Brazing Faucet Components, Assemblies

Objective Brazing several brass and copper assemblies used in water faucets

Material braze, white flux

Temperature 1350 °F 730°C

Frequency 160 or 277 kHz (coil dependant)

Equipment Ambrell 7.5kW induction heating system, remote work head with two 1µF capacitors and a 3-turn helical coil

Process Three helical coils are used separately to braze a range of provided parts. Parts are assembled with flux and a braze alloy and then heated.
The heat time varies from part to part with large parts taking less than 3 minutes and, the smaller parts heated in less than 20 seconds. After heating the parts are quench-cooled.

Results/Benefits **Repeatability:** the inherent precision of induction heating supports a process which is highly repeatable.
Economy: the process allows for the use of higher temperature braze alloy than a flame process