Timco is pleased to supply North American contractors and construction companies with a new and innovative asphalt anchor bolt fastener system. Our Timcoloc™ fasteners offer a wide variety of functional uses including anchoring steel protection barriers, noise barriers, turnstiles, or for securing a steel plate that covers holes in the street while construction work is in progress. They can also be used to easily stake tents or to install bannisters or railings in asphalt. There are many advantages to using Timcoloc fasteners, including easy installation as well as flexibility to remove after usage is complete. Installation time saving of more than 50% has been documented when using this bolt fastener system versus other anchoring systems.

Timcoloc fastening bolts may also be left in position for easy reuse in the future. Simply place a rubber stopper in the top of the bolts and leave them in your asphalt. Our bolts are made of carbon steel with a surface treatment of zinc aluminum flake that imparts higher corrosion resistance than hot dipped galvanized bolts. Timco can also quote supplying asphalt fasteners made of other materials like stainless steel.
**Asmin = Minimum Asphalt Thickness**

\[
t_{\text{fix}} = \text{Thickness of Base Plate}
\]

<table>
<thead>
<tr>
<th></th>
<th>Timcoloc™ 16 x 100 IM 10 x 20</th>
<th>Timcoloc™ 22 x 100 IM 16 x 30</th>
<th>Timcoloc™ 22 x 155 IM 16 x 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>( h_1 )</td>
<td>4.13&quot; (105 mm)</td>
<td>4.13&quot; (105 mm)</td>
<td>6.30&quot; (160 mm)</td>
</tr>
<tr>
<td>( h_v )</td>
<td>3.94&quot; (100 mm)</td>
<td>3.94&quot; (100 mm)</td>
<td>6.10&quot; (155 mm)</td>
</tr>
<tr>
<td>( d_0 )</td>
<td>0.63&quot; (16 mm)</td>
<td>0.87&quot; (22 mm)</td>
<td>0.87&quot; (22 mm)</td>
</tr>
<tr>
<td>( e )</td>
<td>0.59&quot; (15 mm)</td>
<td>0.98&quot; (25 mm)</td>
<td>0.98&quot; (25 mm)</td>
</tr>
<tr>
<td>( a_{\text{min}} )</td>
<td>5.12&quot; (130 mm)</td>
<td>5.90&quot; (150 mm)</td>
<td>7.87&quot; (200 mm)</td>
</tr>
<tr>
<td>( i_s = e + t_{\text{fix}} )</td>
<td>Bolt Length M10</td>
<td>Bolt Length M16</td>
<td>Bolt Length M16</td>
</tr>
<tr>
<td>Tightening Torque of the Metric Bolt</td>
<td>18.5 ft•lugs (25 Nm)</td>
<td>36.9 ft•lugs (50 Nm)</td>
<td>36.9 ft•lugs (50 Nm)</td>
</tr>
<tr>
<td>Torque for Timcoloc™ Mounting Bolt</td>
<td>( \leq 73.8 \text{ Ft. lbs} \ (\leq 100\text{Nm}) )</td>
<td>( \leq 147.5 \text{ Ft. lbs} \ (\leq 200\text{Nm}) )</td>
<td>( \leq 221.3 \text{ Ft. lbs} \ (\leq 300\text{Nm}) )</td>
</tr>
<tr>
<td>Failure Under Shock Load</td>
<td>6,744 lbs-force (30kN) with epoxy</td>
<td>8,992 lbs-force (40kN) with epoxy</td>
<td>17,984 lbs-force (80kN) with epoxy</td>
</tr>
</tbody>
</table>
Usage Guidelines for Timcoloc™ Asphalt Fasteners

The 90° Principle
The collar of the Timcoloc™ fastener needs to be attached to the base plate at a 90° angle.

Epoxy Fills Voids
The air voids in the asphalt are injected with epoxy using the Timcoloc™ fastener as a hydraulic ram.

Anchoring Without Preloading
The collar of the Timcoloc™ fastener is larger than the through hole in the base plate to be attached. The base plate is pressed between the Timcoloc collar and the fixing screw. The anchor remains unloaded until an impact.

Undercut
Turning in the Timcoloc™ fastening bolt generates a uniform lock.

Large Support Area
Epoxy seepage into the asphalt, creates a large area of support to absorb shock load.
1. Set and clean the drill hole.

2. Inject epoxy.

3. Screw the bolt into position.

4. Make sure screw is flush with the surface and epoxy exits the top of the drill hole.

5. Attach fixture.
Common Uses for Timcoloc™
Asphalt Fasteners
Items you will need to install Timcoloc™ Asphalt Fasteners:

- Fasteners
- Epoxy
- Epoxy gun
- 12 mm Hex Bit Socket Driver

Timco Can Custom Fabricate Nylon Collar Plates for Timcoloc™ Fasteners

Timco's main business is fabricating plastic components like sheaves, bearings, cribbing plates. As a result, Timco is capable of fabricating nylon road transition collar plates or washers for the top of Timcoloc anchor bolts. Nylon creates an ideal smooth and durable surface for these heavy duty industrial applications.

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An ISO 9001:2008 Certified Company

If in addition to asphalt fasteners you need other fabricated wear or structural plastic components, please contact Timco for a quotation.

All statements, technical information and recommendations contained in this brochure are presented in good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Timco, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customer's responsibility to determine the suitability of Timco products in any given application. We do not guarantee, nor do we accept an obligation of liability in connection with the information provided. We will credit the cost - or supply replacement - for material supplied by us, and found to be defective in our judgement. We are not responsible for expenses resulting from the use of the materials described in this brochure. © Timcoloc is a trademark of Timco, Inc.

40 Years of Designing and Manufacturing Parts for Industrial Equipment