4 COMMOM MISTAKES

TO AVOID When Brazing



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Whether you enjoy metallurgy as a hobby or plan to start your own heat treating company, one of the measures of your success is likely to be how you perform stainless steel brazing.

While you need to understand how the process should be performed, it's also helpful to be aware of common mistakes people make during the stainless steel brazing process. Below are four examples of such mistakes you should be careful to avoid.

1 LEAVING COATINGS ON THE METAL

Removing coatings from metal before heating it might seem to slow down the work process, but taking the time to remove coatings is well worth the wait. If coatings are left in place, they form a stable layer of oxide that tarnishes the metal. These oxides inhibit the flow of brazing alloy and must be physically removed after the heat treating process, an extra step you can avoid with a little patience upfront.

2 NOT USING A PURE ATMOSPHERE

Heating treating stainless steel requires a pure furnace atmosphere; otherwise, the chromium in the metal (at least 10.5% chromium by mass) will oxidize and make the surface of the assembly appear drossy. A furnace that maintains a hydrogen atmosphere prevents this from happening.



3 USING FLUX WITH A PURE ATMOSPHERE

Because a pure atmosphere of hydrogen prevents the development of oxidation, there's no reason to apply flux to prevent oxidation. In fact, applying flux isn't just a bad move — it's also an unnecessary one. The flux can leave a residue on the metal that must be cleaned away.

STORING THE METAL WITH OTHER METALS

One of the most common reasons why stainless steel shows signs of rust and corrosion is because it's stored in contact with other metals. Surprisingly, this reason often goes unmentioned, but it's important to know since storing the metal with other metals will create discoloration, such as carbon steel. At the production site, stainless steel should be stored separate from other metals, no exceptions.

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AND METAL TREATING Services

Franklin Brazing & Metal Treating has been a leader in the heat treating industry since 1973.

We specialize in brazing and annealing for chromium alloys, such as stainless steel and many other materials, including carbon steel, mild steel, and copper. No matter what type of work you need done, we guarantee it'll be finished by the expected date so you can keep things moving and keep your customers happy. To learn more about our services and how to heat treat stainless steel, contact us today.

