



MGS Telescopic shafts, made from HDPE, have been installed throughout UK landfills for more than 15 years up to depths in excess of 40 metres.

Manufactured from high ring stiffness HDPE they provide long-term performance for the extraction and monitoring of landfill leachate.

Without a telescopic capability, the stress and strain imposed on vertical HDPE pipes in landfills would be immense due to the large amount of settlement which occurs within the waste itself and the resulting axial and radial loads.

The axial load is caused by 'skin friction' between the outside wall of the pipe and the surrounding waste as it settles. Loads as high as 100Tf are not uncommon.

The axial load is by far the most damaging which occurs because the axial strain and consequent stress would normally exceed the buckling strength of the pipe.

If axial movement can be accommodated during settlement then the axial stress is eliminated.

MGS Telescopic shafts are designed to allow this axial movement thus avoiding any buckling and subsequent failure of the shaft.

Applications

- Landfill leachate extraction

Features

- Minimises axial loads
- Proven technology
- Long-term performance

Material Specification

Property	Standard	Unit	Value
Density	DIN53479	g/cm ³	0.953
MFI190/5	DIN53735	g/10min	0.7 –1.0
Tensile stress at yield	DIN53455	N/mm ²	21
Elongation at yield	DIN53455	%	10
Tensile stress at break	DIN53495	N/mm ²	30 –33
Elongation at break	DIN53455	%	>600
Modulus of elasticity (short term)	DIN53457	N/mm ²	800
Modulus of elasticity (long term)	DIN53457	N/mm ²	150

Dimensions			
Nominal diameter (mm)	Sleeve outside diameter (mm)	Inner outside diameter (mm)	Length (m)
327	500	400	3.0
500	680	580	3.0
600	780	680	3.0
700	880	780	3.0
800	980	880	3.0
900	1080	980	3.0
1000	1180	1080	3.0

Typical Installation

