Now With Polyethylene Reservoir

CENTRAL CHILLERS

TITAN® SERIES

- 80-200 Tons
- Water-Cooled

TI-120W shown with optional standby pump

TITAN® central chillers combine a multizone refrigerant chiller with a large capacity pump tank station. **TITAN®** is engineered specifically for the industrial process environment.

PROCESS TEMPERATURES:
- 20°F to 65°F

AVAILABLE CAPACITIES:
- 20 to 200 tons (80-200 tons listed here)

AVAILABLE PROCESS PUMP HP:
- 15 to 40

AVAILABLE PROCESS PUMP GPM:
- 60 to 600

STANDARD DIMENSIONS:
- 112” x 126” x 120” (HxWxD)

The **TITAN®** refrigerant circuits include discus reciprocating, hermetic scroll, or rotary screw compressors, tube and shell evaporators, capacity control system, and water cooled condensers with regulator valves. The non-ferrous polyethylene pump tank station includes process and evaporator pumps, suction and discharge service valves and flow safety switches. An optional standby pump with manifold is available.

CUSTOM DESIGNS... if one of our standard models does not fit your application, then we can design a custom unit that will.

FEATURES - AT A GLANCE

- Multizone microprocessor control instrument
- Pump tank and central chiller package
- Delivered ready to run - not a kit
- Refrigerant and coolant pressure gauges
- Dual pump circuit
- Optional standby pump and manifold
- Automatic reservoir tank make-up
- 1 year parts and labor warranty

ADVANTAGE® MAKING WATER WORK™

Information on all ADVANTAGE water system products is available on our website at: **www.AdvantageEngineering.com**

SPECIFICATIONS

TITAN® WATER-COOLED SPECIFICATIONS		*TI-80W*	*TI-90W*	*TI-100W*	*TI-105W*	*TI-120W*	*TI-120W*	*TI-150W*	*TI-180W*	*TI-200W*
COMPRESSOR	Quantity	2	3	2	3	2	3	3	3	3
	Capacity[5]	85.2	90	112	108.6	124	127.8	168	186	198
	Type[6]	D	SC	S	D	S	D	S	S	S
PUMPS[1]	Process HP	15	15	15	15	13.0	20	20	25	25
	Process GPM	205	216	269	261	290	307	405	450	450
	Process PSI	75	74	65	65	68	67	58	62	62
	Evaporator HP	5	5	7.5	7.5	7.5	7.5	10	15	15
	Evaporator GPM	205	216	269	261	298	307	405	450	475
CONNECTION	Process (to/from)	4	4	4	4	4	4	6	6	6
SIZES (inches)	Make-Up	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
	Overflow	4	4	4	4	4	4	4	4	4
	Condensing	4	4	4	4	4	4	6	6	6
CONDENSING WATER	City	128	128	168	163	186	192	252	279	300
REQUIREMENTS[2]	Tower	256	255	336	326	372	384	504	558	600
FULL LOAD[3]	230 Volt	341.2	384	335	378.2	502	495.2	500	760	860
AMPERAGE@3ø/60hz[4]	460 Volt	170.6	192	167	189.1	251	247.6	240	380	430
	575 volt	136.5	155	134	151.3	201	198.1	200	305	325
REFRIGERANT	Type HCFC	22	22	22	22	22	22	22	22	22
TANK CAPACITIES	Operating	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
	Holding	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
DIMENSIONS (inches)	Height	112	112	112	112	112	112	112	112	112
	Width	126	126	126	126	126	126	126	126	126
	Depth	120	120	120	120	120	120	120	120	120
WEIGHTS (pounds)	Shipping[7]	7,300	7,505	7,505	7,805	8,705	9,600	10,600	11,500	11,500
	Operating	18,000	17,305	18,705	19,025	19,905	20,820	21,820	22,700	22,700

Notes: 1. Consult FYI #4-C-38 for pump curves. **2.** Flow (GPM) rate is based on 60°F city, 85°F tower at 20 PSI with a clean condenser. **3.** No allowance for inrush. Service disconnect by owner. Full Load amps are higher and must be used for sizing disconnects and supply wiring. **4.** Consult factory for 50hz operation. **5.** Tons capacity at 12,000 BTU/ton @ 50°F LWT @ 105°F condensing temperature. Capacities may be +/- 5% as reserved by the compressor manufacturer. Capacity multipliers are 50°F - 1.00; 40°F - .80; 30°F - .60; 20°F - .40. The minimum recommended operating temperature when no glycol is used is 48°F. Selection of optional pumps for higher flow rates will raise the minimum recommended operating temperature when no glycol is used. **6.** D = discus compressor, S = screw compressor, SC = scroll compressor. **7.** Unit weight crated for shipment. Unit shipped in two pieces. Basic field assembly required.

OPTIONS

TANK CONSTRUCTION
- Special paint
- Epoxy coated steel tank
- Stainless steel tank

REFRIGERANT CIRCUIT
- Compressor CPR valve
- Compressor hour meter

COOLANT CIRCUIT
- Larger process pumps
- Standby pumps and manifold

INSTRUMENTATION
- Remote display kit
- PLC with touch screen interface

WARRANTIES:
- Extended compressor warranty

ELECTRICAL:
- UL listed electrical panel
- Power disconnects

STANDARD FEATURES

TANK CONSTRUCTION:
- Seemless, rotationally molded, non-rusting polyethylene
- Tank insulation
- Drain valve
- Overflow port
- Hot/cold section partition (baffle)
- Structural base
- Automatic water-level control
- Pump decking
- Spare pump ports
- Hinged tank lid

REFRIGERANT CIRCUITS
- Hermetic scroll, semi-hermetic discus or rotary screw compressors:
  - suction service valve
  - discharge service valve
- Water-cooled condenser
  - regulator valve
  - manifolded with isolation valves
  - removable heads
- Liquid line solenoid valve
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Shell & tube evaporator
- Hot gas by-pass capacity control system on 80, 90, 105 and 3 circuit 120 ton models
- Unloading on 2 circuit 100 and 120 ton models, and 3 circuit 150, 180 and 200 ton models

COOLANT CIRCUIT
- Large capacity process pump:
  - suction service valve
  - discharge service valve
- Evaporator pump:
  - suction service valve
  - discharge service valve

LIMIT DEVICES (per zone)
- Refrigerant circuit:
  - high pressure
  - low pressure
- evaporator flow
- Coolant circuit:
  - pump motor overload
  - coolant freezestat
- Instrument control circuit fuse

PRESSURE GAUGES (per zone)
- Refrigerant high pressure
- Refrigerant low pressure
- Coolant pressure

ELECTRICAL:
- Nema rated electrical cabinet
- Fused pump starter
- Fused compressor starter
- Fused transformer
- Power entry terminal block

WARRANTY:
- 1 year on parts and labor
- 2nd year complementary preventative maintenance visit

CHILLER CONTROL INSTRUMENT:
- Microprocessor based multizone controller
- Intelligent zone boards
- Each compressor staged individually
- Large temperature display in °F or °C for *to* and *from process*
- Large setup display
- Refrigerant circuit indicators per zone: *probe, low flow, high pressure, low pressure, compressor, freezestat, capacity*
- Water circuit indicators: *temperature deviation, low pressure, tank level, flow, probe, phase*
- SPI communications interface
- Selectable lead/lag mode
- Audible and visual alarm

THE TITAN® WARRANTY... a full one year parts and labor warranty with a second year free service 'check-up'. Refer to bulletin ADV-205 for complete warranty details. The **ADVANTAGE** service department is staffed with experienced technicians, and supported by a network of independent service contractors. With **ADVANTAGE**, service is only a phone call away.

ADVANTAGE® MAKING WATER WORK™ since 1977

ADVANTAGE PRODUCTS: TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

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