

Unit Heaters

General Catalog



Introduction:

This catalogue consists comprehensive information of unit heaters manufactured by Tahviah Arya Company . Unit heaters of this company are designed for provision of warm air for industries, sport salons, store houses, pools and other similar places and heating fluid of these unit heaters is pumped hot water or water steam system. This system is usually installed above the ground level and air outlet is in horizontal or vertical position.

Main elements details:

Main structure of each unit heater consists of aluminum or steel body or fiberglass decorative body, heating coil made of copper or steel pipes and aluminum fins, air outlet damper has adjustable single blades and propeller fan and electromotor, axial fan and related guard, four hanging plates according air outlet position (horizontal or vertical) for installation of unit heaters at the place.

Body:

The body is made of steel sheet with appropriate thickness together with one layer of baked furnace color, body of the decorative is made of fiberglass and aluminum body with aluminum sheets without color in different sizes and dimensions.

Coils:

Water coils are made of copper pipes and water steam coils are made of seamless steel pipes. Standard fins of both coils are made of aluminum fins. Copper fins may be made upon request . Electrical coil may replace water or steam coils as well.

Fan electromotor:

Electromotor of unit heaters are single velocity . ordinary electro motors are supplied with low velocity or any velocity according to order of the customer. Single phase and three phase motors both may be supplied upon request of the customer.

(for industrial , hothouse units centrifugal fans are used with static and dynamic balance.

Fireproof electro motors (anti friction)

For dangerous places, elector motors with **Exd** certificate , Zone1, A11, B11 and heat temperature of class T4 is supplied. Velocity of existing electro motors is 1400 RPM which are wire wrapped as single phase or three phase.

Note: for this special case antifriction blade fans are supplied.

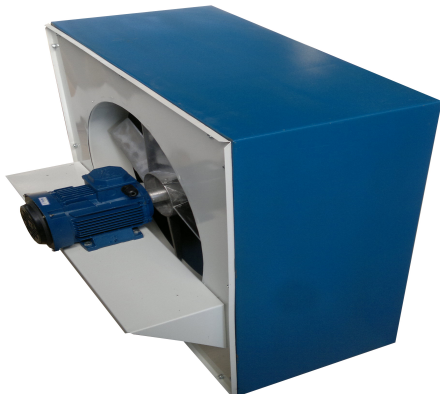
Air damper:

Dampers are manually adjustable in which every blade is regulated singly and installed in outlet of unit heater. For hothouse unit heaters no damper is installed and standing industrial units dampers are according to Italian ARISIO brand.

Classification of unit heaters:

- 1- General Industrial Unit Heaters
- 2- Standing Industrial Unit Heater
- 3- Hot house Unit Heaters (special for high temperatures above 60 centigrade)

All the three types may be designed and produced using hot water, steam, hot oil coils and electrical coils.



General Industrial Unit Heaters

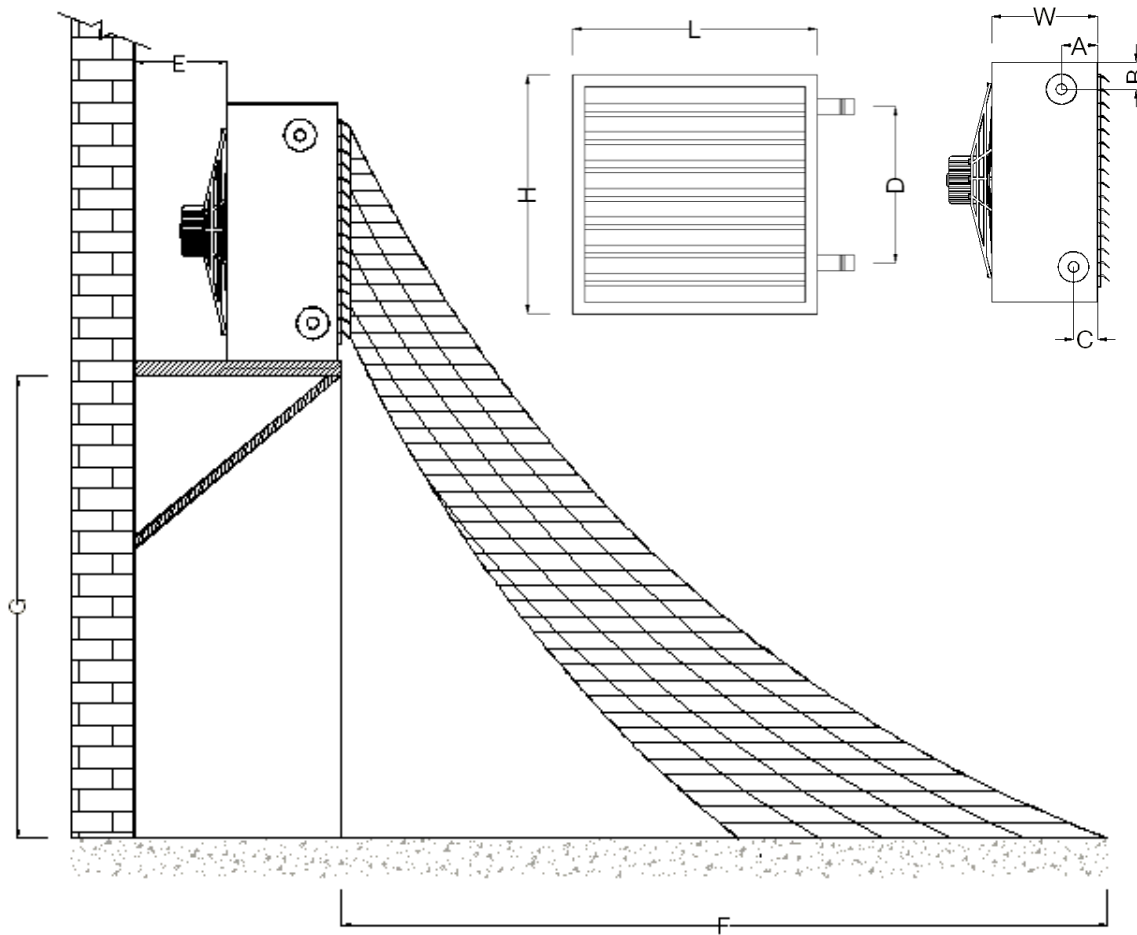


Table 1

MODEL	L	W	H	A	B	C	D	E	F	G	Water (Inch)		Steam (Inch)	
											In	Out	In	Out
TU 40w-60S	500	350	500	300	120	80	100	410	2700	6500	1	1	1	3/4
TU 50w-75S	500	350	500	300	120	80	100	410	3000	8800	1	1	1	3/4
TU 70w-115S	580	350	580	390	120	80	100	410	3200	9100	1	1	1	3/4
TU 80w-140S	580	350	580	390	120	80	100	410	4000	12000	1	1	1	3/4
TU 120w-160S	660	350	660	460	120	80	100	410	4000	13000	1 1/4	1 1/4	1 1/4	1
TU 150w-230S	750	350	750	540	120	80	100	410	4000	14000	1 1/4	1 1/4	1 1/4	1
TU 180w-280S	750	350	750	540	120	80	100	410	4500	14500	1 1/4	1 1/4	1 1/4	1
TU 200w-300S	810	350	810	610	120	80	100	410	4500	15000	1 1/4	1 1/4	1 1/4	1
TU 250w-400S	850	350	850	650	120	80	100	410	4500	16000	1 1/4	1 1/4	1 1/4	1

Note :

- All Dimensions in mm

Hot Water Unit Heater Ratings – 1400 RPM

Table 2							
MODEL	Air Flow CFM	BTU/hr	Water Flow GPM	Water Pressure Drop (Ft.Wg)	MOTOR		
					Power (w)	Amps	
TU 40w	1300	42000	4.2	0.55	120	0.6	
TU 50w	1400	00054	5.4	0.62	120	0.6	
TU 70w	1900	74000	7.4	0.92	150	0.7	
TU 80w	2100	82000	8.2	1.15	150	0.7	
TU 120w	2400	120000	12	1.4	170	0.8	
TU 150w	3000	155000	15.4	3	170	0.8	
TU 180w	3500	180000	18	3.7	170	0.8	
TU 200w	3700	220000	22	3.5	170	0.8	
TU 250w	3900	260000	26	4	170	0.8	

Hot Water Unit Heater Ratings – 900 RPM

Table 3							
MODEL	Air Flow CFM	BTU/hr	Water Flow GPM	Water Pressure Drop (Ft.Wg)	MOTOR		
					Power (w)	Amps	
TU 40w	800	29000	3	0.4	90	0.43	
TU 50w	900	39000	4	0.47	90	0.43	
TU 70w	1250	58000	5.8	0.65	100	0.48	
TU 80w	1350	63000	6.3	0.76	100	0.48	
TU 120w	1500	90000	9	0.99	110	0.52	
TU 150w	1800	120000	12	2.2	170	0.7	
TU 180w	2500	150000	15	2.7	170	0.7	
TU 200w	2700	182000	18.2	2.5	170	0.7	
TU 250w	2900	220000	22	2.9	170	0.7	

F Entering Air Temperature on 180 °F Entering Water and 60 °F *Standard ratings are based on .

Steam Unit Heater Ratings – 1400 RPM

Table 4				
MODEL	Air Flow CFM	BTU/hr	MOTOR	
			Power (w)	Amps
TU 60 S	1200	62000	120	0.6
TU 75 S	1300	74000	120	0.6
TU 115 S	1800	115000	150	0.7
TU 140 S	2000	140000	150	0.7
TU 160 S	2200	160000	170	0.8
TU 230 S	3000	230000	170	0.8
TU 280 S	3400	280000	170	0.8
TU 300 S	3700	340000	170	0.8
TU 400 S	3800	450000	170	0.8

Steam Unit Heater Ratings – 900 RPM

Table 5				
MODEL	Air Flow CFM	BTU/hr	MOTOR	
			Power (w)	Amps
TU 60 S	800	45000	90	0.43
TU 75 S	900	54000	90	0.43
TU 115 S	1200	94000	100	0.48
TU 140 S	1350	110000	100	0.48
TU 160 S	1500	130000	110	0.52
TU 230 S	1700	180000	170	0.7
TU 280 S	2500	240000	170	0.7
TU 300 S	2700	280000	170	0.7
TU 400 S	2900	390000	170	0.7

F Entering Air Temperature *Standard ratings are based on 30 psi steam pressure and 60 °F

CFM Correction Factors Data

Table 6

-10	0	10	20	30	40	50	60	70	80	90	100
1.155	1.130	1.105	1.082	1.060	1.040	1.020	1.000	0.982	0.964	0.945	0.930

Hot Water Correction Factors

Table 7

Entering Air Temperature °F	150	160	170	180	190	200	210	220	230	240	250
30	1.035	1.115	1.210	1.295	1.380	1.465	1.545	1.640	1.720	1.810	1.895
40	0.940	1.025	1.105	1.195	1.275	1.360	1.440	1.535	1.620	1.700	1.785
50	0.840	0.930	1.050	1.090	1.175	1.265	1.345	1.430	1.510	1.600	1.690
60	0.743	0.835	0.920	1.000	1.080	1.165	1.240	1.325	1.405	1.500	1.580
70	0.650	0.745	0.825	0.905	0.980	1.070	1.150	1.235	1.315	1.392	1.480
80	0.570	0.650	0.735	0.815	0.895	0.980	1.060	1.140	1.220	1.300	1.380
90	0.475	0.565	0.640	0.720	0.805	0.885	0.965	1.050	1.130	1.210	1.280
100	0.395	0.475	0.560	0.710	0.790	0.875	0.955	1.035	1.115	1.165	1.185

Steam Correction Factors

Table 8

Entering Air Temperature °F	0	2	5	10	15	20	30	40	50	60	80	100	125	150	250	250
-30	1.133	1.163	1.200	1.258	1.308	1.348	1.420	1.482	1.532	1.585	1.654	1.717	1.792	1.847	1.903	1.956
-20	1.082	1.113	1.153	1.211	1.258	1.301	1.373	1.431	1.483	1.528	1.605	1.670	1.740	1.801	1.855	1.903
-10	1.036	1.066	1.107	1.164	1.212	1.254	1.325	1.384	1.436	1.481	1.558	1.623	1.693	1.755	1.808	1.856
0	0.989	1.020	1.060	1.117	1.166	1.207	1.278	1.338	1.386	1.434	1.512	1.576	1.647	1.708	1.762	1.810
10	0.942	0.973	1.013	1.071	1.118	1.161	1.233	1.292	1.342	1.388	1.465	1.530	1.601	1.660	1.715	1.764
20	0.894	0.926	0.967	1.024	1.073	1.114	1.186	1.244	1.296	1.341	1.418	1.483	1.553	1.615	1.669	1.717
30	0.849	0.880	0.920	0.977	1.026	1.067	1.139	1.198	1.250	1.294	1.372	1.436	1.506	1.568	1.622	1.670
40	0.802	0.883	0.873	0.930	0.978	1.021	1.092	1.151	1.202	1.248	1.325	1.390	1.461	1.521	1.575	1.628
45	0.779	0.810	0.850	0.907	0.955	0.997	1.069	1.128	1.180	1.224	1.302	1.366	1.436	1.496	1.552	1.601
50	0.756	0.786	0.827	0.884	0.932	0.974	1.045	1.104	1.156	1.201	1.273	1.343	1.414	1.474	1.529	1.576
55	0.732	0.763	0.803	0.861	0.908	0.951	1.023	1.081	1.133	1.178	1.255	1.320	1.390	1.451	1.505	1.553
60	0.709	0.740	0.780	0.837	0.885	0.927	1.000	1.058	1.109	1.154	1.231	1.297	1.367	1.427	1.482	1.531
65	0.686	0.716	0.757	0.814	0.862	0.904	0.976	1.034	1.086	1.131	1.209	1.273	1.343	1.407	1.459	1.506
70	0.662	0.693	0.733	0.791	0.838	0.881	0.935	1.011	1.063	1.108	1.186	1.250	1.320	1.380	1.435	1.484
75	0.639	0.670	0.710	0.767	0.815	0.857	0.939	0.988	1.040	1.084	1.163	1.226	1.297	1.357	1.412	1.460
80	0.616	0.646	0.687	0.744	0.792	0.934	0.906	0.865	1.016	1.061	1.139	1.203	1.273	1.335	1.389	1.436
85	0.592	0.623	0.663	0.720	0.768	0.811	0.883	0.941	1.093	1.038	1.116	1.180	1.251	1.310	1.365	1.414
90	0.562	0.600	0.640	0.696	0.745	0.787	0.860	0.918	0.969	1.014	1.093	1.156	1.226	1.288	1.342	1.390
100	0.522	0.533	0.593	0.650	0.698	0.732	0.813	0.871	0.923	0.968	1.045	1.110	1.181	1.240	1.295	1.344
110	0.476	0.506	0.547	0.603	0.652	0.694	0.766	0.825	0.876	0.921	0.998	1.063	1.134	1.194	1.248	1.297
120	0.429	0.460	0.500	0.556	0.605	0.647	0.720	0.778	0.830	0.874	0.952	1.027	1.086	1.147	1.201	1.251
140	0.336	0.366	0.407	0.464	0.512	0.554	0.626	0.685	0.737	0.781	0.858	0.923	0.993	1.055	1.108	1.156
160	0.242	0.273	0.313	0.370	0.418	0.460	0.533	0.591	0.642	0.688	0.765	0.831	0.901	0.961	1.012	1.065
180	0.149	0.179	0.220	0.227	0.325	0.367	0.439	0.498	0.550	0.594	0.671	0.737	0.808	0.868	0.921	0.970
200	0.056	0.085	0.127	0.183	0.232	0.274	0.345	0.405	0.455	0.501	0.577	0.643	0.713	0.775	0.775	0.876

Table 9

Pressure (psi)	0	2	3	5	8	10	15	20	25	30	35	40	45	50	60
Temperature °F	212.00	218.47	221.50	227.16	234.78	239.41	249.73	258.85	266.85	274.64	280.64	286.74	292.37	297.70	307.30
Latent Heat Btu/Lb	970.40	966.20	964.27	960.54	955.58	952.49	945.49	939.26	933.63	923.77	923.77	919.14	915.14	911.24	903.91

Cont. Table 9

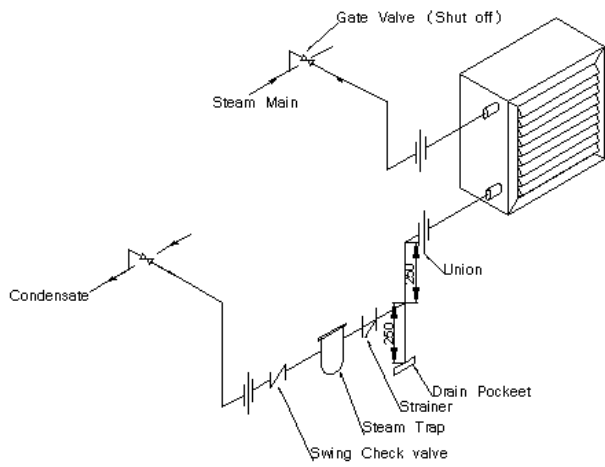
Pressure (psi)	70	75	80	90	100	110	120	125	130	140	150	175	200	225	250
Temperature °F	316.03	320.00	323.89	331.16	337.86	344.22	350.09	353.00	355.65	360.89	365.92	377.47	387.88	397.27	406.01
Latent Heat Btu/Lb	897.28	894.20	8891.20	885.42	880.82	874.85	870.05	867.70	865.48	861.12	856.92	847.02	838.00	828.30	820.00

PIPING :

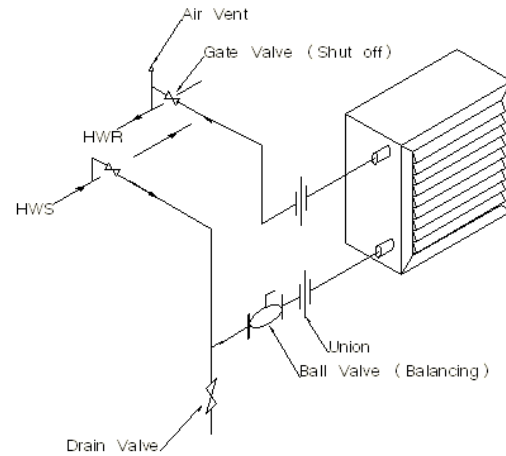
As the function of a unit heaters is to transfer heat from steam or hot water to the surrounding space. It's necessary that the steam or hot water be delivered to the unit and removed from it in required quantity and condition .

The piping of the unit heaters must conform strictly to the system requirements , while at the same intended . The following are a few piping guide lines which must be observed when designing piping system for unit heaters .

- 1- steam and condensate lines in steam unit , must be sized for maximum load condition . This rule must be observed in hot water units , too . The maximum pressure loss in hot water piping is 1m H₂O per 30 m equal length of piping .
- 2- In steam unit heaters installation , the supply line should be pitched towards the main line in order to prevent of condensate flow in to main line where it might reduce capacity and cause noise , in hot water unit heaters both supply and return lines should be pitched towards the unit .
- 3- The return line in steam unit heaters must be installed at minimum 300 mm below the unit , this prevents accumulation of condensate water in the return line , check valve , strainers and traps . It also increases life time of this parts and will improve unit operation .
- 4- By using an steam trap in return line can improve heating capacity certainly . The trap size must be proportionate to unit capacity , otherwise , the condensate water will accumulate in the unit or steam will eject from return line .
- 5- Dirt trap in return line , prevent entrance of dirt and scales in to the pipe line . Furthermore , by cleaning the dirt trap cartridge , you can throw away all scales and dirt from inside the pipe line .
- 6- By connecting an air vent (at least 3/4") on top of the return line , can deaerate system , periodically .
- 7- In order to improve the efficiency of system , it 's necessary to insulate all pipe lines witch are in contact with cold air in winter.
- 8- Steam piping and unit heaters should be supported independently .



Steam Heating Systems



Hot Water Systems

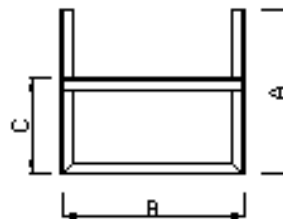
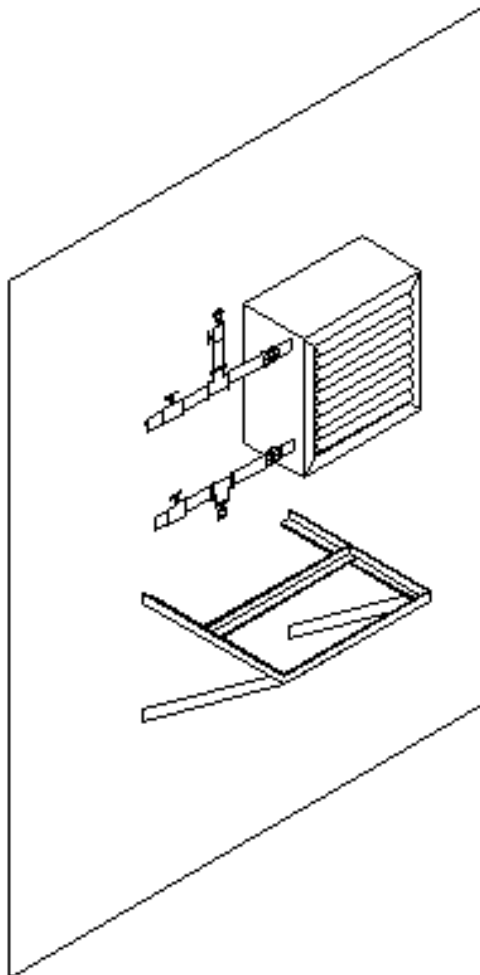


Table 10 Sitting Bracket Dimensions

MODEL	A (mm)	B (mm)	C (mm)	Weight (kg)	
				W	S
TU 40w -60s	800	540	380	25	32
TU 50w -75s	800	540	380	27	34
TU 70w -115s	800	620	380	31	38
TU 80w -140s	800	620	380	33	40
TU 120w -160s	800	700	380	38	45
TU 150w -230s	800	790	380	45	52
TU 180w -280s	800	790	380	46	55
TU 200w -300s	800	850	380	52	60
TU 250w -400s	800	890	380	60	67

Standing Industrial Unit Heater

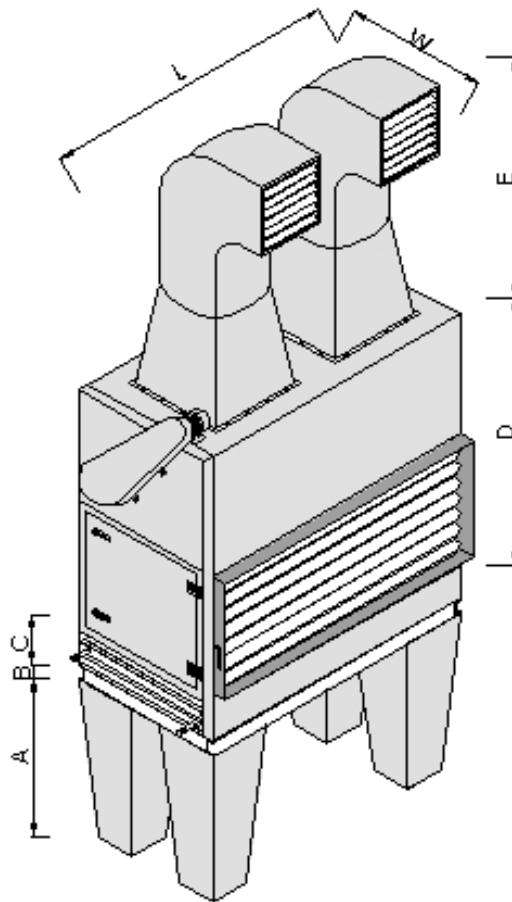


Table 11		Dimensions							
MODEL		L	W	A	B	C		D	E
TU	50-85 W - S	700	950	300	60	No. of Row	Coil With	1000	400
TU	65-90 W - S	750	1000	300	60			1000	400
TU	70-120 W - S	800	1300	300	60			1100	400
TU	75-125 W - S	850	1350	300	80			1100	400
TU	90-140 W - S	1000	1500	300	80			1150	400
TU	90-170 W - S	1000	1800	300	80	1	100	1150	400
TU	100-170 W - S	1100	180	300	100	2	150	1150	400
TU	100-185 W - S	1100	1950	400	100	3	180	1200	500
TU	100-200 W - S	1100	2100	400	120			1200	500
TU	100-220 W - S	1100	2300	400	120			1150	400

Note :

- All Dimensions in mm

Standing Industrial Hot Water Unit Heater Ratings – 2 Row coil

Table 12							
MODEL	Air flow CFM	RPM	MOTOR		Fan Size	BTU/hr	Water flow GPM
			Power (HP)	Amps			
TU 50-85 W	2000	596	0.5	0.78	1 × 14"	199000	20
	2500	620	0.75	1.18		248400	25
	3000	657	0.75	1.18		298000	30
	3500	705	0.75	1.18		348000	35
TU 65-90 W	3000	545	0.75	1.18	1 × 14"	299000	30
	3250	566	0.75	1.18		322920	33
	3900	615	1	1.5		387504	39
	4000	640	1	1.5		397440	40
TU 70-120 W	3800	590	1	1.5	1 × 14"	378000	38
	4500	620	1.5	2.3		448000	45
	5250	686	1.5	2.3		522000	53
	5400	705	1.5	2.3		537000	54
TU 75-125 W	4000	615	1.5	2.3	1 × 16"	398000	40
	4600	640	1.5	2.3		457000	46
	5000	686	2	3.15		496800	50
	6000	710	2	3.15		597000	60
TU 90-140 W	6500	650	1.5	2.3	1 × 16"	646000	65
	7000	690	1.5	2.3		695500	70
	7800	705	2	3.15		775000	78
	8400	757	2	3.15		835000	84
TU 90-170 W	8000	528	1.5	2.3	1 × 19"	795000	80
	8500	551	2	3.15		844500	85
	9000	595	2	3.15		895000	90
	10200	604	2	3.15		1000000	100
TU 100-170 W	8900	507	2	3.15	1 × 19"	885000	89
	9500	530	2	3.15		944000	95
	10500	551	3	4.7		1045000	105
	11400	640	3	4.7		1130000	114
TU 100-185 W	9300	420	3	4.7	1 × 22"	925000	93
	10600	460	4	6.3		1050000	105
	11000	482	4	6.3		1095000	109
	12600	530	4	6.3		1250000	125
TU 100-200 W	10000	420	4	6.3	1 × 22"	994000	100
	11000	439	5.5	8.6		1092000	110
	12000	482	5.5	8.6		1192000	120
	13200	528	5.5	8.6		1310000	131
TU 100-220 W	11600	469	2 × 3	2 × 4.7	2 × 19"	1152000	116
	12500	486	2 × 3	2 × 4.7		1242000	125
	13800	507	2 × 4	2 × 6.3		1371000	138
	15000	528	2 × 4	2 × 6.3		1490500	150

Standing Industrial Hot Water Unit Heater Ratings – 3 Row coil

Table 13							
MODEL	Air flow CFM	RPM	MOTOR		Fan Size	BTU/hr	Water flow GPM
			Power (HP)	Amps			
TU 50-85 W	2000	596	0.5	0.78	1 × 14"	238000	24
	2500	620	0.75	1.18		297000	30
	3000	657	0.75	1.18		356000	36
	3500	705	0.75	1.18		416000	42
TU 65-90 W	3000	545	0.75	1.18	1 × 14"	356000	36
	3250	566	0.75	1.18		386000	39
	3900	615	1	1.5		464000	47
	4000	640	1	1.5		475000	48
TU 70-120 W	3800	590	1	1.5	1 × 14"	451000	46
	4500	620	1.5	2.3		534600	54
	5250	686	1.5	2.3		624000	63
	5400	705	1.5	2.3		642000	65
TU 75-125 W	4000	615	1.5	2.3	1 × 16"	476000	48
	4600	640	1.5	2.3		546500	55
	5000	686	2	3.15		594000	60
	6000	710	2	3.15		712800	72
TU 90-140 W	6500	650	1.5	2.3	1 × 16"	772000	78
	7000	690	1.5	2.3		832000	84
	7800	705	2	3.15		927000	93
	8400	757	2	3.15		998000	100
TU 90-170 W	8000	528	1.5	2.3	1 × 19"	950000	95
	8500	551	2	3.15		1000000	100
	9000	595	2	3.15		1070000	107
	10200	604	2	3.15		1210000	121
TU 100-170 W	8900	507	2	3.15	1 × 19"	1058000	106
	9500	530	2	3.15		1129000	113
	10500	551	3	4.7		1248000	125
	11400	640	3	4.7		1355000	136
TU 100-185 W	9300	420	3	4.7	1 × 22"	1105000	111
	10600	460	4	6.3		1259000	126
	11000	482	4	6.3		1306000	131
	12600	530	4	6.3		1497000	150
TU 100-200 W	10000	420	4	6.3	1 × 22"	1188000	119
	11000	439	5.5	8.6		1307000	131
	12000	482	5.5	8.6		1426000	143
	13200	528	5.5	8.6		1568000	157
TU 100-220 W	11600	469	2 × 3	2 × 4.7	2 × 19"	1378000	138
	12500	486	2 × 3	2 × 4.7		1485000	1498
	13800	507	2 × 4	2 × 6.3		1640000	164
	15000	528	2 × 4	2 × 6.3		1782000	179

*Standard Entering Hot water 180 °F

Standing Industrial Steam Unit Heater Ratings – 1 Row coil

Table 14

MODEL	Air flow CFM	RPM	MOTOR		Fan Size	BTU/hr
			Power (HP)	Amps		
TU 50-85 S	2200	682	0.75	1.18	1 × 14"	221000
	2750	693	0.75	1.18		276000
	3300	720	1	1.5		332000
	3850	760	1.5	2.3		386600
TU 65-90 S	3300	615	1	1.5	1 × 14"	332000
	3575	625	1	1.5		359000
	4290	665	1.5	2.3		432000
	4400	690	1.5	2.3		442000
TU 70-120 S	4180	645	1.5	2.3	1 × 14"	420000
	4950	693	2	3.15		497000
	5775	745	2	3.15		580000
	5940	760	2	3.15		597000
TU 75-125 S	4400	658	2	3.15	1 × 16"	442000
	5060	690	2	3.15		510000
	5500	745	3	4.7		553000
	6600	813	3	4.7		663000
TU 90-140 S	7150	714	2	3.15	1 × 16"	718000
	7700	750	2	3.15		774000
	8580	760	3	4.7		862000
	9240	860	3	4.7		928000
TU 90-170 S	8800	574	2	3.15	1 × 19"	884000
	9350	595	3	4.7		939000
	9900	636	3	4.7		995000
	11220	660	3	4.7		1127000
TU 100-170 S	9790	574	2	3.15	1 × 19"	984000
	10450	595	3	4.7		1050000
	11550	636	3	4.7		1160000
	12540	665	3	4.7		1260000
TU 100-185 S	10230	461	4	6.3	1 × 22"	1028000
	11660	496	5.5	8.6		1172000
	12100	516	5.5	8.6		1215000
	13860	559	5.5	8.6		1392000
TU 100-200 S	11000	461	5.5	8.6	1 × 22"	1105000
	12100	478	7.5	11.8		1215000
	13200	516	7.5	11.8		1326000
	14520	574	7.5	11.8		1459000
TU 100-220 S	12860	525	2 × 4	2 × 6.3	2 × 19"	1292000
	13750	537	2 × 4	2 × 6.3		1381000
	15180	554	2 × 5.5	2 × 8.6		1525000
	16500	574	2 × 5.5	2 × 8.6		1657000

*Standard steam pressure 30 PSI

Standing Industrial Steam Unit Heater Ratings – 2 Row coil

Table 15

MODEL	Air flow CFM	RPM	MOTOR		Fan Size	BTU/hr
			Power (HP)	Amps		
TU 50-85 S	2200	682	0.75	1.18	1 × 14"	271000
	2750	693	0.75	1.18		339000
	3300	720	1	1.5		406000
	3850	760	1.5	2.3		475000
TU 65-90 S	3300	615	1	1.5	1 × 14"	410000
	3575	625	1	1.5		440000
	4290	665	1.5	2.3		529000
	4400	690	1.5	2.3		542000
TU 70-120 S	4180	645	1.5	2.3	1 × 14"	515000
	4950	693	2	3.15		610000
	5775	745	2	3.15		712000
	5940	760	2	3.15		732000
TU 75-125 S	4400	658	2	3.15	1 × 16"	542000
	5060	690	2	3.15		623000
	5500	745	3	4.7		678000
	6600	813	3	4.7		812000
TU 90-140 S	7150	714	2	3.15	1 × 16"	881000
	7700	750	2	3.15		949000
	8580	760	3	4.7		1057000
	9240	860	3	4.7		1138000
TU 90-170 S	8800	574	2	3.15	1 × 19"	1084000
	9350	595	3	4.7		1152000
	9900	636	3	4.7		1219000
	11220	660	3	4.7		1382000
TU 100-170 S	9790	574	2	3.15	1 × 19"	1206000
	10450	595	3	4.7		1287000
	11550	636	3	4.7		1422000
	12540	665	3	4.7		1544000
TU 100-185 S	10230	461	4	6.3	1 × 22"	1260000
	11660	496	5.5	8.6		1436000
	12100	516	5.5	8.6		1490000
	13860	559	5.5	8.6		1707000
TU 100-200 S	11000	461	5.5	8.6	1 × 22"	1355000
	12100	478	7.5	11.8		1490000
	13200	516	7.5	11.8		1626000
	14520	574	7.5	11.8		1788000
TU 100-220 S	12860	525	2 × 4	2 × 6.3	2 × 19"	1584000
	13750	537	2 × 4	2 × 6.3		1693000
	15180	554	2 × 5.5	2 × 8.6		1869000
	16500	574	2 × 5.5	2 × 8.6		2032000

Hot House Unit Heater

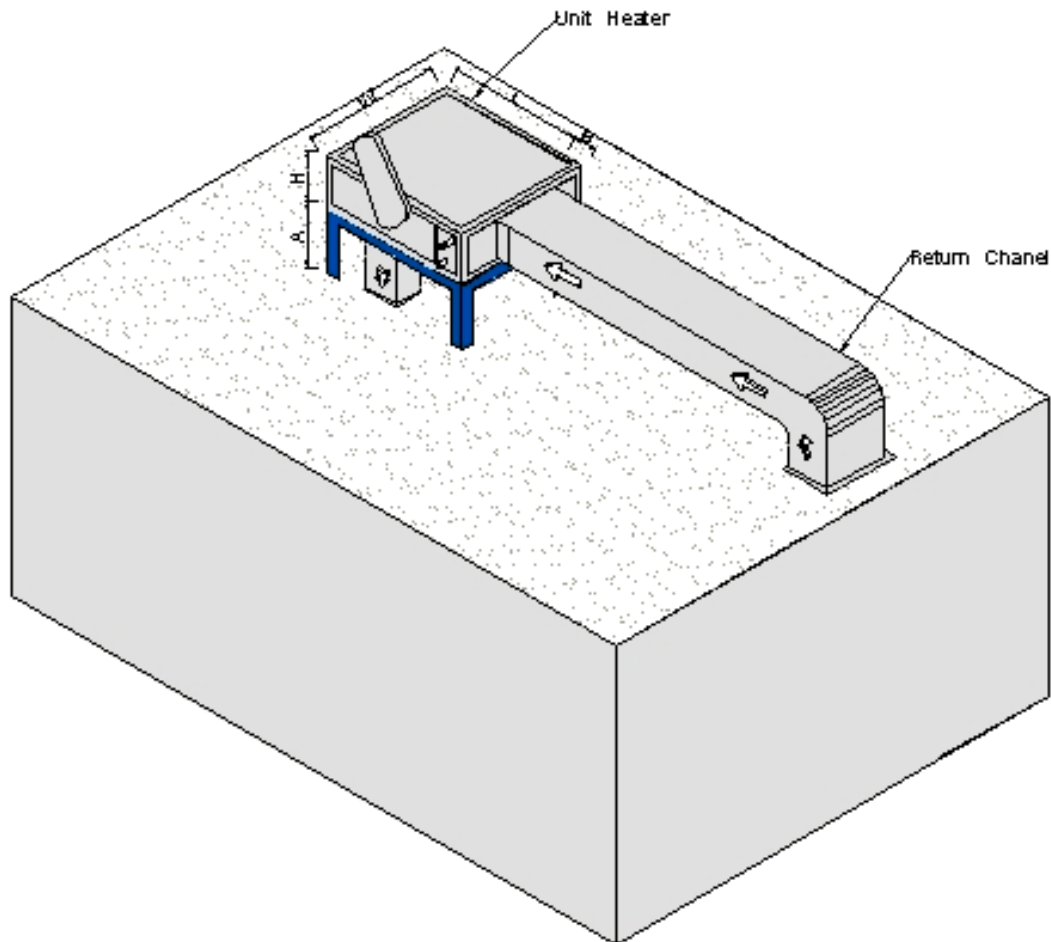


Table 16		Dimensions					
MODEL		L	W	H	A	B	
TU	50-40 W - S	750	650	700	300	No. of Row 1 2 3	Coil With 100 150 180
TU	40-50 W - S	800	750	800	300		
TU	50-50 W - S	800	750	800	300		
TU	50-60 W - S	850	800	800	300		
TU	60-60 W - S	850	800	800	300		
TU	60-75 W - S	1000	900	900	300		
TU	75-75 W - S	1100	1000	950	300		
TU	90-90 W - S	1250	1150	1100	300		
TU	90-90 W - S	1300	1200	1100	300		
TU	100-100 W - S	1600	1400	1300	300		

Note :

- All Dimensions in mm

Hot House Hot Water Unit Heater Ratings – 2 Row coil

Table 17

MODEL	Air flow CFM	BTU/hr	Water flow GPM	Fan Size	MOTOR	
					Power (HP)	Amps
TU 50-40 w	1500	150000	15	1 ×14"	0.5	0.78
TU 40-50 w	2000	198000	20	1 ×14"	0.5	0.78
TU 50-50 w	2500	248000	25	1 ×14"	0.75	1.18
TU 50-60 w	3000	299000	30	1 ×14"	0.75	1.18
TU 60-60 w	3600	358000	36	1 ×16"	1.5	2.3
TU 60-75 w	4500	448000	45	1 ×16"	1.5	2.3
TU 75-75 w	5500	547000	55	1 ×18"	2	3.15
TU 90-90 w	6500	646000	65	1 ×19"	2	3.15
TU 90-90 w	8000	795000	80	1 ×19"	3	4.7
TU 100-100 w	10000	994000	100	1 ×22"	4	6.3

Hot House Hot Water Unit Heater Ratings – 3 Row coil

Table 18

MODEL	Air flow CFM	BTU/hr	Water flow GPM	Fan Size	MOTOR	
					Power (HP)	Amps
TU 50-40 w	2000	237000	24	1 ×14"	0.5	0.78
TU 40-50 w	2500	297000	30	1 ×14"	0.75	1.18
TU 50-50 w	3200	381000	39	1 ×14"	0.75	1.18
TU 50-60 w	4000	475000	48	1 ×14"	1.5	2.3
TU 60-60 w	4600	547000	55	1 ×16"	1.5	2.3
TU 60-75 w	5500	654000	66	1 ×16"	2	3.15
TU 75-75 w	6800	808000	81	1 ×18"	2	3.15
TU 90-90 w	8000	950000	96	1 ×19"	3	4.7
TU 90-90 w	9000	1069000	108	1 ×19"	4	6.3
TU 100-100 w	11000	1307000	132	1 ×22"	5	8.6

Hot House Steam Unit Heater Ratings – 1 Row coil

Table 19						
MODEL		Air flow CFM	BTU/hr	Fan Size	MOTOR	
					Power (HP)	Amps
TU	50-40 S	2000	200000	1 ×14"	0.5	0.78
TU	40-50 S	2500	252000	1 ×14"	0.75	1.18
TU	50-50 S	3000	300000	1 ×14"	0.75	1.18
TU	50-60 S	3800	382000	1 ×14"	1.5	2.3
TU	60-60 S	4500	452000	1 ×16"	1.5	2.3
TU	60-75 S	5400	544000	1 ×16"	2	3.15
TU	75-75 S	6500	655000	1 ×18"	2	3.15
TU	90-90 S	8200	823000	1 ×19"	3	4.7
TU	90-90 S	10000	1000000	1 ×19"	4	6.3
TU	100-100 S	12000	1200000	1 ×22"	5.5	8.6

Hot House Steam Unit Heater Ratings – 2 Row coil

Table 20						
MODEL		Air flow CFM	BTU/hr	Fan Size	MOTOR	
					Power (HP)	Amps
TU	50-40 S	2500	308000	1 × 14"	0.75	1.18
TU	40-50 S	3200	393000	1 × 14"	1.5	2.3
TU	50-50 S	3900	480000	1 × 14"	1.5	2.3
TU	50-60 S	5000	615000	1 × 14"	2	3.15
TU	60-60 S	5500	678000	1 × 16"	2	3.15
TU	60-75 S	7000	861000	1 × 16"	3	4.7
TU	75-75 S	8000	984000	1 × 18"	3	4.7
TU	90-90 S	9500	1169000	1 × 19"	4	6.3
TU	90-90 S	12000	1477000	1 × 19"	5.5	8.6
TU	100-100 S	14000	1724000	"221 ×	7.5	11.8

Model selection :

Once determined the minimum volume of the air to be circulated inside the environment and select the minimum number of units to install , the sizes and features of the units that better satisfy the installation necessities have to be pointed out in the tables . Generally it 's better to select the units working at normal ration speed .

Main tenancy rules :

Tahvieh Arya unit heaters are hydraulically and mechanically tested . for this reason , along working time is guaranteed without defect . The operating and the duration of the unit heaters can be improved and extended following a maintenance program as listed below .

Fan motor assembly :

In case of various interventions of the magnetic starter , measure the current absorption (Amp) and be sure that it 's not greater than the ratings of motor , the bearings are of self Lubricated closed type and don't require particular maintenance and lubrication. If they will result particularly noisy , please provide to their replacing , at the beginning of each working period , control that the blade is clean and without fouling on the both side ; on the contrary dismount the blade and put into a degreasing solution .

Heating coil :

At the beginning of each working period , it is necessary the cleaning of the exchanging coil by means of blowing with compressed air and or brushing . In case of presence of grease , wash the finned pack with a degreasing solution and pay attention to don't wet the motor and effect a well done drying of the exchanging coil before the starting . The necessary and frequency of the cleaning depends on the dust inside the environment where the unit heaters are installed . Generally the above maintenance are elected yearly before each winter season , during such maintenance , control the fixing screws , in motor mounting , blade and brackets , regarding the spare parts of the unit and the ratings of the motor.