AWS E7018 H8 (E4818*)

Hobart®18AC

DESCRIPTION:

A low-hydrogen electrode, **Hobart 18AC** is designed for welding low, medium, and high-carbon steels as well as some high strength low-alloy steels. It is also excellent for skip or tack welds, and is highly recommended for applications using small 208/230V, single-phase AC welders. Hobart 18AC produces a smooth, stable arc and has outstanding restriking capabilities. Although it is designed for use with AC power sources, Hobart 18AC also works exceptionally well on DC utility-type welders.

APPLICATIONS:

Low - medium - and high-carbon steels, skip or tack welds, shops, farms, and hobbyist, some high-strength low alloy steels.

FEATURES:	BENEFITS:
• Excellent restriking characteristics	• Reduces frustration caused by electrode sticking; idea for beginning welders and hobbyists, job shops and farms; great for tack or skip welds
• Self-removing slag	• Allows more arc time; reduces clean-up time
• Flat bead contour	• Results in excellent weld bead appearance
• Good wetting action	• Prevents cold laps or undercutting.
• Reliable starts and restarts	• Provides better welds due to no porosity
• Very stable arc	• Easy to control; minimal spatter; smooth and quiet

TYPICAL WELD METAL PROPERTIES**(Chem Pad):

Weld Metal Analysis		AWS Spec (max)
Carbon (C)	0.04	0.15
Manganese (Mn)	0.67	1.60
Silicon (Si)	0.29	0.75
Phosphorus (P)	0.008	0.035
Sulphur (S)	0.010	0.035
Nickel (Ni)	0.08	0.30
Chromium (C)	0.07	0.20
Molybdenum (Mo)	0.01	0.30
Vanadium (V)	0.02	0.03
Mn + Ni + Cr + Mo +	0.85	1.75

TYPICAL MECHANICAL PROPERTIES**(AW):

		AWS Spec (min)
Tensile Strength	81,200 psi (560 MPa)	70,000 psi
Yield Strength	73,100 psi (504 MPa)	58,000 psi
Elongation % in 2”	29.5%	22%
Reduction of Area	75%	not required

TYPICAL CHARPY-V-NOTCH IMPACT VALUES**(AW):

		AWS Spec (min)
Avg at -20°F (-29°C)	57 ft•lbs (77 Joules)	20 ft•lbs

		AWS Spec
TYPICAL DIFFUSABLE HYDROGEN:	5.5 ml	8.0 ml

TYPE OF CURRENT: AC, DCEN or DCEP

CONFORMANCES AND APPROVALS:

• AWS A5.1, E7018 H4, ASME SFA 5.1, F-4, A-1 E7018

*Metric AWS classification

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RECOMMENDED WELDING PROCEDURES:

GENERAL:	AC; electrode positive, work negative (DCEP); or electrode negative, work positive (DCEN)
ARC LENGTH:	Very short (less than half the diameter of the electrode)
FLAT:	Angle electrode 10°-15° from 90°
VERTICAL-UP:	Use weaving technique
VERTICAL-DOWN:	Not recommended
OVERHEAD:	Use slight weaving motion within the puddle
STORAGE:	220°F to 350°F
RECONDITIONING:	If exposed to the atmosphere for extended periods, the electrode should be reconditioned for one hour at 575°F

RECOMMENDED OPERATING RANGES:

Diameter Inches	Diameter mm	Type of Power	Minimum Amps*	Optimum Amps*	Maximum Amps
3/32	2.4	AC, DCEP or DCEN	70	90	110
1/8	3.2	AC, DCEP or DCEN	90	130	165
5/32	4.0	AC, DCEP or DCEN	125	170	220

*For out-of-position welding, reduce amperage shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

Diameter Inches	Diameter mm	Type of Power	Amps*	Votls	Deposition Rate Lbs/hr	Deposition* Efficiency%
3/32	2.4	AC	90	22	2.03	62
1/8	3.2	AC	130	25	2.58	65
5/32	4.0	AC	170	27	3.19	65

*Allowance made for 2" stub loss included.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter Inches	Diameter mm	Length Inches	Length mm	5-lb. Plastic Pak	10-lb. Plastic Pak	50-lb. Can
3/32	2.4	14"	355	S119832-045	S119832-089	S119832-035
1/8	3.2	14"	355	S119844-045	S119844-089	S119844-035
5/32	4.0	14"	355	S119851-045	S119851-089	S119851-035

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service.

Because Hobart Brothers Company is constantly improving products, Hobart reserves the right to change design and/or specifications without notice.

HOBART BROTHERS HOBART® Performance Welding.™