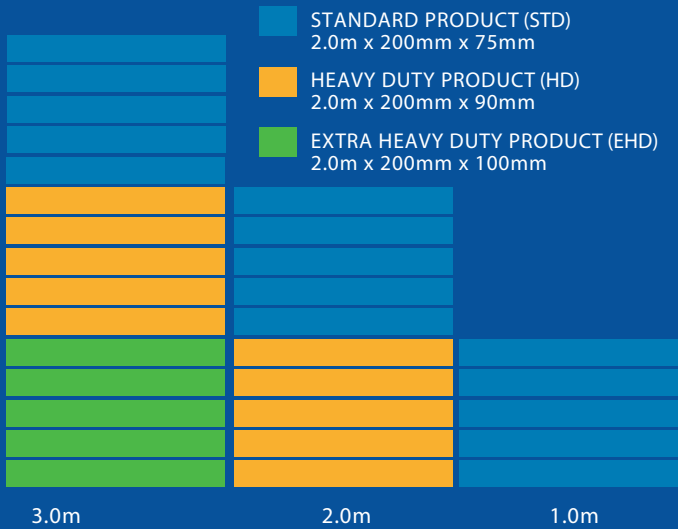


SLEEPER INSTALLATION GUIDE



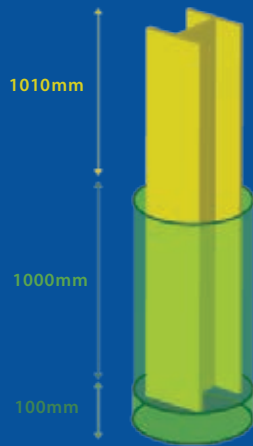
1 HOW TO DETERMINE HOLE CENTRE DIFFERENCE (TYPICAL 1M HIGH RETAINING WALL)

- Set pegs at each end of the retaining wall site and connect with a string line to give the required alignment.
 - Holes should be dug at 2010mm centres for 2.0m sleepers and 2410mm for 2.4m sleepers
 - A similar allowance of 10mm can be used for other lengths.
 - Hole diameter must be at least 450mm for a one metre high retaining wall.
- Note: Walls greater than 1m require council approval & site specific engineering.



2 POST HOLES

- The post holes for a one metre wall must be dug 1010mm deep.
- Place steel in the hole and concrete (ensuring that post tops are the same height).
- DO NOT OVERFILL HOLES. Concrete should not exceed 1010mm from top of each post.



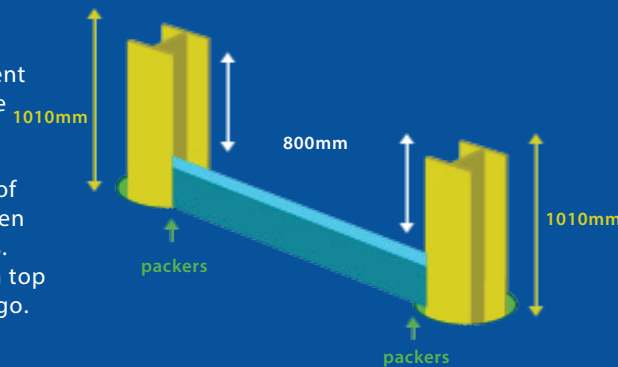
3 STRING LINE

- With string line still in place, check the alignment of all posts with a spirit level.
- Re-check distances between posts.
- This can be done with a tape measure or a piece of cord cut at 2010 or 2410.



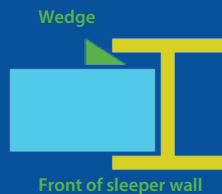
4 SLEEPERS

- Ensure concrete has cured overnight.
- Place first sleeper between posts, then check measurement from top of this sleeper to the top of each post.
- Use fibro-cement sheeting for packaging under bottom of sleeper to adjust to height then install the rest of the sleepers.
- Check the measurement from top of the post to sleeper as you go.



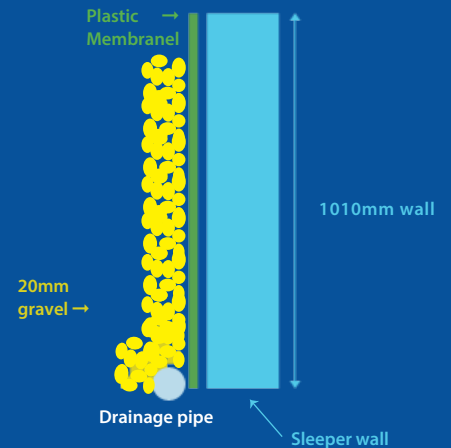
NOTE: WEDGES / PACKERS

It's good practice to make wedges from scrap timber to ensure sleepers are held against the front of the post.



5 DRAINAGE

- Once sleepers have been installed.
- Place a plastic membrane (forticon) 75µm thick behind the wall and AG pipe or strip drain at the bottom (back) of the wall.
- Cover the pipe with 20mm gravel for drainage.



Note: Please ensure that during installation no equipment is to be driven over the backfill within 75% of the wall height. Compaction if any, within this area should be with non vibrating hand equipment weighing no more than 500kg per square metre of footprint. If greater compaction is required please obtain engineering advice. Wall designs shown are for 'typical' soil conditions. For walls over 1 metre you should seek independent engineering advice based on your specific site conditions.