

Gravity Bar

INSTALLATION INSTRUCTIONS AND TECHNICAL INFORMATION GRAVITY BAR™ EXTRACTABLE ROAD ANCHOR

SECTION 1.0 ASSEMBLY

When assembled, a nickel based anti-seize product should be applied to the right-hand thread in order to prevent galling with stainless steel nuts. Assembly with plated carbon steel nuts may result in galvanic corrosion.

SECTION 2.0 APPROVED ADHESIVES

1. HILTI HIT-HY200-R hybrid mortar: apply as per OEM installation instructions.
2. HILTI HIT-RE500-V3 epoxy mortar: apply as per OEM installation instructions.

SECTION 3.0 SAFETY PRECAUTIONS

- Read and understand this installation instruction for the anchor, and any safe work method or risk assessment associated with its installation.
- Read and understand the OEM's safety and technical data, first aid instructions, exposure notices, and installation instructions for the approved adhesive and anti-seize products used with this product.
- Avoid breathing vapours and use personal protective equipment as required and in conjunction with any applicable personal safety procedure.

SECTION 4.0 INSTRUCTIONS FOR INSTALLATION

For installation in road pavements and concrete foundations:

2. Drill or core specified diameter hole to anchor embedment depth plus 10.0% over-drill.
3. If diamond cored, a roughening tool will be required to condition the inside of the hole.
4. Check depth of hole before applying resin;
 - Holes in road pavements finishing in road or sub-base do not require flushing.
 - Holes (finishing in) concrete do require flushing.
5. Pre-assemble GRAVITY BAR™ anchors with 2 x stainless steel A2 (304) HEX nuts, wound hand-tight to shoulder and 1 x stainless steel A2 (304) flat washer;
 - A nickel based anti-seize product should be applied to the right-hand thread prior to assembly of nuts.
 - A bond breaker is not required for left-hand thread.
6. Fill hole to approximately ½ full, applying resin as per OEM installation instructions and product safety data sheet;
 - A 22.0mm diameter hole (for M20 anchor) will require approximately 70ml of adhesive.
 - A 28.0mm diameter hole (for M24 anchor) will require approximately 125ml of adhesive.
7. Insert GRAVITY BAR™ by pushing to full depth while applying moderate clockwise rotation to eliminate potential air pockets.
8. Watch for over-fill and make incremental adjustments to resin volumes to reduce wastage.
9. Be aware of under-fill or high rates of absorption in road and sub-bases; this will be apparent as a result of unusually low resistance when inserting anchors:
 - Remove anchor and check for under-fill; top up with resin as required.
10. Clean up any over-fill as required.

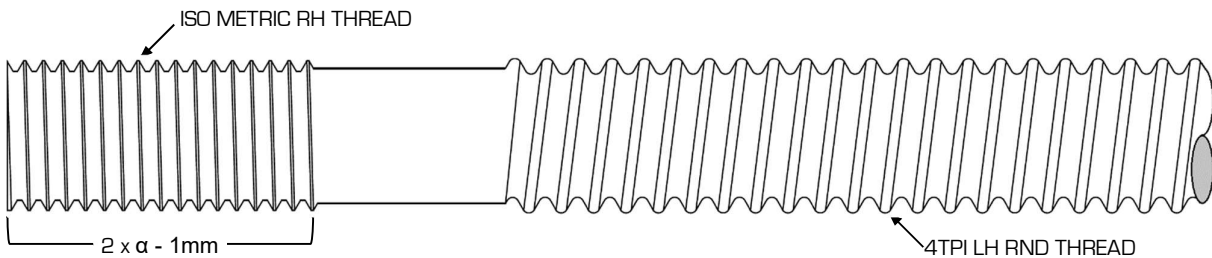
SECTION 5.0 INSTRUCTIONS FOR EXTRACTION

GRAVITY BAR™ Road Anchors can be reinserted after extraction; take care to protect holes from damage or debris while open and plug holes to prevent debris from infiltrating if intending to reuse at a later time.

For extraction, utilising a high capacity impact wrench with deep impact socket:

1. Set impact wrench for CLOCKWISE rotation only.
2. Anchors should break their bond from the adhesive relatively easily and spin free.
 - In the event that an anchor fails to break away, use a slogging spanner to break with impact.
 - The left-hand thread and shank will leave a perfect mould in the adhesive which may be used at a later time to manually reset the anchor [does not require re-adhesion].

SECTION 6.0 TECHNICAL INFORMATION AND ANCHOR DIMENSIONS



M20 GRAVITY BAR™ EXTRACTABLE ROAD ANCHOR

Embedment Depth	200mm	330mm	400mm
Overall Anchor Length	250mm	396mm	450mm
Right Hand Thread Length	31.0mm		
Shank	19.0mm x 18.2mm		
Nut Dimensions	AF30.0mm x H16.0mm (α)		
Required Drill Size	22.0mm		

M24 GRAVITY BARTM EXTRACTABLE ROAD ANCHOR

Embedment Depth	200mm	330mm	400mm
Overall Anchor Length	250mm	396mm	450mm
Right Hand Thread Length	37.0mm		
Shank	13.0mm x 21.9mm		
Nut Dimensions	AF36.0mm x H19.0mm (α)		
Drill Size	28.0mm		

M30 GRAVITY BARTM EXTRACTABLE ROAD ANCHOR

Embedment Depth	200mm	330mm	400mm
Overall Anchor Length	250mm	396mm	465mm
Right Hand Thread Length	47.0mm		
Shank	17.0mm x 27.5mm		
Nut Dimensions	AF46.0mm x H24.0mm (α)		
Drill Size	35.0mm		

