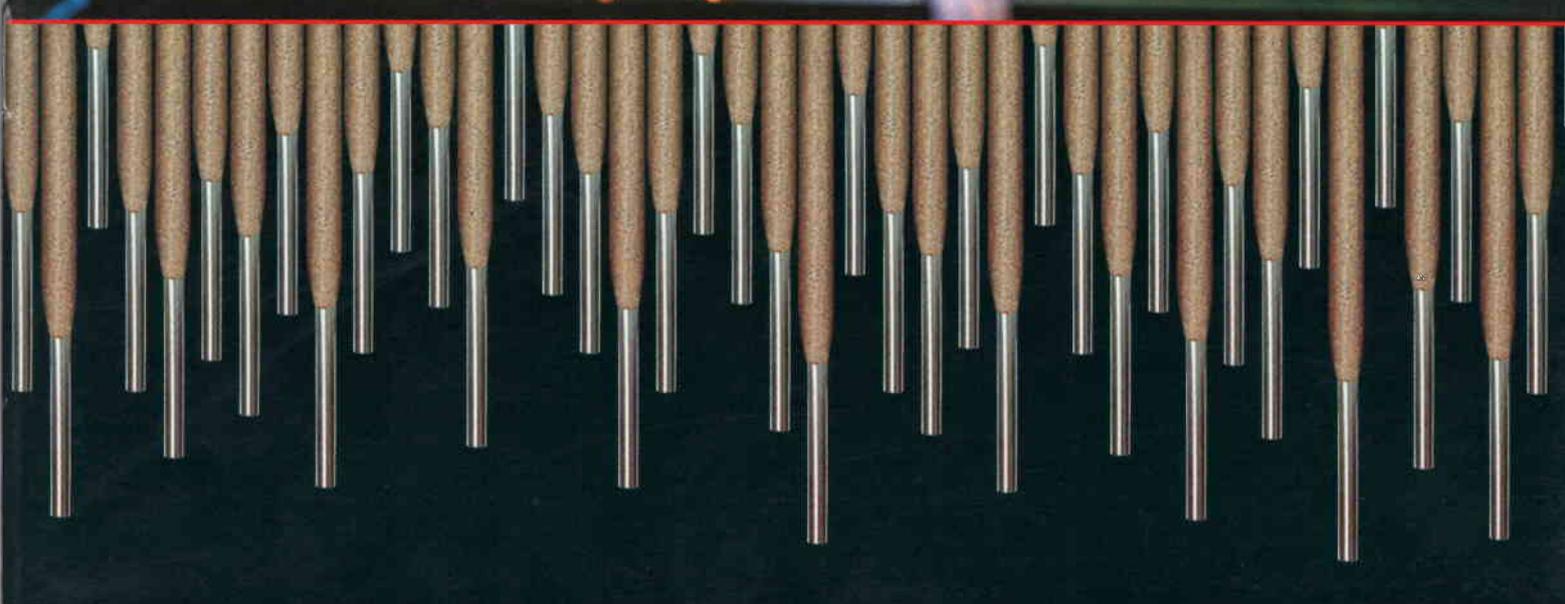


MALU ELECTRODES PVT. LTD.

An ISO 9001:2008 Certified Company

Mangalam[®]

HIGH-TIDE[®]



M.S. ELECTRODES

Sr. No.	NAME AWS/SFA 5.1 1S 814	Description & Application	Size (mm)	Current (Amp)	Packing Specification	
					Pieces (Per Pack)	Pieces (Per Carton)
01	MANGALAM® 6013X E6013 ER4211X	All position medium coated rutile electrode with excellent usability characteristics for producing radiographic quality welds. Can be used for pipes & Tubes up to 12 mm thickness.	2.50 x 350	80 - 110	125	1500
			3.15 x 350 / 450	90 - 130	90	1080
			4.00 x 450	140 - 190	60	720
			5.00 x 450	170 - 230	40	480
02	HIGH TIDE 6013 E6013 ER4211X	All position medium coated rutile electrode with excellent usability characteristics for producing radiographic quality weld. Can be used for pipes & Tubes up to 12 mm thickness.	2.50 x 350	80 - 110	125	1500
			3.15 x 350	90 - 130	90	1080
			4.00 x 450	140 - 190	60	720
			5.00 x 450	170 - 230	40	480
03	MANGALAM® E7016 EB5426H3X	Basic coated low hydrogen electrode for giving radiographic quality for joining high thickness joints subjected to restraint. Suitable for pipe welding application. Metal recovery around 100%.	2.50 x 350	60 - 90	180	720
			3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	190 - 250	50	200
04	MANGALAM® E7018 EB5426H3JX	Basic coated low hydrogen iron powder all position electrode for giving radiographic quality welds subjected to restraint. Resists hot & cold cracking. weld is strong, ductile & tough. Suitable for components subjected to dynamic loading. Can be used for pressure parts particularly in thermal plants. Metal recovery 115%.	2.50 x 350 / 450	80 - 100	150	600
			3.15 x 350 / 450	110 - 130	100	400
			4.00 x 450	150 - 200	70	280
			5.00 x 450	190 - 250	45	180
05	MANGALAM® E7018-1 EB5629H3JX	Basic coated low hydrogen iron powder all position electrode for giving radiographic quality welds resistant to hot & cold cracking. Weld is strong, ductile & tough down to -45 OC. Suitable for components subjected to dynamic loading & pressure parts.	2.50 x 350	80 - 110	150	600
			3.15 x 450	100 - 135	100	400
			4.00 x 450	140 - 180	70	280
			5.00 x 450	180 - 250	45	180
06	MANGALAM® SS6013XX E6013 ER4222X	A heavy coated all position rutile electrode for depositing heavier welds. Would be useful for application where slower cooling rates are required.	2.50 x 350	60 - 90	175	700
			3.15 x 350/450	100 - 140	105	420
			4.00 x 450	140 - 190	65	260
			5.00 x 450	190 - 250	40	160
07	MANGALAM® SUPREME 6013XX E6013 ER4212X	A medium coated all position rutile electrode suitable for major structural works. Would be useful for application where radiographic quality is required.	2.50 x 350	60 - 90	225	900
			3.15 x 350	90 - 130	130	520
			3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 190	85	340
08	MANGALAM® VD 6013 E 6013 ER4211X	A Rutile coated all position electrode particularly designed for vertical down welding. Ideally suited for fillet welds in vertical down position and Tee joints.	2.50 x 350	80 - 110	125	1500
			3.15 x 350	90 - 130	90	1080
			4.00 x 450	140 - 190	60	720
			5.00 x 450	170 - 230	40	480
09	MANGALAM® CUTRODE	Used for cutting / Piercing Steel Plate. Gives a forceful arc that shears base material..	3.15 x 350/450	160 - 180	85	1020
			4.00 x 450	200 - 250	45	540
			5.00 x 450	250 - 300	30	360

MANGALAM CAST IRON ELECTRODES

Sr. No.	Type	Application	Size (mm)	Current (Amp)	Packing Specification	
					Weight	Weight
01	MANGALAM® CAST IRON ELECTRODES	Mangalam Cast Iron electrode is all position cast iron electrodes depositing air hardening type for non machinable cast iron and joining mild steel and low alloy steels where 160-250 BHN Hardness is required. Welds are normally non machinable, crack resistant and free from porosity. Repairing of foundry defects, rusted parts etc for economy welding of seal castings, sealing of cracks in castings.	2.50 x 350	60 - 90	2 Kg	24 Kg/ 12 Pkt
			3.15 x 350 / 450	90 - 120	2 Kg	24 Kg/ 12 Pkt
			4.00 x 350 / 450	120 - 140	2 Kg	24 Kg/ 12 Pkt

APPROVALS



STAINLESS STEEL ELECTRODE

Sr. No.	NAMES AWS/SFA 5.4	Description & Application	Size (mm)	Current (Amp)	Packing Specification		
					Size (mm)	Weight (Per Pkt.)	Weight (Per Box)
01	MANGALAM® E308L-16	Rutile type extra low carbon electrode for welding of AISI 304L, 308L, 321 & 347 Stainless Steel. Weld metal has good ductility & resistant to cracking & oxidation.	2.00 x 300	40-70	2.00 x 350	2 kg	10kg./5pkt.
			2.50 x 350	45-85	2.50 x 350	2 kg	10kg./5pkt.
			3.15 x 350	85-115	3.15 x 350	2 kg	10kg./5pkt.
			4.00 x 350	100-140	4.00 x 350	2 kg	10kg./5pkt.
			5.00 x 350	140-180	5.00 x 350	2 kg	10kg./5pkt.
02	MANGALAM® E309L-16	Rutile type electrode for welding of AISI 309L Stainless Steel has got excellent resistance to intergranular corrosion. Used as Buffer layer before depositing 410 & 430 weld metal.	2.50 x 350	50-70	2.50 x 350	2 kg	10kg./5pkt.
			3.15 x 350	70-100	3.15 x 350	2 kg	10kg./5pkt.
			4.00 x 350	100-140	4.00 x 350	2 kg	10kg./5pkt.
			5.00 x 350	140-180	5.00 x 350	2 kg	10kg./5pkt.
03	MANGALAM® E310-16	Rutile type basic coated all position welding electrode for welding of AISI 310 containing 25% chromium and 20% Nickel, low spatter loss, smooth and uniform bead having easy slag removal properties. The weld deposited has excellent resistant to heat and oxidation which is very useful in fabricating furnace components, burners, heat treatment pots & baskets.	2.50 X 350	40 - 80	2.50 X 350	2 kg	10kg./5pkt.
			3.15 X 350	60 - 100	3.15 X 350	2 kg	10kg./5pkt.
			4.00 X 350	90 - 140	4.00 X 350	2 kg	10kg./5pkt.
			5.00 X 350	130 - 180	5.00 X 350	2 kg	10kg./5pkt.
04	MANGALAM® E316L-16	Rutile type basic coated all position welding electrode for welding of AISI 316, 161, 317 grade stainless steel. Giving very smooth and ribbed bead. Slag control and removal is very easy. The weldmetal has a superior resistance to pitting corrosion. Can be used in textile, paper, petrochemical & pharmaceutical industries.	2.50 X 350	40 - 80	2.50 X 350	2 kg	10kg./5pkt.
			3.15 X 350	60 - 100	3.15 X 350	2 kg	10kg./5pkt.
			4.00 X 350	90 - 140	4.00 X 350	2 kg	10kg./5pkt.
			5.00 X 350	130 - 180	5.00 X 350	2 kg	10kg./5pkt.

HARD FACING ELECTRODES

Sr. No.	Type	Application	Size (mm)	Current (Amp)	Packing Specification	
					Pieces (Per Pack)	Pieces (Per Pack)
1.	MANGALAM® HF 250 R	Shaft, Journals, Gear Teeth	3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 220	50	200
2.	MANGALAM® HF 350 R	Similar applications requiring higher hardness.	2.50 x 350	70 - 100	225	900
			3.20 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 220	50	200
3.	MANGALAM® HF 650 R	Crusher jaws, Bucket Teeth, Pulveriser Hammer, Cement Mill, Cane Cutting Knives & Hammer.	2.50 x 350	70 - 90	225	900
			3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 210	50	200
4.	MANGALAM® HF 250 LH	Shaft, Journals, Gear Teeth	3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 220	55	220
5.	MANGALAM® HF 350 LH	Similar application requiring higher hardness.	2.50 x 350	70 - 100	225	900
			3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 220	55	220
6.	MANGALAM® HF 650 LH	Crusher jaws, Bucket Teeth, Rock crusher Hammer, Ploughs Cane cutting Knives & Hammers Cement Mill Hammers.	2.50 x 350	70 - 90	225	900
			3.15 x 450	100 - 140	130	520
			4.00 x 450	140 - 180	85	340
			5.00 x 450	180 - 210	55	220
7.	MANGALAM® MANGAN	Rock Crushing Jaws & Crusher Mantel, Manganese Steel rail Points and Crossing Dredger Bucket Teeth & Cement Grinder teeth, bulldozer Teeth, Manganese Steel Casting etc.	3.15 x 350/450	100 - 140	105	420
			4.00 x 350/450	140 - 190	65	260
			5.00 x 450	180 - 220	40	160





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