

Tube-Alloy[®] 258-O



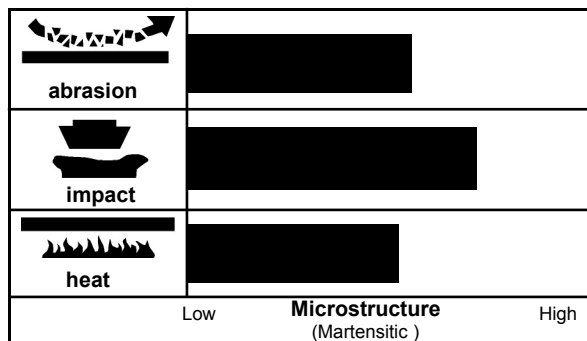
DESCRIPTION:

Tube-Alloy 258-O is a self-shielded, flux-cored wire that deposits a premium martensitic alloy steel of the H-12 tool steel composition. It has excellent resistance to adhesive (metal-to-metal) wear. It also has good resistance to abrasion and impact, and maintains its hardness up to 1000°F. It is designed for use as an overlay on carbon and low alloy steels, or can be used over a base of Tube-Alloy Build Up-O. Because of its high hardenability, proper preheat may be required for crack-free deposits. Tube-Alloy 258-O should never be used for joining. Conforms to AWS A5.21, classification ERcFe-8.

OPERATIONAL CHARACTERISTICS:

Tube-Alloy 258-O has a steady arc with a globular transfer. Spatter and noise levels are minimal, with a complete, easily removed slag cover. Out-of-position welding is limited to a horizontal shelf technique.

RELATIVE WEAR RESISTANCE:



TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

AWS A5.21
ERcFe-8
Annex A 7.1.5

Carbon (C)	0.45	0.30-0.60
Manganese (Mn)	1.40	1.0-2.0
Silicon (Si)	0.80	1.0
Chromium (Cr)	6.00	4.0-8.0
Molybdenum (Mo)	1.50	1.0-2.0
Tungsten (W)	1.50	1.0-2.0
Iron (Fe)	Bal.	Bal.
Vanadium (V)	0.00	0.5

For AWS Classification Single Values are Maximum

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers	As-Deposited on	
		1020 Steel	1045 Steel
Hardness	1	49 Rc	51 Rc
	2	53 Rc	54 Rc
	3	57 Rc	57 Rc
Abrasion resistance		Good	
Impact resistance		Good	
Nonmachinable		Grinding only	
Flame cutting		Difficult	
Magnetic			
Heat-treatable and forgeable			
Maintains hot hardness up to 1000°F			

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company expressly disclaims any liability incurred from any reliance thereon. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers Company.

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RECOMMENDED OPERATING PARAMETERS:

Diameter Inches	Diameter mm	Type of Power	Stick-Out		Optimum Amps	Volts	Deposition Rate	
			Inches	mm			Amps	lb/hr
.045	1.2	DCEP	1/2-1	13-25	120-160	19-23	130	4
					160-190	24-25	180	7
					190-230	26-27	220	10
1/16	1.6	DCEP	1-1 1/2	25-38	225-275	23-25	200	6
					275-350	24-27	250	10
					350-400	26-29	300	14
7/64	2.8	DCEP	1-1 1/2	38-51	350-400	24-27	300	11
					400-450	26-29	350	14
					450-500	28-32	400	18

Start with **middle range** and adjust accordingly. Higher amperages will increase deposition rate, dilution, and heat input to base metal. Increasing voltage will widen and flatten bead profile, but excessive voltage will result in porosity. Too much electrical stick-out may result in increased spatter, too little may result in internal porosity.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter Inches	Diameter mm	25-lb. Spool	60-lb. Coil	250-lb. Auto-Pak
1/16	1.6	S605819-029	S605819-062	-
7/64	2.8	-	S605839-062	S605839-065

APPLICATIONS:

- Coupling Boxes
- Dragline Chains
- Kiln Trunnions
- Mill Guides
- Spindles
- Wobbler Ends

TECHNICAL QUESTIONS? For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at Applications.Engineering@hobartbrothers.com

CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 8669 NW 36 St, # 130, Doral, FL 33166-6672 (can also be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

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

Tube-Alloy is a registered trademark of Hobart Brothers Company, Troy, Ohio.

Revision Date: 150305 (Replaces 100806)
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