

# DUAL-CIRCUIT WATER-COOLED CHILLERS

**Dual-Circuit Water-Cooled Chillers** use a separate evaporator and condenser for each compressor circuit. This dual circuit means that the refrigerant circuits are completely isolated from each other thereby ensuring that 50% of the unit capacity will ALWAYS be available in the unlikely event that one circuit should become inoperative.

**The Dual-Circuit Water-Cooled Chiller is essentially two chillers in one and features:**

- Semi-hermetic compressors
- Steel shell copper tybe type evaporator with removable heads
- Pressure relief valve
- Water regulating valve
- Steel shell copper tybe type condenserwith removable heads
- Liquid line solenoid valve
- Shut-off valve
- Digital PLC control and display
- Centrifugal chiller pump
- Centrifugal process supply pump
- Close coupled, EPDM Mechanical Seal
- Stainless steel impeller
- Epoxy coat tar coated steel reservoir
- Insulated reservoir
- NEMA 12 enclosure
- Non-proprietary components

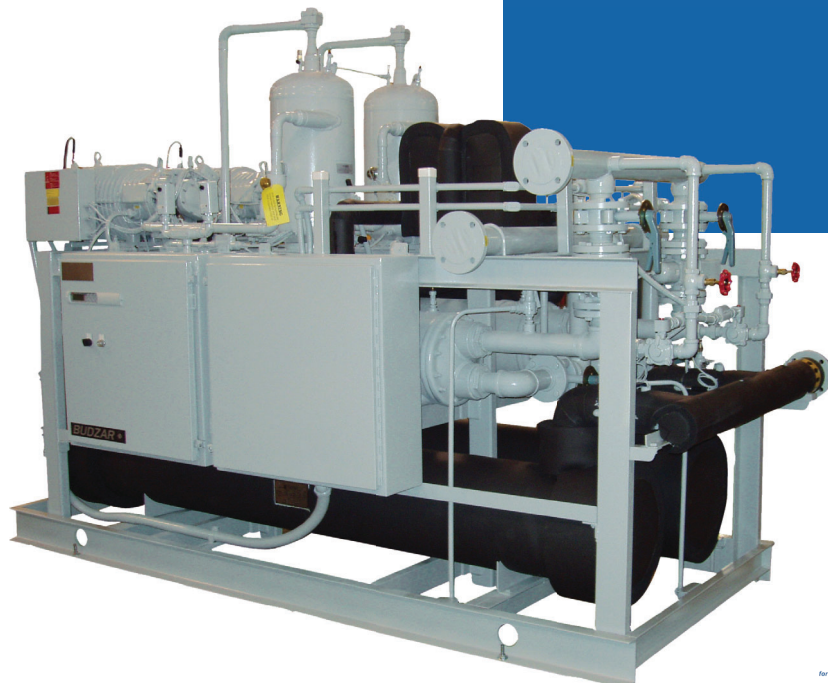
**The Dual-Circuit Water-Cooled Chiller** incorporates a completely redundant industrial duty chiller unit and pumping reservoir into a common skidded package. A semi-hermetic compressor is the “heart” of the twin refrigeration circuits. The compressors automatically adjust the capacity in response to your process load changes.

The pumping reservoir features two (2) recirculation pumps. The first is dedicated to the water supply to the chiller evaporator ensuring a proper flow through the chiller. The second pump is a “high-flow” that pumps at twice the rate of the chiller supply pump ensuring minimal gradients accross the process for enhanced product consustence and quality.

**Each Dual-Circuit Water-Cooled Chiller comes complete with:**

- Temperature range of 30°F to 70°F
- Separate evaporator and condenser for each compressor circuit
- First recirculation pump is dedicated to the water supply to the chiller evaporator
- Second recirculation pump is a “high-flow” that pumps at twice the rate of the chiller supply pump ensuring minimal temperature gradients
- Full complement of safety and operating controls with function status lights for “at-a-glance” monitoring
- Single-point power and water connections
- All motors, controls and pumps are factory wired and piped for user convenience
- All units are fully factory tested prior to shipment

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)

### 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



### DUAL CIRCUIT WATER-COOLED CHILLERS

#### OPTIONS AVAILABLE

- Hot Gas Bypass Solenoid and Modulating Valve
- Non-Fusible, through the door disconnect
- Finger-safe electricals
- Remote Operator Interface Terminal
- Soft Start

Model		GP-20D	GP-30D	GP-40D	GP-50D	GP-60D
Capacity	Tons	20.8	32.6	36.1	46.1	53.8
Compressors (2)	HP Each	7 1/2	15	20	25	30
Chiller Pump	HP	1 1/2	2.0	3.0	3.0	3.0
Chiller Flow	GPM/PSI	62 @ 15	93 @ 15	110 @ 15	140 @ 14	160 @ 12
Process Pump	HP	5.0	7 1/2	10.0	15.0	15.0
Process Flow	GPM/PSI	83 @ 52	125 @ 54	140 @ 51	190 @ 51	210 @ 55
Reservoir Size (ft)	2.5 x 5 x 3	2.5 x 5 x 4	2.5 x 5 x 4	3 x 6 x 4	3 x 6 x 4	3 x 6 x 4
Reservoir Volume	GAL	225.0	312.0	312.0	455.0	455.0
AMPS @ 460V	AMPS	46.2	66.6	78.8	95.8	131.6
MCA/MTDF	AMPS	51 / 60	74 / 90	87 / 100	106 / 125	145 / 175

Model		GP-70D	GP-80D	General Notes
Capacity	Tons	71.1	78.6	<ul style="list-style-type: none"> <li>• Capacities are listed as gross tons</li> <li>• Chiller flows are based on 8°F water delta</li> <li>• Process flows are based on 6°F water delta</li> <li>• For AMPS @ 230V, double the listed values</li> <li>• MCA = Minimum circuit ampacity</li> <li>• MTDf = Maximum time delay fuse</li> </ul>
Compressors (2)	HP Each	35	40	
Chiller Pump	HP	5.0	5.0	
Chiller Flow	GPM/PSI	204 @ 17	240 @ 13	
Process Pump	HP	15.0	20.0	
Process Flow	GPM/PSI	272 @ 54	320 @ 55	
Reservoir Size (ft)	Dimensions	3.5 x 6 x 5	3.5 x 6 x 5	
Reservoir Volume	GAL	680.0	680.0	
AMPS @ 460V	AMPS	140.8	161.6	
MCA/MTDF	AMPS	155 / 175	178 / 200	

All information based on 50°F leaving water temperature. For higher hoser power, consult factory.

#### 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