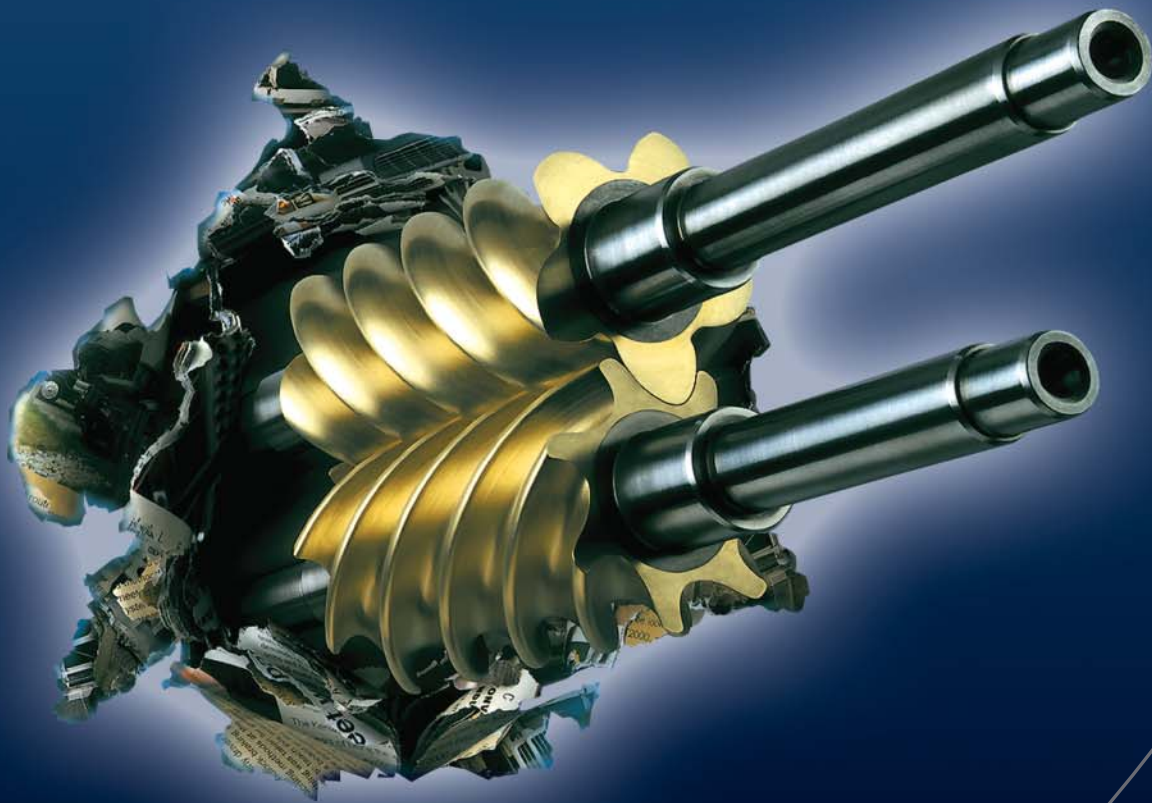




S391/S616 Screw Compressor

Take advantage of the latest in bus compressor technology.





Innovative features inside and out



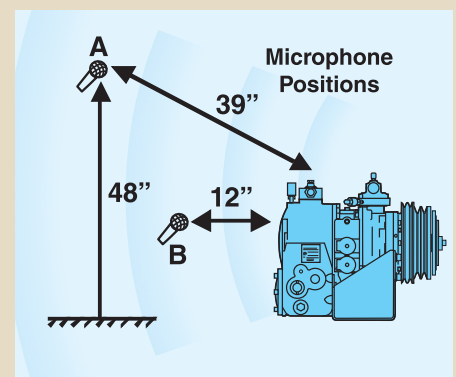
The screw compressor offers dramatically quiet and efficient operation with low vibration.

- Environmentally friendly HFC refrigerants
- Lower noise level for increased passenger comfort
- Fewer moving parts than reciprocating compressors
- Low-level vibration reduces the cost of mount and drive kits
- Programmable capacity control for fuel savings
- Exclusive oil management system for increased reliability
- Designed exclusively for bus transport applications

- ✓ **Epoxy sealed clutch coil**
Reliable electromagnetic design
- ✓ **Gears**
Precision-ground helical gears for quiet, smooth operation
- ✓ **Metal bellows shaft seal**
Eliminates carbon graphite seal face
Eliminates rubber bellows
- ✓ **Rotors**
Precision manufactured by Thermo King to practically zero clearance between concave and convex rotors
- ✓ **Unique oil management system**
with no internal plumbing
All passages machined
- ✓ **Rotary screws**
Only two parts needed to compress gas
- ✓ **Body-mounted clutch**
Minimizes stress and wear from side loading
- ✓ **Rolling element antifriction bearings**
Withstands a wide range of lubrication conditions
No sleeve bearings
- ✓ **Oil separator**
Integrated, no external plumbing
- ✓ **Oil filter**
Low micron filtering
Full-flow oil filter with automatic bypass function
- ✓ **Unloaders**
Programmable two-stage unloading
True capacity control saves fuel

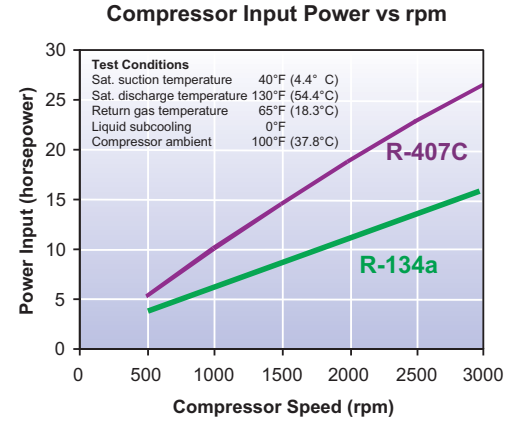
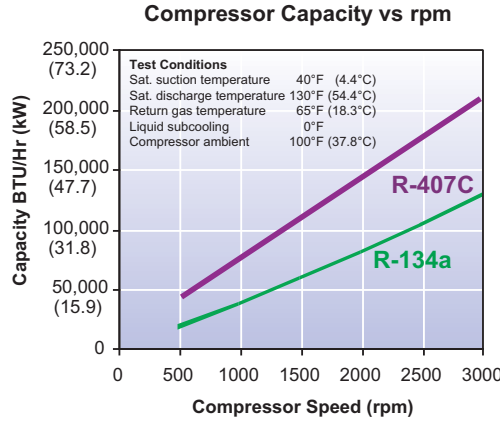
Actual laboratory tests reveal dramatic Noise Reduction

Compressor	Microphone position	Speed rpm	Noise Level dba
Screw	A (39")	1400	79.0
6 Cyl. reciprocating	A (39")	1400	87.5
Screw	B (12")	1400	87.2
6 Cyl. reciprocating	B (12")	1400	89.5
Screw	A (39")	2200	87.9
6 Cyl. reciprocating	A (39")	2200	88.7
Screw	B (12")	2200	91.3
6 Cyl. reciprocating	B (12")	2200	92.7

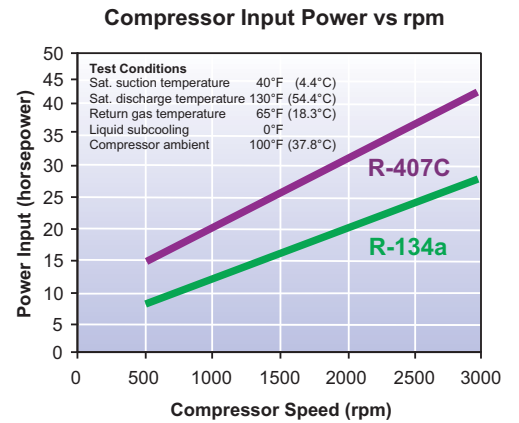
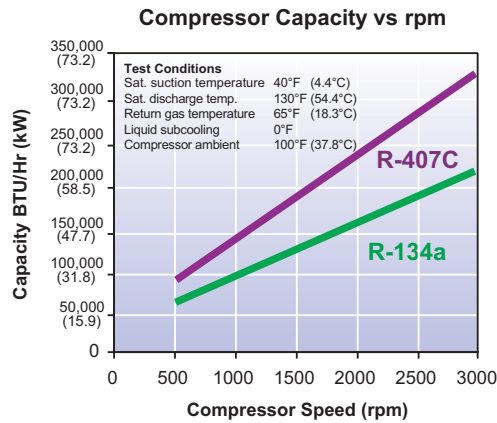


Greater efficiency means more capacity with less horsepower and less fuel used.

S391

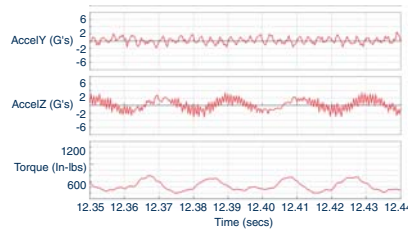


S616



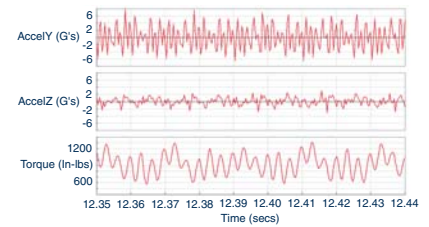
S391 Screw Compressor

Lower acceleration vibration and torque fluctuation than any other transport compressor.

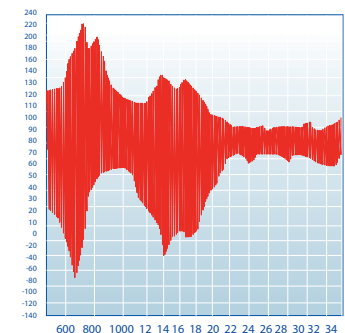
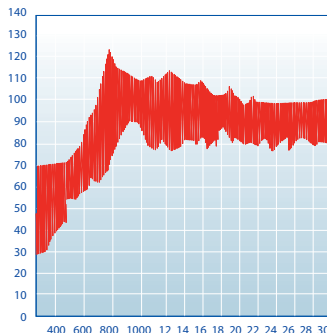


6-Cylinder Reciprocating Compressor

Lower starting torque.



Uniform torque throughout operating speed range.



Screw Compressor Specifications

S391

Type..... Helical Lobed Screw
 Displacement..... 23.86 cu. in./rev.
 (391 cu. cm/rev.)
 RefrigerantHFC (R-134a
 or R-407C)
 Oil separator Integrated
 Oil sump Integrated
 on discharge side
 Oil charge 70 fl. oz./1.8 liter
 Oil type..... POE SOLEST 120
 Oil filter..... Integrated full-flow
 Max tilt 10 degrees any direction
 Drive Method Belt or direct
 Max belt side loading 300 lbs.
 (136 kg)
 Weight: (Approx.)..... 147 lbs. (66.8 kg)
 (including oil, service
 valves and clutch)

Maximum BHP (R-407C)

35 hp at 450 psi discharge and
 100 psi suction @ 3000 rpm

Maximum BHP (R-134a)

24 hp at 350 psi discharge and
 65 psi suction @ 3000 rpm

Maximum speed

3000 rpm

Max. discharge temperature

300°F

Maximum operating pressure

350 psig (R-134a)
 450 psig (R-407C)

S616

Type..... Helical Lobed Screw
 Displacement..... 37.59 cu. in./rev.
 (616 cu. cm/rev.)
 RefrigerantHFC (R-134a
 or R-407C)
 Oil separator Integrated
 Oil sump Integrated,
 on discharge side
 Oil charge 70 fl. oz./1.8 liter
 Oil type..... POE SOLEST 120
 Oil filter..... Integrated full-flow
 Max tilt 10 degrees any direction
 Drive Method Belt or direct
 Max belt side loading 300 lbs.
 (136 kg)
 Weight:..... 171 lbs. (77.2 kg)
 (including oil, service
 valves and clutch)

Maximum BHP (R-407C)

41 hp at 450 psi discharge and
 100 psi suction @ 3000 rpm

Maximum BHP (R-134a)

28 hp at 350 psi discharge and
 65 psi suction @ 3000 rpm

Maximum speed

3000 rpm

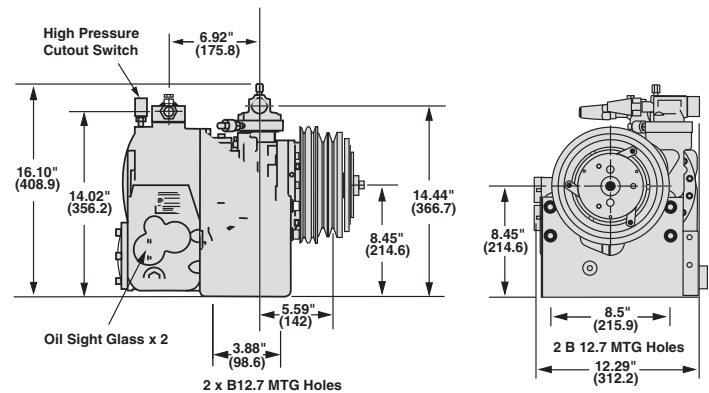
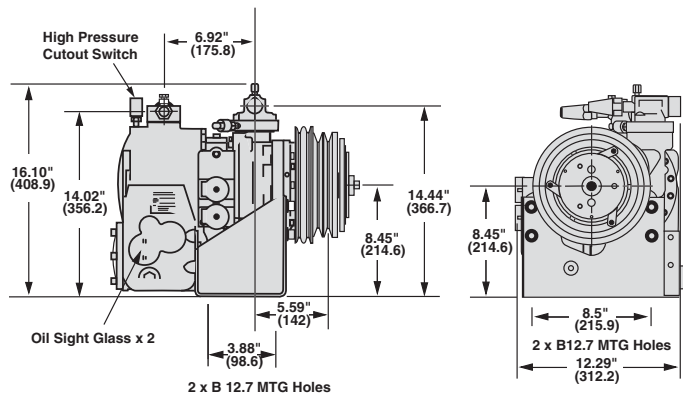
Max. discharge temperature

300°F

Maximum operating pressure

350 psig (R-134a)
 450 psig (R-407C)

Dimensions: Inches (Millimeters)



Worldwide Service Organization

Thermo King backs its equipment and customers with a highly-trained, worldwide service organization. This assures you the support of factory authorized service facilities and a stock of factory parts and factory trained mechanics.

Warranty Summary

Terms of the Thermo King Warranty are available on request from your local Thermo King dealer. Please reference document TK50049 for the Thermo King Bus Unit Warranty.



Providing equipment and services to manage controlled-temperature environments for food and other temperature-sensitive products, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control systems, and Hussmann®, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.ingersollrand.com