



**Economical 2 - 10 Horsepower  
Outdoor Units**

# **Maximize Beer Production with Advantage Glycol/Water Chillers**

- **Fermentation Tank Cooling**
- **Conditioning Tank Cooling**
- **Storage Room Cooling**
- **Wort Cooling**
  
- **Air-Cooled - Self Contained Package**
- **2, 3, 5, 7.5 & 10 Horsepower Models**
- **20° - 70°F Adjustable Fluid Temperature**
- **Large Capacity Reservoir**
- **High Flow Pump**
- **Fully Factory Tested - Ready to Run**



**BG Series  
Outdoor Glycol / Water Chillers**

# Outdoor Air-Cooled Chillers : 2 - 10 Horsepower

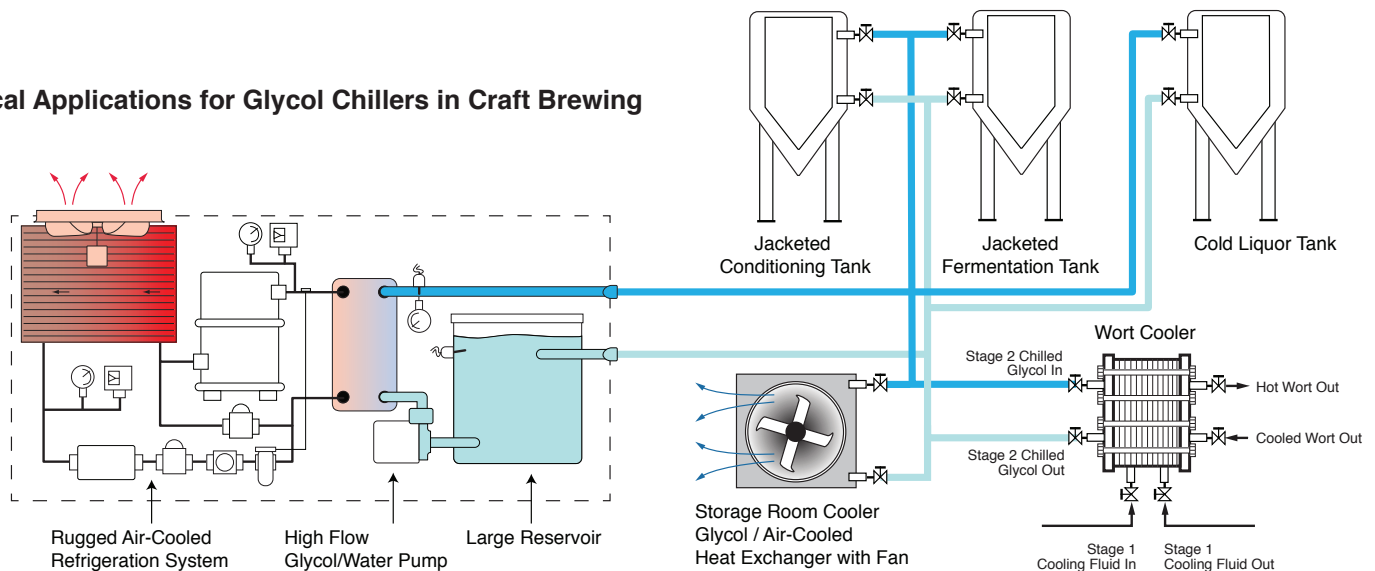
Advantage BG Series air-cooled brewery chillers are designed to provide a glycol fluid temperature of around 25°F but have an operating range of 20°F to 70°F.



Air-cooled BG Series brewery chillers are purpose built for the unique requirements of breweries. Set up for low temperature operation and high flow, BG 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 Advantage 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

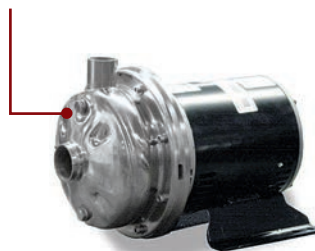


## Components



**HIGHLY EFFICIENT EVAPORATORS...**  
High efficiency stainless steel brazed plate evaporators are standard. The non-ferrous construction prevents rusting.

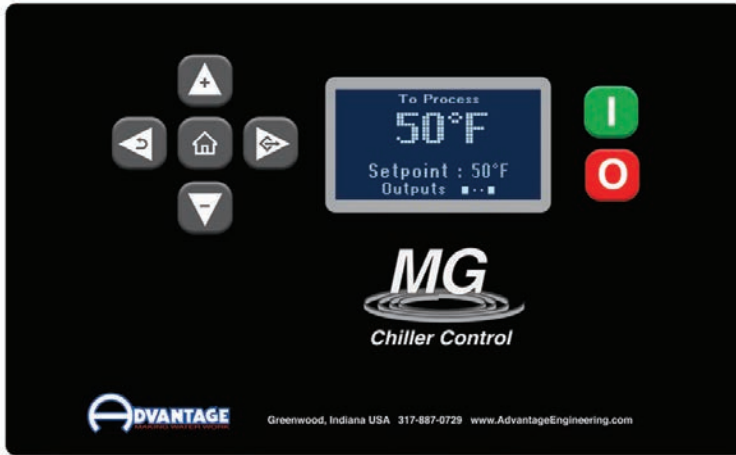
**HIGH PERFORMANCE COOLANT PUMPS...**  
Centrifugal pumps are standard. All pumps are selected to provide turbulent flow to promote efficient heat transfer.



**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 Instrument



BG 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 Advantage 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 2 to 40 tons:

- Graphical LCD Display
- Intuitive Navigation Six Menus Deep
- Primary Display of To Process Temperature, Setpoint and Outputs
- Setpoint Selection via Main Display or Menu
- Controls Hot Gas Bypass or Digital Scroll Compressor for Capacity Control
- Soft Key Buttons for Intuitive Navigation
- Soft Key Buttons for Power On and Off
- Plain Language Error Reporting
- Machine Status Indication via Outputs Display
- Capacity Control Indication via Outputs Display
- Digital Refrigerant Pressure Display
- Digital Water Pressure Display
- Alarm Output with Audible Signal
- Industry 4.0 Ready ... Modbus RTU or SPI Communication Included
- Modbus TCP Communication Optional
- High Water Temperature Shut Down Feature

## Standard Features

### CONSTRUCTION:

- Powder coated and galvanized steel frame with water tight electrical enclosure

### 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 3, 5, 7.5 & 10 HP models.
- Stainless Steel Brazed Plate evaporator

- Filter-drier
- Liquid line solenoid valve

### PRESSURE INDICATION:

- Refrigerant high pressure
- Refrigerant low pressure
- Coolant pressure

### COOLANT CIRCUIT:

- High flow stainless steel centrifugal pump
- 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:

- Water tight electrical enclosure
- Process pump motor starter
- UL508A enclosed electrical panel
- 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.

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



**REFRIGERANT COMPONENTS ...** All refrigerant components used in Advantage 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.

# Specifications

MODEL	BG / BGD <sup>1</sup>	2A	3A	3A	5A	7.5A	10A
COMPRESSOR	HP	2	3	3	5	7½	10
	Type <sup>2</sup>	SC	SC	DSC	DSC	DSC	DSC
CAPACITY @ 25°F (LFT)	BTH <sup>3</sup>	14,192	17,992	17,292	30,512	45,512	62,412
REFRIGERANT	Type	410A	410A	410A	410A	410A	410A
PROCESS PUMP <small>(stainless steel, centrifugal)</small>	HP	¾	¾	¾	2	2	2
	GPM	7.2	7.2	7.2	12	18	24
	PSI	30	30	30	52	50	48
CONNECTION SIZES	Process <small>(To/From)</small>	1" NPT	1" NPT	1" NPT	1¼" NPT	1¼" NPT	1¼" NPT
AIR-COOLED	Type <sup>4</sup>	F	F	F	F	F	F
CONDENSER	CFM x 1000	2	3	3	5	10	10
	Ambient <sup>5</sup>	95	95	95	95	95	95
FULL LOAD <sup>7</sup>	230/1/60 <sup>6</sup>	25	35	35	50	C/F	C/F
AMPERAGE	230 volt	17	20	20	34	60	56
	460 volt	8.5	10	10	17	30	28
	575 volt	--	--	--	14	19	23
TANK CAPACITY <small>(gallons)</small>	Holding	7	7	7	60	80	80
	Tank Lid <sup>8</sup>	S	S	S	S	S	S
DIMENSIONS <small>(inches)</small>	Height	40	45	45	61	61	61
	Width	32	34	34	34	46	46
	Depth	53	50	50	65	70	70
WEIGHT <small>(pounds)</small>	Shipping <sup>9</sup>	600	700	700	1,200	1,500	1,600

## Notes

- BG = units with fixed displacement scroll compressors. BGD = models with digital scroll compressors.
- SC = hermetic scroll. DSC = Copeland Digital Scroll™.
- BTH capacity at 12,000 Btu/hr/ton @ 25°F LFT. The minimum recommended operating temperature when no glycol is used is 48°F.
- F = fan.
- 95°F design ambient conditions. Loss of capacity and/or difficulty operating will occur at higher ambient.
- Single phase, 5 HP. Not available with digital compressor. Change model to BG-5A-N4. Consult factory for single phase 7.5 & 10 HP models.
- Full load amps are higher than run load amps and must be used for sizing disconnects and supply wiring.
- S = standard.
- Approximate unit weight crated for shipment.

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

## Options

### COOLANT CIRCUIT:

- Factory installed overhead piping kit – prevents tank overflow when overhead piping is used
- Process line shut-off valves
- Larger process pump

### ALARMS:

- Audible alarm
- Visual / audible alarm beacon

### WARRANTY:

- Extended compressor warranty

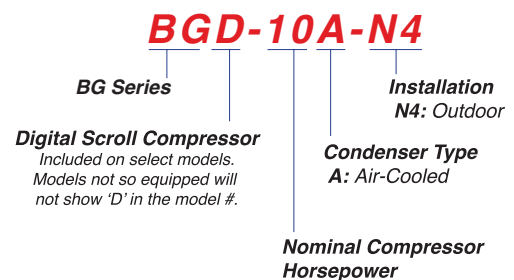
### ELECTRICAL:

- Fused or non-fused power disconnect
- MRC-1 remote control and display

Custom pipe sizing schematic included with chiller purchase.

**Visit our web site for a  
Quick Selection Guide**  
[www.AdvantageEngineering.com/BC](http://www.AdvantageEngineering.com/BC)

## Model Designator for BG-N4 Series Glycol Chillers



Phone: 317-887-0729 Web: [www.AdvantageEngineering.com](http://www.AdvantageEngineering.com)

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

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