

AS 1345-1995 STANDARD

FOR PIPE, CONDUIT AND DUCT IDENTIFICATION



COMPLIES WITH THE STANDARDS AUSTRALIA COMMITTEE
IDENTIFICATION OF PIPING SYSTEMS

AS 1345-1995 standard for pipe identification was designed to provide plant personnel with a cohesive system for identifying the contents on pipes, conduits and ducts ultimately reducing chances of errors, simplifying the handling of emergencies and minimizing hazards. The AS 1345-1995 standard provides direction for labeling materials contained in piping systems, including electrical conduits, by means of background colour marking, legend and symbols.

AS 1345-1995 establishes which piping, conduit and ducts should be labeled, where labels should be applied and label legend content. In addition, this standard regulates the letter size, marker length, marker colour, and location of markers to be installed.

Current Pipe Marker Standards

Pipe markers indicate both the pipe contents and direction of flow. The contents are indicated by text, pictogram(s) and by a standard colour scheme and must contain the following information:

- A word or words indicating the contents of the pipe and, if desired, some especially hazardous aspect of the pipe, e.g. high pressure, high voltage, toxic waste; or both. The words must be in either white or black letters.
- A contrasting border around the colour identification block. The border colour should be white, but may be yellow if a hazard identification patch or band is to be used with the marker.
- A chevron within the border to indicate the direction of flow in a pipe carrying a liquid or gas. One arrow should be removed if flow direction is only one way.
- The background colour and legend colour must be made of clearly legible letters and/or numbers, providing the name or identifier of the material. Colours are used to identify the contents or the hazardous nature of the contents, as shown in the table below:

MATERIAL	CHEVRON COLOUR	COLOUR SCHEME	
Water	Green	White on Green	
Steam	Black	Black on Silver-Grey	
Oils, Flammable and Combustible Liquids	Brown	White on Brown	
Gases	Black	Black on Yellow-Ochre	
Acids and Alkalis	Violet	White on Violet	
Air	Light Blue	White on Light Blue	
Other Liquids	Black	White on Black	
Fire Services	Red	White on Red	
Electric Power	Orange	White on Orange	
Communications	Black	Black on White	

Supplementary Colours and Hazard Identification

- The pipes carrying materials for human consumption shall in addition to the base colour be identified by a band of dark-blue colour at least 75 mm wide, displayed in conjunction with the base colour band or pipe marker.
- Wherever a special hazard to operators or maintenance personnel is present within a service, a yellow band or patch at least 75 mm wide shall be displayed in conjunction with each pipe marker. The yellow band shall carry the additional markings illustrated as follows:

 <p style="text-align: center;">Ionizing Radiation</p>	 <p style="text-align: center;">Biological Hazard</p>	 <p style="text-align: center;">Alternative Diagonal Black and Yellow Identification Markings on Hazardous Services</p>
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Pipe Marker Placement

Pipe markers should be positioned so that they can be easily seen from the normal angle of approach – for instance, below the centerline of the pipe if the pipe is overhead, and above the centerline if the pipe is below eye level. Markers are required at the following locations:

- On straight pipe runs every 8 m
- Close to all valves
- Where pipes pass through walls or floors
- Fittings or junction boxes
- Service appliances
- Bulkheads

Pipe Marker Size

Pipe diameter determines the appropriate marker and text sizes as shown in the following table:

SIZE OF SERVICE (OUTSIDE DIAMETER OR DEPTH OF SIDE)	MINIMUM HEIGHT OF BACKGROUND PATCH	MINIMUM LETTER AND NUMBER HEIGHT
<40 mm	Continuous band around pipe circumference	≤4 mm
40 to 75 mm	25 mm	12 mm
>75 mm	50 mm	24 mm

For more information on the AS 1345-1995 Standard, please visit the following source:

Standards Association of Australia – <https://infostore.saiglobal.com/en-us/Standards/AS-1345-1995-224345/>