

# Rittling Architechtural Enclosures

Submittal Data, English Language, IP Units

### Submittal data

Project

Job number

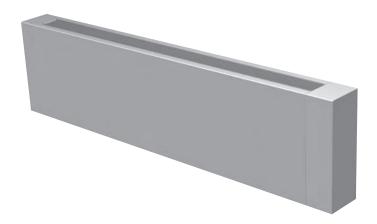
Architect

Engineer

Contractor

### Performance data: heating

Mean water temperature	
	°F
Design room temperature	
	°F
Heating capacity	
	BTH/br ft



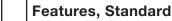
### **Table of contents**

### **English, IP Units**

### \*Page number

Unit features	• •	 							• •												 1
General data		 																		-	 6
Dimensional data		 			-															-	 58
Accessories		 																		-	 66
Mechanical specifications		 			-							-			-		-			-	 74
Warranty		 																			 76





Zehnder Rittling's Standard Bargrille Enclosure provide high output in an attractive architectural design with a depth of 5-3/8".

### Enclosure

- 14, 16, 18-gauge cold rolled steel with painted finish
- 1'-8' lengths in 6" increments
- Powder coated finish in decorator colors available
- 14", 20" or 24" standard heights
- Custom heights of 6"-36" available on all models
- Available in 16-gauge or 18-gauge stainless steel

### **Copper/Aluminum Element**

- Tube: 3/4", 1" or 1-1/4"
- Fin: 2-3/4" x 4", 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1' to 12' lengths in 6" increments

### Steel Element

- Tube: 1", 1-1/4" or 2"
- Fin: 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1-1/2' to 10' length in 6" increments

### Mounting

- Snap mounting channel
- Optional 20-gauge galvannealed steel full back panel (18-gauge available)
- Urethane gasket for air seal available
- 4' or 8' lengths

### Hangers

- 16-gauge galvannealed steel
- Slide cradle will accommodate 1-3/4" linear expansion for quiet operation
- BG5/IBG5: Self-gauging, snap fit, expansion cradle with positive-locking, bottom-mounting clip provide easy installation as well as security
- Second row bracket, slip-in or wall mounted. Used for multiple tiers of element
- Slip-in pipe hanger or wall pipe hanger for use with bare tube supply and return pipes

### BG5/IBG5, BGVL5/BGHL5, IBGVL5/IBGHL5

### Joints

Internal joggle joiners provide hairline joints without any external fasteners

### Damper (optional)

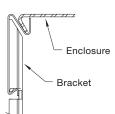
- Durable knob
- Security tamper proof
- Aluminum slide (IBG only)
- See charts on pages 69-71 for availability

### Grille

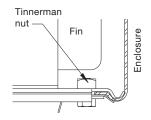
- BG: standard aluminum extrusion, etched finishes, pencilproof
- IBG: heavy-duty aluminum extrusion, R-204 clear anodized finish, 15° grille deflection, pencilproof.



Cutaway view of IBG5 enclosure showing 4-1/4" x 4-1/4" fin configuration



Mounting channel detail



Positive locking bottom mounting clip detail



Zehnder Rittling's Low Profile Bargrille Enclosure provides an attractive architectural design with a slimline appearance and a depth of less than 4".

### Enclosure

- 14, 16, 18-gauge cold rolled steel with painted finish
- 1'-8' lengths in 6" increments
- Standard heights
  - BG3/IBG3: 8", 11" or 14"
  - BGVL3/BGHL3: 11" or 14"
  - IBGVL3/IBGHL3: 11" or 14"
- Custom heights available
  - BG3/IBG3: 6"-36"
  - BGVL3/BGHL3: 10"-36"
  - IBGVL3/IBGHL3: 10"-36"
- Powder coated finish in decorator colors available
- Available in 16- and 18-gauge stainless steel

### **Copper/Aluminum Element**

- Tube: 3/4", 1" or 1-1/4"
- Fin: 2-3/4" x 4", 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1' to 12' lengths in 6" increments

### **Steel Element**

- Tube: 1", 1-1/4" or 2"
- Fin: 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1-1/2' to 10' length in 6" increments

### Mounting

- Mounting channel
- Optional 20-gauge galvannealed steel full back panel (18-gauge available)
- Urethane gasket for air seal available
- 4' or 8' lengths

### Hangers

- 16-gauge galvannealed steel
- Slide cradle will accommodate 1-3/4" linear expansion for quiet operation

### BG3/IBG3, BGVL3/BGHL3, IBGVL3/IBGHL3

- BG3/IBG3: Self-gauging, snap fit, expansion cradle with positive-locking, bottom-mounting clip provide easy installation as well as security
- Second row bracket, slip-in or wall mounted. Used for multiple tiers of element
- Slip-in pipe hanger or wall pipe hanger for use with bare tube supply and return pipes

### Joints

Internal joggle joiners provide hairline joints without any external fasteners

### Damper (optional)

- Durable knob
- Security tamper proof
- Aluminum slide (IBG only)

### Grille

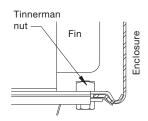
- BG: standard aluminum extrusion, etched finishes, pencilproof
- IBG: heavy-duty aluminum extrusion, R-204 clear anodized finish, 15° grille deflection, pencilproof



3-1/4" x 3-1/4" fin configuration

Bracket

Mounting channel detail



Positive locking bottom mounting clip detail

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Enclosure

### **English, IP Units**

PBG5/PIBG5, PBG10/PIBG10

### Features, Pedestal

Zehnder Rittling's Pedestal Bargrille Enclosure offers a slimline appearance in a strong floor mounted enclosure.

### Enclosure

- 14, 16, 18-gauge cold rolled steel with painted finish
- 1'-8' lengths in 6" increments
- PBG5/PIBG5:
  - 1 row: 6" high
  - 1 row and return: 8" high
  - 2 row: 12" high
- PBG10/PIBG10:
  - 2 column: 6" high
- Powder coated finish in decorator colors available
- Available in 16-gauge or 18-gauge stainless steel
- 1-row or 2-row high (PBG5/PIBG5), 2-column wide (PBG10/ PIBG10) or many other custom configurations available

### **Copper/Aluminum Element**

- Tube: 3/4", 1" or 1-1/4"
- Fin: 2-3/4" x 4", 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1' to 12' lengths in 6" increments

### **Steel Element**

- Tube: 1", 1-1/4" or 2"
- Fin: 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1-1/2' to 10' length in 6" increments

### Mounting

- Pedestal brackets 2 available style bases:
  - Adjustable U (standard) 4" +5/8" / -13/16"
  - Aluminum floor flange (optional), not available on 2 column
- Enclosure mounts to a cradle-type expansion bracket with positive locking bottom mounting clip to provide easy installation and security

### Joints

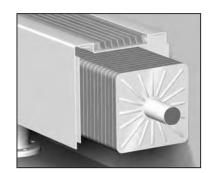
Internal joggle joiners provide hairline joints without any external fasteners

### Damper (optional)

Aluminum slide (PIBG only)

### Grille

- PBG: standard aluminum extrusion, etched finishes, pencilproof
- PIBG: heavy-duty aluminum extrusion, R-204 clear anodized finish, 15° grille deflection, pencilproof



Cutaway view of PIBG enclosure showing 4-1/4" x 4-1/4" fin configuration.

**English, IP Units** 



### Features, Sloped top

Zehnder Rittling's Sloped Top Bargrille Enclosure provide strong contemporary styling and high output with a depth of 5-3/8".

### Enclosure

- 14, 16, 18-gauge cold rolled steel, phosphatized with painted finish
- 1'-8' lengths in 6" increments
- Powder coated finish in decorator colors available
- Available in 16-gauge and 18-gauge stainless steel
- 20" or 24" standard heights
- Custom heights:6"-36" available

### **Copper/Aluminum Element**

- Tube: 3/4", 1" or 1-1/4"
- Fin: 2-3/4" x 4", 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1' to 12' lengths in 6" increments

### **Steel Element**

- Tube: 1", 1-1/4" or 2"
- Fin: 3-1/4" X 3-1/4" or 4-1/4" X 4-1/4"
- 1-1/2' to 10' length in 6" increments

### Mounting

- Snap mounting channel
- Optional 20-gauge galvannealed steel full back panel (18-gauge available).
- Urethane gasket for air seal available.
- 4' or 8' lengths

### Hangers

- Self-gauging, snap-fit, expansion cradle with positivelocking, bottom-mounting clip provide easy installation as well as security
- 16-gauge galvannealed steel
- Slide cradle will accommodate 1-3/4" linear expansion for quiet operation.



- Second row bracket, slip-in or wall mounted. Used for multiple tiers of element
- Slip-in pipe hanger or wall pipe hanger for use with bare tube supply and return pipes

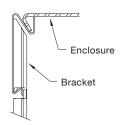
### Joints

Internal joggle joiners provide hairline joints without any external fasteners

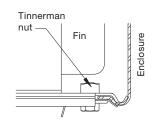
### Grille

- SBG: standard aluminum extrusion, etched finishes, pencilproof
- SIBG: heavy-duty aluminum extrusion, R-204 clear anodized finish, 15° grille deflection, pencilproof





Mounting channel detail



Cutaway view of SIBG5 enclosure showing 4-1/4" x 4-1/4" fin configuration.

Positive locking bottom mounting clip detail

**English, IP Units** 

SBG3/SIBG3, SBGVL3/SIBGVL3

### Features, Sloped top

Zehnder Rittling's Sloped Top Bargrille Enclosure provide strong contemporary styling and high output with a depth of 3-15/16".

### Enclosure

- 14, 16, 18-gauge cold rolled steel, phosphatized with painted finish
- 1'-8' lengths in 6" increments
- Powder coated finish in decorator colors available
- Available in 16-gauge and 18-gauge stainless steel
- 8", 11", 14" standard heights
- Custom heights: 6"-36" available

### **Copper/Aluminum Element**

- Tube: 3/4", 1" or 1-1/4"
- Fin: 2-3/4" x 4", 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1 to 12-foot lengths in 6" increments

### **Steel Element**

- Tube: 1", 1-1/4" or 2"
- Fin: 3-1/4" x 3-1/4" or 4-1/4" x 4-1/4"
- 1-1/2' to 10' length in 6" increments

### Mounting

- Snap mounting channel
- Optional 20-gauge galvannealed steel full back panel (18-gauge available).
- Urethane gasket for air seal available.
- 4' or 8' lengths

### Hangers

- Self-gauging, snap-fit, expansion cradle with positivelocking, bottom-mounting clip provide easy installation as well as security
- 16-gauge galvannealed steel

- Slide cradle will accommodate 1-3/4" linear expansion for quiet operation.
- Second row bracket, slip-in or wall mounted. Used for multiple tiers of element
- Slip-in pipe hanger or wall pipe hanger for use with bare tube supply and return pipes
- See charts on pages 69-71 for available combinations

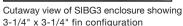
### Joints

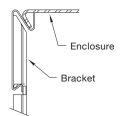
Internal joggle joiners provide hairline joints without any external fasteners

### Grille

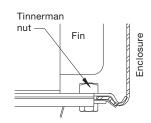
- SBG: standard aluminum extrusion, etched finishes, pencilproof
- SIBG: heavy-duty aluminum extrusion, R-204 clear anodized finish, 15° grille deflection, pencilproof







#### Mounting channel detail



Positive locking bottom mounting clip detail

General data

### Performance ratings: model BG5/IBG5; standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element			1		
		1	14	18	4.00	960	750	660	580	510
		1	20	24	4.10	980	760	680	600	520
		2	20	24	6.20	1490	1160	1030	910	790
	1S-3¼ X 3¼-32	1	24	28	4.30	1030	800	710	630	540
		2	24	28	6.60	1570	1220	1080	960	830
		3	24	28	7.60	1820	1420	1250	1110	960
		1	14	18	4.50	1080	840	740	660	570
<u>e</u>		1	20	24	4.80	1150	900	790	700	610
1" Dia. steel		2	20	24	6.80	1640	1280	1130	1000	870
Dia	1S-3¼ X 3¼-40	1	24	28	5.00	1200	940	830	730	640
- <del>-</del>		2	24	28	7.10	1710	1330	1180	1040	910
		3	24	28	8.30	1980	1540	1370	1210	820
		1	14	18	5.00	1200	940	830	730	840
		1	20	24	5.60	1350	1050	930	820	710
	40 01/ X 01/ 40	2	20	24	7.80	1870	1460	1290	1140	990
	1S-3¼ X 3¼-48	1	24	28	5.80	1400	1090	970	850	740
		2	24	28	7.80	1860	1450	1280	1130	980
		3	24	28	8.90	2130	1660	1470	1300	1130
		1	14	18	5.80	1400	1090	970	850	740
		1	20	24	6.10	1450	1130	1000	890	770
	1S-4¼ X 4¼-32	2	20	24	9.00	2150	1630	1480	1310	1140
	13-4/4 A 4/4-32	1	24	28	6.10	1490	1160	1030	910	790
		2	24	28	9.40	2250	1760	1550	1370	1190
		3	24	28	10.10	2590	2020	1790	1580	1370
		1	14	18	6.60	1570	1220	1080	960	830
Bel		1	20	24	7.10	1690	1310	1170	1030	900
. ste	1S-4¼ X 4¼-40	2	20	24	9.90	2380	1860	1640	1450	1260
1" Dia. steel	13-474 A 474-4U	1	24	28	7.20	1730	1350	1200	1060	920
-		2	24	28	10.30	2470	1930	1700	1510	1310
		3	24	28	11.80	2840	2220	1960	1730	1510
		1	14	18	7.30	1760	1370	1210	1070	930
		1	20	24	8.20	1960	1530	1350	1200	1040
	1S-4¼ X 4¼-48	2	20	24	10.90	2620	2050	1810	1600	1390
	10-7/4 A 4/4-40	1	24	28	8.40	2010	1570	1390	1230	1070
		2	24	28	11.30	2710	2110	1870	1650	1440
		3	24	28	13.05	3130	2440	2160	1910	1660

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG5/IBG5; standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			I	1	Steel element	I	1	1		
		1	14	18	3.90	940	730	650	570	500
		1	20	24	4.00	960	750	660	590	510
		2	20	24	6.10	1460	1140	1010	890	770
	1¼S-3¼ X 3¼-32	1	24	28	4.20	1010	790	700	620	540
		2	24	28	6.40	1540	1200	1060	940	820
		3	24	28	7.40	1780	1390	1230	1090	940
		1	14	18	4.40	1060	830	730	650	560
fee		1	20	24	4.70	1130	880	780	690	600
1¼" Dia. stee	41/ C 01/ X 01/ 40	2	20	24	6.70	1610	1260	1110	980	850
ä	1¼S-3¼ X 3¼-40	1	24	28	4.90	1180	920	810	720	630
11/4		2	24	28	7.00	1680	1310	1160	1020	890
		3	24	28	8.10	1940	1510	1340	1180	1030
		1	14	18	4.90	1180	920	810	720	630
		1	20	24	5.50	1320	1030	910	810	700
	1¼S-3¼ X 3¼-48	2	20	24	7.40	1780	1390	1230	1090	940
	1/43-3/4 A 3/4-40	1	24	28	5.70	1370	1070	950	840	730
		2	24	28	7.60	1820	1420	1260	1110	960
		3	24	28	8.70	2090	1630	1440	1270	1110
		1	14	18	5.70	1370	1070	950	840	730
		1	20	24	5.90	1420	1110	980	870	750
	1¼S-4¼ X 4¼-32	2	20	24	8.80	2110	1650	1460	1290	1120
	1/43-4/4 7 4/4-32	1	24	28	6.10	1460	1140	1010	890	770
		2	24	28	9.20	2210	1720	1520	1350	1170
		3	24	28	10.60	2540	1980	1750	1550	1350
		1	14	18	6.40	1540	1200	1060	940	820
teel		1	20	24	6.90	1660	1290	1150	1010	880
Dia. stee	1¼S-4¼ X 4¼-40	2	20	24	9.70	2330	1820	1610	1420	1230
ō	1/40-7/4 A 4/4-40	1	24	28	7.10	1700	1330	1170	1040	900
11/4"		2	24	28	10.10	2420	1890	1670	1480	1280
		3	24	28	11.60	2780	2170	1920	1700	1470
		1	14	18	7.20	1730	1350	1190	1060	920
		1	20	24	8.00	1920	1500	1320	1170	1020
	1¼S-4¼ X 4¼-48	2	20	24	10.70	2570	2000	1770	1570	1360
	1,40 4/4 7 4/4 40	1	24	28	8.20	1970	1540	1360	1200	1040
		2	24	28	11.10	2660	2070	1840	1620	1410
		3	24	28	12.80	3070	2390	2120	1870	1630

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG5/IBG5; standard enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element 2S-4¼ X 4¼-32 2S-4¼ X 4¼-40 2S-4¼ X 4¼-48	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	14	18	5.70	1370	1070	950	840	730
		1	20	24	6.00	1430	1120	990	870	760
	25-41/4 X 41/4-32	2	20	24	8.60	2070	1610	1430	1260	1100
	20-7/4 7 7/4-02	1	24	28	6.10	1470	1150	1010	900	780
		2	24	28	8.90	2140	1670	1480	1310	1130
		3	24	28	10.20	2450	1910	1690	1490	1300
		1	14	18	6.50	1560	1220	1080	950	830
steel		1	20	24	6.80	1630	1270	1120	990	860
l. st	06 41/ X 41/ 40	2	20	24	9.30	2230	1740	1540	1360	1180
Dia	23-4/4 A 4/4-40	1	24	28	7.20	1730	1350	1190	1060	920
~		2	24	28	9.80	2350	1830	1620	1430	1250
		3	24	28	11.30	2710	2110	1870	1650	1440
		1	14	18	7.40	1780	1390	1230	1090	940
		1	20	24	7.70	1850	1440	1280	1130	980
	00 41/ V 41/ 40	2	20	24	10.00	2400	1870	1660	1460	1270
	20-474 A 474-40	1	24	28	8.30	1990	1550	1370	1210	1050
		2	24	28	10.60	2540	1980	1750	1550	1350
	- Equivalant Direct Padi	3	24	28	12.20	2930	2290	2020	1790	1550

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG5/IBG5; standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1	c	opper elemen	t	1	1		
		1	14	18	5.30	1280	1000	890	780	680
		1	20	24	5.90	1400	1090	970	860	740
	2/ O 02/ X 4 00	2	20	24	7.70	1860	1450	1280	1130	990
	34C-234 X 4-32	1	24	28	6.10	1470	1150	1010	900	780
		2	24	28	8.50	2050	1600	1410	1250	1090
		3	24	28	9.90	2360	1840	1630	1440	1260
		1	14	18	5.90	1430	1120	990	880	760
ber		1	20	24	6.60	1590	1240	1100	970	840
34" Dia. copper		2	20	24	8.00	1930	1510	1330	1180	1020
Dia.	<sup>3</sup> / <sub>4</sub> C-2 <sup>3</sup> / <sub>4</sub> X 4-40	1	24	28	7.00	1690	1320	1170	1030	900
1 <b>1</b>		2	24	28	9.00	2170	1690	1500	1330	1150
		3	24	28	10.50	2510	1960	1730	1530	1330
		1	14	18	6.50	1570	1220	1080	960	830
		1	20	24	7.40	1790	1400	1240	1100	950
		2	20	24	8.40	2030	1590	1400	1240	1080
	34C-234 X 4-48	1	24	28	7.80	1880	1470	1300	1150	1000
		2	24	28	9.50	2270	1770	1570	1390	1210
		3	24	28	10.90	2600	2030	1800	1590	1380
		1	14	18	5.1	1224	955	845	747	649
		1	20	24	5.4	1296	1011	894	791	687
	<sup>3</sup> /4C-3 <sup>1</sup> /4 X 3 <sup>1</sup> /4-32	2	20	24	8.4	2010	1568	1387	1226	1065
	%0-3% X 3%-32	1	24	28	5.6	1350	1053	932	824	716
		2	24	28	9.2	2218	1730	1531	1353	1176
		3	24	28	10.7	2573	2007	1775	1569	1364
		1	14	18	5.9	1422	1109	981	867	754
34" Dia. copper		1	20	24	6.5	1548	1207	1068	944	820
5 C	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-40	2	20	24	9.3	2227	1737	1537	1359	1180
Dia.	74 <b>C-</b> 374 <b>X</b> 374-40	1	24	28	6.8	1620	1264	1118	988	859
34"		2	24	28	10.1	2419	1887	1669	1476	1282
		3	24	28	11.9	2854	2226	1969	1741	1512
		1	14	18	6.4	1530	1193	1056	933	811
		1	20	24	7.4	1764	1376	1217	1076	935
	<sup>3</sup> 4C-3¼ X 3¼-48	2	20	24	11.0	2644	2062	1824	1613	1401
	/4 <b>U-U</b> /4 A U/4 <b>-4</b> 0	1	24	28	7.9	1890	1474	1304	1153	1002
		2	24	28	11.9	2858	2229	1972	1743	1515
		3	24	28	14.0	3367	2626	2323	2054	1784

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

- Important Rating Information Performance ratings based on:
- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

General data

### Performance ratings: model BG5/IBG5, standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1	C	opper elemen	t	1	1		
		1	14	18	6.80	1620	1300	1120	990	860
		1	20	24	7.20	1720	1340	1190	1050	910
		2	20	24	10.60	2530	1970	1750	1540	1340
	<sup>3</sup> / <sub>4</sub> C-4 <sup>1</sup> / <sub>4</sub> X 4 <sup>1</sup> / <sub>4</sub> -32	1	24	28	7.50	1800	1400	1240	1100	950
		2	24	28	11.70	2810	2190	1940	1710	1490
		3	24	28	13.40	3210	2500	2210	1960	1700
		1	14	18	7.90	1900	1482	1310	1160	1010
ber		1	20	24	8.60	2070	1610	1430	1260	1100
34" Dia. copper		2	20	24	11.60	2770	2160	1910	1690	1470
Dia.	3∕4C-41⁄4 X 41⁄4-40	1	24	28	9.00	2160	1680	1490	1320	1150
∦ <b>"</b> [		2	24	28	12.60	3020	2360	2080	1840	1600
		3	24	28	14.50	3470	2710	2390	2120	1840
		1	14	18	8.50	2040	1590	1410	1240	1080
		1	20	24	9.80	2340	1830	1610	1430	1240
		2	20	24	13.60	3270	2550	2260	1990	1730
	3∕4C-41⁄4 X 41⁄4-48	1	24	28	10.50	2510	1960	1730	1530	1330
		2	24	28	14.70	3520	2750	2430	2150	1870
		3	24	28	16.70	3940	3070	2720	2400	2090
		1	14	18	5.30	1270	990	880	770	670
		1	20	24	5.80	1390	1080	960	850	740
	40.0% X 4.00	2	20	24	7.70	1850	1440	1280	1130	980
	1C-2¾ X 4-32	1	24	28	6.10	1460	1140	1010	890	770
		2	24	28	8.50	2040	1590	1410	1240	1080
		3	24	28	9.80	2350	1830	1620	1430	1250
		1	14	18	5.90	1420	1110	980	870	750
per		1	20	24	6.60	1580	1230	1090	960	840
1" Dia. copper	1C-2¾ X 4-40	2	20	24	8.00	1920	1500	1320	1170	1020
Dia.	IG-2% X 4-40	1	24	28	7.00	1680	1310	1160	1020	890
1		2	24	28	9.00	2160	1680	1490	1320	1140
		3	24	28	10.40	2500	1950	1730	1530	1330
		1	14	18	6.50	1560	1190	1070	950	830
		1	20	24	7.40	1780	1390	1230	1090	940
	10 03/ 1 4 40	2	20	24	8.40	2020	1580	1390	1230	1070
	1C-2¾ X 4-48	1	24	28	7.80	1870	1460	1290	1140	990
		2	24	28	9.40	2260	1760	1560	1380	1200
		3	24	28	10.80	2590	2020	1790	1580	1370

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-ritling.com.

**General data** 

### Performance ratings: model BG5/IBG5, standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				c	opper element	t				
		1	14	18	4.9	1171	914	808	714	621
		1	20	24	5.3	1282	1000	884	782	679
		2	20	24	7.0	1688	1317	1165	1030	895
	1C-3¼ X 3¼-32	1	24	28	5.6	1348	1051	930	822	714
		2	24	28	7.8	1864	1454	1286	1137	988
		3	24	28	8.8	2118	1652	1461	1292	1122
		1	14	18	5.2	1249	975	862	762	662
per		1	20	24	5.8	1398	1090	964	853	741
Dia. copper		2	20	24	7.2	1739	1357	1200	1061	922
oia.	1C-3¼ X 3¼-40	1	24	28	6.2	1477	1152	1019	901	783
1		2	24	28	8.2	1957	1526	1350	1194	1037
		3	24	28	9.1	2195	1712	1515	1339	1163
		1	14	18	6.1	1452	1133	1002	886	770
		1	20	24	6.9	1653	1289	1141	1008	876
		2	20	24	7.4	1778	1387	1227	1084	942
	1C-3¼ X 3¼-48	1	24	28	7.3	1742	1359	1202	1063	923
		2	24	28	8.3	1989	1552	1373	1214	1054
		3	24	28	9.3	2232	1741	1540	1361	1183
		1	14	18	6.60	1590	1240	1100	970	850
		1	20	24	7.00	1690	1320	1200	1030	900
		2	20	24	10.40	2480	1930	1710	1510	1310
	1C-4¼ X 4¼-32	1	24	28	7.30	1760	1370	1220	1070	930
		2	24	28	11.50	2750	2150	1900	1680	1460
		3	24	28	13.20	3150	2460	2170	1920	1670
		1	14	18	7.70	1860	1450	1280	1130	990
per		1	20	24	8.40	2030	1580	1400	1240	1080
do	10 41/ X 41/ 40	2	20	24	11.40	2720	2120	1880	1660	1440
oia.	1C-4¼ X 4¼-40	1	24	28	8.80	2120	1650	1460	1290	1120
1" Dia. copper		2	24	28	12.40	2960	2310	2040	1810	1570
		3	24	28	14.20	3400	2650	2350	2070	1800
		1	14	18	8.30	2000	1560	1380	1220	1060
		1	20	24	9.60	2290	1790	1580	1400	1210
	1C-4¼ X 4¼-48	2	20	24	13.40	3210	2500	2210	1960	1700
	IG-4/4 A 4/4-48	1	24	28	10.30	2460	1920	1700	1700	1300
		2	24	28	14.40	3450	2690	2380	2100	1830
		3	24	28	16.10	3860	3010	2670	2350	2050

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model BG5/IBG5; standard enclosure

	Element	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			1	C	opper elemen	t		1		
		1	14	18	5.10	1220	950	840	740	650
		1	20	24	5.70	1370	1070	950	840	730
		2	20	24	7.60	1820	1420	1260	1110	960
	1¼C-2¾ X 4-32	1	24	28	6.00	1440	1120	990	880	760
		2	24	28	8.40	2020	1580	1390	1230	1070
		3	24	28	9.70	2330	1820	1610	1420	1230
L .		1	14	18	5.70	1370	1070	950	840	730
bpe		1	20	24	6.40	1540	1200	1060	940	820
1¼" Dia. copper		2	20	24	7.90	1900	1480	1310	1160	1010
Dia	1¼C-2¾ X 4-40	1	24	28	6.90	1660	1290	1150	1010	880
1/4"		2	24	28	8.90	2140	1670	1480	1310	1130
-		3	24	28	10.20	2450	1910	1690	1490	1300
		1	14	18	6.40	1540	1200	1060	940	820
		1	20	24	7.30	1750	1370	1210	1070	930
	41/ O 02/ X 4 40	2	20	24	8.30	1990	1550	1370	1210	1050
	1¼C-2¾ X 4-48	1	24	28	7.70	1850	1440	1280	1130	980
		2	24	28	9.30	2230	1740	1540	1360	1180
		3	24	28	10.70	2570	2000	1770	1510	1360
		1	14	18	4.8	1140	890	787	696	604
		1	20	24	5.0	1210	943	835	738	641
	1¼C-3¼ X 3¼-32	2	20	24	7.5	1805	1408	1245	1101	956
	1/40-3/4 A 3/4-32	1	24	28	5.3	1261	984	870	769	669
		2	24	28	8.3	1997	1558	1378	1218	1059
		3	24	28	9.8	2358	1839	1627	1438	1250
<u> </u>		1	14	18	5.5	1331	1038	918	812	705
bpe		1	20	24	6.0	1452	1132	1002	885	769
8	1¼C-3¼ X 3¼-40	2	20	24	8.5	2034	1587	1403	1241	1078
Dia	1740-374 × 374-40	1	24	28	6.3	1521	1186	1049	928	806
1¼" Dia. copper		2	24	28	9.2	2214	1727	1528	1351	1173
		3	24	28	10.7	2572	2006	1775	1569	1363
		1	14	18	6.2	1485	1158	1025	906	787
		1	20	24	7.1	1710	1334	1180	1043	906
	1¼C-3¼ X 3¼-48	2	20	24	10.1	2417	1885	1668	1474	1281
	1 /4 <b>U-U</b> /4 A U/4-40	1	24	28	7.6	1818	1418	1254	1109	964
		2	24	28	10.7	2572	2006	1775	1569	1363
		3	24	28	12.3	2958	2307	2041	1804	1568

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG5/IBG5; standard enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	of 0.69      factor of 0.61        090      960        160      1020        700      1510        200      1070        890      1670        170      1920        280      1130        390      1230        870      1650        460      1290        040      1800        330      2060        370      1210        570      1390        190      1940        660      1470        332      2060	160°F factor of 0.53
				C	opper elemen	t				
		1	14	18	6.60	1580	1230	1090	960	840
		1	20	24	7.00	1680	1310	1160	1020	890
	1¼C-4¼ X 4¼-32	2	20	24	10.30	2470	1920	1700	1510	1310
	1740-474 X 474-32	1	24	28	7.30	1750	1360	1200	1070	930
		2	24	28	11.40	2740	2140	1890	1670	1450
		3	24	28	13.10	3140	2450	2170	1920	1660
5		1	14	18	7.70	1850	1440	1280	1130	980
copper		1	20	24	8.40	2020	1570	1390	1230	1070
	1¼C-4¼ X 4¼-40	2	20	24	11.30	2710	2110	1870	1650	1440
1¼" Dia.	1740-474 7 474-40	1	24	28	8.80	2110	1640	1460	1290	1120
1/4"		2	24	28	12.30	2950	2300	2040	1800	1560
		3	24	28	14.10	3380	2640	2330	2060	1790
		1	14	18	8.25	1980	1540	1370	1210	1050
		1	20	24	9.50	2280	1780	1570	1390	1210
	1¼C-4¼ X 4¼-48	2	20	24	13.25	3180	2480	2190	1940	1690
	1740-474 X 474-40	1	24	28	10.10	2410	1880	1660	1470	1280
		2	24	28	14.10	3380	2640	2332	2060	1790
	Equivalant Direct Padic	3	24	28	15.80	3780	2950	2610	2310	2000

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

	Flement	Rows of	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft²⁄ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1		Steel element	1	I	1	1	1
		1	14	18	3.50	840	660	580	510	450
		1	20	24	3.57	858	670	590	520	450
		1	24	28	3.76	901	700	620	550	480
	1S-3¼ X 3¼-32	2	20	24	5.43	1304	1020	900	800	690
		2	24	28	5.72	1374	1070	950	840	730
		3	24	28	6.64	1593	1240	1100	970	840
		1	14	18	3.94	945	740	650	580	500
ē		1	20	24	4.19	1006	780	690	610	530
Dia. steel		1	24	28	4.38	1050	820	720	640	560
Dia	1S-3¼ X 3¼-40	2	20	24	5.98	1435	1120	990	880	760
÷		2	24	28	6.23	1496	1170	1030	910	790
		3	24	28	7.22	1733	1350	1200	1060	920
		1	14	18	4.38	1050	820	720	640	560
		1	20	24	4.92	1181	920	820	720	630
		1	24	28	5.10	1225	960	850	750	650
	1S-3¼ X 3¼-48	2	20	24	6.82	1636	1280	1130	1000	870
		2	24	28	6.78	1628	1270	1120	990	860
		3	24	28	7.77	1864	1450	1290	1140	990
		1	14	18	5.10	1225	960	850	750	650
		1	20	24	5.29	1269	990	880	770	670
		1	24	28	5.43	1304	1020	900	800	690
	1S-4¼ X 4¼-32	2	20	24	7.84	1881	1470	1300	1150	1000
		2	24	28	8.20	1969	1540	1360	1200	1040
		3	24	28	9.44	2266	1770	1560	1380	1200
		1	14	18	5.72	1374	1070	950	840	730
<u>e</u>		1	20	24	6.16	1479	1150	1020	900	780
. steel	1S-4¼ X 4¼-40	1	24	28	6.31	1514	1180	1040	920	800
Dia.	13-4/4 A 4/4-4U	2	20	24	8.68	2083	1620	1440	1270	1100
÷		2	24	28	9.01	2161	1690	1490	1320	1150
		3	24	28	10.35	2485	1940	1710	1520	1320
		1	14	18	6.42	1540	1200	1060	940	820
		1	20	24	7.15	1715	1340	1180	1050	910
	1S-4¼ X 4¼-48	1	24	28	7.33	1759	1370	1210	1070	930
	13-4/4 A 4/4-48	2	20	24	9.55	2293	1790	1580	1400	1220
		2	24	28	9.88	2371	1850	1640	1450	1260
		3	24	28	11.41	2739	2140	1890	1670	1450

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	EDn (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			1		Steel element	1	I	1	1	
		1	14	18	3.43	823	640	570	500	440
		1	20	24	3.50	840	660	580	510	450
		1	24	28	3.68	884	690	610	540	470
	1¼S-3¼ X 3¼-32	2	20	24	5.32	1278	1000	880	780	680
		2	24	28	5.61	1348	1050	930	820	710
		3	24	28	6.49	1558	1210	1070	950	830
		1	14	18	3.86	928	720	640	570	490
ee		1	20	24	4.12	989	770	680	600	520
1¼" Dia. steel		1	24	28	4.30	1033	810	710	630	550
ä	1¼S-3¼ X 3¼-40	2	20	24	5.87	1409	1100	970	860	750
11/4		2	24	28	6.13	1470	1150	1010	900	780
		3	24	28	7.07	1698	1320	1170	1040	900
		1	14	18	4.30	1033	810	710	630	550
		1	20	24	4.81	1155	900	800	700	610
		1	24	28	4.99	1199	940	830	730	640
	1¼S-3¼ X 3¼-48	2	20	24	6.49	1558	1210	1070	950	830
		2	24	28	6.64	1593	1240	1100	970	840
		3	24	28	7.62	1829	1430	1260	1120	970
		1	14	18	4.99	1199	940	830	730	640
		1	20	24	5.18	1243	970	860	760	660
	41/ C 41/ X 41/ 20	1	24	28	5.32	1278	1000	880	780	680
	1¼S-4¼ X 4¼-32	2	20	24	7.69	1846	1440	1270	1130	980
		2	24	28	8.06	1934	1510	1330	1180	1020
		3	24	28	9.26	2223	1730	1530	1360	1180
		1	14	18	5.61	1348	1050	930	820	710
steel		1	20	24	6.05	1453	1130	1000	890	770
a.st	1¼S-4¼ X 4¼-40	1	24	28	6.20	1488	1160	1030	910	790
Dia.	1743-474 A 474-40	2	20	24	8.49	2039	1590	1410	1240	1080
11/4"		2	24	28	8.82	2118	1650	1460	1290	1120
		3	24	28	10.14	2433	1900	1680	1480	1290
		1	14	18	6.31	1514	1180	1040	920	800
		1	20	24	7.00	1680	1310	1160	1020	890
	1¼S-4¼ X 4¼-48	1	24	28	7.18	1724	1340	1190	1050	910
	1/4J-474 A 474-40	2	20	24	9.37	2249	1750	1550	1370	1190
		2	24	28	9.70	2328	1820	1610	1420	1230
		3	24	28	11.19	2686	2100	1850	1640	1420

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	14	18	4.99	1199	940	830	730	640
		1	20	24	5.21	1251	980	860	760	660
	2S-4¼ X 4¼-32	1	24	28	5.36	1286	1000	890	780	680
	23-474 7 474-32	2	20	24	7.55	1811	1410	1250	1100	960
		2	24	28	7.80	1873	1460	1290	1140	990
		3	24	28	8.93	2144	1670	1480	1310	1140
		1	14	18	5.69	1365	1060	940	830	720
steel		1	20	24	5.94	1426	1110	980	870	760
. sto	2S-4¼ X 4¼-40	1	24	28	6.31	1514	1180	1040	920	800
2" Dia.	25-4% X 4%-40	2	20	24	8.13	1951	1520	1350	1190	1030
م <u></u>		2	24	28	8.57	2056	1600	1420	1250	1090
		3	24	28	9.88	2371	1850	1640	1450	1260
		1	14	18	6.49	1558	1210	1070	950	830
		1	20	24	6.74	1619	1260	1120	990	860
	2S-4¼ X 4¼-48	1	24	28	7.26	1741	1360	1200	1060	920
	20-474 A 474-40	2	20	24	8.75	2100	1640	1450	1280	1110
		2	24	28	9.26	2223	1730	1530	1360	1180
		3	24	28	10.68	2564	2000	1770	1560	1360

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t				
		1	14	18	4.67	1120	870	770	680	590
		1	20	24	5.10	1225	960	850	750	650
	2/ O 02/ X 4 00	1	24	28	5.36	1287	1000	890	780	680
	<sup>3</sup> ⁄4C-2 <sup>3</sup> ⁄4X 4-32	2	20	24	6.78	1628	1270	1120	990	860
		2	24	28	7.47	1794	1400	1240	1090	950
		3	24	28	8.60	2065	1610	1420	1260	1090
		1	14	18	5.21	1251	980	860	760	660
34" Dia. copper		1	20	24	5.80	1391	1090	960	850	740
cop		1	24	28	6.16	1479	1150	1020	900	780
Dia.	34C-234 X 4-40	2	20	24	7.04	1689	1320	1170	1030	900
Ma"		2	24	28	7.91	1899	1480	1310	1160	1010
		3	24	28	9.15	2196	1710	1520	1340	1160
		1	14	18	5.72	1374	1070	950	840	730
		1	20	24	6.53	1566	1220	1080	960	830
		1	24	28	6.85	1645	1280	1140	1000	870
	34C-234 X 4-48	2	20	24	7.40	1776	1390	1230	1080	940
		2	24	28	8.28	1986	1550	1370	1210	1050
		3	24	28	9.48	2275	1770	1570	1390	1210
		1	14	18	4.5	1071	835	739	653	568
		1	20	24	4.7	1134	885	782	692	601
	2/ O 01/ X 01/ 00	1	24	28	7.3	1759	1372	1213	1073	932
	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -32	2	20	24	4.9	1181	921	815	721	626
		2	24	28	8.1	1941	1514	1339	1184	1029
		3	24	28	9.4	2251	1756	1553	1373	1193
.		1	14	18	5.2	1244	971	859	759	659
34" Dia. copper		1	20	24	5.6	1355	1057	935	826	718
cop	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-40	1	24	28	8.1	1949	1520	1345	1189	1033
Dia.	-/4U-3/4 X 3/4-4U	2	20	24	5.9	1418	1106	978	865	751
3/4" [		2	24	28	8.8	2117	1651	1461	1291	1122
		3	24	28	10.4	2497	1948	1723	1523	1323
		1	14	18	5.6	1339	1044	924	817	710
		1	20	24	6.4	1544	1204	1065	942	818
	3/C-21/ V 21/- 49	1	24	28	9.6	2313	1804	1596	1411	1226
	<sup>3</sup> ⁄ <sub>4</sub> C-3 <sup>1</sup> ⁄ <sub>4</sub> X 3 <sup>1</sup> ⁄ <sub>4</sub> -48	2	20	24	6.9	1654	1290	1141	1009	876
		2	24	28	10.4	2500	1950	1725	1525	1325
		3	24	28	12.3	2946	2298	2033	1797	1561

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

■ Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

■ Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of	Enclosure	Recommended	Ŭ	Steam heat		Hot wa	ter heat	
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			I	C	opper elemen	t	I	1	1	1
		1	14	18	5.91	1418	1110	980	860	750
		1	20	24	6.27	1505	1170	1040	920	800
		1	24	28	6.56	1575	1230	1090	960	830
	34C-4¼ X 4¼-32	2	20	24	9.22	2214	1730	1530	1350	1170
		2	24	28	10.24	2459	1920	1700	1500	1300
		3	24	28	11.70	2809	2190	1940	1710	1490
		1	14	18	6.93	1663	1300	1150	1010	880
34" Dia. copper		1	20	24	7.55	1811	1410	1250	1100	960
Cop		1	24	28	7.88	1890	1470	1300	1150	1000
Dia.	<sup>3</sup> ⁄ <sub>4</sub> C-4 <sup>1</sup> ⁄ <sub>4</sub> X 4 <sup>1</sup> ⁄ <sub>4</sub> -40	2	20	24	10.10	2424	1890	1670	1480	1280
4"		2	24	28	11.01	2643	2060	1820	1610	1400
<i>м</i> .		3	24	28	12.65	3037	2370	2100	1850	1610
		1	14	18	7.44	1785	1390	1230	1090	950
		1	20	24	8.53	2048	1600	1410	1250	1090
		1	24	28	9.15	2197	1710	1520	1340	1160
	3∕4C-4¼ X 4¼-48	2	20	24	11.92	2861	2230	1970	1750	1520
		2	24	28	12.83	3080	2400	2130	1880	1630
		3	24	28	14.36	3448	2690	2380	2100	1830
		1	14	18	4.63	1111	870	770	680	590
		1	20	24	5.07	1216	950	840	740	640
	40.0%/ X 4.00	1	24	28	5.32	1278	1000	880	780	680
	1C-2¾ X 4-32	2	20	24	6.74	1619	1260	1120	990	860
		2	24	28	7.44	1785	1390	1230	1090	950
		3	24	28	8.57	2056	1600	1420	1250	1090
		1	14	18	5.18	1243	970	860	760	660
per		1	20	24	5.76	1383	1080	950	840	730
Dia. copper	1C-2¾ X 4-40	1	24	28	6.13	1470	1150	1010	900	780
Dia.	10-2% A 4-40	2	20	24	7.00	1680	1310	1160	1020	890
1		2	24	28	7.88	1890	1470	1300	1150	1000
		3	24	28	9.11	2188	1710	1510	1330	1160
		1	14	18	5.69	1365	1060	940	830	720
		1	20	24	6.49	1558	1210	1070	950	830
	1C-2¾ X 4-48	1	24	28	6.82	1636	1280	1130	1000	870
	1 V-2 /4 A 4-40	2	20	24	7.36	1768	1380	1220	1080	940
		2	24	28	8.24	1978	1540	1360	1210	1050
		3	24	28	9.44	2266	1770	1560	1380	1200

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of		Recommended		Steam heat		Hetwo	ter heat	
	Flowent	element	Enclosure	minimum	EDR*	Steamneat			ter neat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²∕ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t			1	1
		1	14	18	4.3	1025	799	707	625	543
		1	20	24	4.7	1122	875	774	684	594
		1	24	28	6.2	1477	1152	1019	901	783
	1C-3¼ X 3¼-2	2	20	24	4.9	1180	920	814	720	625
		2	24	28	6.8	1631	1272	1125	995	864
		3	24	28	7.7	1853	1445	1279	1130	982
		1	14	18	4.6	1093	853	754	667	579
per		1	20	24	5.1	1223	954	844	746	648
1" Dia. copper		1	24	28	6.3	1522	1187	1050	928	807
ja.	1C-3¼ X 3¼-40	2	20	24	5.4	1293	1008	892	789	685
Ē		2	24	28	7.1	1712	1336	1181	1044	907
		3	24	28	8.0	1921	1498	1325	1172	1018
		1	14	18	5.3	1271	991	877	775	673
		1	20	24	6.0	1446	1128	998	882	767
		1	24	28	6.5	1556	1213	1073	949	824
	1C-3¼ X 3¼-48	2	20	24	6.4	1525	1189	1052	930	808
		2	24	28	7.3	1741	1358	1201	1062	923
		3	24	28	8.1	1953	1523	1347	1191	1035
		1	14	18	5.80	1391	1090	960	850	740
		1	20	24	6.16	1479	1150	1020	900	780
		1	24	28	6.42	1540	1200	1060	940	820
	1C-4¼ X 4¼-32	2	20	24	9.04	2170	1690	1500	1320	1150
		2	24	28	10.03	2406	1880	1660	1470	1280
		3	24	28	11.48	2756	2150	1900	1680	1460
		1	14	18	6.78	1628	1270	1120	990	860
per		1	20	24	7.40	1776	1390	1230	1080	940
g	10 11/ X 11/ 10	1	24	28	7.73	1855	1450	1280	1130	980
Dia. copper	1C-4¼ X 4¼-40	2	20	24	9.92	2380	1860	1640	1450	1260
÷		2	24	28	10.79	2590	2020	1790	1580	1370
		3	24	28	12.40	2975	2320	2050	1810	1580
		1	14	18	7.29	1750	1370	1210	1070	930
		1	20	24	8.35	2004	1560	1380	1220	1060
	1C-4¼ X 4¼-48	1	24	28	8.97	2153	1680	1490	1310	1140
	10-474 A 474-40	2	20	24	11.70	2809	2190	1940	1710	1490
		2	24	28	12.58	3019	2350	2080	1840	1600
		3	24	28	14.07	3378	2630	2330	2060	1790

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of						Hatwa	tor boot	
	<b>-</b>	element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²⁄ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t			1	1
		1	14	18	4.45	1068	830	740	650	570
		1	20	24	4.99	1199	940	830	730	640
		1	24	28	5.25	1260	980	870	770	670
	1¼C-2¾ X 4-32	2	20	24	6.64	1593	1240	1100	970	840
		2	24	28	7.36	1768	1380	1220	1080	940
		3	24	28	8.49	2039	1590	1410	1240	1080
		1	14	18	4.99	1199	940	830	730	640
bpe		1	20	24	5.61	1348	1050	930	820	710
1¼" Dia. copper		1	24	28	6.05	1453	1130	1000	890	770
Dia.	1¼C-2¾ X 4-40	2	20	24	6.93	1663	1300	1150	1010	880
1/4 "		2	24	28	7.80	1873	1460	1290	1140	990
-		3	24	28	8.93	2144	1670	1480	1310	1140
		1	14	18	5.61	1348	1050	930	820	710
		1	20	24	6.38	1531	1190	1060	930	810
		1	24	28	6.74	1619	1260	1120	990	860
	1¼C-2¾ X 4-48	2	20	24	7.26	1741	1360	1200	1060	920
		2	24	28	8.13	1951	1520	1350	1190	1030
		3	24	28	9.37	2249	1750	1550	1370	1190
		1	14	18	4.2	998	778	689	609	529
		1	20	24	4.4	1058	826	730	646	561
	41/ O 01/ X 01/ 00	1	24	28	6.6	1579	1232	1090	963	837
	1¼C-3¼ X 3¼-32	2	20	24	4.6	1104	861	762	673	585
		2	24	28	7.3	1748	1363	1206	1066	926
		3	24	28	8.6	2063	1609	1424	1259	1094
		1	14	18	4.9	1164	908	803	710	617
bpe		1	20	24	5.3	1270	991	876	775	673
00	11/ O 01/ X 01/ 40	1	24	28	7.4	1780	1388	1228	1086	943
Dia	1¼C-3¼ X 3¼-40	2	20	24	5.5	1331	1038	918	812	705
11⁄4" Dia. copper		2	24	28	8.1	1937	1511	1337	1182	1027
		3	24	28	9.4	2250	1755	1553	1373	1193
		1	14	18	5.4	1299	1014	897	793	689
		1	20	24	6.2	1496	1167	1032	913	793
	1¼C-3¼ X 3¼-48	1	24	28	8.8	2115	1649	1459	1290	1121
	1740-374 A 374-48	2	20	24	6.6	1591	1241	1098	970	843
		2	24	28	9.4	2250	1755	1553	1373	1193
		3	24	28	10.8	2588	2019	1786	1579	1372

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BGVL5/BGHL5/IBGVL5/IBGHL5; standard enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	actor of 0.69      factor of 0.61        950      840        1010      900        1060      930        1490      1320        1650      1460        1900      1680        1120      990	
				C	opper elemer	t				
		1	14	18	5.76	1383	1080	950	840	730
		1	20	24	6.13	1470	1150	1010	900	780
	1¼C-4¼ X 4¼-32	1	24	28	6.38	1531	1190	1060	930	810
	1740-474 7 474-32	2	20	24	9.01	2161	1690	1490	1320	1150
		2	24	28	9.99	2398	1870	1650	1460	1270
		3	24	28	11.45	2748	2140	1900	1680	1460
		1	14	18	6.74	1619	1260	1120	990	860
hh		1	20	24	7.36	1768	1380	1220	1080	940
8	1¼C-4¼ X 4¼-40	1	24	28	7.69	1847	1440	1270	1130	980
	1 /4 <b>C-4</b> /4 X 4 /4-40	2	20	24	9.88	2371	1850	1640	1450	1260
1 1/4" UIA. Copper		2	24	28	10.76	2581	2010	1780	1570	1370
-		3	24	28	12.32	2958	2310	2040	1800	1570
ĺ		1	14	18	7.22	1733	1350	1200	1060	920
		1	20	24	8.31	1995	1560	1380	1220	1060
	1¼C-4¼ X 4¼-48	1	24	28	8.79	2109	1640	1460	1290	1120
	174 <b>0-</b> 474 <b>X</b> 474-40	2	20	24	11.59	2783	2170	1920	1700	1470
		2	24	28	12.32	2958	2310	2040	1800	1570
		3	24	28	13.78	3308	2580	2280	2020	1750

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG3/IBG3; low profile, bar grille enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²∕ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				:	Steel element					
		1	8	12	3.20	770	600	530	470	410
	1S-3¼ X 3¼-32	1	11	15	3.40	820	640	570	500	430
	13-374 A 374-32	1	14	18	3.50	840	660	580	510	450
		2	14	18	4.80	1150	900	790	700	610
<u>e</u>		1	8	12	3.50	840	660	580	510	450
. ste	40.01/ X.01/ 40	1	11	15	3.80	920	720	630	560	490
1" Dia. steel	1S-3¼ X 3¼-40	1	14	18	4.00	960	750	660	590	510
- <b>-</b>		2	14	18	5.40	1300	1010	900	790	690
		1	8	12	4.00	960	748	660	590	510
	1S-3¼ X 3¼-48	1	11	15	4.30	1030	803	710	630	550
	13-3/4 8 3/4-40	1	14	18	4.50	1080	842	750	660	570
		2	14	18	610	1470	1146	1010	900	780
		1	8	12	3.10	750	590	520	460	400
	1¼S-3¼ X 3¼-32	1	11	15	3.30	800	620	550	490	420
	1743-374 x 374-32	1	14	18	3.40	820	640	570	500	530
		2	14	18	4.70	1130	880	780	690	600
lee		1	8	12	3.40	820	640	570	500	430
a. st	1¼S-3¼ X 3¼-40	1	11	15	3.80	900	700	620	550	480
1¼" Dia. steel	1743-374 A 374-40	1	14	18	3.90	940	730	650	570	500
11/4		2	14	18	5.30	1270	990	880	770	670
		1	8	12	3.90	940	730	650	570	500
	1¼S-3¼ X 3¼-48	1	11	15	4.20	1010	790	700	620	540
	1743-374 X 374-40	1	14	18	4.40	1060	830	730	650	560
		2	14	18	6.00	1440	1120	990	880	760

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model BG3/IBG3; low profile, bar grille enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1	C	opper elemen	t	l	1		
		1	8	12	4.30	1030	800	710	630	540
		1	11	15	4.60	1100	860	760	670	580
	<sup>3</sup> /4C-2 <sup>3</sup> / <sub>4</sub> X 4-32	1	14	18	4.90	1170	910	810	710	620
		2	14	18	6.70	1600	1250	1110	980	850
34" Dia. copper		1	8	12	4.70	1130	880	780	690	600
cop		1	11	15	5.10	1220	950	840	740	650
Dia.	<sup>3</sup> 4C-2 <sup>3</sup> 4 X 4-40	1	14	18	5.40	1290	1010	890	790	680
4" [		2	14	18	9.30	2220	1230	1080	940	1176
<i>с</i> .		1	8	12	5.10	1220	950	840	740	650
		1	11	15	5.60	1340	1050	920	870	710
	34C-234 X 4-48	1	14	18	5.90	1410	1100	970	860	750
		2	14	18	8.00	1930	1500	1330	1180	1020
		1	8	12	4.10	980	760	680	600	520
		1	11	15	4.40	1050	820	720	640	560
	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -32	1	14	18	4.70	1130	880	780	690	600
		2	14	18	6.40	1540	1200	1060	940	820
34" Dia. copper		1	8	12	4.50	1080	840	750	660	570
cop	2/ O 01/ X 01/ 40	1	11	15	4.90	1170	910	810	710	620
Dia.	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -40	1	14	18	5.10	1240	970	860	760	660
34" [		2	14	18	7.10	1710	1330	1180	1040	910
		1	8	12	5.00	1200	940	830	730	640
	<sup>3</sup> ∕4C-3¼ X 3¼-48	1	11	15	5.40	1300	1010	900	790	690
	%0-3% X 3%-40	1	14	18	5.40	1370	1070	950	840	730
		2	14	18	7.90	1890	1480	1300	1150	1000
		1	8	12	4.20	1010	790	700	620	540
	1C-2¾ X 4-32	1	11	15	4.50	1080	840	750	660	570
	10-274 X 4-32	1	14	18	4.80	1150	900	730	700	610
		2	14	18	6.60	1580	1230	1090	960	840
per		1	8	12	4.60	1110	870	770	680	590
8	1C-2¾ X 4-40	1	11	15	5.00	1200	940	830	730	640
1" Dia. copper	10-274 A 4-40	1	14	18	5.30	1270	990	880	770	670
ļ Ļ		2	14	18	7.30	1750	1370	1210	1070	930
		1	8	12	5.00	1200	940	830	730	640
	1C-2¾ X 4-48	1	11	15	5.50	1320	1030	910	810	700
	IV-2 /4 A T-TU	1	14	18	5.80	1390	1080	960	850	740
		2	14	18	7.90	1900	1480	1310	1160	1010

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

General data

### Performance ratings: model BG3/IBG3; low profile, bar grille enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1	C	opper elemen	t	I	1	1	
		1	8	12	4.00	960	750	660	590	510
		1	11	15	4.30	1030	800	710	630	550
	1C-3¼ X 3¼-32	1	14	18	4.60	1110	870	770	680	590
		2	14	18	6.30	1510	1180	1040	920	800
per		1	8	12	4.40	1060	830	730	650	560
Dia. copper		1	11	15	4.80	1150	900	790	700	610
ia.	1C-3¼ X 3¼-40	1	14	18	5.10	1220	950	840	740	650
- -		2	14	18	7.00	1680	1310	1160	1020	890
		1	8	12	4.90	1180	920	810	720	630
		1	11	15	5.30	1270	990	880	770	670
	1C-3¼ X 3¼-48	1	14	18	5.60	1340	1050	920	820	710
		2	14	18	7.70	1850	1440	1280	1130	980
		1	8	12	4.00	960	750	660	590	510
		1	11	15	4.30	1030	800	710	630	550
	1¼C-2¾ X 4-32	1	14	18	4.60	1110	870	770	680	590
		2	14	18	6.30	1510	1180	1040	920	800
1¼" Dia. copper		1	8	12	4.50	1080	840	750	660	570
co		1	11	15	4.80	1150	900	790	700	610
Dia.	1¼C-2¾ X 4-40	1	14	18	5.10	1220	950	840	740	650
1/4"		2	14	18	7.00	1680	1310	1160	1020	890
-		1	8	12	5.00	1180	920	810	720	630
	1¼C-2¾ X 4-48	1	11	15	5.30	1270	990	880	770	670
	174 <b>G-2</b> % <b>X</b> 4-40	1	14	18	5.60	1340	1050	920	820	710
		2	14	18	7.70	1850	1440	1280	1130	980
		1	8	12	3.50	850	660	590	520	450
	1¼C-3¼ X 3¼-32	1	11	15	3.80	920	720	630	560	490
	1/40-3/4 A 3/4-32	1	14	18	4.00	960	750	660	590	510
5		2	14	18	5.50	1320	1030	910	810	700
ppe		1	8	12	4.40	1060	830	730	650	560
8	1¼C-3¼ X 3¼-40	1	11	15	4.70	1130	880	780	690	600
Dia	1740-374 A 374-4U	1	14	18	5.00	1200	940	830	730	640
11/4" Dia. copper		2	14	18	6.90	1660	1290	1150	1010	880
		1	8	12	4.80	1150	900	790	700	610
	1¼C-3¼ X 3¼-48	1	11	15	5.20	1250	980	860	760	660
	1/-0-0/4 / 0/4-40	1	14	18	5.50	1320	1030	910	810	700
		2	14	18	7.50	1800	1400	1240	1100	950

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-ritling.com.

General data

Performance ratings: model BGVL3/BGHL3/IBGVL3/IBGHL3; low profile, bar grille enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²∕ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	08	12	3.21	770	600	530	470	410
	40.01/ X.01/ 00	1	11	15	3.42	820	640	570	500	430
	1S-3¼ X 3¼-32	1	14	18	3.50	840	660	580	510	450
		2	14	18	4.79	1150	900	790	700	610
		1	08	12	3.50	840	660	580	510	450
. ste		1	11	15	3.83	920	720	630	560	490
1" Dia. steel	1S-3¼ X 3¼-40	1	14	18	4.00	960	750	660	590	510
÷		2	14	18	5.42	1300	1010	900	790	690
		1	08	12	4.00	960	750	660	590	510
	40.01/ X.01/ 40	1	11	15	4.29	1030	800	710	630	550
	1S-3¼ X 3¼-48	1	14	18	4.50	1080	840	750	660	570
		2	14	18	6.13	1470	1150	1010	900	780
		1	08	12	3.13	750	590	520	460	400
	41/ C 01/ X 01/ 00	1	11	15	3.33	800	620	550	490	420
	1¼S-3¼ X 3¼-32	1	14	18	3.42	820	640	570	500	430
		2	14	18	4.71	1130	880	780	690	600
steel		1	08	12	3.42	820	640	570	500	430
a. st	1¼S-3¼ X 3¼-40	1	11	15	3.75	900	700	620	550	480
1¼" Dia.	1743-374 A 374-4U	1	14	18	3.92	940	730	650	570	500
11/4		2	14	18	5.29	1270	990	880	770	670
		1	08	12	3.92	940	730	650	570	500
	1¼S-3¼ X 3¼-48	1	11	15	4.21	1010	790	700	620	540
	1743-374 A 374-48	1	14	18	4.42	1060	830	730	650	560
		2	14	18	6.00	1440	1120	990	880	760

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)  Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

Performance ratings: model BGVL3/BGHL3/IBGVL3/IBGHL3; low profile, bar grille enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				С	opper elemen	t				
		1	08	12	3.76	901	700	620	550	480
		1	11	15	4.01	963	750	660	590	510
	34C-234 X 4-32	1	14	18	4.27	1024	800	710	620	540
		2	14	18	5.83	1400	1090	970	850	740
34" Dia. copper		1	08	12	4.12	989	770	680	600	520
5 Co		1	11	15	4.45	1068	830	740	650	570
Dia.	34C-234 X 4-40	1	14	18	4.70	1129	880	780	690	600
%" I		2	14	18	8.09	1943	1520	1340	1180	1030
		1	08	12	4.45	1068	830	740	650	570
		1	11	15	4.89	1173	910	810	720	620
	34C-234 X 4-48	1	14	18	5.14	1234	960	850	750	650
		2	14	18	7.04	1689	1320	1170	1030	900
		1	08	12	3.57	858	670	590	520	450
		1	11	15	3.83	919	720	630	560	490
	<sup>3</sup> ⁄ <sub>4</sub> C-3 <sup>1</sup> ⁄ <sub>4</sub> X 3 <sup>1</sup> ⁄ <sub>4</sub> -32	1	14	18	4.12	989	770	680	600	520
		2	14	18	5.61	1348	1050	930	820	710
34" Dia. copper		1	08	12	3.94	945	740	650	580	500
5 Co		1	11	15	4.27	1024	800	710	620	540
Dia.	¾C-3¼ X 3¼-40	1	14	18	4.52	1085	850	750	660	580
4"		2	14	18	6.23	1496	1170	1030	910	790
°		1	08	12	4.38	1050	820	720	640	560
		1	11	15	4.74	1138	890	780	690	600
	34C-31/4 X 31/4-48	1	14	18	4.99	1199	940	830	730	640
		2	14	18	6.89	1654	1290	1140	1010	880
		1	08	12	3.68	884	690	610	540	470
		1	11	15	3.94	945	740	650	580	500
	1C-2¾ X 4-32	1	14	18	4.19	1007	780	690	610	530
		2	14	18	5.76	1383	1080	950	840	730
per		1	08	12	4.05	971	760	670	590	510
1" Dia. copper	10 03/ 1 4 40	1	11	15	4.38	1050	820	720	640	560
Dia.	1C-2¾ X 4-40	1	14	18	4.63	1111	870	770	680	590
-		2	14	18	6.38	1531	1190	1060	930	810
		1	08	12	4.38	1050	820	720	640	560
	10 03/ V 4 40	1	11	15	4.81	1155	900	800	700	610
	1C-2¾ X 4-48	1	14	18	5.07	1216	950	840	740	640
		2	14	18	6.93	1663	1300	1150	1010	880

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

**General data** 

Performance ratings: model BGVL3/BGHL3/IBGVL3/IBGHL3; low profile, bar grille enclosure

	_	Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		С	opper elemer	nt				
		1	08	12	3.50	840	660	580	510	450
	40.01/ X 01/ 00	1	11	15	3.76	901	700	620	550	480
	1C-3¼ X 3¼-32	1	14	18	4.05	971	760	670	590	510
		2	14	18	5.51	1321	1030	910	810	700
1" Dia. copper		1	08	12	3.86	928	720	640	570	490
cop		1	11	15	4.19	1006	780	690	610	530
ja.	1C-3¼ X 3¼-40	1	14	18	4.45	1068	830	740	650	570
Ę		2	14	18	6.13	1470	1150	1010	900	780
		1	08	12	4.30	1033	810	710	630	550
		1	11	15	4.63	1111	870	770	680	590
	1C-3¼ X 3¼-48	1	14	18	4.89	1173	910	810	720	620
		2	14	18	6.74	1619	1260	1120	990	860
		1	08	12	3.50	840	660	580	510	450
		1	11	15	3.76	901	700	620	550	480
	1¼C-2¾ X 4-32	1	14	18	4.05	971	760	670	590	510
	1 /4 <b>U-2 % X 4-32</b>	2	14	18	5.51	1321	1030	910	810	700
11/4" Dia. copper		1	08	12	3.94	945	740	650	580	500
S		1	11	15	4.19	1006	780	690	610	530
Dia.	1¼C-2¾ X 4-40	1	14	18	4.45	1068	830	740	650	570
/4"		2	14	18	6.13	1470	1150	1010	900	780
÷		1	08	12	4.30	1033	810	710	630	550
		1	11	15	4.63	1111	870	770	680	590
	1¼C-2¾ X 4-48	1	14	18	4.89	1173	910	810	720	620
		2	14	18	6.74	1619	1260	1120	990	860
		1	08	12	3.10	744	580	510	450	390
		1	11	15	3.35	805	630	560	490	430
	1¼C-3¼ X 3¼-32	1	14	18	3.50	840	660	580	510	450
		2	14	18	4.81	1155	900	800	700	610
11/4" Dia. copper		1	08	12	3.86	928	720	640	570	490
<sup>c</sup> o		1	11	15	4.12	989	770	680	600	520
Dia.	1¼C-3¼ X 3¼-40	1	14	18	4.38	1050	820	720	640	560
1/4"		2	14	18	6.05	1453	1130	1000	890	770
-		1	08	12	4.19	1007	780	690	610	530
	11/0 01/ 1/ 01/ 10	1	11	15	4.56	1094	850	750	670	580
	1¼C-3¼ X 3¼-48	1	14	18	4.81	1155	900	800	700	610
		2	14	18	6.56	1575	1230	1090	960	830

In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

■ Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

■ Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

■ Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

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Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

General data

### Performance ratings: model PBG5/PIBG5; pedestal enclosure

		Enclosure	Enclosuro	Recommended	EDR* ht (ft²/ ft)	Steam heat	Hot water heat				
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)		215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53	
		1	1		Steel element	1	1	1	1	1	
		1	6	10	3.8	910	710	630	560	480	
	1S-3¼ X 3¼-32	1	8	12	3.9	924	721	638	564	490	
_		2	12	16	5.7	1360	1060	940	830	720	
1" Dia. steel		1	6	10	4.1	980	770	680	600	520	
ia. s	1S-3¼ X 3¼-40	1	8	12	4.2	1008	786	696	615	534	
Ē		2	12	16	6.2	1480	1160	1020	900	790	
-	1S-3¼ X 3¼-48	1	6	10	4.4	1050	820	720	640	560	
		1	8	12	4.5	1091	851	753	665	578	
		2	12	16	6.6	1570	1230	1080	960	830	
		1	6	10	5.3	1280	1000	880	780	680	
	1S-4¼ X 4¼-32	1	8	12	5.4	1289	1006	890	786	683	
_		2	12	16	7.5	1800	1400	1240	1100	950	
steel		1	6	10	5.6	1330	1040	920	810	700	
ia. s	1S-4¼ X 4¼-40	1	8	12	5.7	1377	1074	950	840	730	
1" Dia.		2	12	16	8	1980	1540	1310	1210	1050	
-		1	6	10	6.1	1470	1150	1010	900	780	
	1S-4¼ X 4¼-48	1	8	12	6.3	1512	1180	1044	923	802	
		2	12	16	8.8	2120	1650	1460	1290	1120	

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

General data

### Performance ratings: model PBG5/PIBG5; pedestal enclosure

		Rows of	Enclosure	Recommended		Steam heat	Hot water heat				
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53	
			1		Steel element			1	1		
		1	6	10	3.7	890	700	610	540	470	
	1¼S-3¼ X 3¼-32	1	8	12	3.8	912	711	629	556	483	
-		2	12	16	5.6	1330	1040	920	810	700	
ste		1	6	10	4	960	750	660	590	510	
1¼" Dia. steel	1¼S-3¼ X 3¼-40	1	8	12	4.1	983	767	679	600	521	
4"		2	12	16	6.1	1450	1130	1000	880	770	
÷		1	6	10	4.3	1030	800	710	630	550	
	1¼S-3¼ X 3¼-48	1	8	12	4.4	1066	832	736	650	565	
		2	12	16	6.4	1540	1200	1060	940	820	
	1¼S-4¼ X 4¼-32	1	6	10	5.2	1250	980	860	760	660	
		1	8	12	5.3	1265	987	873	772	670	
-		2	12	16	7.3	1760	1370	1210	1070	930	
1¼" Dia. steel	1¼S-4¼ X 4¼-40	1	6	10	5.4	1300	1010	900	790	690	
Dia.		1	8	12	5.5	1328	1036	916	810	704	
4"		2	12	16	8.1	1940	1510	1340	118	1030	
11		1	6	10	6	1440	1120	990	880	760	
	1¼S-4¼ X 4¼-48	1	8	12	6.2	1488	1160	1027	907	788	
		2	12	16	8.7	2080	1620	1440	1270	1100	
		1	6	10	5	1198	935	827	731	635	
	2S-4¼ X 4¼-32	1	8	12	5.1	1216	949	839	742	645	
		2	12	16	7.1	1699	1326	1173	1037	901	
stee		1	6	10	5.2	1244	970	858	759	659	
Dia. steel	2S-4¼ X 4¼-40	1	8	12	5.3	1278	997	882	780	678	
2" Di		2	12	16	7.9	1886	1471	1301	1150	999	
~		1	6	10	5.8	1382	1078	954	843	733	
	2S-4¼ X 4¼-48	1	8	12	6.0	1438	1122	992	877	762	
		2	12	16	8.4	2025	1580	1397	1235	1073	

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

General data

### Performance ratings: model PBG5/PIBG5; pedestal enclosure

		Rows of	Enclosure	Recommended		Steam heat	Hot water heat				
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53	
				C	opper elemer	t		1	1		
		1	6	10	3.7	900	700	620	550	480	
	34C-234 X 4-32	1	8	12	4.2	1005	784	694	613	533	
er		2	12	16	6.7	1610	1260	1110	980	850	
ddc		1	6	10	4	970	760	670	590	510	
¾" Dia. copper	34C-234 X 4-40	1	8	12	4.6	1099	857	759	671	583	
Ö		2	12	16	7.1	1710	1330	1180	1040	910	
3/41		1	6	10	4.3	1040	810	720	630	550	
	<sup>3</sup> 4C-2 <sup>3</sup> 4 X 4-48	1	8	12	5.0	1190	928	821	726	631	
		2	12	16	7.5	1790	1400	1240	1090	950	
	¾C-3¼ X 3¼-32	1	6	10	3.8	918	716	633	560	487	
		1	8	12	4.3	1032	805	712	630	547	
Ŀ		2	12	16	7.4	1782	1390	1230	1087	945	
ddo	¾C-3¼ X 3¼-40	1	6	10	4.4	1044	814	720	637	553	
ŭ.		1	8	12	5.0	1209	943	834	738	641	
34" Dia. copper		2	12	16	7.9	1905	1486	1315	1162	1010	
3,4		1	6	10	5.2	1242	969	857	758	658	
	<sup>3</sup> ⁄ <sub>4</sub> C-3 <sup>1</sup> ⁄ <sub>4</sub> X 3 <sup>1</sup> ⁄ <sub>4</sub> -48	1	8	12	6.0	1439	1123	993	878	763	
		2	12	16	8.1	1953	1523	1347	1191	1035	
		1	6	10	5.1	1230	960	850	750	650	
	<sup>3</sup> ⁄ <sub>4</sub> C-4 <sup>1</sup> ⁄ <sub>4</sub> X 4 <sup>1</sup> ⁄ <sub>4</sub> -32	1	8	12	5.9	1423	1110	982	868	754	
er		2	12	16	9.4	2260	1760	1560	1380	1200	
ddo		1	6	10	5.8	1380	1080	950	840	730	
¾" Dia. copper	<sup>3</sup> ⁄ <sub>4</sub> C-4 <sup>1</sup> ⁄ <sub>4</sub> X 4 <sup>1</sup> ⁄ <sub>4</sub> -40	1	8	12	7.3	1753	1368	1210	1070	929	
Ö		2	12	16	10.05	2410	1880	1600	1470	1280	
34'		1	6	10	6.9	1650	1290	1140	1010	880	
	¾C-4¼ X 4¼-48	1	8	12	9.6	2310	1801	1594	1409	1224	
		2	12	16	10.3	2470	1930	1700	1510	1310	

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)  Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.) Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model PBG5/PIBG5; pedestal enclosure

		Rows of	Enclosure	Recommended		Steam heat	Hot water heat				
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53	
				C	opper elemer	ıt					
		1	6	10	3.7	890	690	610	540	470	
	1C-2¾ X 4-32	1	8	12	4.2	1005	784	694	613	533	
La la		2	12	16	6.6	1570	1220	1080	960	830	
ddo		1	6	10	4	960	750	660	590	510	
1" Dia. copper	1C-2¾ X 4-40	1	8	12	4.6	1099	857	759	671	583	
Dia		2	12	16	6.9	1660	1290	1150	1010	880	
I		1	6	10	4.3	1030	800	710	630	550	
	1C-2¾ X 4-48	1	8	12	5.0	1190	928	821	726	631	
		2	12	16	7.2	1730	1350	1190	1060	920	
	1C-3¼ X 3¼-32	1	6	10	3.4	818	638	564	499	433	
		1	8	12	3.8	924	721	637	564	490	
2		2	12	16	6	1447	1129	998	883	767	
1" Dia. copper	1C-3¼ X 3¼-40	1	6	10	3.7	884	689	610	539	468	
ŏ		1	8	12	4.2	1017	793	702	620	539	
ö		2	12	16	6.3	1513	1180	1044	923	802	
I		1	6	10	4	950	741	656	580	504	
	1C-3¼ X 3¼-48	1	8	12	4.6	1107	864	764	675	587	
		2	12	16	6.6	1579	1231	1089	963	837	
		1	6	10	5.1	1210	940	830	740	640	
	1C-4¼ X 4¼-32	1	8	12	5.9	1423	1110	982	868	754	
2		2	12	16	9.3	2220	1730	1530	1360	1180	
ddo		1	6	10	5.7	1350	1050	930	820	720	
ŭ.	1C-4¼ X 4¼-40	1	8	12	7.2	1723	1344	1189	1051	913	
1" Dia. copper		2	12	16	9.8	2360	1840	1630	1440	1250	
		1	6	10	6.8	1620	1260	1120	990	860	
	1C-4¼ X 4¼-48	1	8	12	9.5	2276	1775	1571	1388	1206	
		2	12	16	10.09	2420	1890	1670	1480	1280	

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)  Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.) Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)



### Performance ratings: model PBG5/PIBG5; pedestal enclosure

		Rows of	Enclosure	Recommended		Steam heat	Hot water heat				
	Element	element (on 6-inch centers)	element on 6-inch (in inches)	minimum installed height (in inches)	EDR* (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53	
				C	opper elemen	t	1	1			
		1	6	10	3.7	890	690	610	540	470	
	1¼C-2¾ X 4-32	1	8	12	4.2	1005	784	694	613	533	
e l		2	12	16	6.6	1590	1240	110	970	840	
1¼" Dia. copper		1	6	10	4	960	750	660	590	510	
a.c	1¼C-2¾ X 4-40	1	8	12	4.6	1099	857	759	671	583	
Ē		2	12	16	7.1	1710	1330	1180	1040	910	
11/4		1	6	10	4.2	1010	790	700	620	540	
	1¼C-2¾ X 4-48	1	8	12	4.8	1163	907	802	709	616	
		2	12	16	7.2	1730	1350	1190	1060	920	
	1¼C-3¼ X 3¼-32	1	6	10	3.6	864	674	596	527	458	
		1	8	12	4.1	978	763	675	597	518	
er l		2	12	16	6.6	1594	1244	1100	973	845	
1¼" Dia. copper	1¼C-3¼ X 3¼-40	1	6	10	4	968	755	668	590	513	
a.c		1	8	12	4.6	1099	857	759	671	583	
Ē		2	12	16	7.1	1699	1326	1173	1037	901	
11/4		1	6	10	4.8	1158	903	799	706	614	
	1¼C-3¼ X 3¼-48	1	8	12	5.5	1329	1036	917	810	704	
		2	12	16	7.2	1734	1353	1197	1058	919	
		1	6	10	5	1200	940	830	730	640	
	1¼C-4¼ X 4¼-32	1	8	12	5.8	1395	1088	963	851	739	
e l		2	12	16	9.1	2180	1700	1500	1330	1160	
ddo		1	6	10	5.6	1340	1050	930	820	710	
1¼" Dia. copper	1¼C-4¼ X 4¼-40	1	8	12	7.1	1693	1320	1168	1033	897	
		2	12	16	9.7	2330	1820	1610	1420	1230	
11/4		1	6	10	6.7	1610	1260	1110	980	850	
	1¼C-4¼ X 4¼-48	1	8	12	9.3	2243	1749	1547	1368	1189	
		2	12	16	9.9	2380	1860	1640	1450	1260	

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)  Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.) Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model PBG10/PIBG10; pedestal enclosure

		Rows of	element	Recommended minimum	EDR*	Steam heat	Hot water heat			
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	EDA (ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element				1	1
ee	1S-3¼ X 3¼-32	2	6	10	6.9	1660	1290	1150	1010	880
1" Dia. steel	1S-3¼ X 3¼-40	2	6	10	7.2	1730	1350	1190	1060	920
ļ -	1S-3¼ X 3¼-48	2	6	10	8	1910	1490	1320	1170	1010
steel	1S-4¼ X 4¼-32	2	6	10	9.8	2350	1830	1620	1430	1250
Dia. st	1S-4¼ X 4¼-40	2	6	10	10.4	2500	1950	1730	1530	1030
ļ Ļ	1S-4¼ X 4¼-48	2	6	10	11.2	2690	2100	1860	1640	1430
steel	1¼S-3¼ X 3¼-32	2	6	10	6.8	1630	1270	1120	990	860
Dia. 9	1¼S-3¼ X 3¼-40	2	6	10	7.1	1700	1330	1170	1040	900
1¼" Dia.	1¼S-3¼ X 3¼-48	2	6	10	7.8	1870	1460	1290	1140	990
steel	1¼S-4¼ X 4¼-32	2	6	10	9.6	2300	1790	1590	1400	1220
Dia. 9	1¼S-4¼ X 4¼-40	2	6	10	10.2	2450	1910	1690	1490	1390
11/4"	1¼S-4¼ X 4¼-48	2	6	10	11	2640	2060	1820	1610	1400
steel	2S-4¼ X 4¼-32	2	6	10	9.2	2208	1722	1524	1347	1170
Dia. st	2S-4¼ X 4¼-40	2	6	10	9.7	2328	1816	1606	1420	1234
5	2S-4¼ X 4¼-48	2	6	10	10.8	2592	2022	1788	1581	1374

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model PBG10/PIBG10; pedestal enclosure

		element		Recommended minimum			Hot water heat			
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t				
pper	34C-234 X 4-32	2	6	10	7.0	1680	1310	1150	1020	890
34" Dia. copper	<sup>3</sup> /4C-2 <sup>3</sup> / <sub>4</sub> X 4-40	2	6	10	7.4	1770	1380	1220	1080	940
34" D	¾C-2¾ X 4-48	2	6	10	7.9	1890	1470	1300	1150	1000
pper	<sup>3</sup> ⁄ <sub>4</sub> C-3 <sup>1</sup> ⁄ <sub>4</sub> X 3 <sup>1</sup> ⁄ <sub>4</sub> -32	2	6	10	7.2	1728	1348	1192	1054	916
34" Dia. copper	<sup>3</sup> ⁄ <sub>4</sub> C-3 <sup>1</sup> ⁄ <sub>4</sub> X 3 <sup>1</sup> ⁄ <sub>4</sub> -40	2	6	10	8.0	1920	1498	1325	1171	1018
34" D	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -48	2	6	10	9.5	2280	1778	1573	1391	1208
pper	<sup>3</sup> ⁄ <sub>4</sub> C-4 <sup>1</sup> ⁄ <sub>4</sub> X 4 <sup>1</sup> ⁄ <sub>4</sub> -32	2	6	10	9.6	2300	1790	1590	1400	1220
34" Dia. copper	<sup>3</sup> ⁄ <sub>4</sub> C-4 <sup>1</sup> ⁄ <sub>4</sub> X 4 <sup>1</sup> ⁄ <sub>4</sub> -40	2	6	10	10.5	2520	1970	1740	1540	1340
34" D	34C-41/4 X 41/4-48	2	6	10	12.7	3040	2370	2100	1850	1610
per	1C-2¾ X 4-32	2	6	10	6.9	1660	1290	1150	1010	880
1" Dia. copper	1C-2¾ X 4-40	2	6	10	7.3	1750	1370	1210	1070	930
- -	1C-2¾ X 4-48	2	6	10	7.8	1870	1460	1290	1140	990
per	1C-3¼ X 3¼-32	2	6	10	6.4	1536	1198	1060	937	814
1" Dia. copper	1C-3¼ X 3¼-40	2	6	10	6.7	1608	1254	1110	981	852
1" Di	1C-3¼ X 3¼-48	2	6	10	7.2	1728	1348	1192	1054	916
per	1C-4¼ X 4¼-32	2	6	10	9.4	2250	1760	1550	1370	1190
1" Dia. copper	1C-4¼ X 4¼-40	2	6	10	10.3	2470	1930	1700	1510	1310
1" Di	1C-4¼ X 4¼-48	2	6	10	12.4	2980	2320	2060	1820	1580

In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)  Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

 Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.) Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model PBG10/PIBG10; pedestal enclosure

#### Rows of Recommended Steam heat Hot water heat Enclosure element minimum EDR\* Element height (on 6-inch installed height (ft²/ ft) 215°F 190°F 180°F 170°F 160°F (in inches) centers) (in inches) factor of 1.00 factor of 0.78 factor of 0.69 factor of 0.61 factor of 0.53 Copper element 11/4" Dia. copper 11/4C-23/4 X 4-32 2 6 10 6.9 1660 1290 1150 1010 880 1¼C-2¾ X 4-40 2 6 10 7.3 1750 1370 1210 1070 930 1¼C-2¾ X 4-48 1440 2 6 10 7.7 1850 1280 1130 980 11/4" Dia. copper 11/4C-31/4 X 31/4-32 2 6 10 6.7 1608 1254 1110 981 852 11/4C-31/4 X 31/4-40 2 6 10 7.3 1752 1367 1209 1069 929 11/4C-31/4 X 31/4-48 2 6 10 8.9 2136 1666 1474 1303 1132 Dia. copper 11/4C-41/4 X 41/4-32 2 6 10 9.3 2230 1740 1540 1360 1180 2 11/4C-41/4 X 41/4-40 6 10 10.2 2450 1910 1690 1490 1300 1/4" 1¼C-4¼ X 4¼-48 2 2950 2300 2040 1800 1560 6 10 12.3

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1			Steel element					
		1	14	18	4.08	980	760	680	600	520
		1	20	24	4.21	1010	790	700	620	540
		1	24	28	4.42	1060	830	730	650	560
	1S-3¼ X 3¼-32	2	20	24	6.29	1510	1180	1040	920	800
		2	24	28	6.58	1580	1230	1090	960	840
		3	24	28	7.71	1850	1440	1280	1130	980
		1	14	18	4.58	1100	860	760	670	580
ē		1	20	24	4.92	1180	920	810	720	630
Dia. steel		1	24	28	5.08	1220	950	840	740	650
Dia	1S-3¼ X 3¼-40	2	20	24	6.92	1660	1290	1150	1010	880
Ļ.		2	24	28	7.29	1750	1370	1210	1070	930
		3	24	28	8.42	2020	1580	1390	1230	1070
		1	14	18	5.08	1220	950	840	740	650
		1	20	24	5.71	1370	1070	950	840	730
		1	24	28	5.92	1420	1110	980	870	750
	1S-3¼ X 3¼-48	2	20	24	7.71	1850	1440	1280	1130	980
		2	24	28	8.00	1920	1500	1320	1170	1020
		3	24	28	9.21	2210	1720	1520	1350	1170
		1	14	18	5.92	1420	1110	980	870	750
		1	20	24	6.08	1460	1140	1010	890	770
	1S-4¼ X 4¼-32	1	24	28	6.29	1510	1180	1040	920	800
	15-4/4 X 4/4-32	2	20	24	9.21	2210	1720	1520	1350	1170
		2	24	28	9.58	2300	1790	1590	1400	1220
		3	24	28	11.00	2640	2060	1820	1610	1400
		1	14	18	6.58	1580	1230	1090	960	840
		1	20	24	7.08	1700	1330	1170	1040	900
1" Dia. steel	1S-4¼ X 4¼-40	1	24	28	7.42	1780	1390	1230	1090	940
Dia	13-474 X 474-40	2	20	24	10.08	2420	1890	1670	1480	1280
÷.		2	24	28	10.50	2520	1970	1740	1540	1340
		3	24	28	12.00	2880	2250	1990	1760	1530
		1	14	18	7.50	1800	1400	1240	1100	950
		1	20	24	8.42	2020	1580	1390	1230	1070
	1S-4¼ X 4¼-48	1	24	28	8.58	2060	1610	1420	1260	1090
	10-7/4 A 4/4-40	2	20	24	11.08	2660	2070	1840	1620	1410
		2	24	28	11.50	2760	2150	1900	1680	1460
		3	24	28	13.29	3190	2490	2200	1950	1690

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				1	Steel element					
		1	14	18	4.00	960	750	660	590	510
		1	20	24	4.08	980	760	680	600	520
	41/ C 01/ X 01/ 00	1	24	28	4.29	1030	800	710	630	550
	1¼S-3¼ X 3¼-32	2	20	24	6.21	1490	1160	1030	910	790
		2	24	28	6.50	1560	1220	1080	950	830
		3	24	28	7.50	1800	1400	1240	1100	950
		1	14	18	4.50	1080	840	750	660	570
tee		1	20	24	4.79	1150	900	790	700	610
1¼" Dia. steel	41/ C 01/ X 01/ 40	1	24	28	5.00	1200	940	830	730	640
ā	1¼S-3¼ X 3¼-40	2	20	24	6.79	1630	1270	1120	990	860
11/4		2	24	28	7.08	1700	1330	1170	1040	900
		3	24	28	8.21	1970	1540	1360	1200	1040
		1	14	18	5.00	1200	940	830	730	640
		1	20	24	5.58	1340	1050	920	820	710
	1¼S-3¼ X 3¼-48	1	24	28	5.79	1390	1080	960	850	740
	1/43-3/4 X 3/4-40	2	20	24	7.50	1800	1400	1240	1100	950
		2	24	28	7.79	1870	1460	1290	1140	990
		3	24	28	9.00	2160	1680	1490	1320	1140
		1	14	18	5.79	1390	1080	960	850	740
		1	20	24	6.00	1440	1120	990	880	760
	1¼S-4¼ X 4¼-32	1	24	28	6.21	1490	1160	1030	910	790
	1743-474 × 474-32	2	20	24	9.00	2160	1680	1490	1320	1140
		2	24	28	9.42	2260	1760	1560	1380	1200
		3	24	28	10.79	2590	2020	1790	1580	1370
		1	14	18	6.50	1560	1220	1080	950	830
teel		1	20	24	7.00	1680	1310	1160	1020	890
1¼" Dia. stee	1¼S-4¼ X 4¼-40	1	24	28	7.21	1730	1350	1190	1060	920
ā	1/40-4/4 X 4/4-40	2	20	24	9.92	2380	1860	1640	1450	1260
11/4		2	24	28	10.29	2470	1930	1700	1510	1310
		3	24	28	11.79	2830	2210	1950	1730	1500
		1	14	18	7.29	1750	1370	1210	1070	930
		1	20	24	8.21	1970	1540	1360	1200	1040
	1¼S-4¼ X 4¼-48	1	24	28	8.42	2020	1580	1390	1230	1070
	·/40-7/4 A 4/4-40	2	20	24	10.92	2620	2040	1810	1600	1390
		2	24	28	11.29	2710	2110	1870	1650	1440
		3	24	28	13.00	3120	2430	2150	1900	1650

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	14	18	5.79	1390	1080	960	850	740
		1	20	24	5.83	1400	1090	970	850	740
	2S-4¼ X 4¼-32	1	24	28	6.21	1490	1160	1030	910	790
	23-4/4 A 4/4-32	2	20	24	8.79	2110	1650	1460	1290	1120
		2	24	28	9.08	2180	1700	1500	1330	1160
		3	24	28	10.50	2520	1970	1740	1540	1340
		1	14	18	6.50	1560	1220	1080	950	830
ee		1	20	24	6.92	1660	1290	1150	1010	880
2" Dia. steel	2S-4¼ X 4¼-40	1	24	28	7.21	1730	1350	1190	1060	920
Dia	23-4% X 4%-40	2	20	24	9.50	2280	1780	1570	1390	1210
<b>N</b>		2	24	28	10.00	2400	1870	1660	1460	1270
		3	24	28	11.50	2760	2150	1900	1680	1460
		1	14	18	7.29	1750	1370	1210	1070	930
		1	20	24	7.92	1900	1480	1310	1160	1010
	2S-4¼ X 4¼-48	1	24	28	8.42	2020	1580	1390	1230	1070
	20-4/4 A 4/4-48	2	20	24	10.21	2450	1910	1690	1490	1300
		2	24	28	10.79	2590	2020	1790	1580	1370
		3	24	28	12.42	2980	2320	2060	1820	1580

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		C	opper element	t				
		1	14	18	4.57	1096	850	760	670	580
		1	20	24	4.81	1155	900	800	700	610
	2/ O 02/ X 4 00	1	24	28	5.09	1221	950	840	740	650
	<sup>3</sup> / <sub>4</sub> C-2 <sup>3</sup> / <sub>4</sub> X 4-32	2	20	24	7.20	1729	1350	1190	1050	920
		2	24	28	7.92	1901	1480	1310	1160	1010
		3	24	28	9.10	2185	1700	1510	1330	1160
		1	14	18	5.42	1300	1010	900	790	690
ber		1	20	24	5.88	1412	1100	970	860	750
34" Dia. copper	2/ O 02/ X 4 40	1	24	28	6.13	1472	1150	1020	900	780
Dia.	<sup>3</sup> / <sub>4</sub> C-2 <sup>3</sup> / <sub>4</sub> X 4-40	2	20	24	7.65	1835	1430	1270	1120	970
34"		2	24	28	8.30	1993	1550	1380	1220	1060
		3	24	28	9.52	2284	1780	1580	1390	1210
		2	20	24	7.87	1888	1470	1300	1150	1000
		2	24	28	8.58	2059	1610	1420	1260	1090
	3/ 0 03/ X 4 40	3	24	28	9.85	2363	1840	1630	1440	1250
	<sup>3</sup> ⁄4C-2 <sup>3</sup> ⁄4 X 4-48	1	14	18	5.80	1393	1090	960	850	740
		1	20	24	6.60	1584	1240	1090	970	840
		1	24	28	7.12	1709	1330	1180	1040	910
		1	14	18	6.42	1540	1200	1060	940	820
		1	20	24	7.42	1780	1390	1230	1090	940
	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-32	1	24	28	7.92	1900	1480	1310	1160	1010
	74 <b>0-</b> 374 <b>X</b> 374-32	2	20	24	9.71	2330	1820	1610	1420	1230
		2	24	28	10.00	2400	1870	1660	1460	1270
		3	24	28	11.00	2640	2060	1820	1610	1400
		1	14	18	5.29	1270	990	880	770	670
bei		1	20	24	5.79	1390	1080	960	850	740
Ö	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-40	1	24	28	6.08	1460	1140	1010	890	770
Dia.	74 <b>0-</b> 374 <b>X</b> 374-40	2	20	24	8.08	1940	1510	1340	1180	1030
3₄" Dia. copper		2	24	28	9.00	2160	1680	1490	1320	1140
		3	24	28	10.29	2470	1930	1700	1510	1310
		1	14	18	5.92	1420	1110	980	870	750
		1	20	24	6.50	1560	1220	1080	950	830
	<sup>3</sup> 4C-3¼ X 3¼-48	1	24	28	6.92	1660	1290	1150	1010	880
	/4U-U/4 A U/4-70	2	20	24	9.42	2260	1760	1560	1380	1200
		2	24	28	9.71	2330	1820	1610	1420	1230
		3	24	28	10.71	2570	2000	1770	1570	1360

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

■ Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

■ Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t	1			
		1	14	18	8.79	2110	1650	1460	1290	1120
		1	20	24	10.00	2400	1870	1660	1460	1270
		1	24	28	10.79	2590	2020	1790	1580	1370
	¾C-4¼ X 4¼-32	2	20	24	11.92	2860	2230	1970	1740	1520
		2	24	28	13.00	3120	2430	2150	1900	1650
		3	24	28	14.92	3580	2790	2470	2180	1900
		1	14	18	6.92	1660	1290	1150	1010	880
34" Dia. copper		1	20	24	7.29	1750	1370	1210	1070	930
ő	3/ C 41/ X 41/ 40	1	24	28	7.71	1850	1440	1280	1130	980
Dia.	3⁄4C-41⁄4 X 41⁄4-40	2	20	24	10.92	2620	2040	1810	1600	1390
3/4"		2	24	28	12.00	2880	2250	1990	1760	1530
		3	24	28	13.79	3310	2580	2280	2020	1750
		1	14	18	8.21	1970	1540	1360	1200	1040
		1	20	24	8.92	2140	1670	1480	1310	1130
	3/ C A1/ X A1/ A0	1	24	28	9.29	2230	1740	1540	1360	1180
	3⁄4C-41∕4 X 41⁄4-48	2	20	24	11.58	2780	2170	1920	1700	1470
		2	24	28	12.58	3020	2360	2080	1840	1600
		3	24	28	14.42	3460	2700	2390	2110	1830
		1	14	18	4.48	1076	840	740	660	570
		1	20	24	4.76	1142	890	790	700	610
	1C-2¾ X 4-32	1	24	28	4.95	1188	930	820	720	630
	10-2% X 4-32	2	20	24	7.07	1696	1320	1170	1030	900
		2	24	28	7.78	1868	1460	1290	1140	990
		3	24	28	8.91	2138	1670	1480	1300	1130
		1	14	18	5.28	1267	990	870	770	670
Dia. copper		1	20	24	5.75	1379	1080	950	840	730
d o	1C-2¾ X 4-40	1	24	28	6.00	1439	1120	990	880	760
Dia.	10-274 X 4-40	2	20	24	7.53	1808	1410	1250	1100	960
ļ		2	24	28	8.20	1967	1530	1360	1200	1040
		3	24	28	9.30	2231	1740	1540	1360	1180
		1	14	18	5.67	1360	1060	940	830	720
		1	20	24	6.46	1551	1210	1070	950	820
	1C-2¾ X 4-48	1	24	28	6.98	1676	1310	1160	1020	890
	IV-2 /4 A 4-40	2	20	24	7.73	1855	1450	1280	1130	980
		2	24	28	8.39	2013	1570	1390	1230	1070
		3	24	28	9.63	2310	1800	1590	1410	1220

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		C	opper element	t				
		1	14	18	5.21	1250	980	860	760	660
		1	20	24	5.71	1370	1070	950	840	730
	10 01/ X 01/ 00	1	24	28	6.00	1440	1120	990	880	760
	1C-3¼ X 3¼-32	2	20	24	7.92	1900	1480	1310	1160	1010
		2	24	28	8.79	2110	1650	1460	1290	1120
		3	24	28	10.08	2420	1890	1670	1480	1280
		1	14	18	5.79	1390	1080	960	850	740
per		1	20	24	6.42	1540	1200	1060	940	820
cob		1	24	28	6.79	1630	1270	1120	990	860
1" Dia. copper	1C-3¼ X 3¼-40	2	20	24	9.21	2210	1720	1520	1350	1170
1 I		2	24	28	9.50	2280	1780	1570	1390	1210
		3	24	28	10.58	2540	1980	1750	1550	1350
		1	14	18	6.29	1510	1180	1040	920	800
		1	20	24	7.21	1730	1350	1190	1060	920
	40 01/ X 01/ 40	1	24	28	7.71	1850	1440	1280	1130	980
	1C-3¼ X 3¼-48	2	20	24	9.50	2280	1780	1570	1390	1210
		2	24	28	9.79	2350	1830	1620	1430	1250
		3	24	28	10.79	2590	2020	1790	1580	1370
		1	14	18	6.79	1630	1270	1120	990	860
		1	20	24	7.21	1730	1350	1190	1060	920
	1C-4¼ X 4¼-32	1	24	28	7.50	1800	1400	1240	1100	950
	10-474 X 474-32	2	20	24	10.71	2570	2000	1770	1570	1360
		2	24	28	11.79	2830	2210	1950	1730	1500
		3	24	28	13.50	3240	2530	2240	1980	1720
		1	14	18	8.00	1920	1500	1320	1170	1020
ber		1	20	24	8.71	2090	1630	1440	1270	1110
8	1C-4¼ X 4¼-40	1	24	28	9.08	2180	1700	1500	1330	1160
1" Dia. copper	10-474 X 474-40	2	20	24	11.42	2740	2140	1890	1670	1450
ļ Ļ		2	24	28	12.42	2980	2320	2060	1820	1580
		3	24	28	14.08	3380	2640	2330	2060	1790
		1	14	18	8.58	2060	1610	1420	1260	1090
		1	20	24	9.79	2350	1830	1620	1430	1250
	1C-4¼ X 4¼-48	1	24	28	10.58	2540	1980	1750	1550	1350
	1 V T /4 A T /4-TU	2	20	24	11.71	2810	2190	1940	1710	1490
		2	24	28	12.71	3050	2380	2100	1860	1620
		3	24	28	14.58	3500	2730	2420	2140	1860

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		C	opper elemen	t	1			
		1	14	18	5.61	1346	1050	930	820	710
		1	20	24	6.41	1538	1200	1060	940	820
	1¼C-2¾ X 4-32	1	24	28	6.88	1650	1290	1140	1010	870
	174 <b>G-2%</b> X 4-32	2	20	24	7.59	1822	1420	1260	1110	970
		2	24	28	8.25	1980	1540	1370	1210	1050
		1	14	18	4.43	1063	830	730	650	560
5		1	20	24	4.68	1122	880	770	680	590
bbe		1	24	28	4.90	1175	920	810	720	620
1¼" Dia. copper	41/ O 02/ X A 40	2	20	24	6.93	1663	1300	1150	1010	880
Dia	1¼C-2¾ X 4-40	2	24	28	7.65	1835	1430	1270	1120	970
1/4"		3	24	28	8.77	2105	1640	1450	1280	1120
-		1	14	18	5.23	1254	980	870	760	660
		1	20	24	5.67	1360	1060	940	830	720
		1	24	28	5.94	1426	1110	980	870	760
	41/ O 02/ X A 40	2	20	24	7.40	1775	1380	1220	1080	940
	1¼C-2¾ X 4-48	2	24	28	8.06	1934	1510	1330	1180	1030
		3	24	28	9.18	2204	1720	1520	1340	1170
		3	24	28	9.52	2284	1780	1580	1390	1210
		1	14	18	4.79	1150	900	790	700	610
		1	20	24	5.50	1320	1030	910	810	700
	1¼C-3¼ X 3¼-32	1	24	28	5.79	1390	1080	960	850	740
	1/4C-3/4 X 3/4-32	2	20	24	7.71	1850	1440	1280	1130	980
		2	24	28	8.58	2060	1610	1420	1260	1090
		3	24	28	9.92	2380	1860	1640	1450	1260
L .		2	20	24	9.00	2160	1680	1490	1320	1140
1¼" Dia. copper		2	24	28	9.29	2230	1740	1540	1360	1180
00	1¼C-3¼ X 3¼-40	3	24	28	10.42	2500	1950	1730	1530	1330
Dia	174 <b>C-3</b> 74 <b>A 3</b> 74-40	1	14	18	5.71	1370	1070	950	840	730
1/4"		1	20	24	6.21	1490	1160	1030	910	790
- I		1	24	28	6.50	1560	1220	1080	950	830
		1	14	18	6.08	1460	1140	1010	890	770
		1	20	24	7.08	1700	1330	1170	1040	900
	1¼C-3¼ X 3¼-48	1	24	28	7.58	1820	1420	1260	1110	960
	1740-374 A 374-40	2	20	24	9.29	2230	1740	1540	1360	1180
		2	24	28	9.58	2300	1790	1590	1400	1220
		3	24	28	10.71	2570	2000	1770	1570	1360

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect
  Water average temperature velocities, refer to EZselect
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

General data

### Performance ratings: model SBG5/SIBG5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²∕ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t				
		1	14	18	6.71	1610	1260	1110	980	850
		1	20	24	7.08	1700	1330	1170	1040	900
	1¼C-4¼ X 4¼-32	1	24	28	7.42	1780	1390	1230	1090	940
	1740-474 × 474-32	2	20	24	10.50	2520	1970	1740	1540	1340
		2	24	28	11.58	2780	2170	1920	1700	1470
		3	24	28	13.29	3190	2490	2200	1950	1690
5		1	14	18	7.92	1900	1480	1310	1160	1010
copper		1	20	24	8.58	2060	1610	1420	1260	1090
S.	1¼C-4¼ X 4¼-40	1	24	28	9.00	2160	1680	1490	1320	1140
Dia	1740-474 7 474-40	2	20	24	11.21	2690	2100	1860	1640	1430
1¼" Dia.		2	24	28	12.21	2930	2290	2020	1790	1550
		3	24	28	13.92	3340	2610	2300	2040	1770
		1	14	18	8.50	2040	1590	1410	1240	1080
		1	20	24	9.71	2330	1820	1610	1420	1230
	1¼C-4¼ X 4¼-48	1	24	28	10.42	2500	1950	1730	1530	1330
	174 <b>0-</b> 474 <b>A</b> 474-40	2	20	24	11.50	2760	2150	1900	1680	1460
		2	24	28	12.50	3000	2340	2070	1830	1590
		3	24	28	14.42	3460	2700	2390	2110	1830

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

#### Performance ratings: model SBG3/SIBG3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	08	12	3.29	790	620	550	480	420
	1S-3¼ X 3¼-32	1	11	15	3.50	840	660	580	510	450
	13-3/4 8 3/4-32	1	14	18	3.71	890	690	610	540	470
		2	14	18	5.00	1200	940	830	730	640
<u>e</u>		1	08	12	3.58	860	670	590	520	460
. ste	40.01/ X.01/ 40	1	11	15	3.92	940	730	650	570	500
1" Dia. steel	1S-3¼ X 3¼-40	1	14	18	4.08	980	760	680	600	520
- <del>-</del>		2	14	18	5.58	1340	1050	920	820	710
		1	08	12	4.08	980	760	680	600	520
	40.01/ X.01/ 40	1	11	15	4.42	1060	830	730	650	560
	1S-3¼ X 3¼-48	1	14	18	4.58	1100	860	760	670	580
		2	14	18	6.29	1510	1180	1040	920	800
		1	08	12	3.21	770	600	530	470	410
	41/ C 01/ X 01/ 00	1	11	15	3.42	820	640	570	500	430
	1¼S-3¼ X 3¼-32	1	14	18	3.58	860	670	590	520	460
		2	14	18	4.92	1180	920	810	720	630
ee		1	08	12	3.50	840	660	580	510	450
a. st	1¼S-3¼ X 3¼-40	1	11	15	3.79	910	710	630	560	480
1¼" Dia. steel	1743-374 X 374-40	1	14	18	4.00	960	750	660	590	510
11/4		2	14	18	5.50	1320	1030	910	810	700
		1	08	12	4.00	960	750	660	590	510
	1¼S-3¼ X 3¼-48	1	11	15	4.29	1030	800	710	630	550
	1743-374 A 374-48	1	14	18	4.50	1080	840	750	660	570
		2	14	18	6.21	1490	1160	1030	910	790

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

General data

### Performance ratings: model SBG3/SIBG3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		C	opper elemen	t			1	
		1	08	12	4.42	1060	830	730	650	560
		1	11	15	4.71	1130	880	780	690	600
	34C-234 X 4-32	1	14	18	5.00	1200	940	830	730	640
		2	14	18	6.79	1630	1270	1120	990	860
¾" Dia. copper		1	08	12	4.79	1150	900	790	700	610
cop		1	11	15	5.17	1240	970	860	760	660
Dia.	34C-234 X 4-40	1	14	18	5.50	1320	1030	910	810	700
∦" [		2	14	18	7.50	1800	1400	1240	1100	950
ю.		1	08	12	5.17	1240	970	860	760	660
		1	11	15	5.67	1360	1060	940	830	720
	34C-234 X 4-48	1	14	18	6.00	1440	1120	990	880	760
		2	14	18	8.21	1970	1540	1360	1200	1040
		1	08	12	4.21	1010	790	700	620	540
		1	11	15	4.50	1080	840	750	660	570
	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -32	1	14	18	4.71	1130	880	780	690	600
		2	14	18	6.42	1540	1200	1060	940	820
ber		1	08	12	4.50	1080	840	750	660	570
34" Dia. copper	3/ C 01/ X 01/ 40	1	11	15	4.92	1180	920	810	720	630
Dia.	3∕4C-31⁄4 X 31⁄4-40	1	14	18	5.21	1250	980	860	760	660
34" [		2	14	18	7.08	1700	1330	1170	1040	900
		1	08	12	5.00	1200	940	830	730	640
	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-48	1	11	15	5.42	1300	1010	900	790	690
	%0-3% X 3%-40	1	14	18	5.71	1370	1070	950	840	730
		2	14	18	7.92	1900	1480	1310	1160	1010
		1	08	12	4.29	1030	800	710	630	550
	1C-2¾ X 4-32	1	11	15	4.58	1100	860	760	670	580
	10-274 X 4-32	1	14	18	4.92	1180	920	810	720	630
		2	14	18	6.71	1610	1260	1110	980	850
1" Dia. copper		1	08	12	4.71	1130	880	780	690	600
00	1C-2¾ X 4-40	1	11	15	5.08	1220	950	840	740	650
Dia.	IV-2 /4 A 4-4V	1	14	18	5.42	1300	1010	900	790	690
ļ.		2	14	18	7.42	1780	1390	1230	1090	940
		1	08	12	5.08	1220	950	840	740	650
	1C-2¾ X 4-48	1	11	15	5.58	1340	1050	920	820	710
	10 2 /4 X 7 70	1	14	18	5.92	1420	1110	980	870	750
		2	14	18	8.08	1940	1510	1340	1180	1030

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-ritling.com.

General data

### Performance ratings: model SBG3/SIBG3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			1	C	opper elemen	t			1	1
		1	08	12	4.08	980	760	680	600	520
		1	11	15	4.42	1060	830	730	650	560
	1C-3¼ X 3¼-32	1	14	18	4.71	1130	880	780	690	600
		2	14	18	6.42	1540	1200	1060	940	820
per		1	08	12	4.50	1080	840	750	660	570
Dia. copper		1	11	15	4.92	1180	920	810	720	630
la.	1C-3¼ X 3¼-40	1	14	18	5.21	1250	980	860	760	660
1=		2	14	18	7.08	1700	1330	1170	1040	900
		1	08	12	5.00	1200	940	830	730	640
		1	11	15	5.42	1300	1010	900	790	690
	1C-3¼ X 3¼-48	1	14	18	5.71	1370	1070	950	840	730
		2	14	18	7.79	1870	1460	1290	1140	990
		1	08	12	4.08	980	760	680	600	520
		1	11	15	4.42	1060	830	730	650	560
	1¼C-2¾ X 4-32	1	14	18	4.71	1130	880	780	690	600
~		2	14	18	6.42	1540	1200	1060	940	820
ppe		1	08	12	4.58	1100	860	760	670	580
1¼" Dia. copper	1¼C-2¾ X 4-40	1	11	15	4.92	1180	920	810	720	630
Dia.	T74G-2%4 X 4-40	1	14	18	5.21	1250	980	860	760	660
1/4"		2	14	18	7.08	1700	1330	1170	1040	900
-		1	08	12	5.00	1200	940	830	730	640
	1¼C-2¾ X 4-48	1	11	15	5.42	1300	1010	900	790	690
	174 <b>G-2% X 4-4</b> 0	1	14	18	5.71	1370	1070	950	840	730
		2	14	18	7.79	1870	1460	1290	1140	990
		1	08	12	3.58	860	670	590	520	460
	1¼C-3¼ X 3¼-32	1	11	15	3.92	940	730	650	570	500
	1/40-3/4 X 3/4-32	1	14	18	4.08	980	760	680	600	520
-		2	14	18	5.58	1340	1050	920	820	710
1¼" Dia. copper		1	08	12	4.50	1080	840	750	660	570
0.0	1¼C-3¼ X 3¼-40	1	11	15	4.79	1150	900	790	700	610
Dia	1740-374 A 374-40	1	14	18	5.08	1220	950	840	740	650
1/4"		2	14	18	7.00	1680	1310	1160	1020	890
-		1	08	12	4.92	1180	920	810	720	630
	1¼C-3¼ X 3¼-48	1	11	15	5.29	1270	990	880	770	670
	1/4 <b>0-</b> 0/4 X 0/4 <b>-4</b> 0	1	14	18	5.58	1340	1050	920	820	710
		2	14	18	7.71	1850	1440	1280	1130	980

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-ritling.com.

General data

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1			Steel element		1		1	1
		1	14	18	3.57	858	670	590	520	450
		1	20	24	3.68	884	690	610	540	470
	40.01/ X 01/ 00	1	24	28	3.86	928	720	640	570	490
	1S-3¼ X 3¼-32	2	20	24	5.51	1321	1030	910	810	700
		2	24	28	5.76	1383	1080	950	840	730
		3	24	28	6.74	1619	1260	1120	990	860
		1	14	18	4.01	963	750	660	590	510
<u>e</u>		1	20	24	4.30	1034	810	710	630	550
1" Dia. steel		1	24	28	4.45	1068	830	740	650	570
Dia	1S-3¼ X 3¼-40	2	20	24	6.05	1453	1130	1000	890	770
Ļ.		2	24	28	6.38	1531	1190	1060	930	810
		3	24	28	7.36	1768	1380	1220	1080	940
		1	14	18	4.45	1068	830	740	650	570
		1	20	24	4.99	1199	940	830	730	640
		1	24	28	5.18	1243	970	860	760	660
	1S-3¼ X 3¼-48	2	20	24	6.74	1619	1260	1120	990	860
		2	24	28	7.00	1680	1310	1160	1020	890
		3	24	28	8.06	1934	1510	1330	1180	1020
		1	14	18	5.18	1243	970	860	760	660
		1	20	24	5.32	1278	1000	880	780	680
	40 41/ X 41/ 00	1	24	28	5.51	1321	1030	910	810	700
	1S-4¼ X 4¼-32	2	20	24	8.06	1934	1510	1330	1180	1020
		2	24	28	8.39	2013	1570	1390	1230	1070
		3	24	28	9.63	2310	1800	1590	1410	1220
		1	14	18	5.76	1383	1080	950	840	730
<u>e</u>		1	20	24	6.20	1488	1160	1030	910	790
1" Dia. steel	10 A1/ X A1/ A0	1	24	28	6.49	1558	1210	1070	950	830
Dia	1S-4¼ X 4¼-40	2	20	24	8.82	2118	1650	1460	1290	1120
÷.		2	24	28	9.19	2205	1720	1520	1350	1170
		3	24	28	10.50	2520	1970	1740	1540	1340
		1	14	18	6.56	1575	1230	1090	960	830
		1	20	24	7.36	1768	1380	1220	1080	940
	1S-4¼ X 4¼-48	1	24	28	7.51	1803	1410	1240	1100	960
	13-4/4 A 4/4-48	2	20	24	9.70	2328	1820	1610	1420	1230
		2	24	28	10.06	2415	1880	1670	1470	1280
		3	24	28	11.63	2791	2180	1930	1700	1480

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

Relights, refer to EZselect selection software.)
 Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

selection software.)

**General data** 

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²⁄ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
			1		Steel element		1	1	1	
		1	14	18	3.50	840	660	580	510	450
		1	20	24	3.57	858	670	590	520	450
	41/ C 01/ X 01/ 00	1	24	28	3.76	901	700	620	550	480
	1¼S-3¼ X 3¼-32	2	20	24	5.43	1304	1020	900	800	690
		2	24	28	5.69	1365	1060	940	830	720
		3	24	28	6.56	1575	1230	1090	960	830
		1	14	18	3.94	945	740	650	580	500
tee		1	20	24	4.19	1006	780	690	610	530
1¼" Dia. steel	41/ C 01/ X 01/ 40	1	24	28	4.38	1050	820	720	640	560
	1¼S-3¼ X 3¼-40	2	20	24	5.94	1426	1110	980	870	760
11/4		2	24	28	6.20	1488	1160	1030	910	790
		3	24	28	7.18	1724	1340	1190	1050	910
		1	14	18	4.38	1050	820	720	640	560
		1	20	24	4.89	1173	910	810	720	620
	41/ C 01/ X 01/ 40	1	24	28	5.07	1216	950	840	740	640
	1¼S-3¼ X 3¼-48	2	20	24	6.56	1575	1230	1090	960	830
		2	24	28	6.82	1636	1280	1130	1000	870
		3	24	28	7.88	1890	1470	1300	1150	1000
		1	14	18	5.07	1216	950	840	740	640
		1	20	24	5.25	1260	980	870	770	670
	1¼S-4¼ X 4¼-32	1	24	28	5.43	1304	1020	900	800	690
	1/43-4/4 7 4/4-32	2	20	24	7.88	1890	1470	1300	1150	1000
		2	24	28	8.24	1978	1540	1360	1210	1050
		3	24	28	9.44	2266	1770	1560	1380	1200
		1	14	18	5.69	1365	1060	940	830	720
tee		1	20	24	6.13	1470	1150	1010	900	780
1¼" Dia. steel	1¼S-4¼ X 4¼-40	1	24	28	6.31	1514	1180	1040	920	800
ā	·/••••••/• A •/4-+0	2	20	24	8.68	2083	1620	1440	1270	1100
11/4		2	24	28	9.01	2161	1690	1490	1320	1150
		3	24	28	10.32	2476	1930	1710	1510	1310
		1	14	18	6.38	1531	1190	1060	930	810
		1	20	24	7.18	1724	1340	1190	1050	910
	1¼S-4¼ X 4¼-48	1	24	28	7.36	1768	1380	1220	1080	940
	1,40 4/4 7 4/4 40	2	20	24	9.55	2293	1790	1580	1400	1220
		2	24	28	9.88	2371	1850	1640	1450	1260
		3	24	28	11.38	2730	2130	1880	1670	1450

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	190°F 180°F ctor of 0.78 factor of 0.69		160°F factor of 0.53
		1			Steel element			1		1
		1	14	18	5.07	1216	950	840	740	640
		1	20	24	5.10	1225	960	850	750	650
	2S-4¼ X 4¼-32	1	24	28	5.43	1304	1020	900	800	690
	23-4/4 x 4/4-32	2	20	24	7.69	1846	1440	1270	1130	980
		2	24	28	7.95	1908	1490	1320	1160	1010
		3	24	28	9.19	2205	1720	1520	1350	1170
		1	14	18	5.69	1365	1060	940	830	720
<u>ee</u>		1	20	24	6.05	1453	1130	1000	890	770
. St	2S-4¼ X 4¼-40	1	24	28	6.31	1513	1180	1040	920	800
2" Dia. steel	25-4% X 4%-40	2	20	24	8.31	1995	1560	1380	1220	1060
N		2	24	28	8.75	2100	1640	1450	1280	1110
		3	24	28	10.06	2415	1880	1670	1470	1280
		1	14	18	6.38	1531	1190	1060	930	810
		1	20	24	6.93	1663	1300	1150	1010	880
	2S-4¼ X 4¼-48	1	24	28	7.36	1768	1380	1220	1080	940
	20-4/4 A 4/4-48	2	20	24	8.93	2144	1670	1480	1310	1140
		2	24	28	9.44	2266	1770	1560	1380	1200
		3	24	28	10.86	2608	2030	1800	1590	1380

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				c	opper elemen	t	1		1	
		1	14	18	4.00	959	750	660	580	510
		1	20	24	4.21	1010	790	700	620	540
	2/ O 02/ X 4 00	1	24	28	4.45	1068	830	740	650	570
	<sup>3</sup> / <sub>4</sub> C-2 <sup>3</sup> / <sub>4</sub> X 4-32	2	20	24	6.30	1513	1180	1040	920	800
		2	24	28	6.93	1663	1300	1150	1010	880
		3	24	28	7.97	1912	1490	1320	1170	1010
		1	14	18	4.74	1138	890	780	690	600
ber		1	20	24	5.15	1236	960	850	750	650
Dia. copper		1	24	28	5.37	1288	1000	890	790	680
Dia.	<sup>3</sup> / <sub>4</sub> C-2 <sup>3</sup> / <sub>4</sub> X 4-40	2	20	24	6.69	1606	1250	1110	980	850
34"		2	24	28	7.27	1744	1360	1200	1060	920
		3	24	28	8.33	1999	1560	1380	1220	1060
		1	14	18	5.08	1219	950	840	740	650
		1	20	24	5.78	1386	1080	960	850	730
	2/ O O2/ X A AO	1	24	28	6.23	1495	1170	1030	910	790
	34C-234 X 4-48	2	20	24	6.88	1652	1290	1140	1010	880
		2	24	28	7.51	1802	1410	1240	1100	950
		3	24	28	8.62	2068	1610	1430	1260	1100
		1	14	18	4.63	1111	870	770	680	590
		1	20	24	5.07	1216	950	840	740	640
	<sup>3</sup> /4C-3 <sup>1</sup> /4 X 3 <sup>1</sup> /4-32	1	24	28	5.32	1278	1000	880	780	680
	%4 <b>C-</b> 3/4 <b>A</b> 3/4-32	2	20	24	7.07	1698	1320	1170	1040	900
		2	24	28	7.88	1890	1470	1300	1150	1000
		3	24	28	9.01	2161	1690	1490	1320	1150
		1	14	18	5.18	1243	970	860	760	660
34" Dia. copper		1	20	24	5.69	1365	1060	940	830	720
Š	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-40	1	24	28	6.05	1453	1130	1000	890	770
Dia.	/+U-U/4 A U/4-4U	2	20	24	8.24	1978	1540	1360	1210	1050
34"		2	24	28	8.49	2039	1590	1410	1240	1080
		3	24	28	9.37	2249	1750	1550	1370	1190
		1	14	18	5.61	1348	1050	930	820	710
		1	20	24	6.49	1558	1210	1070	950	830
	<sup>3</sup> ⁄4C-3 <sup>1</sup> ⁄4 X 3 <sup>1</sup> ⁄4-48	1	24	28	6.93	1663	1300	1150	1010	880
	/4 <b>0-0</b> /4 A 0/4-40	2	20	24	8.49	2039	1590	1410	1240	1080
		2	24	28	8.75	2100	1640	1450	1280	1110
		3	24	28	9.63	2310	1800	1590	1410	1220

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

■ Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

■ Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1	1	C	opper elemen	t	l	l	1	
		1	14	18	6.05	1453	1130	1000	890	770
		1	20	24	6.38	1531	1190	1060	930	810
		1	24	28	6.74	1619	1260	1120	990	860
	¾C-4¼ X 4¼-32	2	20	24	9.55	2293	1790	1580	1400	1220
		2	24	28	10.50	2520	1970	1740	1540	1340
		3	24	28	12.07	2896	2260	2000	1770	1540
		1	14	18	7.18	1724	1340	1190	1050	910
ber		1	20	24	7.80	1873	1460	1290	1140	990
3∕4" Dia. copper		1	24	28	8.13	1951	1520	1350	1190	1030
Dia.	3∕4C-41⁄4 X 41⁄4-40	2	20	24	10.14	2433	1900	1680	1480	1290
34"		2	24	28	11.01	2643	2060	1820	1610	1400
		3	24	28	12.61	3028	2360	2090	1850	1600
		1	14	18	7.69	1847	1440	1270	1130	980
		1	20	24	8.75	2100	1640	1450	1280	1110
	<sup>3</sup> ⁄4C-4¼ X 4¼-48	1	24	28	9.44	2266	1770	1560	1380	1200
	% <b>U-</b> 4% X 4%-40	2	20	24	10.43	2503	1950	1730	1530	1330
		2	24	28	11.38	2730	2130	1880	1670	1450
		3	24	28	13.05	3133	2440	2160	1910	1660
		1	14	18	3.92	942	730	650	570	500
		1	20	24	4.16	999	780	690	610	530
	1C-2¾ X 4-32	1	24	28	4.33	1040	810	720	630	550
	10-274 X 4-32	2	20	24	6.18	1484	1160	1020	910	790
		2	24	28	6.81	1635	1270	1130	1000	870
		3	24	28	7.79	1871	1460	1290	1140	990
		1	14	18	4.62	1109	860	760	680	590
Dia. copper		1	20	24	5.03	1207	940	830	740	640
ğ	1C-2¾ X 4-40	1	24	28	5.25	1259	980	870	770	670
Dia.	10-2 /4 X 4-40	2	20	24	6.59	1582	1230	1090	970	840
ļ Ļ		2	24	28	7.17	1721	1340	1190	1050	910
		3	24	28	8.13	1952	1520	1350	1190	1030
		1	14	18	4.96	1190	930	820	730	630
		1	20	24	5.65	1357	1060	940	830	720
	1C-2¾ X 4-48	1	24	28	6.11	1467	1140	1010	890	780
	10 2/47 7 70	2	20	24	6.76	1623	1270	1120	990	860
		2	24	28	7.34	1761	1370	1220	1070	930
		3	24	28	8.42	2021	1580	1390	1230	1070

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

**General data** 

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				c	opper elemen	t	1		1	
		1	14	18	4.56	1094	850	750	670	580
		1	20	24	4.99	1199	940	830	730	640
	40.01/ X 01/ 00	1	24	28	5.25	1260	980	870	770	670
	1C-3¼ X 3¼-32	2	20	24	6.93	1663	1300	1150	1010	880
		2	24	28	7.69	1846	1440	1270	1130	980
		3	24	28	8.82	2118	1650	1460	1290	1120
		1	14	18	5.07	1216	950	840	740	640
per		1	20	24	5.61	1348	1050	930	820	710
1" Dia. copper		1	24	28	5.94	1426	1110	980	870	760
Dia.	1C-3¼ X 3¼-40	2	20	24	8.06	1934	1510	1330	1180	1020
1 I		2	24	28	8.31	1995	1560	1380	1220	1060
		3	24	28	9.26	2223	1730	1530	1360	1180
		1	14	18	5.51	1321	1030	910	810	700
		1	20	24	6.31	1514	1180	1040	920	800
		1	24	28	6.74	1619	1260	1120	990	860
	1C-3¼ X 3¼-48	2	20	24	8.31	1995	1560	1380	1220	1060
		2	24	28	8.57	2056	1600	1420	1250	1090
		3	24	28	9.44	2266	1770	1560	1380	1200
		1	14	18	5.94	1426	1110	980	870	760
		1	20	24	6.31	1514	1180	1040	920	800
	1C-4¼ X 4¼-32	1	24	28	6.56	1575	1230	1090	960	830
	1 <b>C-4</b> <sup>1</sup> / <sub>4</sub> <b>X</b> 4 <sup>1</sup> / <sub>4</sub> -32	2	20	24	9.37	2249	1750	1550	1370	1190
		2	24	28	10.32	2476	1930	1710	1510	1310
		3	24	28	11.81	2835	2210	1960	1730	1500
		1	14	18	7.00	1680	1310	1160	1020	890
per		1	20	24	7.62	1829	1430	1260	1120	970
1" Dia. copper	1C-4¼ X 4¼-40	1	24	28	7.95	1908	1490	1320	1160	1010
Dia.	IG-4% X 4%-4U	2	20	24	9.99	2398	1870	1650	1460	1270
1		2	24	28	10.86	2608	2030	1800	1590	1380
		3	24	28	12.32	2958	2310	2040	1800	1570
		1	14	18	7.51	1803	1410	1240	1100	960
		1	20	24	8.57	2056	1600	1420	1250	1090
	10 41/ V 41/ 40	1	24	28	9.26	2223	1730	1530	1360	1180
	1C-4¼ X 4¼-48	2	20	24	10.24	2459	1920	1700	1500	1300
		2	24	28	11.12	2669	2080	1840	1630	1410
		3	24	28	12.76	3063	2390	2110	1870	1620

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)

■ Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)

■ Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**General data** 

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of	Enclosure	Recommended	50.0±	Steam heat				
	Element	element (on 6-inch centers)	height (in inches)	minimum installed height (in inches)	EDR* (ft²⁄ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				Co	pper element					
		1	14	18	3.88	930	730	640	570	490
		1	20	24	4.09	982	770	680	600	520
	11/ C 03/ X 4 00	1	24	28	4.28	1028	800	710	630	540
	1¼C-2¾ X 4-32	2	20	24	6.06	1455	1130	1000	890	770
		2	24	28	6.69	1606	1250	1110	980	850
		3	24	28	7.67	1843	1440	1270	1120	980
L		1	14	18	4.57	1097	860	760	670	580
bpe		1	20	24	4.96	1190	930	820	730	630
1¼" Dia. copper		1	24	28	5.20	1248	970	860	760	660
Dia	1¼C-2¾ X 4-40	2	20	24	6.47	1553	1210	1070	950	820
1/4"		2	24	28	7.05	1692	1320	1170	1030	900
-		3	24	28	8.04	1929	1500	1330	1180	1020
		1	14	18	4.91	1178	920	810	720	620
		1	20	24	5.61	1346	1050	930	820	710
	1¼C-2¾ X 4-48	1	24	28	6.02	1444	1130	1000	880	770
	1 /4 <b>U-</b> 2 % <b>X</b> 4-40	2	20	24	6.64	1594	1240	1100	970	840
		2	24	28	7.22	1733	1350	1200	1060	920
		3	24	28	8.33	1999	1560	1380	1220	1060
		1	14	18	4.19	1006	780	690	610	530
		1	20	24	4.81	1155	900	800	700	610
	1¼C-3¼ X 3¼-32	1	24	28	5.07	1216	950	840	740	640
	1/4C-3/4 A 3/4-32	2	20	24	6.74	1619	1260	1120	990	860
		2	24	28	7.51	1803	1410	1240	1100	960
		3	24	28	8.68	2083	1620	1440	1270	1100
L_		1	14	18	4.99	1199	940	830	730	640
11/4" Dia. copper		1	20	24	5.43	1304	1020	900	800	690
8	1¼C-3¼ X 3¼-40	1	24	28	5.69	1365	1060	940	830	720
Dia	1740-374 A 374-4U	2	20	24	7.88	1890	1470	1300	1150	1000
1/4"		2	24	28	8.13	1951	1520	1350	1190	1030
- I		3	24	28	9.11	2188	1710	1510	1330	1160
		1	14	18	5.32	1278	1000	880	780	680
		1	20	24	6.20	1488	1160	1030	910	790
	1¼C-3¼ X 3¼-48	1	24	28	6.64	1593	1240	1100	970	840
	1/4U-U/4 A U/4-40	2	20	24	8.13	1951	1520	1350	1190	1030
		2	24	28	8.39	2013	1570	1390	1230	1070
		3	24	28	9.37	2249	1750	1550	1370	1190

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBGVL5/SIBGVL5; sloped top enclosure

		Rows of element	Enclosure	minimum EDR*	Steam heat	Hot water heat				
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft⅔ ft)	215°F factor of 1.00	190°F factor of 0.78	190°F 180°F tor of 0.78 factor of 0.69		160°F factor of 0.53
				C	opper elemen	t				
		1	14	18	5.87	1409	1100	970	860	750
		1	20	24	6.20	1488	1160	1030	910	790
	1¼C-4¼ X 4¼-32	1	24	28	6.49	1558	1210	1070	950	830
	1740-474 7 474-32	2	20	24	9.19	2205	1720	1520	1350	1170
		2	24	28	10.14	2433	1900	1680	1480	1290
		3	24	28	11.63	2791	2180	1930	1700	1480
5		1	14	18	6.93	1663	1300	1150	1010	880
copper		1	20	24	7.51	1803	1410	1240	1100	960
	1¼C-4¼ X 4¼-40	1	24	28	7.88	1890	1470	1300	1150	1000
1¼" Dia.	1/40-4/4 X 4/4-40	2	20	24	9.81	2354	1840	1620	1440	1250
1/4"		2	24	28	10.68	2564	2000	1770	1560	1360
-		3	24	28	12.18	2923	2280	2020	1780	1550
		1	14	18	7.44	1785	1390	1230	1090	950
		1	20	24	8.49	2039	1590	1410	1240	1080
	1¼C-4¼ X 4¼-48	1	24	28	9.11	2188	1710	1510	1330	1160
	174 <b>0-</b> 474 A 474-40	2	20	24	10.06	2415	1880	1670	1470	1280
		2	24	28	10.94	2625	2050	1810	1600	1390
		3	24	28	12.61	3028	2360	2090	1850	1600

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

 Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)

- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

#### Performance ratings: model SBGVL3/SIBGVL3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
					Steel element					
		1	08	12	2.88	691	540	480	420	370
		1	11	15	3.06	735	570	510	450	390
	1S-3¼ X 3¼-32	1	14	18	3.24	779	610	540	480	410
		2	14	18	4.38	1050	820	720	640	560
		1	08	12	3.14	753	590	520	460	400
1" Dia. steel		1	11	15	3.43	823	640	570	500	440
Dia	1S-3¼ X 3¼-40	1	14	18	3.57	858	670	590	520	450
÷		2	14	18	4.89	1173	910	810	720	620
		1	08	12	3.57	858	670	590	520	450
	1S-3¼ X 3¼-48	1	11	15	3.86	928	720	640	570	490
	15-3/4 X 3/4-48	1	14	18	4.01	963	750	660	590	510
		2	14	18	5.51	1321	1030	910	810	700
		1	08	12	2.81	674	530	460	410	360
	1¼S-3¼ X 3¼-32	1	11	15	2.99	718	560	500	440	380
	1/43-3/4 X 3/4-32	1	14	18	3.14	753	590	520	460	400
		2	14	18	4.30	1033	810	710	630	550
ee		1	08	12	3.06	735	570	510	450	390
a. st	1¼S-3¼ X 3¼-40	1	11	15	3.32	797	620	550	490	420
1¼" Dia. steel	1743-374 A 374-40	1	14	18	3.50	840	660	580	510	450
11/4		2	14	18	4.81	1155	900	800	700	610
		1	08	12	3.50	840	660	580	510	450
	1¼S-3¼ X 3¼-48	1	11	15	3.76	901	700	620	550	480
	1743-374 A 374-40	1	14	18	3.94	945	740	650	580	500
		2	14	18	5.43	1304	1020	900	800	690

#### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)
- Contact factory when ordering 1-1/4" copper, 1" steel and 1-1/4" steel elements to ensure proper fit up inside the enclosure.

General data

### Performance ratings: model SBGVL3/SIBGVL3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
		1		C	opper elemen	t				
		1	08	12	3.86	928	720	640	570	490
		1	11	15	4.12	989	770	680	600	520
	34C-234 X 4-32	1	14	18	4.38	1050	820	720	640	560
		2	14	18	5.94	1426	1110	980	870	760
34" Dia. copper		1	08	12	4.19	1006	780	690	610	530
cop		1	11	15	4.52	1085	850	750	660	580
Dia.	34C-234 X 4-40	1	14	18	4.81	1155	900	800	700	610
4"		2	14	18	6.56	1575	1230	1090	960	830
		1	08	12	4.52	1085	850	750	660	580
		1	11	15	4.96	1190	930	820	730	630
	34C-234 X 4-48	1	14	18	5.25	1260	980	870	770	670
		2	14	18	7.18	1724	1340	1190	1050	910
		1	08	12	3.68	884	690	610	540	470
		1	11	15	3.94	945	740	650	580	500
	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -32	1	14	18	4.12	989	770	680	600	520
		2	14	18	5.61	1348	1050	930	820	710
ber		1	08	12	3.94	945	740	650	580	500
34" Dia. copper	3/ C 01/ X 01/ 40	1	11	15	4.30	1033	810	710	630	550
Dia.	<sup>3</sup> / <sub>4</sub> C-3 <sup>1</sup> / <sub>4</sub> X 3 <sup>1</sup> / <sub>4</sub> -40	1	14	18	4.56	1094	850	750	670	580
∦∎ <b>[</b>		2	14	18	6.20	1488	1160	1030	910	790
		1	08	12	4.38	1050	820	720	640	560
	3/ C 01/ X 01/ 40	1	11	15	4.74	1138	890	780	690	600
	3⁄4C-31⁄4 X 31⁄4-48	1	14	18	4.99	1199	940	830	730	640
		2	14	18	6.93	1663	1300	1150	1010	880
		1	08	12	3.76	901	700	620	550	480
	1C-2¾ X 4-32	1	11	15	4.01	963	750	660	590	510
	10-2% × 4-32	1	14	18	4.30	1033	810	710	630	550
		2	14	18	5.87	1409	1100	970	860	750
per		1	08	12	4.12	989	770	680	600	520
Dia. copper	1C-2¾ X 4-40	1	11	15	4.45	1068	830	740	650	570
Dia.	10-274 A 4-40	1	14	18	4.74	1138	890	780	690	600
ļ Ļ		2	14	18	6.49	1558	1210	1070	950	830
		1	08	12	4.45	1068	830	740	650	570
	1C-2¾ X 4-48	1	11	15	4.89	1173	910	810	720	620
	IV-2 /4 A 4-40	1	14	18	5.18	1243	970	860	760	660
		2	14	18	7.07	1698	1320	1170	1040	900

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

General data

### Performance ratings: model SBGVL3/SIBGVL3; low profile, sloped top enclosure

		Rows of element	Enclosure	Recommended minimum	EDR*	Steam heat		Hot wa	ter heat	
	Element	(on 6-inch centers)	height (in inches)	installed height (in inches)	(ft²/ ft)	215°F factor of 1.00	190°F factor of 0.78	180°F factor of 0.69	170°F factor of 0.61	160°F factor of 0.53
				C	opper elemen	t			1	
		1	08	12	3.57	858	670	590	520	450
		1	11	15	3.86	928	720	640	570	490
	1C-3¼ X 3¼-32	1	14	18	4.12	989	770	680	600	520
		2	14	18	5.61	1348	1050	930	820	710
per		1	08	12	3.94	945	740	650	580	500
do		1	11	15	4.30	1033	810	710	630	550
1" Dia. copper	1C-3¼ X 3¼-40	1	14	18	4.56	1094	850	750	670	580
<u> </u>		2	14	18	6.20	1488	1160	1030	910	790
		1	08	12	4.38	1050	820	720	640	560
		1	11	15	4.74	1138	890	780	690	600
	1C-3¼ X 3¼-48	1	14	18	4.99	1199	940	830	730	640
		2	14	18	6.82	1636	1280	1130	1000	870
		1	08	12	3.57	858	670	590	520	450
		1	11	15	3.86	928	720	640	570	490
	1¼C-2¾ X 4-32	1	14	18	4.12	989	770	680	600	520
		2	14	18	5.61	1348	1050	930	820	710
Iado		1	08	12	4.01	963	750	660	590	510
1¼" Dia. copper	41/ O 02/ X 4 40	1	11	15	4.30	1033	810	710	630	550
Dia.	1¼C-2¾ X 4-40	1	14	18	4.56	1094	850	750	670	580
1/4"		2	14	18	6.20	1488	1160	1030	910	790
-		1	08	12	4.38	1050	820	720	640	560
	11/ C 03/ X 4 40	1	11	15	4.74	1138	890	780	690	600
	1¼C-2¾ X 4-48	1	14	18	4.99	1199	940	830	730	640
		2	14	18	6.82	1636	1280	1130	1000	870
		1	08	12	3.14	753	590	520	460	400
	1¼C-3¼ X 3¼-32	1	11	15	3.43	823	640	570	500	440
	1740-374 A 374-32	1	14	18	3.57	858	670	590	520	450
<u> </u>		2	14	18	4.89	1173	910	810	720	620
ppe		1	08	12	3.94	945	740	650	580	500
8	1¼C-3¼ X 3¼-40	1	11	15	4.19	1006	780	690	610	530
11⁄4" Dia. copper	1 /40-374 A 374-4U	1	14	18	4.45	1068	830	740	650	570
1/4"		2	14	18	6.13	1470	1150	1010	900	780
-		1	08	12	4.30	1033	810	710	630	550
	1¼C-3¼ X 3¼-48	1	11	15	4.63	1111	870	770	680	590
	: /4U-U/4 A U/4-40	1	14	18	4.89	1173	910	810	720	620
		2	14	18	6.74	1619	1260	1120	990	860

### In BTU/hr per active (finned) lineal foot of tube at entering air temperature of 65°F

\*EDR - Equivalent Direct Radiation area (for steam heat) per active (finned) lineal foot of tube.

#### Important Rating Information Performance ratings based on:

- Installation at height shown. (Lower heights are not recommended. For greater heights, refer to EZselect selection software.)
- Steam at nominal 1 (actual 0.9) psig and 215°F. (For other conditions, refer to EZselect selection software.)
- Entering air temperature of 65°F. (For other temperatures, refer to EZselect selection software.)
- Water average temperature (°F) shown and velocity of 3 fps or more. (For lower velocities, refer to EZselect selection software.)

**English, IP Units** 

### **Dimensional data**

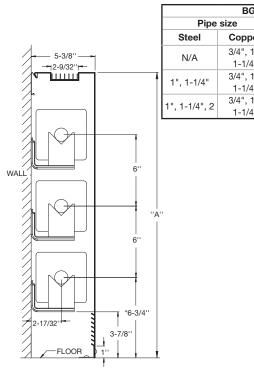
### **Bargrille enclosures**



\*Center lines are based on 1" copper tube.

**English, IP Units** 

### **Dimensional data**



\*Centerlines are based on 1" copper tube

Note:

ŀ	Pipe	BGVL	, 	
ŀ	Steel	Copper	Fin size	A
Ì	N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	14"
	1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	20"
	1", 1-1/4", 2	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"	24"

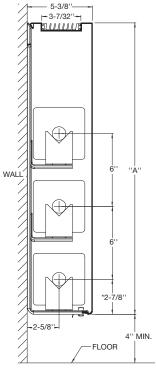
# 3-15/16" 1-15/16 α ''A' \*6-3/4''

### **Bargrille enclosures**

	BGVL3	}	
Pipe	size		
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"

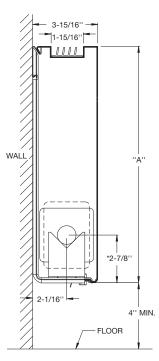
WALL 3-7/8'' FLOOR 1

### **Dimensional data**



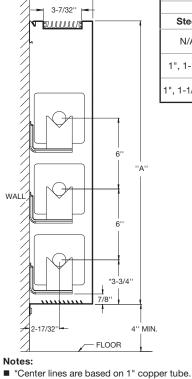
5-3/8''

Steel      Copper        N/A      3/4", 1", 1-1/4"      2-3/4" x 4"        1", 1-1/4"      3/4", 1", 3-1/4"      3-1/4" x		IBG5		
Steel      Copper        N/A      3/4", 1", 1-1/4"      2-3/4" x 4"        1", 1-1/4"      3/4", 1", 3-1/4"      3-1/4" x	Pipe	size	<b>_</b>	
N/A      1-1/4"      2-3/4" x 4"      1.        1", 1-1/4"      3/4", 1", 3-1/4" x      1.      2.        1", 1-1/4"      3/4", 1", 3-1/4" x      3.      1.	Steel	Copper	Fin size	A
1", 1-1/4" 3/4", 1", 3-1/4" x 1-1/4" 3-1/4" 20	N/A		2-3/4" x 4"	14"
2	1", 1-1/4"			20"
1", 1-1/4", 2 3/4", 1", 4-1/4" x 2' 1-1/4" 4-1/4"	1", 1-1/4", 2	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"	24"



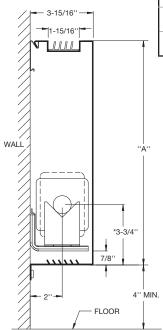
Imnerial	hararille	enclosures
imperiar	bargrille	enciosures

IBG3			
Pipe size		Ein sins	
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"



Pipe size Fin size Α Steel Copper 3/4", 1", 2-3/4" x 4" N/A 1-1/4" 14" 3/4", 1", 3-1/4" x 1", 1-1/4" 20" 1-1/4" 3-1/4" 24" 3/4", 1", 4-1/4" x 1", 1-1/4", 2 1-1/4" 4-1/4"

IBGHL5



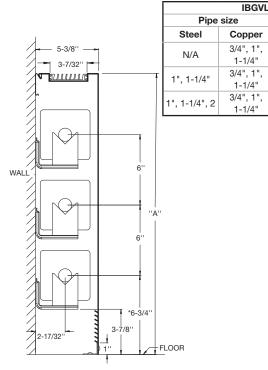
Revised November 2016. Zehnder periodically makes changes to the design and/or specifications of its products. As a result, the design and specifications of each product at the time of order may be different than as described herein. Please contact Zehnder's Sales Support staff at 844-934-6337 for specific information on current design and specifications. Designs, specifications and other information contained herein are not express warranties, which are only as expressly set forth by Zehnder in its

IBGHL3			
Pipe size		<b>_</b>	
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"

terms and conditions of sale. The latest version of this document is available at www.zehnder-rittling.com.

**English, IP Units** 

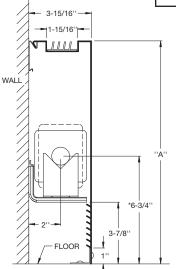
### **Dimensional data**



	Pipe	IBGVL:	5	
	Steel	Copper	Fin size	A
İ	N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	14
İ	1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	20
	1", 1-1/4", 2	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"	24

### Imperial bargrille enclosures

IBGVL3			
Pipe	size	<b></b> .	
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"

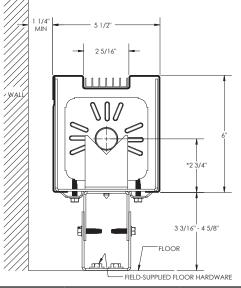


#### Note:

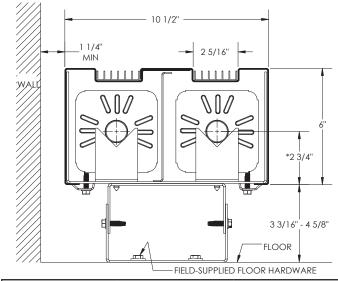
\*Centerlines are based on 1" copper tube

**English, IP Units** 

### **Dimensional data**



PBG506		
Pipe	size	<b>.</b>
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"

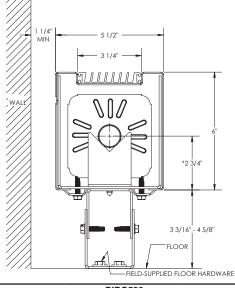


PBG1006		
Pipe	e size	<b>_</b>
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"

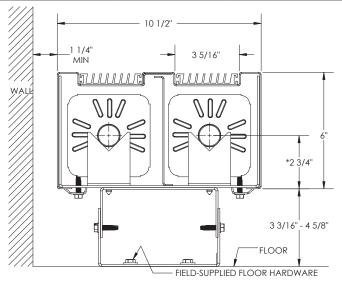
#### Notes:

\*Center lines are based on 1" copper tube.

Pedestal enclosures



PIBG506		
Pipe	e size	<b>_</b>
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"

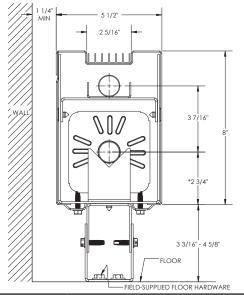


PIBG1006		
Pip	Pipe size	
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"

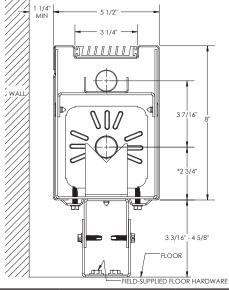
**English, IP Units** 

**Pedestal enclosures** 

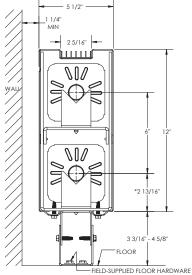
### **Dimensional data**



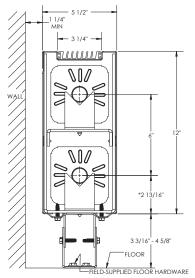
PBG508		
Pipe	size	<b></b> .
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"*



PIBG508		
Pipe	e size	<b></b> .
Steel	Copper	Fin size
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"*



PBG512			
Pipe size		<u> </u>	
Steel	Copper	Fin size	
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"*	



PIBG512			
Pipe size		<b></b>	
Steel	Copper	Fin size	
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	
1", 1-1/4"	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"*	

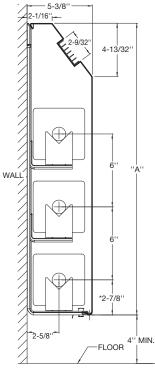
#### Notes:

\*Center lines are based on 1" copper tube.

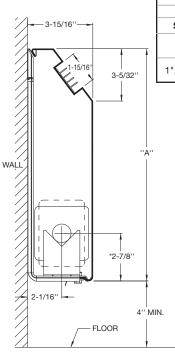
### **English, IP Units**

### **Dimensional data**

### **Sloped top enclosures**

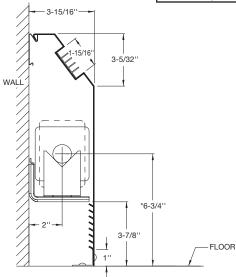


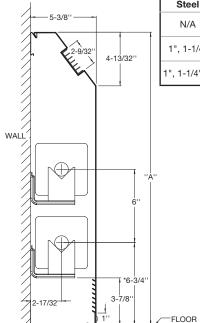
SBG5			
Pipe size		<b></b>	
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	14"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	20"
1", 1-1/4", 2	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"	24"



SBG3			
Pipe	size	<b></b> .	
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"

	SBGVL	3	
Pipe	size		
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	- 4 -
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"





#### Pipe size Fin size Α Steel Copper 3/4", 1", 2-3/4" x 4" 1-1/4" 14" 3/4", 1", 3-1/4" x 20" 1", 1-1/4" 1-1/4" 3-1/4" 24" 3/4", 1", 4-1/4" x 1", 1-1/4", 2 1-1/4" 4-1/4"

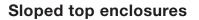
SBGVL5

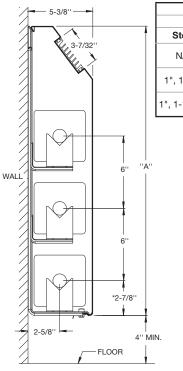
#### Notes:

\*Center lines are based on 1" copper tube.

### **English, IP Units**

### Dimensional data





5-3/8

SIBG5			
Pipe size		<b></b> .	
Steel	Copper	Fin size	Α
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	14"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	20"
1", 1-1/4", 2	3/4", 1", 1-1/4"	4-1/4" x 4-1/4"	24"

SIBGVL5

Copper

3/4", 1",

Fin size

2-3/4" x 4"

3-1/4" x

3-1/4"

4-1/4" x

4-1/4"

Α

14"

20"

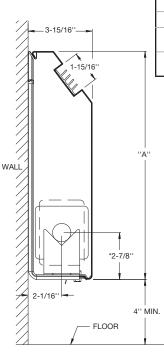
24"

WAL

Pipe size

Steel

N/A



3-15/16

2'

1-15/16'

3-5/32''

\*6-3/4''

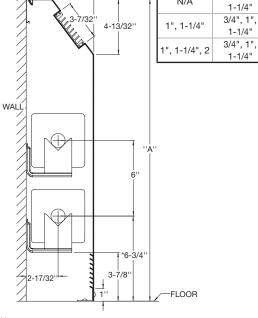
FLOOR

3-7/8'

1'

	SIBG3		
Pipe	size		
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	8" 11"
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"

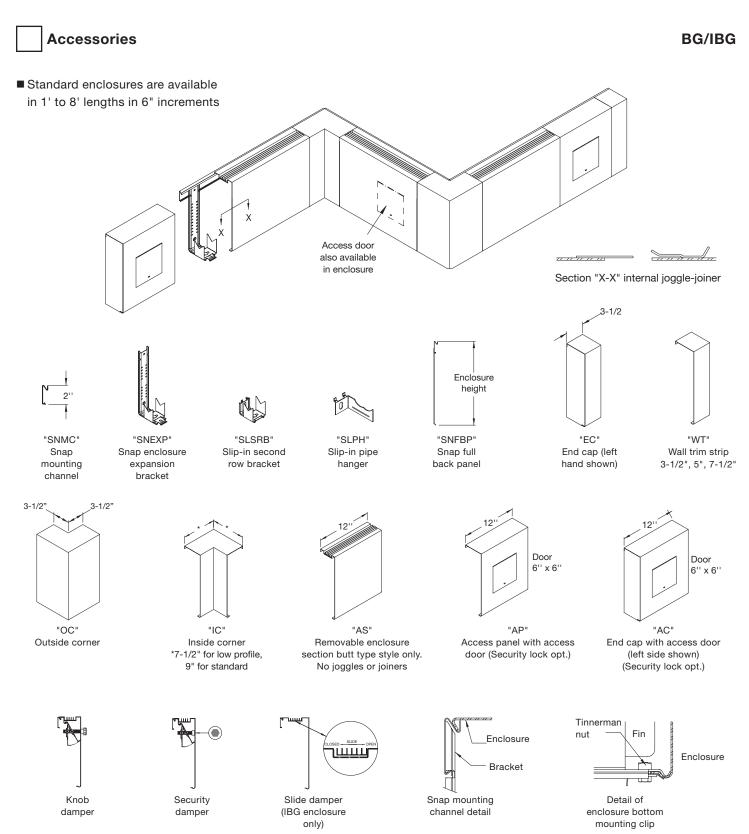
	SIBGVL	3	
Pipe	size		
Steel	Copper	Fin size	A
N/A	3/4", 1", 1-1/4"	2-3/4" x 4"	- 4 -
1", 1-1/4"	3/4", 1", 1-1/4"	3-1/4" x 3-1/4"	14"



#### Notes:

\*Center lines are based on 1" copper tube.

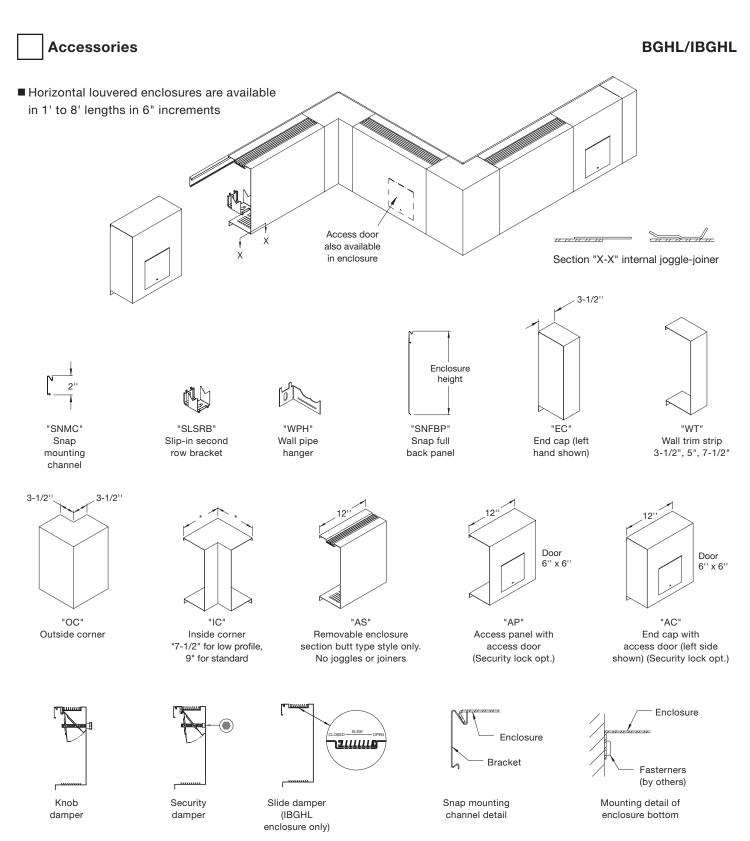
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

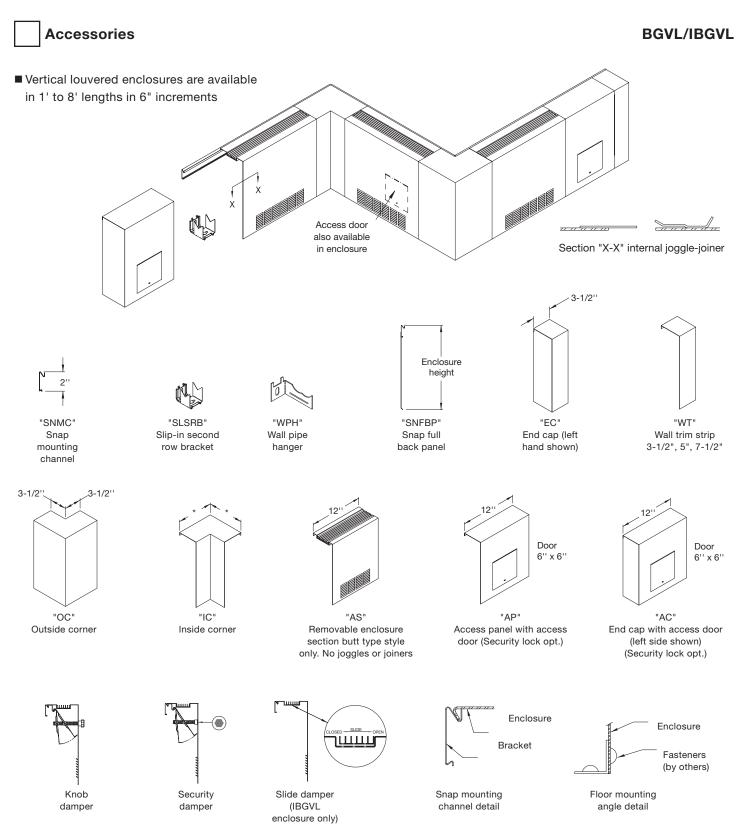
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

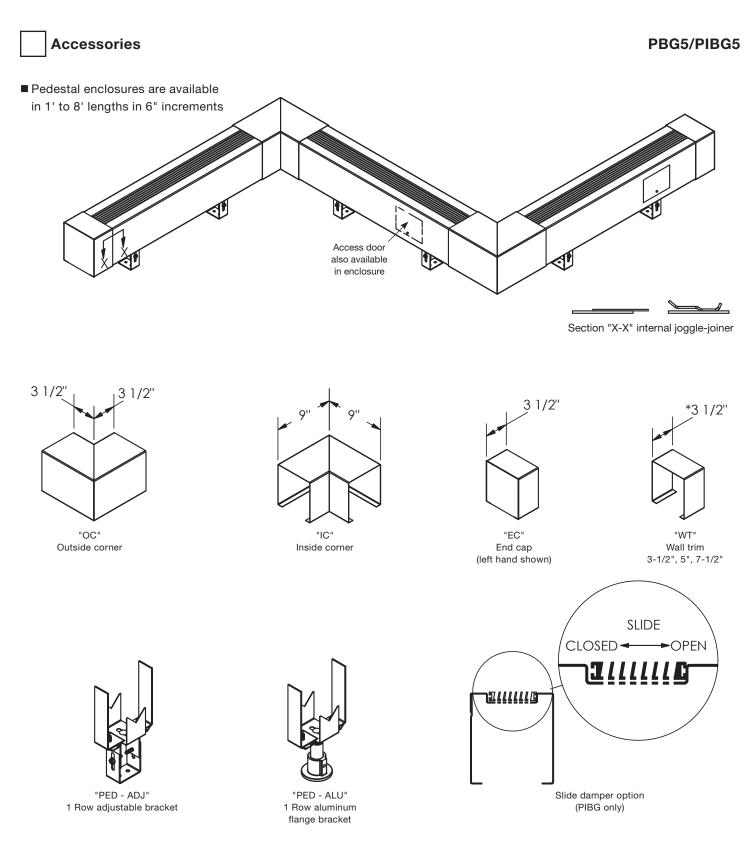
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

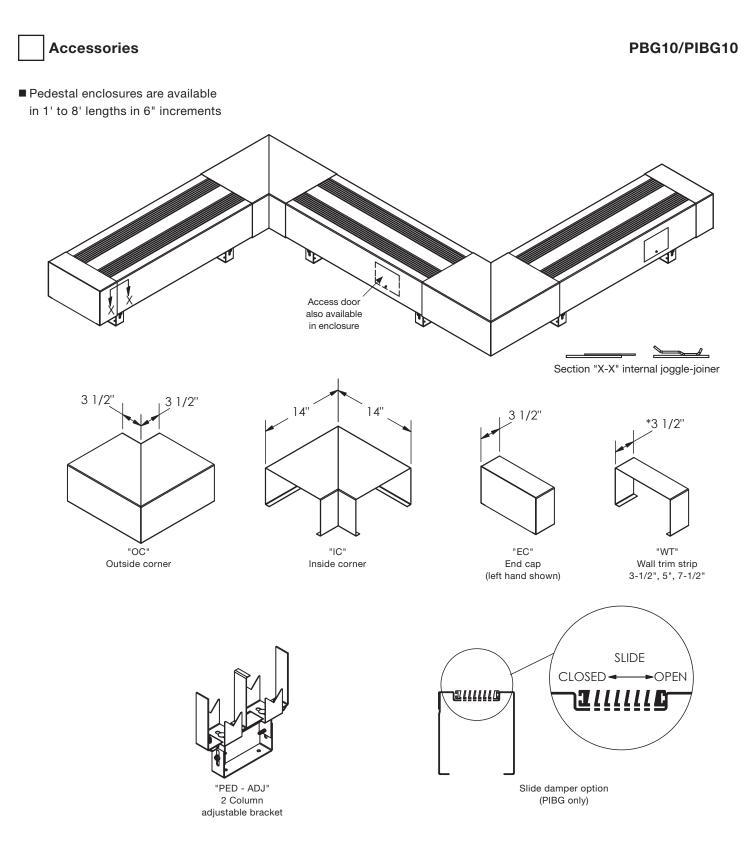
**English, IP Units** 



#### Notes:

■ All accessories are overlap type, butt type optional (except as noted)

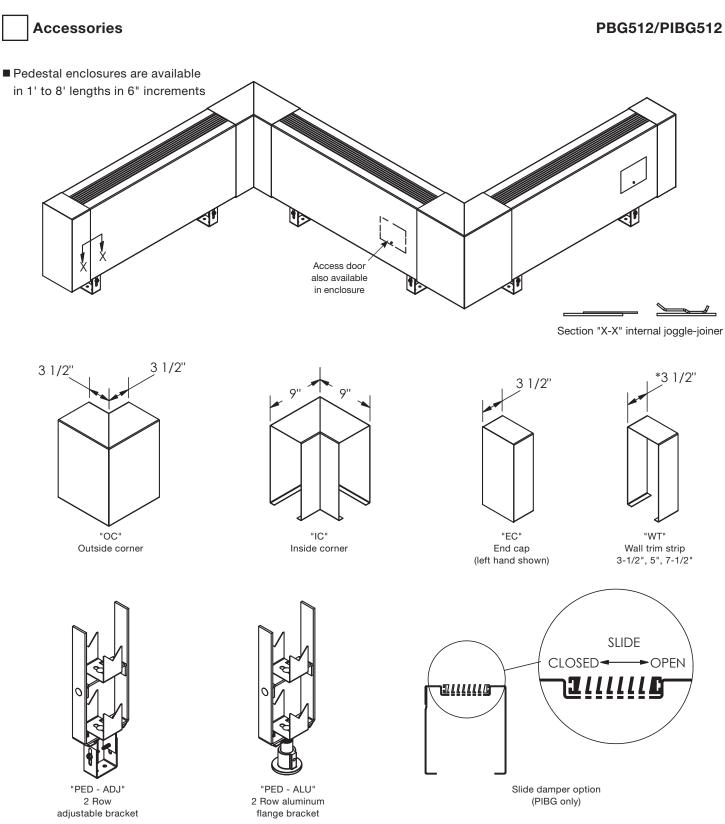
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

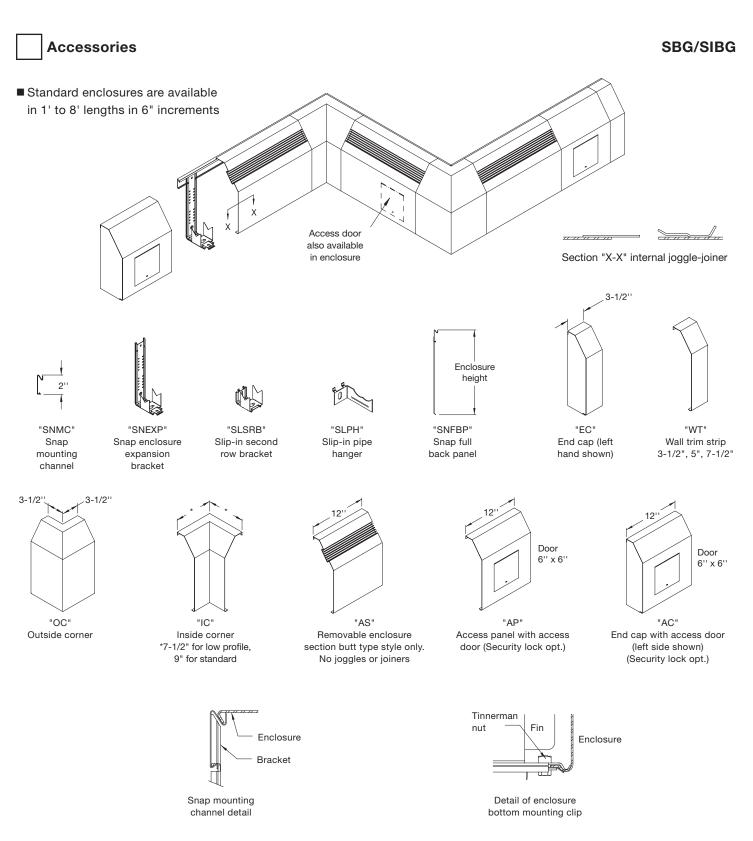
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

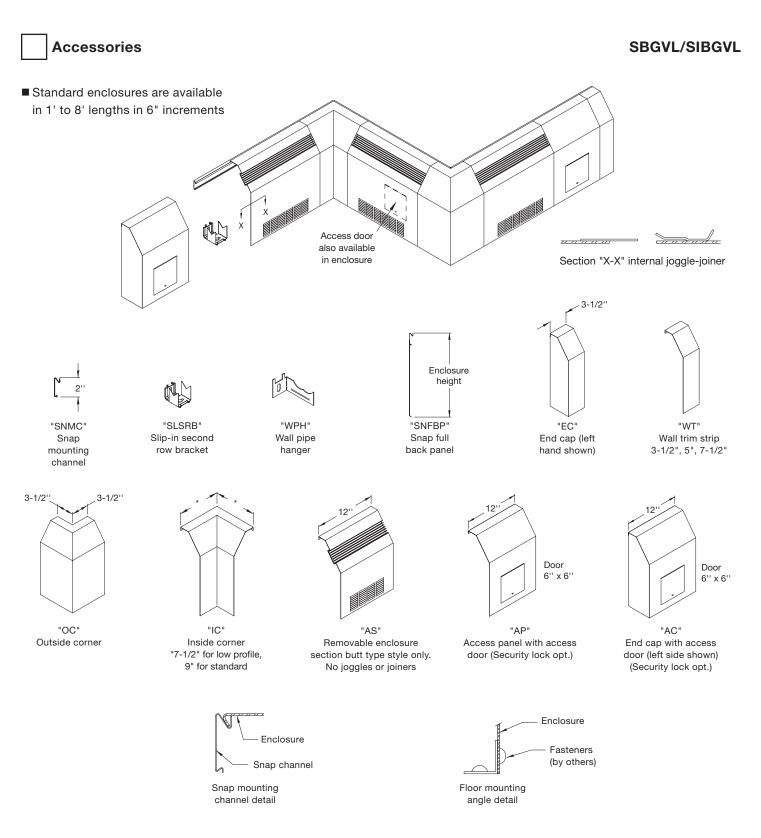
**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

**English, IP Units** 



#### Notes:

All accessories are overlap type, butt type optional (except as noted)

### **Mechanical specifications**

### General

Furnish and install finned tube heating elements and enclosures as indicated on plans, with required mounting components and accessories. Material shall be manufactured in accordance with Zehnder Rittling's High Quality Standards and in conformance to ISO 9001:2008 standards established and maintained by Zehnder Rittling of Buffalo, New York.

### **Steel heating elements**

Steel heating elements shall consist of 0.027" thick galvanized fins permanently bonded to high pressure A106 seamless schedule 40B steel tubing by mechanically expanding the steel tubing to the steel fins. Steel tube wall thickness; 1" dia. - 0.0133", 1-1/4" dia. - 0.140", 2" dia -0.154", prior to tube expansion.

### **Guaranteed working pressures:**

1" IPS - 780 psig at temperature up to 650°F. 1-1/4" IPS -660 psig at temperatures up to 650°F. 2" IPS - 405 psig at temperatures up to 650°F.

### **Copper-aluminum heating elements**

Copper-Aluminum heating elements shall consist of 0.016" thick, 1100 grade aluminum fins permanently bonded to lightly annealed copper alloy 122 seamless drawn tubing by mechanically expanding the copper tubing to the aluminum fins. Copper tube wall thickness; 3/4" dia - 0.020", 1" dia. -0.025", 1-1/4" dia. - 0.028", prior to tube expansion. Copper tube meets the following ASTM standard designations: ASTM B42, ASTM B68, ASTM B75, ASTM B88, ASTM B111, ASTM B152, ASTM B280.

#### **Guaranteed working pressures:**

1-1/4" CU - 194 psig at temperatures up to 300°F. 1" CU - 204 psig at temperature up to 300°F. 3/4" CU - 218 psig at temperatures up to 300°F.

### Snap mounting channel or full back panel

Mounting channel shall be die formed from 23-gauge galvannealed steel and the full back panel from 20-gauge galvannealed steel. For rigidity, the top projection of the mounting channel or full back panel shall position the enclosure away from the wall so as to allow for installation or removal of enclosure without damage to wall. A urethane gasket is available to form air seal at wall (optional).

### Hanger Brackets

All hanger brackets shall be die formed for rigidity. Brackets used for first row or one row of finned tube shall incorporate a positive-lock mounting clip for the enclosure. Brackets will be self-gauging, allowing for a single measurement installation.

All hangers must provide for lengthwise movement of elements during expansion and contraction as well as aligning elements to prevent contact with brackets, walls, or enclosure.

### **Enclosures & accessories**

Enclosures shall be of the type as shown on the drawings. Enclosures shall be manufactured from 14-16-18-gauge cold rolled steel; 12-gauge not available. All wall mounted enclosures shall be reinforced with welded gussets. The joining of enclosure shall be accomplished by use of internal joggle joiners to provide for hairline joints and added rigidity. No sheet metal screws or other fastening devices shall be visible.

Securing the top portion of the enclosure to the wall will be accomplished by use of a full length mounting channel or full back panel.

The lower portion of open inlet enclosures will be secured by use of a positive-locking, bottom-mounting clip using fasteners, thus preventing removal without tools.

VL enclosures will be secured to the floor using floor mounting angle or channel (fasteners by others).

HL enclosures will be secured to the wall by the flange of the enclosure (with fasteners by others).

Pedestal enclosures will attach to the brackets which will be mounted directly to the floor, no wall supports or brackets are needed.

### **Mechanical specifications**

### Dampers

Enclosure dampers shall be provided where indicated. Damper blades shall be fabricated from 18-gauge material painted to match enclosure color. Threaded damper screw and trunion shall provide positive operation of blade to provide variable heat output.

Damper shall be operated by solid plastic damper knobs attached to damper screw. Recessed security allen head operators shall be used in secure areas as indicated. Consult factory on enclosure heights of 8" or below.

#### Access door

Access doors shall be provided where noted on plans. Doors shall be 6"x6". Knob, security, slide damper also available. (Security damper must be operated by use of a hex key. Slide damper has limited availability.)

### BG/PBG/SBG

Aluminum discharge grille shall run the continuous length of the enclosure. The grille shall have a standard mill finish with straight vanes with 0° deflection. The grille shall be pencilproof.

### **IBG/PIBG/SIBG**

Aluminum discharge grille shall run the continuous length of the enclosure. The grille shall have a clear (204-R1) anodized finish. The grille will have a 15° deflection and be pencilproof.

### Paint

All enclosures and accessories shall be degreased and chemically phosphatized before application of a durable, attractive, electrostatic epoxy powder coating. Decorator colors are available from Zehnder Rittling color selector chart

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

### Warranty

Zehnder Rittling guarantees its products to be free from defects in material and workmanship for a period of one year from date of shipment from our Buffalo, New York factory.

Should there be any defects in the good(s), the purchaser should promptly notify Zehnder Rittling and upon receipt of written consent from Zehnder Rittling, the purchaser shall return the defective good(s) to the factory for inspection with freight prepaid. If inspection shows the goods to be defective, Zehnder Rittling will at its discretion repair or replace the said item(s).

Defects arising from damage due to shipment, improper installation, negligence or misuse by others are not covered by this warranty.

This warranty is extended only to the original purchaser from Zehnder Rittling.

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