

A **hose clamp** (or hose clip) is a heavy-duty mechanical hardware device designed to attach and seal a hose over a fitting, barb, or nipple. It evenly distributes clamping pressure around the hose circumference to **prevent fluid or gas leaks** and secure the mechanical joint under pressure and vibration. [

Common Types of Hose Clamps

- **Worm Gear Clamps:** Features a threaded screw and a slotted metal band. Turning the screw pulls the band threads tighter around the hose. These are highly adjustable and standard for automotive and plumbing repairs. [
- **T-Bolt Clamps:** Heavy-duty clamps designed for high-pressure systems, such as turbocharger hoses or industrial piping. They use a robust bolt-and-nut assembly to deliver superior torque without slipping.
- **Ear Clamps (Oetiker Clamps):** Permanent, single-use rings with a small metal "ear". You crimp the ear using special pincer tools to provide a highly secure, tamper-proof 360-degree seal. [
- **Spring Clamps:** Self-adjusting metal bands that exert constant tension as the hose expands or contracts with temperature changes. They are heavily favored in factory automotive cooling systems. [
- **Key / Butterfly Clamps:** Feature an integrated plastic or metal thumb screw. They allow completely tool-free manual tightening, making them ideal for quick-release garden hoses or gas stove fittings