Tube-Alloy® 244-O

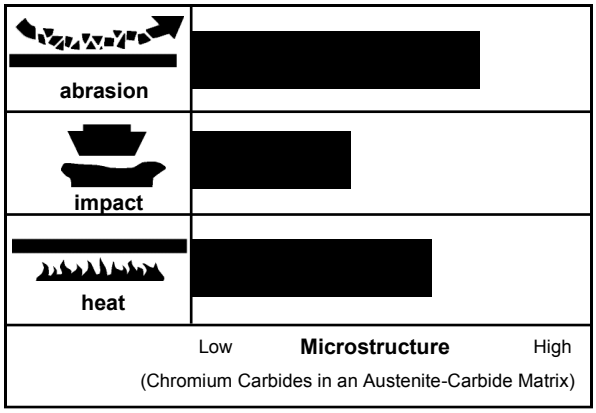
DESCRIPTION:

Tube-Alloy 244-O is a medium alloy carbide steel. It is primarily designed to meet the specific physical and operational requirements necessary in the automatic rebuilding of dredge pump shells. Deposits do stress relief check crack.

OPERATIONAL CHARACTERISTICS:

Tube-Alloy 244-O requires no external shielding gas to produce sound weld deposits but CO_2 shielding gas can sometimes be utilized for special conditions. Weldability is excellent in the horizontal position. A fine check pattern provides maximum stress relief.

RELATIVE WEAR RESISTANCE:



TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis	
Carbon (C)	2.50
Manganese (Mn)	1.60
Silicon (Si)	2.00
Chromium (Cr)	9.00
Copper (Cu)	0.50
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers	As-Deposited on 1020 Steel	As-Deposited on 12-14% Mn Steel
Hardness	1	34 Rc	24 Rc
	2	37 Rc	33 Rc
	3	40 Rc	38 Rc
Abrasion resistance - very good			
Impact resistance - fair			
Machinability - very difficult			
Cannot be flame cut			
Slightly magnetic			
Will relief check crack readily			
Thickness - 3 to 5 layers maximum			

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RECOMMENDED OPERATING PARAMETERS:

Diameter Inches	Diameter mm	Type of Power	Stick-Out Inches	Stick-Out mm	Optimum Amps	Volts	Amps	Deposition Rate lb/hr
7/64	2.8	DCEP	1-1/2 - 2	38-51	350-400	24-27	300	11
					400-450	**26-29**	350	14
					450-500	28-32	400	18

Start with **middle ranges** 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	250 lb. Auto-Pak	500 lb. Auto-Pak
7/64	2.8	S604439-65	S604439-066

APPLICATIONS:

- Dredge Pump
- Impellers and Side Plates
- Pipeline Ball Joints
- Pump Shells

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.

Revision Date: 150305 (Replaces 071005)
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HOBART FILLER METALS