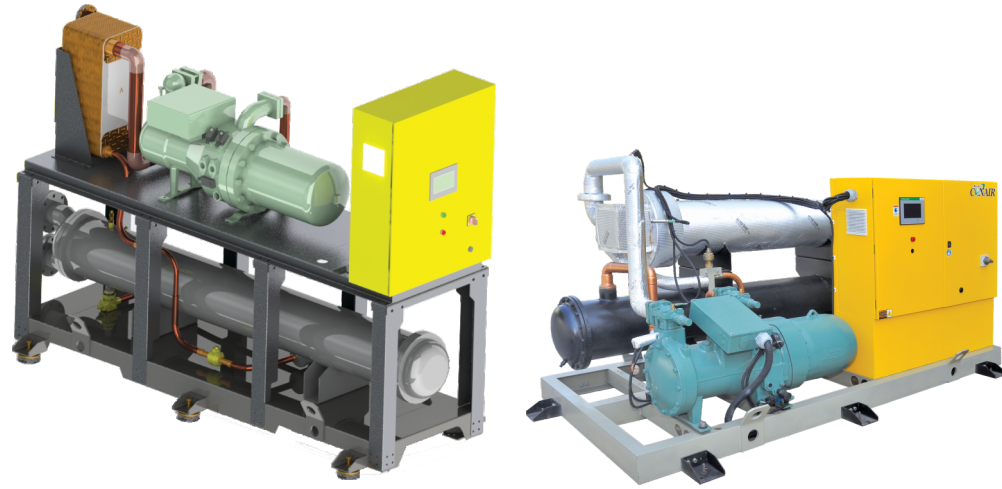


Screw Chiller

(Water Cooled Water Chiller)



Screw Chiller
(Water Cooled Water Chiller)
 Cooling Capacity from 30 TR to 200 TR
 Energy Efficient Central Chilling Plant.

Provide chilled fluid for industrial application from a central location with the Conair Water Cooled W-SK series central chillers.

Simple design of screw compressors provide both full load and part load efficiencies unmatched in the industry, and results in lower energy costs when compared to reciprocating compressors.

Unique Features

- Rugged compressor design with only four moving parts eliminating the need for pistons, connecting rod, wrist pins and valves. Less moving parts means less internal friction and greater efficiency
- Semi hermetic screw compressors with two shaft designs with suction and discharge solder connection, integrated check valve, integrated pressure relief valves, flanged on oil separator, oil heater, oil filter and oil sight glass
- All chilled water contact surfaces are non ferrous for protection against corrosion. All wetted surfaces are stainless steel, copper or other non ferrous material
- Small unit size, factory wired, easy lifting procedure, easy start up logic
- Stainless Steel Brazed Plate Heat Evaporator with option of Shell & Tube Evaporator designed for high surface area and rapid response (capacity up to 60 TR)
- Shell & Tube Evaporator with option of Stainless Steel Brazed Plate Evaporator designed for high surface area and rapid response (capacity of 75 TR and above)
- Strainer protects the evaporator from solid contaminations in the process water
- Flow switch is used to detect flow loss for safety of evaporator when return water flow is low
- Electronic expansion valve is used to regulate the flow of refrigerant in the evaporator as per the load of system to maintain the suction superheat
- Shell & Tube type water cooled condenser for Indian ambient condition with externally finned copper tube
- Removable cartridge type filter dryer to ensure moisture free system and quick change features
- Sight glass indicates the status of dry or moist system
- Pressure switch protects the compressor against low and high pressure
- Monitoring of suction and discharge refrigerant pressures
- Antifreeze protection to safe guard the evaporator & compressor against low temperature
- Option of eco friendly refrigerant (R134a) also available
- Helical screw design results in part load performance
- Only four moving parts when compared to reciprocating compressors; there are no pistons, connecting rods, suction and discharge valves or mechanical oil pump
- Latest heat transfer technology results in increased condenser and evaporator tube efficiency
- Reduced rotor clearance results in reduced leakage between the high and low pressure cavities during compression
- Resistant to liquid slugging; this compressor design can handle amounts of liquid refrigerant that would severely damage a reciprocating compressor
- Developed by Thermal Care – Group company of Conair Inc. USA
- Use of multiple Proportional Integral Derivative (PID) temperature control loops ensures consistent reliability, stability, and efficient operation by instantly reacting to fluctuations in system loads
- FULL Screen Display – a simplified view of Chiller with larger display of SETPOINT and PROCESS temperatures that can be seen from a distance provides a quick glance to validate the operation
- Clear language text display and graphic representation of unit components provides quick and easy understanding of unit operation
- Control on no. of ON / OFF cycle of compressor
- Controls and maintains stable and reliable operation of the chiller through use of an extensive array of sensors, actuators, relays, switches, and control algorithms
- User friendly screen for operator
- Common locations for most adjustment or settings
- Detailed description for each setting
- Process supply water above high temperature alarm set point
- Process supply water below low temperature alarm set point
- Status banner of start-up and shut-down sequences
- Compressor ON / OFF cycle control

Technical Specifications

Model	W40-SK-PT	WE40-SK-PT (R134a)	W55-SK-PT	WE55-SK-PT (R134a)	W65-SK-PT	WE65-SK-PT (R134a)	W75-SK-PT	WE75-SK-PT (R134a)	W90-SK-PT	WE90-SK-PT (R134a)	W100-SK-PT	WE100-SK-PT (R134a)	W125-SK-PT	WE125-SK-PT (R134a)	W135-SK-PT	WE135-SK-PT (R134a)	W175-SK-PT	WE175-SK-PT (R134a)	W250-SK-PT	WE250-SK-PT (R134a)	WE300-SK-PT (R134a)																	
Performance Characteristics																																						
Nominal Capacity * KW (TR)	153 (43)	130.9 (37.2)	191 (54)	159 (46)	229 (65)	179 (51)	259 (73.6)	206 (58.5)	316 (90)	268 (76.2)	358 (102)	283 (80.4)	414 (118)	335 (95.27)	476 (135)	413 (117.4)	623 (177)	504 (143.3)	788 (224)	576 (163)	678 (192)																	
Compressor Quantity / KW	1 / 33.3	1 / 24.7	1 / 38.4	1 / 27.7	1 / 42.1	1 / 33.8	1 / 47.5	1 / 38.5	1 / 57.6	1 / 46.3	1 / 65.8	1 / 52.9	1 / 88.8	1 / 56.5	1 / 107	1 / 70.5	1 / 115.3	1 / 86.1	1 / 139.5	1 / 97.6	1 / 110.5																	
Max. Power Input KW / Max. Current Amp-Comp	52 / 86	65 / 105	65 / 108	51 / 86	78 / 128	65 / 198	88 / 144	78 / 124	96 / 162	96 / 162	102 / 170	96 / 155	132 / 216	110 / 182	150 / 246	131 / 214	186 / 310	155 / 280	175 / 291	175 / 310	167 / 306																	
Refrigerant	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R22	R134a	R134a																	
Standard Evaporator Pump / Process Pump KW	5.5				7.5				11				15				22																					
Maximum Flow to Evaporator / Process LPM	480		645		960				1600				1380				2500				3300																	
Maximum Pressure Bar	5.6		4.4		4.8				2.8				4.8				4				4.5																	
Water Reservoir Capacity Liters	500				900				1200				2000																									
Dimension W x D x H (mm) - Main Unit																																						
W - Width	1000				1460				1750				1870																									
D - Depth	2700				2660				3000				3420																									
H - Height	2100				1400				1770																													
Dimension W x D x H (mm) - Pump Unit																																						
W - Width	1320				1450				1850				2000																									
D - Depth	1050				1320								1000																									
H - Height	1150				1330								1180																									
Process Connections																																						
Process Connections Inlet / Outlet – BSP - Inch	2.5" FLANGE				3" FLANGE				4" FLANGE				6" FLANGE				8" FLANGE																					
Condenser Water Cooling Capacity Require TR	55		65		90		70		100		90		125		140		125		165		175		225		330		185		280									
Condenser Water Flow Rate LPM	600 - 650		700 - 750		900 - 950		700 - 750		1300 - 1550		1550 - 1800		1650 - 1950		1550 - 1800		1750 - 2050		1850 - 2150		2600 - 2800		2400 - 2600		4154		1850 - 2050		3532									
Condenser Water Inlet / Outlet – BSP - Inch	3" FLANGE				4" FLANGE				6" FLANGE				8" FLANGE																									
Weight Kg																																						
Installed (NET)	1900				2100				2750				4500				2750				4500																	
Voltage																																						
Connected Load KW	57.5		70.5		56.5		85.5		72.5		95.5		85.5		107		103.5		109.5		103.5		139.5		117.5		161		144		201		165		190		189	
Control Voltage	24V DC																																					
Control Range in Degree Celsius	Plus (+) 8 to Plus (+) 25																																					
Utility	Require treated water with PH value in between 7.5 to 8.5, hardness less than 50 PPM, electrical conductivity <10-30 µS/ cm ²																																					
Color	Black RAL 9005 / Siemens Grey RAL 7032																																					

All specifications are subject to change without prior notice.

* Nominal capacity based at leaving water temperature of 15°C & condenser water temperature of 30°C.
 ** We can also provide pump & tank units suitable for above sizes of screw chillers.

Joint Venture with The Conair Group, USA
 A World Leader in Plastic Auxiliary Equipment Manufacturing



(An ISO 9001:2015 Certified Organization)

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