



RSC Guide to Pipe Marking: ASME/ANSI Standard A13.1

ASME and ANSI have set safety standards for pipe identification. These spell out principles designed to keep the potential for accidents, among workers and the general public, low. In essence, the standards recommend that industry pipe identification meet all the criteria listed below.

Recommended locations of the labels:

- Are readily visible at the point(s) at which people normally approach the pipe and at all of the following locations:
 - any point of entry into the line
 - near all valves and flanges
 - adjacent to changes in direction
 - on both sides of floor, ceiling or wall penetrations
 - at no more than 50-foot intervals on straight runs

Standard labels:

- Are permanently affixed to the pipe
- Come constructed of a material that won't decay rapidly
- Use glow-in-the-dark or reflective letters in low-light situations
- Include background color fields that contrast highly with the text for maximum visibility



Recommended relationship between size of pipe, color field, and lettering:

Outside Diameter of Pipe/Covering	Minimum Length of Color Field	Minimum Height of Text
3/4" to 1 1/4"	8"	1/2"
1 1/2" to 2"	8"	3/4"
2 1/2" to 6"	12"	1 1/4"
8" to 10"	24"	2 1/2"
Over 10"	30"	3 1/2"

Recommended color schemes for different material classifications:

Inherently Hazardous Materials	Radioactive Corrosive or caustic Explosive or flammable Toxic or creates toxic gases Extreme pressure or temperature	Black letters on yellow field
Low-hazard Materials	Liquid or liquid mixture	White letters on green field
	Gas or gaseous mixture	White letters on blue field
Materials Useful For Suppressing Fires	Sprinkler water, carbon dioxide, foam, and halon, flourocarbons, and more	White letters on red field



Standard abbreviations for system components:

BD	Booster discharge
CD	Condensor
DS	Defrost condensate
ES	Economizer suction
HGD	Hot gas defrost
HPL	High pressure liquid
HSD	High stage discharge
HSS	High stage suction
HTRS	High temperature recirculated liquid
LIC	Liquid injection cooling
LSS	Low stage suction
LTRL	Low temperature recirculated liquid
LTRS	Low temperature recirculated suction
RV	Relief vent
TSR	Thermosyphon return
TSS	Thermosyphon supply

Recommended color bands:

These are used to show if the internal pipe pressure is high or low and if the pipe contains a liquid, a vapor, or both.

Red = high pressure
Green = low pressure
Blue = vapor state
Orange = liquid state
Blue and orange = pipe contains vapor and liquid



Refrigeration Systems Company

**1770 Genessee Avenue
Phone: (614) 263-0913**

**Columbus, Ohio 43211
Fax: (614) 263-6660**

**info@rsc-gc.com
www.rsc-gc.com**