

Recommended Installation Procedures:

Roller and Strut Supports

(Non-Penetrating Support Systems)



MAPA Products pipe supports are designed to meet the 2003 International Building Code in conformance with MSS SP-58 requirement. These freestanding/non-penetrating support systems are typically installed on flat roof applications regardless of roof composition.

Where roof pitch exceeds 1:12 and supports are installed perpendicular to slope, contact your MAPA Products representative for installation alternatives.

Refer to project specifications when required to attach supports to the roof membrane or deck.

Note: MAPA Products does not perform engineering design; the structural engineer is responsible for confirming that the structure upon which supports are installed is designed in accordance with accepted design codes and standards which allow for the installation of rooftop equipment and piping. Further, MAPA Products shall not be liable for damage or injury caused by improper use or installation of the product.

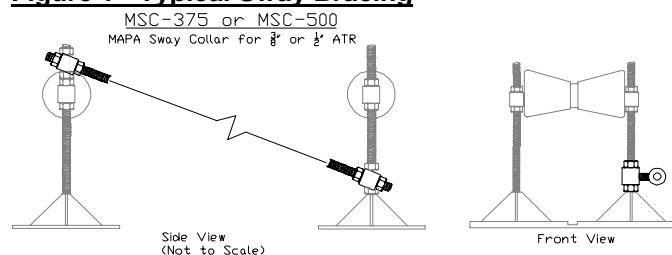
Installation Details:

- Supports should be evenly spaced so that weights are evenly distributed and do not exceed the maximum weight as outlined by its technical information in the current product catalog or as otherwise stated in the project specifications (See page 2 of O&M for recommended rooftop support spacing and weight limits.).
- If applicable, remove ballast and/or debris from the designated support area.
- If an additional support pad is to be utilized place pad in the designated support area. If specified, adhere support pad to roof membrane as directed by the roofing manufacturer or as otherwise stated in project specifications.
- Place support as appropriate on either the roof membrane or centered on the support pad. Where specified, adhere support to pad. MAPA Products recommends E-6000 adhesive.
- Place piping on the support. Single piping should be centered with multiple pipes spaced equally on the support. In all cases, piping should be placed so that weight is evenly distributed on the support and overall system load is balanced so as not to cause undue strain on any individual support.

Supports are not intended as a platform for piping assembly.

- Vertical adjustments should be made with regard to the nature of the installation; either leveled or tapered for flow.
- Secure piping to support as required by project specifications. MAPA accessory pipe strap or clamps may be used to secure piping.
- Supports should be cross-braced at intervals as stated by design engineer in project specifications. Where not specified by design engineer, MAPA Products recommends that supports should be cross-braced at each end of run where the distance from roof surface to bottom of pipe exceeds 12", then at 80' intervals or where sway is detected after installation is complete (See Figure 1).
- Replace ballast around the support or pad as appropriate.

Figure 1 - Typical Sway Bracing





MAPA Bridging Systems:

- Follow standard installation procedures as previously outlined.
- Piping should be evenly spaced when utilizing bridging systems to install multiple piping runs along a common corridor.

Recommended Accessories

- Natural gas piping can be suspended above the bridge utilizing accessory adjustable or fixed height roller assemblies.
- Condensate lines can be mounted above the bridge with MAPA single post adjustable assemblies.
- Refrigeration lines and conduits should be secured with Snap-N-Strut Clamps.

Recommended Maximum Support Spacing for Horizontal Installation

Recommended support spacing based on the ASME standard recommended pipe support spacing guidelines.

Nominal Diameter Pipe - NPS (inches)	MAPA Products recommended maximum space between Supports (feet)		
	Standard Steel Pipe		Copper Tube
	Water	Steam	Water
1/2	7	8	5
3/4	7	9	5
1	7	9	6
1 1/2	9	10	8
2	10	10	8
2 1/2	10	10	9
3	10	10	10
4	10	10	10

Maximum support spacing for PVC - Polyvinyl Chloride - pipes depends on the operating temperature. Refer to pipe manufactures data.

- The typical application for MAPA strut supports are electrical conduit; consideration should be given to the size and number of conduits and the supports recommended weight limit so that maximum support load is not exceeded.

Note:

- Additional supports are recommended at each change of direction, branch and at each initiation and termination of the piping run.

(See MAPA Products current catalog for additional information.)

Maintenance:

Often damage to piping and supports systems occur during routine maintenance, renovations and/or improvements. This type of damage is difficult to verify, therefore MAPA Products must be notified ten (10) days in advance of roof traffic in conjunction with any major maintenance, renovations and/or improvements and upon completion of said traffic. Damage caused by said traffic is not warranted.

For specific challenges where project design requires custom fabrication for greater adjustability, increased elevations or greater weight loads, additional flanges, material changes etc. may be incorporated into the design. The project engineer is encouraged to contact MAPA Products for support in these situations.

MAPA Products recommends that support systems be inspected annually. Notice of damage or rusting that is detrimental to the integrity of the support or any of the components included in the support assembly should be provided to MAPA Products immediately. The owner should conduct annual maintenance to inhibit rusting of any metal components. Refer to MAPA Products warranty effective September 2005.

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