



GUIDELINES FOR EXCAVATOR AND SIDE-GRIP VIBRATORY PILE DRIVERS

*(To be read in conjunction with **Tips for Driving Sheet Piles**)*

- 1** Check the excavator and vibratory head have sufficient power to install and extract the length and type of sheet pile on the job. Flow and pressure test the auxiliary piping on the excavator, and have it set to the vibro head requirements. This is best performed by a trained Hydraulic Technician.
- 2** NEVER force down by pushing on the pile with the hydraulic force of the excavator. Extensive damage can occur to the vibratory head and pile when force is applied using the excavator's hydraulics. If there is a need to do this, you either have a vibro head or excavator with insufficient capacity or the ground is too hard. Get a suitable-sized machine that can drive the piles and/or pre-drill the ground to soften it up. Jetting with water or air at the toe of the pile may be an option.
- 3** Where a side-grip piler can take one sheet out or restack it into a bundle, only use this feature when installing or extracting the pile being handled. It must not be used for restacking, unloading and loading sheets onto transport.
- 4** The jaws of the vibro head must be clamped evenly onto the centre face of the pile. Clamping on the edges of the face, corners or clutches will result in damage to the pile, resulting in the pile not clatching again. Check the hydraulic pressure to the jaws is set at the manufacturer's specification.
- 5** Always ensure the vibratory head and pile are aligned with the pile already installed. Excessive damage to clutches from bending the pile or 'overheating/welding' the piles' clutches can occur. Use water to keep the clutch that is sliding wet to reduce friction and heat.
- 6** An untrained or inexperienced operator can often damage from 10% to 30% of the piles on a job with an excavator mounted vibro head. In this case, it will most often be cheaper to establish a crane to the job and install the piles with a machine that has the force required for driving and extraction. The cost of the pile damage will outweigh the extra establishment cost of the crane.