**BILL OF MATERIALS**

### BILL OF MATERIALS

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<td>1&quot; Fitting</td>
<td>Polypropylene - according to ASTM D4101</td>
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<td>00-01-03</td>
<td>NPT Flange</td>
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**INTERMEDIATE COUPLING DETAILS**

**CAUTION**

Fixing To Formwork w/ welded grout port

Heat Shrink Sleeve Hose 21mm

Duct Coupler w/ Vent 0.83x2.83"

Duct Coupler 0.83x2.83" Duct 0.83x2.83"

NPT Ball Valve 3/4" NPT Plug 1/2" Protection Cap O-Ring Protection Cap Bolts Trumpet Adaptor 21mm-3/4" Vent Port 21mm PP

**STURRUPS**

BAR DIAMETER PITCH (P) MAX WIDTH (L2)

- #3 - 3/8" [9.5mm]
- 9-1/4" [235mm]
- 6-11/16" [170mm]
- 3500 PSI [24MPA]
- 6500 PSI [45MPA]

**DATE**

05/08/2018

**CHECKED**

T. C. INTERIM PT SYSTEM ASSEMBLY

**INSTRUCTION**

1. Preassemble anchor (AN) and plastic trumpet (PT) and seal the port with heat shrink sleeve (or, if possible, with heat shrink wrap).

2. Bolt the assembled AN to the pocket former using the two threaded holes located on the front surface of AN. AN shall be placed perpendicular to the tendon’s axis and with the heat shrink that points up.

3. The position of the stirrups (SR) shall be secured to the AN or the adjacent rebar by tack-welding or proper fixing. The SR shall be positioned such that it won’t interfere with 1/2" NPT pipe attachment if grout has hardened or with AN with AN.

4. Install the duct as shown on shop drawings, insert it into PT and seal it with duct heat shrink sleeve (or, if not possible, with heat shrink tape in order to prevent concrete from penetrating.

5. Carry out the pressure test. Controlling can now proceed.

6. After completion of concrete placement, remove the pocket former and check that duct is clear of any obstructions or damages and that all grout vents are free and secured.

7. Install strands by pushing or pulling individually or as a bundle into duct. Allow sufficient extra length at the active anchorage for stressing. The strand’s end can be completed before or after the concrete is placed.

8. Check the wedge clearances (WP) for rust and dirt. Clean wedge bolting with a wire brush if necessary. Lightly grease or oil wedge bolts.

9. Check wedge for rust. Discard rusty wedges and use only clean ones.

10. Install wedge plate, slip the wedges over the strands and securely place them into wedge holes.

11. Do not apply post-reinforcement forces until the concrete mean compressive strength is not less than the values shown on the dibbble table. These values refer to cylindrical strength.

12. Stressing can now proceed.

13. Appropriate clearance must be kept behind the hydraulic jack while stressing.

14. Stressing operation shall be executed according to the engineer’s form and may require the simultaneous reedling of pressure and elongation. Check the conformity of the final elongations measurement with prescribed values.

15. Install the protection cap (PC) with O-ring sealing on AN and WP using two bolts (some silicone grease shall be used to facilitate the compression of the O-ring).

16. Thread a 1/2" NPT pipe for grout onto the PC or the length of the NPT pipe for grout into AN. Use a 1/2" plug to ensure the holes on PC or AN are not used, except one hole on PC to allow the vent. (Some thread seal tape shall be used to improve the tightness of the threading).

17. Carry out the pressure test. Grouting can now proceed.

18. Grout shall be injected through the filler inlet until it escapes from the filler outlet. Special measures shall be applied for long tenders, for tenders with close high points or inclined tendons to avoid voids.

19. All vents and grouting obstructions have to be sealed with plugs soon after grouting.

20. Fill holes with non-shrink grout after post grouting operation and inspection are completed.
5/16"-18 UNC HEX BOLT,
3-1/4" LONG

5/16" TYPE A WIDE WASHER

0.312" [7.9mm]
0.541" [13.7mm]
0.219" [5.6mm]

The drawing contains proprietary information restricted solely for use on this project and may not be reproduced in whole or in part. For any other use without the expressed written permission of TENSA AMERICA LLC, the company will safeguard its rights according to the civil and penal provisions of the Law.
Material: Steel AISI C1045 Normalized

Treatment:

Title: WEDGE PLATE for 4APTS15 (4-0.6"

Date: 12/20/2016

Dimensions: INCH [mm] FOR REFERENCE ONLY

Part #: I-4-02-00

Checked: T.CICCONE

Drawn: L.CIVATI

Code: -

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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'c 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 4APTS15
Standard fit for I-4-07-00 DUCT

Material: High Density Polyethylene - according to ASTM D3350

Dimensions: INCH [mm]

Material: High Density Polyethylene - according to ASTM D3350

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Code: -

Drawn: L.CIVATI
Checked: T.CICCONE

Part #: I-4-06-00

CHECKED PROPERTY OF TENSA AMERICA LLC
Minimum radii of curvature determined as per FIB Bulletin 75, Annex A8

Minimum radius [ft (m)] 11.38 [3.47]

NOTE:

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

це, 1, 11.38 (3.47)

GTI DUCT 2.83x0.83" (72x21mm) for Internal Bonded System
Standard fit for 4APTS15

Material : Polypropylene - according to ASTM D4101
Treatment : -

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Date : 05/03/2018 Covered Property of TENSA AMERICA LLC
Dimensions : - MADE IN TURRENT TIMES
Part # : I-4-07-00 Code : 220100

NOTE:

· All dimensions are measured;
· This drawing is not intended for manufacturing purposes;
· Duct is delivered in straight sections or in coils;
· Duct meets FDoT requirements in terms of Minimum Wall Thickness (Table 2.2.1.1-1 Section 960).
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 2.83x0.83" [72x21mm] corrugated plastic flat duct.

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**GTI SLIP-ON COUPLER**

for INTERNAL PT SYSTEM

Standard fit for 4APTS15

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

**Dimensions:**

- **0.63"** [16mm]
- **0.69"** [17mm]
- **0.78"** [20mm]

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**First issue: 0**

**Drawn:** L.CIVATI

**Checked:** T.CICCONE

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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 2.83x0.83" [72x21mm] corrugated plastic flat duct.
### INSTALLATION

**Surface Preparation**

1. Lightly abrade the coupler (or trumpet) and duct to a distance of 2 inches [50mm] beyond each end of the shrink sleeve.

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 shrink sleeve over the joint to be sealed.

4. Using the appropriate sized heat gun or torch, begin at the center of the shrink sleeve and heat circumferentially around the duct and coupler. Use broad strokes.

5. Continue heating from the center toward one end of the shrink sleeve 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 shrink sleeve 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 shrink sleeve backing.

### Material:

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

### Treatment:

- CANUSA-CPS HEAT SHRINK SLEEVE

Standard fit for 4APTS15

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**NOTE:**

- The installation procedure is general; reference to manufacturer’s instruction manual for the detailed installation instructions;
- 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:
  - 3.5" [90mm] as supplied
  - 2.3" [55mm] fully recovered