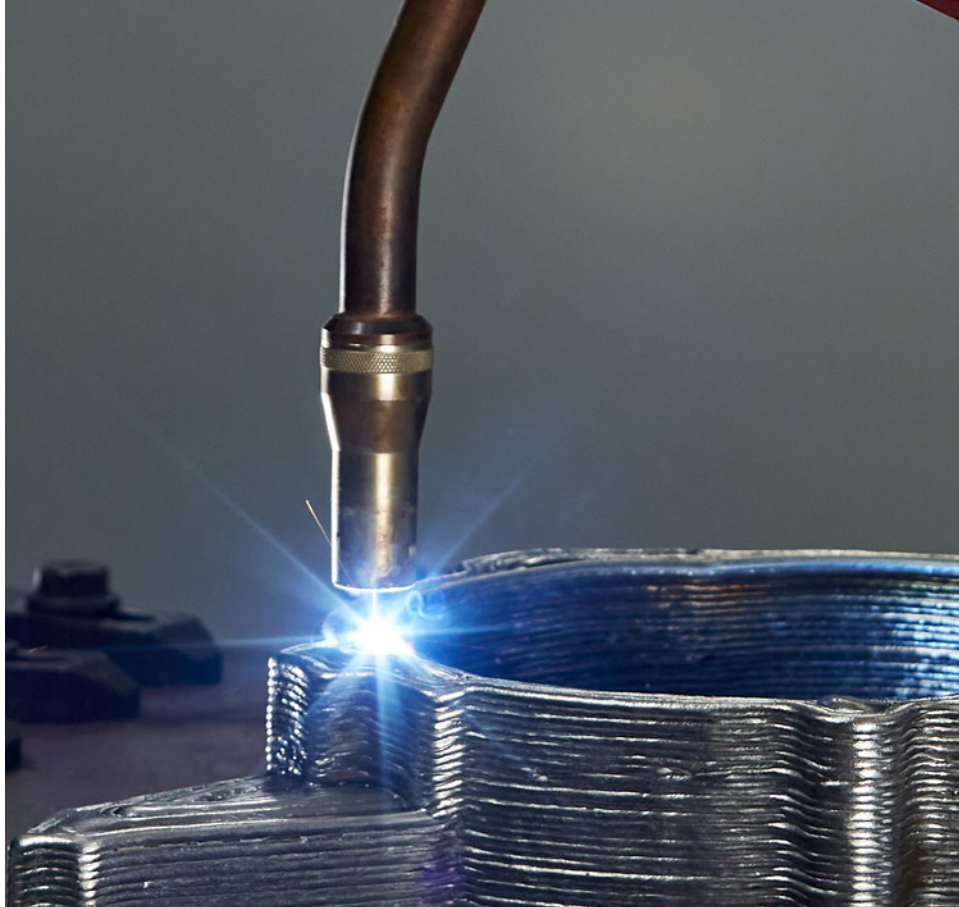


LINCOLN ELECTRIC ADDITIVE SOLUTIONS

LOW CARBON STEEL



KEY FEATURES

Our low carbon steel offers a good balance of strength, toughness and ductility. It has a higher yield strength than typical carbon steel grades such as ASTM A36 and ASTM A516 Grade 60, and offers good machinability and weldability. This makes it ideal for applications such as power generation, construction and agricultural equipment, machinery parts, ornamental works and more.

Low carbon steel mechanical properties compare favorably to the following carbon steel grades:

- ASTM A27 Grade 70-40
- ASTM A352 Grade LCA
- ASTM A516 Grade 60
- ASTM A36

Typical Applications »

- Power Generation
- Construction and Agricultural Equipment
- Machinery Replacement Parts
- Prototypes
- Structural Components
- Ornamental Works
- Meets the A-No 1 weld metal chemical composition designation per Section IX of ASME BPVC
- Meets the maximum hardness requirements of NACE SP0472 compliant

NOMINAL MECHANICAL PROPERTIES (AS-PRINTED)⁽¹⁾

GMAAM ⁽²⁾	Room Temperature Strength			Toughness		Vickers Hardness	CTE
	YS @ 0.2% Off [ksi]	UTS [ksi]	Elong [%]	ft-lbs @ 70 °F	ft-lbs @ -50 °F	HV10	in/(in °F)
Low Carbon Steel	50	70	30	> 150	> 30	160	7

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

(2) Gas Metal Arc Additive Manufacturing (GMAAM)

Test Results

Test results for mechanical properties were obtained from GMAAM deposits produced and tested according to prescribed standards. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any GMAAM component before use in the intended application. This data is for illustrative purposes only. Actual results may vary.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information 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. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.