



WIND AND SEISMIC

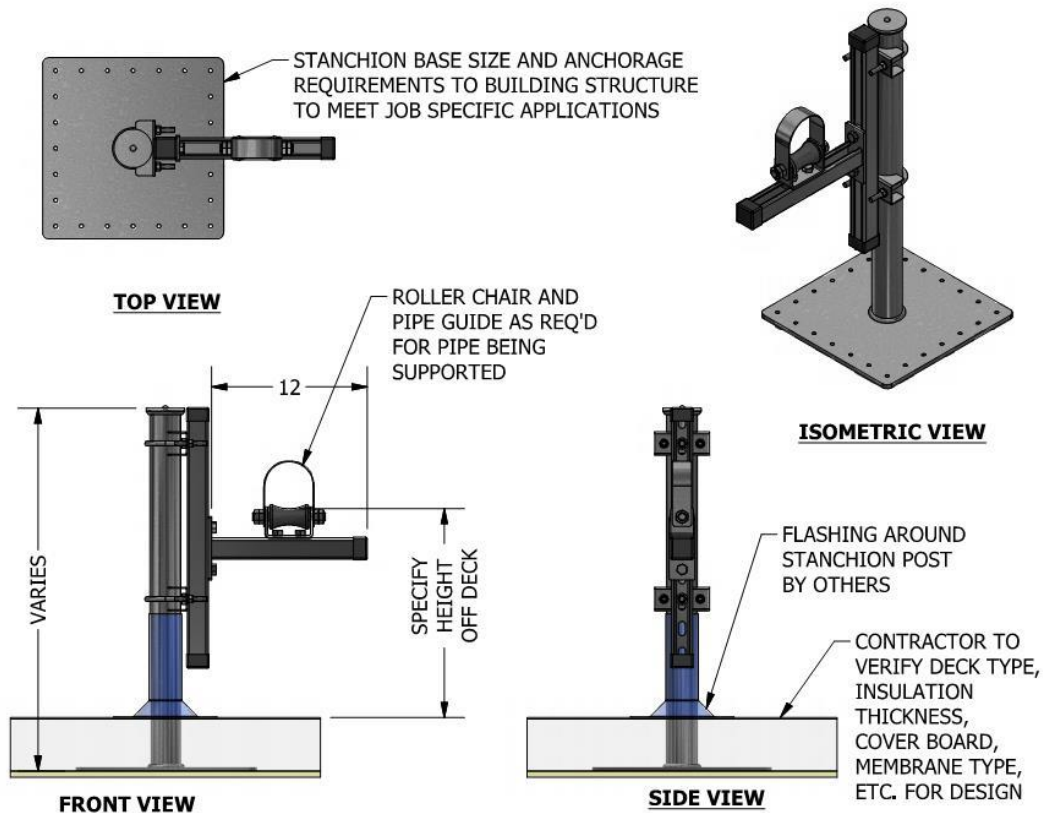
Addressing lateral and uplift loading on rooftop equipment can be a challenging task. Typically, a support that is positively attached to the building structure is required to meet code-applicable minimum uplift and lateral loading. Additionally, a project-specific design and documentation prepared by a registered design professional are required to ensure code compliance is achieved. Concerning rooftop equipment and distribution lines, wind and seismic loading requirements can become significant, and are specifically addressed in mechanical codes and building codes.

MIRO Industries has in-house design professionals that can provide a code-compliant sealed submittal for supporting and restraining your rooftop equipment and distribution lines. Our objective, with any project, is to provide an economical and sustainable solution that meet equipment support and anchorage requirements. This means that we design solutions that are practical, less complex to install, and easily weatherproofed using typical roofing methods. MIRO Industries has 30+ years of experience providing support solutions for rooftop equipment that protect the integrity of your roof.

Product Data Sheet

SEISMIC & WIND COMPLIANT SYSTEMS

1. **Product Name:** SEISMIC & WIND COMPLIANT SYSTEMS
2. **Design Emphasis:** All MIRO products have the potential to be engineered and designed to be attached to the roof structure to meet seismic and wind up-lift codes.
3. **Manufacturer:** MIRO INDUSTRIES, INC.
844 South 430 West, Suite 100,
Heber City, Utah 84032
Phone: (800) 768-6978
Fax: (800) 440-7958
4. **Product Description:** An engineered stanchion support designed to meet project-specific criteria.
5. **Product Performance:** Anchored supports serve to keep the supported content (pipes, duct, electrical tray, etc.) vertically and laterally constrained, while allowing the supported component to move longitudinally, enabling free expansion and contraction of the supported component. The support is designed with a project-specific base arrangement to provide the required attachment to the structure to resist lateral, uplift and gravity loading to the frame. The project structural engineer is responsible for the design of the building structure and local reinforcement, where required, to withstand applied loads.
6. **Compatibility:** MIRO Seismic and Wind Supports will be designed and engineered to be compatible with all building constraints.
7. **Load Weight:** Seismic and Wind Supports are engineered to ensure member and component capacities and deflection criteria are not exceeded.
8. **Composition and Materials:** The support typically consists of three major components.: (1) Two hot-dip galvanized or stainless-steel stanchion bases with anchorage points designed per project specifications, (2) a braced strut assembly or hot-dip galvanized steel header, which his connected to the two stanchion bases, (3) A hanger system or tie down system, which will provide positive restraint in both the vertical and lateral directions, while allowing for some longitudinal expansion and contraction of the system supported.
9. **Size:** Seismic and Wind Supports are designed to project specific requirements. Where possible, a combination of stanchioned and free-floating supports are used to limit the number of roof penetrations, while meeting code minimums for applicable loading.
10. **Adjustable Height:** Seismic and Wind Supports, and their related configurations, allow for height adjustments as desired or required by the code or roof system. Each model can be configured to allow vertical and some lateral adjustment, as specified. Purchasers are to specify code design criteria, desired heights and spacing when inquiring about each project application.
11. **Installation Process:** (1) Locate the pipestand on the roof and anchor to the structure as specified (flashing and waterproofing of the roof surface is to be completed by others), (2) adjust the support to the desired height and to ensure even-load weight distribution among adjacent supports. Make certain the horizontal header is level. (3) Set the content in the support without dropping or causing any undue impact. Care should be taken during instillation to ensure each support carries a proportional and equal amount of weight.
12. **Spacing:** Space the supports as required by the project drawings. Do not exceed the specified load weight and make certain that each support is adjusted in height to evenly distribute the load among all supports.
13. **Availability:** Seismic and Wind Supports are marketed throughout the United States through representatives and distributors.
14. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check the alignment of the components being supported, to verify that weights are being distributed evenly, and to check for improper installation that may cause system failure or damage.
15. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



PRODUCT DESCRIPTION

Stanchioned pipe supports are designed for single or multiple pipes, single tier or multiple tier and for various heights.

To obtain pricing, call your local representative and have the following information available:

1. Type of pipe being supported (Steel Sch. 40)
2. Pipe size (trade size)
3. Pipe contents (liquid or gas)
4. Center line distance between pipes (CL)
5. Clearance height above roof deck (HOD)
6. Pipe insulation thickness.
7. Rooftop pipe layout drawing
8. Project Address
9. Roof framing plan
10. Cross section drawing of roof construction
 - a. Type of deck
 - b. Roof insulation thickness
 - c. Membrane or finished surface
11. MIRO Project Design Requirements sheet.

KEY INFORMATION

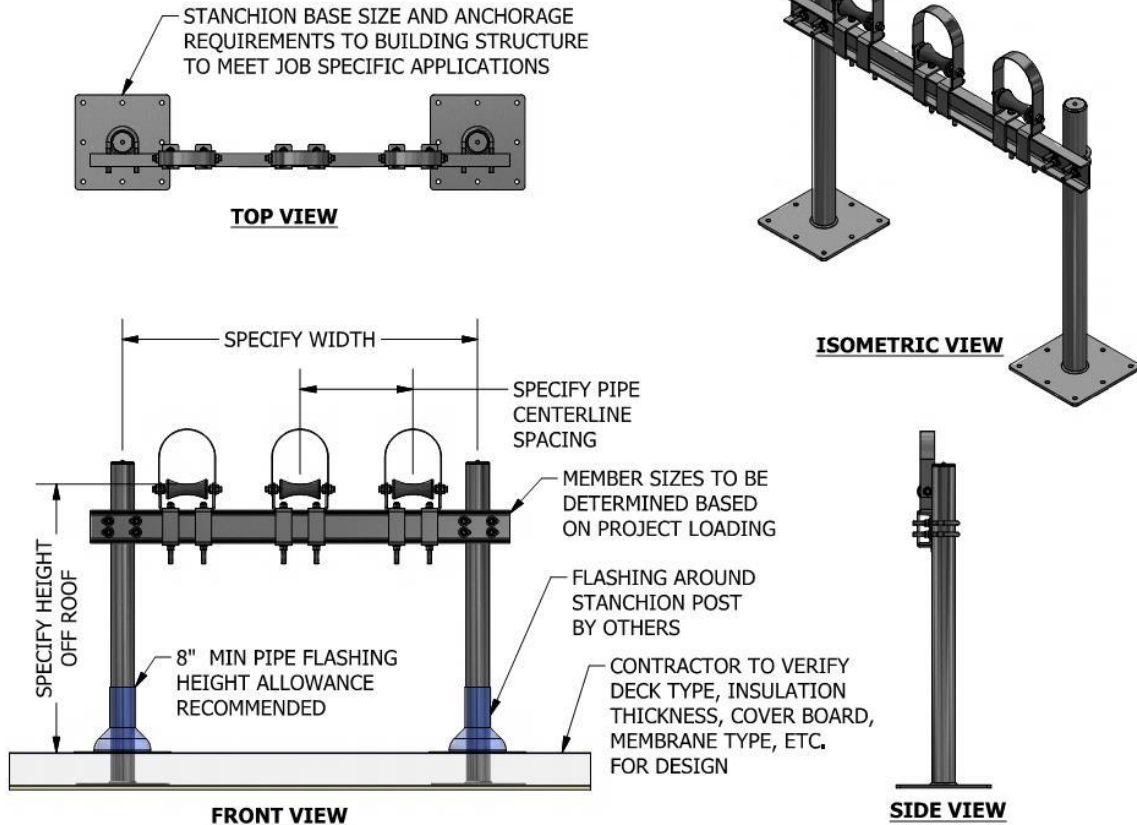
- Stanchioned pipe supports are designed and engineered to project specific requirements provided to MIRO Industries.
- MIRO Industries, Inc. is not responsible for the design or evaluation of the building structure or the design of the components being supported.
- Deflection in the horizontal header bar is not to exceed the span length by 360 or 1/8".
- Stanchioned pipe supports allow adjustable height as desired or required by the code or roof system. Purchasers must specify desired heights and multiple pipe centerline spacing upon quote requests and ordering of stanchioned pipe supports.
- Contractor is to ensure each pipestand is properly elevated to even distribute loading at all pipestands.
- All metal parts are hot dip galvanized or stainless steel

MIRO stanchioned supports are engineered to meet project specific design requirements. Stanchioned supports shall only be used on the project they are designed for. Supports are designed to meet loading requirements per ASCE-7 "Minimum Design Loads for Buildings and Other Structures" and locally adopted building codes.

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DATE:
JAN 2019

SINGLE PIPE STANCHION SUPPORT



PRODUCT DESCRIPTION

Stanchioned pipe supports are designed for single or multiple pipes, single tier or multiple tier and for various heights.

To obtain pricing, call your local representative and have the following information available:

1. Type of pipe being supported (Steel Sch. 40)
2. Pipe size (trade size)
3. Pipe contents (liquid or gas)
4. Center line distance between pipes (CL)
5. Clearance height above roof deck (HOD)
6. Pipe insulation thickness.
7. Rooftop pipe layout drawing
8. Project Address
9. Roof framing plan
10. Cross section drawing of roof construction
 - a. Type of deck
 - b. Roof insulation thickness
 - c. Membrane or finished surface
11. MIRO Project Design Requirements sheet.

KEY INFORMATION

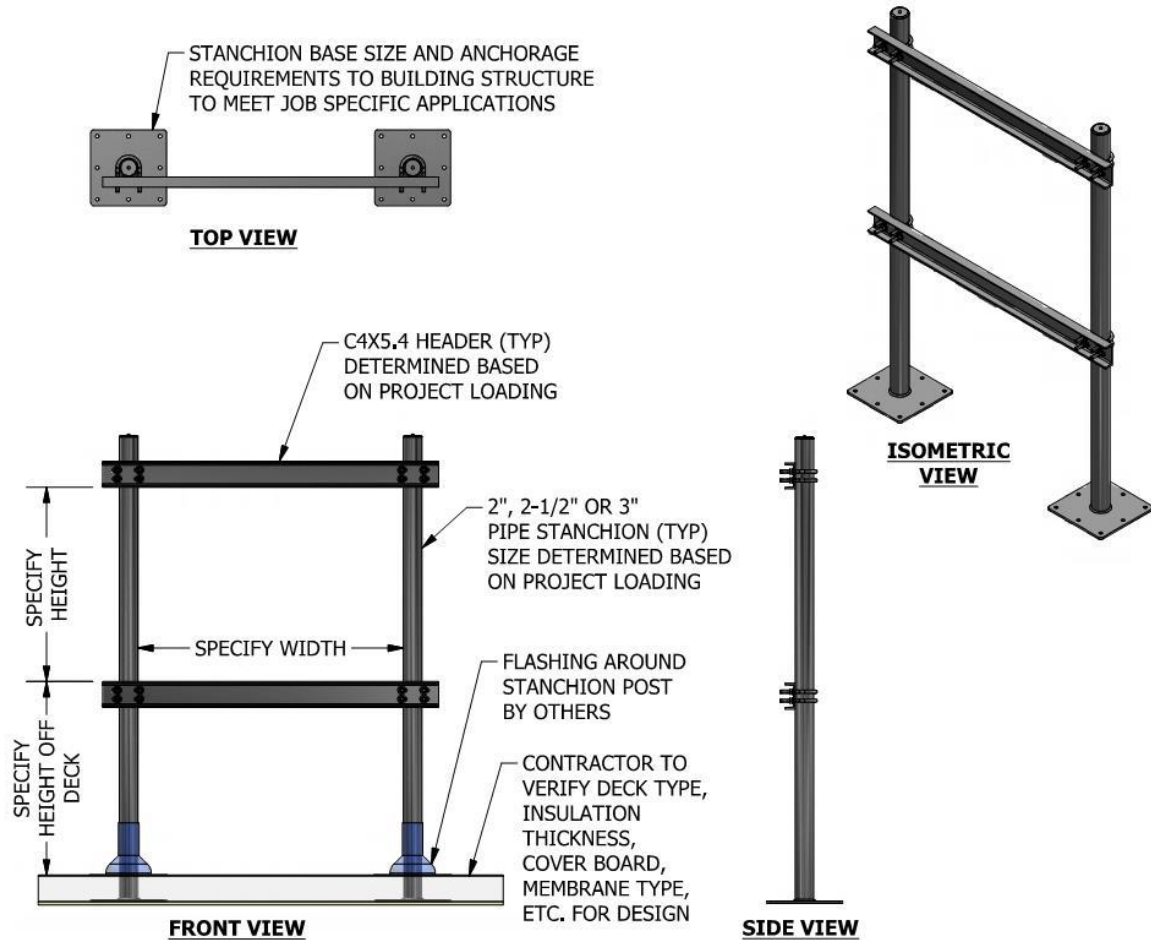
- Stanchioned pipe supports are designed and engineered to project specific requirements provided to MIRO Industries.
- MIRO Industries, Inc. is not responsible for the design or evaluation of the building structure or the design of the components being supported.
- Deflection in the horizontal header bar is not to exceed the span length by 360 or 1/8".
- Stanchioned pipe supports allow adjustable height as desired or required by the code or roof system. Purchasers must specify desired heights and multiple pipe centerline spacing upon quote requests and ordering of stanchioned pipe supports.
- Contractor is to ensure each pipestand is properly elevated to even distribute loading at all pipestands.
- All metal parts are hot dip galvanized or stainless steel

MIRO stanchioned supports are engineered to meet project specific design requirements. Stanchioned supports shall only be used on the project they are designed for. Supports are designed to meet loading requirements per ASCE-7 "Minimum Design Loads for Buildings and Other Structures" and locally adopted building codes.

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DATE:
JAN 2019

(#)RC STANCHION SUPPORT - CHANNEL



PRODUCT DESCRIPTION

Duct and Cable Trays are designed for single or multiple duct supports and cable trays. To obtain a project specific design and pricing, call your local representative and have the following information available:

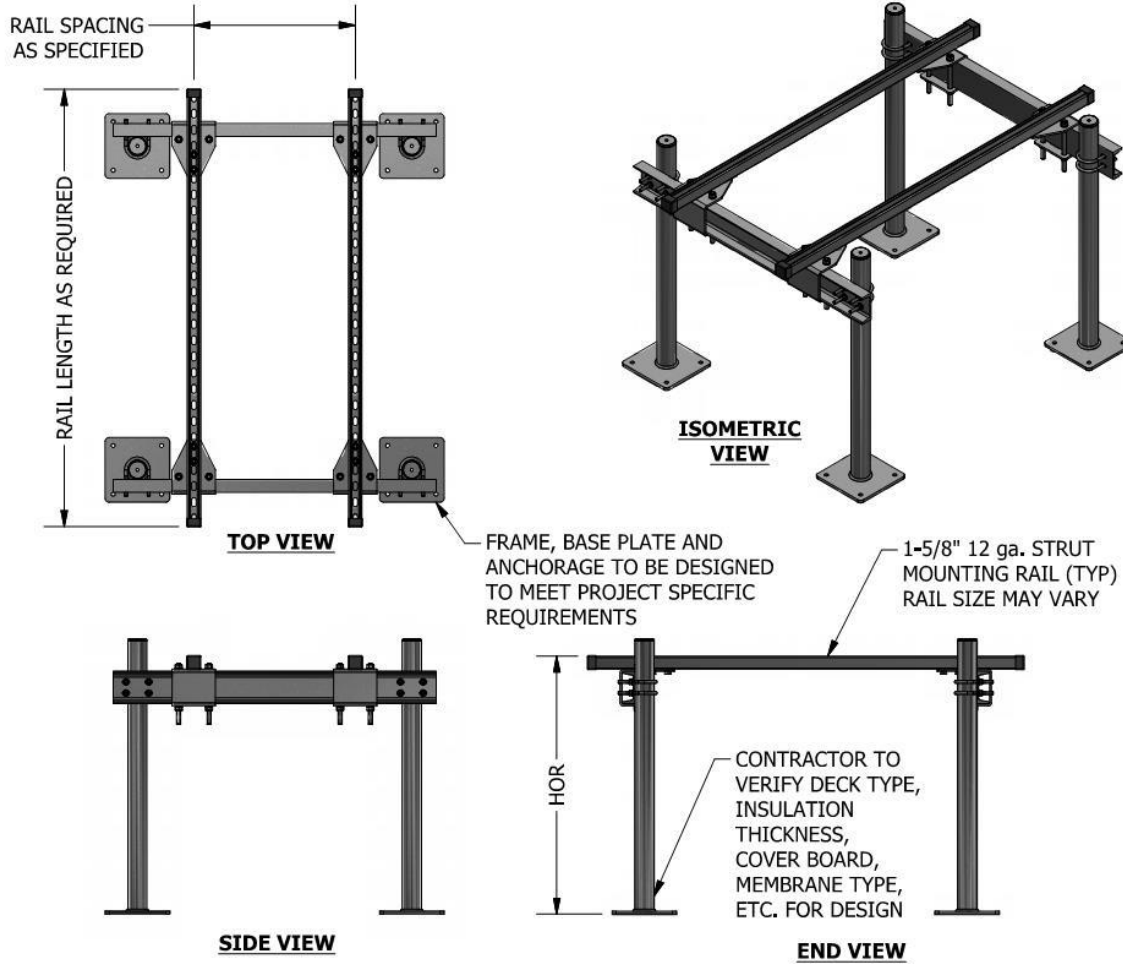
1. Dimensions of duct
2. Duct material (gauge thickness)
3. Clearance height above roof (bottom of insulation)
4. Insulation (if any)
5. Duct layout drawing
6. Project Address
7. Roof framing plan
8. Cross section drawing of roof construction including; Type of deck, roof insulation thickness and membrane or finished surface
9. MIRO Project Specific Design Requirements sheet.

KEY INFORMATION

- Stanchioned duct supports are engineered to ensure member/component capacities and deflection criteria are not exceeded.
- Deflection in the horizontal header bar is not to exceed the span length by 360 or 1/8".
- Recommended spacing is not to exceed 8 feet centers depending upon the load.
- Width and height are built job specific based on information provided to MIRO Ind. with a minimum height of 12"
- All metal parts are hot dip galvanized
- MIRO Industries, Inc. is not responsible for the design of the building structure or the components being supported.

MIRO stanchioned supports are engineered to meet project specific design requirements. Stanchioned supports shall only be used on the project they are designed for. Supports are designed to meet loading requirements per ASCE-7 "Minimum Design Loads for Buildings and Other Structures" and locally adopted building codes.

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	JAN 2019	



PRODUCT DESCRIPTION

MIRO Stanchioned HD Mechanical Supports are custom designed in-house to meet project specific needs and code requirements. Bases and material are selected to meet design constraints and specifications. Contractor is responsible for load verification unless provided otherwise by MIRO Industries.

Positive attachment to the building structure is typically required to resist minimum lateral and uplift loading requirements.

The project engineer of record is responsible for the design of the building structure and local reinforcement where required to withstand applied load.

KEY INFORMATION

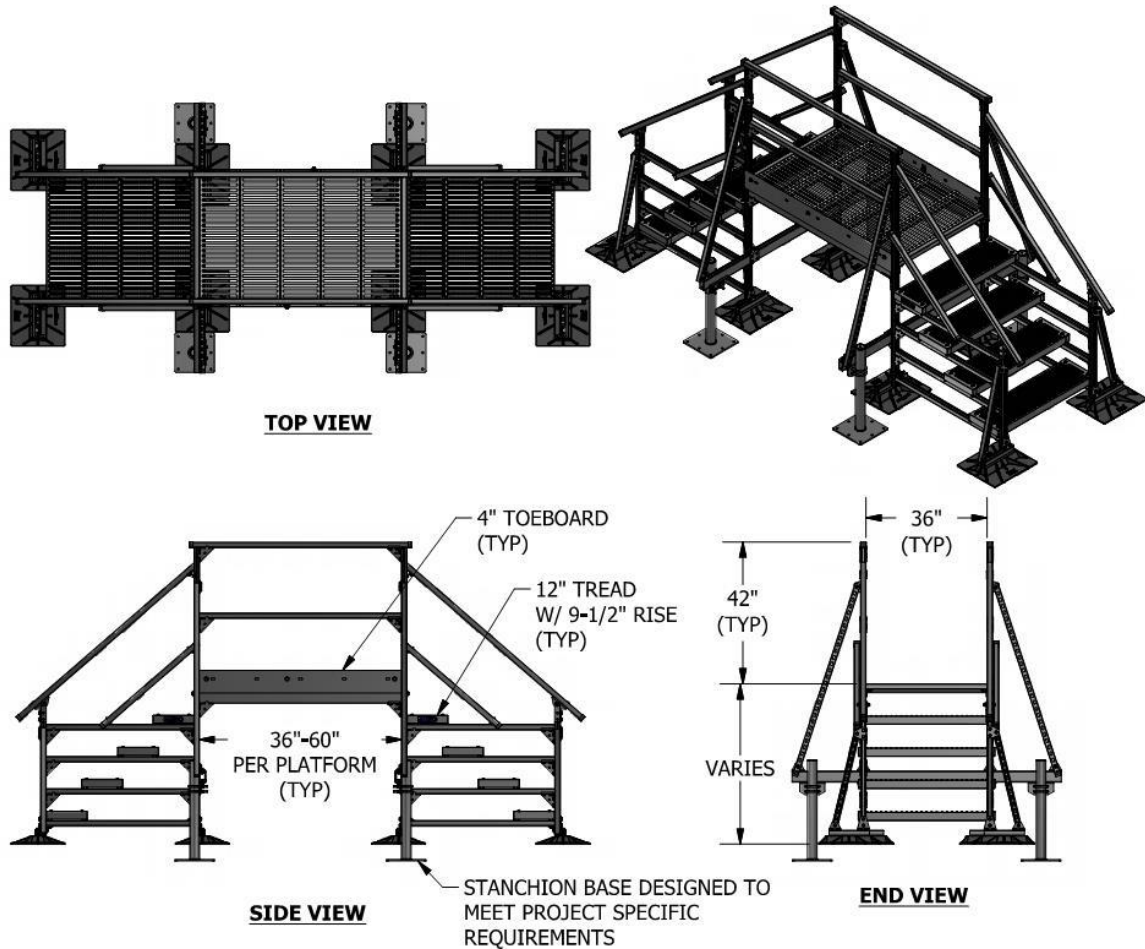
Information needed to complete the design:

- Project Address
- Structural Drawings if available
- Design Criteria (typically available in the Structural General Notes)
- If structural drawings are not available a MIRO Design Professional can assist with obtaining the required information.
- Description of the intended use of the building
- Average Roof Height or elevation where equipment is being supported
- Cross-sectional view of roof construction
- All metal parts are either stainless steel or hot-dip galvanized.

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DATE:
JAN 2019

Stanchioned HD(Channel-Rail) Mechanical Support



PRODUCT DESCRIPTION

On projects with high-wind and/or seismic risk, MIRO Surefoot access bridges and platforms may need to be positively anchored to the building structure. In these instances, MIRO Industries can provide a sealed engineered submittal package for the product that can be submitted to the local building official. Typical attachment requirements are addressed with a stanchion post attached directly to the roof deck. Force transfer through the building structure must be coordinated with the building engineer of record. The building engineer of record is responsible for the design of the building structure and local reinforcement where it is required to withstand applied loads.

MIRO crossover structures are designed to meet OSHA 1910 Subpart D requirements for walking/working surfaces. Stanchioned supports are also designed to code standards for applicable lateral and uplift loading.

ACCESSORIES

- MIRO Support pad
- Eternabond® 2-sided tape

KEY INFORMATION

Information needed to complete the design:

- Project Address
- Structural Drawings if available.
- Design Criteria (typically available in the Structural General Notes)
- If structural drawings are not available a MIRO Design Professional can assist with obtaining the required information.
- Description of the intended use of the building.
- Average Roof Height or elevation where crossover will be located.
- Cross-sectional view of roof construction
- All metal parts are either stainless steel or hot-dip galvanized.

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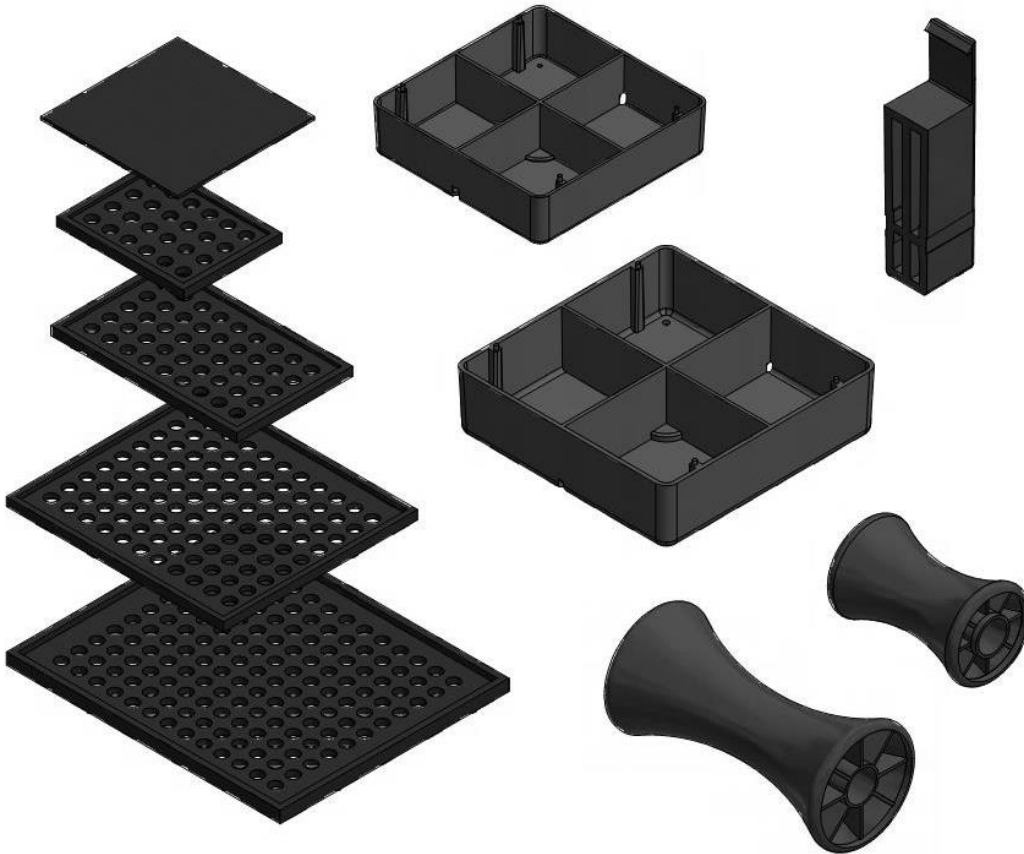
DATE:
JAN 2019

STANCHIONED BRIDGE CROSSOVER

ACCESSORIES

MIRO Industries Accessory items are components that can be added to, or incorporated into, MIRO supports for additional function and peace of mind. Accessory items include the MIRO custom fitted support pads, spacers to increase the saddle height of the pillow block series supports, and pipe guides that ensure supported pipes do not become disengaged from supports. Additionally, parts that have been standardized to use with MIRO supports, and that are fabricated in house at MIRO Industries, can also be purchased as an accessory item.

Accessory items can be included with an initial product order, or they can be ordered later if conditions on your project change.

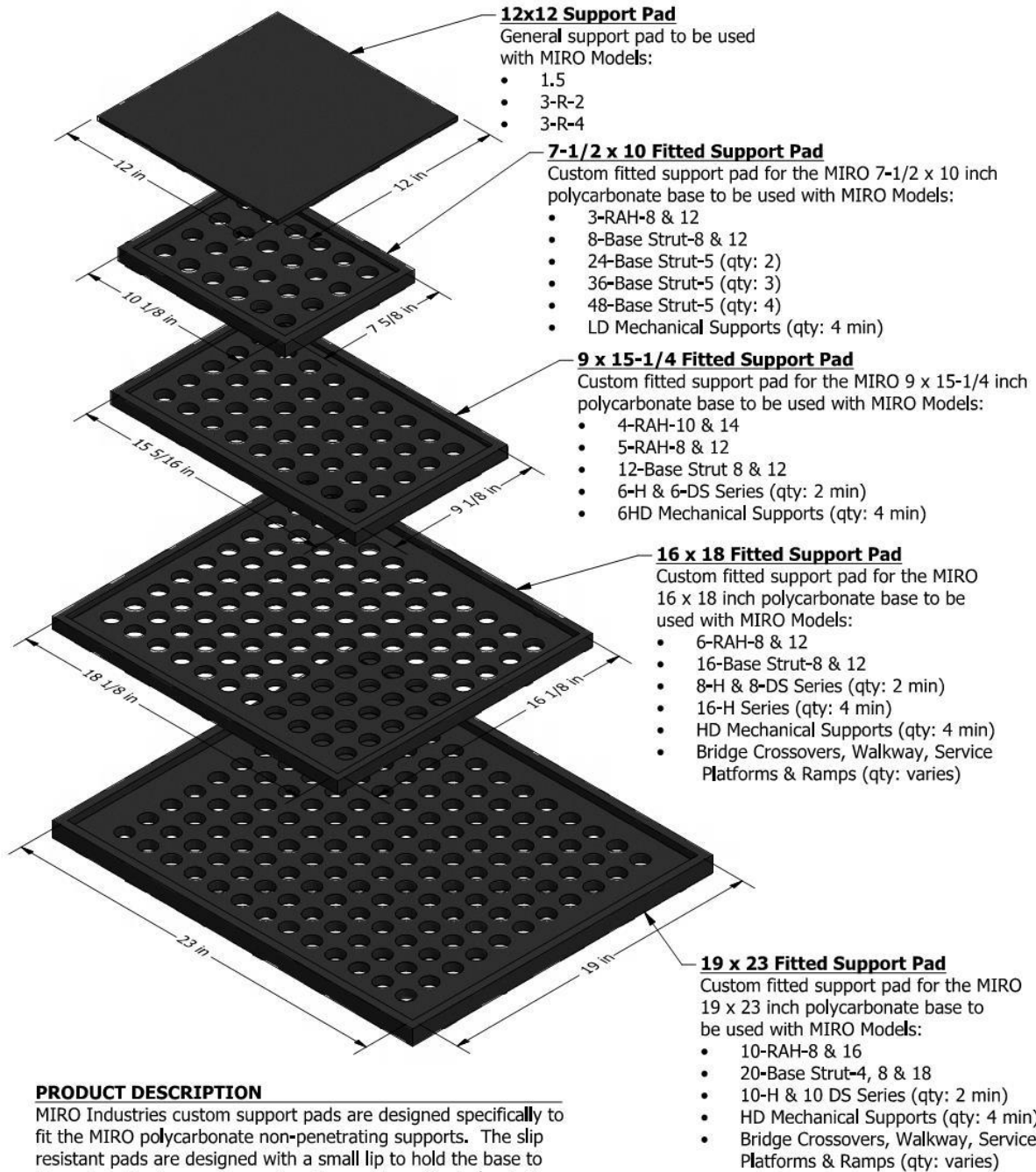


Product Data Sheet

SUPPORT PADS

1. **Product Name:** SUPPORT PAD, 12x12, 7½ x10, 9x15¼ 16x18 and 19x23.
2. **Manufacturer:** MIRO INDUSTRIES, INC.
844 South 430 West, Suite 100,
Heber City, Utah 84032
Phone: (800) 768-6978
Fax: (800) 440-7958
3. **Product Description:** MIRO Industries Support Pads are made of 100% heat-molded recycled rubber. Support Pads are designed to provide an additional barrier between the roof membrane and the rooftop equipment support. The support pads vary in size to accommodate MIRO's base and support options. MIRO Industries suggests the use of support pads under every MIRO Industries base. Installation requires that each base be properly placed evenly over each support pad.

*Note: The 12x12 support pad is a general fit pad without side lips or venting holes.
4. **Compatibility:** MIRO Support Pads are recommended and are compatible for use with most current types of decking and commonly used built-up and single-ply roof membranes.
5. **Installation:** Clean and prep the roof surface ensuring that the support pad will not be placed on any foreign debris. For built up roofs, remove all loose aggregate from an area 2 inches larger in width and length than the base or support pad and follow the installation directions outlined above.
6. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pad position, pipe alignment, proper weight distribution, and improper installation, which may cause roof damage or failure.
7. **Availability:** Support Pads are marketed throughout the United States through representatives and distributors.
8. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



PRODUCT DESCRIPTION

MIRO Industries custom support pads are designed specifically to fit the MIRO polycarbonate non-penetrating supports. The slip resistant pads are designed with a small lip to hold the base to the pad and reduce movement on the rooftop. The holes in the pad saves weight and allows for venting and drainage. The pads are heat molded using 100% recycled rubber.

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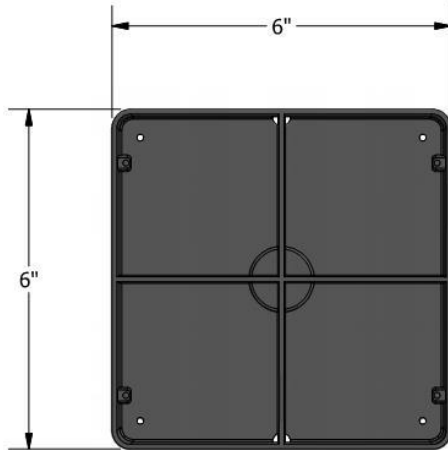
Product Data Sheet

1.5 SPACER

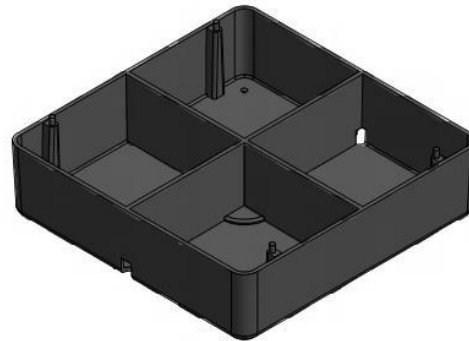
- Product Name:** PILLOW BLOCK PIPESTAND MODEL 1.5 SPACER NOTE: Pillow Block pipestand Model 1.5 Spacer is only used to stack under the model 1.5 support to increase the height of the 1.5 and the clearance of the pipe above the roof.
- Manufacturer:** MIRO INDUSTRIES, INC. Phone: (800) 768-6978
844 South 430 West, Suite 100, Fax: (800) 440-7958
Heber City, Utah 84032
- Product Description:** The Model 1.5 Spacer is 6 inches square and is designed to elevate the model 1.5 support an additional 1-1/2 inches. The 1.5 Spacer has gently rounded edges to prevent gouging of the roof surface. The 1.5 Spacer is to be placed directly under the Model 1.5 support, and up to a maximum of 3 spacers can be stacked together. Four drainage ports are provided to prevent ponding within the device. The dimensional area resting on the roof is 5-7/8 x 5-7/8 inches square, with a 34.52" square-inches surface area in contact with the roof surface.
- Compatibility:** Pillow Block Pipestands are recommended and are compatible for use with all current types of decking and with all commonly used built-up and single-ply roofing membranes, where roof-mounted pipes occur.
- Load Weight:** Maximum load-weight may not exceed 72 lbs. for the 1.5 pipestand.
- Composition and Materials:** The 1.5 Spacer consists of one-piece roof-deck-base made of polycarbonate resin with stacking alignment pins, and an interior cross hatch support structure. Carbon black is added for UV-resistance and protection.
- Size:** The 1.5 Spacer is made in one standard size. The deck base is 6" square with a height of 1½ inch. Each 1.5 Spacer increases the clearance of the pipe by an additional 1½ inches.
- Installation:** To install the spacers, locate the stacking and alignment pins on the spacers and the corresponding holes in the bottom of the 1.5 pipestand. Set the pipestands on the spacers, while making sure that the four pins are snug in the stacking holes. Follow the standard installation directions for the 1.5 pipestands below.

To install the pillow block pipestand, (1) center the pipestand beneath the pipe so that the pipe will rest centered in the cradle of the pipestand. (2) Set the pipe in the pipestand without dropping or causing any undue impact. An additional sheet of roofing material, or a MIRO Support Pad should be installed beneath the pipestand. For built up roofs, clear all loose aggregate from an area 2 inches outside each base footprint and then follow the installation directions outlined above. Care should be taken to install each pipestand so it supports a proportional and equal amount of weight with all other pipestands.

In addition, the pipe may be secured to the pipestand by using a MIRO Pipe Guide and two #8 stainless-steel screws in the guide holes at the top of each pipestand. Note: the pipe guide should not be rigidly-attached to the pipe in the pipestand, thus allowing the supported pipe to expand and contract without binding.
- Spacing:** Manufacturer's recommended spacing is not to exceed 7 foot centers depending upon the load. Make certain each pipestand is properly elevated and adjusted to ensure even-load distribution to all pipestands. Support spacing is not to exceed the maximum spacing required in the pipe specifications, where applicable.
- Availability:** Pillow Block Pipestands are marketed throughout the United States through representatives and distributors.
- Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pipestand position and set pipe alignment, check proper weight distribution, and to correct improper installation that may cause pipestand damage or failures.
- Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



TOP VIEW



ISOMETRIC VIEW



SIDE VIEW

Product Description

The Model 1.5 Spacer is 6" square and the base is gently rounded to prevent gouging the roof. The outer edges are raised 1 1/2" and increased elevations may be achieved by stacking Model 1.5 on 1 or 2 spacers, each with a height of 1 1/2". Four drainage ports are provided to prevent ponding within the device. The dimensional area resting on the roof is 5 7/8" square, and 34.52 square inches are in contact with the roof.

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	JAN 2019	

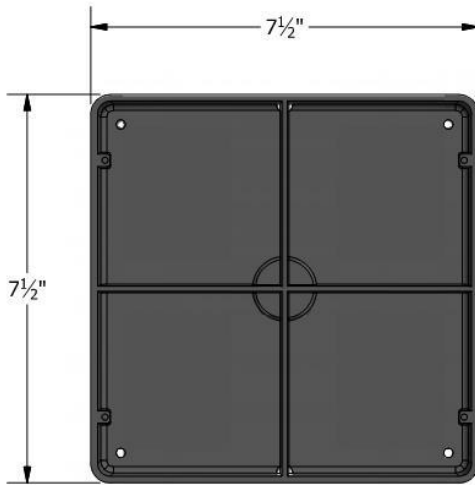
Product Data Sheet

3-R SPACER

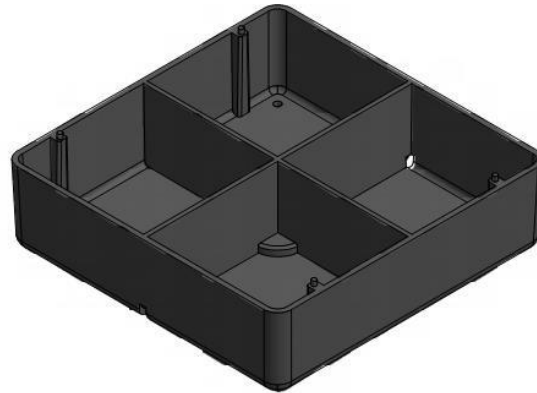
1. **Product Name:** PILLOW BLOCK PIPESTAND MODEL 3-R SPACER NOTE: Pillow Block pipestand Model 3-R Spacer is only used to stack under the 3-R-2 and 3-R-4 models respectively to increase the height and the clearance of the pipe above the roof.
2. **Manufacturer:** MIRO INDUSTRIES, INC. Phone: (800) 768-6978
844 South 430 West, Suite 100, Fax: (800) 440-7958
Heber City, Utah 84032
3. **Product Description:** The Model 3-R Spacer is 7½ inches square and is designed to elevate the 3-R-2 and 3-R-4 model supports an additional 2 inches. The 3-R Spacer has gently rounded edges to prevent gouging of the roof surface. The 3-R Spacer is to be placed directly under the Model 3-R-2 or 3-R-4 support, and up to a maximum of 3 spacers can be stacked together. Two drainage ports are provided to prevent ponding within the device. The dimensional area resting on the roof is 7-1/2 x 7-1/2 inches square with a 52.56 square-inches surface area in contact with the roof surface.
4. **Compatibility:** Pillow Block Pipestands are recommended and are compatible for use with all current types of decking and with all commonly used built-up and single-ply roofing membranes where roof-mounted pipes occur.
5. **Load Weight:** Maximum load-weight may not exceed 118 lbs. for the 3-R-2 and 3-R-4 pipestands.
6. **Composition and Materials:** The 3-R Spacer consists of a one-piece roof-deck base made of polycarbonate resin with stacking alignment pins, and an interior cross hatch support structure. Carbon black is added for UV-resistance and protection.
7. **Size:** The 3-R Spacer is made in one standard size. The deck base is 7-1/2 x 7-1/2 inches square with an overall height 2 inches. Each 3-R spacer increases the clearance of the pipe by an additional 2".
8. **Installation:** To install the spacers, locate the stacking and alignment pins on the spacers and the corresponding holes in the bottom of the 3-R pipestands. Set the pipestands on the spacers, making sure that the four pins are snug in the stacking holes, and follow the installation directions for pipestands below.

To install the pillow block pipestand, (1) center the pipestand beneath the pipe so that the pipe will rest centered directly on the roller. (2) Set the pipe in the pipestand without dropping or causing any undue impact. An additional sheet of roofing material, or a MIRO Support Pad should be installed beneath the pipestand. For built up roofs, clear all loose aggregate from an area 2 inches outside each base footprint, and then follow the installation directions outlined above. Care should be taken to install each pipestand so it supports a proportional and equal amount of weight with all other pipestands.

In addition, the pipe may be secured to the pipestand by using a MIRO Pipe Guide and two #8 stainless-steel screws in the guide holes at the top of each pipestand. **Note:** the pipe guide should not be rigidly-attached to the pipe in the pipestand, thus allowing the supported pipe to expand and contract without binding.
9. **Spacing:** Manufacturer's recommended spacing is not to exceed 7 foot centers depending upon the load. Make certain each pipestand is properly elevated and adjusted to ensure even-load distribution to all pipestands. Support spacing is not to exceed the maximum spacing required in the pipe specifications, where applicable.
10. **Availability:** Pillow Block Pipestands are marketed throughout the United States through representatives and distributors.
11. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pipestand position and set pipe alignment, check proper weight distribution, and to correct improper installation that may cause pipestand damage or failures.
12. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



TOP VIEW



ISOMETRIC VIEW



FRONT VIEW

Product Description

The Model 3-R Spacer is 7½" square and the base is gently rounded to prevent gouging the roof. The outer edges are raised 2" and increased elevations may be achieved by stacking Model 3-R-2 or 3-R-4 on 1 or 2 spacers, each with a height of 2". Four drainage ports are provided to prevent ponding within the device. The dimensional area resting on the roof is 7½" inches square and 52.56 square inches are in contact with the roof.

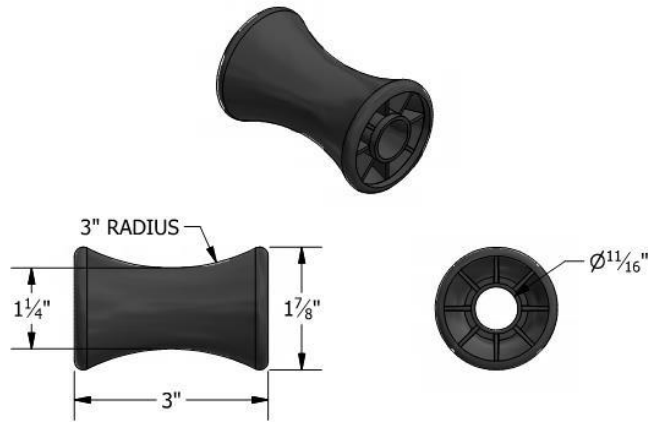
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	JAN 2019	

Product Data Sheet

ROLLER 3 AND ROLLER 5

1. **Product Name:** MODEL ROLER 3 AND ROLLER 5 **NOTE:** MIRO Models Roller 3 and Roller 5 are the same rollers used on MIRO pipestands and may be purchased separately for other uses.
2. **Manufacturer:** MIRO INDUSTRIES, INC. Phone: (800) 768-6978
844 South 430 West, Suite 100, Fax: (800) 440-7958
Heber City, Utah 84032
3. **Product Description:** The Model Roller 3 and Model Roller 5 are heavy-duty support rollers made of polycarbonate resin.
4. **Compatibility:** The rollers are recommended and are compatible for use with all current types of metal, plastics and decking and with all commonly used built-up and singly-ply roofing membranes where roof-mounted pipes occur.
5. **Load Weight:** Maximum load weight may not exceed 335 lbs. for the Model 3 Roller and 578 lbs. for the Model 5 Roller. Both rollers are designed to accommodate a 5/8 inch diameter axle. User to verify axle and support capacity.
6. **Composition and Materials:** Both rollers consist of three components: (1) a concave bearing surface with a radius of 3" for the Roller 3 and a radius of 5" for the Roller 5, (2) both rollers have shaft openings of 5/8", and (3) the interior support structure consists of eight heavy duty walls radiating from the center shaft to the bearing surface.
7. **Size:** Roller 3 is 3 inches in length, the roller ends have a 1-7/8 inch diameter, has a 3 inch radius arch on the bearing surface, has a 5/8 inch shaft opening, requires a clearance of at least 15/16 inch from the center of the shaft opening, has a diameter of 1-1/4 inch at the center of the bearing surface, and loads on the bearing surface will be 5/16 inch above the supporting shaft.

Roller 5 is 5 inches in length, the roller ends have a 2-7/16 inch diameter, has a 5 inch radius arch on the bearing surface, has a 5/8 inch radius arch on the bearing surface, has a 5/8 inch shaft opening, requires a clearance of at least 1-7/32 inch from the center of the shaft opening, has a diameter of 1-1/4 inch at the center of the bearing surface, and loads on the bearing surface will be 5/16 inch above the supporting shaft.
8. **Installation:** Slide the roller over an appropriate shaft or axle to properly support the entire length of the roller so the roller will operate properly. Proper engineering on the load limits of the supporting shaft and the structure that supports the shaft are essential.
9. **Availability:** Rollers are marketed throughout the United States through representatives and distributors.
10. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pipestand position and pipe alignment, check proper weight distribution and improper installation that may cause system failure or damage.
11. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



ROLLER 3



ROLLER 5

Product Description

The Model Roller 3 and Model Roller 5 are heavy-duty support rollers made of polycarbonate resin.

Both rollers consist of three components:

1. a concave bearing surface with a radius of 3" for the Roller 3 and a radius of 5" for the Roller 5
2. both rollers have shaft openings of 5/8"
3. the interior support structure consists of eight heavy duty walls radiating from the center shaft to the bearing surface.

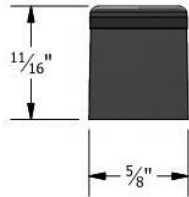
Maximum load weight may not exceed 335 lbs. for the Model 3 Roller and 578 lbs. for the Model 5 Roller. Both rollers are designed to accommodate a 5/8 inch diameter axle. User to verify axle and support capacity.

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	JAN 2019	

Product Data Sheet

3-R Bracket

1. **Product Name:** Model 3-R Bracket
2. **Manufacturer:** MIRO INDUSTRIES, INC.
844 South 430 West, Suite 100,
Heber City, Utah 84032
Phone: (800) 768-6978
Fax: (800) 440-7958
3. **Product Description:** MIRO Industries 3-R Bracket is designed to be inserted into the Model 3-R-2 to raise the roller height clearance to 4 inches. The 3-R Brackets are sold individually and are inserted into existing 3-R-2 roof supports, or the Model 3-R-4 can be bought with the 3-R Bracket already inserted by the manufacturer.
4. **Installation:** Pull the polycarbonate roller and rod out of the 3-R-2 and insert one 3-R Bracket into each slot. The 3-R Bracket should be flush with the inner wall dimension and the bottom trough. Replace the polycarbonate roller and rod to fit on top of the new inserts.
5. **Availability:** The 3-R Brackets are marketed throughout the United States through representatives and distributors.
6. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pipestand position and pipe alignment, check proper weight distribution and improper installation that may cause system failure or damage.
7. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.



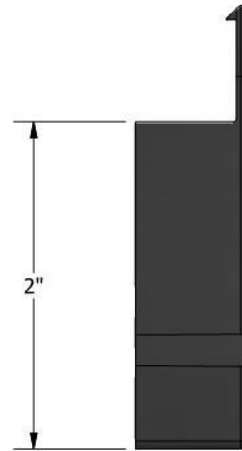
TOP VIEW



ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW

Product Description

MIRO Industries 3-R Bracket is designed to be inserted into the Model 3-R-2 to raise the roller to give a height clearance of 4". The 3-R Brackets are sold as a pair to be inserted into existing 3-R-2 roof supports. Bracket is used to convert the model 3-R-2 to a 3-R-4. Refer to 3-R-4 for specifications and limitations.

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DATE:
JAN 2019

3-R BRACKET

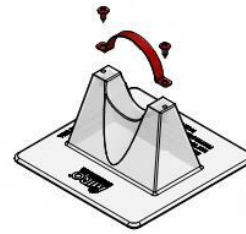
Product Data Sheet

PIPE GUIDES

1. **Product Name:** MIRO Model Pipe Guides
2. **Manufacturer:** MIRO INDUSTRIES, INC.
844 South 430 West, Suite 100,
Heber City, Utah 84032
Phone: (800) 768-6978
Fax: (800) 440-7958
3. **Product Description:** MIRO Industries Pipe Guides are designed to attach to MIRO Industries Pillow Block and Roller Series Supports to prevent supported pipe from becoming disengaged from the pipestand. All Pipe Guides will ship separately and will need to be installed on site. It is important to note that pipe guides should not be rigidly-attached to the pipe installed in the pipestand to allow for lateral thermal expansion and contraction of the pipe to occur within the pipestand. Pipe Guides are stocked in accordance with the optimally sized pipe for each support. ***Custom pipe guides are available upon request. Please call MIRO Industries for more information.**
4. **Installation:**
 - Pillow Block Models 1.5, 3-R-2 and 3-R-4: Attach the Pipe Guide to the appropriate support using the included #8 phillips head stainless-steel screws into the molded holes on the top of the polycarbonate support.
 - Roller Series Support Models: Remove the nut from the vertical all-thread above the roller assembly. Install the appropriate Pipe Guide onto the vertical all-thread, and replace the nut securing the pipe guide in place.
5. **Availability:** MIRO Pipe Guides are marketed throughout the United States through representatives and distributors.
6. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check pipestand position and pipe alignment, check proper weight distribution and for improper installation that may cause system failure or damage.
7. **Technical Services:** Please call MIRO INDUSTRIES, INC: (800) 768-6978 or visit our website www.miroind.com for technical information and for graphic and CAD drawing downloads.

1.5 Pipe Guide

Guide material is 0.040 inch aluminum 5052 alloy temper H32 ASTM B-209-01.
Included with 1.5 pipe guides are #8 stainless-steel screws that are to be used to attach the strap to molded holes in the top of the polycarbonate support.



3-R-2 Pipe Guide

Guide material is 0.040 inch aluminum 5052 alloy temper H32 ASTM B-209-01.
Included with 3-R-2 pipe guides are #8 stainless-steel screws that are to be used to attach the strap to molded holes in the top of the polycarbonate support.



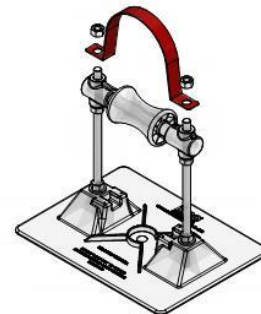
3-R-4 Pipe Guide

Guide material is 0.040 inch aluminum 5052 alloy temper H32 ASTM B-209-01.
Included with 3-R-4 pipe guides are #8 stainless-steel screws that are to be used to attach the strap to molded holes in the top of the polycarbonate support.



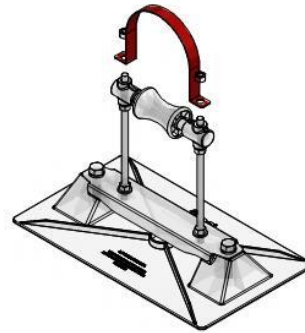
3-RAH-3 Inch Pipe Guide

Guide is 16 gauge (0.051 in) aluminum 5052 alloy temper H32 ASTM B-209-01
Remove the two top hex nuts from the RAH assembly, install the pipe guide and replace the hex nuts.



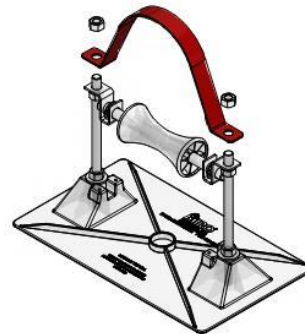
4-RAH 4 Inch Pipe Guide

Guide is 16 gauge (0.051 in) aluminum 5052 alloy temper H32 ASTM B-209-01
Remove the two top hex nuts from the RAH assembly, install the pipe guide and replace the hex nuts.



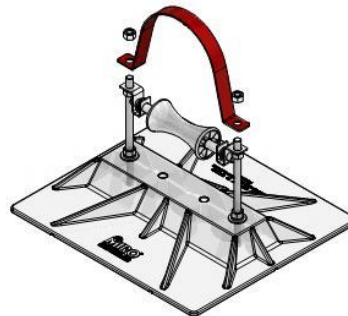
5-RAH-5 Inch Pipe Guide

Guide is 10 gauge (0.1019 in) aluminum 5052 alloy temper H32 ASTM B-209-01
Remove the two top hex nuts from the RAH assembly, install the pipe guide and replace the hex nuts.



6-RAH-6 Inch Pipe Guide

Guide is 10 gauge (0.1019 in) aluminum 5052 alloy temper H32 ASTM B-209-01
Remove the two top hex nuts from the RAH assembly, install the pipe guide and replace the hex nuts.



10-RAH-10 Inch Pipe Guide

Guide is 10 gauge (0.1019 in) A36 Steel with a hot-dip galvanized finish.
Remove the two top hex nuts from the RAH assembly, install the pipe guide and replace the hex nuts.



Custom Product Pricing

When quoting custom products, the following questions need to be answered:

PIPE

1. Quantity of supports required (or total footage of pipe)
2. Type of Pipe
3. Size of pipe and number of pipes per support
4. Pipe contents
5. Center line distance between adjacent pipes for multiple pipe supports
6. Clearance height above roof
7. Thickness of any Insulation around pipe

DUCT OR “H” TYPE & CABLE TRAY SUPPORTS

1. Dimension of duct
2. Duct material and wall thickness
3. Clearance height above roof
4. Total footage of duct
5. Thickness of insulation, if any
6. Does duct need to be enclosed

BRIDGE CROSSOVER, WALKWAY, SERVICE PLATFORM AND RAMP SYSTEMS

1. Width and length desired
2. Height off roof
3. Specify if railing is needed
4. Type of roof

*OSHA Standards

MECHANICAL SUPPORTS

1. Width and length desired
2. Height off roof
3. Weight of unit

SEISMIC AND WIND UP-LIFT SUPPORTS

1. Pipe and/or duct dimensions
2. Insulation
3. Lineal feet of pipe and/or duct
4. Clearance height off roof
5. General notes and index specification sheet