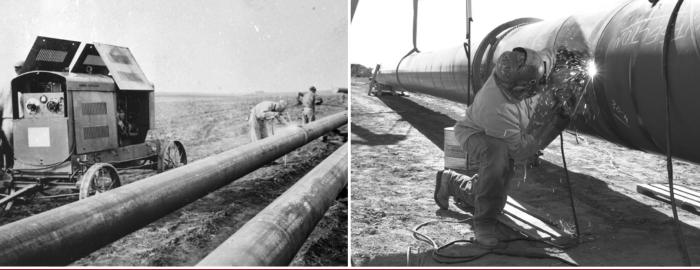
# STACKING IRON









LINCOLN ELECTRIC AND PIPELINERS HAVE BEEN STACKING IRON SINCE 1911. WE UNDERSTAND PIPELINE WELDING BETTER THAN ANY OTHER WELDING MANUFACTURER, AND WE'RE COMMITTED TO PUTTING THAT KNOWLEDGE, EXPERIENCE AND INNOVATIVE PHILOSOPHY TO WORK FOR THE BENEFIT OF THIS INDUSTRY AND ITS FUTURE. EVERY DAY, EVERY MILE, LINCOLN ELECTRIC IS YOUR PARTNER ON THE PIPELINE.





## Lincoln Electric: Your Partner on the Pipeline

Lincoln Electric has played a pivotal role in the pipeline industry for more than a century. Since the introduction in 1911 of the Lincoln Arc Welder – the first variable voltage, single-operator portable welder in the world – we've maintained a boots-on-the ground, hands-on approach to addressing the needs and concerns of welders and contractors in this vital industry. We know your business because we're a part of it every day.

And we know that every one of those days presents ongoing challenges: productivity, quality, regulatory, financial and more. We help you meet these challenges with thoughtful solutions that take their cues from the way you work and live on the spread. We design our machines and consumables with an eye on making an already tough environment a little more comfortable, a lot more efficient and as safe as it can be.

Lincoln Electric has been part of your business for decades. It's a relationship we value highly. The experience we've gained from working alongside you has produced a range of welding equipment and consumables designed to address the nuanced and varied needs and expectations of pipe welders.

#### **Unmatched** Quality

Your performance hinges on the quality of our products. That's why we go miles further than the competition, testing each machine before it leaves our manufacturing facility, and providing you with test data on every pipe welding electrode. Lincoln Electric's demanding quality requirements are the reason why we remain a staple on pipeline spreads. Additionally, we put our products to the real test — your test — by having professional pipeline welders test our products on the firing line before they ever get to the market.

#### Innovative Solutions

We're continually developing new products and exploring technologies, while maintaining our industry-proven legacy solutions. Whether your application is manual, semiautomatic or mechanized welding, we offer pipeline solutions for every process and every level of complexity.

#### Legendary Expertise

Lincoln Electric has an intimate knowledge of welding's role in the pipeline segment. This expertise has been an invaluable tool for customers worldwide, and it can be for you too. No matter the challenge, we're committed to providing the most productive and safe pipeline solutions, now and in the future. Lincoln Electric is your partner on the pipeline.

## MACHINES

LINCOLN ELECTRIC DESIGNS AND BUILDS EOUIPMENT TO WITHSTAND HARSH **ENVIRONMENTS** WITHOUT INTERRUPTIONS OR SLOWDOWNS, WE ENSURE OUALITY AND PROTECTION INSIDE AND OUT, WITH POLYMER-COATED PC BOARDS, PRECISE MACHINING TOLERANCES AND A FINAL INSPECTION ON THE ASSEMBLY LINE. QUALITY AND DURABILITY ARE BUILT INTO EVERY MACHINE WE MAKE.



#### Multi-Process Welders

**Flextec° 350X and Flextec 500:** Expect more with these simple, reliable, and flexible machines

- Inverter-based technology accommodates the subtle differences in style between one operator and another offering overall versatility
- Ease of use with rugged durability
- Ideal use for tack rigs with reliable operation
- The Flextec 350x offers CrossLinc Technology provides greater weld control with fewer cables enabling remote procedure setting at the feeder to improve weld quality, and improves safety due to a reduction in job site clutter.

#### Processes

Stick, DC TIG, MIG, Flux-Cored

### Output







#### Engine Driven Welders

**Cross Country<sup>™</sup> 300:** Purpose-built for pipe welding

- Arc characteristics developed by pipe welders, for pipe welders
- Sized right with a small footprint that saves space
- Easy to use with dual controls and easy access for maintenance
- Flexible capabilities to support DC stick, wire, and TIG processes
- Abundant auxiliary power for lights, tools, and campers

#### Processes

Stick, Flux-Cored, MIG, TIG







**SAE-300° MP:** Supplies the quality, efficiency, and endurance needed for optimal pipe welding

- Pure DC Generator Welding Output
- Dual Continuous Control<sup>™</sup> for customized welding output
- All-copper windings and flat DC output ensure a smooth, stable arc that enhances arc control
- Temperature Stabilization<sup>™</sup> enables you to "set it and forget it" no heat loss throughout the day
- Constant voltage for wire welding built into machine

#### Processes

Stick, TIG, MIG, Flux-Cored, Gouging



**Classic<sup>®</sup> 300 MP:** Features proven, simple, and rugged construction with enhanced arc control for superior welding performance on pipe while offering fuel efficiency

- Pure DC Generator Welding Output
- Five current ranges with overlap and fine-tuning within each range where slope control is desired
- Temperature Stabilization enables you to "set it and forget it" no heat loss throughout the day
- Constant voltage for wire welding built into machine

#### Processes

Stick, TIG, MIG, Flux-Cored, Gouging



#### MACHINE - SPECIFICATIONS

Product Name	Product Number	Engine	Rated Output: Current/ Voltage/ Duty Cycle	Output Range	Auxiliary Power	HP & Speed (rpm)	H x W x D in (mm)	Net Wt. Ib (kg)
Cross Country 300	K4166-1	22 hp, 4 cylinder Kubota V1505, Liquid-Cooled, Tier	DC Pipe Current: 300A/32V/100% Range: 40 to 300 AMPS	DC Pipe Current: 40-300A	Single Phase: 10kW Continuous	22.0 @ 1800	31.9 x 25.3 x 56 [810 x 643 x 1422]	1034 (469)
Cross Country 300 Kubota" (Wireless) Standard gray	K4166-2	4 Final	DC Touch Start TIG® 250A/30V/100% DC Constant Voltage	DC Touch Start TIG: 20-250A DC Constant Voltage:	Three Phase: 11kW Continuous			
Cross Country 300 Kubota (Wireless) Stainless Steel	K4166-3	_	300A/32V/100% 350A/28V/100%	14-32 Volts Single Dial Continuous Control				
Classic 300 HE	K3198-1	Kubota D1503 Diesel EPA Tier 4	250A/30V/100% 300A/32V/60%	40-350A DC	3,000 Watts	24.7 @ 1800	To top of exhaust tube: 45.5 x 24.3 x 62.8 (1156 x 616 x 1594)	1371 (622)
Classic 300 MP	K4263-1	Perkins <sup>®</sup> 403F-15T Diesel EPA TIER 4	NEMA Ratings 300A / 32V / 60% 250A / 30V / 100% 90 DC	40-350A DC Welding 3000 Watts AC Generator	3,000 Watts 60 Hz, AC 20 Amps @ 120 with sealed	24.7 @ 1800	37.1 x 24.3 x 62.8 (943 x 616 x 1594)	1,364 (619)
Classic 300 MP Engine-Driven Welder (Kubota) T4F	K4264-1	Kubota <sup>®</sup> D1503 Diesel EPA TIER 4	Max OCV		GFCI Module 13 Amps @ 240V			1377 (625)
SAE-300 HE	K3201-1	Kubota D1503 Diesel EPA Tier 4	250A/30V/100% 300A/32V/60%	50-390A DC	3,000 Watts	24.7 @ 1800	To top of exhaust tube 45.5 x 24.3 x 62.8	1432 (649)
	K3202-1	Perkins 403F-15T Turbo Charged Diesel EPA Tier 4					(1156 x 616 x 1594)	1419 (644)
SAE-300 MP	K4089-1	Perkins 403F-15T Diesel EPA Tier 4	300A DC/32V/60% 250A DC/30V/100%	50-390A DC	3,000 Watts	24.7 @ 1800	37.1 x 24.3 x 62.8 (943 x 616 x 1594)	1419 (644)
SAE-300 MP PERKINS (Wireless) Stainless	K4089-2	Perkins 403F-15T Diesel EPA Tier 4						1432 (649)
SAE-300 MP Engine-Driven Welder (Kubota) T4F	K4090-1	Kubota D1503 Diesel EPA Tier 4						
Flextec 350x (standard) (Across-the-Arc, 14-pin Analog, 5-pin Digital, CrossLinc)	K4272-1	_	425A/37V/30% 350A/34V/60% 300A/32V/100%	5-425A Max OCV 80V DC	_	_	17 x 13 x 23* (431.8 x 330.2 x 584.2) * w/handles 26	72 (32.7)
Flextec 350x (construction) (Across-the-Arc, CrossLinc)	K4271-1	_						77 (34.9)
Flextec 500	K2882-2	_	400A/36V/100% 450A/38V/60% Desert Duty Rated: 340A/34V/100%/55°C 375A/35V/60%/55°C 400A/36V/40%/55°C 450A/38V/20%/55°C	10-500A	_	_	machine only: 18.8 x 14 x 26.5 [477 x 356 x 673]	machine only 125 (56.8)



## CONSUMABLES

ALL LINCOLN ELECTRIC WELDING CONSUMABLES ARE PUT THROUGH EXTENSIVE QUALITY ASSURANCE TESTING THROUGHOUT THE MANUFACTURING PROCESS, FROM RAW MATERIALS TO FINISHED PRODUCT. INCOMING RAW MATERIALS ARE THOROUGHLY ANALYZED TO ENSURE CONSISTENCY IN COMPOSITION. THIS **RESULTS IN CONSISTENCY** IN FINISHED PRODUCT. LINCOLN ELECTRIC FURTHER ENSURES THE HIGHEST QUALITY FOR OUR PIPELINER CONSUMABLES WITH OUR Q2 LOT<sup>®</sup> PROCESS AND CERTIFICATION, PROVIDING LOT CONTROL AND ACTUAL TEST RESULTS FOR EVERY LOT MANUFACTURED.



#### Mild Steel, Cellulosic

Fleetweld<sup>®</sup> 5P+: The industry leader in root pass welding

- High operator appeal and control
- Easy slag removal
- Standard in the pipe welding industry

#### Low Alloy, Low Hydrogen

**Pipeliner<sup>®</sup> LH-D80, 90, and 100:** Low hydrogen, vertical down capability on up to X70, X80, and X90 pipe

- High productivity
- Touch start tapered tip
- Meets H4R diffusible hydrogen level and moisture resistance
- Most reliable coating integrity on the market



Symbol of Dependability... Our stick electrodes are easily identified by three dots, which are a symbol of quality, consistency, and unparalleled welding expertise.



#### Cellulosic

The Classic Pipe Welding Electrode **Shield-Arc<sup>®</sup> 70+:** A Lincoln Electric legacy product designed for the pipeline industry

**Shield-Arc 85:** The perfect electrode for welding 0.50% molybdenum steel and capable of 480 MPa (70 ksi) tensile strength weld deposits

#### Shield-Arc 70+ and Shield-Arc 85

- Deep penetration and superior puddle control
- Clean, visible weld puddle
- Light slag for minimal arc interference

#### The Evolved Pipe Welding Electrode

#### Pipeliner Arc 80 and Pipeliner 8P+

- Excellent alternative to Shield-Arc 70+
- High productivity in vertical down and out-of-position pipe welding
- Deep penetration and superior puddle control
- Preferred by pipe welders in blind evaluations

**Pipeliner Arc 80<sup>™</sup>:** Developed for the pipe welder to provide excellent impact properties without the intentional addition of Boron

**Pipeliner 8P+:** Setting a new industry standard with more robust low temperature properties for stacking iron

#### **CONSUMABLES - SPECIFICATIONS**

Product Name	Product Number	Diameter in (mm)	Packaging Ib (kg)	AWS Class
Pipeliner Arc 80	ED034456 ED034458 ED034457	5/32 (4.0) 3/16 (5.0)	50 (22.6) 50 (22.6) 50 (22.6)	E8010-P1, E8010-G
Pipeliner 8P+	ED030826 ED030827 ED030828	1/8 (3.2) 5/32 (4.0) 3/16 (5.0)	50 (22.6) 50 (22.6) 50 (22.6)	E8010-P1, E8010-G
Pipeliner LH-D80	ED032626 ED032627 ED032628	(3.2) (4.0) (4.5)	10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6)	E8045-P2 H4R
Pipeliner LH-D90	ED032629 ED032630 ED032631	[3.2] (4.0) (4.5)	10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6)	E9045-P2 H4R
Pipeliner LH-D100	ED032632 ED032633 ED032634	(3.2) (4.0) (4.5)	10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6) 10 (4.5), 30 (13.6)	E10045-P2 H4R
Shield-Arc 70+	ED012841 ED012849 ED012845	1/8 (3.2) 5/32 (4.0) 3/16 (4.8)	50 (22.6) 50 (22.6) 50 (22.6)	E8010-G, E8010-P1*
Shield-Arc 85	ED012893 ED012885 ED012896 ED012889	3/32 (2.4) 1/8 (3.2) 5/32 (4.0) 3/16 (4.8)	50 (22.6) 50 (22.6) 50 (22.6)	E7010-A1
Shield-Arc HYP+ ED029511 ED029513 ED029509		1/8 (3.2) 5/32 (4.0) 3/16 (4.8)	50 (22.6) 50 (22.6) 50 (22.6)	E7010-P1, E7010-G
Fleetweld 5P+	ED032564 ED010283 ED032565 ED010278 ED032566 ED010285 ED010281	3/32 (2.4) 1/8 (3.2) 5/32 (4.0) 3/16 (4.8)	10 (4.5), 30 (13.6) 50 (22.6) 10 (4.5), 30 (13.6) 50 (22.6) 10 (4.5), 30 (13.6) 50 (22.6) 50 (22.6)	E6010

\* GMAW and FCAW electrodes available for every pipe strength level and pipeline design. Information on these products can be found at www.lincolnelectric.com/en-us/consumables/pipeliner/Pages/pipeliner.aspx



## Need Help?

Lincoln Electric **"Rapid Reponse"** Service Call **1.888.935.3877** to talk to a Service Representative. Hours of Operation: 8:00 am to 6:00 pm (ET) Monday thru Friday.

**After hours?** Use "Ask the Experts" at lincolnelectric.com A Lincoln Service Representative will contact you no later than the following business day.

For Service outside the USA: email globalservice@lincolnelectric.com

#### CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company<sup>\*</sup> 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, ne 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 warrant or advice does not arrant or guarantee or assume any liability or any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of fitness for any customers' particular purpose is specifically disclafered.

Lincoln Electric is a responsive manufacturer, but 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 for any updated information.

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