

## SELF-CONTAINED INDOOR AIR-COOLED CHILLERS

**Self-Contained Indoor Air-Cooled Chillers (AP Series)** with capacities from 13 to 34 nominal tons requiring fluid temperatures from +20°F to +60°F are designed to deliver accurate, reliable and efficient process cooling for a variety of industries including chemical, energy, food, medical, pharmaceutical, plastic, rubber, tire and semiconductor.

**The Self-Contained Indoor Air-Cooled Chiller is shipped completely wired, piped, tested and ready to install and features:**

- Copeland Semi-Hermetic Compressor
- Hot-gas bypass capacity control
- Steel-shell and copper-tube evaporator heat exchanger
- Aluminum-finned, copper tube condenser coil
- Condenser cooling via belt-driven squirrel-cage blower(s)
- Mild steel divided reservoir tank with external insulation and internal epoxy coating
- Liquid-level sightglass
- NEMA 1 rated electrical enclosure
- Control circuit step-down transformer
- Easily adjustable solid state construction temperature controller
- Allen Bradley IEC motor starter(s)/contactors
- High pressure refrigeration safety control
- Unit indicator lights and operating switches mounted in the enclosure door
- Freezestat
- Flowswitch

**The Self-Contained Indoor Air-Cooled Chillers (AP Series) are built for top performance and engineered for bottom line control.**

The AP Series chillers with a Programmable Logic Controller (PLC) provide maximum efficiency per square foot of plant space by incorporating a high-flow process water pump that minimizes process temperature gradients. Rapid payback and energy cost savings are achieved because of the top mounted discharge which connects the plant ventilation ducts to supplement facility heating in the winter months and increase ventilation in the summer months.

The Self-Contained Indoor Air-Cooled Chillers are engineered, designed and manufactured to take the heat in an industrial duty application and feature semi-hermetic compressors with cylinder unloading capacity control for precise temperature control and extended equipment service life under varying load conditions. The top quality non-proprietary components will stand up to your process and challenging plant environment. Each AP Series chiller is factory tested prior to shipping to ensure top quality.

Budzar Industries also designs and manufactures specialized equipment for non-standard applications. Our engineers have extensive experience in process chilling and heating applications for such industries as: chemical, defense, energy, extraction, food, medical, pharmaceutical, plastics, rubber, tire and, semiconductor. We take the time to understand your current and future needs and design solutions targeting high quality and fast payback.



### PROGRAMMABLE LOGIC CONTROLLER PROVIDES:

#### PROGRAMMABILITY

-Software may be customized, transferred from a personal computer and updated via programming key

#### DISPLAYED INSTRUMENTATION INFORMATION

- Pump discharge pressure and flow
- Compressor suction pressure, temperature and superheat
- Liquid refrigerant temperature and sub-cooling
- Evaporator inlet and outlet temperature
- Compressor pump status

#### CONTROLLER FUNCTIONS

- Selectable controlled parameter (supply or return temperature)
- Head pressure control via fan motor cyclone (air-cooled units)

#### HIGH TECHNOLOGY

- All alarm situation, values of the monitored parameters and the status of the controlled devices are saved for service/maintenance review
- Troubleshooting information is displayed when circumstances require assistance
- The controller identifies marginal operating conditions and adjusts chiller operation



### SELF CONTAINED AIR-COOLED INDOOR CHILLERS

#### OPTIONS AVAILABLE

- TEFC Motor
- NEMA 4
- Single Pump Design
- Automatic Water Bypass

Model		AP-1415	AP-1520	AP-2025	AP-2330	AP-3135	AP-3540
Capacity @ 50° LWT	Tons	13.7	15.3	20.0	23.1	31.0	34.5
Compressor	HP	15	20	25	30	35	40
Chiller Flow	GPM/PSI	46/17	50/20	64/21	75/17	99/18	110/21
Chiller Pump	HP	1.5	1.5	1.5	1.5	2.0	3.0
Process Flow	GPM/PSI	61/56	67/54	85/52	100/52	132/54	146/54
Process Pump	HP	5.0	5.0	5.0	7.5	7.5	7.5
Connections (NPT)							
Supply	Inches	2.0	2.0	2.0	2.5	3.0	3.0
Return	Inches	2.0	2.5	2.5	2.5	3.0	3.0
Blower Motor							
	HP	5.0	7.5	7.5	10.0	15.0	15.0
	CFM @ 0.25" H <sub>2</sub> O	12,000	15,000	16,000	19,400	26,000	26,000
Heat-Output @ Full Load	BTU/HR	234,400	256,300	329,100	389,200	514,000	569,500
Nameplate Amps @ 460/3/60		46.8	54.2	62.6	74.6	97.9	107.3
Holding Tank size	GALLONS	110.0	110.0	180.0	180.0	220.0	220.0
Operating Weight (Approx)	LBS	3,100	3,200	5,100	5,300	6,000	6,000
Dimensions							
Length	Inches	94.3	94.3	110.3	110.3	130.0	130.0
Width	Inches	66.8	66.8	70.8	70.8	77.0	77.0
Height	Inches	97.0	97.0	97.0	97.0	97.0	97.0
Shipping Weight	LBS	2,200	2,300	3,500	3,800	4,100	4,300

All data based upon standard rating condition of cooling water from 56° to 50° (6 °ΔT) with 95°F ambient air entering condenser.

Budzar Industries reserves the right to discontinue or change specifications without notice, consistent with sound engineering practice and current industrial standards.

#### UNITS AVAILABLE FROM BUDZAR INDUSTRIES



Low Temperature Process Chillers to -85°C



Clean Steam Sampling Cart



Standard and Custom Temperature Control Modules



Cold Storage Room



CIP Systems



Reactor Temperature Control Systems from -85°C to +200°C