

## 1. Description



**Loop Hanger Clamps**, also known as Clevis Hangers (though clevis hangers often imply a pivot point which may not always be present in simpler loop hangers) or Pipe Hangers, are pipe support devices designed to suspend stationary, non-insulated pipelines from an overhead structure. They consist of a looped band of metal (the "loop") that cradles the pipe, and a threaded rod or bolt connection point at the top, which allows for attachment to a ceiling anchor, beam clamp, or other support. The loop is typically a two-piece design that bolts together around the pipe, or a one-piece pre-formed loop that the pipe is inserted into, often with a retaining bolt or strap. These clamps are widely used in plumbing, HVAC, fire protection, and industrial piping systems for vertical adjustment and support of pipelines.

## 2. Key Features

- **Pipe Suspension:** Designed specifically for suspending pipes from overhead structures.
- **Vertical Adjustment:** The use of a threaded rod for suspension allows for easy vertical adjustment of the pipe elevation.
- **Simple Design:** Generally a straightforward and economical solution for pipe support.
- **Secure Support:** Provides stable support for stationary pipelines.
- **Variety of Sizes:** Available to accommodate a wide range of pipe diameters.
- **Ease of Installation:** Can be installed using common hand tools.
- **Load Bearing Capacity:** Engineered to support the weight of the pipe and its contents up to specified load limits.
- **Corrosion Resistance:** Available in various materials and finishes to suit different environmental conditions.
- **Optional Retaining Strap/Bolt:** Some designs include a lower retaining strap or bolt to ensure the pipe remains securely within the loop, especially if minor movement or vibration is anticipated.

### 3. Technical Data

- **Type:** Loop Hanger, Clevis Hanger (for simpler, non-swivel types), Pipe Hanger.
- **Common Materials:**
  - **Loop/Band:**
    - Carbon Steel (Mild Steel)
    - Stainless Steel (e.g., Type 304, Type 316)
    - Malleable Iron (for some heavier-duty clevis-style components)
  - **Hardware (Bolts, Nuts):** Carbon Steel (Plated), Stainless Steel.
- **Surface Finish/Coating (for Carbon Steel):**
  - Electro-Galvanized (Zinc Plated – e.g., ASTM B633 SC3 Type III) – Common for indoor/dry environments.
  - Hot-Dip Galvanized (HDG – e.g., ASTM A123) – For superior corrosion resistance in outdoor or harsh environments.
  - Painted or Epoxy Coated.
- **Compatible Pipe Sizes:**
  - Available for a wide range of standard pipe sizes (IPS – Iron Pipe Size).
  - Commonly ranges from 1/2" to 12" and larger for specific applications.
- **Suspension Connection:**
  - Typically features a tapped hole or a nut welded to the top of the loop for connection to a threaded rod.
  - Common thread sizes: 3/8", 1/2", 5/8", 3/4" (or metric equivalents M10, M12, M16, M20).
- **Design Variations:**
  - **One-Piece Loop:** Pre-formed loop where the pipe is inserted, often with a separate lower retaining bolt or strap.
  - **Two-Piece Loop:** Two halves that bolt together around the pipe.
  - **Light, Standard, or Heavy Duty:** Classified based on material thickness and load-bearing capacity.
- **Load Rating:**
  - Varies significantly based on clamp design, size, and material. Manufacturers provide specific safe working load data for each hanger size.
  - Safety factors are applied to ultimate load capacities.
- **Temperature Range:**
  - Primarily limited by the pipe material and the environment. Standard steel hangers are suitable for a wide range of typical service temperatures. For high-temperature applications, material selection is critical.
- **Relevant Standards:** MSS SP-58, MSS SP-69, ASTM standards for materials, WW-H-171.

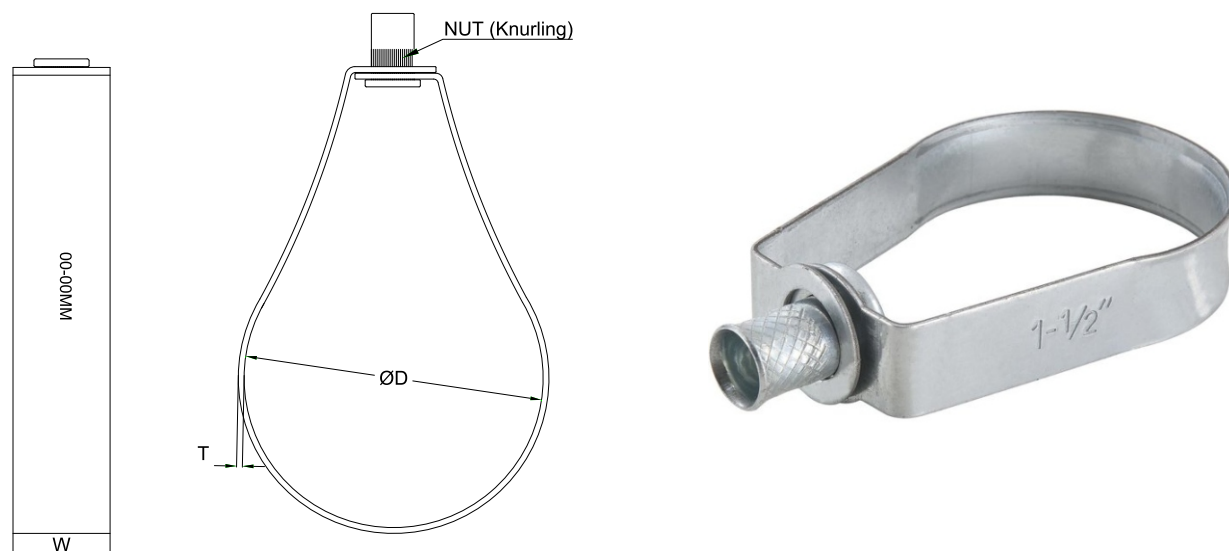
## 4. Common Applications

- **Plumbing Systems:** Supporting water supply lines (hot and cold), drainage pipes.
- **HVAC Systems:** Suspending chilled water pipes, heating lines, and some ductwork.
- **Fire Protection Systems:** Supporting sprinkler system piping (specific listings like UL/FM may be required for these applications).
- **Industrial Piping:** Supporting process piping, utility lines (air, water, gas) in manufacturing plants, refineries, and power plants.
- **Commercial Buildings:** Suspending various utility pipes in office buildings, retail spaces, hospitals.
- **Residential Construction:** Supporting plumbing and some HVAC lines.
- Generally used for suspending stationary, non-insulated pipelines where vertical adjustment is needed.

## 5. Installation Guidance

- **Select the Correct Hanger Size:** Choose a loop hanger with an internal diameter that properly accommodates the outside diameter of the pipe to be supported. Ensure the load rating is adequate for the pipe, its contents, and any insulation (though these are typically for non-insulated lines).
- **Install Overhead Support:** Securely install the overhead support component (e.g., beam clamp, ceiling flange) from which the threaded rod will hang.
- **Attach Threaded Rod:** Cut the threaded rod to the required length. Thread one end into the overhead support component and secure it with nuts as required.
- **Assemble Hanger on Pipe:**
  - **For Two-Piece Loop Hangers:** Place the two halves of the hanger around the pipe at the desired support location and insert/tighten the connecting bolts and nuts.
  - **For One-Piece Loop Hangers:** Slide the pipe into the pre-formed loop. If a retaining strap or bolt is part of the design, install it loosely.
- **Attach Hanger to Threaded Rod:** Thread the top connection point of the loop hanger onto the free end of the suspended threaded rod.
- **Adjust Elevation:** Adjust the pipe to the correct elevation by turning the loop hanger on the threaded rod or by using the upper and lower nuts on the threaded rod.
- **Secure and Tighten:**
  - Ensure the pipe is level and properly aligned.
  - Securely tighten the nuts on the threaded rod to lock the hanger at the desired elevation.
  - If the loop hanger has connecting bolts or a retaining strap, ensure these are also securely tightened. Do not over-tighten to the point of deforming the pipe.
- **Spacing:** Install hangers at intervals recommended by piping codes or engineering specifications to adequately support the pipeline.

## 6. Specifications



Code	Diameter		Width (mm)	Thickness (mm)	Screw	Material
	inch	mm				
LH013	1/2	13	20	1.2	M8	W1/W4/W5
LH020	3/4	20	20	1.2	M8	W1/W4/W5
LH025	1	25	20	1.2	M8	W1/W4/W5
LH032	1-1/4	32	20	1.2	M8	W1/W4/W5
LH040	1-1/2	40	20	1.2	M8	W1/W4/W5
LH050	2	50	20	1.2	M8	W1/W4/W5
LH065	2-1/2	65	20	1.2	M8	W1/W4/W5
LH080	3	80	30	1.5	M10	W1/W4/W5
LH100	4	100	30	1.5	M10	W1/W4/W5
LH125	5	125	30	1.5	M10	W1/W4/W5
LH150	6	150	30	1.5	M10	W1/W4/W5
LH200	8	200	30	1.5	M10	W1/W4/W5

Please contact sales for more information about other sizes.

## 7. Maintenance & Safety

- **Regular Inspection:** Periodically inspect loop hangers for signs of corrosion, wear, deformation, or loosening of nuts and bolts. This is especially important in environments with vibration or potential for corrosion.
- **Load Limits:** Do not exceed the manufacturer's specified safe working load for the hangers. Consider the total weight including the pipe, contents, and any fittings.
- **Material Compatibility:** Ensure the hanger material and coating are suitable for the installation environment to prevent premature corrosion.
- **Proper Tightening:** Ensure all nuts and bolts are securely tightened. Loose fasteners can lead to pipe sagging or failure.
- **Vertical Adjustment Security:** After adjusting the pipe elevation, ensure the hanger is securely locked in place on the threaded rod using jam nuts.
- **Not for Lateral Restraint (Typically):** Standard loop hangers are primarily designed for vertical support and may not provide significant lateral restraint unless specifically designed or supplemented for that purpose.
- **Safety Equipment:** Wear appropriate personal protective equipment (PPE) such as gloves, safety glasses, and hard hats when working overhead or installing pipe supports.

## 8. Associated Products

- Threaded Rods (All-Thread Rod)
- Hex Nuts (for securing to threaded rod and for clamp assembly)
- Washers
- Beam Clamps (for attaching threaded rod to beams)
- Ceiling Flanges or Plates (for attaching threaded rod to concrete or wood structures)
- Pipe (Steel, Copper, PVC, etc.)

**Disclaimer:** This datasheet provides general information typical for Loop Hanger Clamps. Specific technical data, materials, load capacities, and installation procedures can vary significantly between different manufacturers and product designs. Always refer to the manufacturer's official documentation, relevant piping codes, and engineering specifications for the particular loop hanger being considered or used.