

RUBBER BOOT

A 2-Turn Spiral Retaining Ring clamps the rubber boot onto the groove making for a nearly perfect seal when the boot is filled with grease. The ring has been deburred so it will not tear into the rubber.



PNEUMATIC FITTING

An economical (without removal notches or offset) 2-Turn Spiral Retaining Ring creates an ID/OD lock, permitting the 360° rotation of the nut. This permanent assembly is commonly used to hold two components together.

RATCHET WRENCH

This Single-Turn (it is actually 1½ turns) External Retaining Ring retains the internal mechanical components of the ratchet wrench. The additional ½ turn provides that little extra strength needed to prevent the ring from dislodging when the wrench is dropped.



GEAR BRACKET

The worm gear shaft is held in place and pre-loaded using a 2-Turn Smalley WaveRing. The WaveRing fits an internal groove and the waveform in the ring allows the gear/shaft to float axially as the gear rotates.

CONDUIT CONNECTOR

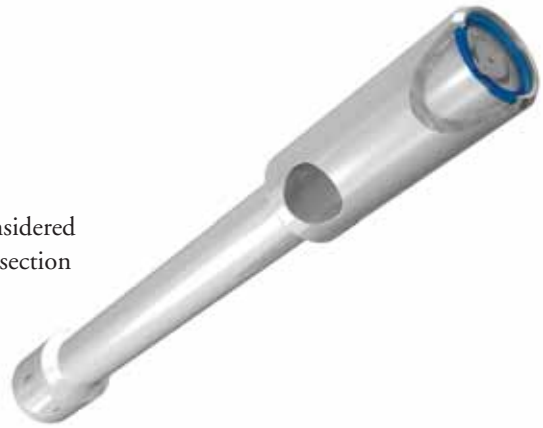
In this unique application, a Dished Retaining Ring was designed with sharp edges, to bite into the conduit it holds in place. The clamping force of the ring to the conduit (not shown) is achieved by screwing the nut. This decreases the ring's diameter as it advances in a tapered bore.



RINGS

BIKE LOCK

Tamper-proof ring holds the lock assembly within its housing. The ring is considered tamper-proof because of reversed removal notches. Also, having a heavy cross-section makes the ring nearly impossible to remove.

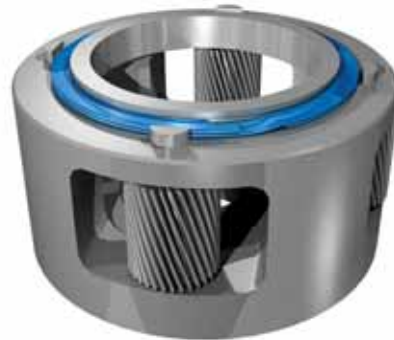


PRESSURE GAUGE

A retaining ring designed in a shallow groove exerts very light pressure on the glass lens in this pressure gauge. This single-turn retaining ring design provides the optimum load without breaking the glass.

GEAR ASSEMBLY

External 2-Turn retaining ring prevents the pinion shafts from spinning when the gears are rotating. The Smalley ring snaps securely on the groove and the rings radial wall is designed to extend radially outward, clearing the four flat pinion shaft pins by .020".



ACTUATOR VALVE

High thrust capacity was needed and a snap ring was selected to absorb the occasional shock loading of the pistons.

PNEUMATIC CLUTCH

The internal components of this clutch are held in the housing using a heavy-duty snap ring. Field servicing was often necessary and the snap ring was the ideal solution to the design requirement.



HOSE FITTING

To keep the cap on the fitting, a single-turn retaining ring is located in a shallow internal groove. The wall thickness of the cap is small so the ring was designed with square corners to operate in a very shallow groove.

RIGHT ANGLE DRIVE

Snap rings secure the bearing assembly by providing removable shoulders in the bore. This simplifies the design of the gear box and replaces costly flanged end-plates.



AIR VENT

Single-turn, light-duty retaining ring fits tightly in the internal groove of a plastic air vent. Ring ends are dimensioned close together, providing nearly complete 360° ring support.

PULLEY

2-Turn retaining rings provide 360° side walls as sides of the timing belt pulley. Design eliminates costly pressed-on stamped side walls. For belt replacement one ring can be easily removed.



ID/OD LOCK

Single-turn retaining ring operates in an internal and external groove at the same time, commonly referred to as an ID/OD Lock. In this application, the ring fits tight on the body (shaft) groove and extends radially into the Nut (housing). This allows the nut to spin freely but not come off the body.

BELT PULLEY

Three hold down screws and a 2-Turn Smalley Ring form a bi-directional shoulder. The shaft is inserted through the pulley and the retaining ring rests on the pulley face securing the shaft in one direction. Movement is prevented in the other direction with the three screws clamping down on the ring.

