



## SHA & DBA SERIES ARCHITECTURAL SILL-HEIGHT CONVECTION HEATERS

Selection, beauty, and performance — in a wide range of models, ratings and accessories for use in offices, corridors, lobbies and similar facilities. These units are not, however, designed for residential use.

Architectural styling incorporates a patented “Stair-Step” heating element arrangement in two- and three-element SHA heaters for more efficient heat distribution. (See line drawing below.)

Unique “Snap-Lock” closure design secures the one-piece extruded aluminum top and front grilles to the one-piece back and bottom. This closure method provides a rapid, secure fit all along the length of the unit.

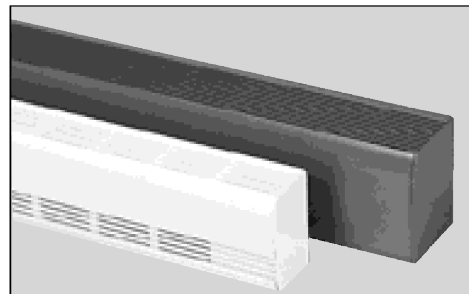
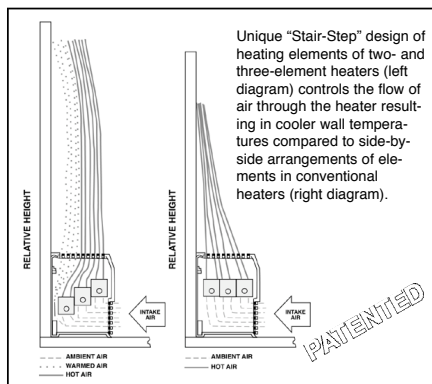
Units can be wall-to-wall or mounted as discrete units in standard lengths of 28 inches to ten feet. Custom length cabinets with single or multiple heat decks are available, as are pedestal mounts.

Standard units are equipped with a built-in wireway (equivalent to 3/4” conduit) with factory-installed wiring which permits multiple heater connections. Units are designed for either right or left hand entry for easy connection of supply wiring from bottom, rear or end, as well as multiple wiring of adjacent heaters from one entry point.

Optional built-in controls include: line-voltage thermostat; two-stage thermostat; disconnect switch; transformer relay; power relay and pneumatic/switch.

*\* DBA Models are approved for residential use.*

(Refer to specifications.)



### CABINET STYLES

Two cabinet styles are available. The DBA is 3-5/8” x 6” and is available with one heating element. The SHA is 5-3/8” x 7” and is available with one, two, or three-elements. Both sizes are available in two versions: front-in top-out, and bottom-in top-out.



File #E37116

## DBA & SHA SELECTION CHARTS

CATALOG NUMBER	LENGTH "L"	WATTS PER FT.	TOTAL WATTS	AMPERAGE					
				120V	208V	240V	277V	347V	600V
02100	28" (711mm)	100	200	1.7	1.0	0.8	—	—	—
02125		125	250	2.1	1.2	1.0	0.9	—	—
02150		150	300	2.5	1.4	1.3	1.1	—	—
02188		188	376	3.1	1.8	1.6	1.4	—	—
02250		250	500	4.2	2.4	2.1	1.8	1.4	—
03100	3' (914mm)	100	300	2.5	1.4	1.3	1.1	—	—
03125		125	375	3.1	1.8	1.6	1.4	1.1	—
03150		150	450	3.8	2.2	1.9	1.6	1.3	—
03188		188	564	4.7	2.7	2.4	2.0	1.6	—
03250		250	750	6.3	3.6	3.1	2.7	2.2	—
04100	4' (1219mm)	100	400	3.3	1.9	1.7	1.4	1.2	—
04125		125	500	4.2	2.4	2.1	1.8	1.4	—
04150		150	600	5.0	2.9	2.5	2.2	1.7	—
04188		188	752	6.3	3.6	3.1	2.7	2.2	1.3
04250		250	1000	8.3	4.8	4.2	3.6	2.9	1.7
05100	5' (1524mm)	100	500	4.2	2.4	2.1	1.8	1.4	0.8
05125		125	625	5.2	3.0	2.6	2.3	1.8	1.0
05150		150	750	6.3	3.6	3.1	2.7	2.2	1.3
05188		188	940	7.8	4.5	3.9	3.4	2.7	1.6
05250		250	1250	10.4	6.0	5.2	4.5	3.6	2.1
06100	6' (1829mm)	100	600	5.0	2.9	2.5	2.2	1.7	1.0
06125		125	750	6.3	3.6	3.1	2.7	2.2	1.3
06150		150	900	7.5	4.3	3.8	3.2	2.6	1.5
06188		188	1128	9.4	5.4	4.7	4.1	3.3	1.9
06250		250	1500	12.5	7.2	6.3	5.4	4.3	2.5
07100	7' (2134mm)	100	700	—	3.4	2.9	2.5	2.0	1.2
07125		125	875	—	4.2	3.6	3.2	2.5	1.5
07150		150	1050	—	5.0	4.4	3.8	3.0	1.8
07188		188	1316	—	6.3	5.5	4.8	3.8	2.2
07250		250	1750	—	8.4	7.3	6.3	5.0	2.9
08100	8' (2438mm)	100	800	—	3.8	3.3	2.9	2.3	1.3
08125		125	1000	—	4.8	4.2	3.6	2.9	1.7
08150		150	1200	—	5.8	5.0	4.3	3.5	2.0
08188		188	1504	—	7.2	6.3	5.4	4.3	2.5
08250		250	2000	—	9.6	8.3	7.2	5.8	3.3
09100	9' (2743mm)	100	900	—	4.3	3.8	3.2	2.6	1.5
09125		125	1125	—	5.4	4.7	4.1	3.2	1.9
09150		150	1350	—	6.5	5.6	4.9	3.9	2.3
09188		188	1692	—	8.1	7.1	6.1	4.9	2.8
09250		250	2250	—	10.8	9.4	8.1	6.5	3.8
10100	10' (3048mm)	100	1000	—	4.8	4.2	3.6	2.9	1.7
10125		125	1250	—	6.0	5.2	4.5	3.6	2.1
10150		150	1500	—	7.2	6.3	5.4	4.3	2.5
10188		188	1880	—	9.0	7.8	6.8	5.4	3.1
10250		250	2500	—	12.0	10.4	9.0	7.2	4.2

SHA single element heaters are not cUL listed.

## OPTIONAL BUILT-IN CONTROLS

(FOR MODELS DBA AND SHA CONVECTORS)

To develop a model number for a heater with built-in controls, add the appropriate letters as suffix to the basic heater model number.

SUFFIX ADDITION TO BASIC CAT. NO	OPTIONAL BUILT-IN CONTROL	RATINGS
DS	Disconnect Switch	Double-pole, rated 20 amps @ 120-277 VAC. Single-phase heaters under 20A. (SEE NOTE A.)
T	Single-Pole Thermostat	Rated 24 amps @ 120-240 VAC and 22 amps @ 277 VAC. Pilot duty rating of 125 VA (all voltages). 60-120°F temperature range; adjustable through outlet grille—tamper-resistant. No available on three-phase heaters. (SEE NOTE B.)
2T	Two-Pole Thermostat	Rated 24 amps @ 120-240 VAC and 22 amps @ 277 VAC. Pilot duty rating of 125 VA (all voltages). 60-120°F temperature range; adjustable through outlet grille—tamper-resistant. Use 2ST on three-phase heaters. (SEE NOTE B.)
2ST	Two-Stage Thermostat	Rated 24 amps @ 120-240 VAC and 22 amps @ 277 VAC. Pilot duty rating of 125 VA (all voltages). 60-120°F temperature range; adjustable through outlet grille—tamper-resistant. Available on two- or three-phase element heaters only. (SEE NOTE B.)
PDT	Single-Pole Pilot Duty Thermostat	Same control as T option except wired in the control circuit of one transformer relay or one, two or three power relays. (SEE NOTE C.)
2TPD	Two-Stage Pilot	Same control as 2ST option except wired in the control circuit of one transformer relays or two or three power relays. (SEE NOTE D.)
TR	Transformer Relay	Single-pole, low-voltage relay with built-in transformer (24 VAC control), rated 25 amps @ 120-240 VAC, 22 amps @ 277 VAC, 17 amps @ 347 VAC and 12 amps @ 600 VAC. (SEE NOTE C.)
PR	Power Relay	Single-pole magnetic relay, rated 25 amps @ 120-277 VAC. Specify control voltage and source (internal or external). (SEE NOTE D.)
PE	Pneumatic/ Electric Switch	Pressure set-point @ 10 PSIG adjustable to 30 PSIG. Can be set to "make" or "break" on pressure drop. Rated 25 amps @ 120-277 VAC. (SEE NOTE E.)

CATALOG NUMBER	LENGTH "L"	WATTS PER FT.	TOTAL WATTS	AMPERAGE						
				208V		240V		277V		600V
				1 Ph.	3 Ph.	1 Ph.	3 Ph.	1 Ph.	1 Ph.	1 Ph.
02375	28" (711mm)	375	750	3.6	—	3.1	—	2.7	—	—
02500		500	1000	4.8	—	4.2	—	3.6	2.9	—
02600		600	1200	5.8	3.3	5.0	2.9	4.3	—	—
02750*		750	1500	7.2	4.2	6.3	3.6	5.4	4.3	—
03375		3' (914mm)	375	1125	5.4	—	4.7	—	4.1	—
03500	500		1500	7.2	—	6.3	—	5.4	4.3	—
03600	600		1800	8.7	5.0	7.5	4.3	6.5	—	—
03750*	750		2250	10.8	6.3	9.4	5.4	8.1	6.5	—
04375	4' (1219mm)		375	1500	7.2	—	6.3	—	5.4	4.3
04500		500	2000	9.6	—	8.3	—	7.2	5.8	3.3
04600		600	2400	11.5	6.7	10.0	5.8	8.7	6.9	—
04750*		750	3000	14.4	8.3	12.5	7.2	10.8	8.6	5.0
05375		5' (1524mm)	375	1875	9.0	—	7.8	—	6.8	5.4
05500	500		2500	12.0	—	10.4	—	9.0	7.2	4.2
05600	600		3000	14.4	8.3	12.5	7.2	10.8	8.6	5.0
05750*	750		3750	18.0	10.4	15.6	9.0	13.5	10.8	6.3
06375	6' (1829mm)		375	2250	10.8	—	9.4	—	8.1	6.5
06500		500	3000	14.4	—	12.5	—	10.8	8.6	5.0
06600		600	3600	17.3	10.0	15.0	8.7	13.0	10.4	6.0
06750*		750	4500	21.6	12.5	18.8	10.8	16.2	13.0	7.5
07375		7' (2134mm)	375	2625	12.6	—	10.9	—	9.5	7.6
07500	500		3500	16.8	—	14.6	—	12.6	10.1	5.8
07600	600		4200	20.2	11.7	17.5	10.1	15.2	12.1	7.0
07750*	750		5250	25.2	14.6	21.9	12.6	19.0	15.1	8.8
08375	8' (2438mm)		375	3000	14.4	—	12.5	—	10.8	8.6
08500		500	4000	19.2	—	16.7	—	14.4	11.5	6.7
08600		600	4800	23.1	13.3	20.0	11.6	17.3	13.8	8.0
08750*		750	6000	28.8	16.7	25.0	14.5	21.7	17.3	10.0
09375		9' (2743mm)	375	3375	16.2	—	14.1	—	12.2	9.7
09500	500		4500	21.6	—	18.8	—	16.2	13.0	7.5
09600	600		5400	26.0	15.0	22.5	13.0	19.5	15.6	9.0
09750*	750		6750	32.5	18.8	28.1	16.3	24.4	19.5	11.3
10375	10' (3048mm)		375	3750	18.0	—	15.6	—	13.5	10.8
10500		500	5000	24.0	—	20.8	—	18.1	14.4	8.3
10600		600	6000	28.8	16.7	25.0	14.5	21.7	17.3	10.0
10750*		750	7500	36.1	20.8	31.3	18.1	27.1	21.6	12.5

\*Bottom Inlet Only

### NOTES

- For single-phase loads over 20A and all 3-phase loads, specify two disconnect switches.
- This control option is not available on single-phase heaters over 24 amps (22 amps on 277 VAC). In combination with the disconnect switch option use the 2ST thermostat option on heaters over 20 amps.
- A second transformer relay can be sequenced off the first transformer relay in the same heater. This control option is not available on 3-phase heaters.
- Up to 10 power relays in different heaters can be controlled by each stage of a two-stage pilot duty thermostat.
- Fits SHA only. For DBA, PE will be installed in 4-1/2" section.

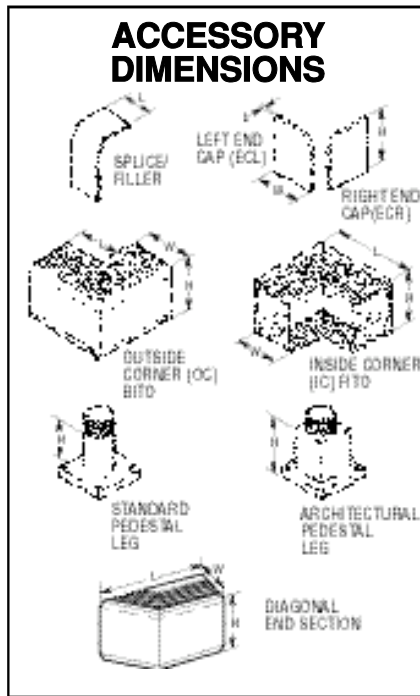
## ACCESSORIES

CAT. NO.	DESCRIPTION
<b>DBA-DR-F</b> <b>DBA-DR-B</b>	Duplex Receptacle built into 4 1/2" wide, 3 5/8" x 6" sections, 15 amps @ 125 VAC. (NEMA 5-15AR)
<b>DBA-PE-F</b> <b>DBA-PE-B</b>	Pneumatic/Electric Switch built into a 4 1/2" wide, 3 5/8" x 6" section.
<b>SHA-DR-F</b> <b>SHA-DR-B</b>	Duplex Receptacle built into 4 1/2" wide, 5 3/8" x 7" section, 15 amps @ 125 VAC. (NEMA 5-15R)
<b>DBA-BS1-F</b> <b>DBA-BS2-F</b>	Front Inlet Blank Sections 3 5/8" x 6"; 1', 28", 3', 4', 5', 6', 8' and 10' lengths. ETC.
<b>DBA-BS1-B</b> <b>DBA-BS2-B</b>	Bottom Inlet Blank Sections 3 5/8" x 6"; 1', 28", 3', 4', 5', 6', 8' and 10' lengths. ETC.
<b>DBA-ECL</b> <b>DBA-ECR</b>	Left End Cap, 3 5/8" x 6". Right End Cap, 3 5/8" x 6".
<b>DBA-ECLS</b> <b>DBA-ECRS</b>	Left End Cap with Screws, 3 5/8" x 6". Right End Cap with Screws, 3 5/8" x 6".
<b>DBA-SP</b>	3/4" wide strip to cover joint when installing continuous runs.
<b>DBA-IC-F</b> <b>DBA-OC-F</b>	Inside Corner - Front Inlet, 3 5/8" x 6". Outside Corner - Front Inlet, 3 5/8" x 6".
<b>DBA-IC-B</b> <b>DBA-OC-B</b>	Inside Corner - Bottom Inlet, 3 5/8" x 6". Outside Corner - Bottom Inlet, 3 5/8" x 6".
<b>DBA-135ICF</b> <b>DBA-135ICB</b>	135° Inside Corner - Front Inlet, 3 5/8" x 6". 135° Inside Corner - Bottom Inlet, 3 5/8" x 6".
<b>DBA-135OCF</b> <b>DBA-135OCB</b>	135° Outside Corner - Bottom Inlet, 3 5/8" x 6". 135° Outside Corner - Bottom Inlet, 3 5/8" x 6".
<b>DBA-DESBL</b> <b>DBA-DESBR</b>	Diagonal End Section, Bottom Inlet, Left. Diagonal End Section, Bottom Inlet, Right.
<b>DBA-DESFL</b> <b>DBA-DESFR</b>	Diagonal End Section, Front Inlet, Left. Diagonal End Section, Front Inlet, Right.
<b>DBA-FL-3, 6, 9, 12, 18</b>	Filler Sections for DBA 3", 6", 9", 12" and 18".
<b>SHA-BS1-F</b> <b>SHA-BS2-F</b>	Front Inlet Blank Sections 5 3/8" x 7"; 1', 28", 3', 4', 5', 6', 8' and 10' lengths. ETC.
<b>SHA-BS1-B</b> <b>SHA-BS2-B</b>	Bottom Inlet Blank Sections 5 3/8" x 7"; 1', 28", 3', 4', 5', 6', 8' and 10' lengths. ETC.
<b>SHA-ECL</b> <b>SHA-ECR</b>	Left End Cap, 5 3/8" x 7". Right End Cap, 5 3/8" x 7".
<b>SHA-ECLS</b> <b>SHA-ECRS</b>	Left End Cap with Screws, 5 3/8" x 7". Right End Cap with Screws, 5 3/8" x 7".
<b>SHA-SP</b>	3/4" wide strip to cover joint when installing continuous runs.
<b>SHA-IC-F</b> <b>SHA-OC-F</b>	Inside Corner - Front Inlet, 5 3/8" x 7". Outside Corner - Front Inlet, 5 3/8" x 7".
<b>SHA-IC-B</b> <b>SHA-OC-B</b>	Inside Corner - Bottom Inlet, 5 3/8" x 7". Outside Corner - Bottom Inlet, 5 3/8" x 7".
<b>SHA-135ICF</b> <b>SHA-135ICB</b>	135° Inside Corner - Front Inlet, 5 3/8" x 7". 135° Inside Corner - Bottom Inlet, 5 3/8" x 7".
<b>SHA-135OCF</b> <b>SHA-135OCB</b>	135° Outside Corner - Front Inlet, 5 3/8" x 7". 135° Outside Corner - Bottom Inlet, 5 3/8" x 7".
<b>SHA-DESBL</b> <b>SHA-DESBR</b>	Diagonal End Section, Bottom Inlet, Left. Diagonal End Section, Bottom Inlet, Right.
<b>SHA-DESFL</b> <b>SHA-DESFR</b>	Diagonal End Section, Front Inlet, Left. Diagonal End Section, Front Inlet, Right.
<b>SHA-FL-3, 6, 9, 12, 18</b>	Filler Sections for SHA 3", 6", 9", 12" and 18".
<b>SO1A</b> <b>SO2A</b>	Stand-Off Bracket for DBA. Stand-Off Bracket for SHA.

CONTROL SECTIONS  
AVAILABLE



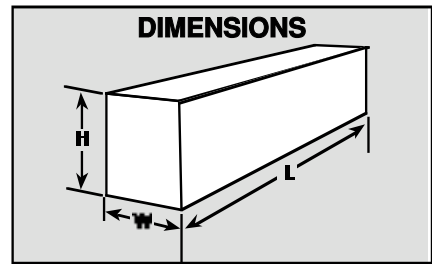
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CATALOG #	L*	H	W
<b>DBA-IC**</b> <b>DBA-OC**</b> <b>DBA-135OC**</b> <b>DBA-135IC**</b>	8 1/2" 5" 5" 8 1/2"	6"	3 5/8"
<b>DBA-DESBL</b> <b>DBA-DESBR</b> <b>DBA-DESFL</b> <b>DBA-DESFR</b>	9.136"	6"	3 5/8"
<b>DBA-ECL</b> <b>DBA-ECR</b> <b>DBA-ECLS</b> <b>DBA-ECRS</b>	1/8"	6"	3 5/8"
<b>DBA-SP</b>	0" - 1/4"	6"	3 5/8"
<b>DBA-FL3</b> <b>DBA-FL6</b> <b>DBA-FL9</b> <b>DBA-FL12</b> <b>DBA-FL18</b>	0" - 3" 3" - 6" 6" - 9" 9" - 12" 12" - 18"	6"	3 5/8"
<b>SHA-IC**</b> <b>SHA-OC**</b> <b>SHA-135OC**</b> <b>SHA-135IC**</b>	10" 5" 5" 10"	7"	5 3/8"
<b>SHA-DESBL</b> <b>SHA-DESBR</b> <b>SHA-DESFL</b> <b>SHA-DESFR</b>	12 1/2"	7"	5 3/8"
<b>SHA-ECL</b> <b>SHA-ECR</b> <b>SHA-ECLS</b> <b>SHA-ECRS</b>	1/8"	7"	5 3/8"
<b>SHA-SP</b>	0" - 1/4"	7"	5 3/8"
<b>SHA-FL3</b> <b>SHA-FL6</b> <b>SHA-FL9</b> <b>SHA-FL12</b> <b>SHA-FL18</b>	0" - 3" 3" - 6" 6" - 9" 9" - 12" 12" - 18"	7"	5 3/8"
<b>PK3S</b> <b>PK3A</b>	0"	2 7/8"	-
<b>PK5S</b> <b>PK5A</b>	0"	4 1/8"	-

\*L dimension is the additional length the accessory adds to the total installation length.

\*\*Add suffix -B for bottom inlet, -F for front inlet.



CAT. #	H	W	L
<b>DBA</b>	6"	3 5/8"	28" - 15'
<b>SHA</b>	7"	5-3/8"	28" - 12'

MINIMUM MOUNTING HEIGHT ABOVE FLOOR		
DBA & SHA	Front Inlet	0"
DBA & SHA	Bottom Inlet 9100w/ft. - 250 w/ft.	1-3/4"
SHA	Bottom Inlet (375 w/ft. - 750 w/ft.)	3"

### KNOCKOUTS

**END VIEW**

**FRONT VIEW OF BACK**

**BOTTOM VIEW**

\*Pedestal placement and K.O.'s shown are for standard units custom enclosures and/or heat decks will have pedestal placement and K.O.'s in various locations. Consult factory.

	A	B	C	D	E
<b>DBA</b>	2"	2-1/4"	7/8"	2-1/4"	3-3/8"
<b>SHA</b>	2-25/32"	2-1/4"	7/8"	2-1/4"	3-3/8"

	H	W	X	Y
<b>DBA</b>	1-11/32"	1-7/8"	1-3/16"	2-9/16"
<b>SHA</b>	2"	2-3/8"	1-3/16"	2-9/16"

### PEDESTAL PLACEMENT

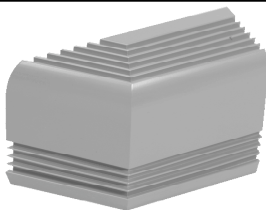
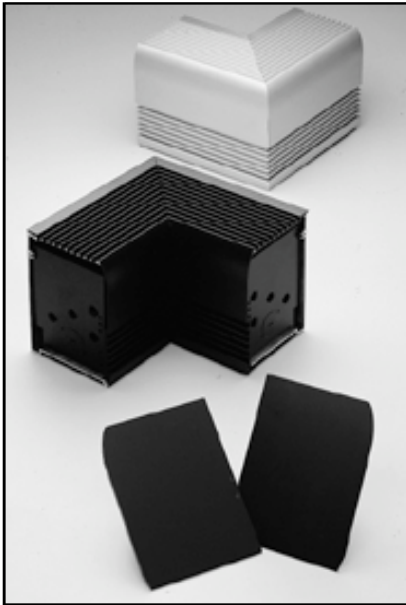
\*Pedestal placement and K.O.'s shown are for standard units custom enclosures and/or heat decks will have pedestal placement and K.O.'s in various locations. Consult factory.

CAT. #	A	B	L
<b>DBA</b>	2"	2-1/4"	28" - 10'
<b>SHA</b>	2-25/32"	2-1/4"	28" - 10'

**Note:** On units longer than 10' three pedestals are required. Consult factory for placement.

## OTHER SPECIAL FEATURES TRIM ACCESSORIES

Accessories include a complete line of matching blank sections, end caps, filler sections, inside and outside corners, diagonal end sections, and splice plates.



### DIAGONAL END SECTION

Architectural styled section to compliment the SHA/DBA units. Designed to give the unit a finished look when used as a stand alone, or where a wall to wall run is not desired.

### Architect's and Engineer's Specifications\*

Furnish and install, where indicated on plans, SHA/DBA Series convector type heaters, suitable for continuous operation, as manufactured by QMark, A Marley Engineered Products Brand, Bennettsville, SC.

**ENCLOSURE** Shall be 12-gauge (.080" min.) aluminum extrusion (DBA) or 10-gauge (0.95" min.) aluminum extrusion (SHA). The one-piece back and bottom shall join to the one-piece top and front utilizing Qmark's Snap-Lock design (patent pending). Both inlet and outlet air grilles shall be punched pencil-proof slots negating the need for mesh under the grille.

**SIZE** Heaters shall be low profile (3-5/8" x 6" or 5-3/8" x 7") and available in length from 28 inches through 10 feet. Additionally, custom length cabinets (up to 15' for DBA, 12' for SHA) with single or multiple heat decks shall be furnished as specified.

**HEATING LENGTHS AND VOLTAGES** Heater lengths, voltages and wattage capacities shall be as indicated on the plans.

**FINISH** The top and front shall be finished with a baked enamel paint or anodized.

**HEATING ELEMENTS** The nickel-chromium heating element wire shall

### MULTIPLE FINISHES

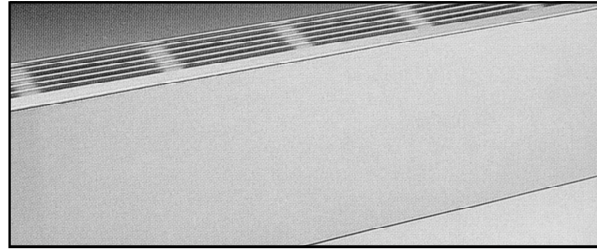
Heating units are available in rich anodized finishes and a spectrum of muted architectural colors in baked enamel finishes which are compatible with all interior decors.

### MULTIPLE HEATING CAPACITIES

Units are available in a wide range of heating capacities per foot length: 100 watts (341 BTU per hour) to 750 watts (2560 BTU per hour).

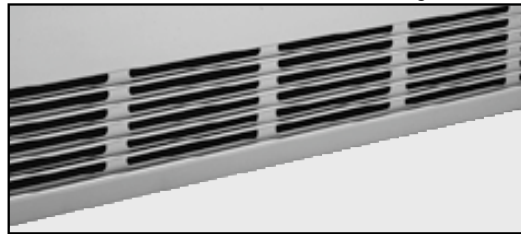
### SMOOTH FINISHED BACK

The back of both the SHA and DBA is void of any fasteners, giving it a clean appearance. Knockouts on the back for access to the junction boxes can be deleted on request to further enhance the appearance. The back will not be painted or anodized to match the front unless requested.



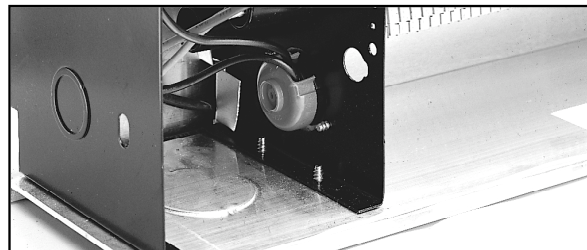
### PENCIL-PROOF GRILLES

The discharge air openings in the top grille are punched slots which are pencil-proof for safety. The inlet air grille utilizes these same slots which creates an attractive installation where the inlet grille is visible.



### THERMAL CUTOUT

Thermal limit switch with linear type (full length) sensing bulb provides constant protection against overheating from any cause. The switch will automatically reset when normal operating temperatures are restored.



be encased in a steel sheath for maximum, trouble-free element life. Aluminum fins shall be pressure bonded to the steel sheath. Elements shall be centered anchored and shall float freely at each end through high-temperature Noryl bushings. The SHA shall utilize QMark's "Stair-Step" element arrangement (patent pending).

**CONTROL SECTIONS** Control sections, finished to match heaters, shall be furnished as an optional accessory for field installation of controls, or shall be used to house factory-installed controls as specified.

**OPTION BUILT-IN CONTROLS** Thermostats, power relay, low-voltage control relays, and disconnect switches, singly or in combination, may be specified for factory installation in heaters. Thermostats and disconnect switches are accessible through the grille.

**PEDESTALS** The heater shall be convertible for use as a self-standing unit with pedestal conversion kit. Pedestals shall be painted steel or anodized aluminum. Pedestals can either be mounted on or embedded in the floor surface and wiring or conduit brought through the pedestal during installation.

\*QMark reserves the right to change specifications without prior notice.