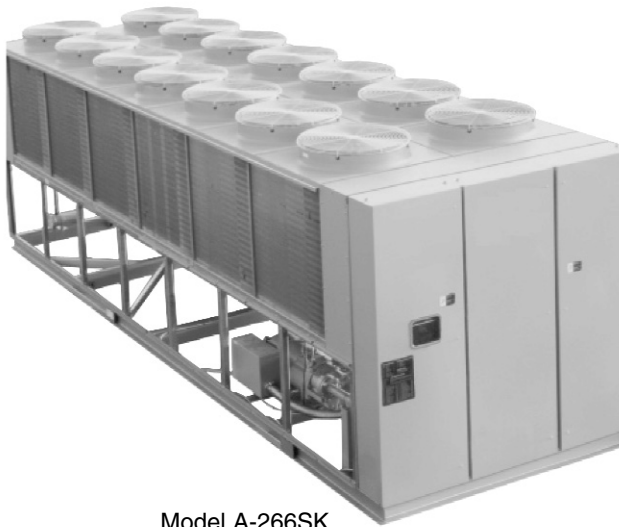


**AIR-COOLED MODELS A-156SK TO A-527SK**

Model A-266SK

## **DESIGNED TO PERFORM YEAR-ROUND**

The Conair Air-Cooled A-SK series Central Chillers are engineered to meet the most demanding needs of plastic processors. The modular microprocessor control coordinates the actions of the chiller and provides stand-alone operation of the unit. These chillers are space conscious – they can be positioned as close as 4 ft. {1.2 m} from a vertical wall.

### **CHILLING CAPACITIES FROM 156 TONS TO 527 TONS**

The Conair A-SK series air-cooled central chillers provide better control of process temperature, better reliability and greater efficiency. These chillers are designed for year-round applications in ambient conditions from 30°F to 115°F {-1°C to 46°C}.

Made of high strength cast iron, the screw compressor is designed for less thermal distortion, less leakage, and higher efficiencies. The variable unloader valve provides stable temperature control under varying loads.

The air-cooled chillers automatically shut down during a loss of flow to protect the evaporator from freezing.

Options include low ambient operation, louvered air intake, remote temperature setpoint, and extended compressor warranty.

- **High efficiency compressor**

The helical rotary compressor is a direct drive, low speed design with only four moving parts for high reliability and low maintenance.

- **Customized to fit your needs**

Conair has the central chiller to match your process. Pick nominal chilling capacities from 156 tons to 527 tons.

- **Suction gas-cooled motor**

The motor operates at lower temperatures for a longer motor life.

- **Rugged compressor design**

The screw compressor has only four moving parts eliminating the need for pistons, connecting rods, wrist pins and valves. Fewer moving parts means less internal friction and greater efficiency.

**FEATURES**

CENTRAL CHILLERS

**AIR-COOLED MODELS A-156SK TO A-527SK**

**Top air discharge**

Direct-drive condenser fans release air away from personnel, building.

**Evaporator**

Tube-in-shell evaporator is designed with seamless internally finned copper tubes, roller-expanded into tube sheets.

**Condenser**

Air-cooled condenser coils have aluminum fins mechanically bonded to seamless copper tubing.

**Suction gas-cooled motor**

Motor operates at lower temperatures for longer motor life.



**Dual refrigerant circuits**

Chillers have dual refrigerant circuits. Compressors are designed to handle liquid slugging.

**Helical rotary compressor**

Compressor has only four moving parts; direct-drive, low speed for high efficiency and high reliability.

**Heavy-gauge, galvanized steel panels**

Fourteen and sixteen gauge panels and access doors for support and strength. All are finished with heavy-duty paint.

**Weather-protected control**

Control has automatic compressor and condenser fan sequencing, load limiting, and anti-recycle functions.

**CONTROL**



**File Tabs**

advanced interface allowing the user to access set-points, active temperatures, modes, electrical data, pressures and diagnostics.

**LCD Display**

easy-to-read screen provides system information.

**Microprocessor Control with Human Interface Panel (HMI)**

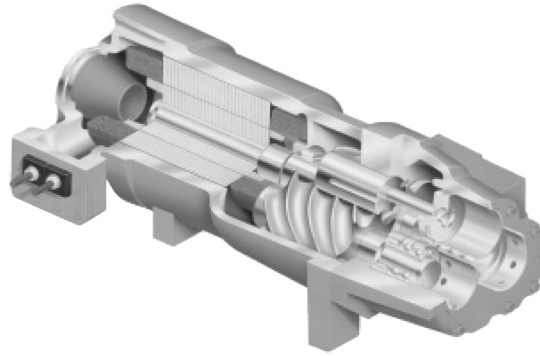
- designed to take corrective action to prevent unit shutdown.
- limit compressor operation with smart safety controls, avoiding compressor or evaporator failures.
- built-in chiller flow protection automatically detects no-water flow condition.
- improved chiller start-up, load limiting, compressor anti-recycle timing, and lead/lag functions.
- alarm diagnostic displays specific information for quick action.
- service menu offers easy troubleshooting by controlling all outputs individually.
- chiller capacity algorithm optimizes setpoint control and provides evaporator freeze protection.
- failure protections include loss of chilled solution flow, chiller freeze protection, chilled solution flow interlock, head pressure control, pump down control, and low ambient lockout.

**AIR-COOLED MODELS A-156SK TO A-527SK**

**HELICAL ROTARY SCREW COMPRESSOR**

**Helical screw design** results in part load performance far superior to single reciprocating compressors.

**Only four moving parts** when compared to reciprocating compressors; there are no pistons, connecting rods, suction and discharge valves or mechanical oil pump.



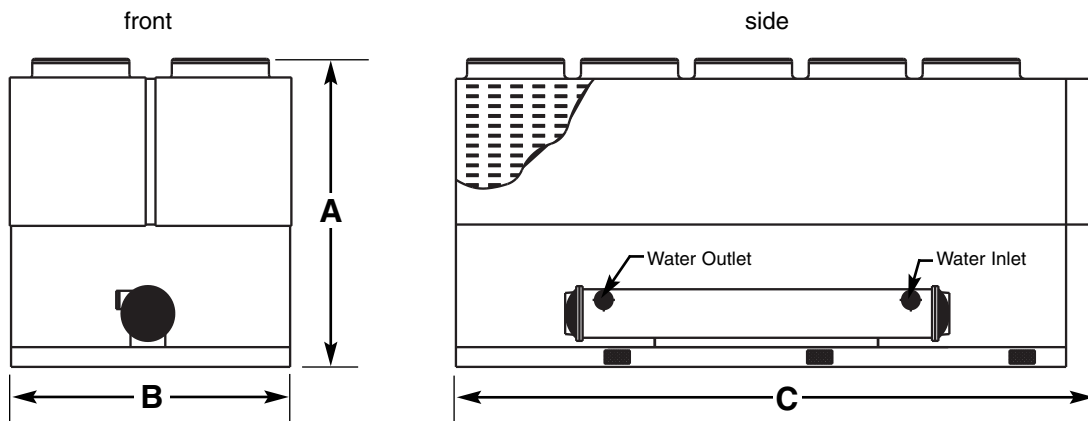
cutaway of helical rotary screw compressor

**Reduced rotor tip 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.

**Latest heat transfer technology** results in increased condenser and evaporator tube efficiency.

**SPECIFICATIONS**



**AIR-COOLED MODELS A-156SK TO A-527SK**

MODEL	A-156SK	A-171SK	A-187SK	A-204SK	A-222SK	A-244SK	A-266SK							
Capacity*, tons at 95°F ambient and leaving water temperature:														
40°F {4.4°C}	128.4	141.3	154.6	168.9	183.6	202.1	221.0							
45°F {7.2°C}	140.7	155.0	169.2	184.7	200.7	221.0	241.5							
50°F {10°C}	153.5	169.0	184.4	201.0	218.2	239.9	262.6							
55°F {12.8°C}	166.7	183.5	200.1	217.9	236.3	259.6	284.3							
60°F {15.5°C}	180.3	198.4	216.3	235.1	254.8	279.9	306.5							
<b>Performance characteristics</b>														
Compressor tons	70,70	85,70	85,85	100,85	100,100	120,100	120,120							
Chilled water flow gpm {lpm}	373.7 {1415}	410.9 {1555}	448.8 {1699}	490.8 {1858}	533.0 {2018}	585.4 {2216}	639.4 {2420}							
Evaporator pressure drop† psi {bar}	5.4 {0.37}	5.6 {0.38}	5.8 {0.39}	5.9 {0.40}	5.8 {0.39}	8.9 {0.61}	8.8 {0.60}							
Evaporator capacity, gal {l}	35 {132}	38 {141}	40 {151}	42 {156}	44 {163}	47 {176}	50 {188}							
<b>Dimensions in (cm)</b>														
A-Height	93.3 {237}	93.3 {237}	93.3 {237}	93.3 {237}	93.3 {237}	93.3 {237}	93.3 {237}							
B-Width	88.3 {224}	88.3 {224}	88.3 {224}	88.3 {224}	88.3 {224}	88.3 {224}	88.3 {224}							
C-Length	196.1 {584}	196.1 {584}	196.1 {584}	232.1 {590}	232.1 {590}	268.1 {681}	268.1 {681}							
Connections, GRV	4 {102}	4 {102}	4 {102}	6 {152}	6 {152}	6 {152}	6 {152}							
<b>Weight lb {kg}</b>														
Shipped	10,700 {4854}	10,900 {4944}	11,000 {4990}	13,000 {5897}	13,200 {5988}	14,200 {6441}	14,400 {6532}							
Installed	10,993 {4986}	11,214 {5087}	11,335 {5142}	13,346 {6054}	13,561 {6151}	14,591 {6618}	14,817 {6721}							
<b>Utility requirements</b>														
Power consumption, amps ‡	MCA	FLA	MCA	FLA	MCA	FLA	MCA	FLA	MCA	FLA	MCA	FLA	MCA	FLA
200V/3 phase/60hz	660	270/270	730	320/270	785	320/320	874	386/320	947	386/386	1045	459/386	1124	459/459
230V/3 phase/60hz	581	235/235	641	278/235	691	278/278	770	336/278	834	336/336	920	399/336	989	399/399
460V/3 phase/60hz	290	118/118	319	139/118	343	139/139	382	168/139	414	168/168	457	200/168	492	200/200
575V/3 phase/60hz	232	94/94	254	111/94	275	111/111	306	134/111	332	134/134	367	160/134	395	160/160

MODEL	A-296SK	A-332SK	A-375SK	A-440SK	A-484SK	A-527SK
Capacity*, tons at 95°F ambient and leaving water temperature:						
40°F {4.4°C}	250.0	280.1	317.3	374.4	408.9	447.0
45°F {7.2°C}	273	305.2	345.8	408.1	445.7	487.5
50°F {10°C}	296.0	331.0	374.9	442.8	483.6	528.9
55°F {12.8°C}	320.0	357.5	404.8	478.2	522.2	571.3
60°F {15.5°C}	344.6	384.5	435.1	514.4	561.5	614.2
<b>Performance characteristics</b>						
Compressor tons	85, 85, 100	100,100,100	120,120,100	100,100,100,100	120,120,100,100	120,120,120,120
Chilled water flow gpm {lpm}	711.4 {2693}	798 {3021}	899.3 {3404}	1057.2 {4002}	1161.1 {4395}	1265.5 {4790}
Evaporator pressure drop† psi {bar}	7.8 {0.53}	7.8 {0.53}	8.3 {0.57}	5.5 {0.37}	5.6 {0.38}	5.8 {0.39}
Evaporator capacity, gal {l}	60 {227}	66 {249}	71 {267}	81 {304}	87 {327}	93 {350}
<b>Dimensions in (cm)</b>						
A-Height	95.3 {242}	95.3 {242}	95.3 {242}	95.3 {242}	95.3 {242}	95.3 {242}
B-Width	88.9 {226}	88.9 {226}	88.9 {226}	88.9 {226}	88.9 {226}	88.9 {226}
C-Length	362.1 {920}	434.1 {1103}	434.1 {1103}	470.1 {1194}	542 {1377}	542 {1377}
Connections, GRV	8 {203} GRV	8 {203} GRV	8 {203} GRV	8 {203} GRV	8 {203} GRV	8 {203} GRV
<b>Weight lb {kg}</b>						
Shipped	18,639 {8455}	20,544 {9319}	22,066 {10,009}	25,847 {11,724}	27,710 {12,569}	28,880 {13,100}
Installed	19,142 {8883}	21,096 {9569}	22,658 {10,278}	26,523 {12,031}	28,436 {12,899}	29,658 {13,453}
<b>Utility requirements</b>						
Power consumption, amps ‡	MCA	FLA	MCA	FLA	MCA	FLA
200V/3 phase/60hz	785/522	320/320 /386	947/522	278/278 /336	1124/522	459/459 /386
230V/3 phase/60hz	681/459	278/278 /278	834/459	386/386 /386	989/834	399/399 /386
460V/3 phase/60hz	536	139/139 /168	600	168/168 /168	786	200/200 /168
575V/3 phase/60hz	430	111/111 /134	481	134/134 /134	630	160/160 /134

**SPECIFICATION NOTES**

\* Based on 50°F {10°C} water temperature (100% water) leaving the chiller, standard pump selections, 95°F {35°C} ambient air temperature, for the 60 Hz units. Capacity ratings are (+/-) 5% based on compressor manufacturer's ratings and are subject to change without notice.

† Differential pressure (drop) through evaporator with design flow listed above.

‡ MCA: Minimum circuit ampacity. RLA: Rated load amps. GRV: Groove.

Specifications may change without notice. Check with a Conair representative for the most current information.

