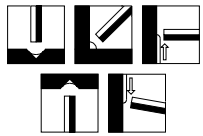


BM-50	A 55 NICKEL- 45 IRON ALLOYED ELECTRODE FOR FULLY MACHINABLE CRACK- RESISTANT WELDS ON A WIDE RANGE OF CAST IRONS				DATA SHEET NO.		143A				
					SPECIFICATION				AWS A5.15		EN ISO 1071
CLASSIFICATION		ENiFe-CI		EC NiFe-CI		DFC NiFe					
PRODUCT DESCRIPTION		The design emphasis of the chemically basic flux assures the metallurgical integrity of the weld metal fumes. The high graphite content of the flux is expelled from the molten metal, compensating for the compression welding stresses thus preventing weld metal cracking. Special nickel-iron alloy core wire used gives extra heat-resistability of welding electrode.									
WELDING FEATURES OF THE ELECTRODE		The arc is stable both AC and DC, but is very soft, thus minimising dilution. Weld beads are smooth, bright and evenly rippled. The slag is fairly fluid but relatively quick freezing, thus allowing smooth blends when edges are involved. The slag is readily controlable, thus making positional welding very easy, plus the slag is easily detachable.									
APPLICATIONS AND MATERIALS TO BE WELDED		The NiFe weld metals produce higher strength welds than the pure nickel types and are thus the preferred choice for alloyed, nodular and spheroidal cast irons. Typical grades being ASTM A602, A47, A338, A220. Additional applications include welding of all grades of cast iron to mild carbon and low alloy steels.									
WELD METAL ANALYSIS COMPOSITION % BY Wt.			C	Mn	Si	S	P	Ni	Cu	Others	Fe
MIN			-	-	-	-	-	45	-	-	
MAX			2.0	1.0	1.0	0.03	-	60	2.5	-	
TYPICAL			1.0	0.5	0.5	0.01	0.01	50	0.1	1.0	Bal.
WELD METAL PROPERTIES (ALL WELD METAL)		<u>PROPERTY</u>		<u>UNITS</u>		<u>MINIMUM</u>		<u>TYPICAL</u>		<u>OTHERS</u>	
		Tensile strength		N/mm ²		-		520		HV 170 - 200	
		0.2% Proof stress		N/mm ²		-		240			
		Elongation on 4d		%		-		12			
Reduction of Area (RA)		%		-		-					
WELDING AMPERAGE AC or DC		Ø (mm)		2.6		3.2		4.0			
		MIN		50		70		100			
		MAX		80		110		140			
OTHER DATA		Electrodes that have become damp should be re-dried at 110°C for 1 hour.									
RELATED PRODUCTS		Please contact our Technical Department for detail.									