CAUTION
Assembly of anchorage and installation of tendons shall only be performed by qualified pre-construction specialist personnel.
This installation procedure is generic: follow the specific procedure for each project.

Checked: T. CICCONE

1. Preassemble anchor (AM) and plastic transducer (PT), line cement grout shall be used to facilitate the threading and the compression of the grout.
2. Bolt the assembled AM to the pocket former using the two threaded holes located on the front surface of AM. AM shall be placed perpendicular to the tendon's axis and related such as the side of the hole points up.
3. The position of the spiral resists SR shall be secured to the AM or to adjacent rebar by tack-welding or properly.
The SR shall be rotated such that SR interfere with 3/32" NPT pipe attachment (if using side grout hole). Align axis of SR with AM. Seal around port in AM.
4. Install the duct as shown on shop drawings and insert it into PT, and seal it with duct with heat shrink sleeve for if not possible, with heat shrink wrap in order to prevent concrete transparencising.

Concreting can now proceed.
5. After completion of concrete placement, remove the pocket former and keep the duct clean of any structures or damage and that all grout vents are free and accessible.
6. Install strands by pushing or pulling individually or as a bundle into duct. Allow sufficient extra length of the active anchorage for stressing. The strand too can be completed before or after the concrete is poured.
7. Check the wedge plate (WP) for rust and dirt. Clean wedge holes with wire brush if necessary. Lightly grease or oil wedge holes.
8. Check wedges for rust. Discard rusty wedges and use only clean ones.
9. Install wedge plate (keeping up the inspection hole), snap the wedge over the strands and securely place them into wedge hole.
10. Do not apply post-tensioning forces until the concrete has reached its maximum strength. All要注意 values shown on the spiral table. These values refer to the calculated tendon stress.

Stressing can now proceed.
11. Aggregate clearance must be kept behind the hydraulic jack while stressing.
12. Stressing operation shall be executed according to the engineer form and requires the simultaneous reading of pressure and elongation. Check the conformity of the final elongations measurement with prescribed values.
13. Install the protection cap (PC) with D-ring sealing on AM using bolts. Line cement grout shall be used to facilitate the compression of the D-ring.
14. Thread V" NPT pipe for grout onto the AM and the 1/2" NPT pipe for grout onto AM. Clean the 1/2" plug to secure the hole on PC (Some thread seal tape shall be used to improve the tightness of the threaded).

Grouting can now proceed:
15. Grout shall be injected through the filler inlet until it escapes from the filter outlet. Special measures shall be applied for long tendons, for tendons paths with distinct high points or inclined tendons to avoid voids.
16. All vents and grouting interruptions have to be sealed with plugs soon after grouting.
17. Fill holes with non-shrink grout after post grouting operation and inspection are completed.

**BILL OF MATERIALS**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
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<tbody>
<tr>
<td>1</td>
<td>6-01-00</td>
<td>Protection Cap B</td>
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<td>Protection Cap B’</td>
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<td>3</td>
<td>6-01-02</td>
<td>Protection Cap D-Ring</td>
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<td>4</td>
<td>6-01-03</td>
<td>NPT Plug 1/2&quot;</td>
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<td>5</td>
<td>6-01-04</td>
<td>NPT Plug 3/4&quot;</td>
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<td>6</td>
<td>6-01-05</td>
<td>NPT Plug 1/2&quot;</td>
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<td>7</td>
<td>6-01-06</td>
<td>Heat Shrink Sleeve</td>
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<td>6-01-12</td>
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<td>T-Ring</td>
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<td>6-01-15</td>
<td>Compression Seat</td>
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<td>Anchor</td>
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**MISCELLANEOUS MATERIALS**

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<th>ITEM</th>
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<tr>
<td>24</td>
<td>Commercially available thread seal tape</td>
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<tr>
<td>25</td>
<td>Commercially available and compatible silicone grout</td>
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</tbody>
</table>

**CONCRETE CLASS**

- **AMPS** 125 SARDA
- **ASPO** 3900 P (NYP)
SECTION A-A

NOTE:
- This drawing is not intended for manufacturing purposes.

Title: Centro Guarnizioni TIGER s.r.l
PROTECTION CAP O-RING
for 19AMTS15 PT SYSTEM

Material: NBR - according to FDoT Tab. 2.2.1.7-1 Sec. 960

Dimensions: INCH [mm]

Part #: 19-01-02
Code: OR 06820

Date: 08/23/2016

Drawn: L.CIVATI
Checked: T.CICCONE

TENSA AMERICA LLC - www.tensaamerica.com - PHONE: +1 305-866-9917
111 KANE CONCOURSE, Suite 200 - BAY HARBOR ISLAND - 33154 FL

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WEDGE PLATE for 19AMTS15 (19-06") Internal Bonded system

Material: Steel AISI C1045 Normalized
Treatment: -

Dimensions: [INCH] [mm] FOR REFERENCE ONLY

Date: 08/23/2016

Part #: I-19-02-00
Title: WEDGE PLATE for 19AMTS15 (19-06") Internal Bonded system

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SECTION A-A

Mark on outer side

Top inspection access

SECTION B-B

Front inspection access

Material: Ductile Iron ASTM A536 GR80-55-06
Treatment: Galvanization according to ASTM A123
Title: ANCHOR 19AMTS15 (19-0.6")

Dimensions: [INCH] [mm] FOR REFERENCE ONLY

Date: 12/14/2016
Rev. 0 First issue

Drawn: F. MORAGLIA
Checked: T. CICCONE

Part #: 19-03-00

Code: -
I have independently reviewed the calculations and testing reports, along with the documentation and certified that TENSA system spiral rebar detail meets the requirements as outlined in paragraph 3.3 PTI Anchorage Zone Design.

(*) Do not apply post-tensioning forces until the concrete mean compressive strength $f_{cm}$ is not less than the values shown in the present drawing.

NOTE: The local zone reinforcement is to be shown on the shop drawings.
TRUMPET for 19AMTS15
Standard fit for I-19-07-00 DUCT

Material: High Density Polyethylene - according to ASTM D3350

Part # : 19-06-00

Dimensions: [INCH [mm]

Date: 08/24/2016

Drawn: L.CIVATI
Checked: T.CICCONE

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NOTE:

- This drawing is not intended for manufacturing purposes.
Minimum radii of curvature determined as per FIB Bulletin 75, Annex A8

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<th>Strands Nr.</th>
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<th>18</th>
<th>19</th>
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<td>8896</td>
<td>8896</td>
<td>8896</td>
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<td>101.6</td>
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<tr>
<td>Filling rate</td>
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<td>2.95</td>
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<tr>
<td>Minimum radius [ft (m)]</td>
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<td>21.26 (6.48)</td>
<td>22.05 (6.72)</td>
<td>22.83 (6.96)</td>
<td>23.59 (7.19)</td>
</tr>
</tbody>
</table>

NOTE:
- All dimensions are measured;
- This drawing is not intended for manufacturing purposes;
- Duct is delivered in straight sections and is not intended to be coiled;
- Duct meets FDoT requirements in terms of Minimum Wall Thickness (Table 2.2.1.1-1 Section 960).

GTI DUCT 4.00" (100mm)
for Internal Bonded System
Standard fit for 19AMTS15

Material: Polypropylene - according to ASTM D4101

Print on Duct: "GTI GENERAL TECHNOLOGIES, INC. STAFFORD, TEXAS ___ U.S. & FOREIGN PATENTS P.N. 220410 100mm"
**SECTION/ELEVATION**

**SECTION A-A**

- This drawing is not intended for manufacturing purposes;
- Coupler meets or exceeds FDoT requirements (Section 960-2.2.1.5 and 2.4.4);
- Standard fit for 4.00" [100mm] corrugated plastic duct.

**Material:**
Polypropylene - according to ASTM D4101

**Treatment:**
- GTI SLIP-ON COUPLER
for INTERNAL PT SYSTEM
Standard fit for 19AMTS15

**NOTE:**

- **Material:**
  - Polypropylene - according to ASTM D4101
- **Treatment:**
  - GTI SLIP-ON COUPLER
    for INTERNAL PT SYSTEM
    Standard fit for 19AMTS15

**Dimensions:**

- INCH [mm]
  - 6.20" [157mm]
  - 1.92" [49mm]
  - 0.88" [22mm]
  - 0.57" [14mm]

**Part #: I-19-07-01**
**Code: 220415**

**Drawn:** L.CIVATI
**Checked:** T.CICCONE

**Date:** 08/24/2016

**Date:** 08/24/16

**Description:**

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NOTE:

- This drawing is not intended for manufacturing purposes;
- Coupler meets or exceeds FDoT requirements (Section 960-2.2.1.5 and 2.4.4);
- Standard fit for 4.00" [100mm] corrugated plastic duct.

GTI SLIP-ON COUPLER
W/ 21mm PORT
for INTERNAL PT SYSTEM
Standard fit for 19AMTS15

Material: Polypropylene - according to ASTM D4101

TENSA AMERICA LLC
1111 KANE CONCEURSE, S.TE 200 - BAY HARBOR ISLAND - 33154 FL
www.tensaamerica.com
PHONE: +1 305-866-9917

1.92" [49mm]
6.20" [157mm]

21mm grout fitting

welded

GTI SLIP-ON COUPLER

Date: 08/24/2016
Part #: I-19-07-02
Code: 220416

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**INSTALLATION**

**Surface Preparation**
1. Lightly abrade the coupler (or trumpet) and duct to a distance of 2 inches [50mm] beyond each end of the shrinksleeve.
2. Wipe clean the coupler (or trumpet) and duct to remove foreign contaminants. Ensure that the components are dry before cleaning.

**Installation**
3. Completely remove the inner release liner from the sleeve and center the shrinksleeve over the joint to be sealed.
4. Using the appropriate sized heat gun or torch, begin at the center of the shrinksleeve and heat circumferentially around the duct and coupler. Use broad strokes.
5. Continue heating from the center toward one end of the shrinksleeve until recovery is complete [sleeve has shrunk]. In a similar manner heat and shrink the remaining side.
6. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.
7. Allow the shrinksleeve to cool for two hours prior to usage.

**Inspection**
8. Check the full contact of sleeve with the coupler (or trumpet) and duct.
9. Check that adhesive flows beyond both sleeve edges.
10. Check that no cracks or holes are present in shrinksleeve backing.

**NOTE:**
- This drawing is not intended for manufacturing purposes;
- Heat shrink sleeve meets or exceeds FDoT requirements (Table 2.2.1.8-1 Section 960);
- Tabular sleeve diameter:
  - 5.5" [145mm] as supplied
  - 3.8" [98mm] fully recovered

---

**Title:** CANUSA-CPS HEAT SHRINK SLEEVE for INTERNAL PT SYSTEM

**Std. fit for 19AMTS15**

**Material:** Coated Polyolefin Backing - according to FDoT Tab.2.2.1.8-1 Sec.960

**Part #: 19-07-06**

**Code:** PLA-115-112-BK

**Dimensions:** 5.5" [145mm] as supplied

**Date:** 12/20/2017

**Drawn:** L.CIVATI

**Checked:** T.CICCONE

**Date:** 12/20/2017

**Dimensions:** 5.5" [145mm] as supplied

**Part #: 19-07-06**

**Code:** PLA-115-112-BK

**NOTE:**
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