



PROCESS COOLING
SOLUTIONS

TAEevn TECH

AIR-COOLED INDUSTRIAL CHILLERS WITH
SCROLL COMPRESSORS - R410A

NOMINAL COOLING CAPACITY 2-53 TONS



EVAPORATOR/TANK ASSEMBLY

The high-efficiency finned-coil evaporator installed inside the water storage tank allows higher flow rates, lower pressure drops and lower susceptibility to fouling than brazed plate type evaporators. The insulated, pressure-rated tank ensures a steady supply of cold process fluid as well as the flexibility to be operated as either an open or closed loop. This unique configuration makes the TAEvoTECH well suited for heavy industrial applications. Temperature and level sensors are included to protect the evaporator from freezing by interrupting the compressor operation in the event of a fault. The available non-ferrous option (stainless steel tank) makes the TAEvoTECH compatible with a wide variety of coolants.

PUMPS

Factory-installed centrifugal pumps include silicon carbide seals, and can be supplied with either 43 psig (P3) or 72 psig (P5) nominal head pressures. All pumps through model 161 feature stainless steel wetted parts. Larger models include cast iron casings. Duplex (redundant) pumps are available for models 381-802 with automatic time-based switching, and in the event of an alarm.

COMPRESSORS

Scroll compressors are mounted on rubber antivibration dampers and include protection against high temperature and excessive current, resulting in reduced energy consumption and a long service life.

CONDENSING SECTION

Standard micro-tube condensers provide enhanced performance with less refrigerant volume. For models 020 through 602, the air-cooled condenser is installed on one side only, minimizing footprint requirements. For all units the air plenum is an isolated section allowing for troubleshooting during operation. Cleanable, aluminum condenser air filters/hail guards are standard from model 031.

STRUCTURE

The heavy-duty cabinet has galvanized carbon steel panels protected by an epoxy polyester powder coating in light gray (RAL 7035). The design of the base allows easy handling with a forklift or with lifting bars.

ELECTRICAL PANEL

The chiller control section includes an interlocked main door switch to prevent access while power supply is on. A control power transformer is included providing single-point power connection. Electrical panel equipment is UL508a compliant with a protection level of IP54. The chiller is tested for electromagnetic compatibility in accordance with applicable EMC standards. The standard phase monitor provides protection against phase loss and reversal.



TAEvoTECH	MODEL	020	031	051	081	101	121	161	201	251	301	351	381	401	402	502	602	702	802
Cooling capacity (1)	Tons	2.0	3.2	4.6	7.6	9.2	11.7	13.3	15.1	16.8	20.0	22.3	27.5	30.4	31.1	36.2	39.9	46.1	53.5
Absorbed power (1)	kW	3.0	4.3	6.1	9.9	11.9	14.6	17.5	19.7	23.9	25.9	32.9	34.9	39.9	40.4	46.3	53.0	62.3	71.8
Flow rate (1)	gpm	4.8	7.7	10.9	18.2	22.1	27.9	31.7	36.2	40.2	47.7	53.3	65.7	72.7	74.4	86.6	95.4	110.2	128.0
Cooling circuits	N°	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
Compressors per circuit	N°	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
Power	V/PH/Hz	460/3/60 (optional 230/3/60)								460/3/60									
Fans	N°	1	1	1	1	2	2	2	2	2	3	3	2	2	2	2	2	3	3
Fan power (each)	kW	0.45	0.76	0.76	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total airflow	cfm	2,470	4,530	3,590	5,825	9,945	9,415	11,535	11,415	15,625	15,625	25,662	24,367	25,895	25,070	24,285	43,967	42,378	
Pump power P3 (43 psig)	kW	0.8	0.8	0.8	0.9	0.9	1.9	1.9	1.9	1.9	2.2	2.2	4.0	4.0	4.0	4.0	4.0	5.5	5.5
Pump power P5 (72 psig)	kW	1.5	1.5	1.5	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	7.5	7.5	7.5	7.5	7.5	11.0	11.0
Tank volume	gal	16	30	30	37	67	67	67	93	93	93	93	108	108	132	132	132	179	179
Water connections	NPT	3/4"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"	3"
Sound pressure (@ 10m)	dB(A)	53.9	54.6	55.7	55.9	57.0	56.2	57.1	59.2	59.1	60.6	60.3	63.0	65.2	64.5	64.6	64.3	64.4	65.6
Width	inch	22	26	26	30	30	30	30	34	34	34	34	45	45	49	49	49	49	49
Length	inch	50	52	52	73	73	73	73	89	89	89	89	110	110	130	130	130	139	139
Height	inch	31	55	55	57	57	57	57	81	81	81	81	82	82	85	85	85	85	85
Weight (installed)	lbs	470	721	772	1,088	1,439	1,455	1,490	2,161	2,344	2,379	2,403	3,140	3,328	3,821	3,929	4,008	5,048	5,092

(1) @ nominal conditions of 55°F water inlet, 45°F water outlet & 95°F ambient air temperatures



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