AHRI Guideline F
(formerly ARI Guideline F)

2008 Guideline for

Selection, Installation and Servicing of Residential Humidifiers

AHRI Air-Conditioning, Heating, and Refrigeration Institute

2111 Wilson Boulevard, Suite 500
Arlington, VA 22201, USA
www.ahrinet.org

PH 703.524.8800
FX 703.528.3816

AVA Documents
Document Sharing Hub

Full document details: AHRI Guideline F-2008 - Selection, Installation and Servicing of Residential Humidifiers

IMPORTANT

SAFETY DISCLAIMER

AHRI does not set safety standards and does not certify or guarantee the safety of any products, components or systems designed, tested, rated, installed or operated in accordance with this standard/guideline. It is strongly recommended that products be designed, constructed, assembled, installed and operated in accordance with nationally recognized safety standards and code requirements appropriate for products covered by this standard/guideline.

AHRI uses its best efforts to develop standards/guidelines employing state-of-the-art and accepted industry practices. AHRI does not certify or guarantee that any tests conducted under its standards/guidelines will be non-hazardous or free from risk.

Note:

This guideline supersedes ARI Guideline F-1997.

Price $15.00 (M) $30.00 (NM)
Printed in U.S.A.

©Copyright 2008, by Air-Conditioning, Heating, and Refrigeration Institute
Registered United States Patent and Trademark Office

Documents
Document Sharing Hub

Full document details: AHRI Guideline F-2008 - Selection, Installation and Servicing of Residential Humidifiers

TABLE OF CONTENTS

SECTION		PAGE
Section 1.	Purpose	1
Section 2.	Scope	1
Section 3.	Definitions	1
Section 4.	Factors Affecting Humidification Load	2
Section 5.	Humidification Load Determination	3
Section 6.	Equipment Selection	5
Section 7.	Installation Practices	7
Section 8.	Servicing Practices	8

TABLES

Table 1.	Humidification Load Required	3
Table 2.	Correction Factor for Other Indoor Temperatures and RH Conditions	4
Table 3.	Selection Based on Water Hardness	5

APPENDICES

Appendix A.	References – Normative	9
Appendix B.	References – Informative	9
Appendix C.	Periodic Maintenance Checklist – Informative	10

Documents
Document Sharing Hub

Full document details: AHRI Guideline F-2008 - Selection, Installation and Servicing of Residential Humidifiers

This page is intentionally blank.

Documents
Document Sharing Hub

Full document details: AHRI Guideline F-2008 - Selection, Installation and Servicing of Residential Humidifiers

SELECTION, INSTALLATION AND SERVICING OF RESIDENTIAL HUMIDIFIERS

Section 1. Purpose

1.1 *Purpose*. The purpose of this guideline is to establish, for residential Humidifiers: definitions; factors affecting Humidification Loads; determination of Humidification Load; equipment selection; installation practices; and servicing practices.

1.1.1 *Intent.* This guideline is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors and users.

1.1.2 *Review and Amendment.* This guideline is subject to review and amendment as technology advances.

Section 2. Scope

2.1 *Scope*. This guideline applies to Central System and Self-Contained Humidifiers, as defined in AHRI Standards 610 and 620, installed in residential and small commercial applications.

Section 3. Definitions

3.1 *Definitions.* All terms in this document follow the standard industry definitions in the current edition of *ASHRAE Terminology of Heating, Ventilation, Air-Conditioning and Refrigeration* unless otherwise defined in this section.

3.2 *Humidifier.* A device used to add moisture to the air.

3.2.1 *Central System Humidifier.* A class of Humidifier intended to discharge moisture into the air stream of a central air system. It may be mounted in or on the following:

a. Return air duct
b. Return air plenum
c. Supply air duct
d. Supply air plenum
e. By-pass (supply to return)
f. Heating or cooling central air system

3.2.2 *Self-Contained Humidifier for Residential Application (Self-Contained Humidifier).* A class of Humidifier intended for non-ducted installation, but may be employed in ductwork to be installed with a water make-up line and/or drain and electrical service independent of a central air system. It may or may not be installed within the humidified space.

3.3 *Humidification Capacity*. The capacity associated with a Central System Humidifier's ability to add moisture to air expressed in gal/day [L/day] of continuous operation.

3.4 *Humidification Load.* The amount of water discharged by the humidifier required to satisfy the conditions desired in the space gal/day [Liter/day].

3.5 *Humidifier Types.*

3.5.1 *Atomizing (Centrifugal, Nozzle, Ultrasonic).* A type of Humidifier intended for duct applications in which water is dispersed to air as a fine mist.

3.5.2 *Heated Tank.* A type of Humidifier which generates steam or evaporates water into the ductwork or conditioned space using an energy source.

Documents
Document Sharing Hub
Full document details: AHRI Guideline F-2008 - Selection, Installation and Servicing of Residential Humidifiers