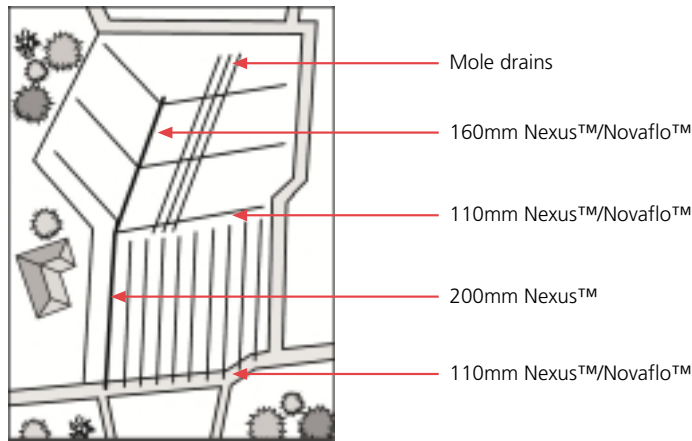


Nexus™ and Novaflo™ Installation

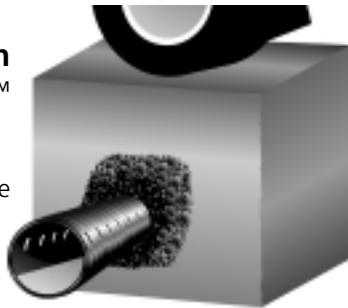
How to install your Nexus™ and Novaflo™



NEXUS™ and Novaflo™ complement existing drainage techniques, such as mole drainage; removing surplus water gathered by the mole network.

External Load Strength

As a corrugated product, Nexus™ and Novaflo™ have excellent strength to resist external loads from either soil, backfill or vehicle loads provided it is installed correctly.



Lightweight and Versatile

The light weight and long coil lengths of Nexus™ and Novaflo™ minimise the physical effort required to lay pipe. Reduced operator fatigue and significant transportation savings can be achieved.

Depth of Drainage

The maximum depth of burial in agricultural applications is not often limiting and is usually determined by the nature of the soil/water profile. For Nexus™ and Novaflo™ the most crucial factors are trench width and bedding/haunching. No rule of thumb can be given and the best information is available in AS/NZS2566.

Backfill

An envelope of granular aggregate around the drain pipe improves the flow of soil water into the pipe by increasing the effective diameter of the drain and may under certain circumstances allow the spacing of drains to be increased.

In permeable soils, water flows into the drain mainly through entry points at the sides and bottom of the drain pipe. It is therefore particularly important that the gravel envelope should completely surround the drain pipe in order to be fully effective. Such an envelope can also act as a partial filter, hence reducing the ingress of fines. In soils where particles can be washed into the pipe, eventually causing silting, a fabric filter can be used to impede the ingress of these fines.

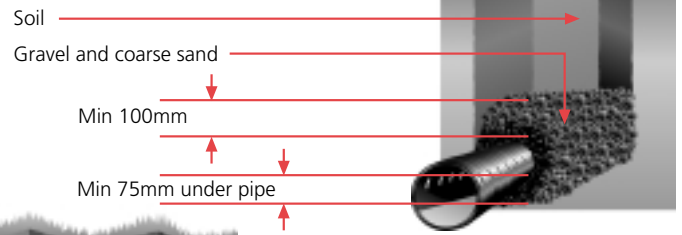
Flexibility

Nexus™ and Novaflo™ pipe can be installed continuously around curves and bends, without the need for separate fittings, allowing Nexus™ and Novaflo™ to be installed in continuous lengths.

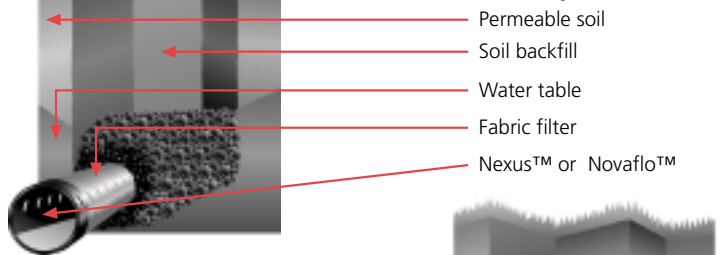
Bedding and Backfill Alternatives

a. Standard installation in permeable non-sandy soils.

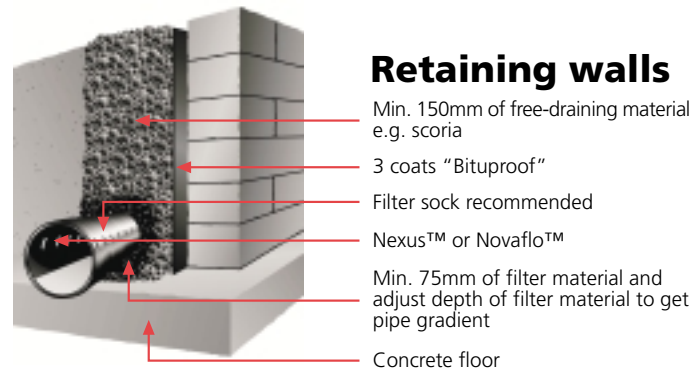
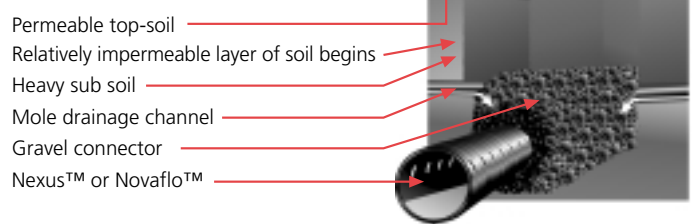
Nexus™ and Novaflo™ encased in gravel and coarse sand envelope designed as a filter



b. Installation in fine sandy soils



c. Installation in an impermeable heavy subsoil, combined with mole drains



Retaining walls

Drain Spacing

The following table gives a guide for drain spacing proportional to drain depth and soil type. However, land utilisation factors such as paddock area, crop or tree spacing and vehicular access must all be considered. The standard design is a 20m spacing for cattle farm drainage and 60m for sheep grazed pasture.

Drain Spacing vs Soil Type

	Effective drainage distance Each side of pipe (m) at a Drain depth of		Permeability k (cm/sec)	A General Description of Soil Permeability
	0.6 - 0.9m	9.0-1.2m		
Sand	15.2-22.9	22.9-45.7	10 ⁻²	medium/high
Sandy Loam	12.2-15.2	15.2-22.90	2.4 x 10 ⁻⁴	medium
Loam	10.7-13.7	12.2-15.2	4.7 x 10 ⁻⁵	medium/low
Clay Loam	6.1-9.1	7.6-10.7	1.2 x 10 ⁻⁵	low
Sandy Clay	5.3-6.1	6.1-7.6	5 x 10 ⁻⁶	very low
Clay	3.6-4.6	4.8-5.3	1.2 x 10 ⁻⁶ Thru 10 ⁻⁷	verylow practically impermeable

k = coefficient of permeability