



✓ See Product Details

## Tips on tooling automated seal assembly equipment

A simple way to **control o-ring seal placement** is to step the spreading tooling jaws.

On the six jaw unit (AGP-6-OR) every other spreading jaw will be shorter than the others, usually only shorter than the cross section of the o-ring its self. The ejector jaws push the o-ring off the first three spreading jaws, it will form a **triangle** and the three sides will be **locked into the groove** of the part. The ejector will push the rest of the way and complete the process.

The O-ring no longer snaps from all the fingers at once into the groove in an uncontrolled manner, but instead achieves a reliable process.

A larger unit designed for **heavy-duty O ring seal placement** applications is the (AGP-8-OR) that has eight spreading jaws and eight ejector jaws.

This unit is similar to the (AGP-6-OR) but has a through-hole. These **multi motion through-hole parallel grippers** are designed to facilitate part ejection and part seating. The grippers are ideal when an ejector is needed after part placement or when a seal is to be placed down a long shaft.

This unit can be tooled the same way, by stepping the spreading jaws. In this case four of the eight jaws will be shorter and when the o-ring seal is pushed off the first four it will form a square shape. The four flat sides will be locked in the part groove and the rest will follow. The **octagonally** stretched O-ring requires less overall expansion and considerably less deformation during assembly process.

The O-Ring gripper (AGP-8-OR) can be tooled to accommodate all types of rings. End of stroke sensing is available for both the spreading and ejecting jaws.

The best way to make the tooling jaws is to turn the profile on the lathe. Once the height and contour are correct, they can be cut into equal parts using a wire EDM. Steel is a much better material than aluminum for making jaws. The aluminum will wear quickly and get burrs, when this occurs the o-ring or seal tends to roll instead of sliding.

See the O-ring seal placement in action: <http://www.agi-automation.com/anim/oring.miv.mpg>