

# LINCOLNWELD L-50®

Mild Steel Solid Electrode ■ AWS EM13K

## KEY FEATURES

- A low carbon, medium manganese, medium silicon wire
- Pair it with Lincolnweld® 980™ flux for the best flux/wire combination when semiautomatic submerged arc welding
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

<b>AWS A5.17/A5.17M:</b>	EM13K
<b>MIL-E-23765/1D &amp; 1E:</b>	MIL-705-3
<b>EN 756:</b>	SZ

## RECOMMENDED FLUXES

Lincolnweld® 760®, 761®, 780®, 781®, 860®, 865™, 880M®, 882™, 888™, 8500™, 960®, 980™, P223™

## DIAMETERS / PACKAGING

Diameter in. (mm)	60 lb (27.2 kg) Coil	600 lb (272 kg) Speed Feed® Drum	1000 lb (453 kg) Speed Feed® Drum	1000 lb (453 kg) Accu-Trak® Drum	2200 lb (998 kg) Speed Feed® Stem
1/16 (1.6)	ED011317	ED011316	ED011334	ED029083	ED033481 ED032997
5/64 (2.0)	ED011335				
3/32 (2.4)	ED011328	ED011322	ED033481		
1/8 (3.2)	ED011323				
5/32 (4.0)	ED011332				
3/16 (4.8)	ED015469	ED015352			

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%S	%P	%Cu
Lincolnweld® L-50®	0.06-0.16	0.90-1.40	0.35-0.75	0.030	0.030	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® L-56®

Mild Steel Solid Electrode ■ AWS EH11K

## KEY FEATURES

- A low carbon, high manganese, very high silicon wire
- Can be used with Lincolnweld® 800 series fluxes for welds requiring 480 MPa (70 ksi) tensile strength in stress relieved conditions
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

<b>AWS A5.17/A5.17M</b>	EH11K
<b>MIL-E-23765/1D &amp; 1E:</b>	MIL-70S-6
<b>EN 756:</b>	SZ

## RECOMMENDED FLUXES

Lincolnweld® 860®, 880M®, 882™, 888™, 8500™, P223™

## DIAMETERS / PACKAGING

Diameter in. (mm)	60 lb (27.2 kg) Coil	Accu-Trak® Drum		1000 lb (453 kg) Speed Feed® Reel	1000 lb (453 kg) Speed Feed® Drum	2200 lb (998 kg) Speed Feed® Stem
		500 lb (227 kg)	1000 lb (453 kg)			
1/16 (1.6)	ED011666	ED029225	ED029085	EDS01631	ED030425 ED030426 ED028264	ED032998 ED032999
5/64 (2.0)	ED011678					
3/32 (2.4)	ED011674					
1/8 (3.2)	ED011671					
5/32 (4.0)	EDS11677					
3/16 (4.8)	EDS01107					

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%S	%P	%Cu
Lincolnweld® L-56®	0.06-0.15	1.40-1.85	0.80-1.15	0.030	0.030	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® L-60

Mild Steel Solid Electrode ■ AWS EL12

## KEY FEATURES

- A low carbon, low manganese, low silicon general purpose electrode
- Provides the lowest hardness and is best suited for use with the Lincolnweld® 700 series of active fluxes
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

<b>AWS A5.17/A5.17M</b>	EL12
<b>MIL-E-23765/4:</b>	MIL-EL12
<b>EN 756:</b>	S1

## RECOMMENDED FLUXES

Lincolnweld® 760®, 761®, 780®, 781™, 860®, 882™

## DIAMETERS / PACKAGING

Diameter in. (mm)	60 lb (27.2 kg) Coil	600 lb (272 kg) Speed Feed® Drum	1000 lb (453 kg) Speed Feed® Drum
5/64 (2.0)	ED011762	EDS11760	ED011761
3/32 (2.4)	ED011752		ED011751
1/8 (3.2)	ED011743	EDS11741	ED011742
5/32 (4.0)	ED011758		ED011757
3/16 (4.8)	ED011749		ED011748

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%S	%P	%Cu
Lincolnweld® L-60	0.04-0.14	0.25-0.60	0.10	0.030	0.030	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® L-61®

Mild Steel Solid Electrode ■ AWS EM12K



## KEY FEATURES

- Industry standard for submerged arc welding applications
- A low carbon, medium manganese, low silicon general purpose submerged arc electrode
- A good choice for a wide range of applications with single or multiple pass subarc welding
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

<b>AWS A5.17/A5.17M</b>	EM12K
<b>AWS A5.23:</b>	EM12K
<b>MIL-E-23765/4:</b>	MIL-EM12K
<b>EN 756:</b>	S2Si

## RECOMMENDED FLUXES

Lincolnweld® 760®, 761®, 780®, 781™, 860®, 865™, 882™, 888™, 761-Pipe™, P223™, 960®, 980™, WTX™, AXXX-10™, 995N™, SPX80™

## DIAMETERS / PACKAGING

Diameter in. (mm)	60 lb (27.2 kg) Coil	250 lb (113 kg) Speed Feed® SlimReel™	300 lb (136 kg) Speed Feed® Reel	300 lb (136 kg) Speed Feed® Drum
1/16 (1.6)	ED011803			
5/64 (2.0)	ED011825, ED030756*			
3/32 (2.4)	ED011815, ED033875*	ED033074		
1/8 (3.2)	ED011807, ED033876*	ED033075		
5/32 (4.0)	ED011821, ED033877*, ED032097**	ED033076	ED030412	ED030628
3/16 (4.8)	ED011812, ED034055*			
Diameter in. (mm)	600 lb (272 kg) Speed Feed® Drum	750 lb (340 kg) Speed Feed® Reel	1000 lb (453 kg) Speed Feed® Drum	2200 lb (998 kg) Speed Feed® Stem
1/16 (1.6)		ED011826	ED011824	
5/64 (2.0)	EDS11823	EDS11817	ED011814, ED034043*	
3/32 (2.4)	EDS11813	EDS11809	ED011806, ED034044*	ED032973
1/8 (3.2)	EDS11805	ED030012	ED011820, ED034045*, ED030703**	ED032972
5/32 (4.0)	EDS11819		ED011811	ED032994
3/16 (4.8)				

\*Buy America Product \*\*Tested Material

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%S	%P	%Cu
Lincolnweld® L-61®	0.05-0.15	0.80-1.25	0.10-0.35	0.030	0.030	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® L-S3

Mild Steel Solid Electrode ■ AWS EH12K

## KEY FEATURES

- A low carbon, high manganese, medium silicon electrode designed for use with the Lincolnweld® 800 series of neutral fluxes
- Capable of producing weld deposits with impact properties exceeding 27 J (20 ft•lbf) at -62°C (-80°F) when used with Lincolnweld® 888™, 8500™, and MIL800-H™ neutral fluxes
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil
3/32 (2.4)	ED028538
1/8 (3.2)	ED016767
5/32 (4.0)	ED016248

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%S	%P	%Cu
Lincolnweld® L-S3	0.06-0.15	1.50-2.0	0.25-0.65	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

## CONFORMANCES

**AWS A5.17/A5.17M:** EH12K  
**EN 756:** S3Si

## RECOMMENDED FLUXES

Lincolnweld® 860®, 880M®, 882™, 888™, 8500™, MIL800-H™, P223™

# LINCOLNWELD® LA-71

Mild Steel Solid Electrode ■ AWS EM14K

## KEY FEATURES

- A low carbon, medium manganese, medium silicon electrode containing approximately 0.1% titanium
- Small addition of titanium allows deposits to be stress-relieved with little loss of strength, even with extended stress relief times
- Widely used with neutral basic fluxes in both as-welded and post-weld heat treated conditions

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum
3/32 (2.4)	ED011052	
1/8 (3.2)	ED011051	EDS30781
5/32 (4.0)	ED011053	EDS30782

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

	%C	%Mn	%Si	%Ti	%S	%P	%Cu
Lincolnweld® LA-71	0.06-0.19	0.90-1.40	0.35-0.75	0.03-0.17	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

## CONFORMANCES

**AWS A5.17/A5.17M:** EM14K  
**EN 756:** SZ

## RECOMMENDED FLUXES

Lincolnweld® 860®, 865™, 880M®, 882™, 888™, 8500™, MIL800-H™, 960®, P223™

# LINCOLNWELD® AK-10™

Low Alloy Solid Electrode ▪ AWS EG

## KEY FEATURES

- Capable of producing welds with 690 MPa (100 ksi) tensile strength
- Suitable for use where consumables with less than 1% Ni are required
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)
- Batch Managed Inventory

## RECOMMENDED FLUXES

Lincolnweld® 812-SRC™

## CONFORMANCES

AWS A5.23/A5.23M: EG

## TYPICAL APPLICATIONS

- NACE applications
- Oil tools
- Riser systems
- High-strength pipe

## DIAMETERS / PACKAGING

Diameters in (mm)	60 lb. (27.2kg) Coil
5/64 (2.0)	ED034904
3/32 (2.4)	ED034905
1/8 (3.2)	ED034906
5/32 (4.0)	ED034907

## WIRE COMPOSITION - As required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Ni	%Mo	
Lincolnweld® AK-10®	0.10	1.55	0.57	0.88	0.48	
	%Cr	%S	%P	%V	%Al	%Cu
Lincolnweld® AK-10®	0.27	< 0.005	0.01	<0.003	0.004	0.09

# LINCOLNWELD® L-70

Low Alloy Solid Electrode ■ AWS EA1

## KEY FEATURES

- A low carbon, medium manganese, low silicon, 1/2% molybdenum wire used for single or multiple pass welds
- A standard choice for pipe fabrication and other limited pass applications
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum	2200 lb (998 kg) Speed Feed® Stem
5/64 (2.0)	ED012054		
1/8 (3.2)	ED012051	ED021192	ED032971
5/32 (4.0)	ED012053	ED021193	ED032970
3/16 (4.8)	ED012052	EDS21194	ED032996

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Mo	%S	%P	%Cu
Lincolnweld® L-70	0.05-0.15	0.65-1.00	0.20	0.45-0.65	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

## CONFORMANCES

<b>AWS A5.23/A5.23M:</b>	EA1
<b>MIL-E-23765/4:</b>	MIL-EA1
<b>EN 756:</b>	S2Mo

## RECOMMENDED FLUXES

Lincolnweld® 761™, 781™, 860™, 882™, 888™, 995N™, 761-Pipe™, P223™, SPX80™

# LINCOLNWELD® LA-75

Low Alloy Solid Electrode ■ AWS ENi1K



## KEY FEATURES

- A low carbon, medium manganese, high silicon, nickel-bearing electrode designed for use with Lincolnweld® neutral fluxes
- Suitable for use in applications requiring less than 1% Ni wire composition
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum
5/64 (2.0)	ED011066, ED034196*	
3/32 (2.4)	ED011064, ED033878*	ED027225, ED034046*
1/8 (3.2)	ED011062, ED033879*	ED033293
5/32 (4.0)	ED011065, ED033880*	ED027224, ED034048*

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## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Ni	%S	%P	%Cu
Lincolnweld® LA-75	0.12	0.80-1.40	0.40-0.80	0.75-1.25	0.020	0.020	0.35

<sup>(1)</sup>Single values are maximums.

## CONFORMANCES

<b>AWS A5.23/A5.23M:</b>	ENi1K
<b>EN 756:</b>	SZ

## RECOMMENDED FLUXES

Lincolnweld® 860™, 865™, 880™, 880M™, 882™, 888™, MIL800-H™, MIL800-HPNi™, 960™, 980™

# LINCOLNWELD® LA-81

Low Alloy Solid Electrode ■ AWS EA2TiB

## KEY FEATURES

- A low carbon, medium manganese, low silicon, 1/2% molybdenum wire containing small additions of titanium and boron for improved fracture toughness
- Generally used in two run applications for arctic grade line pipe
- It can be used to weld up to API X90 grade pipe
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

AWS A5.23/A5.23M: EA2TiB  
EN ISO 26304-A: SZ

## RECOMMENDED FLUXES

Lincolnweld® 995N™, SPX80™

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum	2200 lb (998 kg) Speed Feed® Stem
1/8 (3.2)	ED023163	EDS31060	ED032993
5/32 (4.0)			ED032992
3/16 (4.8)			ED032995

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%S	%P	%Mo	Total %Cu	%Ti	%B
Lincolnweld® LA-81 <sup>(1)</sup>	0.06	1.04	0.31	0.006	0.008	0.53	0.12	0.06	0.011

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-82

Low Alloy Solid Electrode ■ AWS EF2

## KEY FEATURES

- Designed especially for high strength applications
- Recommended when over 620 MPa (90 ksi) tensile strength is required in the as-welded condition or when low temperature impact toughness is required in the stress-relieved condition
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

AWS A5.23/A5.23M: EF2  
EN ISO 26304-A: SZ

## RECOMMENDED FLUXES

Lincolnweld® 860®, 882™, 888™, 8500™, MIL800-H™

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil
3/32 (2.4)	EDS30785
1/8 (3.2)	ED026958
5/32 (4.0)	ED026959

## WIRE COMPOSITION<sup>(2)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Ni	%Mo	%S	%P	%Cu
Lincolnweld® LA-82	0.10-0.18	1.70-2.40	0.2	0.40-0.80	0.40-0.65	0.025	0.025	0.35

<sup>(1)</sup>No AWS limits. Values are typical. <sup>(2)</sup>Single values are maximums.



# LINCOLNWELD® LA-84

Low Alloy Solid Electrode ▪ AWS EF3

## KEY FEATURES

- A nickel-bearing electrode with 1/2% molybdenum
- Can be used for higher strength weldments where impact properties exceeding 27 J (20 ft•lbf) at -62°C (-80°F) are required
- Suitable for use where consumables with less than 1% Ni are required
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

AWS A5.23/A5.23M: EF3  
EN ISO 26304-A: S3Ni1Mo

## RECOMMENDED FLUXES

Lincolnweld® 860®, 880M®, 882™, 888™,  
P223™, MIL800-H™, MIL800-HPNi™

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum
5/64 (2.0)	ED034211	
3/32 (2.4)	ED031871	ED031872
1/8 (3.2)	ED033323	
5/32 (4.0)	ED034212	ED033727

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Ni	%Mo	%S	%P	%Cu
Lincolnweld® LA-84	0.10-0.18	1.75-2.20	0.2	0.80-1.0	0.45-0.60	0.010-0.020	0.010-0.020	0.05-0.15

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-85

Low Alloy Solid Electrode ■ AWS ENi5



## KEY FEATURES

- A nickel-bearing wire with 0.2% molybdenum designed for use on weathering steels
- Capable of producing weld deposits with 480-550 MPa (70-80 ksi) tensile strength in the as-welded and stress-relieved conditions
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

AWS A5.23/A5.23M: ENi5  
EN ISO 26304-A: SZ

## RECOMMENDED FLUXES

Lincolnweld® 860®, 880M®, 882™, 888™, 8500™, MIL800-H™, MIL800-HPNi™, 960®

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum
3/32 (2.4)	ED023166, ED034426*	ED029965
1/8 (3.2)	ED023167	
5/32 (4.0)	ED023168, ED034427*	ED033273
3/16 (4.8)	ED023169, ED035579*	

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## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Ni	%Mo	%S	%P	%Cu
Lincolnweld® LA-85	0.12	1.20 - 1.60	0.05 - 0.30	0.75 - 1.25	0.10 - 0.30	0.025	0.020	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-90

Low Alloy Solid Electrode ■ AWS EA3K

## KEY FEATURES

- A low carbon, high manganese, high silicon, 1/2% molybdenum special purpose wire
- Recommended for seam welding of pipe and for the general welding of high strength plate
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

AWS A5.23/A5.23M: EA3K  
EN ISO 26304-A: SZ

## RECOMMENDED FLUXES

Lincolnweld® 880™, 880M®, 888™, 8500™, MIL800-H™, 995N™, P223™, SPX80™

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	750 lb (340 kg) Speed Feed® Reel	1000 lb (453 kg) Speed Feed® Drum
1/16 (1.6)	ED013999		
5/64 (2.0)	ED011086		
3/32 (2.4)	ED011084		
1/8 (3.2)	EDS11083		
5/32 (4.0)	EDS11085	EDS01154	EDS01152

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Mo	%S	%P	%Cu
Lincolnweld® LA-90	0.05-0.15	1.60-2.10	0.50-0.80	0.40-0.60	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-92

Low Alloy Solid Electrode ■ AWS EB2R

## KEY FEATURES

- Designed for welding 1 1/4% chromium, 1/2% molybdenum steels in high temperature service applications such as pressure vessels or piping
- The AWS R designator denotes ultra low residuals which will result in a low Bruscato factor (X-factor)
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

AWS A5.23/A5.23M: EB2R  
EN ISO 24598-A: S CrMo1

## RECOMMENDED FLUXES

Lincolnweld® 880M®, 882™, MIL800-H™, 960®

## DIAMETERS / PACKAGING

Diameter in. (mm)	60 lb (27.2 kg) Coil
3/32 (2.4)	EDS30783
1/8 (3.2)	EDS26960
5/32 (4.0)	EDS26961

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Cr	%Mo	%S	%P	%Cu
Lincolnweld® LA-92	0.07-0.15	0.45-1.00	0.05-0.30	1.00-1.75	0.45-0.65	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-93

Low Alloy Solid Electrode ■ AWS EB3R

## KEY FEATURES

- Designed for high temperature applications such as pressure vessels and piping for 2 1/4% chromium, 1% molybdenum steels
- The AWS R designator denotes ultra low residuals which will result in a low Bruscato factor (X-factor)
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

AWS A5.23/A5.23M: EB3R  
EN ISO 24598-A: S CrMo2

## RECOMMENDED FLUXES

Lincolnweld® 880M®, 882™, MIL800-H™, 960®

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil	1000 lb (453 kg) Speed Feed® Drum
3/32 (2.4)	EDS30784	ED032185
1/8 (3.2)	EDS26962	
5/32 (4.0)	EDS26963	

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Cr
Lincolnweld® LA-93	0.05 - 0.15	0.40 - 0.80	0.05 - 0.30	2.25 - 3.00
	%Mo	%S	%P	%Cu
Lincolnweld® LA-93	0.90 - 1.10	0.025	0.025	0.35

<sup>(1)</sup>Single values are maximums.

# LINCOLNWELD® LA-100

Low Alloy Solid Electrode ■ AWS EM2 & ER100S-G & ER110S-G

## KEY FEATURES

- A low carbon, high manganese wire with nickel and molybdenum designed to weld high strength steels such as HY-80 and HSLA-80
- Delivers yield strength greater than 690 MPa (100 ksi)
- Low H<sub>2</sub> hydrogen levels can be achieved when used with MIL800-H™ flux
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of [lincolnelectric.com](http://lincolnelectric.com)

## CONFORMANCES

<b>AWS A5.23/A5.23M:</b>	EM2
<b>MIL-E-23765/2D &amp; /2E:*</b>	MIL-100S-1 or MIL-100S-2 (with MIL800-H)
<b>EN ISO 26304-A:</b>	SZ

*\*NAVSEA Technical Publication T9074-BC-GIB-010/0200*

## RECOMMENDED FLUXES

Lincolnweld® 880™, 880M®, 888™, MIL800-H™, MIL800-HPNi™, 960®

## DIAMETERS / PACKAGING

Diameter in (mm)	60 lb (27.2 kg) Coil
1/16 (1.6)	ED010996
5/64 (2.0)	ED011002
3/32 (2.4)	ED010999
1/8 (3.2)	ED010998
5/32 (4.0)	EDS11001

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.23/A5.23M

	%C	%Mn	%Si	%Cr	%Ni	%Mo	%Ti
Lincolnweld® LA-100	0.10	1.25-1.80	0.20-0.60	0.30	1.40-2.10	0.25-0.55	0.10
	%Zr	%Al	%V	%S	%P	%Cu	
Lincolnweld® LA-100	0.10	0.10	0.05	0.015	0.010	0.25	

<sup>(1)</sup>Single values are maximums.

# TECHALLOY 4130

Low Alloy Steel

## KEY FEATURES

- High strength, low alloy
- Preheat and inter-pass temperature of 400°F is required

## TYPICAL APPLICATIONS

- Joining steels of similar chemical composition
- Overlays where moderate hardness is required

## WELDING POSITIONS

All

## DIAMETERS / PACKAGING

Diameter in (mm)	SAW 55 lb (25kg) Coil
3/32 (2.4)	SA4130093726
1/8 (3.2)	SA4130125726

## Wire COMPOSITION<sup>(1)</sup>

	%C	%Mn	%Si	%Fe	%Cr	%Mo	%Ni	%V
Typical Results <sup>(3)</sup>	0.31	0.52	0.28	Balance	0.93	0.20	-	-

## MECHANICAL PROPERTIES<sup>(1)</sup>

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %
Typical Results <sup>(3)</sup>	130,000 (900)	145,000 (1,000)	11

## TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas
SAW	3/32 (2.4)	28	400	N/A
	1/8 (3.2)	28	450	
	5/32 (4.0)	28	500	

<sup>(1)</sup>Typical deposit composition. <sup>(2)</sup>Measured with 0.2% offset. <sup>(3)</sup>See test results disclaimer  
Safety Data Sheets (SDS) are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)