VIBRATORY RAMMER (up to 75 kg)

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

VIBRATORY SMOOTH DRUM ROLLER (7 tonne)

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

* CLASS 2 PIPE   * CLASS 2 PIPE

15 tonne EXCAVATOR & COMPACTION WHEEL

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

VIBRATORY TRENCH ROLLER (UP TO 2 tonne)

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

VIBRATORY SMOOTH DRUM ROLLER (10 tonne)

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

* CLASS 2 PIPE   * CLASS 2 PIPE   * CLASS 2 PIPE   * CLASS 2 PIPE

25 tonne EXCAVATOR & COMPACTION WHEEL

Compaction cover over pipe — Ø 300, Ø 375, Ø 450, Ø 525, Ø 600, Ø 750, Ø 900 (H1, H2/HS1, HS2)

* CLASS 2 PIPE   * CLASS 2 PIPE   * CLASS 2 PIPE   * CLASS 2 PIPE

Compaction:
H1,H2, HS1: DDI = 85%
HS2: DDI = 90%
HS3: DDI = 95%

150 (min)   150 (min)
150 (min)   100   150 (min)   0.5D
Y   D   Y   D   100

Y = 0.1D for H1
0.3D for H2
TYPE H

Y = 0.1D for HS1
0.3D for HS2, HS3
TYPE HS

Side zone
Haunch zone

LEGEND:
* Exceeds allowable limits. DO NOT USE.

CLASS 2 PIPE

CLASS 3 PIPE

CLASS 4 PIPE

Notes:
1. When using a pedestrian vibrating plate the minimum compacted fill is 125mm for all pipe classes and trench types
2. The graphs and diagrams shown are for guidance only. For special applications of for applications not shown on the drawing refer to AS/NZS3725-2007 or use the CPAA pipe selection software PipeClass.
3. Widening of the trench beyond that shown on the drawing will increase the load carried by the pipe and will require a review of pipe class and trench filling method.
4. The pipe cover shown on the graphs refers to compacted depth.
5. To obtain sufficient compaction you may have to use shallower fills and initially use a lighter roller.

Question: Given use of 2t trench roller, pipe class 2, size 450mm pipe, trench type H2 and compaction factor 15%. How much minimum cover is required so as not to damage the pipe during laying?
Answer: Graph for vibratory trench roller (up to 2t) for Class 2, 450mm diameter shows that 400mm compacted cover is required. From this follows that the loose fill required is (100/(100-15))x400 = 470mm

THE INSTALLATION OF STEEL REINFORCED CONCRETE PIPES
Minimum pipe cover required for various compactors

| Date: 06-11-2007 | Drawing no: 3 | Amdt: |