

# CATHODIC PROTECTION

## ANODE DEEP GROUND BED CASING



Cathodic protection wells, often known as Deep Ground Beds, are widely installed to protect metallic objects in contact with the ground from electrolytic corrosion, particularly structures within the oil, natural gas and water industries.

Open hole ground beds use stable non-conductive, corrosion resistant casings which can be installed up to 300m depth where there is a static water level.

Deep ground bed wells are typically constructed using DN200 (8") PVC casing and screen which is covered with a TerraFilter™ mesh to prevent ingress of fines.

One of the potential reactions that occurs at the anode is the generation of chlorine gas from the dissolution of naturally occurring salts in the soil. For this reason, deep well anode systems typically have a vent pipe assembly, which allows any chlorine gas formed at the anode to vent to atmosphere. DN35 (1.25") PVC casing and screen provides high capacity venting to the system.

A full range of installation accessories includes:-

- **Wooden clamps (Bongossi/Eki)**
- **Lifting adaptors**
- **Vent casing & screen**
- **Non metallic centralisers**
- **Top head enclosures**
- **Head works**
- **Locating pins**
- **Clamps**
- **Test posts**

### Applications

- ◆ Oil pipelines
- ◆ Oil & water tanks
- ◆ Steel structures
- ◆ Power lines

### Features

- ◆ Manufactured to DIN 4925
- ◆ Trouble free
- ◆ Installation up to 300m
- ◆ Anode can be replaced
- ◆ High collapse resistance
- ◆ Trapezoidal thread
- ◆ TerraFilter™ mesh
- ◆ Vent pipes
- ◆ Full range of accessories



**CASING & VENT PIPE**

NOMINAL DIAM ND (inch)	DIMENSION DN (inch)	OUTSIDE DIAM mm	WALL THICKNESS mm	OUTSIDE DIAM OF SOCKET mm	INSIDE DIAM mm	WEIGHT Kg/m	OVERALL LENGTH mm	EFFECTIVE LENGTH mm
1.25"	35	42	3.5	46	35	0.64	1000, 3000	970, 2970
8"	200	225	13	247	199	13.7	5800	5720

**SCREEN**

NOMINAL DIAM ND (inch)	DIMENSION DN (inch)	OUTSIDE DIAM mm	WALL THICKNESS mm	OUTSIDE DIAM OF SOCKET mm	INSIDE DIAM mm	WEIGHT Kg/m	SLOT mm	OPEN AREA %
1.25"	35	42	3.5	46	35	0.64	1	9
8"	200	225	13	247	199	13.7	3	20

**MECHANICAL & PHYSICAL PROPERTIES**

\* without O-ring

PROPERTIES	UNITS	TEST METHOD	SPECIFIED VALUE
Density	g/cm <sup>3</sup>	ISO 1183	1.4
Tensile strength	N/mm <sup>2</sup>	DIN EN 527-2	45-55
Impact resistance at 23 ± 2°C	%	DIN 53453	Min 90
Modulus of elasticity	N/mm <sup>2</sup>	DIN EN ISO 178	2500 - 3000
Co-efficient of thermal expansion	K <sup>-1</sup>	DIN 53752	0.8 x 10 <sup>-4</sup>
Charpy notched impact strength at 23° C	kJ/m <sup>2</sup>	EN ISO 179/1eA	6
Vicat softening temperature	°C	ISO 2507-2	>79
Thread	-	DIN 4925	Trapezoidal*
Colour	-	DIN 6164-1	Blue (RAL 5015)

**TERRAFILTER MESH**

Fitted over the slotted section of screen.

Woven polyethylene filter mesh with 300 micron equivalent sieve analysis size.

Outer heavy duty PE mesh secured at each end with heat shrink tape.

Optional stainless steel band.