1 - 30 Horsepower Indoor Units

Maximize Beer Production with Glycol Water Chillers

- **Fermentation Tank Cooling**
- **Conditioning Tank Cooling**
- **Storage Room Cooling**
- **Wort Cooling**

- Air-Cooled - Self Contained Package
- 1 - 30 Horsepower Models
- 20° - 70°F Adjustable Fluid Temperature
- Large Capacity Reservoir
- High Flow Pump
- Fully Factory Tested - Ready to Run

TBC Series
Indoor Glycol / Water Chillers

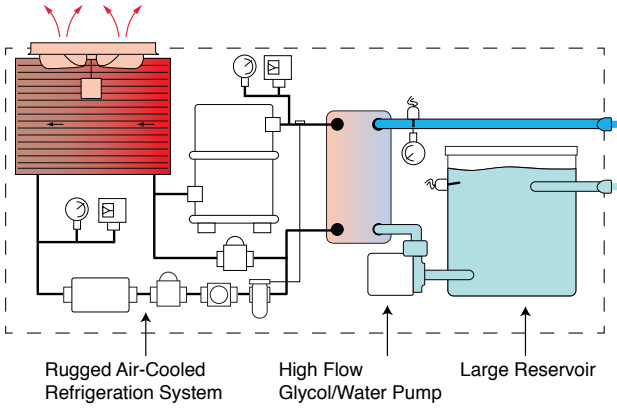
TEMPTEK®

Indoor Air-Cooled Chillers : 1 - 30 Horsepower

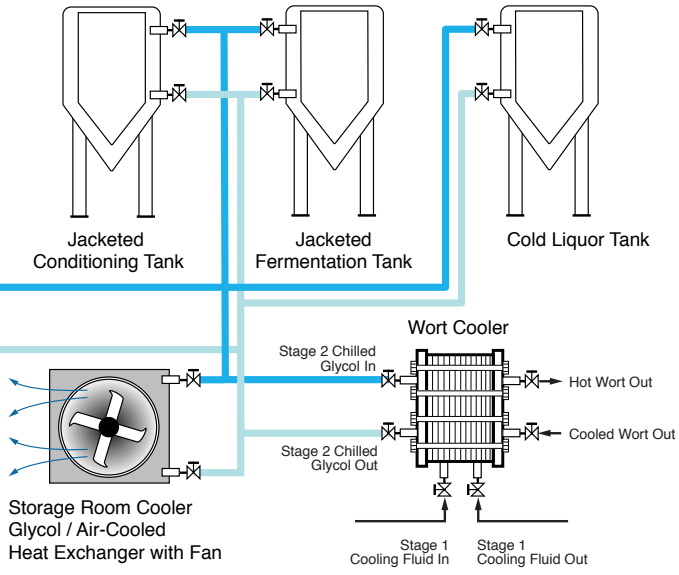
Temptek TBC Series air-cooled brewery chillers are designed to provide a glycol fluid temperature of around 25°F but have an operating range of 20°F to 70°F.

Air-cooled BC Series brewery chillers are purpose built for the unique requirements of breweries. Set up for low temperature operation and high flow, BC Series chillers are designed to cool fermentation tanks quickly to maximize production while keeping bright tanks at a steady temperature.

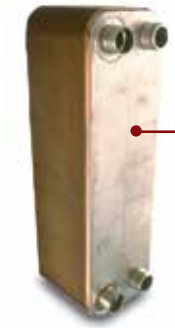
Temperature control is achieved by using a “tailor made” microprocessor control instrument designed and manufactured exclusively for the Temptek chiller. The control instrument maintains precise temperature control while protecting the system components. All gauges and control instrument information is conveniently located permitting instant diagnosis of performance.



Typical Applications for Glycol Chillers in Craft Brewing



Components



HIGHLY EFFICIENT EVAPORATORS... High efficiency stainless steel brazed plate evaporators are used in 2 - 30 HP models. Copper tube-in-tube evaporators are used in 1 - 1½ HP models. Non-ferrous construction prevents rusting.

HIGH PERFORMANCE COOLANT PUMPS... Brass positive displacement pumps are used in 1 to 1½ HP models. Centrifugal pumps are used in 2 - 30 HP models. All pumps are selected to provide turbulent flow to promote efficient heat transfer.

LIFETIME WATER RESERVOIR... All chillers include a non-rusting vented water reservoir sized to support the flow rate of the chillers. The reservoir helps provide a stable water temperature under varying load conditions.

Control Instruments

TBC Series Glycol Chillers are supplied with tailor made microprocessor control instruments that control and monitor all aspects of the chiller operation to assure accurate control and dependable operation. The controls are designed to support the specific and unique requirements of process cooling in an industrial environment. All Temptek tailor made microprocessor control instruments include a 4 year warranty. After the warranty period we'll repair your board for an economical fee should it require repair.

For chillers from ¼ to 1½ HP ... The standard chiller control for ¼ to 1½ HP TBC Series chillers provides basic temperature and machine status monitoring.

For chillers from 2 to 10 HP ... The standard chiller control for 2 to 30 HP BC Series chillers equipped with hot gas bypass capacity control, providing basic temperature and machine status monitoring.

For Chillers with Digital Scroll Compressors ... The standard chiller control for 5, 10 & 15 HP BC Series chillers is the "M1D" Control is provided on chillers using the Copeland Scroll Digital compressor.

FEATURES:

- Accurate control
- Large & Bright LED temperature display
- Digital Setpoint selection with soft touch keys
- Illuminated Chiller On / Off switch
- Compressor On light
- Basic chiller diagnostics with Refrigeration Fault light
- Capacity control light

Units with Digital Scroll Compressors include:

- Custom control software included to operate digital capacity control feature
- Provides energy efficient capacity modulation from 20 - 100%.

Standard Features

CONSTRUCTION:

- Stainless steel frame and enclosure panels (1 - 1½ HP models)
- Powder coated and galvanized steel frame with lift-off molded front panel (2 - 30 HP models)
- Casters for portability (all models)

REFRIGERANT CIRCUIT:

- Hermetic scroll compressor
- Finned tube air-cooled condensers with fan generated air flow
- Refrigerant sight glass with moisture indicator
- Thermostatic expansion valve
- Microprocessor controlled 50% hot gas by-pass capacity control system
- Microprocessor controlled 20-100% energy saving capacity modulation with Digital Scroll compressor on 5, 10 & 15 HP models.
- Copper tube-in-tube evaporator (1 - 1½ HP models)
- Stainless Steel Brazed Plate evaporator (2 - 30 HP models)
- Filter-drier
- Liquid line solenoid valve

PRESSURE GAUGES:

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

COOLANT CIRCUIT:

- Brass positive displacement pump (1 - 1½ HP models)
- High flow stainless steel centrifugal pump (2 - 30 HP models)
- Large capacity insulated non-ferrous reservoir
- Reservoir level sight tube
- Standard NPT process fittings
- Automatic low flow bypass circuit
- Manual fluid make-up.

LIMIT DEVICES:

- High refrigerant pressure
- Low refrigerant pressure
- Refrigerant pressure relief valve
- Process pump motor overload
- Instrument control circuit fuse

ELECTRICAL:

- Process pump motor starter
- Compressor contactor
- Fused transformer
- Power entry terminal block
- 5 kA RMS SSCR

WARRANTY:

- 1 Year covering parts and labor
- Free preventative maintenance check in the 2nd year
- 4 Years covering the control instrument

AIR-COOLED CONDENSER ... Finned tube condensers are used in all models. Propeller fans are standard in 1 - 30 ton models.

RUGGED COMPRESSORS ... Reliable scroll and digital scroll and reciprocating compressors provide long life and energy efficient operation.

REFRIGERANT COMPONENTS ... All refrigerant components used in Temptek chillers are selected for historic reliability and performance. Components include high & low pressure limit switches, expansion valve, relief valve, filter dryer and sight glass/moisture indicator.

Options

REFRIGERANT CIRCUIT:
- Centrifugal blower generated air flow for air-cooled condensers (5 to 10 HP)
- Tandem scroll compressors
- Outdoor units

COOLANT CIRCUIT:
- Overhead piping kit - prevents tank overflow when overhead piping is used
- No tank for gravity return applications
- Process line shut-off valves
- Larger process pump

ALARMS:
- Audible alarm
- Visual / audible alarm beacon

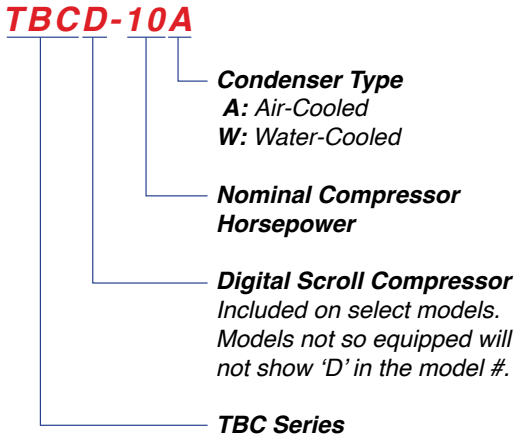
WARRANTY:
- Extended compressor warranty

ELECTRICAL:
- UL508A enclosed electrical panel
- Fused or non-fused power disconnect

Outdoor Units
- 5 - 210 Horsepower
  Designed for use in all types of climates.

Model Designator

Model Designator for TBC Series Portable Chillers



Specifications

MODEL TBC / TBG / TBGD[1]		1A	1.5A	2A	3A	3A	4A	5A	7.5A	10A	15AF	15AB	20AF	20AB	25A	30A
CONTROL	TYPE	CF	CF	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG
COMPRESSOR	HP	1	1.5	2	3	3	4	5	7½	10	15	15	20	20	25	30
	Type[2]	SC	SC	SC	SC	DSC	SC	DSC	SC	DSC	DSC	DSC	SC	SC	SC	SC
CAPACITY @ 25°F (LFT)	BTU/hr[3]	5,288	9,028	14,192	17,992	17,992	27,068	30,512	45,512	62,412	95,368	95,368	117,274	117,274	149,456	197,456
REFRIGERANT	Type	134A	134A	410A	410A	410A	410A	410A	410A	410A	410A	410A	410A	410A	410A	410A
PROCESS PUMP	HP	½	½	¾	¾	¾	¾	2	2	2	3	3	3	3	5	5
	GPM	2.4	3.6	4.8	7.2	7.2	9.6	12	18	24	36	36	48	48	60	72
	PSI	60	60	32	30	30	30	52	50	48	55	55	50	50	59	57
	Type[4]	P	P	C	C	C	C	C	C	C	C	C	C	C	C	C
	Construction[5]	B	B	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
CONNECTION SIZES (Inches NPT)	Process (To/From)	½	½	¾	1	1	1¼	1¼	1¼	1¼	2	2	2	2	2	2
AIR-COOLED	Type[6]	F	F	F	F	F	F	F	F	F	F	B	F	B	B	B
CONDENSER	CFM x 1000	.71	1.1	2	3	3	5	5	10	10	15	15	20	20	20	30
	S.P.[7]	--	--	--	--	--	--	--	--	--	--	1.35	--	1.35	1.35	1.35
	Ambient[8]	90	90	95	95	95	95	95	95	95	95	95	95	95	95	95
FULL LOAD[9]	230/1/60	16.2	20	24	33	33	45	56[12]	94	98	--	--	--	--	--	--
AMPERAGE	230 volt	--	--	17	23	23	24	34	51	56	86.6	87	92	103	148	184
	460 volt	--	--	8.5	11	11	12	18	26	28	43.3	44	46	51.5	74	92
	575 volt	--	--	--	7.5	7.5	9	14[12]	19	23	35	31	37	42	60	74
TANK CAPACITY	Holding	6	6	7½	7½	7½	25	25	25	25	65	65	65	65	65	65
(gallons)	Tank Lid[10]	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
DIMENSIONS	Height	38	38	30	43	43	60	60	60	60	65	96	66	96	96	96
(inches)	Width	24	24	37	34	34	34	34	34	34	58	58	59	58	58	58
	Depth	29	29	24	40	40	40	40	56	56	64	70	58	70	70	70
WEIGHT (pounds)	Shipping[11]	345	350	415	600	600	800	800	1,100	1,100	1,600	2,300	2,000	2,600	3,200	3,400

Notes

1. TBC = units with fixed displacement scroll compressors and CF control instrument. TBG = units with fixed displacement scroll compressors and CG control instrument. TBDG = Units with digital scroll compressors and CG control instrument.
2. SC = hermetic scroll. DSC = Copeland Digital Scroll™.
3. Capacity @ 25°F LFT, 95°F ambient and 115°F condensing. The minimum recommended operating temperature when no glycol is used is 48°F.
4. P = positive displacement. C = centrifugal.
5. B = brass. SS = stainless steel. C = cast iron.
6. F = fan. B = blower.
7. Static pressure in inches of water.
8. Design ambient conditions. Loss of capacity and/or difficulty operating will occur at higher ambient.
9. Full load amps are higher than run load amps and must be used for sizing disconnects and supply wiring.
10. S = standard. O = optional.
11. Approximate unit weight crated for shipment.
12. Single phase, 5 HP. Not available with digital compressor. Change model to BG-5A. Consult factory for single phase 7.5 & 10 HP models.

Since product innovation and improvement is our constant goal, all features and specifications are subject to change without notice or liability. Selection of certain optional features may change listed specifications.

Price & Performance ... for the Long Term Since 1989

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