Induction brazing of faucets

A guide to the benefits of induction heating

EFD INDUCTION

Induction brazing. Why it's ideal for faucets.

Improved throughput. Consistent quality. Easy operation. High reproducibility. A more productive working environment. These are just some of the advantages when brazing faucets with induction.

Brazing faucets is a tough challenge. Consumers insist on products that not only work well, they must also look great. But how can you achieve this, and still keep costs competitive? One proven solution is induction heating. Fast, precise, controllable and easy to use, induction is perfect for faucet brazing—whether it's tube-to-socket, tube-to-tube or thread insert brazing.

Induction is a no-contact, flame-free technology that generates evenly distributed and fully controllable heat in pre-defined heating zones. These features of induction make it easier and quicker to achieve strong, full-penetration joints than with alternative methods such as flame heating.

Induction brazing is easy to operate and control. Inductors can be customized to match specific faucet designs. Process parameters such as temperatures and ramp-up and dwell times can be set in advance. All the operator need do is push a button. And as a repeatable process, induction is well suited for robot handling and in-line integration.

The rapid, localized heat generated by induction minimizes the risk of overheating. This in turn minimizes the risk of porosity and weak joints. Also, induction is clean and quite. There is virtually no increase in the ambient temperature. And fumes are easily extracted. The end result is a safer, healthier and more productive working environment.

Induction brazing gives the operator a clear, unobstructed view of the entire brazing operation. Localized heat is generated directly in the faucet, with negligible increases in ambient temperature.

The minimal process variations of induction heating contribute to uniform product chemistry and mechanical properties. This makes the method perfect for high-throughput and automated brazing.

You can’t see the joints. But the benefits are perfectly obvious.

EFD Induction brazing systems help ensure virtually invisible joints in the finished faucets. The filler material that binds the base metals is drawn through the joint by capillary action, creating a neat, barely visible bead. At the same time, the capillary action ensures a robust, leak-proof and corrosion-resistant joint. And it doesn’t matter whether the inside or outside of sockets are brazed—the end result is a smooth, shiny and attractive faucet.

Our flexible systems are used by some of the world’s leading faucet makers. You can, for example, program a single system with many heating cycles to suit different faucet designs. Coil changes are quick and trouble-free, too. And as the global induction company, we offer you the benefits of our R&D labs, testing facilities, coil design services and maintenance and spare parts supply programs.

Induction is a high throughput, no-contact heating method. It helps ensure strong yet barely visible joints—and the outstanding esthetics demanded by today’s customers.

Stationary and mobile faucet brazing systems

EFD Induction has decades of experience in designing, building, installing and maintaining brazing systems. We devise stationary solutions for in-line integration; as well as mobile, flexible systems that can be used for many other applications apart from brazing. But whichever type you choose, we ensure you benefit from a solution that takes your logistics, operator skills, environmental concerns, materials handling needs, energy consumption and ROI demands into account.

An example of a custom-designed and integrated brazing solution from EFD Induction. This particular flux-free system features two protective atmosphere brazing chambers.

EFD Induction is Europe's no. 1—and the world's no. 2—induction heating company. In addition to our equipment we offer a range of services to ensure you get a solution best suited to your business and technical needs. We have manufacturing plants, workshops and offices in the Americas, Europe and Asia.

Learn more about EFD Induction and our solutions that are boosting productivity for companies around the world. Visit: www.efd-induction.com