



HIGH SILICON CAST IRON TUBULAR ANODES

PRODUCT DATA SHEET

HIGH SILICON CAST IRON TUBULAR ANODES

High silicon cast iron anodes are amongst the most widely used anodes for impressed current cathodic protection systems. Due to its high content of silicon, the anode surface is readily and continually oxidized with a thin film of hydrated silicon oxides, which protects the anode from metal pitting. Our high silicon cast iron tubular anodes exhibit extraordinary corrosion resistance and low consumption rate in low-pH environment.

We developed rigid controls for the chill casting process in accordance with the highest standards — meeting X-Ray Level 1 as per ASTM E186/E446, chemistry to either ASTM A518-99 Gr 1 or 3. ASTM A518 Grade 3 chemistry is particularly suited for more severe environments (such as brackish water or saltwater), where the level of chromium is elevated to enhance anode performance.

CHEMICAL COMPOSITION

■ ASTM A518/A518M Grade 1 (Si-Fe)

Element		Content (%)
Silicon	(Si)	14.20 ~ 14.75
Chromium	(Cr)	0.500 max.
Manganese	(Mn)	1.500 max.
Copper	(Cu)	0.500 max.
Molybdenum	(Mo)	0.500 max.
Carbon	(C)	0.650 ~ 1.100
Phosphorus	(P)	—
Sulphur	(S)	—
Iron	(Fe)	Remainder



■ ASTM A518 / A518M Grade 3 (Si-Fe-Cr)

Element		Content (%)
Silicon	(Si)	14.20 ~ 14.75
Chromium	(Cr)	3.250 ~ 5.000
Manganese	(Mn)	1.500 max.
Copper	(Cu)	0.500 max.
Molybdenum	(Mo)	0.200 max.
Carbon	(C)	0.700 ~ 1.100
Phosphorus	(P)	—
Sulphur	(S)	—
Iron	(Fe)	Remainder

■ BS 1591 1975

Element		Content (%)
Silicon	(Si)	14.25 ~ 15.25
Chromium	(Cr)	0.500 max.
Manganese	(Mn)	0.500 max.
Copper	(Cu)	—
Molybdenum	(Mo)	—
Carbon	(C)	1.400 max.
Phosphorus	(P)	0.250 max.
Sulphur	(S)	0.100 max.
Iron	(Fe)	Remainder



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ELECTROCHEMICAL PROPERTIES

■ Soil

Technical Measurement	Performance
Current Density (A/m ²)	2 ~ 5
Consumption Rate (kg/A.y)	0.1 ~ 0.5

■ Coke Breeze

Technical Measurement	Performance
Current Density (A/m ²)	5 ~ 10
Consumption Rate (kg/A.y)	0.05 ~ 0.3

■ Seawater

Technical Measurement	Performance
Current Density (A/m ²)	10 ~ 50
Consumption Rate (kg/A.y)	0.3 ~ 0.5



PRACTICAL APPLICATION

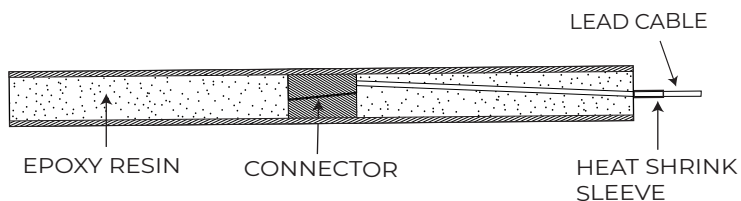
Our high silicon cast iron tubular anodes are widely used to protect buried and submerged structures from corrosion, such as pipelines, offshore oil drilling platforms, etc. Normally, quick installation of 200 pieces anodes via specialized connector can be completed by 2 people in less than 8 hours.



Zinc Wedge-lock Connector

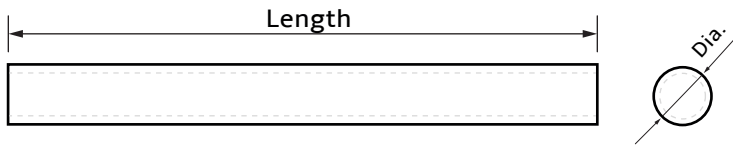


Copper Sector Connector



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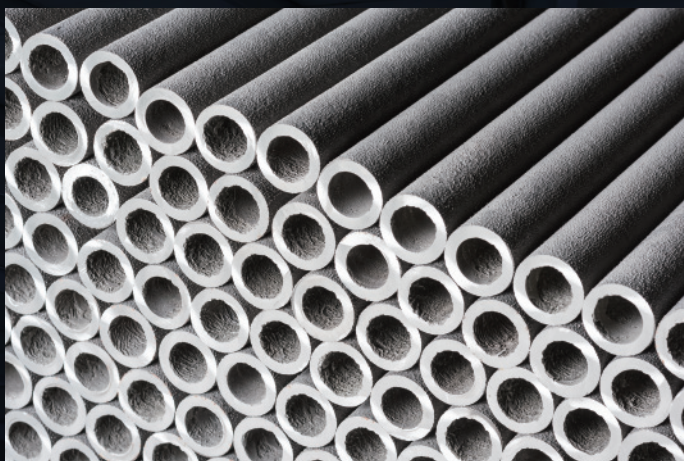
SPECIFICATIONS



Item No.	Diameter	Length	Surface Area	Weight
YX-60-TA2S	Φ58mm (Φ2.3")	1524mm (60")	0.28m ² (3.0 ft ²)	14.9kg (32.8 lbs)
YX-60-TA3S	Φ71mm (Φ2.8")	1524mm (60")	0.34m ² (3.6 ft ²)	20.4kg (45.0 lbs)
YX-60-TA4S	Φ97mm (Φ3.8")	1524mm (60")	0.46m ² (5.0 ft ²)	28.0kg (61.7 lbs)
YX-60-TA5S	Φ122mm (Φ4.8")	1524mm (60")	0.59m ² (6.3 ft ²)	56.7kg (125.0 lbs)
YX-84-TA2	Φ58mm (Φ2.3")	2134mm (84")	0.39m ² (4.2 ft ²)	20.9kg (46.1 lbs)
YX-84-TA3	Φ71mm (Φ2.8")	2134mm (84")	0.48m ² (5.1 ft ²)	28.6kg (63.1 lbs)
YX-84-TA4	Φ96mm (Φ3.8")	2134mm (84")	0.64m ² (6.9 ft ²)	39.2kg (86.4 lbs)
YX-84-TA5	Φ124mm (Φ4.9")	2134mm (84")	0.83 m ² (8.9 ft ²)	49.9kg (110.0 lbs)
YX-84-TA5A	Φ124mm (Φ4.9")	2134mm (84")	0.83 m ² (8.9 ft ²)	79.5kg (175.3 lbs)

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





Industrial Corrosion Control Solutions Provider

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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