



Motion Pro, Inc.
867 American Street
San, Carlos, CA 94070
Tel: 650.594.9600 Fax: 650.594.9610
www.motionpro.com

INSTRUCTIONS

Installing Stepless® Hose Clamps

Stepless clamps are extremely simple to install, and they are more secure and compact than standard screw type hose clamps. Installing them is very straightforward, but there are a few tips and tricks that will make installing them even easier. Motion Pro makes kits for both cooling and fuel systems. The images in this instruction illustrate installation on a radiator hose, but installation of stepless clamps is the same no matter what type of hose it is.

First, the most important job is to select the correct size. The size range for each clamp is listed on the inside lid of the clamp kit. The sizes are also listed individually on each clamp's individual page on the Motion Pro website. The maximum size is stamped into the clamp itself, and a general rule of thumb is about a 3mm range for each clamp. Therefore, a clamp that is stamped "33.1", for instance, would have an approximate range from about 30mm to 33mm.



The first step is to measure the installed diameter of the hose when it is mounted on its spigot or hose barb. If the installed hose diameter is 28mm, then you would use the 26.9-30.1mm clamp.



The clamps are one piece, so you have to remove the hose from the spigot to slide the clamp over the hose, and then push the hose back onto the spigot.

Stepless clamps use a special crimping tool on the clamp ear to tighten them on the hose. The crimping tool can be used in two orientations, depending on how much room you have around the installation.



Crimping straight on towards the clamp.



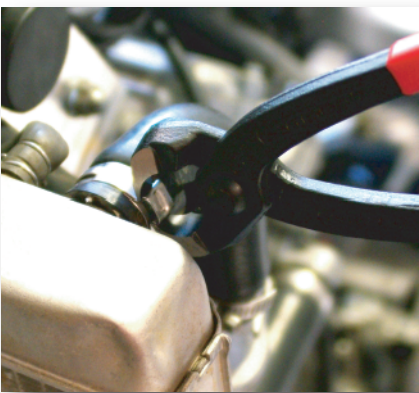
Crimping from the side.

The pinching surfaces of the tool are placed on each side of the ear on the clamp, and the jaws are compressed until the hose is securely clamped to the spigot. The ear should be between 50-80% closed when properly crimped. Do not attempt to try to completely close it, as the slightly open ear will accommodate expansion and contraction of the hoses and fittings as the system heats and cools.



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Crimping tool in position.



Crimping the clamp on the hose.



Final crimp appearance.

To remove a previously installed stepless clamp, use a side-cutting pliers to cut through the center of the ear that is crimped when the clamp was installed. Stepless clamps are single use, so never attempt to remove and reuse them. Cutting through the ear is the fastest way to remove it, you lower the risk of damaging the hose, and it ensures that the clamp will not be reused by mistake.



Cutting through the ear of the stepless clamp to remove it



Ready to remove, and not reusable.