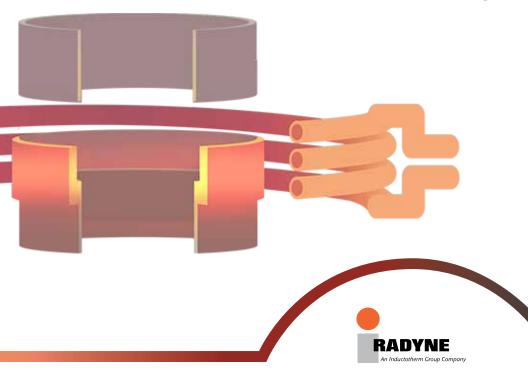
# Brazing & Soldering

With Induction Heating



## Overview

Induction heating technology by Radyne is the perfect solution for your brazing and soldering production line needs. Induction technology from Radyne is versatile and designed with modularity in mind. This allows for easy integration with your existing production facilities and control systems.

Induction brazing and soldering systems from Radyne provide clean and consistent brazing for parts of all shapes and sizes. Our in-house Induction Process Engineering Center (IPEC) is ready to find the best induction technology and processes for your unique application. Radyne has everything you need all under one roof with a fully equipped metallurgy Lab and 24/7 customer support.

Radyne offers a wide range of induction brazing and soldering solutions. Browse our turn-key systems in this booklet and find out why Radyne induction equipment is trusted by thousands of manufacturers worldwide to deliver the ultimate in speed, reliability, and repeatability.







The Radyne Large Tube Brazing Workstation is designed for some of the largest and most demanding brazing applications. The system features a compact heat station mounted to a movable and height adjustable cart. Our specially designed inductor features quick disconnects for the outside half of the inductor and water lines. This allows for long, complex tube runs to be brazed with ease. The inductor and heat station can also be rotated 90 degrees for horizontal, vertical, and angled brazing.

This system features one of our state of the art TFD Power supplies that is able to put out the power needed to quickly braze tubes up to 8 inches in diameter. It is also able run pre-programed recipes for maximum ease of operation.

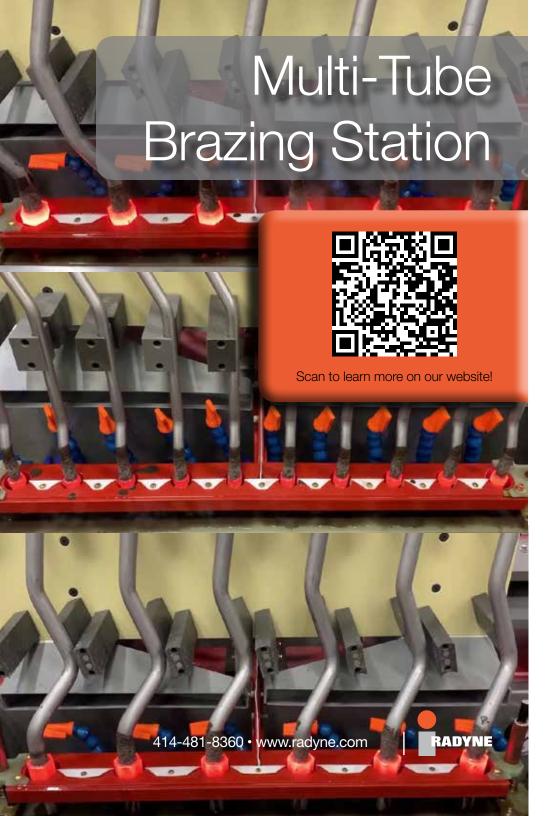
Power Supply	75kW TFD or 150kW TFD
Braze-able Tube Diameter	3-6 inches or 6-8 inches



The Radyne Lift and Rotate Brazing System is an ideal way to increase production rates while retaining a compact footprint. The rotating part loader assembly allows a single operator to stage the next batch of parts while the heat cycle is occurring. This reduces operator and machine idle time and increases production rates. The part loader can be customized to fit unique part shapes and sizes. This system is also easily integrated with robotic material handling systems.

Machine Base	FlexScan™ 12
Controls	Digital-iQ™ firmware package with optional QAS
Power Supply	Compatible with any Versapower-Xtreme™ Power Supply







The Radyne Multi-Tube Brazing System delivers multiple brazed parts in a fraction of the time of traditional brazing approaches. This system consists of two side-by-side heating stations with part fixturing, a TDF induction power supply, and optional quench/rinse system for part cooling. The two heating stations can be equipped with separate part fixturing in order to braze different parts without necessitating an equipment change over or retooling. This system is ideal for production lines that require high volume but also high variability.

Programmable recipes allow for easy operation with minimal training requirements. Integration with automated part loading equipment is made easy due to modular design and customizable part fixturing.

Achieve uniform heating across multiple simultaneous brazes

Integrated recipe editing and storage ensures the ultimate ease of operation

Integrated quench/rinse system speeds up operations by rapidly cooling brazed parts



The Fluid & Fuel Line brazing system from Radyne offers an ideal solution to brazing joints, brackets, and fittings on long runs of tube. This system features nitrogen or argon controlled atmosphere chambers for clean, oxidation-free braze joints without the use of flux. Removing toxic and costly flux from your processes can help keep your production facility clean and safe.

This system integrates easily with fully or semi-automatic part loading equipment. It is able to support single, dual, or quad position inductors in order to braze up to four joints at once. Programmable recipes mean that repeated quality braze joints are achievable with little operator training.

	Single	Dual	Quad
	Position	Position	Position
Atmosphere	Nitrogen or	Nitrogen or	Nitrogen or
	Argon	Argon	Argon
Part Rate	1 Part Per Heat Cycle	2 Parts Per Heat Cycle or 1 Part Per Alternating Cycles	4 Parts Per Heat Cycle or 2 Parts Per Alternating Cycles







Radyne's carousel feed brazing system is ideal for brazing complex parts quickly and efficiently. The rotating part fixture allows an operator or robot to load and unload parts on one side while the heat cycle is occurring on the other. This reduces idle time and increases efficiency. This system can be customized to fit complex parts such as manifolds, radiators, bent tubes, valves, and more. It can also be fitted with dual-position inductors or multiple heat stations to braze two joints at once.

This machine features programmable recipes for easy operation, and optional quality assurance system for on-the-fly fault detection.

Number of Fixtures	Dual Fixture	Quad Fixture
Overall	42W x 62D x 75H in	110W x 92D x 78H in
Dimensions	[106W x 157D x 190H cm]	[279W x 233D x 198H cm]



The Radyne Rotor Brazing System is designed for brazing copper ring end caps to large rotor assemblies for electric motors. Our uniquely shaped inductor is designed to evenly heat the round and flat surface of the ring for a consistent braze joint all the way around. This machine can also be easily adapted to braze other large, round, and flat objects.

This system features programmable recipes for easy operation, and optional quality assurance system for on-the-fly fault detection.

Part weight capacity	Up to 12,000 lbs [5443 kg]
Part Diameter Range	11 – 34 in [27 – 86 cm]

Touch screen HMI interface with temperature feedback

Rotor Brazing System Scan to learn more on our website! RADYNE 414-481-8360 • www.radyne.com





The Radyne Braze-Press™ is a turn-key controlled atmosphere brazing system ideal for applications that require oxidation-free braze joints without the use of flux.

The Braze-Press™ has a built in controlled atmosphere pneumatic press chamber capable of up to 1,100 lbs [498 kg] of pressure. It is able to perform vacuum or inert gas brazing operations for clean, oxidation-free braze joints. Quick disconnect inductor mounts allow for fast and easy inductor swaps for different component processes. Programmable recipes make consistent, quality braze joints easily and without the need for advanced operator training.

This system is available with our optional PID control loop with pyrometer and temperature feedback. This allows operators to monitor the brazing process in real-time and ensure quality standards are met.





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### Committed to your success

## We believe in building strong relationships.

Founded in 1946, Radyne has developed unequaled skill and facilities in the field of Induction Heating.

Our products and processes offer a winning combination of innovative technology and custom automation. We employ years of experience to deliver the exacting results you demand, and stand behind all of our high-quality equipment with outstanding customer service and support.

As a proud member of the Inductotherm Group of 40 companies located worldwide, Radyne has established a strong global network of manufacturing and service facilities, along with access to a full range of engineering, installation and repair services that are always available wherever your business is located.

