

1. Description



Mini Hose Clamps, also known as micro gear clamps or miniature worm drive clamps, are small-sized fastening devices designed for securing small diameter hoses, tubes, or cables in applications where space is limited or a less obtrusive clamp is required. They operate on the same worm gear principle as their larger counterparts: a screw, when turned, engages with a perforated or embossed band, causing the band to tighten around the object. These clamps are ideal for providing a secure and reliable seal on small, flexible hoses in a variety of industries, including automotive, electronics, plumbing, appliances, and for general household or DIY repairs.

2. Key Features

- **Compact Size:** Specifically designed for small diameter hoses and applications with limited space.
- **Lightweight:** Their small size contributes to minimal added weight.
- **Worm Gear Mechanism:** Allows for easy and precise tightening to achieve a secure fit.
- **Adjustable Diameter:** Each clamp can be adjusted to fit a range of small hose diameters.
- **Ease of Installation:** Can be installed and tightened using common tools like a small screwdriver or a 1/4" hex driver.
- **Good Sealing for Low Pressure:** Effective for creating a reliable seal in low-pressure fluid, air, or gas lines.
- **Cost-Effective:** Generally an economical solution for small hose applications.
- **Variety of Materials:** Available in different materials, including stainless steel for corrosion resistance.
- **Rolled/Smooth Band Edges (often):** Helps prevent damage to soft or thin-walled hoses during tightening.

3. Technical Data

- **Type:** Miniature Worm Drive Hose Clamp / Micro Gear Clamp
- **Common Materials:**
 - **Band & Housing:**
 - Stainless Steel (e.g., AISI 301, AISI 304, AISI 430) for corrosion resistance.
 - Carbon Steel (often zinc-plated).
 - **Screw:**
 - Stainless Steel (e.g., AISI 304, AISI 316, AISI 430).
 - Carbon Steel (typically zinc-plated).
- **Material Designations:**
 - **W1:** All parts zinc-plated carbon steel.
 - **W2:** Stainless steel band and housing (e.g., 430SS), plated carbon steel screw.
 - **W4:** All parts stainless steel (e.g., AISI 304).
 - **W5:** All parts high-grade stainless steel (e.g., AISI 316).
- **Band Design:** Typically a perforated band, though some may feature embossed threads.
- **Band Widths (Common):** 0.35" (9mm)
- **Band Thickness (Typical):** 0.024" (0.6mm).
- **Screw Head Type (Common):** Slotted Hexagonal Head (typically 7mm).
- **Clamping Diameter Range:** 7-34mm or larger for customizing.
- **Recommended Installation Torque:**
 - Generally lower than standard-sized clamps due to smaller components.
 - Typical range: 10 to 26 in-lbs (approx. 1.1 to 3.0 Nm).
- **Relevant Standards:**
 - May meet aspects of SAE J1508 Type M (for miniature clamps).
 - DIN 3017 principles may be applied for quality and design.
 - RoHS & REACH compliance may be noted.

4. Common Applications

- **Automotive:** Small fuel lines, vacuum lines, emission control hoses, windshield washer tubing.
- **Appliances:** Internal tubing in washing machines, dishwashers, refrigerators, coffee makers.
- **Electronics:** Securing small cables or tubing within electronic enclosures.
- **Plumbing:** Small diameter water lines, air lines for aquariums or pneumatic controls.
- **Medical Equipment:** Securing tubing in various medical devices (material selection is critical).
- **Gardening Equipment:** Small fuel lines on power tools, irrigation drip systems.
- **Pneumatic Systems:** Low-pressure air lines and control tubing.
- **DIY Projects & Hobbies:** Various small-scale fastening needs.
- **Food Processing (with appropriate material selection):** Small tubing for fluid transfer.

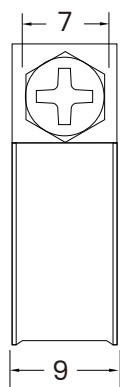
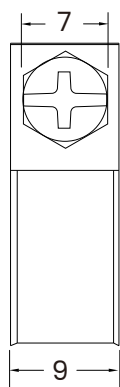
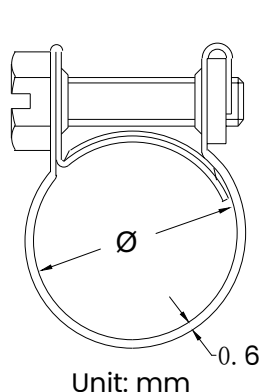
5. Installation Guidance

- **Select the Correct Clamp Size:** Choose a mini clamp where the hose's outside diameter (OD) falls comfortably within the clamp's specified adjustment range.
- **Open the Clamp (if necessary):** Loosen the screw sufficiently to allow the clamp to slide over the hose.
- **Position the Clamp:** Slide the clamp over the end of the hose before fitting the hose onto the spigot or barb.
- **Attach Hose to Fitting:** Push the hose fully onto the fitting.
- **Position Clamp Correctly:** Place the clamp over the sealing area of the hose on the fitting, typically just behind the barb or raised portion of the fitting. Ensure the band is straight.
- **Tighten the Clamp:** Use an appropriate screwdriver or 1/4" hex driver to turn the screw clockwise. Tighten until the hose is securely fastened to the fitting and a good seal is achieved. Avoid over-tightening, as this can damage small or soft hoses or strip the clamp's screw/band.
- **Inspect:** Check the connection for tightness and ensure there are no leaks.

6. Maintenance & Safety

- **Avoid Over-Tightening:** Due to their smaller size, mini clamps can be more susceptible to damage if over-torqued. This can strip the screw threads or damage the band or hose.
- **Inspect Periodically:** Check for any signs of loosening, corrosion, or damage to the clamp or hose, especially in applications with vibration or temperature changes.
- **Material Compatibility:** Ensure the clamp material is suitable for the environment and any fluids it may come into contact with.
- **Hose Condition:** Use on hoses that are in good condition and appropriately sized for the fitting.
- **Tool Selection:** Use the correct size and type of screwdriver or driver to avoid damaging the screw head.
- **Safety Equipment:** Consider wearing safety glasses during installation, especially if working in awkward positions.

7. Specifications



Code	Diameter (mm)	Width (mm)	Thickness (mm)	Code	Diameter (mm)	Width (mm)	Thickness (mm)
MH0709	7-9	9	0.6	MH2022	20-22	9	0.6
MH0810	8-10	9	0.6	MH2123	21-23	9	0.6
MH0911	9-11	9	0.6	MH2224	22-24	9	0.6
MH1012	10-12	9	0.6	MH2325	23-25	9	0.6
MH1113	11-13	9	0.6	MH2426	24-26	9	0.6
MH1214	12-14	9	0.6	MH2527	25-27	9	0.6
MH1315	13-15	9	0.6	MH2628	26-28	9	0.6
MH1416	14-16	9	0.6	MH2729	27-29	9	0.6
MH1517	15-17	9	0.6	MH2830	28-30	9	0.6
MH1618	16-18	9	0.6	MH2931	29-31	9	0.6
MH1719	17-19	9	0.6	MH3032	30-32	9	0.6
MH1820	18-20	9	0.6	MH3133	31-33	9	0.6
MH1921	19-21	9	0.6	MH3234	32-34	9	0.6

For more information about other specific sizes, please contact sales.

Disclaimer: This datasheet provides general information typical for Mini Hose Clamps. Specific technical data, materials, performance characteristics, and installation torque values can vary significantly between different manufacturers and product lines. Always refer to the manufacturer's official documentation and specifications for the particular hose clamp being considered or used.