

UNIT DIMENSIONS

Standard Construction

Cabinet: Heavy gauge, rustproof smooth finish aluminum housing. All hardware is corrosion resistant. Full die-formed venturis minimize noise with maximum air throw. Fan guards are heavy gauge wire basket type coated for corrosion resistance. Units mounts flush to the ceiling for ease of wash down, no difficult areas above the unit to clean.

Coil: Copper tube, aluminum plate full collared die-formed fins and tube sheets. Tubes are mechanically expanded for maximum heat transfer. Coils are leak tested at 175 PSIG under water. Sweat connection type distributors are supplied with removable nozzles. Each nozzle is sized for the specified refrigerant and temperature range. All coils require external equalized expansion valve. Expansion valve is located within the cabinet. On electric defrost models, the expansion valve compartment is heated during the defrost cycle.

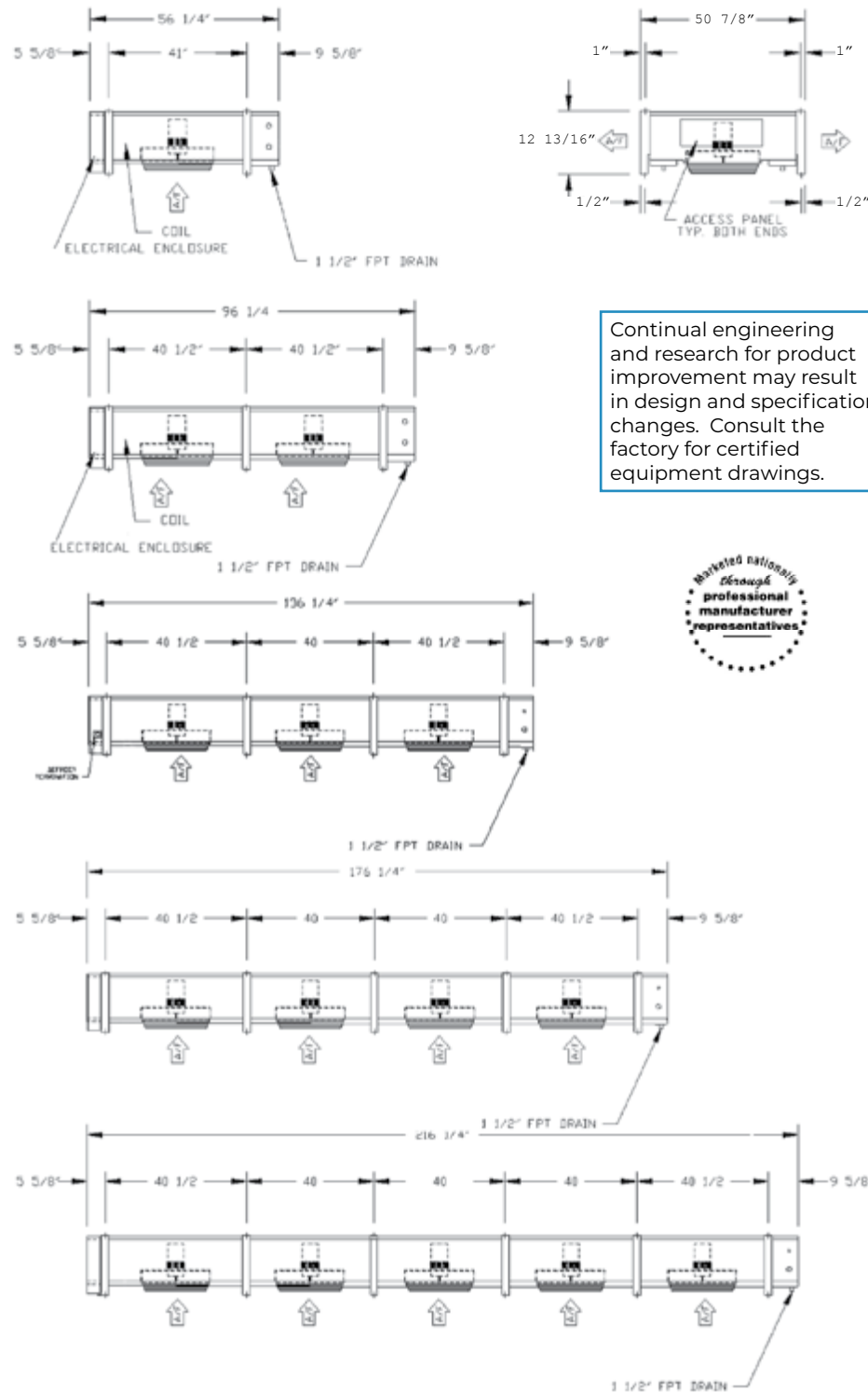
Motors: Permanently lubricated, suitable for low temperature applications. All motors are thermally protected, 1140 RPM.

Fans: Heavy duty aluminum blades, statically and dynamically balanced for smooth operation. Selected for quiet operation with maximum air throw.

Refrigerants: All coils are designed for use with multiple refrigerants. Specify which refrigerant when ordering.

Electrical: Factory prewired to terminal blocks located on end of unit. Consult specifications for electrical requirements. See appropriate diagram for internal wiring schematic.

Defrost: Standard unit is suitable for air defrost applications (above 32° F room). Electric defrost models (below 32° F room) are available. Removable, low watt density resistance heaters, prewired with termination and fan delay controls.



Continual engineering and research for product improvement may result in design and specification changes. Consult the factory for certified equipment drawings.



BALV SERIES

Unit Coolers

Flush Mount
Low Velocity



DOE COMPLIANT



CENTURY
Innovative Comdustrial Refrigeration

REFRIGERANT TYPES: R404A, R507



WHEN ORDERING, PLEASE SPECIFY:

- Complete Model Number
- Refrigerant Type
- Room Temperature
- Saturated Suction Temperature
- Unit Voltage
- Defrost Type
- Design TD (entering air to refrigerant)

Capacity for BALV Coolers											
	Electric Defrost Models	CFM	FPM	EVAPORATING TEMPERATURE °F							
				0°	+10°	+20°	+25°	+30°	+35°	+40°	+45°
4 FPI	410-175	3,827	383	11,946	12,100	12,491	15,040	15,032	15,024	15,207	15,390
	410-211	3,785	379	16,473	17,376	18,214	17,706	17,595	17,483	17,529	17,574
	420-349	7,654	383	24,596	25,773	26,704	25,091	25,032	24,972	24,999	25,026
	420-422	7,570	379	29,929	31,479	32,845	26,232	26,287	26,342	26,526	26,709
	430-523	11,481	383	35,850	35,910	37,361	44,170	43,730	43,289	42,928	42,566
	430-633	11,355	379	46,026	47,911	48,716	50,164	50,142	50,119	50,407	50,694
	440-698	15,308	383	50,283	53,561	56,374	53,116	53,120	53,124	53,349	53,574
	440-844	15,139	378	53,588	56,142	58,135	72,099	71,636	71,172	70,788	70,403
	450-872	19,135	383	65,699	68,612	69,687	71,377	69,736	68,095	68,997	69,899
450-1055	18,924	378	74,560	74,746	78,745	95,607	95,586	95,565	95,361	95,156	
5 FPI	510-197	3,827	383	13,169	13,382	13,805	16,310	16,383	16,456	16,713	16,970
	510-236	3,732	373	14,995	15,519	15,620	19,953	19,683	19,413	19,512	19,611
	520-393	7,654	383	26,888	28,392	29,544	29,118	28,479	27,839	27,993	28,147
	520-472	7,464	373	32,611	34,517	36,157	35,920	35,788	35,655	35,120	34,585
	530-590	11,481	383	39,365	39,468	41,141	48,664	48,452	48,239	47,914	47,588
	530-709	11,195	373	51,598	52,832	54,741	54,932	55,198	55,464	55,953	56,441
	540-786	15,308	383	54,432	58,420	61,784	58,293	58,611	58,928	59,414	59,900
	540-945	14,927	373	58,635	61,770	64,240	81,075	80,086	79,096	78,765	78,434
	550-983	19,135	383	72,607	76,005	78,746	75,773	75,278	74,782	74,292	73,801
550-1180	18,659	373	81,305	86,092	86,085	104,400	104,870	105,340	105,317	105,294	
6 FPI	610-209	3,785	379	14,300	14,886	15,054	17,423	17,700	17,977	18,183	18,389
	610-251	3,689	369	16,165	16,778	16,883	21,479	21,228	20,977	21,138	21,299
	620-417	7,570	379	28,902	30,648	32,073	31,827	31,140	30,452	30,703	30,953
	620-502	7,378	369	36,211	36,938	38,850	38,755	38,739	38,722	38,109	37,496
	630-626	11,354	378	44,409	46,601	46,409	52,633	53,095	53,556	54,087	54,618
	630-752	11,066	369	55,465	56,836	59,137	58,721	59,249	59,777	60,467	61,157
	640-834	15,139	378	58,005	58,930	60,842	66,528	65,300	64,072	64,810	65,547
	640-1003	14,755	369	62,621	66,271	69,210	87,292	86,404	85,515	86,118	86,720
	650-1043	18,924	378	79,346	82,404	85,702	84,628	83,400	82,172	81,733	81,294
650-1254	18,444	369	86,569	92,116	92,014	111,353	112,274	113,194	114,660	116,125	
8 FPI	810-229	3,732	373	NOT RATED FOR USE IN THIS RANGE			17,054	17,078	17,101	17,196	17,291
	810-266	3,585	359				23,816	23,895	23,973	23,952	23,930
	820-457	7,464	373				36,226	36,333	36,440	36,017	35,593
	820-532	7,171	359				43,113	43,299	43,485	43,831	44,177
	830-636	11,066	369				50,521	50,862	51,203	51,645	52,086
	830-800	10,756	359				68,254	67,282	66,310	67,354	68,398
	840-915	14,755	369				68,978	68,372	67,765	68,233	68,701
	840-1056	14,341	359				96,766	97,116	97,466	97,531	97,596
	850-1143	18,659	373				96,723	95,589	94,454	95,075	95,695
850-1331	17,927	359	102,053	103,216	104,378	105,692	107,006				

Capacity Based on 10° TD. Ratings omitted due to temperature limits. Recommended maximum face velocity of 625 FPM for a wet coil application. Low temp. applications are defined as equal to or below 20°F. Catalog application ratings are outside the scope of ANSI/CAN/AHRI Standard 1250.

For DOE compliant models, Net Capacities and AWEF numbers can be found at www.regulations.doe.gov.
Published airflow based on 50% wet coil surface.

REFRIGERANT TYPES: R-448a, R-449a, R-407c, R-407a, R-407f

Capacity for BALV Coolers											
Electric Defrost Models	CFM	FPM	EVAPORATING TEMPERATURE °F								
			0°	+10°	+20°	+25°	+30°	+35°	+40°	+45°	
4 FPI	410-175	3,827	383	17,715	18,480	19,776	22,515	23,016	23,516	24,388	25,260
	410-211	3,785	379	23,532	25,471	27,571	28,263	28,447	28,631	29,464	30,297
	420-349	7,654	383	36,090	37,924	40,803	41,602	42,107	42,612	43,553	44,493
	420-422	7,570	379	44,582	47,959	50,212	43,385	43,916	44,446	45,284	46,121
	430-523	11,481	383	52,095	55,874	59,798	67,689	69,001	70,312	71,178	72,044
	430-633	11,355	379	67,194	72,033	75,991	80,588	82,120	83,651	84,392	85,133
	440-698	15,308	383	72,701	78,931	83,402	85,577	87,130	88,682	91,033	93,384
	440-844	15,139	378	82,779	88,731	91,707	111,153	113,377	115,600	117,366	120,313
	450-872	19,135	383	94,244	101,076	106,683	109,885	111,059	112,232	115,977	119,721
	450-1055	18,924	378	112,526	120,812	125,174	143,978	147,610	151,242	154,281	157,319
5 FPI	510-197	3,827	383	19,809	21,189	22,094	24,733	25,571	26,408	27,175	27,942
	510-236	3,732	373	23,075	24,632	26,272	31,550	31,703	31,856	32,852	33,847
	520-393	7,654	383	40,109	42,164	45,561	46,393	47,105	47,816	48,948	50,079
	520-472	7,464	373	49,353	53,369	57,593	56,933	57,998	59,062	60,641	62,220
	530-590	11,481	383	57,798	62,333	66,944	76,773	77,662	78,550	80,817	83,084
	530-709	11,195	373	76,593	80,337	86,432	89,291	91,250	93,208	96,016	98,823
	540-786	15,308	383	80,044	87,485	92,446	94,871	96,885	98,898	101,731	104,564
	540-945	14,927	373	95,556	98,514	105,743	127,057	127,962	128,867	132,808	136,749
	550-983	19,135	383	104,976	113,128	121,745	124,271	124,385	124,498	127,622	130,746
	550-1180	18,659	373	124,809	134,660	145,079	159,291	163,769	168,246	174,169	180,092
6 FPI	610-209	3,785	379	21,630	23,220	24,415	26,760	27,650	28,539	29,697	30,855
	610-251	3,689	369	24,978	26,743	28,590	34,166	34,891	35,616	36,199	36,782
	620-417	7,570	379	43,585	47,289	49,659	50,695	51,615	52,534	53,863	55,191
	620-502	7,378	369	53,035	57,632	62,420	63,748	63,967	64,185	66,031	67,877
	630-626	11,354	378	67,675	70,808	76,058	85,137	87,122	89,107	91,618	94,129
	630-752	11,066	369	82,950	89,157	93,790	96,196	98,610	101,024	104,278	107,531
	640-834	15,139	378	87,933	94,070	98,080	102,948	105,476	108,004	111,331	114,658
	640-1003	14,755	369	103,458	108,756	114,665	137,706	140,656	143,605	146,201	148,796
	650-1043	18,924	378	116,137	123,791	133,669	136,400	136,465	136,530	140,225	143,920
	650-1254	18,444	369	134,365	145,643	157,446	173,477	177,539	181,601	188,418	195,234
8 FPI	810-229	3,732	373	NOT RATED FOR USE IN THIS RANGE			29,073	29,157	29,240	29,989	30,738
	810-266	3,585	359				38,122	39,107	40,091	41,459	42,826
	820-457	7,464	373				57,788	59,113	60,437	62,192	63,946
	820-532	7,171	359				71,660	71,981	72,302	74,630	76,958
	830-636	11,066	369				85,357	87,015	88,672	90,948	93,223
	830-800	10,756	359				110,327	111,749	113,170	117,241	121,312
	840-915	14,755	369				114,466	116,427	118,387	119,677	120,966
	840-1056	14,341	359				153,793	157,794	161,795	167,305	172,814
	850-1143	18,659	373				156,419	159,472	162,524	164,385	166,245
	850-1331	17,927	359				180,938	181,352	185,172	186,716	191,744

Capacity Based on 10° TD. Ratings omitted due to temperature limits. Recommended maximum face velocity of 625 FPM for a wet coil application. Low temperature applications are defined as equal to or below 20°F. Catalog application ratings are outside the scope of ANSI/CAN/AHRI Standard I250.

Published airflow based on 50% wet coil surface. For DOE compliant models, Net Capacities and AWEF numbers found at www.regulations.doe.gov.

APPLICATIONS

- Meat Cutting / Prep Rooms
- Holding / Packaging Rooms
- Florist Boxes
- High Humidity - Low TD

FEATURES

- Low Air Velocity
- Two Way Air Throw
- Prewired, Thermal Protected Motors
- Ceiling flush mount design

OPTIONS

- High Efficiency ECM Motors
- Electric Defrost
- Insulated Drain Pans

	Model	FAN MOTOR DATA						DEFROST HEATER DATA				CONNECTIONS		APPROX. REF. CHG (LBS) ⁴	SHIP ² WT (LBS)	OPER WT (LBS)
		QTY.	HP	AMPS ¹			AMPS			DIST. ODS	SUCT. OD					
				230/1	230/3	460/3	230/1	230/3	460/3			WATTS ³				
4 FPI	410-175	1	1/4	2.8	1.3	0.65	22.1	13.5	6.8	5,074	1/2	7/8	6	420	267	
	410-211	1	1/4	2.8	1.3	0.65	28.6	16.9	9.6	6,570	1/2	1 1/8	8	441	291	
	420-349	2	1/4	5.6	2.6	1.3	42.5	25.9	13	9,786	5/8	1 1/8	11	638	451	
	420-422	2	1/4	5.6	2.6	1.3	NOT RATED FOR USE IN THIS RANGE	33	18.5	12,706	5/8	1 1/8	14	673	492	
	430-523	3	1/4	8.4	3.9	2		37.1	18.6	14,050	7/8	1 3/8	16	898	646	
	430-633	3	1/4	8.4	3.9	2		47.4	26.6	18,250	1 1/8	1 5/8	21	943	698	
	440-698	4	1/4	11.2	5.2	2.6		42.5	21.4	15,988	1 1/8	1 3/8	21	1109	826	
	440-844	4	1/4	11.2	5.2	2.6		53.1	30.3	20,688	1 1/8	1 5/8	28	1183	910	
	450-872	5	1/4	14	6.5	3.3		53.1	26.7	19,978	1 3/8	1 5/8	26	1369	1027	
	450-1055	5	1/4	14	6.5	3.3		66.4	37.8	25,856	1 3/8	2 1/8	35	1446	1116	
5 FPI	510-197	1	1/4	2.8	1.3	0.65		22.1	13.5	6.8	5,074	1/2	1 1/8	6	427	273
	510-236	1	1/4	2.8	1.3	0.65		28.6	16.9	9.6	6,570	1/2	1 1/8	8	447	297
	520-393	2	1/4	5.6	2.6	1.3		42.5	25.9	13	9,786	5/8	1 3/8	11	649	461
	520-472	2	1/4	5.6	2.6	1.3	NOT RATED FOR USE IN THIS RANGE	33	18.5	12,706	7/8	1 1/8	15	685	504	
	530-590	3	1/4	8.4	3.9	2		37.1	18.6	14,050	1 1/8	1 3/8	16	904	652	
	530-709	3	1/4	8.4	3.9	2		47.4	26.6	18,250	1 1/8	1 5/8	21	961	716	
	540-786	4	1/4	11.2	5.2	2.6		42.5	21.4	15,988	1 1/8	1 3/8	21	1126	843	
	540-945	4	1/4	11.2	5.2	2.6		53.1	30.3	20,688	1 1/8	1 5/8	28	1206	933	
	550-983	5	1/4	14	6.5	3.3		53.1	26.7	19,978	1 3/8	1 5/8	26	1390	1048	
	550-1180	5	1/4	14	6.5	3.3		66.4	37.8	25,856	1 3/8	2 1/8	35	1475	1145	
6 FPI	610-209	1	1/4	2.8	1.3	0.65		22.1	13.5	6.8	5,074	1/2	1 1/8	6	431	278
	610-251	1	1/4	2.8	1.3	0.65		28.6	16.9	9.6	6,570	1/2	1 1/8	8	453	303
	620-417	2	1/4	5.6	2.6	1.3		42.5	25.9	13	9,786	5/8	1 3/8	11	656	469
	620-502	2	1/4	5.6	2.6	1.3	NOT RATED FOR USE IN THIS RANGE	33	18.5	12,706	7/8	1 1/8	15	696	515	
	630-626	3	1/4	8.4	3.9	2		37.1	18.6	14,050	1 1/8	1 3/8	21	918	665	
	630-752	3	1/4	8.4	3.9	2		47.4	26.6	18,250	1 1/8	1 5/8	21	1003	759	
	640-834	4	1/4	11.2	5.2	2.6		42.5	21.4	15,988	1 3/8	1 3/8	21	1171	888	
	640-1003	4	1/4	11.2	5.2	2.6		53.1	30.3	20,688	1 3/8	2 1/8	28	1229	956	
	650-1043	5	1/4	14	6.5	3.3		53.1	26.7	19,978	1 3/8	2 1/8	26	1502	1105	
	650-1254	5	1/4	14	6.5	3.3		66.4	37.8	25,856	1 3/8	2 1/8	35	1503	1173	
8 FPI	810-229	1	1/4	2.8	1.3	0.65		22.1	13.5	6.8	5,074	1/2	7/8	6	429	275
	810-266	1	1/4	2.8	1.3	0.65		28.6	16.9	9.6	6,570	1/2	1 1/8	8	454	304
	820-457	2	1/4	5.6	2.6	1.3		42.5	25.9	13	9,786	5/8	1 1/8	11	657	469
	820-532	2	1/4	5.6	2.6	1.3	NOT RATED FOR USE IN THIS RANGE	33	18.5	12,706	7/8	1 1/8	15	698	516	
	830-636	3	1/4	8.4	3.9	2		37.1	18.6	14,050	1 1/8	1 3/8	16	921	669	
	830-800	3	1/4	8.4	3.9	2		47.4	26.6	18,250	1 1/8	1 3/8	21	979	735	
	840-915	4	1/4	11.2	5.2	2.6		42.5	21.4	15,988	1 3/8	1 3/8	21	1155	873	
	840-1056	4	1/4	11.2	5.2	2.6		53.1	30.3	20,688	1 1/8	1 5/8	28	1234	962	
	850-1143	5	1/4	14	6.5	3.3		53.1	26.7	19,978	1 3/8	1 5/8	26	1417	1075	
	850-1331	5	1/4	14	6.5	3.3		66.4	37.8	25,856	1 3/8	1 5/8	35	1506	1176	

¹ Value shown is total amps. For units that exceed 48 amps., two power connections are required.

² Ship Weight includes 10% safety factor.

³ Watts shown at 230. Watts reduced at 208 amperage. ⁴ Refrigerant Charge based on 448a refrigerant with 60°F liquid temperature and a 45°F SST.

For low temp. applications, multiply refrigerant charge by 0.57.

The low temperature charge estimated is based on 60°F liquid temp. and 20°F

