

# Deepwell Groundbed Materials

Cathodic protection wells (deep well groundbeds), 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 groundbed wells are typically constructed using DN200 (8") PVC casing and screen which is covered with a TerraFilterT 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
- Terra-filter mesh
- Vent pipes
- Full range of accessories



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### CASING & VENT PIPE

NOMINAL DIAMETER ND (inch)	DIMENSION DN mm	OUTSIDE DIAMETER mm	WALL THICKNESS mm	OD OF SOCKET mm	INSIDE DIAMETER mm	WEIGHT Kg/m	OVERALL LENGTH mm	EFFECTIVE LENGTH mm
1"	25	33	4	-	25	0.525	1000, 3000	975, 2970
1.25"	35	42	3.5	46	35	0.64	1000, 3000	970, 2970
2"	50	60	4	-	52	1.0	1000, 3000	965, 2970
8"	200	225	13	247	199	13.7	5800	5720
10"	250	280	12.5	297	255	15.6	5800	5720
12"	300	330	14.5	350	301	21.2	5800	5720

### SCREEN

NOMINAL DIAMETER ND (inch)	DIMENSION DN (inch)	OUTSIDE DIAMETER mm	WALL THICKNESS mm	OD OF SOCKET mm	INSIDE DIAMETER mm	WEIGHT Kg/m	SLOT mm	OPEN AREA mm
1.25"	35	42	3.5	46	35	0.64	1	9
8"	200	225	13	247	199	13.7	3	20
10"	250	280	16	394	248	12.2	3	20
12"	300	330	19	359	292	29.7	3	20

### MECHANICAL & PHYSICAL PROPERTIES

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 -1	DIN 53752	0.8 x 10-4
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 (without O ring)
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