

## Spray Spray Spray Spray Spray Engineering Research











## TWIST & DRY NOZZLE ASSEMBLY TIPS

Inspect carrier and body for signs of wear, cracks, worn threads, nicks or burrs where both o-rings seat. Before starting to assemble the carrier and body make sure they are clean and dry. Both parts need to be dry so the lubricant will adhere.

Install new orifice o-ring into carrier. **Caution:** <u>DO NOT use screwdrivers,</u> <u>utility knives, etc. to remove o-ring from the carrier.</u> Use no metal tools, they can nick or damage the carrier.

• Apply lubricant to the installed orifice o-ring.

Inspect orifice for wear (stars, nicks, oval shaped orifice, etc.). Replace with a new orifice disc as needed.

Put the selected orifice disc on top of the o-ring, with beveled outside edge facing o-ring.





Install the swirl into the carrier, swirl side toward orifice disc. (TIP: hold the carrier at a 45 degree angle with the 2 lugs at 12 o'clock. Align the flat side of the swirl at 12 o'clock. The swirl will drop into place).

Using a screwdriver, turn the swirl 1/4 turn so that it is secured into place under the 2 lugs. (No turning is necessary for lugless carriers)

Use lubricant supplied by BETE or equivalent (i.e.: Lubri-film or Superlube) to coat the inside of the carrier where the o-ring seats. Make sure there are no dry areas.

















## TWIST & DRY NOZZLE ASSEMBLY TIPS

- Apply lube to the body threads and o-ring groove generously. Lubricant needs to be in the o-ring groove so the o-ring will not stick to the body when the carrier is tightened down or removed.

## This step is only for the high pressure Twist & Dry (TD-K) nozzle.

Install the backup ring into the body o-ring groove. The backup ring has a split bias cut which allows it to expand to fit over the body o-ring groove. Once the backup ring is over the body o-ring groove, it can be released and it will snap into place. Make sure the backup ring is positioned in the o-ring groove and pushed toward the inlet connection end of the body. Standard TD assembly will have only the o-ring

- Install a new o-ring on the body by rolling it over the end and into the groove (DO NOT start part of the o-ring into the groove and stretch it over the end. Doing this stretches the o-ring and can nick or damage it).
  <u>Caution</u>: DO NOT use screwdrivers, utility knives, etc. to remove o-ring from the body. Use no metal tools, they can nick or damage the body.
- This step is only for the high pressure Twist & Dry (TD-K) nozzle.
  Make sure the o-ring is positioned in the groove, next to the backup ring and away from the connection end of the body.
- Apply lube to the o-ring on the body before installing into the carrier (We do not want the o-ring to stick to the carrier when it is being threaded on).
  Screw the carrier onto the body. Line the carrier up straight with the body to avoid cross threading and damaging the threads (If the carrier does not thread on by hand easily, inspect the thread. DO NOT FORCE ON).
- HAND TIGHTENED ONLY, **DO NOT WRENCH TIGHTEN!** Check to see that the orifice is seated against the inside of the carrier.
- Assembled

