

## 6-Jaw Short Crimpers Models GPC and GPJ



Blockwise Engineering, LLC  
<http://www.blockwise.com>

The **Blockwise Short Crimpers** (patent pending) are 6-jaw radial compression mechanisms that can radially compress parts such as marker bands, electrical or mechanical ferrules, or steel tubing or bands as part of an assembly process. Parts are formed into a hexagonal shape by the 6 jaws. Compared to collet crimpers, the Blockwise short crimpers cover a wide diameter range without tooling changes and provide a crimp with less flash. The mechanism uses Blockwise “Zero-G™” technology, eliminating gaps between the dies.

We define a “short crimper” as one with short working length (typically less than 10 mm), while a “stent crimper” has a longer working length, and typically also more dies.

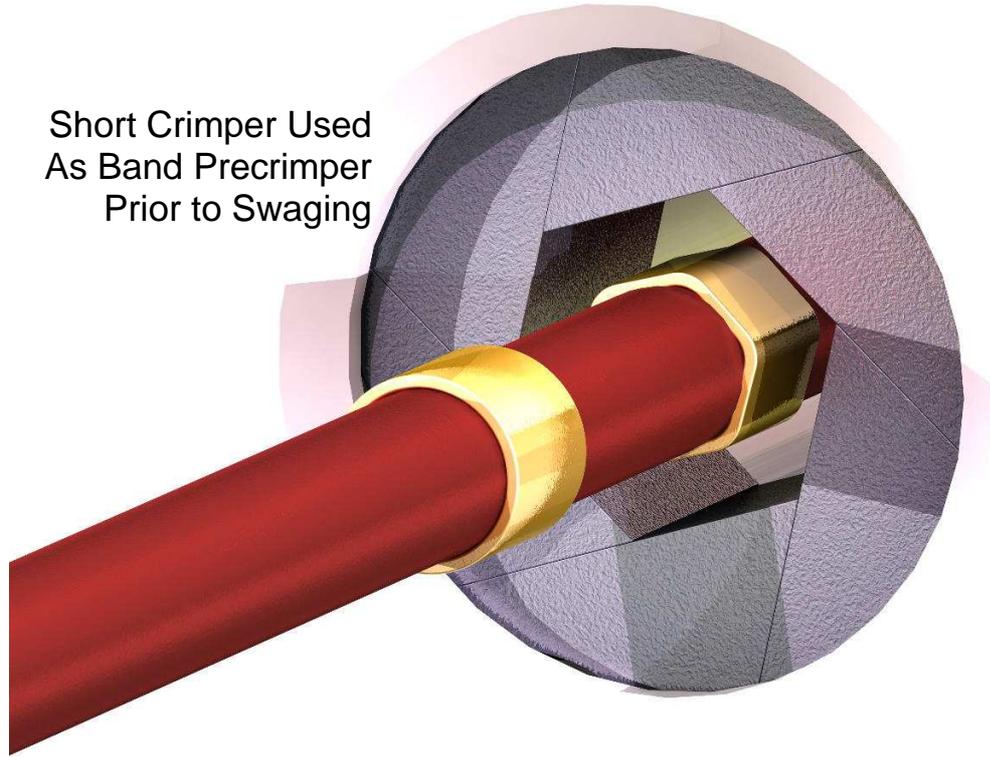


Because the length of the dies is only 6.4 mm (0.25 inch) on the model GPC, the compression force is concentrated in a small area and the pressures can be high. Dies are made from hardened stainless steel.

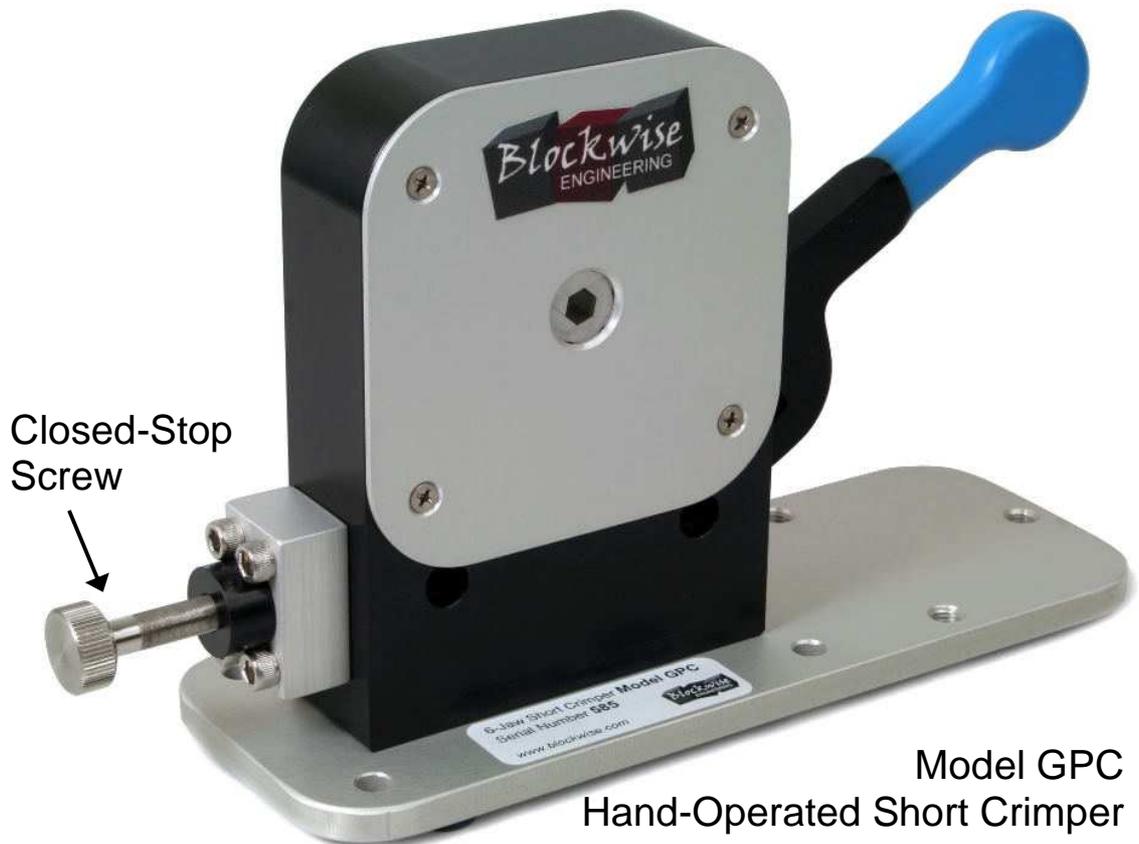
The Blockwise short crimper is commonly used to crimp electrical or mechanical ferrules in sizes down to 0.012 inch diameter. The mechanism provides a precisely-shaped hexagonal center opening even at very small diameters.

The most common application is pre-crimping radiopaque marker bands or mechanical bands prior to swaging the bands. The bands are moved to the correct position manually by the operator then precrimped using the short crimper to a soft hexagonal shape. The hexagonal shape has proven to be a very effective way to hold bands in position during the swaging process. (Oval-shaped precrimping allows the bands to move much more easily during swaging.) Neither the GPC nor the GPJ positions bands. (See the automatic positioner model PMC).

Short Crimper Used As Band Precrimper Prior to Swaging

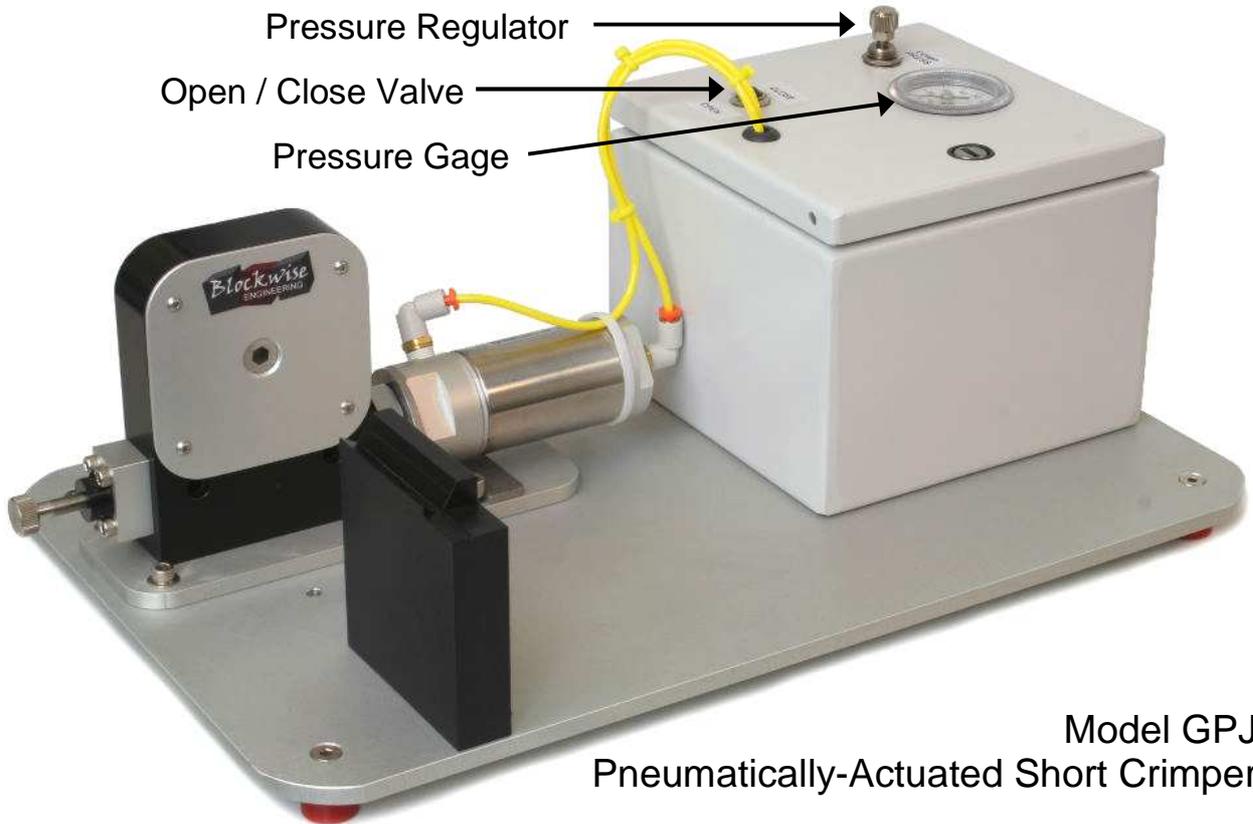


The model GPC is a hand-actuated crimper with a handle and a mechanical closed-stop. The closed-stop screw may be used to set the crimp diameter. To set the diameter, typically the operator inserts a gage pin of the desired size, then adjusts the stop screw until the jaws touch the pin.



Model GPC Hand-Operated Short Crimper

Model GPJ is a simple pneumatic machine with mechanical closed stop and pressure regulator and gage. The crimper may be diameter-controlled using the closed-stop screw, or force-controlled using the pressure regulator and gage. The machine includes a pneumatic valve to open and close the mechanism, and adjustable orifices to limit the closing and opening speed. A foot-operated valve is optional.



Both GPC and GPJ models include an adjustable open-stop that limits the opening diameter. The open stop cannot be set very precisely.





Special versions of the Blockwise short crimper are available such as: bare mechanisms for incorporation into your equipment, or special automated machines with extra fixturing such as depth stops for product insertion.

**Specifications:**

Die Length:	6.3 mm (0.25 inch)
Diameter Range:	0 to 5.5 mm
Number of Dies:	6
Die Material:	Hardened Stainless Steel
Maximum Radial Force (GPC – hand powered):	1700 N (375 lbf)
Maximum Radial Force (GPJ - pneumatic):	2700 N (600 lbf)
Service Connections (GPJ):	Compressed air 5 to 8.5 bar

To increase the pressure applied to the product, the dies may be ground to a customer-specified working length. This is sometimes used to place a short, hexagonal crimp on a longer, round hypotube.



Normal Dies 0.25 inch Working Length

Dies Ground to 0.040 inch Working Length