AHRI Standard 530-2022 (SI)

2022 Standard for

Rating of Sound and Vibration for Positive Displacement Refrigerant Compressors

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Full document details: AHRI Standard 530-2022 - Rating of Sound and Vibration for Positive Displacement Refrigerant Compressors

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IMPORTANT

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ICS Code: 17.140.01

Note:
This standard supersedes ANSI/AHRI Standard 530-2011.

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Foreword

This version of the standard differs from that of 2011 Edition by expanding the scope to include testing of modulating compressors per AHRI 540-2020.

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Intent

This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Review and Amendment

This standard is subject to review and amendment as technology advances.

2022 Edition

This edition of AHRI Standard 530, *Method Rating of Sound and Vibration for Refrigerant Compressors*, was prepared by the Testing and Analysis Standards Technical Committee. The standard was published by the Sound and Vibration Standards Subcommittee in October 2022.

Origin and Development of AHRI Standard 220

ARI Standard 530-89, *Method Rating of Sound and Vibration for Refrigerant Compressors* was published in 1989. Subsequent revisions were:

ARI Standard 530-1995, *Method Rating of Sound and Vibration for Refrigerant Compressors*

AHRI Standard 530-2005, *Method Rating of Sound and Vibration for Refrigerant Compressors*

AHRI Standard 530-2011, *Method Rating of Sound and Vibration for Refrigerant Compressors*

Summary of Changes

AHRI Standard 530-2022 (SI) contains the following update(s) to the previous edition:

- Added Section 5.4 to define set of rating conditions for single speed, dual capacity, and variable speed compressors, for inclusion in AHRI 540-2020, *Performance Rating of Positive Displacement Compressors and Compressor Units*
- Incorporated modified rating conditions for dual capacity and variable speed compressors
- Updated Section 4.3 Vibration Measurements with verbiage and new standard for calibration
- Updated reference to AHRI 220-2022 to replace the references to AHRI 250 and AHRI 280 and to ASA S12.51, to cover reverberant room sound testing and sound room qualification
- Updated modulating compressor testing in Section 5.4.

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Committee Personnel

AHRI Standard 530-2022 (SI) Ad Hoc Group

Participant	Interest Category Classification	Voting Role	State / Province / Country
Miles Strand Emerson Commercial and Residential Solutions	Product Manufacturer	Chair	OH, USA
Paul Bauch Johnson Controls, Inc.	Product Manufacturer	Primary	PA, USA
Diane Jakobs Rheem Manufacturing Company	Product Manufacturer	Primary	AR, USA
Derrick Knight Trane U.S. Inc.	Product Manufacturer	Primary	WI, USA
Steve Lind Lind Acoustics LLC	General Interest	Primary	WI, USA
Kim Osborn Nortek Air Solutions, LLC	Product Manufacturer	Primary	MO, USA
Karl Peterman Swegon North America Inc.	Product Manufacturer	Primary	ON, Canada
Marcelo Real Tecumseh Products Company	Product Manufacturer	Primary	MI, USA
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Waterside and Refrigeration Standards Technical Committee

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Edgar Duroni Price Industries Inc.	Product Manufacturer	Primary	MB, Canada
Derrick Knight Trane U.S. Inc.	Product Manufacturer	Primary	WI, USA
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Waterside and Refrigeration Standards Technical Committee Scope:

The Waterside and Refrigeration STC is responsible for development and maintenance of standards and guidelines related to sound and vibration of equipment whose primary function is to move, heat, or cool a liquid.

Out of scope for this STC are standards whose primary purpose is not sound and vibration performance, or that are common to both Airside and Water/Refrigeration.

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