



SILICON IRON TUBULAR ANODES



REVISION 1

APPLICATION

Marine Structures, Seawater Intakes, Deepwell Groundbeds, Horizontal Groundbeds, Distributed Anodes, Tank Internals & Tank Bottoms (not recommended for large diameter tanks). Suitable For Use In Soils, Mud, Carbonaceous & Pet Coke Backfill; Fresh, Brackish and Sea Water

SILICON IRON TUBULAR ANODE DATA



CHEMICAL COMPOSITION

Silicon Iron ASTM A518 – 86 Grade 3

Silicon	14.20 – 14.75%
Manganese	1.50% Max
Carbon	0.75 – 1.15%
Chromium	3.25 – 5.00%
Copper	0.50% Max
Molybdenum	0.20%Max
Iron	Remainder

TECHNICAL DATA

Tensile Strength (1/2" Dia bar)	15,000 psi
Compressive Strength	100,000 psi
Brinell Hardness	520 bhn
Density	7.0 gr/ml
Melting Point	2,300 °F

Consumption Rate	Typical rates – Chrome: 0.2kg/A/yr For CP design a current density of not more than 30A/m ² of anode surface is recommended
Anode/Cable Connection	Centre connection less than 0.001 Ohm resin encapsulated
Cable Types	XLPE/PVC, HMWPE, PVDF(Kynar); XLPE/PVC/SWA/PVC, EPR/CSPE



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STANDARD ANODE TYPES, WEIGHTS, DIMENSIONS AND OUTPUTS

Type	Average Wt		Approx Area		Outside Dia		Inside Dia		Length		Nominal Discharge Amps
	lbs	kgs	ft ²	m ²	mm	in	mm	in	mm	in	
OPTIMA MS-1	31	14.1	2.4	0.2	71	2.8	45.7	1.8	1067	42	1.5-2.0
OPTIMA MS-2	46	20.9	4.0	0.4	58	2.3	35.6	1.4	2134	84	3.0-4.0
OPTIMA MS-3	63	28.6	4.9	0.5	71	2.8	45.7	1.8	2134	84	3.5-5.0
OPTIMA MS-4	85	39.2	6.9	0.6	96	3.8	74.4	2.9	2134	84	6.0-7.0
OPTIMA MS-5	110	49.9	8.7	0.8	124	4.9	99.0	3.9	2134	84	6.0-8.5