Copeland Scroll ZRK5 compressor

An innovative solution for aftermarket service.

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Engineered for Sustainability
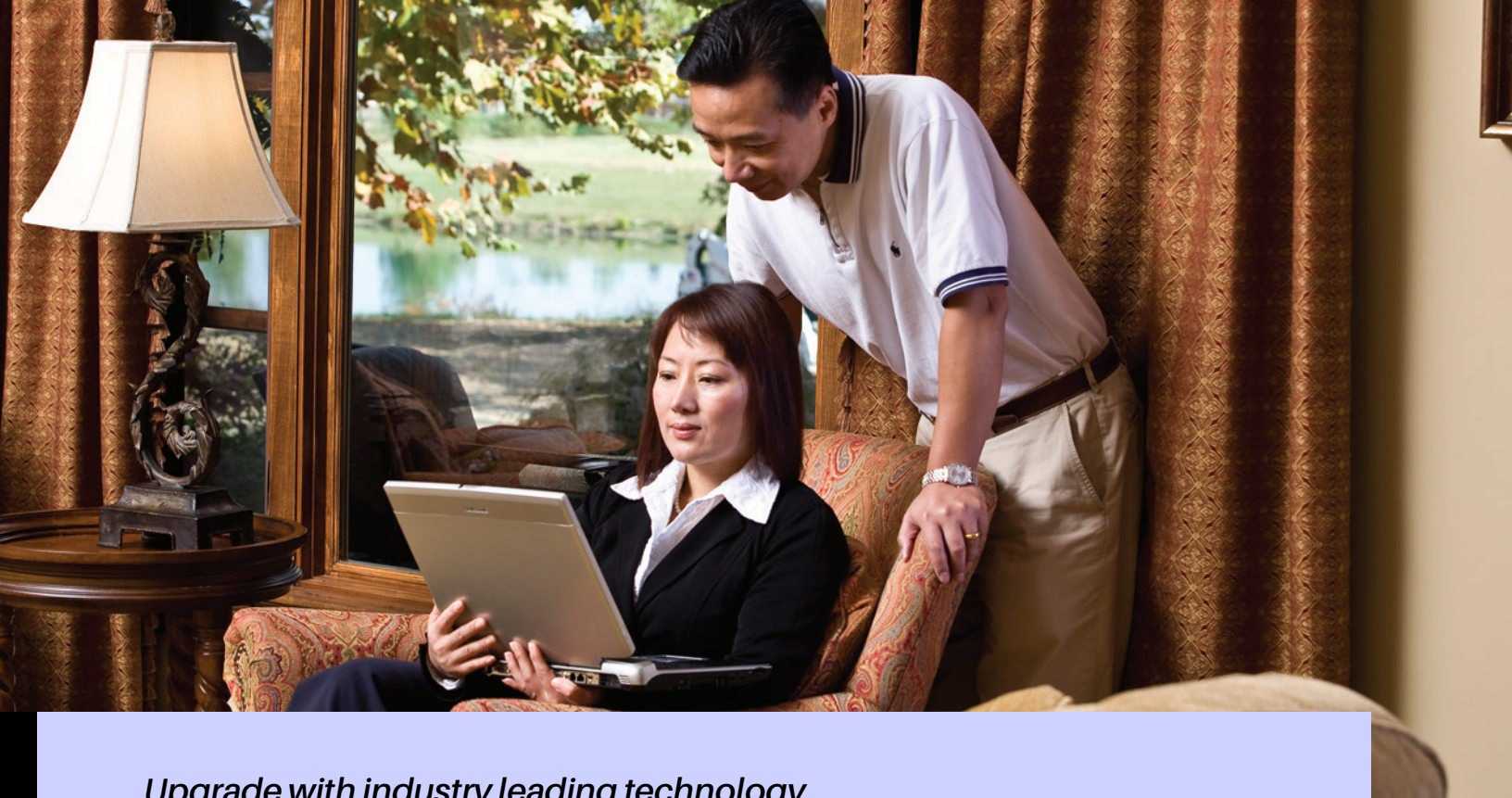
Upgrade with industry leading technology

The 2010 phaseout of hydrochlorofluorocarbons (HCFCs) in new HVAC systems was a major milestone for contractors and original equipment manufacturers (OEMs) alike. It not only marked the switchover to environmentally friendly refrigerants, but also opened a new door to further business growth. That's why Copeland developed the Copeland Scroll™ ZRK5 compressor: to provide you with a focused product line for your aftermarket replacement needs.

It's the latest way that we're helping you better service your customers – with a line of replacement compressors that deliver new levels of performance.

An optimized offering

The Copeland Scroll ZRK5 compressor is designed for both residential and light commercial markets. It's also been optimized for post-2010 R-22 service and continued OEM system production for exports. Copeland Scroll ZRK5 compressors use polyolester (POE) lubricant to further increase application compatibility with both R-22 and hydrofluorocarbon (HFC) refrigerant applications like R-407C.

Selection made easy

We know you have to make swift, sound decisions every day. So we've simplified compressor replacement with our new line. Instead of 51 models, we've consolidated to just 12, reducing the number of model variations wholesalers and distributors are required to stock for service applications.
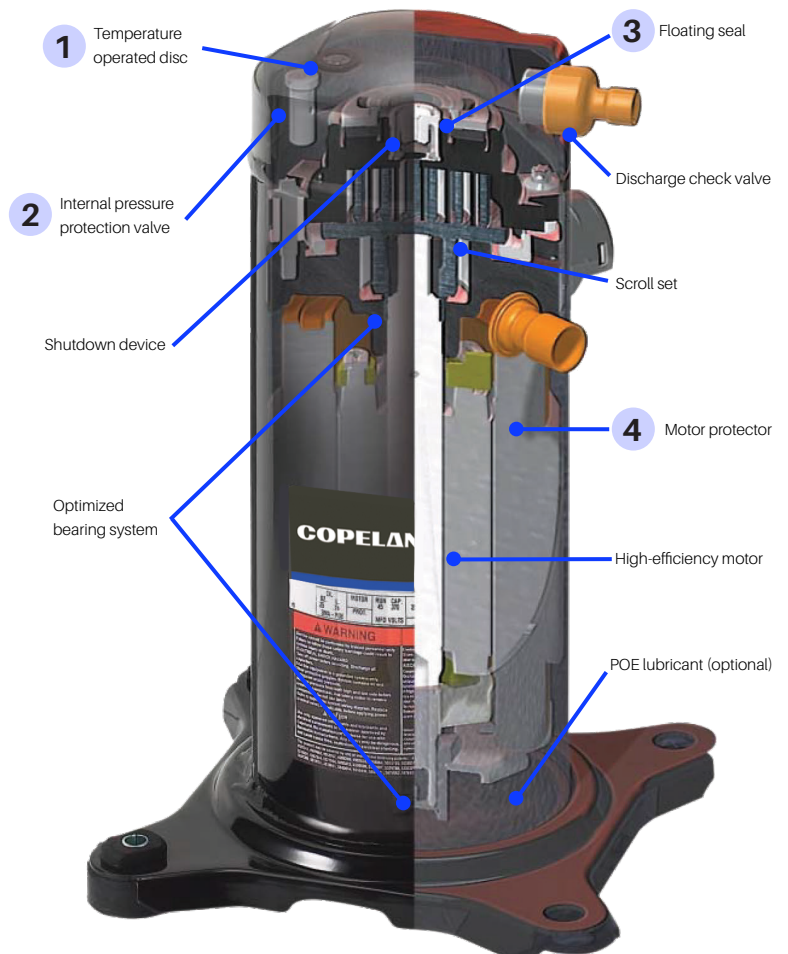
The ten ZRK5 models, when matched with two existing scroll models, will cover both R-22 and R-407C applications with system capacities from 1.5 to five tons.

Copeland Scroll compressors feature a variety of internal safety controls, designed to ensure proper actuation of the internal line-break motor protection. These safety features include:

1. Temperature operated disc – Features a bimetallic disc that senses discharge temperature and opens at approximately 270°F internal plenum temperature.

2. Internal pressure relief – Opens at approximately 400 +/- 50 pounds differential.

3. Floating seal – Separates the high side from the low side and also prevents the compressor from drawing into a vacuum, damaging the electrical terminal.

4. Internal motor protector – Senses both internal temperature and amperage. A tripped motor protector will exhibit a high shell temperature. Allow the compressor to cool to reset the motor protector.

1 Temperature operated disc

2 Internal pressure protection valve

Shutdown device

Optimized bearing system

3 Floating seal

Discharge check valve

Scroll set

4 Motor protector

High-efficiency motor

POE lubricant (optional)

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The latest in technology and innovation

For more than 25 years – and over 100 million installations around the world – Copeland Scroll compressors have been setting the standard for excellence. This line of compressors incorporates all of the latest advances, bringing you the quality and dependability that only Copeland Scroll technology can deliver. It includes 20 new design features, nine of them patented, that combine to offer:

Added efficiency

- Optimized scroll and seal design
- High-efficiency motor

Improved reliability

- Improved temperature protection
- Larger shaft-bearing system
- Internal pressure protection

Quiet operation

- New shutdown solution
- Redesigned shell

Across-the-board benefits

The Copeland Scroll ZRK5 compressor line brings built-in benefits and aftermarket sales opportunities to contractors, wholesalers and distributors.

For contractors

- Better product availability
- Easy installation
- Simplified compressor selection
- Quiet, reliable operation

For wholesalers and distributors

- Reduced service compressor stocking requirements
- Improved opportunity for meeting customer needs

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Copeland Scroll™ service compressor specification chart

Model	ARI Capacity Btu/hr	RLA Amps TF5/TFD	Run Cap. MFD/Volts	Diameter Inches (A)	Suction Height Inches (B)	Discharge Height Inches (C)	Height Inches (D)	Weight Lbs.	Suction Diameter Inches
ZR16K5E-PFV	15,500	9.3	30/370	5.5	10.1	14.2	15.3	47	3/4
ZR18K5E-PFV	18,000	10.7	30/370	5.5	10.1	14.2	15.3	47	3/4
ZR21K5E-PFV	21,000	12.0	35/370	5.5	10.1	14.2	15.3	47	3/4
ZR21K5E-TF5/D	21,000	8.6/4.3	N/A	5.5	10.1	14.2	15.3	45	3/4
ZR25K5E-PFV	25,300	15.0	40/370	5.5	10.1	14.2	15.3	50	3/4
ZR25K5E-TF5/D	25,300	8.9/4.6	N/A	5.5	10.1	14.2	15.3	48	3/4
ZR28K5E-PFV	28,400	15.7	45/370	5.5	10.1	14.2	15.3	50	3/4
ZR28K5E-TF5/D	28,400	11.1/5.7	N/A	5.5	10.1	14.2	15.3	48	3/4
ZR32K5E-PFV	32,600	17.1	50/370	5.5	10.1	14.2	15.3	50	3/4
ZR32K5E-TF5/D	32,600	12/6.4	N/A	5.5	10.1	14.2	15.3	49	3/4
ZR38K5E-PFV	38,000	21.4	55/370	6.5	11.1	15.4	16.4	64	7/8
ZR38K5E-TF5/D	38,000	13.6/6.4	N/A	6.5	11.1	15.4	16.4	60	7/8
ZR42K5E-PFV	42,200	22.1	55/370	6.5	11.1	15.4	16.4	68	7/8
ZR42K5E-TF5/D	42,200	14.3/6.4	N/A	6.5	11.1	15.4	16.4	61	7/8
ZR48K5E-PFV	48,200	24.3	60/440	6.5	11.1	15.4	16.4	72	7/8
ZR48K5E-TF5/D	48,200	17.1/7.9	N/A	6.5	11.1	15.4	16.4	68	7/8
ZR54K5E-PFV	53,500	28.2	80/370	6.5	11.1	15.4	16.4	73	7/8
ZR54K5E-TF5/D	53,500	17.1/7.9	N/A	6.5	11.1	15.4	16.4	69	7/8
ZR57K3E-PFV	58,000	32.1	80/370	7.3	11.7	16.1	18	90	7/8
ZR57K3E-TF5/D	58,500	19.3/9.1	N/A	7.3	11.7	16.1	18	85	7/8
ZR61K3E-PFV	62,000	32.1	80/370	7.3	11.7	16.1	18	90	7/8
ZR61K3E-TF5/D	62,000	19.3/9.1	N/A	7.3	11.7	16.1	18	85	7/8

Mounting pattern 7.5"x7.5" (same as previous Copeland Scroll models)

Rotalock™ Kit Part Numbers

		Adapter	Seal
Suction	3/4" to 1-1/4"-12	998-0034-01	020-0028-02
Suction	7/8" to 1-1/4"-12	998-0034-02	020-0028-02
Discharge	1/2" to 1"-14	998-0034-15	020-0028-00

1/2" diameter discharge

A   B C D
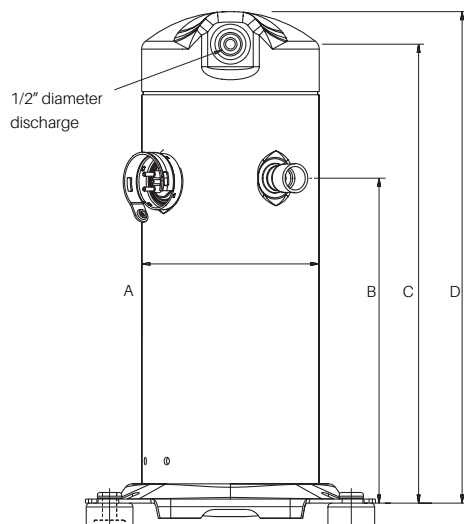
Additional information

Copeland Scroll ZRK5 compressors are offered in an -800 bill-of-material option, such as ZR25K5E-PFV-800, that includes the compressor with molded plug wiring harness, mounting parts and installation instructions.

Other available information includes:

AC Compressor Product Guide (2008ECT-113)

Copeland Scroll ZRK5 Cross Reference Guide (2009ECT-94)

Copeland Scroll & CR Compressor Cross Reference Guide (2010ECT-93)

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