

2015 MN MECHANICAL AND FUEL GAS CODE CHANGES

Effective Date: January 24th, 2015

****Disclaimer:** This document is to serve as informational purposes only. This is not a code book or a final interpretation of the code by the building official. This is to serve as a guide for some of the major code changes that will go into effect on January 24th, 2015.

Equipment Sizing ACCA Manual 'J', Manual 'S'

Heating and cooling equipment will be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J, Or Other accepted and established method for sizing

Ex. $Q=UA (dT)$

Q= BTU's lost per hour

U=U-Value of the wall

A=Area of the Wall

dt=Delta T (temperature difference)

<i>Manual S</i> Equipment Selection Sizing Limitations		
Equipment	Sizing Limits	Reference
Furnaces	100% - 140% of total heating load	Section 2-2
Boilers	100% - 140% of total heating load	Section 2-2
Air conditioners	115% of total cooling load*	Section 3-4
Heat pumps	115% ¹ or 125% ² of total cooling load*	Section 4-4
Supplemental heat (heat pumps)		
• Electric	Based on equipment balance point	Section 4-8
• Dual fuel	100% - 140% of total heating load	Section 6-8
Emergency Heat (heat pumps)	Based on local codes	Section 4-9
<i>Manual S</i> Input for Design Air Flow (<i>Manual D</i>)		
Mode of Operation	Requirement	Reference
• Heating	Temperature rise requirement	Section 2-6
• Cooling	Air flow associated with the selected equipment's capacity	Section 3-11
¹ Heat pumps in a <i>cooling</i> dominant climate are allowed to be 115% of the cooling load. ² Heat pumps in a <i>heating</i> dominant climate are allowed to be 125% of the cooling load. * The size of the cooling equipment must be based on the same temperature and humidity conditions that were used to calculate the <i>Manual J</i> loads.		

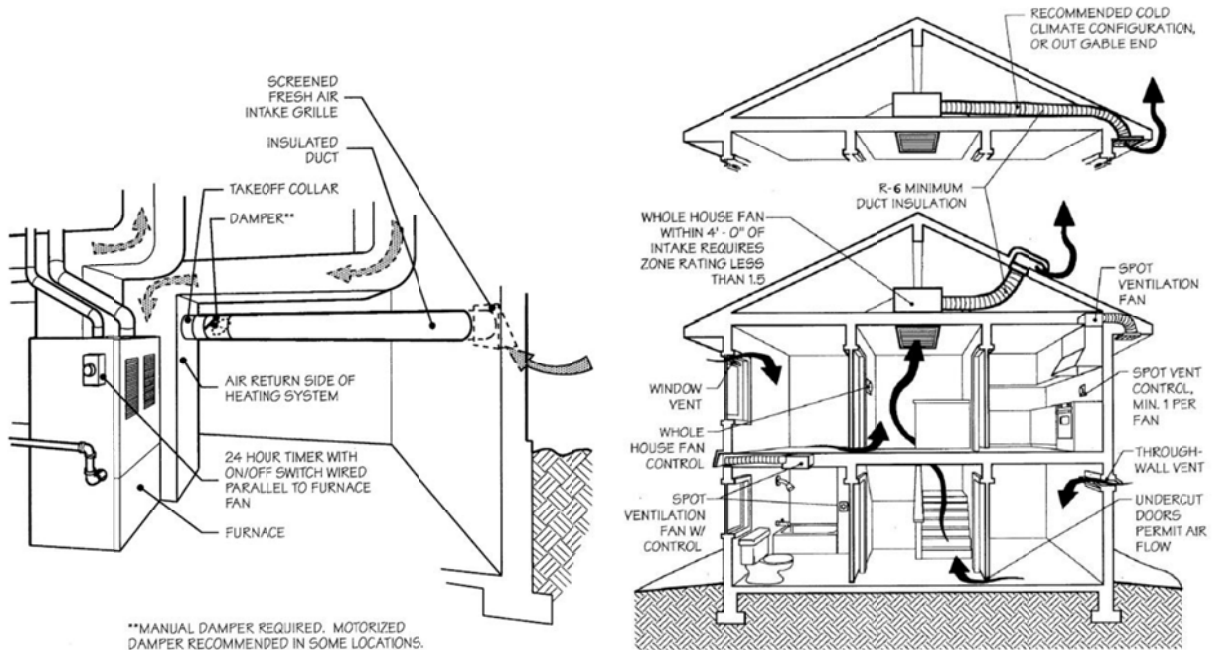
Ventilation System Requirements

Exhaust Only Systems (no longer Allowed)

“Balanced Systems” a ventilation system in which the air intake is within 10% of the exhaust output.

-HRV/ERV

-An intake and exhaust fan linked together to operate equally



Make-Up Air

Mn Rule 1346 currently in tables 501 calculates Make-up air.

The tables have been updated, Exhaust only systems were removed from the table. (balanced only), and dwellings are now changed to Dwelling Units, separating each unit as its own dwelling.

Type I and Type II Hoods

Required use for specific appliances is now determined by ASHRAE Standard 154, not the IMC.

Duct Gage

Round ducts and exposed rectangular ducts:

< 14" = 28 gage galv.

16" and 18" = 26 gage galv

20" and over = 24 gage galv

Duct Sealing

2012 IMC 603.9 Amendment: Pressure-sensitive tape shall not be used as the primary sealant on ducts, unless it has been certified to comply with UL-181A or UL-181B by a nationally recognized lab and used in accordance with that certification.

Boiler sizing and state inspections

1001.2 states Anyone who installs a boiler must ensure that **the boiler is inspected by DLI before placed in operation** IF BTU/hr values exceed: 100,000, 500,000, and 750,000 BTU/HR (same BTU's as existing)

Essentially, it means that once a boiler of this size is installed, the installer must contact the DLI pressure vessel inspector for this region for a final inspection. The burden is on the installer for the inspection.

DLI deals with:

A. Boilers 100,000 BTU's for steam

500,000 BTU's for hot water supply

750,000 BTU's for hot water heating boilers

B. High pressure piping for boilers. Steam systems operating at or below 15psi, or Hot water or other heating medium operating at or below 30psi and 250 F.

Refrigeration

Section 1101.1 Scope: "This chapter shall govern..."

Now there is an exception:

Exception: For all ammonia refrigeration systems, refer to Minnesota Rules, chapter 5230.

Metallic piping joints & fittings

Pipe joints. Pipe joints shall be threaded, flanged, brazed, welded, **or made with press-connect fitting complying ANSI LC-4**.