

# CENTRAL CHILLERS

## C Series REMOTE AIR-COOLED

- 80 to 200 Tons Capacity
- PLC Controls
- Totally Independent Refrigeration Circuits
- Brazed Plate Evaporator
- Expert Field Start-up Provided

The C series central chillers are pre-engineered, pre-piped, pre-wired and charged with refrigerant before shipment. We even provide plant piping schematics to assist in bidding, free of charge.

### MECHANICAL FEATURES

- Scroll compressor (20-60 ton units)
- Dual rotary screw compressor (80-200 ton units)
- One or Two totally independent refrigeration circuits
- Each compressor has an independent refrigeration circuit that is protected by an array of mechanical and electrical safety controls
- Brazed plate evaporators – provide lower cost per ton of cooling, offer increased resistance to costly freeze-up failures and are energy efficient
- Compressor staging for capacity control
- Lead/lag switch to alternate primary compressor
- In-line strainers
- (Optional) Single point connections for process water
- (Optional) Individually valved and manifolded evaporators
- Refrigerant sight glasses and liquid line filter driers with removable cores

### SAFETY FEATURES

- Solid state Freezestat switch
- Encapsulated high and low refrigerant pressure switches
- Fail safe flow switch interlocked with compressor



C100-AR shown

### ELECTRICAL FEATURES

- NEMA-1 electrical enclosure, mounted and pre-wired to chiller (20-60 ton units)
- NEMA-4 electrical enclosure, mounted and pre-wired to chiller (80-200 ton units)
- Operator Control Station (OCS) with 16-button interface and LCD display (20-60 ton units)
- PLC w/ HMI (standard on 80-200 ton units, optional on 20-60 ton units)
- Bright back-lit screen with 50° viewing angle
- Pre-programmed software for immediate chiller/system operation
- Four digit PIN for prevent unauthorized operation
- Optional modem for remote diagnostics
- Anti-cycle timer to prevent short-cycling of compressor
- Single point electric hookup

### WARRANTY

- 3 year PLC controller and HMI (optional on 20-60 ton units)
- 12 months parts/labor

## C-AR SERIES SPECIFICATIONS

	<b>C20-AR</b>	<b>C30-AR</b>	<b>C40-AR</b>	<b>C50-AR</b>	<b>C60-AR</b>
Cooling Capacity (tons)	19	29	38	48	57
Compressors, Qty-tons	2-10	2-15	4-10	2-10, 2-15	4-15
Steps of unloading	4	4	4	4	4
Evaporator flow, nominal design @ 50°F LWT (GPM)	46	70	92	116	137
Optional P1 process pump (HP)	5	7.5	10	10	10
Optional P2 chiller pump (HP)	1.5	2	2	3	3
Nameplate amps (460/3/60) without pumps	32	49	64	80	97
Nameplate amps (460/3/6) with P1 & P2 pumps	43	63	81	99	116
Dimensions, LxWxH without reservoir (in.)	48x48x66	48x48x66	84x50x66	84x50x66	84x50x66
Dimensions, LxWxH with 200 gallon reservoir (in.)	103x48x66	103x48x66	-	-	-
Dimensions, LxWxH with 425 gallon reservoir (in.)	127x48x66	127x48x66	132x48x66	132x48x66	132x48x66
Dimensions, LxWxH with 650 gallon reservoir (in.)	153x58x66	153x58x66	158x48x66	158x48x66	158x48x66
Shipping weight (Lbs.)	1,600	2,000	2,500	3,400	3,900
Shipping weight with 200 gallon reservoir (Lbs.)	3,100	3,500	-	-	-
Shipping weight with 425 gallon reservoir (Lbs.)	4,100	4,500	5,000	5,900	6,400
Shipping weight with 650 gallon reservoir (Lbs.)	4,600	5,000	5,500	6,400	6,900
Refrigerant discharge line from remote condenser (in.)	2-2 1/8	2-2 1/8	2-2 1/8	2-2 1/8	2-2 1/8
Refrigerant liquid line from remote condenser (in.)	2-1 1/8	2-1 3/8	2-1 3/8	2-1 3/8	2-1 3/8
Process manifold flange connection (in.)	2 NPT	2.5 NPT	2.5 NPT	3 FLG	3 FLG

	<b>C80-AR</b>	<b>C100-AR</b>	<b>C120-AR</b>	<b>C140-AR</b>	<b>C170-AR</b>	<b>C200-AR</b>
Cooling Capacity (tons)	73	92	111	141	155	189
Compressors, Qty-tons	2-40	2-50	2-60	2-70	2-85	2-100
Steps of unloading	Variable	Variable	Variable	Variable	Variable	Variable
Evaporator flow, nominal design @ 50°F LWT (GPM)	176	221	267	339	372	454
Nameplate amps (460/3/60)	158	207	245	306	351	412
Dimensions, LxWxH	108x64x73	105x64x73	105x64x73	106x70x79	106x70x79	106x70x79
Shipping weight (Lbs.)	4,600	5,100	5,500	6,500	7,000	7,500
Operating Weight (Lbs.)	4,900	5,400	5,900	7,000	7,500	8,000
Refrigerant discharge line to remote condenser (in)	2-2 1/8	2-2 1/8	2-2 1/8	2-2 1/8	2-2 1/8	2-2 1/8
Refrigerant liquid line from remote condenser (in)	2-1 1/8	2-1 3/8	2-1 3/8	2-1 3/8	2-1 3/8	2-1 5/8
Process manifold flange connection (in.)	4	4	4	6	6	6