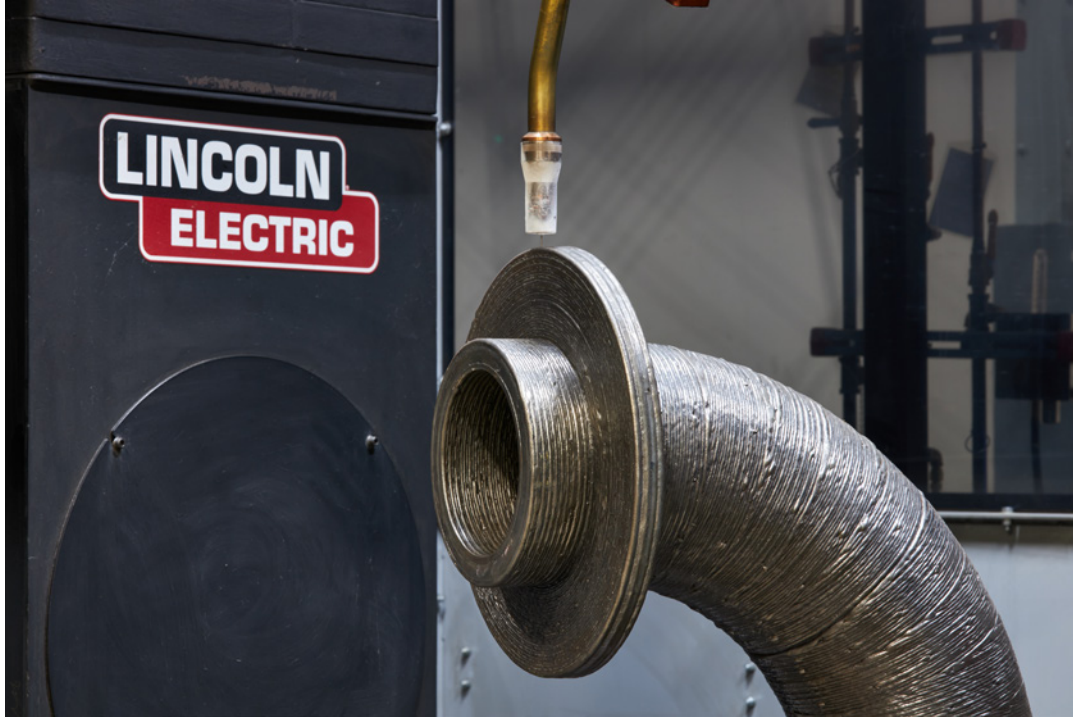


# Inconel 617

## LINCOLN ELECTRIC ADDITIVE SOLUTIONS



### KEY FEATURES

Inconel 617 is known for its high strength and oxidation resistance at temperatures over 1800°F (980°C). Its thermal expansion is lower than that of most other austenitic alloys, and is readily formed and welded by conventional techniques. These properties make Inconel 617 ideal for components used in aircraft and land-based gas turbines, chemical processing plants, and fossil fuel and nuclear power generation plants.

Inconel 617 mechanical properties compare favorably to the following nickel alloy grades:

ASTM B166, Alloy UNS N06617

ASTM B168, Alloy UNS N06617

ASTM B408, Alloys UNS N06617 & UNS N08810

ASTM B409, Alloy UNS N08810

ASTM B564, Alloys UNS N06617 & UNS N08810

AMS 5887

### Typical Applications »

Gas Turbine Components  
Petrochemical Processing  
Nitric Acid Production  
Heat Treating Equipment  
Power Generation

GMAAM <sup>(2)</sup> Wire Feedstock	Room Temperature Strength				Toughness ft-lbs @ 70°F	Hardness Vickers HV10
	YS @ 0.2% Off (ksi)	UTS (ksi)	Elong (%)	ROA (%)		
Inconel 617	54	102	44	42	81	192

(1) Printed indicates deposits were not subject to post-weld heat treatment

(2) Gas Metal Arc Additive Manufacturing

#### CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.

The Lincoln Electric Company  
 22801 St. Clair Avenue · Cleveland, OH · 44117-1199 · U.S.A.  
[www.lincolnelectric.com](http://www.lincolnelectric.com)