# Heating top of aluminum oxygen tank for end forming

**Objective**  
Through heating the top 2” (50.8mm) of aluminum oxygen tank to form a rounded end with a hole for oxygen valve

**Material**  
Aluminum oxygen tank with open end 2.25” (57.15mm) diameter, 0.188” (4.8mm) wall thickness

**Temperature**  
700 ºF (371 ºC)

**Frequency**  
171 kHz

**Equipment**  
- Ambrell 10 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 five turn helical coil is used to heat the open end of the oxygen tank. The tank is heated for 24 seconds to reach 700 ºF (371 ºC).

**Results/Benefits**  
Induction heating provides:
- Uniform through heating
- Fast, energy-efficient heat
- Fast, controllable and repeatable process
- Hands-free heating that involves no operator skill for manufacturing
Open end of aluminum oxygen tank in coil prior to heating