

MANTA RAY[®]

Installation Procedure



1. A standard screw anchor rod is screwed into the threaded shackle of the anchor and the first section of the Stinger drive gad set (attached to the jack hammer) is inserted into the anchor.



2. One man at ground level using a standard jack hammer starts driving the Manta Ray into the soil at the desired angle.



3. In ten minutes or less (in normal soil) Manta Ray is driven to the desired depth.



4. Installer pulls drive gad out of the ground.



5. End of anchor rod is at ground level. Or, in looser soils it may be counter-sunk up to 12 inches below surface to obtain greater holding capacity. Anchors can be driven deeper if necessary by adding rod extensions and drive gad extensions.



6. The adapter bar is screwed onto end of anchor rod. Lightweight load locker base and hydraulic ram system are then put in place over the adapter setting bar.



7. Power source operates the load locker which grips and pulls up on the adapter setting bar, rotating anchor underground into lock position. The desired holding capacity is measured by the gauge on the load locker. **NO MORE GUESSWORK!**



8. After load locker is removed, the thimbleye is screwed onto end of anchor rod, ready for guying. No digging, no yard damage, no mess. A clean, simple operation.

The ease and speed with which Manta Rays are installed are two of its most important economic advantages. Thousands of dollars and hundreds of workdays are saved by using the Manta Ray system.

Notes: When installing Manta Ray and Duckbill anchors, follow all common safety precautions used by every utility and contractor hard hats, boots, safety glasses and gloves. Gloves are especially necessary since (during driving) the couplers on the Stinger drive gad set can become hot. All underground work requires location procedures. Manta Ray and Duckbill are no exception. **Do not install an anchor until you know what is below the surface.**

It is absolutely imperative in all cases that anchors are fully lock loaded before being put into service. It is important that anchors are installed as near to the angle of load as possible.

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