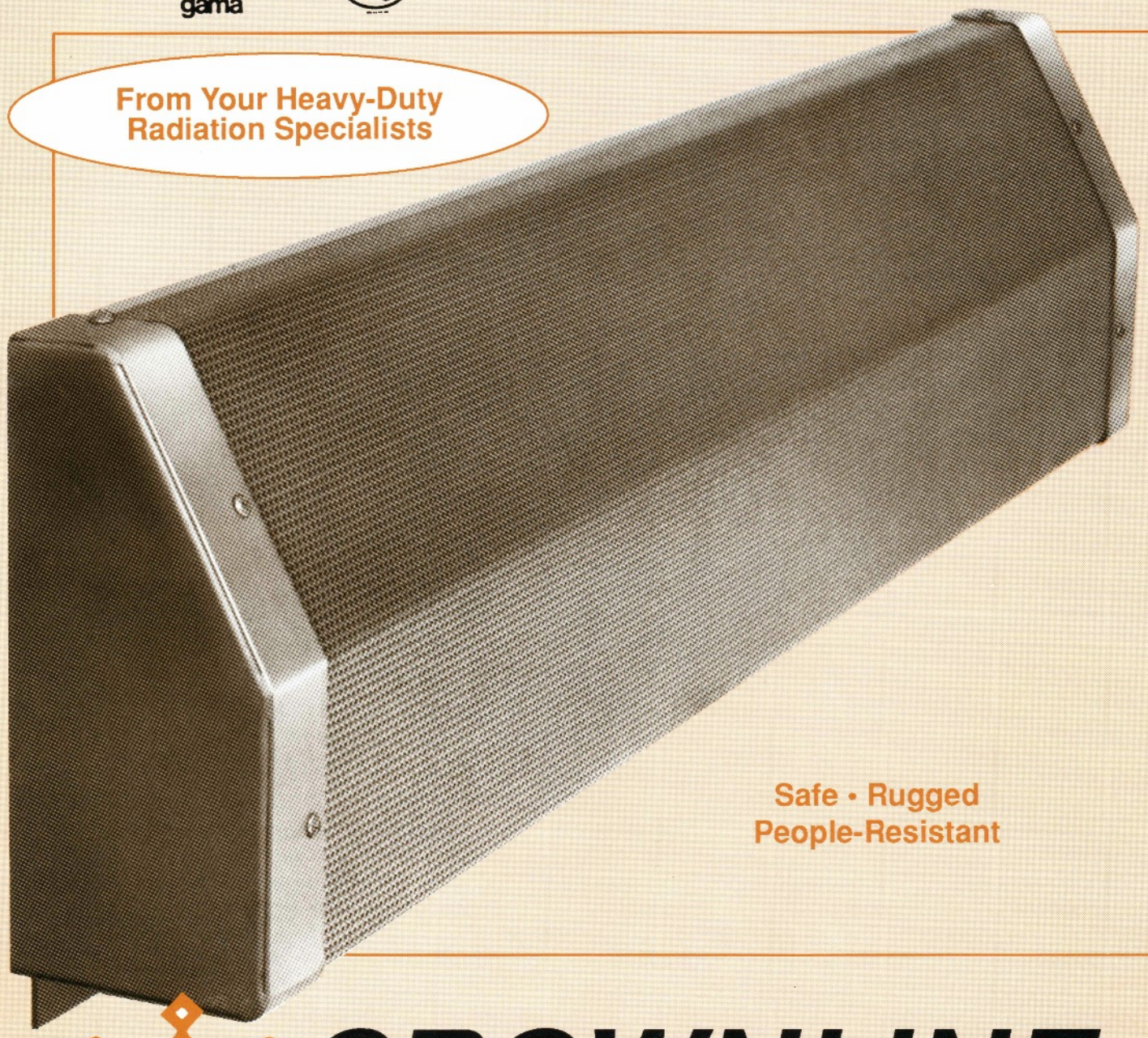
member gama

I=B=R

From Your Heavy-Duty Radiation Specialists



Safe • Rugged
People-Resistant

CROWNLINE

SUPER-SAFE FIN-TUBE RADIATION

Shaw-Perkins

CROWNLINE
The industry's standard

Shaw-Perkins 12 gauge Crownline fin tube radiation sets the industry standard when architects and engineers need to specify strong, durable, people-resistant heating radiation. Since it's introduction more than 30 years ago, uses for Crownline have expanded to take in all types of institutional, public housing, commercial and industrial applications – wherever people-resistant heating products are needed.

Shaw-Perkins' reputation and dedication to manufacturing the highest quality and strongest heating radiation are known by professional architects and engineers throughout the United States.

From the narrow top, which offers the smallest possible shelf on which to stand, through the heavy 12 gauge steel enclosure, our design aim has been strength and security with high performance.

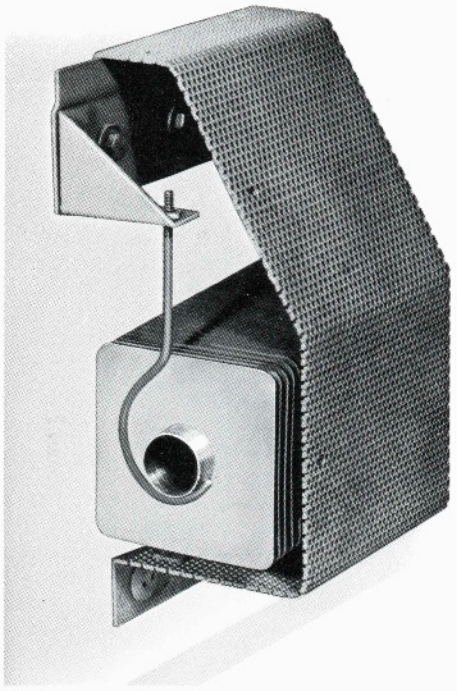
Shaw-Perkins' uncompromising emphasis on quality, translated into strength and performance, results in our offering a single class of quality - the very best. 12 gauge fin tube enclosures are 40% heavier than any other products commercially available.

Since 1904 Shaw-Perkins has been providing durable radiation for comfortable, efficient heating. Commerical, industrial and institutional installations, made decades back and still functioning satisfactorily, attest to the permanence and dependability of the product.

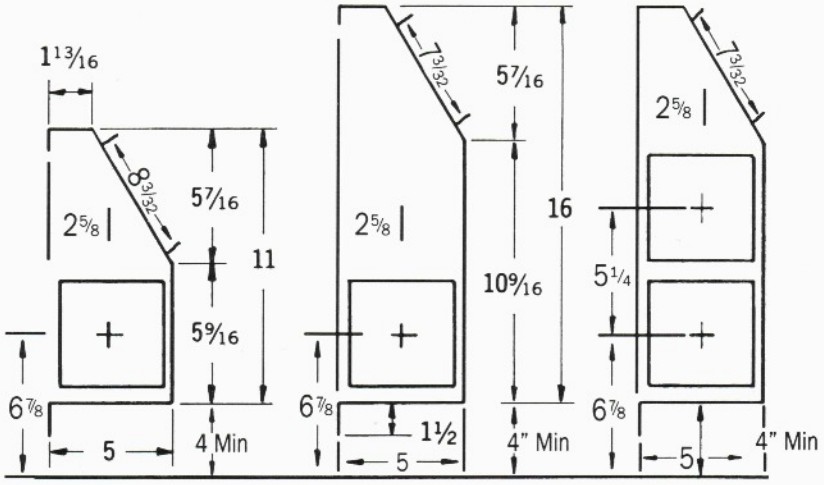
The need for people-resistant strength is of greater importance today; strength which also assures long-lasting, maintenance-free radiation. Shaw-Perkins offers Crownline fin-tube radiation, a series designed to withstand normal or deliberate destruction.

CROWNLINE

Design Features



WIDTH OF OUTLET FOR PP ENCLOSURES



Model SCL & SCL-PP

Model DCL-1 & DCL-1-PP

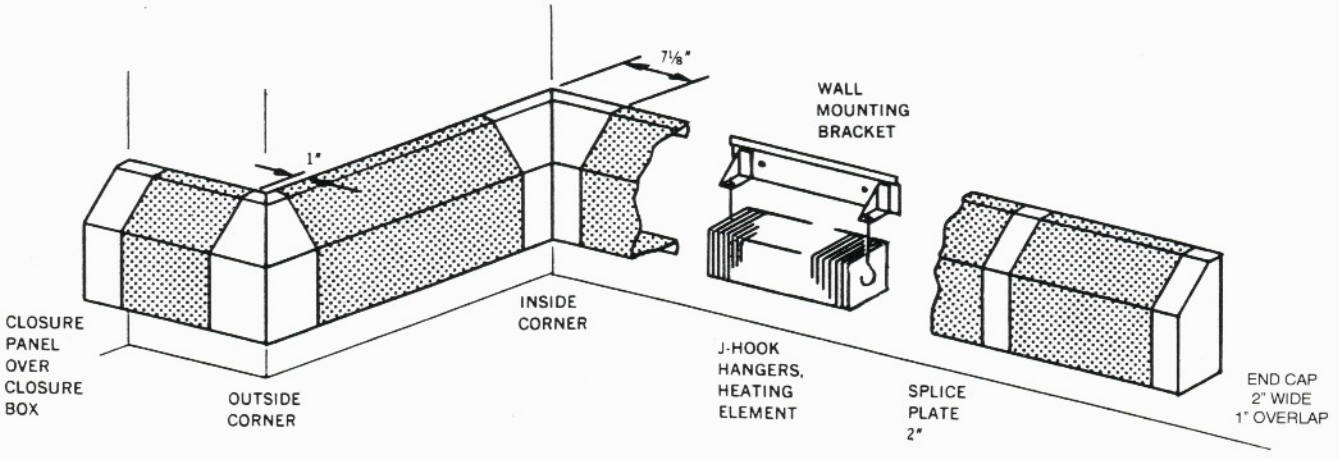
Model DCL-2 & DCL-2-PP

The *CROWNLINE* Enclosure

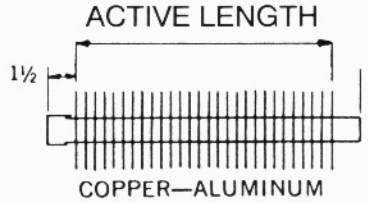
- 12 gauge steel partially perforated or fully perforated – 1/8" ø holes
- Inaccessible to debris, contraband, narcotics, weapons
- Tamper-proof - all visible fasteners are tamper-proof type
- Low Surface Temperature - minimizes possibility of accidental or intentional burns
- Slope-top design - smallest possible shelf on which to stand

Accessories

- End caps, splice plates, closure panels, corner panels, etc.
- 14 gauge solid steel construction
- All overlap the 12 gauge enclosure
- Secured with tamper-proof screws and weld nuts



CROWNLINE
Design Features



Heating Elements

Supply and return piping may be concealed inside enclosure

Suspension: adjustable J-hooks for element expansion, contraction and leveling.

Other heating elements available.

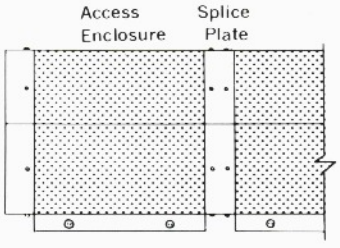
Ratings are based on active length (elements are unpainted). All fin thicknesses are .020.

These water ratings, applicable to water flow rates of three or more feet per second, have been determined by appling the factors listed in Table C-1 of the I=B=R Commercial Ratings Manual to the I=B=R= steam ratings which have been approved by the Hydronics Institute, Inc.

All Ratings I=B=R Approved						Heating Capacities, BTU/HR/FT, 65° F Inlet Air							
Tube Size	Fin Size	Fins Per Ft.	No. Tiers	Encl. Ht.	Model	215° F Steam	SQ. FT.	Average Water Temperature					
								220°	210°	200°	190°	180°	170°
3/4"	3 5/8" x 4 1/4"	50	1	16"	DCL-1-PP-16	1670	6.96	1750	1590	1440	1300	1150	1020
1 1/4"	4 1/4" x 4 1/4"	50	1	16"	DCL-1-PP-16	1810	7.54	1900	1720	1560	1410	1250	1100
1 1/4"	4 1/4" x 4 1/4"	50	2	16"	DCL-2-PP-16	2040	8.5	2140	1940	1750	1590	1410	1240
1 1/4"	4 1/4" x 4 1/4"	48	1	16"	DCL-1-PP-16	1790	7.46	1880	1700	1540	1400	1240	1090
1 1/4"	4 1/4" x 4 1/4"	48	2	16"	DCL-2-PP-16	2060	8.58	2160	1960	1770	1610	1420	1260
1 1/4"	4 1/4" x 4 1/4"	40	1	11"	SCL-PP-11	1310	5.46	1380	1240	1130	1020	900	800
1 1/4"	4 1/4" x 4 1/4"	40	1	16"	DCL-1-PP-16	1700	7.08	1790	1620	1460	1330	1170	1040
1 1/4"	4 1/4" x 4 1/4"	40	2	16"	DCL-2-PP-16	2160	9	2270	2050	1860	1680	1490	1320
1 1/4"	4 1/4" x 4 1/4"	40	1	11"	SCL-11	1430	5.96	1500	1360	1230	1120	990	870
1 1/4"	4 1/4" x 4 1/4"	40	1	16"	DCL-1-16	1500	6.25	1580	1430	1290	1170	1040	920
1 1/4"	4 1/4" x 4 1/4"	40	2	16"	DCL-2-16	2440	10.17	2560	2320	2100	1900	1680	1490

Mounting height for 16" high enclosure is 20" and 15" for the 11" high enclosure.

Valve Access Panel

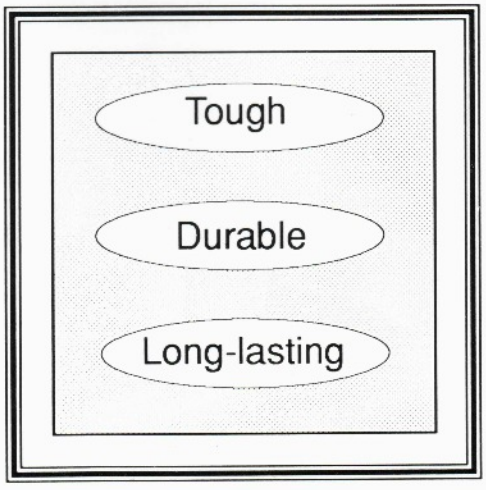


To Remove Access Enclosure

a. Remove splice plate fasteners (4)
b. Remove bottom flange bolts
c. Slide away - lift off

12 Gauge Steel Shaw-Perkins standard of quality

12 gauge is 80% heavier than 16 gauge and 40% heavier than 14 gauge.



Fasteners

By Installer

A. Standard bolt for Wall Mounting Bracket which has 1/2" diameter slotted holes.
Expansion shields, toggle bolts, etc.

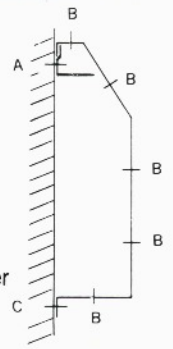
C. Security bolt, 1/4" ø or larger

By Shaw-Perkins

Security, tamper-proof type

B. #10-24

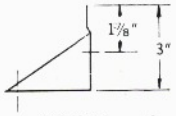
Other type security bolts available.



Tamper-proof screw

Mounting

The method of mounting is as critical as enclosure strength.



Wall Mounting Bracket

14 gauge steel wall mounting bracket
- full length of enclosure and accessories
- available only in 14 gauge and in full lengths
- clamps top flange of enclosure directly against wall

Bottom flange of enclosure (12 gauge solid steel) bolted directly into the main source of anchoring - the wall. Use a 1/4" x 2" security bolt. (By others)

Pedestal floor mounting available.
Full back plate available.

Specifications

Furnish and install where shown on drawings and schedules slope-top, 12 gauge fully or partially perforated heavy-duty enclosure with fin-tube heating element. All capacities shall be IBR approved ratings. Units shall be IBR approved as a complete assembly including element and cover. Radiation shall be installed in strict accordance with manufacturer's recommendations.

The enclosure shall be 12 gauge steel with 1/8" diameter perforations on 3/16" staggered centers in either a fully perforated (entire enclosure) or a partial perforated (inlet and outlet) pattern as specified. The enclosure shall be secured to the wall at the top by means of a pre-punched, continuous, steel mounting bracket and, at the bottom by the use of tamper-proof security bolts, (supplied by others) 1/4" diameter minimum. The enclosure shall be flush to the wall, top and bottom, and shall not use mounting brackets lighter than 14 gauge.

All accessories, (end caps, splice plates, inside and outside corners, closure boxes and plates, etc.) shall be 14 gauge non-perforated steel, shall be overlapping and shall be fastened with tamper-proof security screws.

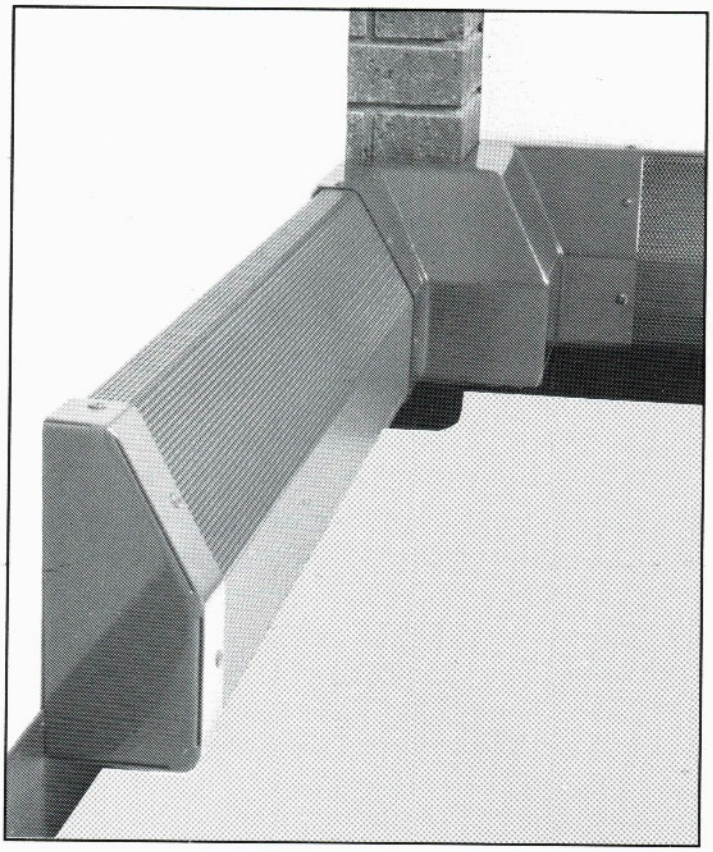
Heating elements shall be suspended by adjustable J-hooks attached to wall mounting brackets.

Non-ferrous heating elements shall consist of aluminum fins, bonded to copper tube by mechanical expansion. Ferrous heating elements shall be steel fins bonded to steel pipe.

Radiation shall have a factory dipped prime coat of pain/or a factory finish coat of primer and paint

WARRANTY

Shaw-Perkins' Crownline is warranted against defects in material and workmanship for a period of one (1) yea· from date of shipment. Products returned to the factory will have to be sent freight prepaid by the purchaser, with prior permission. If found defective, it will be repaired or replaced F.O.B. the factory. Under no conditions shall the company be held liable for damages or repair costs for equipment that has been altered or repaired, subject to misuse, negligence, or operating conditions in excess of those stated in Shaw-Perkins' catalogs.



For hot-water or steam heating equipment and a need for ruggedness - specify Shaw-Perkins.

TABLE C-1

Factors Used to Convert I=B=R Steam Ratings to Hot Water Ratings at Temperatures Indicated

Average Radiator Temperature	Factor
150	0.45
155	0.49
160	0.53
165	0.57
170	0.61
175	0.65
180	0.69
185	0.73
190	0.78
195	0.82
200	0.86
205	0.91
210	0.95
215	1.00
220	1.05
225	1.09
230	1.14
235	1.20
240	1.25

SHAW PERKINS VERSION OF TABLE B

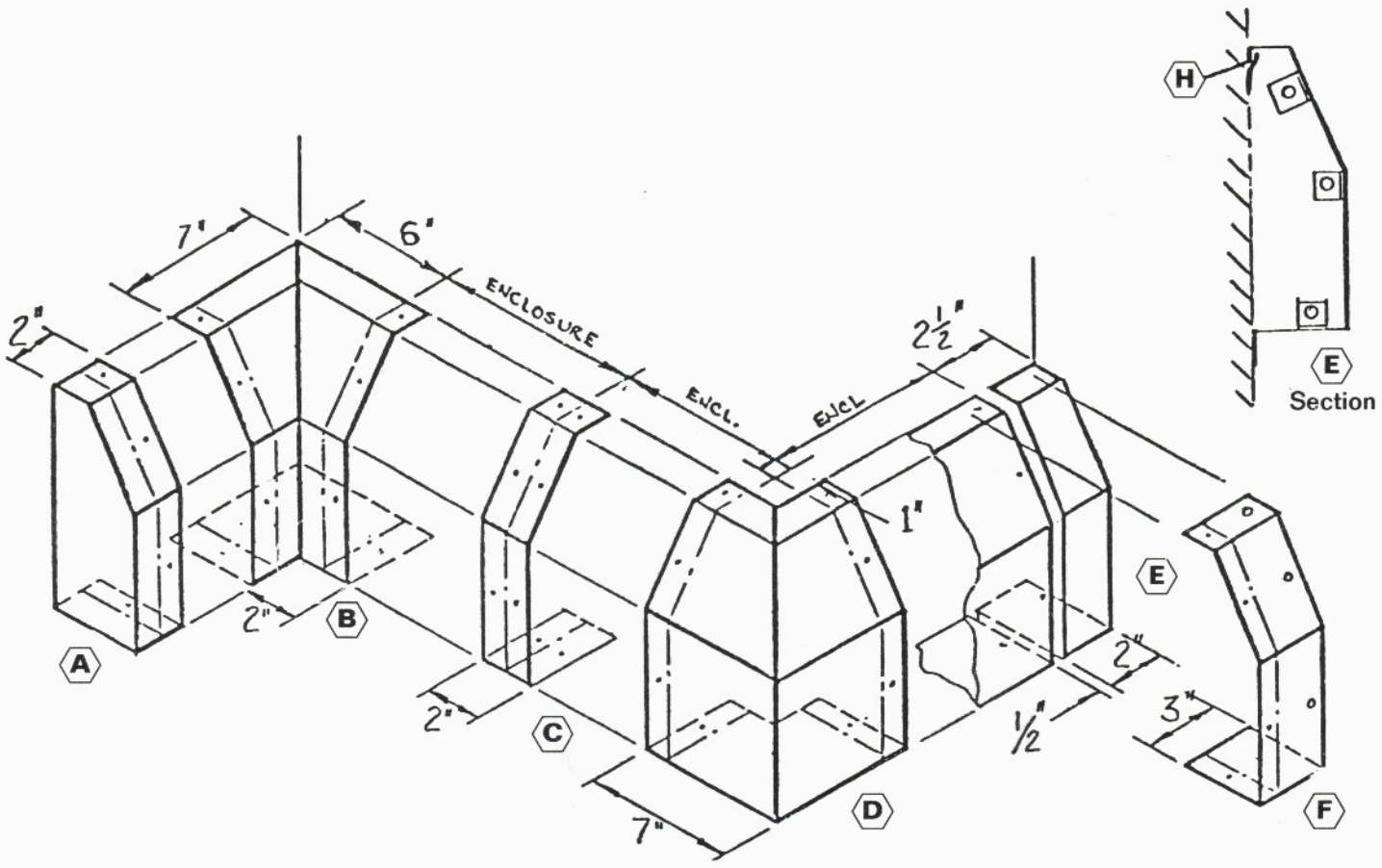
The I=B=R Rating includes the factor shown in Table B below for the recommended mounting height.

Mounting Height DCL-1-PP-16 DCL-2-PP-16	Mounting Height DCL-2-16 SCL-PP-11 SCL-11	Factor	Mounting Height DCL-1-16	Factor
38 or more	39 or more	1.00	41 or more	1.00
36	37	1.01	39	1.01
34	35	1.01	37	1.01
32	33	1.02	35	1.02
31	32	1.02	34	1.03
30	31	1.03	33	1.04
29	30	1.03	32	1.04
28	29	1.04	31	1.05
27	28	1.04	30	1.06
26	27	1.05	29	1.07
25	26	1.05	28	1.07
24	25	1.06	27	1.08
23	24	1.06	26	1.09
22	23	1.07	25	1.10
21	22	1.07	24	1.10
20 or less	21 or less	1.075	23 or less	1.11

"If the unit is to be installed at a different height than that recommended, the I=B=R Rating must be adjusted as follows: I=B=R Rating multiplied by:

$$\frac{\text{Factor from Table B for the actual mounting height}}{\text{Factor from Table B for the recommended mounting height}}$$

SHAW-PERKINS ASSEMBLY INSTRUCTIONS FOR CROWNLINE



All accessories except Closure Box (E) overlap enclosure 1" and are fastened to enclosure with four #10-24 x 1/2" security screws. Screws and drivers by Shaw-Perkins.

(A)	END CAPS
(B) & (D)	CORNERS
(C)	SPLICE PLATE
(E)	CLOSURE BOX
(F)	CLOSURE PLATE
(H)	MOUNTING BRACKET

STEP 1: Strike level line on wall at required enclosure height. Install mounting bracket(s) (H) level with line. If multiple mounting brackets are required, it is essential they are aligned properly or assembly will be difficult. Due to irregularities in walls, the installer may have to shim behind wall mounting bracket (H) to maintain 1/8" opening at top of bracket to allow enclosure to seat properly (shim and mounting bolts by installer).

STEP 2: Install hanger brackets and J-hooks on approximately 36" centers. Hanger brackets mount thru hole on wall mounting bracket (H). J-Hooks installed with retaining clips thru hole in hanger bracket. (Use all hanger brackets and J-hooks provided).

STEP 3: Locate and install closure box (E) in proper location (Mounting bolts by installer).

STEP 4: Hang enclosure on wall mounting bracket assuring that enclosure has bottomed out on wall mounting bracket.

STEP 5: Assemble all splice plates (C), closure plates (F), corners (D&B) and end caps (A) to enclosure. *DO NOT tighten down screws until all parts are installed.* Minor adjustments may be required.

STEP 6: Drill mounting holes in wall using enclosure for template and install anchors and security bolts (by others). Tighten all bolts.

STEP 7: Fasten closure plate (F) to enclosure. Installer to drill and tap through plate into box and fasten with security screws.

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Represented by: