

DT-DTX series

UNIT COOLER

engineering data
and specifications



EFFICIENT COIL DESIGN

Tubes are 3/4" OD staggered in the direction of airflow. Turbo-Spacers are located between tubes to provide nominal fin spacing and improve fin efficiency by turbulating the air flow. Available materials:

- Steel coils, including internal framing, are hot dip galvanized after assembly.
- Stainless steel tube/aluminum fins.
- Aluminum tube/fins.
- Copper tube/aluminum fins.
- Stainless, aluminum and copper tube coils are supplied for applications where weight is a consideration, electric defrost is needed or a halocarbon is being used.
- Copper tube coils cannot be used for ammonia applications.

FAN AND MOTOR

Fully guarded, 22" diameter, aluminum bladed propeller fans are direct driven at 1140 RPM by TEAO motors with internal overload protection for both single and three-phase service.

- Motors are factory wired to a NEMA 4X non-fused disconnect located on the casing covering the connections on the header end of the unit. All fan motors can be cycled with one contactor. External overload devices are not required.
- Fan guard conform to UL requirements and have a 10-15 mil fluidic bath coating of black vinyl PVC for corrosion resistance.
- An wash-down, inverter-ready motor is available for 230/3 and 460/3 power levels. A 1/2 hp motor will be used for units with both 1/3 hp and 1/2 hp fans.
- Units with 575/3/60 power will use the 1/2 hp motor for all unit sizes.

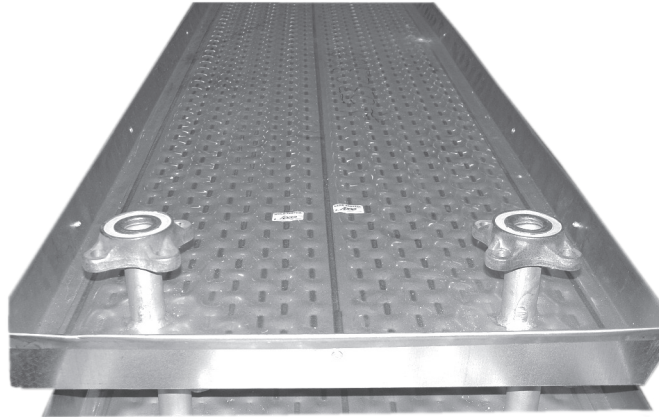
HOUSING

Corrosion resistant heavy-gauge mill galvanized steel is used for the outer casing.

- Fans are individually compartmented by continuous tube sheets for uniform air flow and to prevent reverse rotation in the event of motor failure.
- End covers are removable for easy access to TEV and pan to coil check valve.

DRAIN PAN

For applications with the room above freezing, the drain pan is aluminum with an optional closed cell insulation and mill galvanized cover.



The exclusive SGS stainless steel "coil-less waffle" design is provided for hot gas heated drain pan requirements. Hot gas pans are provided with closed cell insulation between the pan and mill galvanized cover. Drain pans are factory mounted.

AIR DEFROST

above 36°F room temperature

- Units should be selected at low face velocity (630 FPM or less) to prevent moisture carryover. For high humidity applications, consult Factory Rep for selection.
- Drain pan is aluminum for long life and corrosion protection. Pan with closed cell insulation between the pan and mill galvanized cover is optional.

HOT GAS DEFROST COIL ONLY

above 33°F room temperature

- Hot gas defrost for the coil with an unheated aluminum drain pan.
- Optional pan with closed cell insulation between the pan and mill galvanized cover is recommended.
- For steel, stainless steel and aluminum DX unit applications, hot gas defrost coils are supplied with a hot gas header which bypasses the capillaries for rapid defrost.

HOT GAS DEFROST UNIT

below 32°F room temperature

- The unique "waffle" (SGS exclusive) stainless steel drain pan allows for the fastest hot gas defrost available. The design assures maximum pan heat in a minimum time.
- Drain pan provided with closed cell insulation between the pan and mill galvanized cover.
- The hot gas outlet connection of the drain pan is connected to the coil with factory mounted interpiping including a check valve. The hot gas inlet connection has a gasket and flange shipped with the unit to connect with the hot gas supply piping.
- For steel, stainless steel and aluminum DX unit applications, hot gas defrost units are supplied with a hot gas header which bypasses the capillaries for rapid defrost.

ELECTRIC DEFROST

- Available models listed are limited to copper, aluminum, and stainless steel tubes.
- Tubular heaters are inserted through fin Turbo-Spacers and efficiently defrost the coil from the inside out.
- See Page 10 for heater kilowatts and amperage levels.

WATER DEFROST

- Supply water temperature not to exceed 65°F.
- Drain pan is aluminum without insulation.
- For six-row units only.
- See Page 12 for water flow rates required.

OPTIONS

- Optional long-throw adapters will provide air throw of 80-100'.
- Electric heat tape, 115/1 or 230/1, on the insulated drain pan cover.
- Hot gas, water, brine or electric reheat.
- Stainless steel housing..
- The coil fully dipped and dried with a corrosion resistant coating on units with aluminum fins only.
- Two speed motor (1/2 hp, three phase only).
- Wash-down, inverter ready motor (1/2 hp, three phase only).
- Epoxy coating on standard aluminum fins.
- Full width coverage drain pan
- Fully welded stainless steel drain pan
- Stainless steel fan guard
- 50% thicker aluminum fins
- Factory mounted TEV and LLSV for copper tube DX applications

DT-DTX (Draw-Through) Unit Coolers can be used in medium and low temperature holding coolers, freezers, shipping docks, carcass chill, assembly and process areas. These unit coolers are not to be used for applications requiring external static pressure by the fans.

BT-BTX (Blow-Through) Unit Coolers should be used in rooms above 20°F only. BT units are not recommended for carcass chill applications. These unit coolers are not to be used for applications requiring external static pressure by the fans.

Units should be located away from walls a distance equal to the unit height. Air discharge should be free of all obstructions. It is not necessary to locate units near walls of high palletized coolers or freezers. It is best to locate units so that an aisle is behind the unit to allow good return air circulation.

THERMOSTATIC EXPANSION VALVE (TEV)

TEV for DXA must be externally equalized and the discharge tube removed, except for DT1 and DTX1 models using a single circuit coil requiring a TEV with the discharge tube.

50 HERTZ APPLICATION

50 Hz applications result in a 17% reduction in fan motor speed. Fan pitch will be increased to compensate for 50 Hz derating. Unit capacity derate is not required.

LOW TEMPERATURE DIRECT EXPANSION

Capacity correction factors for low suction temperature operation of halocarbon or ammonia refrigerants applied to DX-frosted ratings:

-20°F to	24.9°F	1.0
-30°F to	-20.1°F	0.9
-40°F to	-30.1°F	0.8
-50°F to	-40.1°F	0.7

Note—wet ratings in tables are valid at 25°F and above

FAN MOTOR DATA

Fan motor nameplate amps are total for the unit. Motors have internal over-heat protection and are wired in parallel and cycled with one contactor.

- NEC limits total parallel motor ampacity to 15.0 amps at 600 volts and 20.0 amps at 125 volts or less. Higher capacity models for 115 or 208-230/1/60 service can be provided when more than one parallel motor circuit is used.
- Ampacity will increase as room temperature is lowered (8% at 32°F; 18% at -10°F) due to the denser air. As the air temperature lowers TEAO motor capability increases at a faster rate than the imposed fan load.

RELATIVE SOUND RATINGS

Consult factory.

Saturated Suction °F	-40	-30	-20	10	20
3 to 1					
Recirculated	10	13	16	18	18
Direct Expansion				15	18
Flooded	10	13	16	18	18

COIL CONNECTIONS

Ammonia connection sizes shown in coil connection data are adequate for the following design TD:

Consult factory for recirculated halocarbon, brine and heat reclaim inlet and outlet connections.

- Halocarbon distributors will be brass with copper leads.
- Stainless steel, aluminum and steel tube coils will have carbon steel connection stubs as standard.

Model DT – Steel and Copper

BT AVAILABLE FOR 6 ROWS ONLY

Model DT - BT	Capacity BTUH/1°F TD				Air Data		Fans no x hp*	Rows	FPI	Face sq ft	Surface sq ft	Coil Volume cu ft	Shipping Weight lb	
	Wet		Frosted										Steel	Copper
	DX	REC	DX	REC	CFM	Face FPM								
1-185	1680	1930	1590	1850	3490	602	1 x 1/3	6	3	5.8	377	0.7	530	340
1-235	2080	2450	1970	2350	3470	598	1 x 1/3	8	3	5.8	501	0.9	570	355
1-200	1820	2190	1720	2000	3375	582	1 x 1/3	6	4	5.8	482	0.7	560	360
1-245	2180	2680	2060	2450	3300	569	1 x 1/3	8	4	5.8	641	0.9	610	380
1-205			1765	2050	4420	762	1 x 1/2	6	3	5.8	377	0.7	530	340
1-255			2140	2550	4080	703	1 x 1/2	8	3	5.8	501	0.9	570	355
1-210			1810	2100	3965	684	1 x 1/2	6	4	5.8	482	0.7	560	360
1-265			2230	2650	3820	659	1 x 1/2	8	4	5.8	641	0.9	610	380
1-215	1970	2370			3270	564	1 x 1/3	6	6	5.8	693	0.7	640	410
2-370	3365	4035	3055	3700	6980	602	2 x 1/3	6	3	11.6	754	1.2	910	590
2-475	4390	5230	3990	4750	6940	598	2 x 1/3	8	3	11.6	1002	1.6	990	625
2-395	3640	4370	3305	3950	6750	582	2 x 1/3	6	4	11.6	964	1.2	970	630
2-500	4625	5505	4200	5000	6600	569	2 x 1/3	8	4	11.6	1282	1.6	1070	670
2-415			3435	4150	8840	762	2 x 1/2	6	3	11.6	754	1.2	910	590
2-525			4410	5250	8160	703	2 x 1/2	8	3	11.6	1002	1.6	990	625
2-425			3545	4250	7930	684	2 x 1/2	6	4	11.6	964	1.2	970	630
2-535			4490	5350	8160	703	2 x 1/2	8	4	11.6	1282	1.6	1070	670
2-430	3940	4730			6540	564	2 x 1/3	6	6	11.6	1386	1.2	1130	730
3-550	5045	6050	4585	5500	10450	604	3 x 1/3	6	3	17.3	1131	1.8	1290	840
3-695	6430	7650	5840	6950	10410	602	3 x 1/3	8	3	17.3	1503	2.4	1400	890
3-595	5460	6550	4960	5950	10100	584	3 x 1/3	6	4	17.3	1446	1.8	1380	900
3-750	6940	8255	6300	7500	9900	572	3 x 1/3	8	4	17.3	1923	2.4	1530	960
3-615			5145	6155	13250	766	3 x 1/2	6	3	17.3	1131	1.8	1290	840
3-775			6510	7750	12240	708	3 x 1/2	8	3	17.3	1503	2.4	1400	890
3-635			5320	6350	11890	687	3 x 1/2	6	4	17.3	1446	1.8	1380	900
3-800			6720	8000	11460	662	3 x 1/2	8	4	17.3	1923	2.4	1530	960
3-645	5910	7100			9800	566	3 x 1/3	6	6	17.3	2079	1.8	1620	1050
4-735	6760	8115	6145	7350	13950	604	4 x 1/3	6	3	23.1	1508	2.3	1670	1090
4-925	8555	10185	7770	9250	13880	601	4 x 1/3	8	3	23.1	2004	3.1	1820	1160
4-795	7305	8750	6640	7950	13500	584	4 x 1/3	6	4	23.1	1928	2.3	1790	1170
4-1000	9250	11010	8400	10000	13200	571	4 x 1/3	8	4	23.1	2564	3.1	2000	1250
4-825			6850	8250	17700	766	4 x 1/2	6	3	23.1	1508	2.3	1670	1090
4-1045			8780	10450	16320	706	4 x 1/2	8	3	23.1	2004	3.1	1820	1160
4-850			7100	8500	15850	686	4 x 1/2	6	4	23.1	1928	2.3	1790	1170
4-1075			8990	10700	15280	661	4 x 1/2	8	4	23.1	2564	3.1	2000	1250
4-860	7900	9480			13050	565	4 x 1/3	6	6	23.1	2772	2.3	2110	1370
5-915	8405	10100	7630	9150	17450	604	5 x 1/3	6	3	28.9	1885	2.8	2050	1340
5-1155	10680	12715	9700	11550	17350	600	5 x 1/3	8	3	28.9	2505	3.7	2230	1420
5-990	9090	10910	8255	9905	16850	583	5 x 1/3	6	4	28.9	3410	2.8	2200	1440
5-1250	11560	13760	10500	12500	16500	571	5 x 1/3	8	4	28.9	3205	3.7	2450	1540
5-1030			8580	10300	22100	765	5 x 1/2	6	3	28.9	1885	2.8	2050	1340
5-1305			10960	13050	20400	706	5 x 1/2	8	3	28.9	2505	3.7	2230	1420
5-1060			8870	10600	19850	687	5 x 1/2	6	4	28.9	3410	2.8	2200	1440
5-1340			11260	13400	19100	661	5 x 1/2	8	4	28.9	3205	3.7	2450	1540
5-1070	9820	11785			16350	566	5 x 1/3	6	6	28.9	3465	2.8	2600	1690
6-1100	10080	12100	9150	11000	20900	602	6 x 1/3	6	3	34.7	2262	3.4	2430	1540
6-1385	12805	15250	11630	13850	20820	600	6 x 1/3	8	3	34.7	3006	4.5	2650	1690
6-1190	10920	13100	9915	11900	20250	584	6 x 1/3	6	4	34.7	2892	3.4	2610	1710
6-1500	13870	16515	12600	15000	19800	571	6 x 1/3	8	4	34.7	3846	4.5	2910	1830
6-1235			10290	12350	26500	764	6 x 1/2	6	3	34.7	2262	3.4	2430	1540
6-1555			13060	15550	24480	705	6 x 1/2	8	3	34.7	3006	4.5	2650	1690
6-1275			10630	12750	23750	684	6 x 1/2	6	4	34.7	2892	3.4	2610	1710
6-1605			13480	16050	22920	661	6 x 1/2	8	4	34.7	3846	4.5	2910	1830
6-1290	11820	14200			19600	565	6 x 1/3	6	6	34.7	4158	3.4	3090	2010

*575/3 volt applications require a 1/2 hp motor for all units

Model DTX – Steel and Copper

BTX AVAILABLE FOR 6 ROWS ONLY

Model DTX - BTX	Capacity BTUH/1°F TD				Air Data		Fans no x hp*	Rows	FPI	Face sq ft	Surface sq ft	Coil Volume cu ft	Shipping Weight lb	
	Wet		Frosted										Steel	Copper
	DX	REC	DX	REC	CFM	Face FPM								
1-240	2190	2640	2000	2400	4600	622	1 x 1/3	6	3	7.4	485	0.9	660	425
1-250	2330	2800	2120	2550	4500	608	1 x 1/3	6	4	7.4	620	0.9	700	450
1-260			2160	2600	5500	743	1 x 1/2	6	3	7.4	485	0.9	660	425
1-270			2240	2700	5000	676	1 x 1/2	6	4	7.4	620	0.9	700	450
1-330	3050	3630	2770	3300	4570	618	1 x 1/2	8	3	7.4	645	1.2	720	455
1-340	3150	3740	2860	3400	4310	582	1 x 1/2	8	4	7.4	825	1.2	780	485
1-280	2560	3080			4300	581	1 x 1/2	6	6	7.4	890	0.9	800	515
2-470	4380	5280	3980	4800	9200	617	2 x 1/3	6	3	14.9	970	1.5	1140	740
2-510	4650	5650	4230	5100	9000	604	2 x 1/3	6	4	14.9	1240	1.5	1210	790
2-520			4320	5200	11000	738	2 x 1/2	6	3	14.9	970	1.5	1140	740
2-540			4480	5400	10000	671	2 x 1/2	6	4	14.9	1240	1.5	1210	790
2-655	6050	7205	5500	6550	9140	613	2 x 1/2	8	3	14.9	1290	2.0	1260	800
2-680	6280	7480	5710	6800	8620	579	2 x 1/2	8	4	14.9	1650	2.0	1370	860
2-560	5110	6160			8600	577	2 x 1/2	6	6	14.9	1780	1.5	1410	915
3-720	6570	7920	5980	7200	13800	619	2 x 1/3	6	3	22.3	1455	2.3	1610	1050
3-760	6980	8410	6350	7650	13500	605	3 x 1/3	6	4	22.3	1860	2.3	1720	1125
3-780			6470	7800	16500	740	3 x 1/2	6	3	22.3	1455	2.3	1610	1050
3-810			6720	8100	15000	673	3 x 1/2	6	4	22.3	1860	2.3	1720	1125
3-985	9100	10835	8275	9850	13710	615	3 x 1/2	8	3	22.3	1935	3.1	1790	1140
3-1025	9430	11220	8570	10200	12930	580	3 x 1/2	8	4	22.3	2475	3.1	1960	1230
3-840	7670	9240			12900	578	3 x 1/2	6	6	22.3	2670	2.3	2030	1315
4-960	8760	10560	7970	9600	18400	620	4 x 1/3	6	3	29.7	1940	3.0	2090	1365
4-1020	9310	11220	8470	10200	18000	606	4 x 1/3	6	4	29.7	2480	3.0	2240	1465
4-1040			8630	10400	22000	741	4 x 1/2	6	3	29.7	1940	3.0	2090	1365
4-1080			8960	10800	20000	673	4 x 1/2	6	4	29.7	2480	3.0	2240	1465
4-1310	12100	14410	11000	13100	18280	615	4 x 1/2	8	3	29.7	2580	4.0	2330	1485
4-1360	12570	14960	11425	13600	17240	580	4 x 1/2	8	4	29.7	3300	4.0	2560	1605
4-1120	10230	12320	-	-	17200	579	4 x 1/2	6	6	29.7	3560	3.0	2640	1715
5-1200	10960	13200	9960	12000	23000	618	5 x 1/3	6	3	37.2	2425	3.6	2560	1675
5-1270	11640	14020	10580	12750	22500	605	5 x 1/3	6	4	37.2	3100	3.6	2750	1800
5-1300			10790	13000	27500	739	5 x 1/2	6	3	37.2	2425	3.6	2560	1675
5-1350			11200	13500	25000	672	5 x 1/2	6	4	37.2	3100	3.6	2750	1800
5-1640	15150	18040	13775	16400	22850	614	5 x 1/2	8	3	37.2	3225	4.8	2860	1825
5-1700	15700	18700	14280	17000	21550	579	5 x 1/2	8	4	37.2	4125	4.8	3150	1975
5-1400	12780	15400			21500	578	5 x 1/2	6	6	37.2	4450	3.6	3250	2115
6-1440	13150	15840	11950	14400	27600	619	6 x 1/3	6	3	44.6	2910	4.4	3040	1990
6-1530	13970	16830	12700	15300	27000	605	6 x 1/3	6	4	44.6	3720	4.4	3260	2140
6-1560			12950	15600	33000	740	6 x 1/2	6	3	44.6	2910	4.4	3040	1990
6-1620			13450	16200	30000	673	6 x 1/2	6	4	44.6	3720	4.4	3260	2140
6-1965	18160	21615	16510	19650	27420	615	6 x 1/2	8	3	44.6	3870	5.9	3400	2170
6-2025	18710	22275	17010	20250	25860	580	6 x 1/2	8	4	44.6	4950	5.9	3740	2350
6-1680	15340	18480			25800	578	6 x 1/2	6	6	44.6	5340	4.4	3860	2515

*575/3 volt applications require a 1/2 hp motor for all units

Model DT – Aluminum and Stainless Steel

CAPACITIES ARE FOR AMMONIA ONLY – FOR R-22/404A/507A USE COPPER TUBE CAPACITIES

Model DT - BT	Capacity BTUH/1°F TD				Air Data		Fans no x hp*	Rows	FPI	Face sq ft	Surface sq ft	Coil Volume cu ft	Shipping Weight lb	
	Wet		Frosted										Aluminum	Stainless Steel
	DX	REC	DX	REC	CFM	Face FPM								
1-209	1900	2180	1800	2090	3490	602	1 x 1/3	6	3	5.8	377	0.7	295	340
1-261	2310	2720	2190	2610	3470	598	1 x 1/3	8	3	5.8	501	0.9	315	355
1-226	2060	2470	1940	2160	3375	582	1 x 1/3	6	4	5.8	482	0.7	320	360
1-272	2420	2970	2290	2710	3300	569	1 x 1/3	8	4	5.8	641	0.9	340	380
1-232			1990	2320	4420	762	1 x 1/2	6	3	5.8	377	0.7	295	340
1-284			2380	2830	4060	703	1 x 1/2	8	3	5.8	501	0.9	315	355
1-237			2050	2370	3965	684	1 x 1/2	6	4	5.8	482	0.7	320	360
1-295			2480	2940	3620	659	1 x 1/2	8	4	5.8	641	0.9	340	380
1-238	2230	2600			3270	564	1 x 1/3	6	6	5.8	693	0.7	360	410
2-418	3800	4560	3450	4180	6980	602	2 x 1/3	6	3	11.6	754	1.2	510	590
2-527	4870	5510	4430	5270	6940	598	2 x 1/3	8	3	11.6	1002	1.6	545	625
2-446	4090	4940	3730	4460	6750	582	2 x 1/3	6	4	11.6	964	1.2	540	630
2-555	5130	6110	4660	5550	6600	569	2 x 1/3	8	4	11.6	1282	1.6	590	670
2-469			3880	4690	8840	762	2 x 1/2	6	3	11.6	754	1.2	510	590
2-583			4900	5830	8160	703	2 x 1/2	8	3	11.6	1002	1.6	545	625
2-480			4010	4000	7930	684	2 x 1/2	6	4	11.6	964	1.2	540	630
2-594			4980	5940	8160	703	2 x 1/2	8	4	11.6	1282	1.6	590	670
2-477	4430	5340			6540	564	2 x 1/3	6	6	11.6	1386	1.2	630	730
3-622	5700	6840	5180	6220	10450	604	3 x 1/3	6	3	17.3	1131	1.8	720	840
3-771	7140	8490	6480	7710	10410	602	3 x 1/3	8	3	17.3	1503	2.4	770	890
3-672	6170	7400	5600	6720	10100	584	3 x 1/3	6	4	17.3	1446	1.8	770	900
3-833	7680	9160	6990	8330	9900	572	3 x 1/3	8	4	17.3	1923	2.4	845	960
3-696			5810	6950	13250	766	3 x 1/2	6	3	17.3	1131	1.8	720	840
3-861			7230	8600	12240	708	3 x 1/2	8	3	17.3	1503	2.4	770	890
3-718			6010	7180	11890	687	3 x 1/2	6	4	17.3	1446	1.8	770	900
3-888			7460	9880	11460	662	3 x 1/2	8	4	17.3	1923	2.4	845	960
3-715	6660	8020			9800	566	3 x 1/3	6	6	17.3	2079	1.8	900	1050
4-831	7640	9170	6940	8310	13950	604	4 x 1/3	6	3	23.1	1508	2.3	930	1090
4-1027	9500	113110	8620	10270	13680	601	4 x 1/3	8	3	23.1	2004	3.1	1000	1160
4-898	8250	9690	7500	8980	13500	584	4 x 1/3	6	4	23.1	1928	2.3	1000	1170
4-1110	10270	12220	9320	11100	13200	571	4 x 1/3	8	4	23.1	2564	3.1	1100	1250
4-932			7740	9320	17700	766	4 x 1/2	6	3	23.1	1508	2.3	930	1090
4-1160			9750	11600	16320	706	4 x 1/2	8	3	23.1	2004	3.1	1000	1160
4-961			8020	9610	15850	686	4 x 1/2	6	4	23.1	1928	2.3	1000	1170
4-1193			9980	11930	15280	661	4 x 1/2	8	4	23.1	2564	3.1	1100	1250
4-955	8930	10710			13050	565	4 x 1/3	6	6	23.1	2772	2.3	1175	1370
5-1034	9280	11410	8620	10040	17450	604	5 x 1/3	6	3	28.9	1885	2.8	1145	1340
5-1282	11850	14110	70770	12820	17350	600	5 x 1/3	8	3	28.9	2505	3.7	1230	1420
5-1119	10270	12330	9330	11190	16650	583	5 x 1/3	6	4	28.9	3410	2.8	1225	1440
5-1388	12830	15270	11660	13800	16500	571	5 x 1/3	8	4	28.9	3205	3.7	1350	1540
5-1164			9700	11640	22100	765	5 x 1/2	6	3	28.9	1885	2.8	1145	1340
5-1449			12170	14490	20400	706	5 x 1/2	8	3	28.9	2505	3.7	1230	1420
5-1198			10020	11900	19650	687	5 x 1/2	6	4	28.9	3410	2.8	1225	1440
5-1487			12500	14870	19100	661	5 x 1/2	8	4	28.9	3205	3.7	1350	1540
5-1188	11100	13320			16350	566	5 x 1/3	6	6	28.9	3465	2.8	1450	1690
6-1243	11390	13670	10340	12430	20900	602	6 x 1/3	6	3	34.7	2262	3.4	1355	1540
6-1537	14210	16930	12910	15370	20620	600	6 x 1/3	8	3	34.7	3006	4.5	1460	1690
6-1345	12340	14800	11200	13450	20250	584	6 x 1/3	6	4	34.7	2892	3.4	1455	1710
6-1665	15400	18330	13990	16650	19800	571	6 x 1/3	8	4	34.7	3846	4.5	1600	1830
6-1396			11630	13960	26500	764	6 x 1/2	6	3	34.7	2262	3.4	1355	1540
6-1726			14500	17260	24480	705	6 x 1/2	8	3	34.7	3006	4.5	1460	1690
6-1441			12010	14410	23750	664	6 x 1/2	6	4	34.7	2892	3.4	1455	1710
6-1782			14960	17820	22920	661	6 x 1/2	8	4	34.7	3846	4.5	1600	1830
6-1432	13360	16050			19600	565	6 x 1/3	6	6	34.7	4158	3.4	1720	2010

*575/3 volt applications require a 1/2 hp motor for all units

Model DTX – Aluminum and Stainless Steel

CAPACITIES ARE FOR AMMONIA ONLY – FOR R-22/404A/507A USE COPPER TUBE CAPACITIES

Model DTX - BTX	Capacity BTUH/1°F TD				Air Data		Fans no x hp*	Rows	FPI	Face sq ft	Surface sq ft	Coil Volume cu ft	Shipping Weight lb	
	Wet		Frosted										Aluminum	Stainless Steel
	DX	REC	DX	REC	CFM	Face FPM								
1-271	2470	2980	2260	2710	4600	622	1 x 1/3	6	3	7.4	485	0.9	370	425
1-283	2630	3160	2400	2830	4500	608	1 x 1/3	6	4	7.4	620	0.9	390	450
1-294			2440	2940	5500	743	1 x 1/2	6	3	7.4	485	0.9	370	425
1-305			2530	3050	5000	676	1 x 1/2	6	4	7.4	620	0.9	390	450
1-366	3390	4030	3070	3660	4570	618	1 x 1/2	8	3	7.4	645	1.2	400	455
1-377	3500	4150	3170	3770	4310	582	1 x 1/2	8	4	7.4	825	1.2	430	485
1-310	2890	3480			4300	581	1 x 1/2	6	6	7.4	890	0.9	800	515
2-531	4950	5970	4500	5310	9200	617	2 x 1/3	6	3	14.9	970	1.5	635	740
2-576	5250	6380	4780	5760	9000	604	2 x 1/3	6	4	14.9	1240	1.5	675	790
2-588			4880	5880	11000	738	2 x 1/2	6	3	14.9	970	1.5	635	740
2-610			5060	6100	10000	671	2 x 1/2	6	4	14.9	1240	1.5	675	790
2-727	6720	0000	6110	7270	9140	613	2 x 1/2	8	3	14.9	1290	2.0	700	800
2-755	6970	8300	6340	7550	8620	579	2 x 1/2	8	4	14.9	1650	2.0	760	860
2-621	5770	6960			8600	577	2 x 1/2	6	6	14.9	1780	1.5	785	915
3-814	7420	8950	6760	8140	13800	619	2 x 1/3	6	3	22.3	1455	2.3	900	1050
3-859	7890	9500	7180	8590	13500	605	3 x 1/3	6	4	22.3	1860	2.3	960	1125
3-881			7310	8810	16500	740	3 x 1/2	6	3	22.3	1455	2.3	900	1050
3-916			7590	9150	15000	673	3 x 1/2	6	4	22.3	1860	2.3	960	1125
3-1093	10100	11995	9190	10930	13710	615	3 x 1/2	8	3	22.3	1935	3.1	990	1140
3-1138	10470	12365	9510	11380	12930	580	3 x 1/2	8	4	22.3	2475	3.1	1080	1230
3-933	8670	10440			12900	578	3 x 1/2	6	6	22.3	2670	2.3	1130	1315
4-1085	9900	11930	9010	10850	18400	620	4 x 1/3	6	3	29.7	1940	3.0	1165	1365
4-1153	10520	12680	9570	11530	10000	606	4 x 1/3	6	4	29.7	2480	3.0	1250	1465
4-1175			9769	11750	22000	741	4 x 1/2	6	3	29.7	1940	3.0	1165	1365
4-1220			10120	12200	20000	673	4 x 1/2	6	4	29.7	2480	3.0	1250	1465
4-1454	13430	16000	12210	14540	18280	615	4 x 1/2	8	3	29.7	2580	4.0	1280	1485
4-1510	13950	16610	12680	15100	17240	580	4 x 1/2	8	4	29.7	3300	4.0	1410	1605
4-1244	11560	13920			17200	579	4 x 1/2	6	6	29.7	3560	3.0	1470	1715
5-1356	12380	14920	11250	13560	23000	618	5 x 1/3	6	3	37.2	2425	3.6	1425	1675
5-1435	13150	15840	11960	14350	22500	605	5 x 1/3	6	4	37.2	3100	3.6	1530	1800
5-1469			12190	14690	27500	739	5 x 1/2	6	3	37.2	2425	3.6	1425	1675
5-1526			12660	15260	25000	672	5 x 1/2	6	4	37.2	3100	3.6	1530	1800
5-1820	16820	20020	15290	18200	22850	614	5 x 1/2	8	3	37.2	3225	4.8	1570	1825
5-1887	17430	20760	15850	18870	21550	579	5 x 1/2	8	4	37.2	4125	4.8	1730	1975
5-1554	14440	17400			21500	578	5 x 1/2	6	6	37.2	4450	3.6	1810	2115
6-1627	14860	17900	13500	16270	27600	619	6 x 1/3	6	3	44.6	2910	4.4	1695	1990
6-1729	15790	19020	14350	17290	27000	605	6 x 1/3	6	4	44.6	3720	4.4	1815	2140
6-1763			14630	17630	33000	740	6 x 1/2	6	3	44.6	2910	4.4	1695	1990
6-1831			15200	18310	30000	673	6 x 1/2	6	4	44.6	3720	4.4	1815	2140
6-2181	20160	23990	18330	21810	27420	615	6 x 1/2	8	3	44.6	3870	5.9	1870	2170
6-2248	20770	24730	18880	22480	25860	580	6 x 1/2	8	4	44.6	4950	5.9	2060	2350
6-1865	17330	20880			25800	578	6 x 1/2	6	6	44.6	5340	4.4	2150	2515

*575/3 volt applications require a 1/2 hp motor for all units

Coil Connection Data

AMMONIA CONNECTIONS – IPS

Model	Recirculated			Direct Expansion			Flooded			Drain Pan (FPT)		
	LIQ	SUCT	HG	LIQ	SUCT	HG	LIQ	SUCT	HG	STD	Water	HG
DT/BT1	¾"	1½"	¾"	½"	¾"	¾"	1½"	1½"	¾"	1"	2"	2 x 1"
DT/BT2	¾"	2"	¾"	½"	1"	¾"	1½"	2"	¾"	1"	2"	2 x 1"
DT/BT3	¾"	2"	¾"	½"	1¼"	¾"	1½"	2"	¾"	1"	2"	2 x 1"
DT/BT4	¾"	2½"	1"	½"	1¼"	1"	2"	2½"	1"	1¼"	2½"	2 x 1½"
DT/BTS	¾"	2½"	1"	½"	1½"	1"	2"	2½"	1"	1¼"	2½"	2 x 1½"
DT/BTG	¾"	2½"	1"	½"	1½"	1"	2½"	3"	1"	1¼"	2½"	2 x 1½"
DTX/BTX1	¾"	1½"	1"	½"	¾"	¾"	1½"	1½"	1"	1"	2"	2 x 1"
DTX/BTX2	¾"	2"	1"	½"	1¼"	1"	1½"	2"	1"	1"	2"	2 x 1"
DTX/BTX3	¾"	2½"	1"	½"	1½"	1"	2"	2½"	1"	1"	2"	2 x 1"
DTX/BTX4	¾"	2½"	1½"	½"	1½"	1¼"	2"	2½"	1½"	1¼"	2½"	2 x 1½"
DTX/BTX5	¾"	2½"	1½"	½"	2"	1¼"	2"	3"	1½"	1¼"	2½"	2 x 1½"
DTX/BTX6	1"	3"	1½"	½"	2"	1¼"	2½"	3"	1½"	1¼"	2½"	2 x 1½"

HALOCARBON COPPER TUBE CONNECTIONS – ODS

Model	Direct Expansion Above 10°F		Direct Expansion Below 10°F		Hot Gas Connections		Drain Pan (FPT)	
	LIQ	SUCT	LIQ	SUCT	LIQ	SUCT	STD	Water
DT/BT1	⅞"	1⅞"	⅞"	1⅞"	⅝"	2 x ⅞"	1"	2"
DT/BT2	⅞"	1⅞"	⅞"	2⅞"	⅞"	2 x ⅞"	1"	2"
DT/BT3	⅞"	1⅞"	1⅞"	2⅞"	⅞"	2 x ⅞"	1"	2"
DT/BT4	⅞"	1⅞"	1⅞"	2⅞"	1⅞"	2 x 1⅞"	1¼"	2½"
DT/BTS	⅞"	2⅞"	1⅞"	2⅞"	1⅞"	2 x 1⅞"	1¼"	2½"
DT/BTG	1⅞"	2⅞"	1⅞"	2⅞"	1⅞"	2 x 1⅞"	1¼"	2½"
DTX/BTX1	⅞"	1⅞"	1⅞"	1⅞"	⅞"	2 x ⅞"	1"	2"
DTX/BTX2	⅞"	1⅞"	1⅞"	2⅞"	⅞"	2 x ⅞"	1"	2"
DTX/BTX3	1⅞"	1⅞"	1⅞"	2⅞"	1⅞"	2 x ⅞"	1"	2"
DTX/BTX4	1⅞"	2⅞"	1⅞"	2⅞"	1⅞"	2 x 1⅞"	1¼"	2½"
DTX/BTX5	1⅞"	2⅞"	1⅞"	3⅞"	1⅞"	2 x 1⅞"	1¼"	2½"
DTX/BTX6	1⅞"	2⅞"	1⅞"	3⅞"	1⅞"	2 x 1⅞"	1¼"	2½"

NOTE – Water, glycol, brine coil connections—see factory drawing after order is placed.

Electric Defrost Data

Model	Rows	ED						EDL									
		Total Heaters	Number of Circuits Amps per Circuit			Total Heaters	Number of Circuits Amps per Circuit			Total Heaters	Number of Circuits Amps per Circuit						
		kW	230V/3	460V/3	575V/3	kW	380V/3		kW	230V/3	460V/3	575V/3	kW	380V/3			
DT/BT 1	6	3.0	1 x 7.5	1 x 3.8	1 x 3.0	2.7	1 x 4.1		5.4	1 x 13.6	1 x 6.8	1 x 5.4	4.9	1 x 7.5			
DT 1	8	4.5	1 x 11.3	1 x 5.6	1 x 4.5	4.1	1 x 6.2		6.9	1 x 17.3	1 x 8.7	1 x 6.9	6.3	1 x 9.5			
DT/BT 2	6	6.0	1 x 15.1	1 x 7.5	1 x 6.0	5.5	1 x 8.3		10.4	1 x 26.2	1 x 13.1	1 x 10.5	9.5	1 x 14.4			
DT 2	8	9.0	1 x 22.6	1 x 11.3	1 x 9.0	8.2	1 x 12.4		13.4	1 x 33.7	1 x 16.9	1 x 13.5	12.2	1 x 18.6			
DT/BT 3	6	9.0	1 x 22.6	1 x 11.3	1 x 9.0	8.2	1 x 12.4		15.4	1 x 38.8	1 x 19.4	1 x 15.5	14.1	1 x 21.4			
DT 3	8	13.5	1 x 33.9	1 x 16.9	1 x 13.6	12.3	1 x 18.7		19.9	1 x 33.9	1 x 25.0	1 x 20.0	18.1	1 x 27.6			
										1 x 16.2							
DT/BT 4	6	12.0	1 x 30.1	1 x 15.1	1 x 12.0	10.9	1 x 16.6		20.5	1 x 25.7	1 x 25.7	1 x 20.5	18.6	1 x 28.3			
DT 4	8	18.0	1 x 45.2	1 x 22.6	1 x 18.1	16.4	1 x 24.9		26.5	1 x 33.2	1 x 33.2	1 x 26.6	24.1	1 x 36.6			
DT/BT 5	6	15.0	1 x 37.7	1 x 18.8	1 x 15.1	13.6	1 x 20.7		25.5	1 x 37.6	1 x 32.0	1 x 25.6	23.2	1 x 35.2			
										1 x 26.3							
DT 5	8	22.5	1 x 33.9	1 x 28.2	1 x 22.6	20.5	1 x 31.1		33.0	1 x 33.9	1 x 41.4	1 x 33.1	30.0	1 x 45.6			
										1 x 22.6				1 x 15.0			
DT/BT 6	6	18.0	1 x 45.2	1 x 22.6	1 x 18.1	16.4	1 x 24.9		30.5	1 x 38.3	1 x 38.3	1 x 30.6	27.8	1 x 42.2			
DT 6	8	27.0	1 x 33.9	1 x 33.9	1 x 27.1	24.6	1 x 37.3		39.5	1 x 33.9	1 x 24.8	1 x 39.7	35.9	1 x 27.3			
										1 x 31.4							
DTX/BTX 1	6	4.5	1 x 11.3	1 x 5.6	1 x 4.5	4.1	1 x 6.2		6.9	1 x 17.3	1 x 8.7	1 x 6.9	6.3	1 x 9.5			
DTX 1	8	6.0	1 x 15.1	1 x 7.5	1 x 6.0	5.5	1 x 8.3		8.4	1 x 21.1	1 x 10.5	1 x 8.4	7.6	1 x 11.6			
DTX/BTX 2	6	9.0	1 x 22.6	1 x 11.3	1 x 9.0	8.2	1 x 12.4		13.4	1 x 33.7	1 x 16.7	1 x 13.5	12.2	1 x 18.6			
DTX 2	8	12.0	1 x 30.1	1 x 15.1	1 x 12.0	10.9	1 x 16.6		16.4	1 x 41.2	1 x 20.6	1 x 16.5	14.9	1 x 22.7			
DTX/BTX 3	6	13.5	1 x 33.9	1 x 16.9	1 x 13.6	12.3	1 x 18.7		19.9	1 x 33.9	1 x 25.0	1 x 20.0	18.1	1 x 27.6			
										1 x 16.2							
DTX 3	8	18.0	1 x 45.2	1 x 22.6	1 x 18.1	16.4	1 x 24.9		24.4	1 x 33.9	1 x 30.7	1 x 24.5	22.2	1 x 33.8			
										1 x 27.5							
DTX/BTX 4	6	18.0	1 x 45.2	1 x 22.6	1 x 18.1	16.4	1 x 24.9		26.5	2 x 33.2	1 x 33.2	1 x 26.6	24.1	1 x 36.6			
DTX 4	8	24.0	1 x 30.1	1 x 30.1	1 x 24.1	21.8	1 x 33.2		32.5	2 x 40.7	1 x 40.7	1 x 32.6	29.5	1 x 44.9			
DTX/BTX 5	6	22.5	1 x 33.9	1 x 28.2	1 x 22.6	20.5	1 x 31.1		33.0	2 x 33.9	1 x 41.4	1 x 33.1	30.0	1 x 45.6			
			1 x 22.6							1 x 15.1							
DTX 5	8	30.0	1 x 45.2	1 x 37.7	1 x 30.1	27.3	1 x 41.5		40.5	1 x 33.9	1 x 30.1	1 x 40.7	36.8	1 x 33.2			
			1 x 30.1							1 x 26.3	1 x 20.7			1 x 22.8			
										1 x 41.4							
DTX/BTX 6	6	27.0	2 x 33.9	1 x 33.9	1 x 27.1	24.6	1 x 37.3		39.5	2 x 33.9	2 x 24.8	1 x 39.7	.35:9	2 x 27.3			
										1 x 31.4							
DTX 6	8	36.0	2 x 45.2	1 x 45.2	1 x 36.1	32.8	1 x 24.9		48.5	2 x 45.2	2 x 30.4	2 x 24.4	44.1	2 x 33.5			
										1 x 31.4							

COILS

DT/DTX, BT/BTX Series propeller fan units are modular in design in one through six fans with two overall heights. Units are designed for medium and freezer temperatures above -40°F suction in capacities from 2 to 20 nominal tons.

Maximum heat transfer is achieved by staggering 3/4" OD tubes in the direction of air flow. Circuits are cross fed with vertical headers resulting in equal circuit loading for horizontal air flow coils. Coils are 6 and 8 rows deep with 3, 4 or 6 fins/inch, fin spacing achieved by Turbo-Spacers.

Each coil is tested underwater with 350 psig air, with all steel coils being tested before and after galvanizing.

MATERIAL OF CONSTRUCTION

- Hot dipped galvanized steel tube and fins.
- Aluminum tube and fins.
- Copper tube with aluminum fins.
- Stainless steel tubes and aluminum fins.

RATING DATA

Each coil is engineered for maximum efficiency for its specific design application.

- Ratings are based on sensible heat removal. Capacity listed is BTUH/°F TD sensible heat removal with the coil wet, dry or frosted. Ratings are valid for TDs 20°F or less. Wet coil heat transfer is more efficient than frosted resulting in higher ratings.
- Wet coil applications are for suction temperatures above 25°F. Selections should be limited to 630 FPM to prevent moisture carryover.
- Consult a sales representative for high humidity conditions for proper air velocity.

FAN MOTOR HEAT

Motor heat is not included in the ratings and is usually included in the load estimate.

Coolers 4,000 BTUH/hp

Freezers 4,400 BTUH/hp

TEMPERATURE DIFFERENCE

Temperature difference (TD) is the difference between return air temperature or room air and coil saturated refrigerant temperature. Rated capacity is multiplied by the TD to determine total sensible heat capacity in BTUH.

REFRIGERANT FEEDS

Recirculated coils have graduated liquid feed orifices to balance static head and reduce hot gas blow-by during defrost. Units operating with an overfeed system must provide liquid at 5 psi above saturated suction pressure and the liquid temperature within 10°F to 30°F of saturated suction temperature depending on the suction temperature. Liquid feed temperature and pressure must be specified to assure proper coil design. Consult factory for recirculated low temperature halocarbon applications.

- **RT** - Recirculated top feed is recommended for air, water, or electric defrost. Refrigerant oil flows downhill to the suction header. This application is not recommended for hot gas defrost units.
- **RB** - Recirculated bottom feed is recommended for hot gas defrost applications or very high TDs. Hot gas condensate and oil flow downhill, back-flowing through the liquid feed orifices which restrict gas blow-by. Condensate is relieved through the liquid header. Defrost condensate relief devices must be located below the liquid connection. Float drainer should be used in series piped units only (standard configuration); unrelieved vapor will prevent complete and proper defrost cycles.
- **DX** - Direct expansion coils are circuited to have a minimum pressure drop and maintain refrigerant velocity for oil return. Direct expansion coils employ distributors and capillaries to feed each circuit. TEVs must be externally equalized and, on ammonia applications, the discharge tubes must be removed. If a unit does not have a distributor, do not remove the TEV discharge tube. Ammonia EEV applications are recommended for suction temperatures below 0°F or with TD selections less than 12°F. If sub-cooled liquid is used, it must be specified to assure proper coil circuiting.
- **FL** - Flooded coils are circuited to minimize internal losses while maintaining minimum surge drum operating level. When closed coupled, the liquid level in the drum should be four inches or more above the coil. Flooded coil ratings are the same as recirculated ratings.
- **B** - Coils can be circuited for water or brine (single-phase) refrigerants. Factory engineering is required for proper unit selection. Provide required capacity, brine type, brine concentration, room temperature, entering brine temperature and gpm for selection.

REHEAT

Hot Gas/Brine/Water Reheat:

- When used with a six row coil, the cooling coil is the first four rows and the reheat is the last two rows. Contact factory for cooling capacity.
- When used with an eight row coil, the cooling coil is the first six rows and the reheat is the last two rows. The cooling capacity is similar to a standard six row coil with a similar face velocity.
- Eight total row units can be DT-DTX only. Six total row units can be DT-DTX or BT-BTX.

Electric Reheat:

- A heater assembly is mounted between the coil face and the fan.
- Assembly includes a build-in overheat thermostat.
- One 4.65 kW heater per fan section
- Heater is factory wired to a terminal block on the header end casing
- Can only be used with a six row DT-DTX unit.

DRAIN PAN COVER HEATING

- In rooms that cannot have humidity condensate dripping from the drain pan cover a heat tape is available to warm the cover.
- The electric heat tape is affixed to the inside of the pan cover with the tail out the side of the pan.
- 115/1 and 230/1 voltages.
- When ordered amp draw is shown on unit drawing.

Fan Motor Data – DT-DTX BT-BTX							
Fan Motor Nameplate Total Full Load Amps							
Number of Fans	hp	115/1	208/1 230/1	208/3 230/3	460/3	380/3	575/3
1	1/3	5.40	2.70	1.70	0.85	0.55	
1	1/2	7.80	3.90	2.00	1.00	1.10	0.76
2	1/3	10.80	5.40	3.40	1.70	1.10	
2	1/2	15.60	7.80	4.00	2.00	2.20	1.52
3	1/3	16.20	8.10	5.10	2.55	1.65	
3	1/2		11.70	6.00	3.00	3.30	2.28
4	1/3		10.80	6.80	3.40	2.20	
4	1/2			8.00	4.00	4.40	3.04
5	1/3		13.50	8.50	4.25	2.75	
5	1/2			10.00	5.00	5.50	3.80
6	1/3			10.20	5.10	3.30	
6	1/2			12.00	6.00	6.60	4.56

Reheat Heater Total Full Load Amps					
Heater Quantity	kW	208/3 230/3	460/3	380/3	575/3
1	4.65	11.67	5.84	7.06	4.67
2	9.30	23.35	11.67	14.13	9.34
3	13.95	35.02	17.51	21.19	14.01
4	18.60	46.69	23.35	28.26	18.68
5	23.25	58.36	29.18	35.32	23.35
6	27.90	70.04	35.02	42.39	28.01

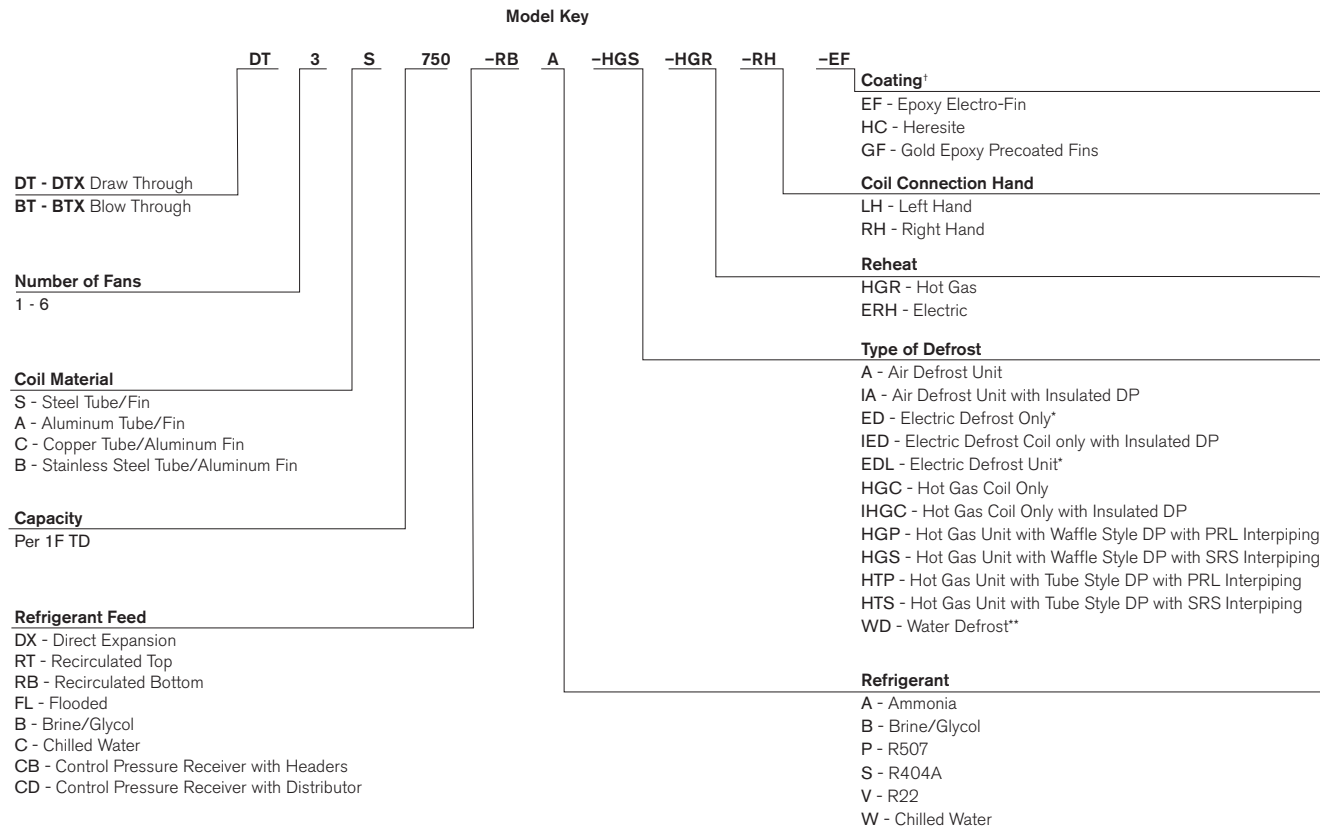
DT - DTX WATER DEFROST DATA 6 Row Units

Water defrost must be arranged so that all water pipes are free draining after a defrost cycle in rooms below +32°F. Water flow requirements using 65°F water for draw-thru or blow-thru are as follows:

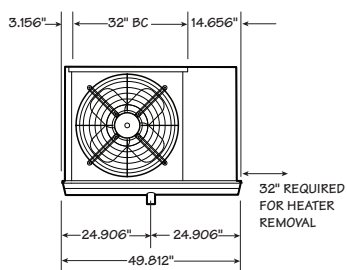
Water Defrost		
Number of Fans	gpm	Connection Number - Size FPT
1	8	1 x 1"
2	15	1 x 1"
3	23	1 x 1"
4	32	2 x 1"
5	39	2 x 1"
6	48	2 x 1"

ORDERING INFORMATION - PLEASE SPECIFY

- Quantity and complete model number
- SST-Saturated Suction Temperature
- Room temperature
- Fan motor voltage
- Heater voltage (if applies)
- Control voltage (if applies)
- Options and accessories
- Maximum and minimum temperatures feeding the expansion device for direct expansion applications.
- Maximum and minimum condensing temperatures of the liquid feeding the expansion device for direct expansion applications
- Manufacturing commences with order approval

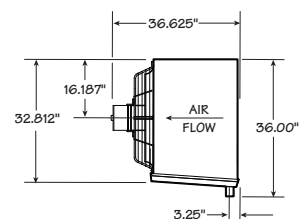
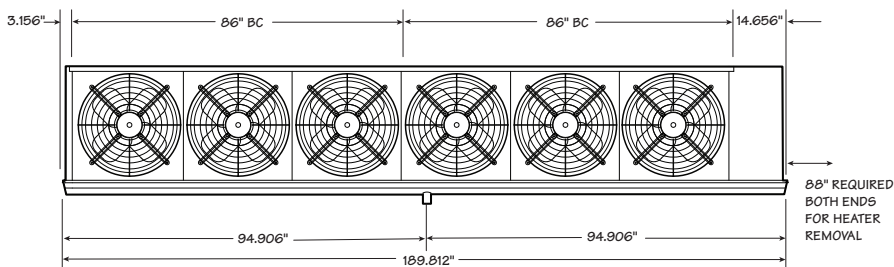
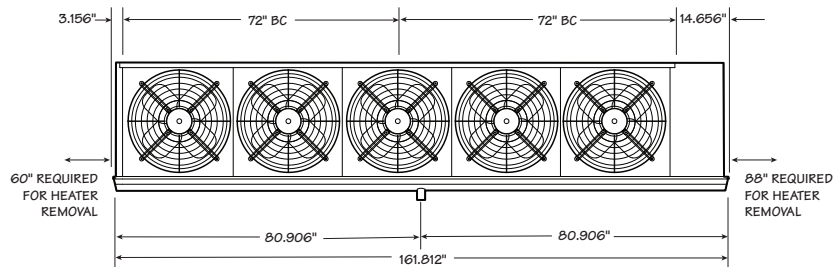
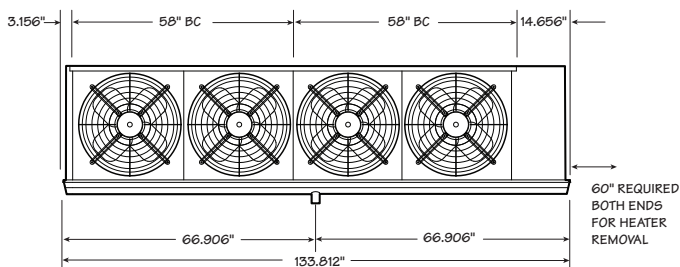
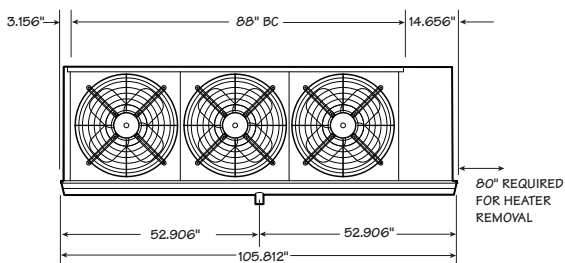
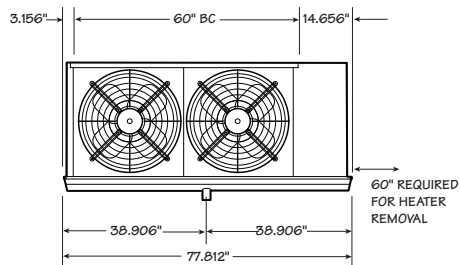


*Copper, aluminum and stainless steel tube coils only.
PRL – Parallel
SRS – Series
**6 row units only

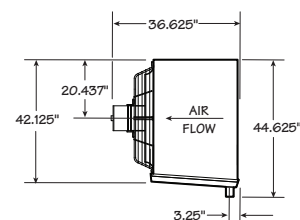


For preliminary layout only, do not use for construction.

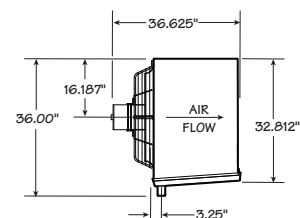
- Add 1" to vertical dimension for insulation
- BC (bolt hole center/hanger)
- Add 5" to overall unit height for water defrost
- Hanger holes are 5/8" diameter for 1/2" diameter threaded rod
- DT-DTX right-hand units shown
- BT-BTX left-hand units shown
- LTA adds 5" to the total width (DT-DTX only)



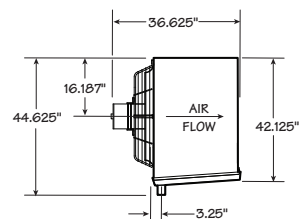
DT UNIT COOLER



DTX UNIT COOLER



BT UNIT COOLER



BTX UNIT COOLER

SPX COOLING TECHNOLOGIES, INC.

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and/or material change without notice.

