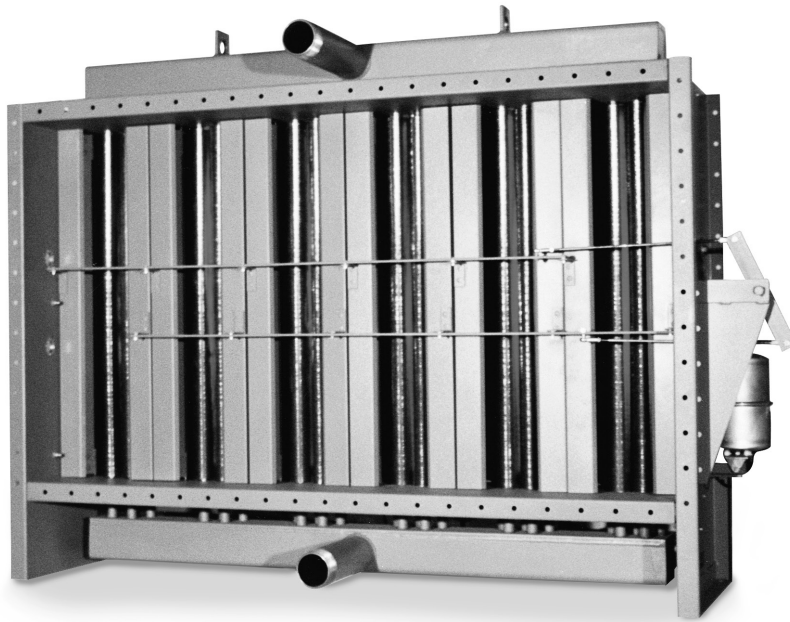


Duramix™ Face and By-pass Heating Coil



The Armstrong Duramix™ heating coil controls air temperature while operating at full steam pressure. Once set, the desired leaving air temperature is maintained by Duramix™ regardless of variations in the entering air temperature. The Armstrong Duramix™ heating coil is simple, yet very effective, and it is easy to install and maintain.

How Does It Work?

Special dampers, operated by a pneumatic or electric actuator connected to a temperature sensor, adjust the leaving air temperature by channeling the appropriate amount of entering air across the heating coils and diverting the remaining air through by-pass channels. As entering air temperature gets closer to or farther from the set point, the dampers are closed or opened accordingly.

Typical Applications

- HVAC air preheat systems
- Make-up air systems
- Combustion air preheat systems

Advantages

- Maximum freeze protection
- Accurate temperature control
- Even leaving air temperature

Why Choose Armstrong Duramix™?

The Armstrong Duramix™ heating coil combines the advantages of a face and by-pass system with the quality, heavy-duty construction inherent in all Armstrong coils. From an all-welded, monometallic coil to corrosion-resistant linkages to a tough casing assembly, the Armstrong Duramix™ coil is built to provide long-lasting, trouble-free service.

Materials

- Heavy-Duty Tubes: 12 ga steel (type Q)
10 ga steel (type R)
14 ga 304L stainless steel (type W)
14 ga 316L stainless steel (type Y)
- Heavy-Duty Fins: 0.020" thick aluminum (type A)
0.030" thick aluminum (type B)
0.024" thick steel (type G)
0.020" thick 316L stainless steel (type K)
0.016" thick copper (type F)
- Monometallic Coil Design: Prevents galvanic corrosion
- Welded Tube-to-Header Joints: Prevent leaks
- All Stainless Steel Damper Linkage Assembly: Prevents dampers from "freezing up" due to corrosion
- 12 ga steel casing provides a strong, durable frame
Optional: 12 ga 304L stainless steel
- 16 Ga. Louvers

Design Limit

150 psig @ 400°F (10 barg @ 204°C)

Custom-built Duramix face and by-pass heating coils are also available. Please consult factory.

Coil Type

- Available also in centrifed, tandem and centrifed tandem, consult factory.

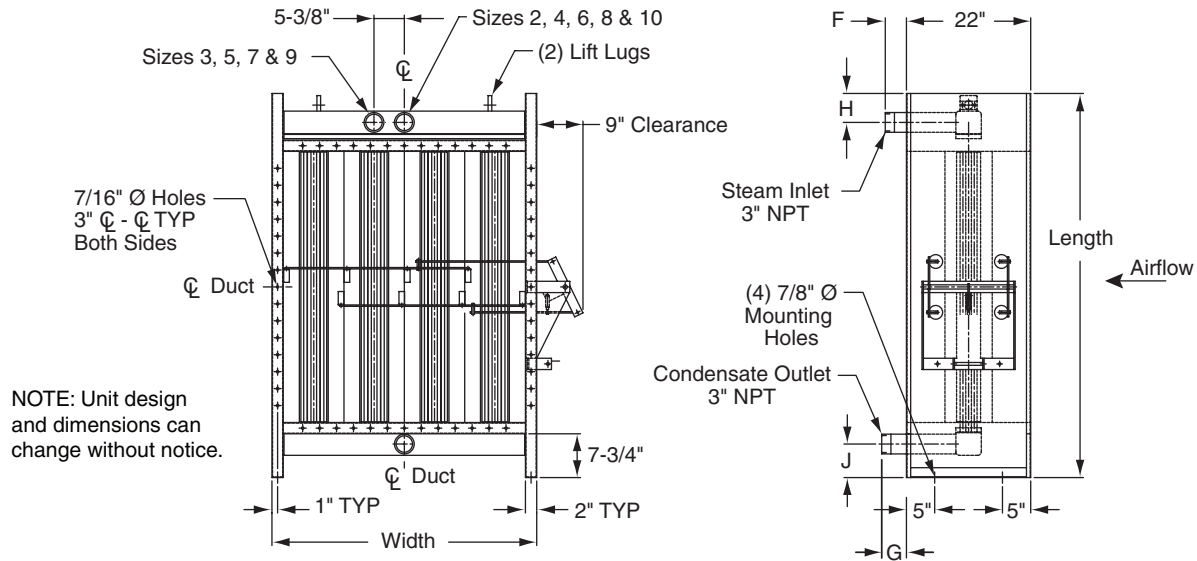


Armstrong® Duramix™ Sizing and Selection

All sizes are for vertical tubes and horizontal airflow only.

For help in selecting the right size for either a new or retrofit application, please call us.

Left hand Duramix shown below.



NOTE: Unit design and dimensions can change without notice.

1-Row Units																										
Size	No. of Tube Bundles				2		3		4		5		6		7		8		9		10		11		12	
	Casing Width (in)				25-3/8		36-1/8		46-7/8		57-5/8		68-1/4		79		89-3/4		100-1/2		111-1/8		121-7/8		132-5/8	
	F (in)				3-3/4		3-3/4		3-3/4		3-3/4		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8	
	Casing Length	G (in)	H (in)	J (in)	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT
A	44"	4-3/8	5-1/8	5-15/16	2.27	268	3.41	331	4.54	390	5.68	458	6.81	540	7.95	607	9.09	706								
B	56"				3.41	308	5.11	374	6.81	448	8.52	526	10.22	614	11.92	693	13.63	788								
C	68"				4.54	339	6.81	420	9.09	501	11.36	587	13.63	681	15.90	769	18.17	867	20.44	930	22.71	1013	25.09	1096	27.37	1179
D	80"						8.52	460	11.36	546	14.20	647	17.03	753	19.87	844	22.71	958	25.55	1037	28.39	1130	31.37	1230	34.22	1330
E	93-11/16"								14.76	627	18.45	738	22.15	849	25.84	961	29.53	1084	33.22	1183	36.91	1284	40.77	1385	44.48	1487
F	116"										22.81	825	27.38	940	31.94	1070	36.50	1195	41.06	1320	45.63	1430	50.19	1540	54.75	1667

2-Row Units																										
Size	No. of Tube Bundles				2		3		4		5		6		7		8		9		10		11		12	
	Casing Width (in)				25-3/8		36-1/8		46-7/8		57-5/8		68-1/4		79		89-3/4		100-1/2		111-1/8		121-7/8		132-5/8	
	F (in)				3-1/4		3-1/4		3-1/4		3-1/4		5-1/4		5-1/4		5-1/4		5-1/4		5-1/4		2-1/8		2-1/8	
	Casing Length	G (in)	H (in)	J (in)	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT
A	44"	3-1/4	3-3/8	3-1/8	2.27	308	3.41	382	4.54	456	5.68	538	6.81	578	7.95	756	9.09	735								
B	56"				3.41	351	5.11	431	6.81	520	8.52	613	10.22	719	11.92	839	13.63	977								
C	68"				4.54	383	6.81	482	9.09	580	11.36	682	13.63	795	15.90	905	18.17	1016	20.44	1126	22.71	1237	25.09	1348	27.37	1459
D	80"						8.52	528	11.36	632	14.20	752	17.03	877	19.87	1048	22.71	1193	25.55	1318	28.39	1420	31.37	1522	34.22	1624
E	98"								14.76	723	18.45	856	22.15	1044	25.84	1196	29.53	1337	33.22	1472	36.91	1598	40.77	1724	44.48	1850
F	116"										22.81	960	27.38	1211	31.94	1344	36.50	1481	41.06	1626	45.63	1873	50.19	1926	54.75	2076

Consult factory for additional size options.

Design Limits: 150 psig @ 400F

Model Number Selection: **BV1 - 2A - A11 - Q08 - TA - LH/RH**

- Left Hand / Right Hand (LH Shown Above)
- Thermostat (T), Pneumatic (P), Electric (E), Actuator (A—If Supplied)
- Tube Type, Gauge/Schedule, OD - See page 342
- Fin Type, Fins per Inch - See page 342
- No. of Tube Bundles, Casing Width / Casing Length
- By-pass, Vertical, No. of Rows

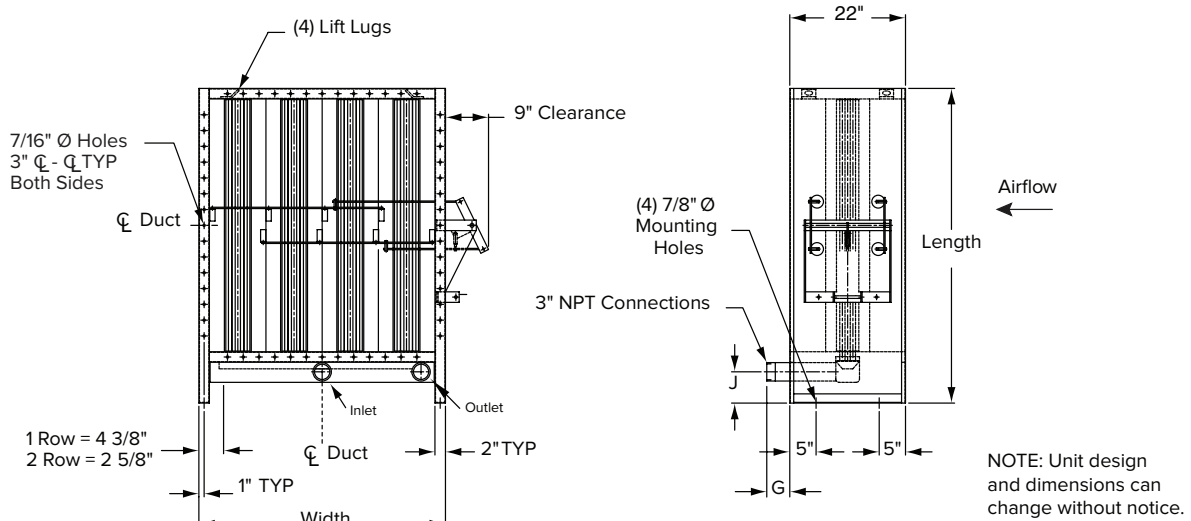
Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.

Centifeed Duramix™ Sizing and Selection

All sizes are for vertical tubes and horizontal airflow only.

For help in selecting the right size for either a new or retrofit application, please call us.

Left hand Centifeed Duramix shown below.



1-Row Units																										
Size	No. of Tube Bundles				2		3		4		5		6		7		8		9		10		11		12	
	Casing Width (in)				25-3/8		36-1/8		46-7/8		57-5/8		68-1/4		79		89-3/4		100-1/2		111-1/8		121-7/8		132-5/8	
	F (in)				3-3/4		3-3/4		3-3/4		3-3/4		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8		2-1/8	
	Casing Length	G (in)	H (in)	J (in)	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT
					ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb
A	36"	4-3/8	5-1/8	5-15/16	2.27	268	3.41	331	4.54	390	5.68	458	6.81	540	7.95	607	9.09	706								
B	48"				3.41	308	5.11	374	6.81	448	8.52	526	10.22	614	11.92	693	13.63	788								
C	60"				4.54	339	6.81	420	9.09	501	11.36	587	13.63	681	15.90	769	18.17	867	20.44	930	22.71	1013	25.09	1096	27.37	1179
D	72"						8.52	460	11.36	546	14.20	647	17.03	753	19.87	844	22.71	958	25.55	1037	28.39	1130	31.37	1230	34.22	1330
E	90"								14.76	627	18.45	738	22.15	849	25.84	961	29.53	1084	33.22	1183	36.91	1284	40.77	1385	44.48	1487
F	108"										22.81	825	27.38	940	31.94	1070	36.50	1195	41.06	1320	45.63	1430	50.19	1540	54.75	1667

2-Row Units																										
Size	No. of Tube Bundles				2		3		4		5		6		7		8		9		10		11		12	
	Casing Width (in)				25-3/8		36-1/8		46-7/8		57-5/8		68-1/4		79		89-3/4		100-1/2		111-1/8		121-7/8		132-5/8	
	F (in)				3-1/4		3-1/4		3-1/4		3-1/4		5-1/4		5-1/4		5-1/4		5-1/4		5-1/4		2-1/8		2-1/8	
	Casing Length	G (in)	H (in)	J (in)	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT	FA	WT
					ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb	ft²	lb
A	36"	3-1/4	3-3/8	3-1/8	2.27	308	3.41	382	4.54	456	5.68	538	6.81	578	7.95	756	9.09	735								
B	48"				3.41	351	5.11	431	6.81	520	8.52	613	10.22	719	11.92	839	13.63	977								
C	60"				4.54	383	6.81	482	9.09	580	11.36	682	13.63	795	15.90	905	18.17	1016	20.44	1126	22.71	1237	25.09	1348	27.37	1459
D	72"						8.52	528	11.36	632	14.20	752	17.03	877	19.87	1048	22.71	1193	25.55	1318	28.39	1420	31.37	1522	34.22	1624
E	90"								14.76	723	18.45	856	22.15	1044	25.84	1196	29.53	1337	33.22	1472	36.91	1598	40.77	1724	44.48	1850
F	108"										22.81	960	27.38	1211	31.94	1344	36.50	1481	41.06	1626	45.63	1873	50.19	1926	54.75	2076

Consult factory for additional size options.

Design Limits: 150 psig @ 400°F

Model Number Selection: CBV1 - 4C - A11 - Q08 - TA - LH/RH

- Left Hand / Right Hand (LH Shown Above)
- Thermostat (T), Pneumatic (P), Electric (E), Actuator (A - If Supplied)
- Tube Type, Gauge/Schedule, OD - See page C-7
- Fin Type, Fins per Inch - See page C-7
- No. of Tube Bundles, Casing Width / Casing Length
- Centifeed By-pass, Vertical, No. of Rows

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.

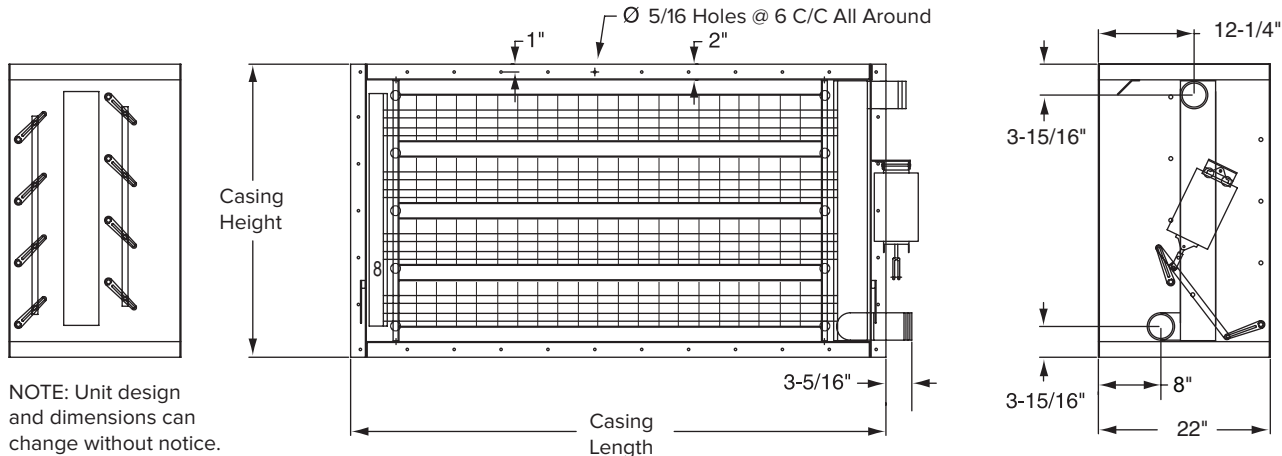


Armstrong® Horizontal Duramix™ Sizing and Selection

All sizes are for horizontal tubes and horizontal airflow only.

For help in selecting the right size for either a new or retrofit application, please call us.

Left hand horizontal Duramix shown below.



NOTE: Unit design and dimensions can change without notice.

Size		A		B		C		D	
Casing Length (in)		26-1/2		32-1/2		38-1/2		44-1/2	
Size	Casing Height (in)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)
2	20-3/4	0.96	239	1.43	262	1.91	285	2.38	308
3	29-1/8	1.43	263	2.15	345	2.86	380	3.57	414
4	37-1/2	1.68	287	2.52	429	3.35	475	4.19	521
5	45-7/8	—	—	3.58	512	4.76	570	5.95	627
6	54-1/4	—	—	—	—	5.72	664	7.14	733
7	62-5/8	—	—	—	—	—	—	8.33	840
8	71	—	—	—	—	—	—	9.53	946

Reference weight only using steel tube 12 Ga. A-214 and aluminum keyfin 0.020" thick.

Size		E		F		G		H	
Casing Length (in)		50-1/2		56-1/2		62-1/2		68-1/2	
Size	Casing Height (in)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)	Face Area Ft. ²	Weight (lb)
2	20-3/4	2.86	331	3.33	354	3.81	377	4.28	400
3	29-1/8	4.28	449	5.00	483	5.71	517	6.42	552
4	37-1/2	5.71	566	6.66	612	7.61	658	8.56	704
5	45-7/8	7.14	684	8.33	742	9.52	799	10.71	856
6	54-1/4	8.57	802	10.00	871	11.42	940	12.85	1 008
7	62-5/8	10.00	920	11.66	1 000	13.32	1 080	14.99	1 161
8	71	11.43	1 038	13.33	1 129	15.23	1 221	17.13	1 313

Reference weight only using steel tube 12 Ga. A-214 and aluminum keyfin 0.020" thick.

Design Limits: 150 psig @ 400°F

Model Number Selection: **BH2 - 4H - A11 - Q08 - HA - L**

Hand of Coil
Actuator Model (if required)
Tube Type, OD
Fin Type, Fin per Inch
Tube Bundles, Casing Width/Casing Length
By-pass, Horizontal, # Rows. BHC: Centifed Model