

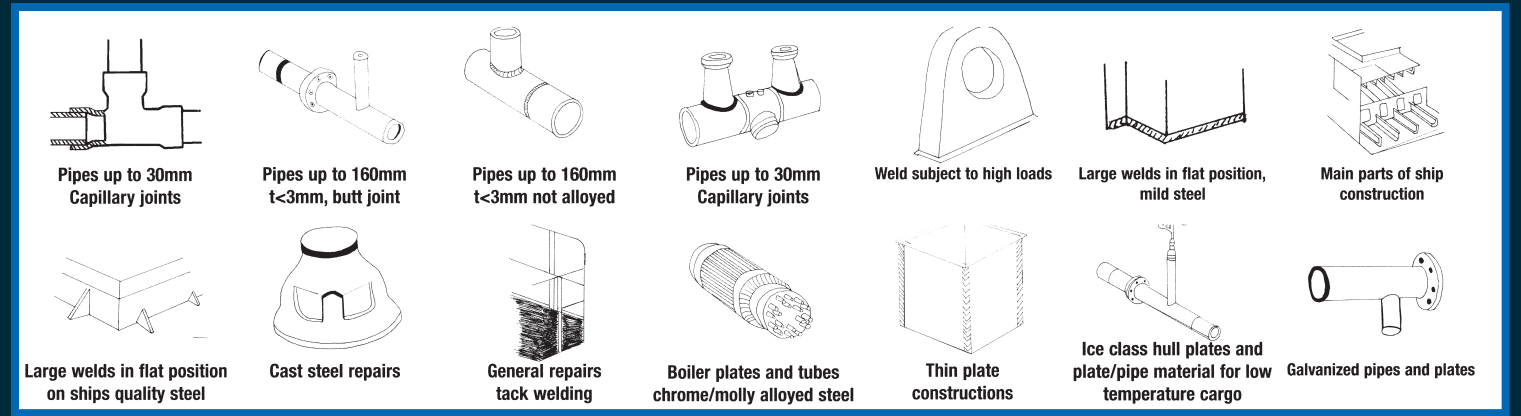
Drew Marine

Selector Guide for Maintenance & Repair Welding

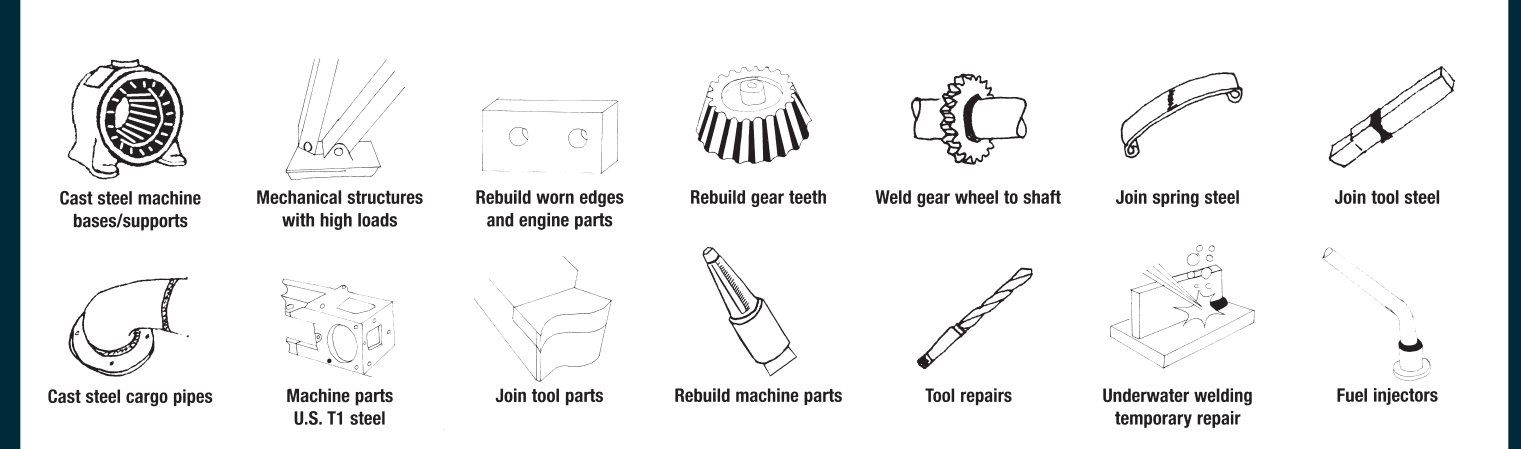
HIGHLIGHTED ELECTRODES ARE MOST COMMONLY USED FOR REPAIRS

UNALLOYED AND ALLOYED STEEL
MOST COMMON TYPE OF REPAIRS

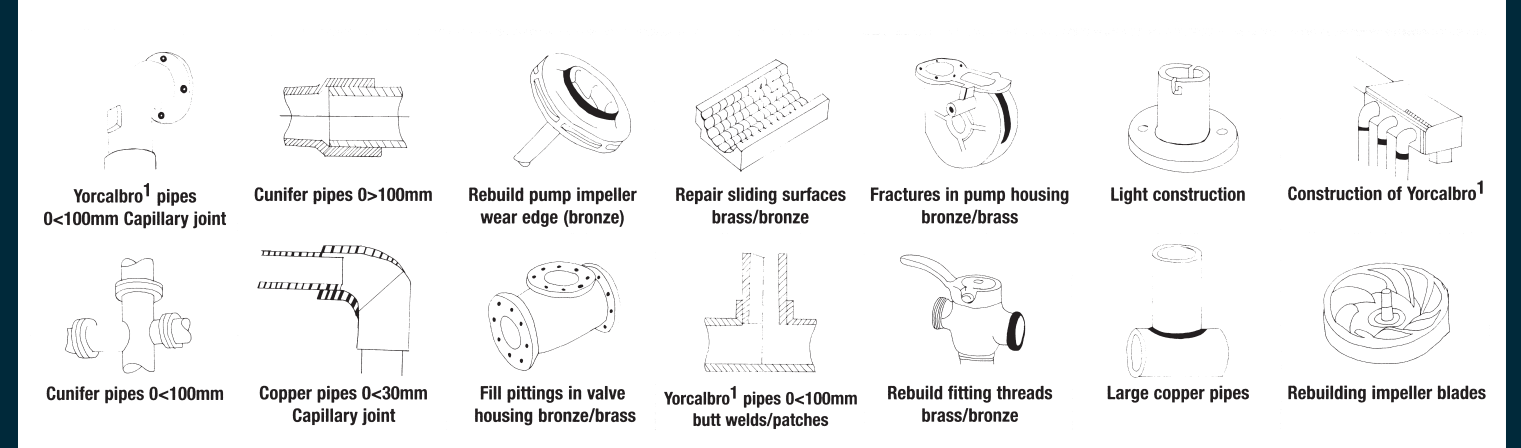
AMERARC™ Ferrous Electrodes						
FOR WELDING	ELECTRODE TYPE	WT. (kg/PK)	DIA/L (mm X mm)	PCN	RECOMMENDED AMPERAGE	APPLICATION INFORMATION
MILD STEEL NORMAL CONDITIONS	ER PLUS GENERAL PURPOSE RUTILE	1.5	2.0 X 300	0628034	40 - 80	AMERARC ER PLUS is a heavily coated rutile electrode used in all positions on AC or DC with positive or negative polarity. Arc action is particularly stable even when welding with low open circuit voltage transformers. Bead appearance is smooth and flat, and slag removal is easy. AMERARC ER PLUS electrodes have excellent wetting action and produce shallow penetration making it suitable for thin metal welding as well as butt, fillet and outside corner welds. Tensile Strength: 490-600 N/mm²
		3.7	2.5 X 350	0629032	50 - 110	
		4.9	3.25 X 450	0630039	80 - 150	
	EO PLUS GENERAL PURPOSE ORGANIC	3.8	2.5 X 350	0631037	45 - 80	
		4.6	3.25 X 350	0632035	75 - 110	
		4.5	4.0 X 350	0633033	105 - 150	
	PIPE DEEP PENETRATION ALL POSITION	4.3	2.5 X 350	0993015	45 - 80	
		4.6	3.25 X 350	0993023	75 - 110	
		4.5	4.0 X 350	0993031	105 - 150	
	ECEL ALL POSITION	4.5	2.5 X 350	0994013	25 - 75	
		4.5	3.25 X 350	0994021	35 - 125	
		4.5	4.0 X 350	0994039	50 - 160	
EOHP PLUS HIGH PERFORMANCE	6.3	4.0 X 450	0995128	140 - 190		
	5.8	5.0 X 450	0995136	180 - 230		
	5.7	6.3 X 450	0995144	220 - 280		
MILD STEEL UNDER HIGH STRESS	LH PLUS LOW HYDROGEN ELECTRODE	3.4	2.5 X 350	0634031	65 - 110	
		4.6	3.25 X 450	0635039	100 - 140	
		4.8	4.0 X 450	0636037	140 - 200	
LV PLUS LOW HYDROGEN VERTICAL DOWN	LV PLUS LOW HYDROGEN VERTICAL DOWN	5.1	3.25 X 450	0637035	130	
		5.0	4.0 X 450	0638033	190	
HARD FACING	HF38 MID-RANGE	4.3	3.25 X 350	0817025	90 - 110	
		4.5	3.25 X 350	0996019	110 - 140	
		4.5	4.0 X 350	0996027	160 - 200	
AUSTENITIC STAINLESS STEEL	ST STAINLESS STEEL	1.5	2.5 X 300	0639023	50 - 80	
		1.7	3.25 X 350	0640020	70 - 120	
		2.2	2.5 X 300	0997017	60 - 80	
SSMO MOLYBDENUM STAINLESS STEEL	SSMO MOLYBDENUM STAINLESS STEEL	2.2	3.25 X 300	0997025	90 - 110	
		1.7	1.6 X 300	0816043	25 - 45	
		2.2	2.5 X 300	0816019	40 - 80	
STAINLESS STEEL	DP DUPLEX STAINLESS STEEL	2.2	3.25 X 350	0816027	65 - 120	
		2.2	4.0 X 350	0816035	90 - 150	
		1.7	2.5 X 300	0919011	50 - 80	
ALLOY STEELS	CRMO CHROME- MOLY LOW HYDROGEN	1.7	3.25 X 350	0919029	70 - 100	
		4.5	2.5 X 350	0815011	65 - 95	
		4.5	3.25 X 350	0815029	90 - 140	
HARDENABLE STEELS	TE HIGH CHROME- NICKEL	1.7	3.25 X 350	0641028	65 - 120	
COBALT CHROMIUM HIGH TEMPERATURE HIGH IMPACT	COCR COBALT CHROMIUM	2.2	3.25 X 350	0814013	80 - 110	
		2.2	4.0 X 350	0814021	100 - 150	
		1.7	2.5 X 300	0642026	30 - 70	
CAST IRON and CAST IRON TO OTHER STEELS	N199 HIGH NICKEL	2.1	3.25 X 350	0643024	55 - 110	
		1.9	3.25 X 350	0644022	70 - 110	
		1.9	4.0 X 350	0645020	90 - 130	



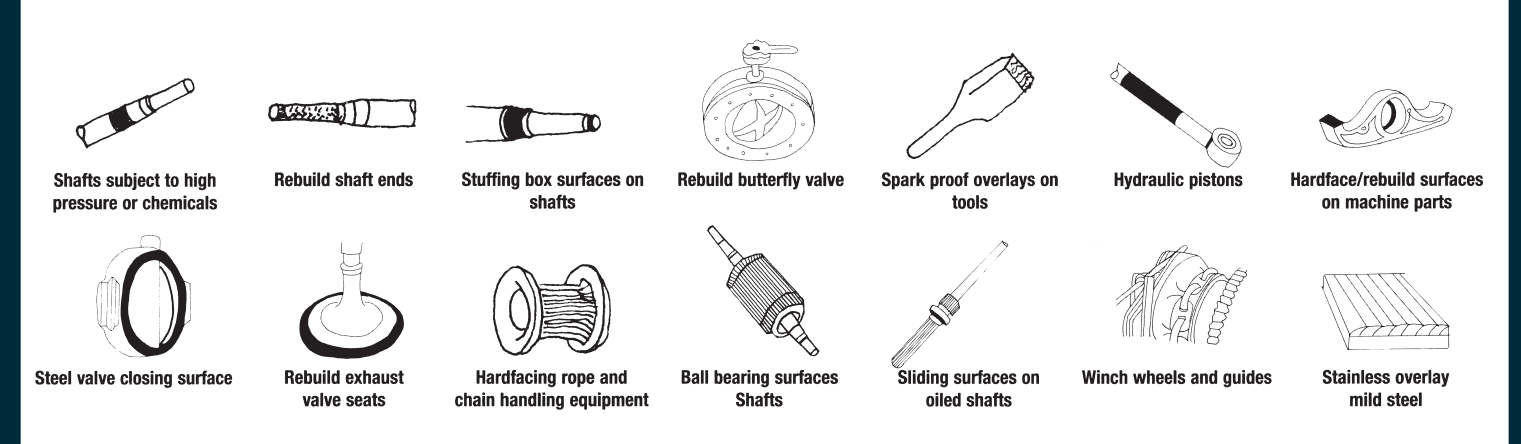
PROBLEM STEEL



COPPER ALLOYS



HARDFACING AND OVERLAYING



STAINLESS STEEL	CAST IRON	ALUMINUM	CUTTING GOUGING
Pipes - capillary joints small diameter	Large construction	Large components cold welding	Old or oil-impregnated
Pipes - butt welded thin walled	Duplex steel tanks, cargo loading pipes, heating coils, ladder material	Small preheated parts	Reassemble broken parts
Thin wall construction	Compound steel or mild steel to stainless steel	Rebuild worn or broken parts	Replace parts with steel plate
		Cracks in large parts	Rebuild worn or broken areas
		Repair castings	Thin plate construction
		Plate or tube construction	Holes or fractures in small parts
			Remove welds or other excess material
			Prepare grooves, open cracks, small cuts in conductive materials

AMERARC™ Non-Ferrous Electrodes

COPPER BASE ALLOYS and JOINING DISSIMILAR METALS	SN TIN BRONZE	AB ALUMINUM BRONZE	AL ALUMINUM	CH CHAMFERING GOUGING
SEE HANDBOOK	1.9	1.8	0.8	2.8
	3.25 X 350	3.25 X 350	3.25 X 350	3.25 X 350
	0648024	0646028	0647026	0649022
	100 - 150 DC (+)	90 - 125 DC (+)	80 - 130 DC (+)	160 - 180 AC/DC (-)

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