

Now With
Polyethylene
Reservoir

CENTRAL CHILLERS

TITAN® SERIES

- 80-180 Tons
- Air-Cooled



TI-120A shown with optional standby pump and remote air-cooled condenser.



TITAN Instrument

FEATURES - AT A GLANCE

- Microprocessor controller
- Polyethylene pump tank and central chiller package
- Refrigerant and coolant pressure gauges
- Dual pump circuit
- Automatic reservoir tank make-up
- 1 year parts and labor warranty

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

PROCESS TEMPERATURES:
• 20°F to 65°F

AVAILABLE CAPACITIES:
• 20 to 180 tons (80-180 ton 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 disc reciprocating or rotary screw compressors, tube and shell evaporators, capacity control system, and remote air-cooled condensers. 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.



SPECIFICATIONS

TITAN [®] SPECIFICATIONS		TI-80A	TI-90A	TI-100A	TI-105A	TI-120A	TI-120A	TI-150A	TI-180A
COMPRESSOR	Quantity	2	3	2	3	2	3	3	3
	Capacity ⁹	80	90	105	102.3	124	120	158	186
	Type ¹⁰	D	SC	S	D	S	D	S	S
PUMPS ¹	Process HP	15	15	15	15	20	20	20	25
	Process GPM	192	216	252	245	300	288	380	450
	Process PSI	75	74	65	65	68	68	58	62
	Evaporator HP	5	5	7.5	7.5	7.5	7.5	10	15
	Evaporator GPM	192	216	252	245	300	288	380	450
CONNECTION SIZES (inches)	Process (to/from)	4	4	4	4	4	4	6	6
	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
	Overflow	4	4	4	4	4	4	4	4
FULL LOAD ^{2,3}	230 Volt	341.2	384	335	378.2	502	495.2	500	760
AMPERAGE @3ø/60hz ⁴	460 Volt	170.6	192	167	189.1	251	247.6	240	380
	575 volt	136.5	155	134	151.3	201	198.1	200	305
REFRIGERANT ⁵	Type HCFC-	22	22	22	22	22	22	22	22
TANK CAPACITIES (gallons)	Operating	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
DIMENSIONS (inches)	Height	112	112	112	112	112	112	112	112
	Width	126	126	126	126	126	126	126	126
	Depth	120	120	120	120	120	120	120	120
WEIGHTS (pounds)	Shipping ¹¹	7,300	7,505	7,505	7,805	9,600	8,705	10,600	11,500
	Operating	18,000	17,305	18,705	19,025	20,820	19,905	21,820	22,700
REMOTE AIR-COOLED CONDENSER									
CONNECTIONS ⁶	Liquid / Hot Gas	2@2 1/8	2 1/8 ¹³	2 1/8 ¹²	2 1/8 ¹³	2 5/8 ¹²	2 1/8 ¹³	2 1/8 ¹³	2 5/8 ¹³
AIR FLOW ⁷	Fan Quantity	6	3	4	3	5	4	4	5
FULL LOAD	230 volt	42.0	21.0	28.0	21.0	35.0	28.0	28.0	35.0
AMPERAGE ⁸ @3ø/60hz ⁴	460 Volt	21.0	10.5	14.0	10.5	17.5	14.0	14.0	17.0
	575 Volt	16.8	8.4	11.2	8.4	14.0	11.2	11.2	14.0
DIMENSIONS (inches)	Height	50	50	50	50	50	50	50	50
	Width	88	45 1/2	42 1/2	42 1/2	42 1/2	42 1/2	42 1/2	42 1/2
	Depth	180	180	235	180	290	235	235	290
WEIGHT(pounds)	Shipping	2,690	1,280	1,760	1,300	2,225	1,690	1,760	2,225

Notes: 1. Consult FYI #4-C-38 for pump curves. 2. No allowance for inrush. Service disconnect by owner. 3. Full Load amps are higher than run load amps and are used to size disconnects & supply wiring. 4. Consult factory for 50hz operation. 5. Field charging required. 6. Field installation and piping connection of condenser by owner. 7. Vertical air discharge from condenser. 8. Full load amperage shown for single condenser unit. Some models use multiple condenser units. 9. Tons capacity at 12,000 BTU/ton @ 50°F LWT @ 115°F condensing temperature. Capacities may be +/- 5% as reserved by the compressor manufacturer. Capacities 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. 10. D = discus, S = screw, SC = scroll. 11. Unit weight crated for shipment Unit shipped in 2 pieces. Basic field assembly required. 12. Requires two condenser units. Specifications shown for single unit. 13. Requires three condenser units. Specifications shown for single unit.

OPTIONS

TANK CONSTRUCTION:

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

REFRIGERANT CIRCUIT:

- Compressor CCPR 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:

- Seamless, 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
- Air-cooled condenser:
 - remote, outdoor condenser
 - variable speed fans
 - pressure staging
- Refrigerant receiver
- Liquid line solenoid valve

- Oil separator on 3 circuit 80, 90, 105, 120 models
- Shell & tube evaporator
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Hot gas by-pass capacity control system on 80, 90, 105 and 3 circuit 120 ton models
- Unloading on 2 circuit 100 & 120 ton models, and 3 circuit 150 & 180 ton models

COOLANT CIRCUIT:

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

PRESSURE GAUGES (per zone):

- Refrigerant high pressure
- Refrigerant low pressure
- Coolant pressure gauge

ELECTRICAL:

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

LIMIT DEVICES (per zone):

- Refrigerant circuit:
 - high pressure limit
 - low pressure limit
 - evaporator flow limit
- Coolant circuit:
 - pump motor overload relay
 - coolant freezestat
- Instrument control circuit fuse

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.



since 1977

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

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