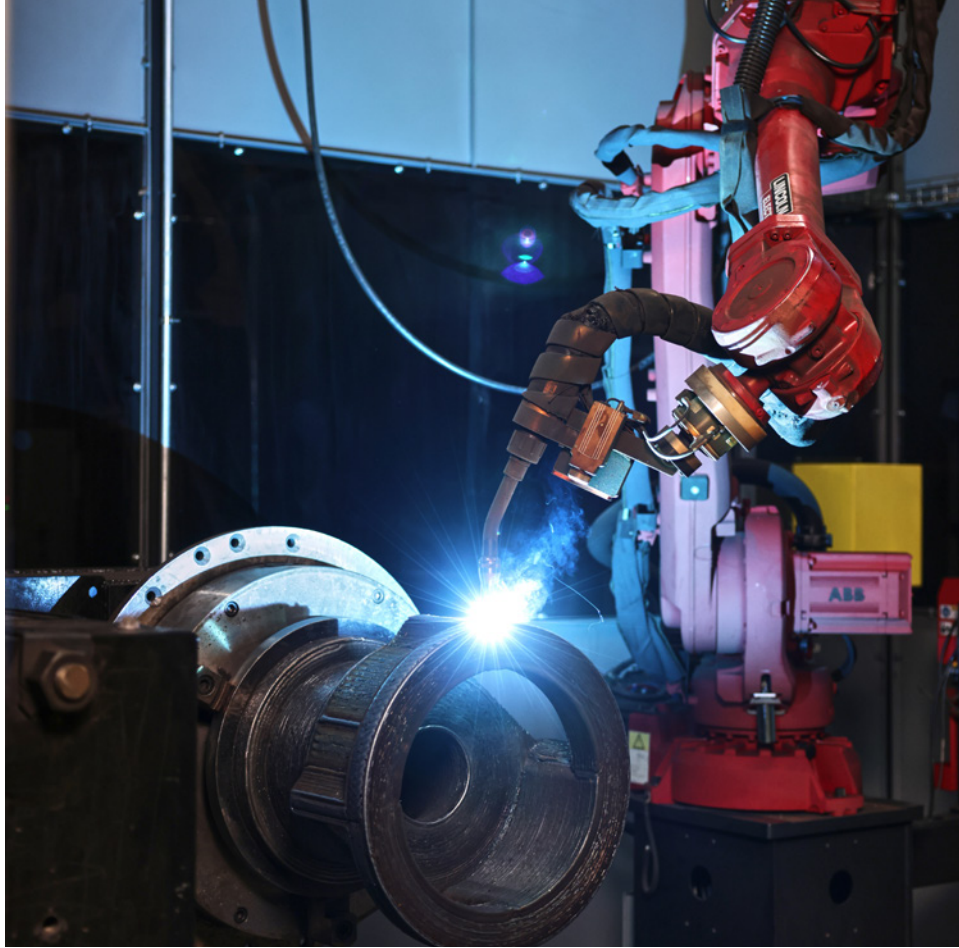


HIGH-STRENGTH LOW-ALLOY STEEL



KEY FEATURES

High-Strength Low-Alloy (HSLA) steel is known for its high tensile and yield strength as well as its atmospheric corrosion resistance. Its good notch toughness and strength-to-weight ratio along with excellent formability and ductility makes HSLA steel ideal for applications such as: pressure vessels, shipbuilding, heavy construction and agricultural equipment, machinery replacement parts, bridges and building structures, and more.

The mechanical properties compare favorably to the following high strength low-alloy steel casting grades:

MIL S-16216 Grade HY-80

MIL S-21952 Grade HY-80

Typical Applications »

- Pressure Vessels
- Shipbuilding
- Heavy Construction and Agricultural Equipment
- Machinery Replacement Parts
- Bridges and Building Structures
- Energy and Oil & Gas
- Rail Transportation

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		
Wire Feedstock						HV10	in/(in °F)
HSLA Steel	80	105	20	> 100	> 20	280	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

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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.