

HAB HORIZONTAL BELT DRIVE

Standard Ratings - Water Coil															
Model	2- or 4-Pipe Cooling									2-Pipe Heating					
	EWT	gpm	PD Ft.	cfm	80°F DB / 67°F WB					gpm	PD Ft.	cfm	60°F EAT / 180°F EWT		
					TTL mbh	SENS mbh	LAT DB	LAT WB	°F				TTL mbh	LAT	LWT
HAB08	45	6	5.7	600	20.4	14.5	57.6	56.1	51.9	6	5.1	600	57	147.9	160.5
				800	23.0	17.2	60.1	58.0	52.7			800	68	138.6	156.8
				1000	25.0	19.6	61.9	59.3	53.4			1000	77	131.2	153.8
HAB12	45	8	6.7	900	30.6	21.8	57.6	56.2	52.7	8	5.9	900	85	148	158.1
				1200	34.4	25.8	60.1	58.0	53.6			1200	102	138.6	153.9
				1500	37.2	29.4	61.9	59.3	54.3			1500	115	131.1	150.6
HAB16	45	10	6.4	1200	40.0	28.8	57.8	56.3	53.1	10	5.6	1200	113	147.3	156.8
				1600	45.0	34.0	60.3	58.2	54.1			1600	134	137.9	152.5
				2000	49.0	38.5	62.1	59.5	54.8			2000	152	130.3	148.9
HAB20	45	13	5.4	1500	50.5	36.0	57.8	56.3	52.8	13	4.6	1500	142	147.4	157.7
				2000	56.5	42.5	60.3	58.2	53.7			2000	169	138	153.5
				2500	61.0	48.5	62.1	59.5	54.6			2500	190	130.5	150
HAB30	45	17.5	6.4	2250	77.0	55.5	57.1	56.0	53.9	18	6	2250	220	150.4	155
				3000	88.0	67.0	59.4	57.8	55.1			3000	264	141.5	149.9
				3750	96.0	76.0	61.1	59.1	56.0			3750	301	134.3	145.8
HAB40	45	21	5.9	3000	101	73.0	57.5	56.3	54.6	19.2	4.4	3000	284	147.5	149.7
				4000	113	87.0	59.8	58.2	55.8			4000	339	138.2	144
				5000	124	100	61.5	59.4	56.8			5000	383	130.7	139.3
HAB60	45	31.5	6.8	5000	165	122	57.4	56.5	55.5	28.8	5.1	5000	483	149.2	145.8
				6000	179	138	58.8	57.7	56.4			6000	539	143	141.8
				7000	190	151	60.0	58.6	57.1			7000	588	137.5	138.4
HAB80	45	44	6.6	7000	213	160	58.9	57.4	54.7	44	5.6	7000	628	142.8	150.9
				8000	225	173	60.0	58.2	55.3			8000	680	138.5	148.4
				9000	235	186	60.9	58.9	55.7			9000	728	134.7	146.2

Note: Standard ratings are for sea level altitude, standard 4-row coils, nominal air volumes and ordinary water. For other conditions and/or other coolants, consult Titus

Standard Ratings - 1-row Heating Coil													
Model	gpm	PD Ft.	cfm	TTL mbh	LAT F	LWT F	Model	gpm	PD Ft.	cfm	TTL mbh	LAT F	LWT F
HAB08	3	9.9	600	21.8	93.7	165.1	HAB16	4	4.5	1200	47	96.2	156
			800	24.8	88.7	163.1				1600	53	90.7	152.9
			1000	27.2	85.1	161.4				2000	58	86.8	150.4
HAB12	3	11.6	900	32.2	93.2	158	HAB20	4	5.0	1500	57	95.2	150.9
			1200	36.4	88.1	155.1				2000	64	89.7	147.2
			1500	39.5	84.6	152.8				2500	70	85.9	144.2

Standard Ratings - 2-row Heating Coil													
Model	gpm	PD Ft.	cfm	TTL mbh	LAT F	LWT F	Model	gpm	PD Ft.	cfm	TTL mbh	LAT F	LWT F
HAB08	4	5.2	600	36.2	116	161.4	HAB30	18	4.6	2250	147	120.5	163.2
			800	41.5	108.4	158.6				3000	171	112.8	160.5
			1000	46	102.8	156.3				3750	190	107	158.3
HAB12	6	4.1	900	55	116.8	161.1	HAB40	22	5.6	3000	194	119.8	161.9
			1200	63.5	109.1	158.3				4000	225.5	112	159.1
			1500	70	103.5	155.9				5000	250	106.3	156.7
HAB16	8	3.0	1200	75	118.4	160.6	HAB60	28	7.6	5000	306	116.5	157.6
			1600	87	110.6	157.6				6000	335	111.7	155.5
			2000	97	104.9	155.2				7000	361	107.6	153.7
HAB20	12	2.7	1500	96	119.4	163.5	HAB80	22.4	2.6	7000	384	110.7	145
			2000	111	111.6	160.9				8000	408	107.1	142.8
			2500	124	105.9	158.8				9000	429	104	141

Note: Capacities based on 60°F EAT and 180°F EWT. Units not recommended for heating applications when the LAT exceeds 130°F

HAB HORIZONTAL BELT DRIVE

Air Volume Capacity - 2-Pipe, 4-Row Coil														
Model	ISP	CFM	0.25" ESP		0.50" ESP		0.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
HAB08	0.20	600	786	0.11	975	0.15	1160	0.22	1320	0.29	1470	0.38	1600	0.43
	0.26	700	835	0.13	1006	0.20	1172	0.26	1321	0.32	1471	0.40	1612	0.48
	0.31	800	897	0.19	1052	0.24	1201	0.31	1341	0.38	1483	0.44	1616	0.54
	0.38	900	957	0.23	1110	0.30	1239	0.35	1365	0.43	1489	0.49	1619	0.59
	0.45	1000	1018	0.28	1161	0.35	1291	0.43	1406	0.49	1517	0.58	1627	0.65
HAB12	0.20	900	814	0.15	906	0.21	1051	0.32	1313	0.41	1468	0.54	1586	0.63
	0.27	1050	855	0.21	989	0.27	1112	0.34	1391	0.50	1504	0.60	1576	0.68
	0.33	1200	865	0.25	1009	0.34	1174	0.43	1411	0.56	1576	0.68	1679	0.82
	0.39	1350	1040	0.36	1195	0.45	1349	0.58	1463	0.65	1576	0.77	1689	0.89
	0.48	1500	1082	0.44	1241	0.56	1380	0.68	1499	0.78	1617	0.90	1710	1.03
HAB16	0.32	1200	697	0.27	809	0.33	916	0.43	1023	0.52	1113	0.62	1200	0.70
	0.40	1400	764	0.35	864	0.44	962	0.54	1071	0.66	1145	0.74	1225	0.85
	0.50	1600	838	0.49	931	0.61	1020	0.70	1103	0.78	1179	0.92	1274	1.05
	0.61	1800	915	0.64	996	0.77	1077	0.89	1156	0.99	1228	1.11	1290	1.23
	0.74	2000	992	0.87	1061	0.98	1134	1.08	1203	1.23	1280	1.34	1343	1.47
HAB20	0.28	1500	630	0.27	751	0.37	857	0.46	953	0.58	1053	0.68	1148	0.80
	0.36	1750	682	0.37	793	0.47	890	0.60	983	0.69	1074	0.81	1155	0.95
	0.44	2000	736	0.49	839	0.61	934	0.75	1019	0.88	1100	0.98	1176	1.12
	0.54	2250	802	0.68	893	0.79	980	0.94	1058	1.07	1134	1.21	1208	1.34
	0.62	2500	854	0.84	941	0.99	1025	1.14	1103	1.28	1173	1.43	1241	1.60
HAB30	0.26	2250	543	0.40	634	0.52	723	0.65	803	0.79	882	0.94	948	1.08
	0.33	2625	584	0.56	679	0.73	758	0.87	838	1.02	903	1.17	972	1.33
	0.40	3000	641	0.78	724	0.97	794	1.11	876	1.31	935	1.47	998	1.63
	0.50	3375	694	1.05	769	1.25	842	1.44	906	1.61	969	1.80	1030	2.01
	0.59	3750	749	1.37	820	1.59	866	1.80	947	2.00	1009	2.21	1066	2.43
HAB40	0.28	3000	610	0.68	695	0.84	771	0.99	847	1.15	925	1.38	991	1.51
	0.35	3500	680	0.99	750	1.15	821	1.37	886	1.53	954	1.74	1020	1.96
	0.44	4000	743	1.39	811	1.69	877	1.91	938	2.13	999	2.36	1057	2.60
	0.53	4500	812	2.01	879	2.28	939	2.52	993	2.77	1054	3.04	1107	3.19
	0.63	5000	887	2.70	947	2.89	1003	3.20	1056	3.45	1107	3.74	1159	4.05
HAB60	0.41	5000	546	1.00	637	1.22	717	1.46	791	1.74	868	2.03	937	2.36
	0.48	5500	575	1.18	656	1.46	732	1.75	806	2.05	879	2.36	945	2.68
	0.56	6000	606	1.43	684	1.74	755	2.06	824	2.37	892	2.67	952	2.98
	0.64	6500	636	1.72	705	2.03	776	2.36	842	2.68	904	2.98	968	3.44
	0.73	7000	688	2.08	738	2.39	800	2.70	865	3.03	926	3.46	985	3.89
HAB80	0.38	7000	564	1.60	640	1.96	712	2.27	776	2.58	839	2.90	903	3.29
	0.42	7500	587	1.89	660	2.21	728	2.52	790	2.83	850	3.25	910	3.68
	0.48	8000	614	2.19	686	2.54	749	2.89	809	3.27	867	3.68	926	4.21
	0.54	8500	642	2.54	702	2.90	769	3.36	827	3.86	884	4.36	941	4.86
	0.60	9000	672	2.92	733	3.39	791	3.87	846	4.36	902	4.84	959	5.44

Notes:

- Motor HP = 1.15* x BHP
* In the absence of a specified drive loss factor, use 1.15. To select motor size, find the Brake Horsepower (BHP) for the design cfm and External Static Pressure (ESP). Multiply BHP by 1.15 (or specified factor) and round up to next size motor.
Example: 1600 cfm at 0.75" ESP requires 0.70 BHP. 1.15 x 0.70 = 0.805. Round up to nearest nominal motor size = 1 HP.
- Total Static Pressure (TSP) = Internal Static Pressure + External Static Pressure (ESP)
- ESP = TSP – Internal SP

HAB HORIZONTAL BELT DRIVE

Air Volume Capacity - 4-Pipe, 4-Row Cooling and 2-Row Heating Coils														
Model	ISP	CFM	0.25" ESP		0.50" ESP		0.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
HAB08	0.25	600	838	0.12	1020	0.18	1180	0.25	1347	0.30	1514	0.38	1642	0.47
	0.31	700	888	0.15	1054	0.22	1193	0.27	1352	0.34	1505	0.43	1639	0.49
	0.39	800	951	0.20	1107	0.27	1242	0.34	1377	0.39	1505	0.45	1633	0.55
	0.47	900	1015	0.26	1162	0.31	1300	0.39	1417	0.47	1526	0.54	1641	0.60
	0.56	1000	1082	0.31	1220	0.39	1346	0.47	1456	0.54	1569	0.62	1669	0.71
HAB12	0.28	900	865	0.18	1092	0.26	1318	0.40	1463	0.48	1607	0.59	1710	0.68
	0.36	1050	927	0.24	1133	0.32	1339	0.44	1524	0.58	1658	0.71	1772	0.81
	0.44	1200	1009	0.31	1174	0.39	1339	0.52	1504	0.62	1689	0.80	1833	0.96
	0.51	1350	1092	0.38	1236	0.49	1391	0.60	1524	0.72	1669	0.84	1844	1.05
	0.61	1500	1174	0.50	1318	0.63	1442	0.73	1566	0.84	1689	0.97	1792	1.08
HAB16	0.39	1200	735	0.29	826	0.35	951	0.45	1041	0.55	1129	0.63	1211	0.73
	0.50	1400	797	0.39	899	0.48	990	0.58	1086	0.67	1172	0.78	1255	0.90
	0.62	1600	870	0.53	965	0.63	1050	0.75	1124	0.82	1208	0.96	1295	1.11
	0.76	1800	956	0.71	1034	0.82	1120	0.94	1193	1.06	1258	1.17	1333	1.31
	0.90	2000	1033	0.92	1106	1.04	1185	1.18	1251	1.29	1318	1.42	1382	1.56
HAB20	0.34	1500	683	0.32	797	0.40	902	0.52	998	0.62	1094	0.73	1192	0.87
	0.44	1750	735	0.42	845	0.53	938	0.64	1030	0.75	1120	0.89	1200	1.03
	0.55	2000	794	0.57	899	0.68	985	0.81	1071	0.94	1149	1.07	1227	1.21
	0.66	2250	862	0.75	955	0.88	1037	1.02	1114	1.16	1194	1.33	1265	1.46
	0.68	2500	916	0.93	1011	1.09	1085	1.24	1162	1.40	1233	1.55	1298	1.69
HAB30	0.32	2250	564	0.43	659	0.56	746	0.70	823	0.83	899	0.97	966	1.12
	0.41	2625	619	0.62	707	0.76	784	0.92	857	1.06	923	1.21	993	1.39
	0.51	3000	671	0.84	753	1.02	830	1.19	898	1.37	959	1.53	1021	1.70
	0.62	3375	735	1.15	805	1.33	874	1.52	935	1.71	999	1.91	1056	2.09
	0.73	3750	7790	1.49	859	1.70	921	1.90	981	2.10	1039	2.31	1097	2.54
HAB40	0.33	3000	646	0.72	722	0.88	801	1.05	871	1.23	947	1.41	1008	1.59
	0.42	3500	711	1.07	789	1.32	849	1.50	916	1.71	980	1.92	1045	2.09
	0.53	4000	783	1.57	853	1.80	909	1.97	968	2.15	1032	2.41	1088	2.63
	0.65	4500	859	2.12	918	2.36	974	2.59	1030	2.82	1090	3.11	1141	3.35
	0.78	5000	927	2.76	986	3.08	1039	3.33	1089	3.59	1142	3.84	1193	4.09
HAB60	0.50	5000	561	1.07	666	1.31	744	1.56	818	1.84	896	2.14	960	2.47
	0.58	5500	609	1.29	688	1.57	762	1.87	835	2.18	907	2.49	970	2.80
	0.68	6000	645	1.57	719	1.89	788	2.21	857	2.51	922	2.82	985	3.17
	0.78	6500	679	1.90	747	2.23	813	2.53	878	2.85	941	3.24	1002	3.69
	0.89	7000	715	2.27	779	2.59	842	2.90	904	3.31	964	3.74	1021	4.19
HAB80	0.47	7000	589	1.71	666	2.06	735	2.38	798	2.68	862	3.00	924	3.44
	0.53	7500	616	2.04	691	2.37	754	2.69	815	3.00	876	3.44	936	3.85
	0.59	8000	644	2.36	712	2.70	772	3.03	833	3.45	893	3.87	951	4.39
	0.68	8500	677	2.69	742	3.11	800	3.52	858	3.87	917	4.54	976	5.16
	0.76	9000	711	3.22	768	3.71	825	4.19	881	4.68	938	5.21	993	5.85

Notes:

1. Motor HP = 1.15 * x BHP

* In the absence of a specified drive loss factor, use 1.15. To select motor size, find the Brake Horsepower (BHP) for the design cfm and External Static Pressure (ESP). Multiply BHP by 1.15 (or specified factor) and round up to next size motor.

Example: 1600 cfm at 0.75" ESP requires 0.70 BHP. 1.15 x 0.70 = 0.805. Round up to nearest nominal motor size = 1 HP.

2. Total Static Pressure (TSP) = Internal Static Pressure + External Static Pressure (ESP)

3. ESP = TSP - Internal SP

PERFORMANCE DATA

HAB HORIZONTAL BELT DRIVE

Discharge Plenum Static Loss				
Model	cfm	Deflection (Degrees)	Throw (Feet)	Static Pressure (I.W.G.)
HAB08	800	0	50	0.02
		45	37	0.04
HAB12	1200	0	69	0.05
		45	52	0.09
HAB16	1600	0	79	0.03
		45	59	0.05
HAB20	2000	0	89	0.05
		45	66	0.09
HAB30	3000	0	124	0.05
		45	93	0.09
HAB40	4000	0	103	0.10
		45	77	0.16
HAB60	6000	0	124	0.09
		45	93	0.14
HAB80	8000	0	92	0.06
		45	69	0.10

Mixing Box Static Pressure Drop (Inches W.G.)						
Model	cfm Range	Static Pressure		Model	cfm Range	Static Pressure
HAB08	600	0.01		HAB30	2250	0.03
	800	0.02			3000	0.05
	1000	0.03			3750	0.08
HAB12	900	0.02		HAB40	3000	0.05
	1200	0.04			4000	0.09
	1500	0.07			5000	0.14
HAB16	1200	0.02		HAB60	5000	0.09
	1600	0.03			6000	0.12
	2000	0.04			7000	0.17
HAB20	1500	0.02		HAB80	7000	0.13
	2000	0.04			8000	0.17
	2500	0.07			9000	0.21