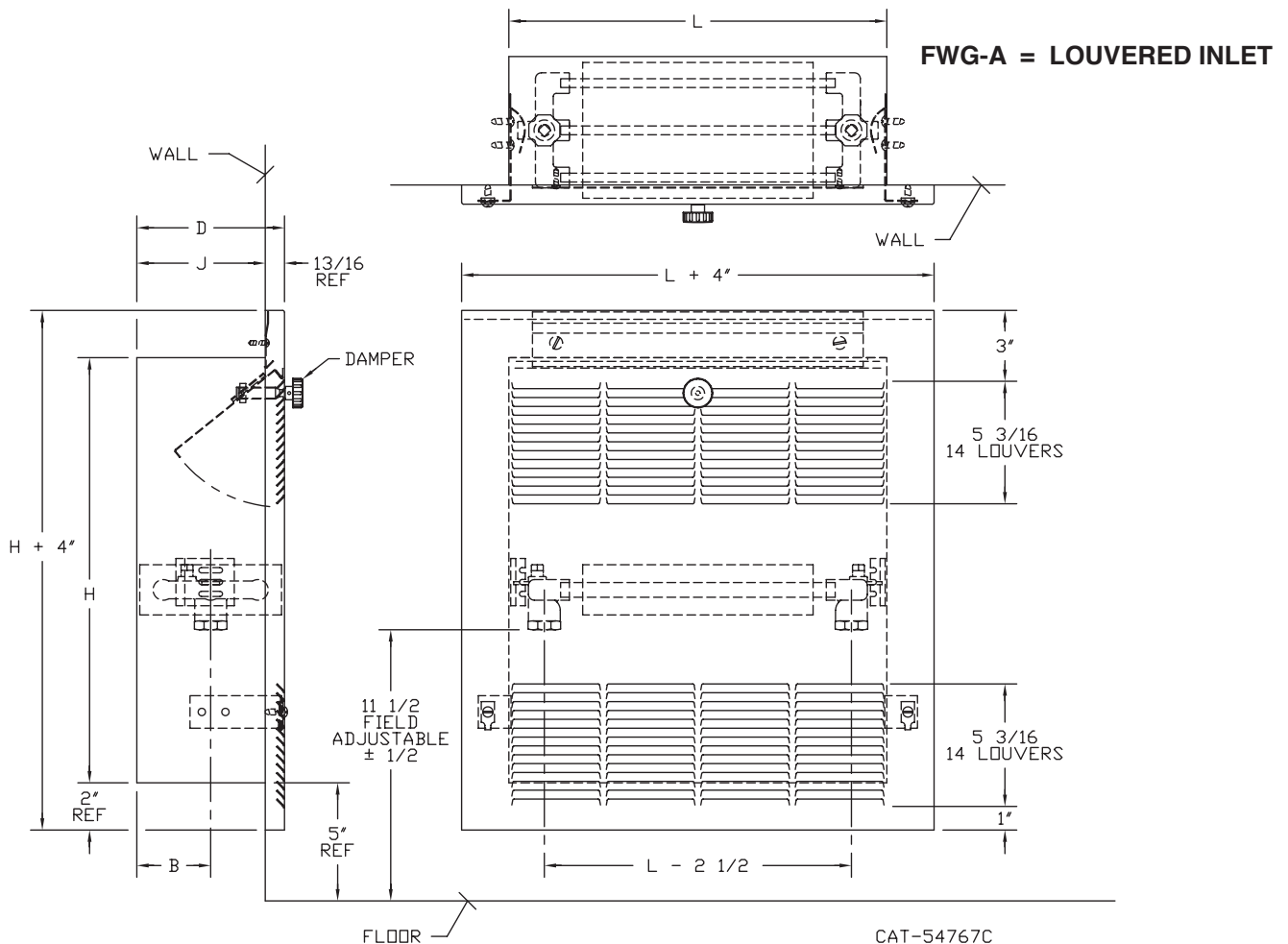


# Convector Design/Installation Data

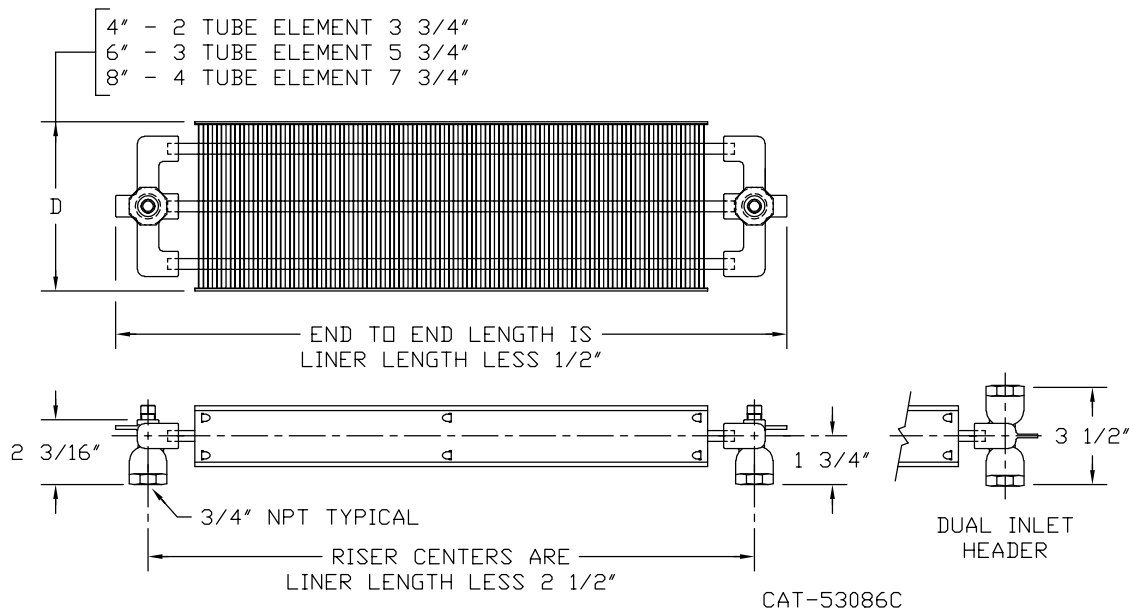
## TYPE FWG-A

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

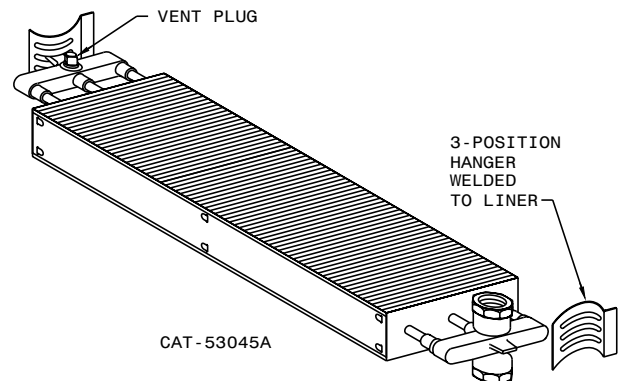
**NOTE: Order by Liner Dimensions — L x H.**  
When adding end pockets, liner and front length increase.



# Convector Design/Installation Data



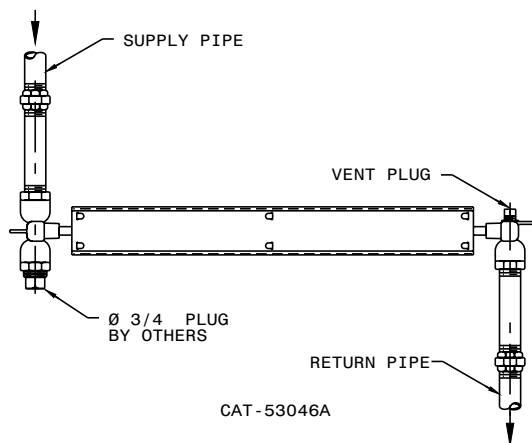
**NOTE:** When ordering convectors with end pockets, always refer to the standard unit length. The overall physical length will increase by 4" for each end pocket. The coil length will remain the standard size. Coil fins are 2 1/2" high by width shown above and are mechanically bonded to copper tube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



Non-ferrous convector 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

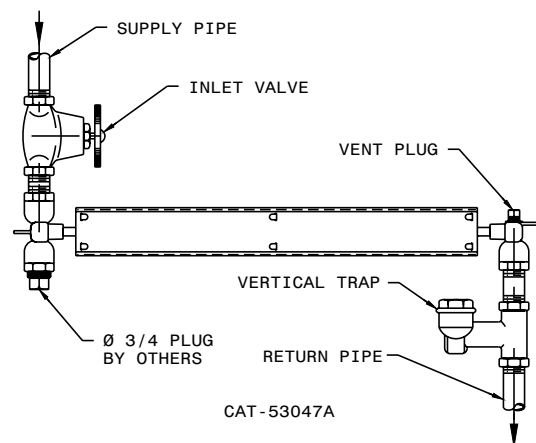
is supplied with a 1/4" NPT galvanized plug. All elements have steel side plates for appearance and strength. Standard heating element is supplied with two single 3/4" NPT headers. An optional dual inlet header is available. This allows for piping to come in from the top or bottom of element. Specify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



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