

SILICON IRON ANODES ROD TYPE

DATASHEET 1.8

Si/Fe ANODES

A comprehensive range of BAC Silicon Iron Anodes is available in Rod & Tubular forms to suit impressed current Cathodic Protection of pipelines, tanks and marine structures.

Resistance to corrosion from a wide range of corrosive environments has resulted in the extensive use of standard 14.5% silicon iron alloy with 4.5% added chrome. More than 40 years of experience in the Cathodic Protection industry has given this material a fully proven performance record.

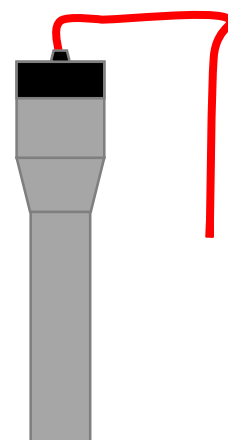


Alloy Composition

Specification Composition: Typical analysis by ASTM A518-86 Grade 3 and BS. 1591

Elements Compositions

Silicon (Si)	14.20 – 15.75 %
Manganese (Mn)	1.5 % Max
Carbon (C)	0.70 – 1.10 %
Chromium (Cr)	3.25 – 5.00 %
Molybdenum (Mo)	0.20 % Max
Copper (Cu)	0.5 % Max
Iron (Fe)	Balance



Consumption of Anode Material

In tests and real life installation, up to 99.8% of the anode material was consumed. Consumption figures of 88 % to 93.5% are common. The consumption rates are:

Environment	Current Density (Amp/m ²)	Consumption Rate (Kg/Amp-Year)
Coke Backfill	10 – 30	0.1
Fresh Water	10 - 30	0.15
Seawater	10 - 50	0.50
Soil	10 - 30	0.30

Suitable Installation

- Deep ground beds
- Shallow / Horizontal Groundbeds
- Seawater or Brackish water



BAC[®]

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Suitable for Installation in :

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Standard Sizes Of Solid Anodes

TYPE	Length (mm)	Dia (mm)	Weight (Kg)	Surface Area m ²
1.5"×60"	1520	38	12.7	0.20
2"×60"	1520	51	22.5	0.25
2.5"×60"	1520	63	34	0.32
3"×60"	1520	76	49	0.36

Dimensions and weights shown are nominal of +/- 5 per cent.
Non-standard sizes and weights of anode are available upon request.

Cable

The below mentioned cable are available upon customer's request.

XLPE/PVC, HMWPE, PVDF/HMWPE, EPR/CSPE

Assembly Method Cable to Anode

Taper Pin, Welding, or Lead Caulk available on request.

Canister Option

Anodes can be pre-packaged with metallurgical or calcined petroleum coke breeze backfilling a spiral wound galvanised steel canister on request.

Standard canister sizes are 200mm Dia x 2,000mm Length / 150mm Dia x 2,000mm Length.
Alternative sizes can be accommodated on request.