



# STAND-OFF ALUMINUM SLENDER ANODES

PRODUCT DATA SHEET

# STAND-OFF ALUMINUM SLENDER ANODES

Aluminum anode is a popular choice for off-shore cathodic protection due to its light weight, simplicity of installation and adaptability to cast into a variety of sizes. As the stand-off anode protrudes from the surface installed, so the anode material is not in direct contact with the surface to be protected. Thus, the stand-off anode is better utilized over their lifetime — its anode utilization factor can reach up to 85 to 90%.

## CHEMICAL COMPOSITION

Casted in low-iron, high-purity alloys, our aluminum anodes are designed as per the standard of NACE, DNV, ISO.

### ■ GALVALUM III (Al-Zn-In-Si)

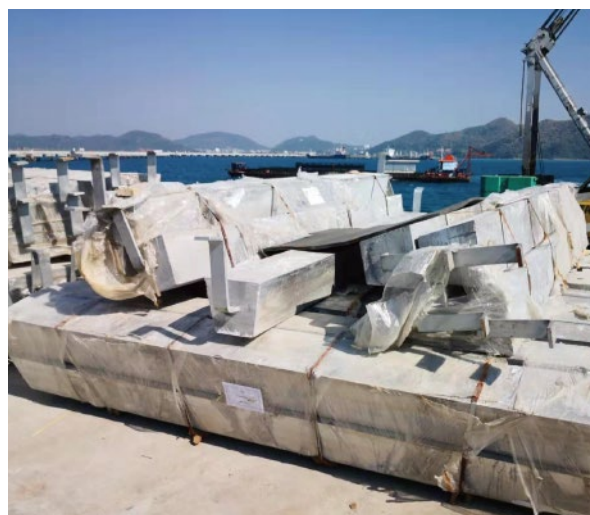
Element		Content (%)
Zinc	(Zn)	2.000 ~ 6.000
Indium	(In)	0.010 ~ 0.020
Silicon	(Si)	0.080 ~ 0.200
Iron	(Fe)	0.130 max.
Copper	(Cu)	0.006 max.
Cadmium	(Cd)	—
Other Impurities		0.100 max.
Aluminum	(Al)	Remainder

### ■ DNV-RP-B401-2011 (Al-Zn-In)

Element		Content (%)
Zinc	(Zn)	2.500 ~ 5.750
Indium	(In)	0.015 ~ 0.040
Silicon	(Si)	0.120 max.
Iron	(Fe)	0.090 max.
Copper	(Cu)	0.003 max.
Cadmium	(Cd)	0.002 max.
Other Impurities		0.100 max.
Aluminum	(Al)	Remainder

### ■ GS EP COR 201 (Al-Zn-In)

Element		Content (%)
Zinc	(Zn)	4.750 ~ 5.750
Indium	(In)	0.015 ~ 0.020
Silicon	(Si)	0.060 ~ 0.120
Iron	(Fe)	0.120 max.
Copper	(Cu)	0.003 max.
Cadmium	(Cd)	0.002 max.
Other Impurities		0.100 max.
Aluminum	(Al)	Remainder



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## ELECTROCHEMICAL PROPERTIES

Technical Measurement	Performance
Open Circuit Voltage (min.)	-1.10 Volts
Closed Circuit Voltage (min.)	-1.05 Volts
Current Capacity	2500 A.h/kg (1135 A.h/lbs)
Current Efficiency (min.)	90%
Consumption Rate	3.4 kg/A.y (7.6 lbs/A.y)

\* The open/closed circuit voltage is with respect to a Ag/AgCl reference electrode.

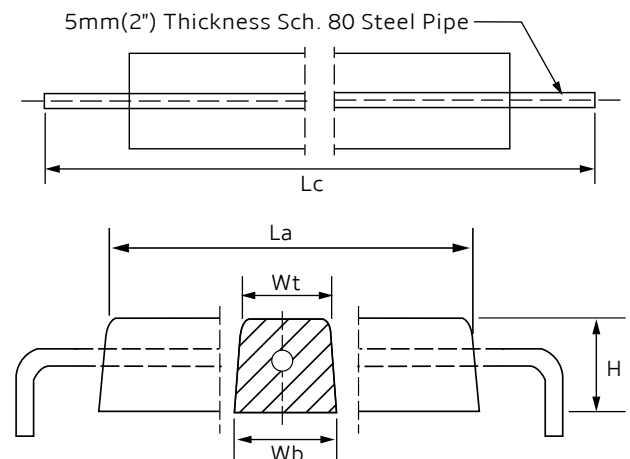
## PRACTICAL APPLICATION

Our aluminium anodes are used to prevent corrosion of steel structures in seawater and brackish water. Although the voltage rate is lower than that of magnesium anodes, aluminium anodes have a much slower consumption rate, making them ideally suited for marine applications – offshore drilling platforms, wind turbine foundation and harbour facilities.



## SPECIFICATIONS

### ■ Trapezoidal Anode with Cow Horn Tubular Insert Protruding from Both Ends

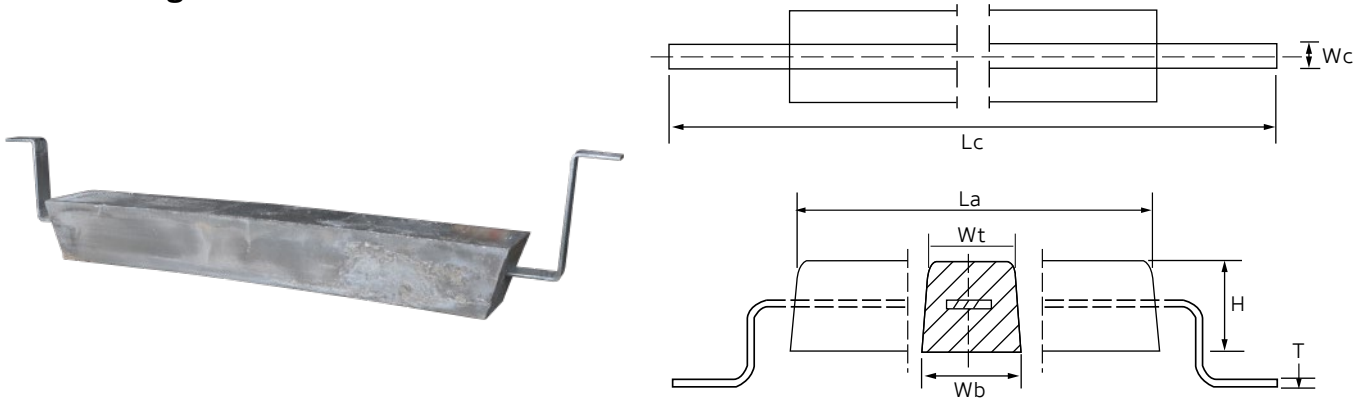


Item No.	Anode Dimensions				Core Dimensions		Weight	
	Wt	Wb	H	La	Dia.	Lc	Anode	Core
YX-AL-SST1	150 mm (5.9")	170 mm (6.7")	160 mm (6.3")	900 mm (35.4")	50 mm (1.97")	1300 mm (51.2")	56.5 kg (124.6 lbs)	10.5 kg (23.1 lbs)
YX-AL-SST2	170 mm (6.7")	200 mm (7.9")	180 mm (7.1")	1500 mm (59.1")	50 mm (1.97")	1900 mm (74.8")	126 kg (277.8 lbs)	14 kg (30.9 lbs)
YX-AL-SST3	200 mm (7.9")	210 mm (8.3")	220 mm (8.7")	1600 mm (63")	60 mm (2.36")	2000 mm (78.7")	181.5 kg (400.1 lbs)	18.5 kg (40.8 lbs)
YX-AL-SST4	220 mm (8.7")	240 mm (9.4")	230 mm (9.1")	2300 mm (90.6")	89 mm (3.5")	2800 mm (110.2")	289 kg (637.1 lbs)	35.5 kg (78.3 lbs)



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## ■ Trapezoidal Anode with Cranked Flat Bar Insert Protruding from Both Ends

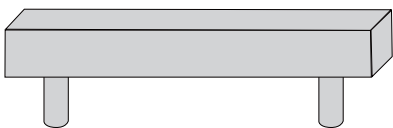


Item No.	Anode Dimensions				Core Size			Weight	
	Wt	Wb	H	La	Wc	T	Lc	Anode	Core
YX-AL-SSF1	115 mm (4.5")	135 mm (5.3")	130 mm (5.1")	500 mm (19.7")	50 mm (2")	4 mm (0.16")	750 mm (29.5")	21.6 kg (47.6 lbs)	1.1 kg (2.4 lbs)
YX-AL-SSF2	115 mm (4.5")	135 mm (5.3")	130 mm (5.1")	750 mm (29.5")	50 mm (2")	4 mm (0.16")	1000 mm (39.4")	32.5 kg (71.7 lbs)	1.5 kg (3.3 lbs)
YX-AL-SSF3	115 mm (4.5")	135 mm (5.3")	130 mm (5.1")	1000 mm (39.4")	50 mm (2")	6 mm (0.24")	1250 mm (49.2")	43 kg (94.8 lbs)	3 kg (6.6 lbs)
YX-AL-SSF4	115 mm (4.5")	135 mm (5.3")	130 mm (5.1")	1250 mm (49.2")	50 mm (2")	6 mm (0.24")	1500 mm (59.1")	53.7 kg (118.4 lbs)	3.6 kg (7.9 lbs)
YX-AL-SSF5	160 mm (6.3")	220 mm (8.7")	180 mm (7.1")	700 mm (27.6")	50 mm (2")	8 mm (0.31")	950 mm (37.4")	63.8 kg (140.7 lbs)	2.8 kg (6.2 lbs)
YX-AL-SSF6	200 mm (7.9")	280 mm (11")	150 mm (5.9")	800 mm (31.5")	50 mm (2")	10 mm (0.39")	1050 mm (41.3")	76.5 kg (168.7 lbs)	4 kg (8.8 lbs)
YX-AL-SSF7	180 mm (7.1")	220 mm (8.7")	180 mm (7.1")	850 mm (33.5")	50 mm (2")	10 mm (0.39")	1100 mm (43.3")	81.5 kg (179.7 lbs)	4.2 kg (9.3 lbs)
YX-AL-SSF8	148 mm (5.8")	178 mm (7")	170 mm (6.7")	1500 mm (59.1")	50 mm (2")	10 mm (0.39")	1800 mm (70.9")	110 kg (242.5 lbs)	6.8 kg (15 lbs)

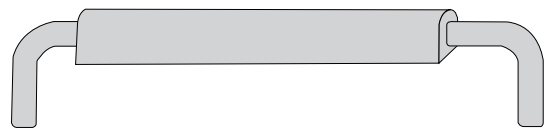
Note: All dimensions and weights shown above are nominal. The information provided is subject to change without notice.

## MORE CONFIGURATION OPTIONS

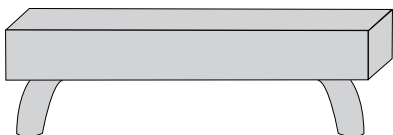
### ■ Trapezoidal Anode with Goal Post Tubular Insert Protruding from Back Face



### ■ D-section Anode with Cow Horn Tubular Insert Protruding from Both Ends



### ■ Trapezoidal Anode with Cow Horn Tubular Insert Protruding from Back Face





## Industrial Corrosion Control Solutions Provider

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Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheep with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.



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