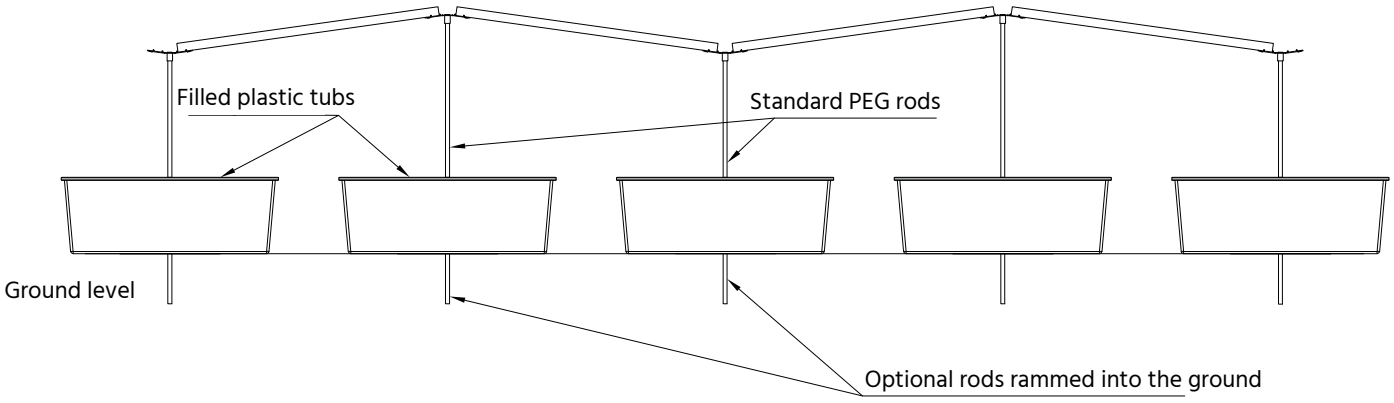
PEG® Ballast Design

Ballast foundation design of the PEG EW with minimal or no ground penetration



Plastic mortar tubs or high density plastic plant pots, one per rod, are filled with recycling material as a cost effective ballast solution for the PEG System. The plastic tubs are available in different shapes and sizes , eg round and rectangular, which should be evaluated based on the required amount of filled material and the required gaps between the tubs for access under the PEG for O&M activities.

The tubs must have a hole at the center of its bottom surface for placing it over the rod, as well as other holes for water drainage. The maximum possible ballast material with different tub sizes is listed below, assuming filler material with 1700 kg/m^3 density.

- Optional ground penetration
- Size of plastic tubs and amount of fill material based on site specific loads
- Ground plate is required in case the rods are not penetrating into the ground at all

Plastic tub sizes and ballast (assuming 1700 kg/m^3 density)

Size [l]	Max. ballast [kg]
40	75
65	110
90	150

Material	Average density [kg/m^3]
Mixed recycling material	1500 - 1700
Recycled construction waste	1200 - 1400
Recycling sand	1500 - 1700
Recycling asphalt	1500 - 1700

Different filler materials are allowed as long as they follow the required specifications: The grain sizes should be within the range of 8 – 60 mm. Smaller grain sizes might be allowed, subject to approval by Jurchen Technology, however the higher risk of wash out must be considered. Materials available locally should be evaluated while considering its average density and the use of small and therefore cheaper plastic tubs.

The customer should order the filler material locally. The specification of the material must be shared with Jurchen for approval .

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