

Grinnell Company, Inc.

Heating, Power and Process Piping, Fittings, Hangers, Unit Heaters, Welding
Fittings, Valves, Piping Supplies

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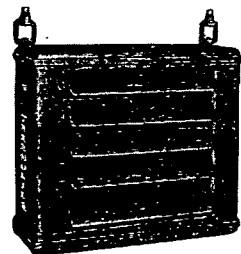
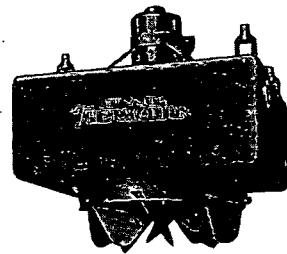
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THERMOLIER—GRINNELL UNIT HEATERS

Horizontal—Vertical—Textile Types

Horizontal Delivery Type
Regular Construction—finned tubes
Textile Construction—webbed tubes

Vertical Delivery Type

Thermolier, the Grinnell quality Unit Heater, is available in three types . . . the regular Horizontal delivery type, the Textile type and the Vertical delivery type. The heating element of the Horizontal and the Vertical delivery types consists of a single header with a series of copper, pitched, finned U-tubes while the Textile type utilizes a single header with a series of copper, pitched, webbed U-tubes.

Basically, all three types incorporate the same quality features. Among these are the patented Internal Cooling Leg which assures continuous drainage of condensate, and the Single Header U-Tube construction which compensates for expansion and contraction strains.

Thermolier motors are not standard stock motors but are built to exacting specifications for unit heater duty. This assures maximum life at maximum operating efficiency with the minimum of electrical input. Fans have aluminum blades with special steel hubs and are made to specifications to insure accurate balance, minimizing noise and vibration.

Supply and return piping are both on the same side of the unit, assuring compactness, neatness and economy in installation. Each Thermolier is furnished with adjustable swivel couplings which provide an easy and practical method of hanging the unit and facilitate adjustment after erection.

The housings of all units are formed from heavy gauge sheet steel and are finished in attractive artmetal slate gray.

CAPACITIES—GRINNELL THERMOLIER

All based on Standard Basis of Rating (2 lb Steam Pressure and 60 deg Entering Air Temperature)

Horizontal delivery models—for constant speed operation, use bold face figures only
—for two speed operation, use both figures

model	rpm at normal speeds	total heat delivered Btu per hr	equivalent direct radiation edr	cfm at exit air temp	exit air temp °F	condensation lb per hr	air velocity at exit—linear ft per min		
							louvers wide open	louvers set at 45°	velocity nozzle max
D21	1725	35,600	148	637	116	37	786	912	1336
	1250	29,700	124	483	122	31	595	690	1011
D31	1725	48,700	203	689	133	50	851	987	1447
	1250	38,400	160	513	138	40	633	734	1076
D37	1140	62,200	259	1062	119	64	753	949	1160
	950	54,200	226	874	123	56	620	781	955
D41	1725	71,000	295	1271	116	73	901	1135	1388
	1250	56,000	233	914	122	58	648	816	998
D44	1140	84,100	350	1250	129	87	887	1118	1366
	750	63,000	262	852	137	65	604	761	930
D57	1140	101,300	422	1433	133	105	1016	1280	1565
	875	84,400	352	1127	138	97	799	1007	1230
D66	1140	128,700	536	2166	120	133	779	982	1332
	625	90,000	375	1340	129	93	482	607	824
D71	1140	151,700	632	2716	116	157	977	1231	1671
	625	103,000	423	1592	126	107	573	732	980
D91	1140	196,000	817	2738	134	203	985	1241	1684
	625	127,500	532	1551	147	132	558	703	954
D111	1140	275,300	1147	5095	114	285	1048	1415	1803
	640	195,700	815	3342	119	203	688	929	1183

Capacity tables for hot water Thermolier on request.

Vertical delivery models—for constant speed operation, use bold face figures only
—for two speed operation, use both figures

model	rpm at normal speeds	total heat delivered Btu per hr	equivalent direct radiation edr	cfm at exit air temp	exit air temp °F	condensation lb per hr	air velocity at exit ft./min.	
							louvers wide open	louvers set at 45°
VA1042	1725	50,800	212	1483	93	53	1399	
	1250	40,100	167	1078	96	41	1017	
VA1045	1725	73,600	307	1363	114	76	1287	
	1250	59,900	249	995	121	62	939	
VA1065	1140	109,400	456	2869	97	113	1354	
	625	74,500	310	1630	105	77	769	
VA1075	1140	145,600	607	2609	116	151	1231	
	625	94,200	392	1402	129	98	662	
VA1101	1140	185,000	770	4510	100	191	1495	
	600	122,200	508	2517	108	128	835	
VA1111	1140	257,000	1071	4921	112	266	1631	
	640	187,000	729	3105	121	194	1030	

Textile models—constant speed operation

model	rpm at normal speeds	total heat delivered Btu per hr	equivalent direct radiation edr	cfm at exit air temp	exit air temp °F	condensation lb per hr	air velocity at exit—linear ft per min		
							louvers wide open	louvers set at 45°	velocity nozzle max
TX70	1140	69,800	291	2297	89	72	826	1041	1412
TX110	1140	113,700	474	2438	106	118	877	1105	1509

Textile Thermolier not available for hot water systems.

Grinnell Thermoliers are tested and rated in accordance with rules of the Industrial Unit Heater Association adopted January 1930.