

UltraCore CO₂ Consumables:

The Low Cost, High-Quality Alternative To Argon-Shielded Consumables



The market for argon gas has finally stabilized after a prolonged shortage, resulting in stiff price hikes – anywhere from 15 to 25% – that proved to be cost-prohibitive for argon consumers. Although the market is currently at an equilibrium, consumers are – or should be – considering alternative options in the event of future shortages.

Fortunately, Lincoln Electric's diverse line of UltraCore® consumables give welders the option to dispense with argon blended gases altogether by transitioning to a 100% CO₂ shielding gas option. CO₂ is not only more readily available on the current industrial gas market, it's also much more affordable.

UltraCore Consumables

THE ULTRACORE ALTERNATIVE

The argon shortage that persisted throughout most of 2013 and 2014 was clearly a problem for welding, cutting and other fabrication processes that traditionally use the gas as a shielding element. But is argon an absolute necessity in the welding process?

With the right consumables, the answer is no. And the alternative is much more affordable. In fact, welding operations can enjoy a 62% savings in gas costs by using 100% CO₂ as opposed to the more traditional Ar/CO₂ mix. This transition is a viable, affordable option with Lincoln Electric's diverse line of UltraCore consumables, which are designed to provide unparalleled arc performance and robust results on 100% CO₂ shielding gas.

The UltraCore flux-cored wire family is versatile enough for any application, from general fabrication to more demanding offshore work. Available in four platforms, UltraCore creates stronger welds that withstand temperature extremes, moisture and corrosive environments. The combination of faster deposition and less spatter means higher quality welds and higher productivity.

The UltraCore consumables in Table 1 are typically used in heavy fabrication, structural and shipbuilding applications. Designed for use in the flat and horizontal positions only, these wires provide increased deposition along with excellent slag removal and bead stackability. Customers can select the T5 type wire for more highly restrained joints and thick sections where resistance to cracking is critical. In addition, the new UltraCore 80Ni1C will be available early 2015.

Table 1

Product Type	Product
E70T1 (T9)	70C
E70T5	75C
E80T1 (available in 2015)	80Ni1C



UltraCore Consumables

The UltraCore consumables in Table 2 are typically used in general fabrication, shipbuilding, structural and transportation applications. Customers can select the HD wires for higher deposition and better operability when welding out of position, and the SR wires for applications requiring stress relief. The T12 versions for enhanced mechanical property requirements are also available.

The UltraCore consumables in Table 3 are appropriate for all applications and are designed to meet the most stringent requirements. These products, the newest in the UltraCore line, offer arc performance on 100% CO₂ shielding gas that rivals that of most mixed-gas products. All Plus products meet low H4 diffusible hydrogen requirements, and this expanded portfolio enables welding of higher strength materials. UltraCore Plus performs well in both the as-welded and stress-relieved conditions, and can achieve impact properties down to -60° F. These products are also backed by Lincoln Electric's industry leading documentation as Q2 lot controlled products. Each lot of material is welded with and tested and the data is made available through our website.

RELIABILITY, QUALITY AND AFFORDABILITY

Shortages of argon or any other commodity are cyclical. Market imbalances will always stabilize eventually. But during those periods when argon is hard to come by at a reasonable cost, Lincoln Electric customers should consider UltraCore consumables, specifically designed to provide unparalleled arc performance and robust results using 100% CO₂ shielding gas. UltraCore products not only eliminate the need for a gas that's in short supply, but also preserve weldability and deliver consistent quality.

Table 2

Product Type	Classics	HD	SR
E71T1 (T9)	71C, 71A75 Dual	HD-C	SR-9C
E71T1 (T12)	712C	HD-12C	SR-12C

Table 3

Product Type	Product
E71T1 (T12)	712C-H Plus
E81T1	81K2C-H Plus
E81T1	81NiC-H Plus
E91T1	91K2C-H Plus
E101T1	101K3C-H Plus
E111T1	111K3C-H Plus
E121T1	121K3C-H Plus





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Lincoln Electric is the world leader in the design, development and manufacture of arc welding products, robotic arc welding systems, plasma and oxyfuel cutting equipment and has a leading global position in the brazing and soldering alloys market. Headquartered in Cleveland, Ohio, Lincoln Electric has 48 manufacturing locations, including operations and joint ventures in 19 countries and a worldwide network of distributors and sales offices covering more than 160 countries. For more information about Lincoln Electric and its products and services, visit www.lincolnelectric.com.