

Zinc Anode

Zinc anodes are widely adopted for protecting of steel construction from corrosion in seawater and saline mud. The alloy chemical compositions of the anode are covered by US MIL-A-18001H and the ASTM-B418.

Chemical composition (%):

Zn	AL	Cd	Fe	Pb	Cu
Balance	0.1-0.5	0.02-0.07	0.005 max	0.006 max	0.005max

Electrochemical properties:

Environment	Open voltage(-V)	Closed voltage(-V)	Actual capacitance A.h/kg	Efficiency (%)	Solution appearance
Sea water	1.05-1.09	1.00-1.05	≥ 780 min	≥ 95 min	Solute uniformly
Soil	≤1.05	≤1.03	≥530	≤17.25	

Size Specification:

CORRTECH supplies Zn anodes in different shapes according to customer's request. There are hull, condenser, tank anodes and bracelet shapes anodes. The anodes also can be made in strings. Following are some of the anodes available:

1. Zn anodes for vessel

Type	AZ-V01	AZ-V02	AZ-V03	AZ-V04	AZ-V05	AZ-V06	AZ-V07	AZ-V08
Size	390x120x50	500x150x40	300x150x35	400x100x35	300x150x30	320x100x40	250x100x35	200x100x35
Weight	15.6	13.6	11	9	8.6	8	5.6	4
Current	610	680	540	540	540	400	410	370

2. Zn anodes for ballast tank

Type	AZ-B01	AZ-B02	AZ-B03	AZ-B04	AZ-B05	AZ-B06
Size	1500x(65+75)x70	100x(58.5+78.5)x6	800x(56+74)x65	1143x(48+54)x51	800x(58+64)x60	650x(58+64)x70
Weight	52.8	33	25	22	22	18

3. Zn anodes for oil tank

Type	AZ-T01	AZ-T02	AZ-T03	AZ-T04	AZ-T05	AZ-T06
Size	500x(105+135)x100	Dia300 x80	390x120x65	Dia250x60	Dia200x50	350x(60+90)x75
Weight	40	40	20	20	10	14

4. Zn anodes for pipeline in seawater

Type	AZ-P01	AZ-P02	AZ-03	AZ-04
Size	622x51x420x38	530x46x464x38	503x51x400x51	371x51x562x51
Weight	261	218	191	184

Zn anodes for pipeline in seawater are all in bracelet shape.

The dimension is diameter × thickness × length × distance between the bracelet.

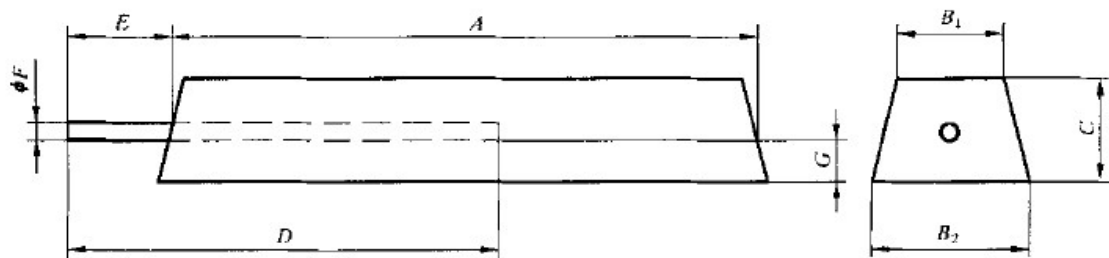
Zinc Alloy Cast Anode

Zinc anodes are widely adopted for protecting steel construction from corrosion in seawater and saline mud. The chemical composition of the alloy anode is covered by US MIL-A-18001H and the ASTM-B418 type 1 standard.



Chemical composition

Lead (max)	0.006%
Iron (max)	0.005%
Cadmium	0-0.25-0.07%
Copper (max)	0.005%
Aluminum	0.1-0.55%
Zinc	Remainder
Potential	-1.10 Volts
Efficiency	95%
Ampere hours / lb	355



Specification of the Zinc anode for buried pipeline

Type	Spec.(mm)	Size of Iron Leg (mm)				N.W.(kg)	G.W.(kg)
	A×(B ₁ +B ₂)×C	D	E	F	G		
KTZN-P-9	600×(40+48)×45	360	100	12	15	9	8.7
KTZN-P-12.5	600×(52+56)×54	460	100	12	15	12.5	12.0
KTZN-P-15	550×(58+64)×60	400	100	12	20	15.0	14.6
KTZN-P-18	650×(58+64)×60	400	100	12	20	18.0	17.6
KTZN-P-22	800×(55+64)×60	500	100	12	20	22.0	21.5
KTZN-P-25	800×(60+80)×65	600	100	12	25	25.0	24.5

Zinc Ribbon Anode

Zinc ribbon anode is an ideal primary or supplemental cathodic protection system. It can also be used as a temporary system prior to the installation of an impressed current system. Zinc ribbon anodes are produced according to ASTM-B-418 type I and type II alloy standard in the shape of diamond.

Zinc ribbon anode can be used in fresh water, sea water environments, also can be used in underground structures.







Chemical composition:

	AL %	Cd %	Fe %	Pb %	Cu %	Zn
ASTM B-418 type I	0.1-0.5	0.02-0.07	0.005 max	0.006 max	0.006 max	Balance
ASTM B-418 type II	0.005 max	0.003 max	0.0014 max	0.003 max	0.002 max	Balance

Electrochemical properties:

	Open Voltage (-V)	Closed Voltage (-V)	Capacity A.h/kg	Efficiency
ASTM B-418 type I	1.05 min	1.00 min	353	95%
ASTM B-418 type II	1.10 min	1.05 min	335	90%

General Specification

Type					
Cross section	mm	25.40x31.75	15.88x22.22	12.7x14.29	8.73x11.91
Weight	g/cm	35.72	17.82	8.93	3.72
Standard coil length	mm	30.5	61	152.5,305,1098	305

- 1. All dimensions and weights are nominal.**
- 2. Wire core is galvanized steel.**
- 3. Longer coil sizes are available on special order. Standard coil lengths of 1000' and 3600' are also available.**

Zinc Grounding Rod

Zinc grounding rod is mainly used in the grounding system of petrochemical, natural gas, transformer substation, railway and civil aviation facilities. There are two typical applications of the rod:



1. As a substitution for copper or copper coated power grounding rods in order to avoid bimetallic corrosion of associated ferrous structures.

2. In mitigation of voltages which may be introduced in pipelines by adjacent overhead AC power lines. Pipelines may be ground bed via Zinc electrodes without attendant disruption of pipeline cathodic protection

General Specification

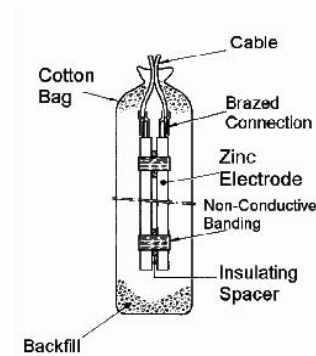
Dimensions(mm)		Weight (g/cm)
OD(mm)	ID(mm)	
13.97	2.0	11.01
19.05	3.4	20.39
21.33	3.4	25.60
26.67	3.4	39.89
33.40	3.4	62.52
39.65	4.8	88.12
51.40	4.8	148.11

The length of the anode can be made according to customer's request.

Email: corrtech2008@hotmail.com Tel: 86-0546-7773100

Zinc Grounding Electrodes

Zinc grounding cell consist of two rod anodes which are separated by insulated spacers it prevents the system to be destroyed by strong current by welding the cell on the side of the insulated setting.



Chemical compositions

The Zinc used in CORRTECH anodes is within the specification laid down by US Mil-A-18001H		
1	Aluminum	0.15-0.30%
2	Cadmium	0.04-0.06%
3	Iron	0.002% Max
4	Tin	0.001% Max
5	Copper	0.001% Max
6	Lead	0.004% Max
7	Silicon	0.100% Max
8	Zinc	Remainder

Electrochemical Properties

1	Efficiency	95%
2	Potential	-1.10V (Cu/CuSO₄)
3	Capacity	780 Ampere hours per kilogram
4	Consumption	11.2 kg per Ampere year

General Specification

NO.	Type	Spec.
1	KTDC-600	With two 40x40x600 Zn Anode
2	KTDC-800	With two 40x40x800 Zn Anode
3	KTDC-1500	With two 40x40x1500 Zn Anode
4	KTDC-1500	With four 40x40x1500 Zn Anode