

Insertion Methods Available For DOGSCREW™

14mm and 17mm augers are required for DOGSCREW™ insertion (16mm and 19mm screws respectively). Augers are readily available and can be purchased to suit hand held drilling machines or large multi-spindle boring machines.

Sockets and adaptors are also available to suit ½ inch, ¾ inch and 1 inch drive rattle guns.

Insertion methods can be categorised into three groups.

1) SPOT MAINTENANCE: Three types of existing rattle guns are available for DOGSCREW™ insertion. **Torque control bars** can be used to monitor torque and also improve ergonomics.

➤ **Electric Rattle-Gun.**

Has the advantage of being lightweight and can be run using a small generator. Restricted to small numbers of screws being inserted as power and duty cycles are relatively low.

➤ **Air Driven Rattle-Gun.**

Pneumatic rattle-guns are extensively used by rail maintenance crews throughout Australia. Pressure can be easily adjusted to provide various torque levels. This type of unit can insert screws in 3-5 seconds. With correct preparation, crews can perform at a relatively high insertion rate.

➤ **Petrol Driven Rattle-Gun.**

Another very common type of rattle-gun used throughout the rail industry. This type of gun has the advantage of no leads or hoses required however they can become heavy to carry over a long period of time.



2) SEMI-AUTOMATED: Standard pedestrian style push along rail machines can be used to insert screws in an easy and much safer way.



Special insertion and removal heads have been developed to improve procedures. The

hydraulic machines can be supplied to locate and drive screws stood in the sleeper. This machine can also be ordered with a magnetic head and ramped auto feeding system. Screws can then be loaded, picked with the magnetic head and driven by one operator, eliminating the need to stand fasteners.



3) HIGH PRODUCTION: It is possible to convert an existing high production machine to install DOGSCREW™. Australia's largest track network operator has already commissioned a Harsco Fairmont Tamper/Spike Setter Driver for the purpose. The PLC controlled machine can carryout high production insertions.

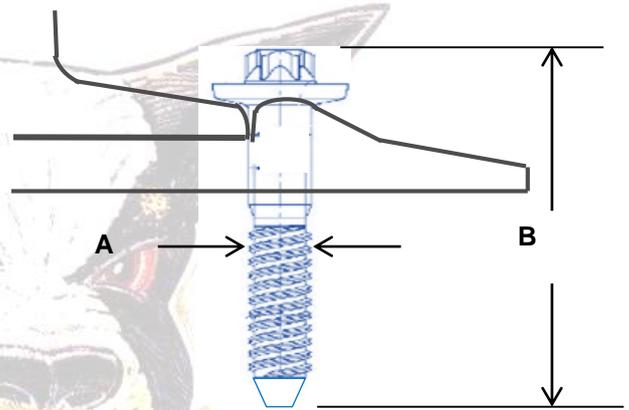


INSTALLATION:

Recommended Hole Dimensions:

For 16x125 mm 14 mm diameter auger, 90mm min depth for plated track, 95mm for unplated track.

For 19x135 mm 17 mm diameter auger, 100mm min depth for plated track, 105mm for unplated track.



Hole Preparation

Railscrew Dia	A	16mm	19mm
Railscrew Length	B	125mm	135mm
Drill Hole	C	14mm	17mm
Well Depth (unplated)	D	95mm	105mm
Well Depth (plated)	D	90mm	100mm

