

## D Series Splices for HELIAX® Elliptical Waveguide



### Description

This splice is designed to join two ends of standard (EW) or superflexible (EWS) elliptical waveguide. The splice consists of two compression rings, two split flare rings, two gaskets, and an O-ring to make the connection. The assembly is fastened together with screws.

### Tools and Materials Required for Assembly

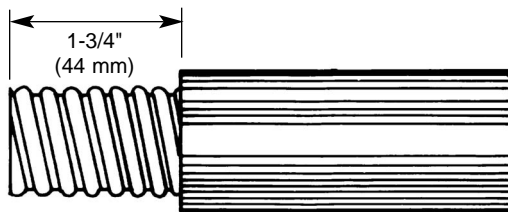
Scale	Plastic head mallet
Knife	Saw guide (supplied)
Flat file	Allen wrench (supplied)
Screwdriver	Hacksaw, fine-toothed blade
Metal snips	

### Notice

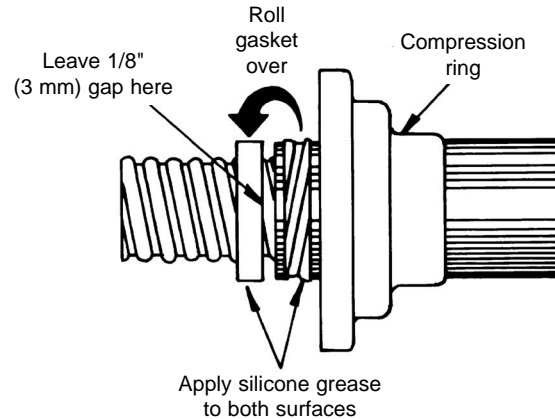
The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. Andrew installation instructions are written for such personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

Andrew disclaims any liability or responsibility for the results of improper or unsafe installation practices.

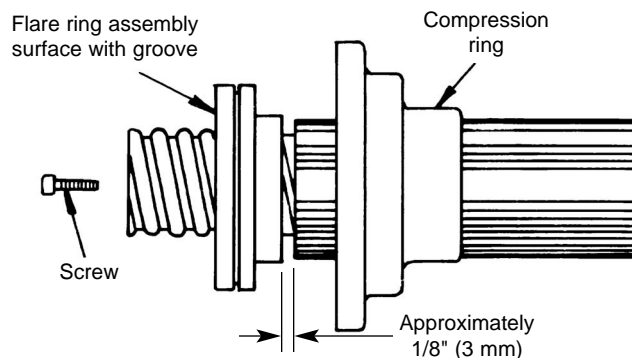
**1 Prepare waveguide.** Straighten the last 12" (305 mm) of the waveguide. Cut the end square while holding the waveguide downward to prevent the entry of copper particles. Cut around the jacket as shown and slice it along the corrugations toward the end of the waveguide. Peel off the jacket.



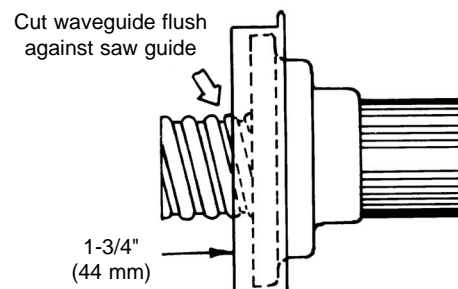
**2 Add compression ring and gasket.** Remove the split flare ring assembly from the compression ring. Apply a thin coating of silicone grease to the inside surface of the compression ring and slide it onto the waveguide. Turn the threaded surface of the gasket outward and slide it onto the waveguide jacket. Apply silicone grease to the gasket threads. Roll the gasket over so that the threads engage the waveguide corrugations and there is a gap between the gasket and the jacket. Apply silicone grease to the outer surface of the gasket.



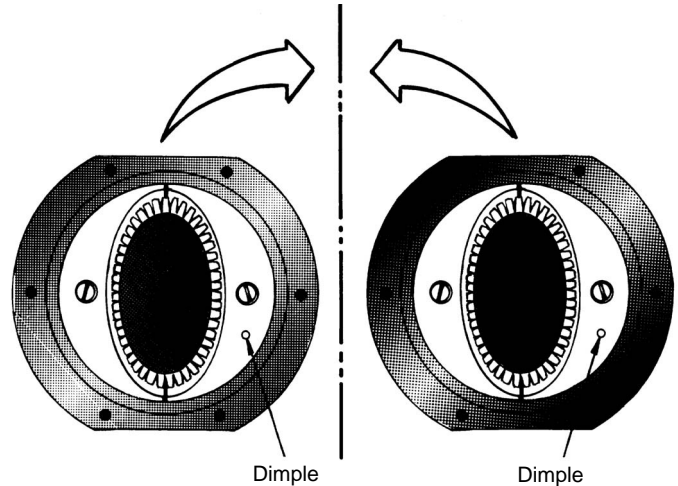
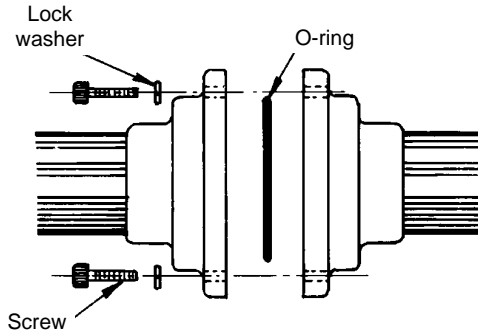
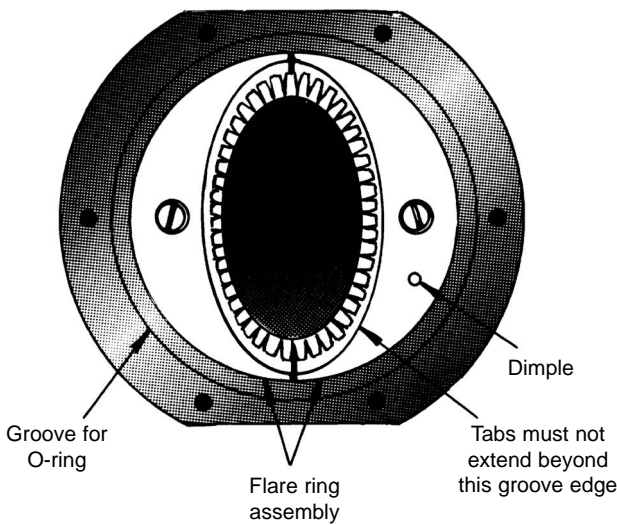
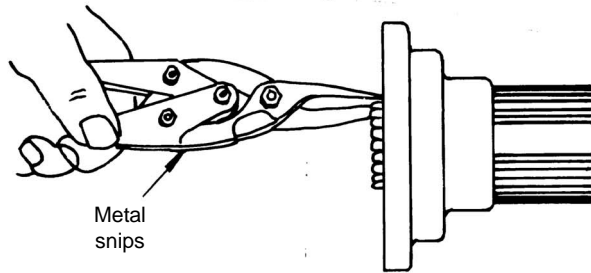
**3 Add flare ring assembly.** Spread the flare ring assembly apart and position it, groove side outward, on the waveguide corrugations and against the gasket. Screw the gasket against the flare ring, leaving a gap between the gasket and jacket of about 1/8" (3 mm). Slide the compression ring against the flare ring and fasten the assembly with two screws.



**4 Cut waveguide.** Snap the saw guide onto the compression ring and cut off the waveguide flush with the saw guide. Hold the waveguide downward during sawing to prevent copper particles from entering the waveguide. Remove the saw guide and any burrs from the waveguide.



**5 Cut and flatten tabs.** Cut the waveguide at 1/8" (3 mm) intervals to form tabs. Gently tap the tabs flat against the flare ring with a mallet. Trim any tab that extends beyond the groove in the flare ring.



**6 Assemble waveguide ends.** Place the O-ring into the groove formed by the edge of the flare ring and the recess of the compression ring of one of the waveguide ends. Check to make sure that the waveguide ends are positioned as shown to ensure that the waveguide corrugations will match when joined; the dimples will be opposite one another. Then, join the waveguide ends and fasten them together with screws and lock washers.

Finger-tighten all screws. Then, tighten each pair of screws located 180° apart in a criss-cross pattern to achieve a uniform gap between the flanges. Otherwise, loosen the screws and start again.

**7 Check for leaks and apply sealant.** After pressure has been applied to the waveguide, check for leaks by applying a soap solution to all the fittings. Bubbling indicates leakage. If the splice is part of a vertical waveguide run, apply sealant between the waveguide jacket and the compression ring to seal out moisture.

