

APPLICATION : The Elgard Discrete Mesh Anode compliments the existing line of Elgard anodes for Cathodic protection of reinforced concrete structures. The anode is composed of a precious metal oxide catalyst on an expanded titanium mesh substrate. The anodes are available in 100mm, 150mm, 200mm, 250mm, 300mm and 350mm lengths and can be combined to meet specific requirements.

MATERIAL SPECIFICATIONS

DIMENSIONS

Anode Diameter	25.4mm (1 in)
Installation Hole Diameter	31.75mm (1-1/4 in)
Lengths	Variable – See Table Below
Expanded Mesh Thickness	1.30mm (0.051 in)
Diamond Dimensions	2.5mm x 4.6mm (0.1 in x 0.18 in)
Strand Thickness	0.6mm (0.025 in)

SUBSTRATE

Composition	Titanium, Grade 1 per ASTM B265
Coefficient of thermal expansion	$8.7 \times 10^{-5}/^{\circ}\text{K}$ (0.0000048/in/in ⁰ K)
Thermal conductivity @ 20 ⁰ C	15.6W/ m ² - ⁰ K (9.0BTU/hr/ft ² /F/ft)
Electrical resistivity	0.000056Ohm-cm (0.000022Ohm-in)
Modulus of elasticity	105 GPa (14,900,000 PSI) minimum
Tensile strength	245 MPa (35,000 PSI) minimum
Yield strength	175 MPa (25,000 PSI) minimum
Elongation	24% minimum

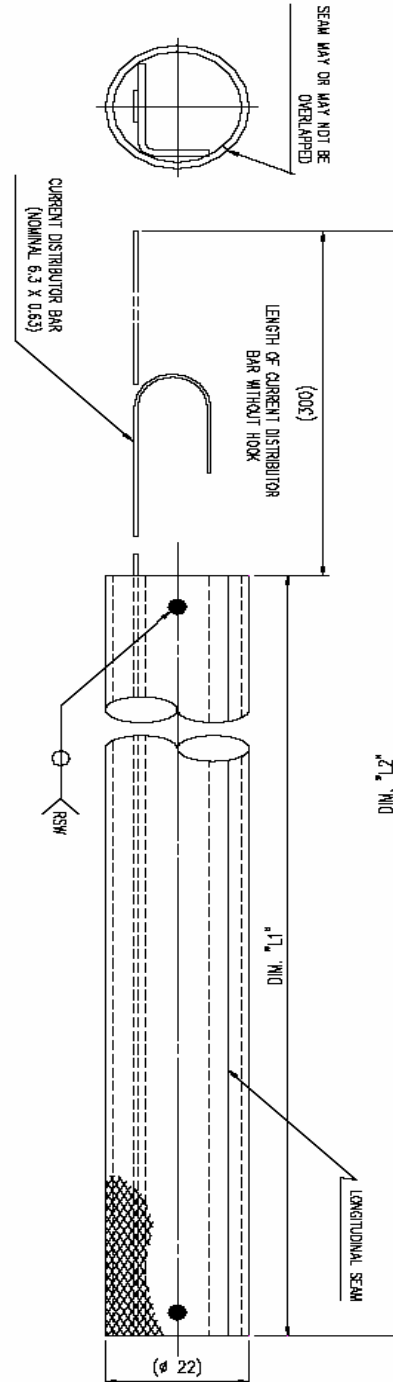
CURRENT DISTRIBUTOR

Width	6.35mm (1/4 in)
Thickness	0.63mm (0.025 in)

ANODE PERFORMANCE

Maximum Current Density (CD) @ Anode	216mA/m ² (20mA/ft ²)					
Mesh Length, "L", mm (ft)	100 (.325)	150 (.492)	200 (.658)	250 (.817)	300 (.983)	350 (1.125)
Anode Surface Area, m ² (ft ²)	.020 (.215)	.030 (.325)	.040 (.430)	.050 (.545)	.061 (.660)	.071 (.770)
Current Rating @ Max CD, mA	4.6	6.8	9.1	11.4	13.7	15.9
Expected Life	50 Years					
Anode Coating	Iridium Oxide, Mixed Metal Oxide					

OUTLINE DRAWING



ANODE WELDMENT

ELTECH PART NO	DIM. "L1"	DIM. "L2"
0670EA03-1	100	400
0670EA03-2	150	450
0670EA03-3	200	500
0670EA03-4	250	550
0670EA03-5	300	600
0670EA03-6	350	650