# Bonding a Gasket to a Sombrero Nut

**Objective**
To heat a steel sombrero nut prior to gasket bonding

**Material**
- Steel sombrero-shaped nut approx. 2" (50.8mm) diameter, 2" (50.8mm) in height
- gasket

**Temperature**
350 °F (176 °C)

**Frequency**
266 kHz

**Equipment**
- Ambrell 3.5 kW induction heating system, equipped with a remote workhead containing two 1.5µF capacitors for a total of 0.75µF
- An induction heating coil, designed and developed specifically for this application.

**Process**
A multi-turn pancake coil is used to preheat the nut. It is then transported to the next station where it is pressed onto a gasket for bonding

**Results/Benefits**
Induction heating provides:
- Even distribution of heat that carries through to the bonding station.
- Hands-free operation that involves no operator skill for manufacturing.
Sombrero nut positioned upon coil...

....after gasket has been bonded