

Durichlor 51 Tubular

Cast Iron Anodes

Powerful Protection And Uniform Consumption

All conventional impressed current anodes are consumed over time. With Corrpro tubular cast iron anodes, however, effective protection is provided at a low and very uniform consumption rate. The anodes are made using the Durichlor 51 alloy, which is consumed at a rate of 0.75 to 1.0 lbs./amp-yr. in seawater. This material also permits an operating current density of approximately 1 amp/ft.² To form these anodes, a special process called centrifugal casting is employed. Using this technique, the anodes are spun during casting to exert pressure many times the force of gravity. This pressure gives the anodes a denser, more homogeneous surface that is resistant to deterioration.

In addition to chemical composition and casting techniques, the configuration of Corrpro tubular anodes also contributes to improved operating performance. Their unique tubular design provides greater surface area over solid cast iron anodes of identical weight. This in turn lowers anode-to-earth resistance, decreases the current density on the surface of the anode, and permits any generated gases to be distributed over a larger area. The tubular design also means the wire connection can be made in the center of the anode, thus eliminating the problem of end-effect consumption. In all Corrpro tubular cast iron anodes, the proven Wedgelok[®] connection is used. It consists of two angled metal contacts that wedge together, forming a strong bond to



the anode, and assuring a low-resistance connection (under 0.0009 ohm).

Typical Applications

Tubular cast iron anodes operate effectively in a variety of electrolytes, from soil and freshwater to brackish and saltwater environments. Under normal conditions, a thin film of silicon dioxide will develop on the surface of these anodes. This film protects the anodes from metal pitting, and makes them ideally suited for deep-groundbed applications. Corrpro tubular cast iron anodes can be installed bare or in a coke-breeze backfill. Use of a backfill does, however, effectively increased the anodes' discharge area, and lowers its consumption rate to 0.25 lbs./amp-yr.

CHEMICAL COMPOSITION

Element	Content %
C	0.70-1.10
Mn	1.50 Max
Si	14.20-14.75
Cr	3.25-5.00
Mo	0.20 Max
Cu	0.50 Max
Iron	Remainder



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IMPRESSED CURRENT ANODES

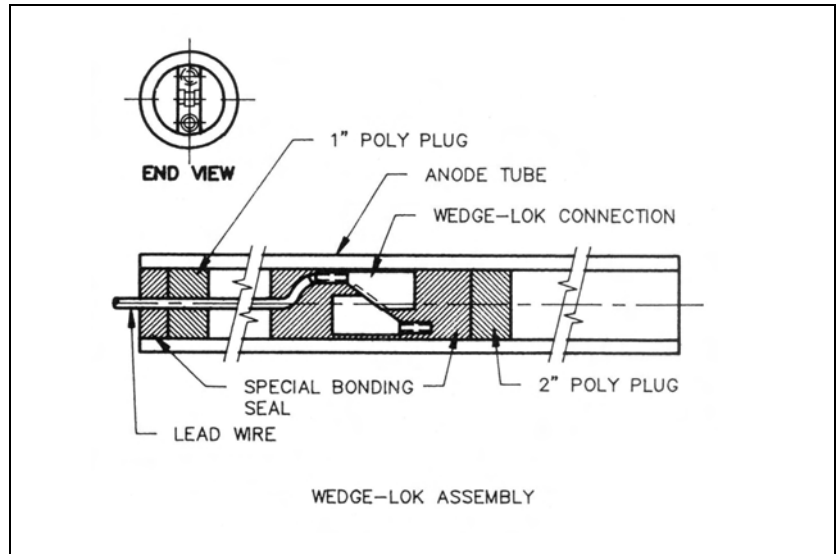
Durichlor 51 Tubular Cast Iron Anodes

Ordering Procedure

Corpro cast iron anodes are produced in a number of lengths and diameters. To order the required anode for your structure, indicate that you need a cast iron tubular anode, and specify the quantity desired, the anode type, the wire length, size, and insulation, and whether the anode should be packaged or bare. An example is provided to help illustrate this process.

Ordering Procedure Example

ITEM	EXAMPLE
Quantity	200
Anode Material	Tubular Cast Iron
Anode Type	TAM
Wire: Length	20 ft.
Size (#8 = Standard)	#8 Standard
Insulation (HMWPE = Std.)	HMWPE
Packaging (Bare or Pkgd.)	Packaged



Standard Dimensions and Shipping Weights

ANODE TYPE	NOMINAL DIMENSIONS in. (mm)		BARE WT.		AREA	
	Ø	L	lbs.	(kg)	ft. ²	(m ²)
TAFW	2.19 (56)	8 (203)	4.3	(1.8)	0.38	(0.04)
TAG	2.66 (67)	8 (203)	6.0	(2.7)	0.47	(0.05)
TAFWA	2.19 (56)	12 (304)	6.5	(2.9)	0.57	(0.06)
TAB	2.19 (56)	24 (609)	13	(5.9)	1.1	(0.10)
TABB	2.66 (67)	24 (609)	18	(8.2)	1.4	(0.13)
TA2A	2.19 (56)	42 (1067)	23	(10.4)	2.0	(0.19)
TA1	2.66 (67)	42 (1067)	31	(14.1)	2.4	(0.22)
TAJA	4.75 (121)	24 (609)	31	(14.1)	2.5	(0.23)
TACD	2.19 (56)	60 (1524)	32	(14.5)	2.8	(0.26)
TAD	2.66 (67)	60 (1524)	45	(20.4)	3.5	(0.32)
TA2	2.19 (56)	84 (2133)	46	(20.9)	4.0	(0.37)
TAM	3.75 (95)	60 (1524)	60	(27.2)	4.9	(0.46)
TA3	2.66 (67)	84 (2133)	63	(28.6)	4.9	(0.46)
TAJ	4.75 (121)	60 (1524)	78	(35.4)	6.2	(0.58)
TA4	3.75 (95)	84 (2133)	85	(38.6)	6.9	(0.64)
TAE	4.75 (121)	60 (1524)	125	(56.7)	6.2	(0.58)
TA5	4.75 (121)	84 (2133)	110	(49.9)	8.7	(0.81)
TA5A	4.75 (121)	84 (2133)	175	(79.4)	8.7	(0.81)



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