

Product Data Sheet

HD MECHANICAL UNIT SUPPORTS

1. **Product Name:** HD MECHANICAL UNIT SUPPORTS
2. **Manufacturer:** MIRO INDUSTRIES, INC.
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3. **Product Description:** HD Mechanical Unit Supports elevate rooftop mechanical units, such as air conditioning or other devices, to desired heights above the roof. HD Mechanical Unit Supports are designed so that the mechanical units' rests on a level plane elevated above the roof surface. The system is designed to carry the weight of the unit and distribute the load to the roof surface through a frame system connected to either a polycarbonate, stainless-steel or hot-dip galvanized base. HD Mechanical Unit Supports are adjustable in the field via bolted connections so that a level surface at the desired height can be obtained. All metal parts are made of either hot-dip galvanized steel or stainless-steel for outdoor weathering protection. HD Mechanical Unit Supports consists of (1) a MIRO designed base, with gently curved edges to protect the roof membrane, that distributes the weight over the maximum roof surface (2) hot-dip galvanized steel strut or stainless-steel frame structure, and (3) galvanized planking, bar grading or a rail system that the mechanical unit rests on and can be attached to.
4. **Product Performance:** HD Mechanical Unit Supports can be used to support mechanical devices which are positioned upon the roof. HD Mechanical Supports are typically set on the roof surface as a free-floating system. As units operate and as daytime temperatures warm and cool in the rooftop environment, mechanical equipment and connected piping expands and contracts with the temperature fluctuations. HD Mechanical Unit Supports are designed to support such devices and absorb such movement in a way that protects the roof. Vibration eliminators can be added to units if necessary. Free floating support systems may not meet code requirements for other applicable lateral loading.
5. **Compatibility:** HD Mechanical Unit Supports are recommended for use on, and are compatible with, all current types of decking and with all commonly used built-up and single-ply roofing membranes where roof-mounted pipes and devices are installed.
6. **Load Weight:** Maximum load weight is equivalent to, and is part of, the maximum rooftop bearing-load, which shall be determined for each support based on the unit size and weight. MIRO recommends loading on HD Mechanical supports not exceed 3 lbs. per square inch to the roof surface under any of the support bases. In addition, a deflection limit for frame members shall not exceed the span length divided by 360 ($L/360$) and a maximum recommended deflection not to exceed 1/8 inch.
7. **Composition and Materials:** HD Mechanical Unit Supports are made with either polycarbonate, hot-dip galvanized or stainless-steel bases and either hot-dip galvanized or stainless-steel framing and hardware. Base sizes are determined based on loading requirements for the support and load distribution to the roof.
8. **Size:** HD Mechanical Unit Supports are manufactured to project specific dimensions, and they are to have height adjustability to ensure a level surface and provide desired heights off the roof.
9. **Installation:** (1) Determine the dimensions, weight, desired height off the roof, and location of the unit on the roof, (2) place the HD Mechanical Unit Supports in their approximate positions, and level the support framing for the unit, ensuring each base sits flat on the roof surface, (3) take final measurements and adjust the Mechanical Unit Support to fit properly, allowing the load to be distributed throughout the framing system to ensure that an even amount of load (not to exceed 3.0 pounds per square inch) is placed upon each leg and base support, (4) and adjustment in height can be obtained by moving the framing system up and down the leg of the support through adjustment of the brackets.

MIRO recommends an additional sheet of roofing material, or a MIRO Support Pad be installed beneath each base. 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.
10. **Spacing:** Each HD Mechanical Unit Support should be spaced at intervals to allow proper installation of the mechanical units or devices, and so as not to exceed recommended weight bearing upon rooftop materials which MIRO recommends not to exceed 3.0 lbs. per square inch.
11. **Availability:** HD Mechanical Unit Supports are marketed throughout the United States through representatives and distributors.
12. **Maintenance:** Normal maintenance is not required. Semi-annual inspection is required to check support position, pipe alignment, weight distribution, and to correct improper installation which may cause system failure or damage.
13. **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.