Fe-Si-Cr Anodes

Fe-si-cr anodes (HSCI) are, without a doubt, one of the most widely used types of anodes in impressed current cathodic protection systems since the 1950s.

Thanks to their high silicon content (from 14% to 16%), the surface of these anodes is quickly and continuously covered by a very thin film of silicon oxides and hydroxides. This gives them their extraordinary corrosion resistance and extremely low consumption rate.

Fe-si-cr anodes are used with excellent results in a variety of different environments, from soil to deep anode beds, and from fresh to saltwater, where they prove their exceptional reliability. Ferrosilicon anodes also show excellent resistance in acidic environments (low pH).

Our ferrosilicon anodes are manufactured in accordance with ASTM A518 M (grade 3) and BS 1591 standards, in both chromium-free and chromium versions. The addition of this alloying element improves the anode's performance in terms of corrosion resistance, especially in alkaline environments and those with a high chloride content, and is generally accepted as a standard.

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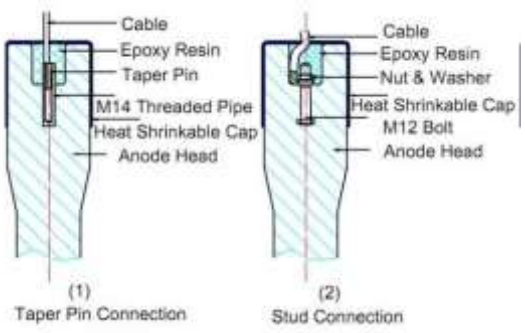

Our Fe-si-cr anodes are manufactured in both solid bar and hollow tubular forms. Shapes and dimensions can be customized according to customer specifications.

Our standard anodes are produced with a 3-meter-long, 1x16mm² XLPE/PVC double-insulated cable, connected via a stud and terminal. Other cable types (including HEPR/PVC and HMWPE/Halar), lengths, cross-sections, and connection systems are available upon request.

Chemical Characteristics:

Specific Consumption (kg/A*y)		**Usage Factor** (%)	
min.	**max.**	**min.**	**max.**
0.1	0.45	65	85

Chemical Composition:

Standard		**ASTM A518M Gr.3**
Element	**Min %**	**Max %**
Silicon	14.20	14.75
Chromium	3.25	5.00
Carbon	0.70	1.10
Manganese		1.50
Molybdenum		0.20
Copper		0.50
Phosphorus	-	-
Sulfur	-	-
Iron		Remainder to 100%

Our Standard Types:

	Diameter		**Leght**	**Weight**		**Nominal Current ***
Codice	**mm**	**In.**	**mm**	**In.**	**kg**	**A**
AI.FS.008	38	1.5	1525	60	13	1.25
AI.FS.012	51	2	1220	48	17	1.6
AI.FS.013	51	2	1525	60	21	2
AI.FS.014	76	3	1525	60	50	4.8

* Nominal current calculated for a minimum operating life of 15 years, with a specific consumption of 0.45 kg/A*y and a usage factor of 65%.