WARNING:

CAUTION:

CAUTION:

MATERIAL LIST

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>MATERIAL SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>B32E CUT</td>
<td>1-1/4&quot; (32mm) THREADBAR</td>
<td>ASTM A722 TYPE II STEEL</td>
</tr>
<tr>
<td>B32E22510</td>
<td>6&quot;x7&quot;x1.5&quot; SQ. OR 5&quot;x8&quot;x1.75&quot; RECT. BEARING PL.</td>
<td>MECHANICAL TUBING AND BOLT HOLES, GALV. STEEL PLATE: ASTM A36, MECHANICAL TUBE: ASTM A512, A513 OR A519, ASSEMBLY GALVANIZED</td>
</tr>
<tr>
<td>B32E50700 NYLON BAR GROUT CAP WITH O-RING</td>
<td>NYLON 6, 20% GLASS FIBER FILLED</td>
<td></td>
</tr>
<tr>
<td>50 50 707 50 50 714 50 50 714 3/8&quot; WRENCH WASHERS</td>
<td>316L STAINLESS STEEL</td>
<td></td>
</tr>
<tr>
<td>B32E24210 1/14&quot; GROUTABLE ANCHOR NUT</td>
<td>FORGING, NORMALIZED C1045</td>
<td></td>
</tr>
<tr>
<td>50 50 549 3/8&quot; NPT PLUG</td>
<td>NYLON 6, WHITE</td>
<td></td>
</tr>
<tr>
<td>50 50 550 7/8&quot; NPT Nipple LENGTH AS REQD (TEMPORARY)</td>
<td>3/4&quot; BLK WELDED STEEL</td>
<td></td>
</tr>
<tr>
<td>50 50 570 5/8&quot; NPT Nipple LENGTH AS REQD (TEMPORARY)</td>
<td>5/8&quot; BLK WELDED STEEL</td>
<td></td>
</tr>
<tr>
<td>50 50 576 3/4&quot; NPT BALL VALVE (TEMPORARY)</td>
<td>PVC</td>
<td></td>
</tr>
<tr>
<td>50 50 534 3/8&quot; NPT BALL VALVE (TEMPORARY)</td>
<td>PVC</td>
<td></td>
</tr>
<tr>
<td>50 50 534 3/8&quot; NPT BALL VALVE (TEMPORARY)</td>
<td>PVC</td>
<td></td>
</tr>
<tr>
<td>U00252200 2-3/8&quot; (59mm) CORRUGATED DUCT</td>
<td>POLYPYRENE</td>
<td></td>
</tr>
<tr>
<td>U002522200 3/4&quot; (50mm) DUCT COUPLER</td>
<td>POLYPYRENE</td>
<td></td>
</tr>
<tr>
<td>U00404020 HEAT SHRINK SLEEVE, FMA-3015-0.50-KX</td>
<td>ACCORD TO FDOT SPEC. P.T. SEC. 960-2.2.1.9</td>
<td></td>
</tr>
<tr>
<td>AN5 TYPHOON TAPE OR PASTE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES:

1. USERS SHALL REFER TO FDOT STANDARD SPECIFICATIONS AND PROJECT SPECIFIC CRITERIA FOR TENDON INSTALLATION, STRESSING, & GROUTING.
2. REQUIRED REINFORCING BARS ARE NOT SHOWN ON THIS DRAWING.
3. MAXIMUM ANGULAR MISALIGNMENT WHEN USING ANCHOR NUT: ±2°.
4. CENTER TO CENTER, END AND EDGE DISTANCE DEPENDS ON THE LOCATION OF THE BAR AND CONCRETE STRENGTH, (SEE TABLE).
5. C/C DISTANCE = 2 X END DISTANCE - 2 X CONCRETE COVER (2" ASSUMED). TIGHTER C/C DISTANCE SHOULD BE EVALUATED.
6. DUCT IS DELIVERED IN STRAIGHT SECTIONS AND IS NOT INTENDED TO BE COILED.
7. BURSTING REINFORCEMENT IS NOT SHOWN AND WILL BE INCLUDED WITH THE SHOP DRAWINGS.
8. THREADBAR TENDONS ARE STRESSED FROM ONE END ONLY.

CAUTION:

WARNING:
RIGHT HAND THREAD

<table>
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</tr>
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<tbody>
<tr>
<td>FOR BARE BAR: B32E CUT</td>
<td>ASTM A722 TYPE II</td>
</tr>
</tbody>
</table>

**PHYSICAL PROPERTIES**

- **EFFECTIVE AREA:** 1.25 SQ.IN.
- **ULTIMATE STRENGTH:** 150 KSI
- **ULTIMATE LOAD:** 187.5 KIPS
- **YIELD LOAD:** 151.2 KIPS
- **WEIGHT:** 4.39 LBS./FT.
- **MAX. BAR Ø INCL. RIBS:** 1.44 IN.
- **AVERAGE CORE Ø:** 1.26 IN.
- **PITCH:** 0.630 IN.
PLATE MATERIAL: ASTM A36
MECHANICAL TUBE MATERIAL
SHALL BE A512, A513 OR A519

SQUARE BEARING PLATE WITH EXIT PIPE
FOR 1-1/4" THREADBAR

3/8"-16UNC DRILLED & TAPPED
1" [25.4] DEEP, 4x90° PLACES

5.500 [139.7]

WATERTIGHT
3/4" NPT
HALF COUPLER
BLACK STEEL

2-1/4" x 3/16" WALL
MECHANICAL TUBING

"DSI" & PART NUMBER
(MARKINGS)

NOTES:
1. PLATE AND PIPE GALVANIZED ACCORDING TO
   TO ASTM A123 AFTER WELDING.
2. DIMENSIONS AND TOLERANCES APPLY TO
   UNCOATED PLATE AND TUBING.
3. ENSURE THREADABILITY OF TAPPED HOLES IN
   PLATES IF THEY ARE REQUIRED.
4. 59mm DUCT U00220200 FITS OVER TUBING.
PLATE MATERIAL: ASTM A36
MECHANICAL TUBE MATERIAL
SHALL BE AS12, AS13 OR AS19

3/8"-16UNC DRILLED & TAPPED
1" [25.4] DEEP, 4x90° PLACES

WATERTIGHT
3/4" NPT
HALF COUPLER
BLACK STEEL

2-1/4" x 3/16" WALL
MECHANICAL TUBING

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DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.
320 MARMON DRIVE - BOLINGBROOK, IL 60440
PHONE: 630-739-1100 FAX: 630-739-1405
WASHER FOR NYLON CAPS
STAINLESS STEEL 316L BOLTS AND WASHER FOR NYLON CAPS

<table>
<thead>
<tr>
<th>POS.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION (ALL PARTS 316L STAINLESS STEEL UNLESS NOTED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>00 00 771</td>
<td>3/8&quot;-16UNC HEX BOLT, 2-3/4&quot; LONG (1&quot; LONG THREAD)</td>
</tr>
<tr>
<td>2</td>
<td>00 00 772</td>
<td>3/8&quot;-16UNC HEX BOLT, 3-1/2&quot; LONG (1&quot; LONG THREAD)</td>
</tr>
<tr>
<td>3</td>
<td>00 00 774</td>
<td>TYPE A NARROW WASHER FOR 3/8&quot;-UNC BOLT</td>
</tr>
<tr>
<td>4</td>
<td>00 00 776</td>
<td>3/8&quot;-16UNC COUPLER, ZINC COATED</td>
</tr>
<tr>
<td>5</td>
<td>00 00 777</td>
<td>3/8&quot;-16UNC HEX NUT</td>
</tr>
<tr>
<td>6</td>
<td>00 00 778</td>
<td>5/16&quot;-18UNC HEX BOLT, 7/8&quot; LONG, ZINC PLATED</td>
</tr>
<tr>
<td>7</td>
<td>00 00 783</td>
<td>3/8&quot;-16UNC HEX BOLT, 3-1/4&quot; LONG (1&quot; LONG THREAD)</td>
</tr>
<tr>
<td>8</td>
<td>00 00 784</td>
<td>3/8&quot;-16UNC HEX BOLT, 4-1/4&quot; LONG (FULL THREAD)</td>
</tr>
<tr>
<td>9</td>
<td>00 00 789</td>
<td>3/8&quot;-16UNC CARRIAGE BOLT, 4-1/2&quot; LONG</td>
</tr>
<tr>
<td>10</td>
<td>00 00 790</td>
<td>3/8&quot;-16UNC CARRIAGE BOLT, 5-1/2&quot; LONG</td>
</tr>
</tbody>
</table>

NOTE:
THE 316L S.S. BOLTS ARE SPECIAL ORDER.
ALL WASHERS, HEX NUTS & COUPLERS HAVE NO markings.
GROUTABLE ANCHOR NUTS
FOR 1-1/4" Ø BAR, 150 KSI

DIMENSIONS: INCHES

2.840
72.1

3.150
80.0

2.225
56.5

MINOR DIA.

THREAD ACCORDING TO
TOLERANCE DRAWING
8341/754

MINOR DIAMETER:
SPECIFIED IN TABLE
SPECIFIED IN TABLE

DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.
320 MARMON DRIVE - BOLINGBROOK, IL 60440
PHONE: 630-739-1100 FAX: 630-739-1405
1/2" NPT NYLON PLUG

MATERIAL: NYLON 6
COLOR: WHITE

PRESSURE RATED: 150 PSI
1/2" NPT PIPE NIPPLES

LENGTH VARIES

1/2" NPT THREAD TYP.

PRESSURE RATED: 150 PSI

DIMENSIONS: INCH [mm]
QUALITY PLAN NUMBER: Q000000020P

MATERIAL: SCH 40 BLACK WELDED STEEL
SCALE 1:1

REV. DATE NAME

PART NUMBER: 00 00 678

DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.
320 MARMON DRIVE - BOLINGBROOK, IL 60440
PHONE: 630-739-1100 FAX: 630-739-1405
3/4" NPT PIPE NIPPLES

PRESSURE RATED: 150 PSI

MATERIAL: SCH 40 BLACK WELDED STEEL
SCALE: 1:1

Dywidag-Systems International, USA, Inc.
320 Marmion Drive - Bolingbrook, IL 60440
Phone: 630-739-1100  Fax: 630-739-1405
3/4" NPT NYLON PLUG

Pressure Rated: 150 PSI

Material: Nylon 6
Color: White

Dimensions:
- 1.125 [28.6] HEX
- 0.750 [19.1]
- 0.625 [15.9]
- 0.875 [22.2]
- 3/4"-NPT Thread
1/2" NPT BALL VALVE

NOTE:
PRESSURE RATED: 150 PSI.
NOTE:
PRESSURE RATED: 150 PSI.
2-3/8" (59mm) CORRUGATED PP DUCT

DIMENSIONS INCH (mm)

ø2.874
ø73.0
ø3.233
ø59.0

.080
2.0

1.654
42.0

.512
13.0

60°±0.5

DETAIL
SCALE 1:1

MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
MATERIAL MEETS FDOT SPECS. 960-2.4.3.

NOTES:
1. STANDARD FIT FOR 5-0.6", 7-0.5", 7-0.6" & 9-0.5" STRANDS AND 1", 1-1/4", & 1-3/8" THREADBARS.
2. MIN. BENDING RADIUS, Rmin = 22.8 FT.
3. DUCT IS DELIVERED IN STRAIGHT SECTIONS AND IS NOT INTENDED TO BE COILED.
MATERIAL: POLYPROPYLENE
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884
MATERIAL MEETS FDOT SPECS. 960-2.4.3.
**STANDARD ORDERING OPTIONS**

<table>
<thead>
<tr>
<th>COLOR</th>
<th>SLEEVE WIDTH</th>
<th>SLEEVE SIZE</th>
<th>ADHESIVE (thickness as supplied)</th>
<th>BACKING (thickness as supplied)</th>
<th>CONFIGURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>YE - YELLOW, BK - BLACK</td>
<td>300mm, 450mm, 600mm, 900mm (12&quot;, 18&quot;, 24&quot;, 36&quot;)</td>
<td>63mm -315mm (2-1/2&quot; - 12&quot;)</td>
<td>A - 0.75 mm (30 mils)</td>
<td>L - 0.80 mm (31 mils)</td>
<td>P - Tubular</td>
</tr>
</tbody>
</table>

**TUBULAR SLEEVE As SUPPLIED FULLY RECOVERED**

<table>
<thead>
<tr>
<th>TUBULAR SLEEVE</th>
<th>TUBULAR SLEEVE DIAMETER</th>
<th>YE - YELLOW, BK - BLACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA 63-YYY YE</td>
<td>3.5&quot; [90mm]</td>
<td>2.5&quot; [63mm]</td>
</tr>
<tr>
<td>PLA 90-YYY YE</td>
<td>4.8&quot; [120mm]</td>
<td>3.3&quot; [81mm]</td>
</tr>
<tr>
<td>PLA 115-YYY BK</td>
<td>5.5&quot; [145mm]</td>
<td>3.8&quot; [98mm]</td>
</tr>
<tr>
<td>PLA 125-YYY YE</td>
<td>6.3&quot; [160mm]</td>
<td>4.3&quot; [110mm]</td>
</tr>
<tr>
<td>PLA 150-YYY BK</td>
<td>7.5&quot; [190mm]</td>
<td>5.2&quot; [130mm]</td>
</tr>
<tr>
<td>PMA 90/30-YYY BK</td>
<td>3.5&quot; [90mm]</td>
<td>1.2&quot; [30mm]</td>
</tr>
<tr>
<td>PMA 120/40-YYY BK</td>
<td>4.7&quot; [120mm]</td>
<td>1.6&quot; [40mm]</td>
</tr>
</tbody>
</table>

YY = SLEEVE WIDTH: 300/450/600/900/1500(mm)

COLOR: YE = YELLOW; BK = BLACK

**MATERIAL:**

ACCORDING TO FDOT SPECIFICATION
POST TENSIONING, SECTION 462 - 4, 2, 6, 3.

**NOTES:**

1. ORDER DIRECT FROM CANUSA
TEL. 281 367 - 8866
FAX. 281 367 - 4304
2. SELECT ORDER LENGTH AS A MULTIPLE OF THE ACTUAL LENGTH.
3. OTHER COLORS SLEEVE MAY BE AVAILABLE UPON REQUEST.
4. ALWAYS HEAT THE DUCT ENDS FIRST.

**HEAT SHRINK SLEEVE SIZES FOR INTERNAL GROUTED APPLICATIONS**

**CORRUGATED DUCT**

<table>
<thead>
<tr>
<th>DUCT SIZE</th>
<th>STRAND SYSTEM</th>
<th>BAR SYSTEM</th>
<th>HEAT SHRINK SLEEVE SIZE</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; x 3&quot; (25mm x 76mm)</td>
<td>4-0.6&quot;</td>
<td>4-0.6&quot;</td>
<td>PLA-63-450 YE</td>
<td>U00044063</td>
</tr>
<tr>
<td>2-3/8&quot; (58mm)</td>
<td>7-0.6&quot;</td>
<td>1&quot;, 1-1/4&quot;, 1-3/8&quot;</td>
<td>PMA-90/30-450 BK</td>
<td>U00044030</td>
</tr>
<tr>
<td>3&quot; (76mm)</td>
<td>1-3/4&quot;</td>
<td>PMA-120/40-450 BK</td>
<td>U00044040</td>
<td></td>
</tr>
<tr>
<td>3-3/8&quot; (85mm)</td>
<td>12-0.6&quot;</td>
<td>PLA-90-450 YE</td>
<td>U00044090</td>
<td></td>
</tr>
<tr>
<td>4&quot; (100mm)</td>
<td>2-1/2&quot;</td>
<td>PLA-90-450 YE</td>
<td>U00044090</td>
<td></td>
</tr>
<tr>
<td>4&quot; (100mm)</td>
<td>19-0.6&quot;</td>
<td>PLA-115-450 BK</td>
<td>U00044115</td>
<td></td>
</tr>
<tr>
<td>4-1/2&quot; (113mm)</td>
<td>27-0.6&quot;</td>
<td>PLA-120-450 YE</td>
<td>U00044125</td>
<td></td>
</tr>
<tr>
<td>5-1/8&quot; (130mm)</td>
<td>31-0.6&quot;, 37-0.6&quot;</td>
<td>PLA-160-450 BK</td>
<td>U00044160</td>
<td></td>
</tr>
</tbody>
</table>

**SMOOTH DUCT**

<table>
<thead>
<tr>
<th>DUCT SIZE</th>
<th>STRAND SYSTEM</th>
<th>BAR SYSTEM</th>
<th>HEAT SHRINK SLEEVE SIZE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3&quot; SDR 17 HDPE PIPE</td>
<td>1-3/8&quot;</td>
<td>1-3/8&quot;</td>
<td>PLA-63-450 YE</td>
<td>U00044063</td>
</tr>
</tbody>
</table>

**HEAT SHRINK SLEEVE SPECIFICATIONS**

- **PMA** - HIGH SHRINK SLEEVE.
- **HIGH SHRINK TUBULAR BACKING.**

**STANDARD ORDERING OPTIONS**

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YY = SLEEVE WIDTH: 300/450/600/900/1500(mm)

COLOR: YE = YELLOW; BK = BLACK

**MATERIAL:**

ACCORDING TO FDOT SPECIFICATION
POST TENSIONING, SECTION 462 - 4, 2, 6, 3.

**NOTES:**

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**HEAT SHRINK SLEEVE SIZES FOR INTERNAL GROUTED APPLICATIONS**

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<td>U00044030</td>
</tr>
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<td>3&quot; (76mm)</td>
<td>1-3/4&quot;</td>
<td>PMA-120/40-450 BK</td>
<td>U00044040</td>
<td></td>
</tr>
<tr>
<td>3-3/8&quot; (85mm)</td>
<td>12-0.6&quot;</td>
<td>PLA-90-450 YE</td>
<td>U00044090</td>
<td></td>
</tr>
<tr>
<td>4&quot; (100mm)</td>
<td>2-1/2&quot;</td>
<td>PLA-90-450 YE</td>
<td>U00044090</td>
<td></td>
</tr>
<tr>
<td>4&quot; (100mm)</td>
<td>19-0.6&quot;</td>
<td>PLA-115-450 BK</td>
<td>U00044115</td>
<td></td>
</tr>
<tr>
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<td>PLA-120-450 YE</td>
<td>U00044125</td>
<td></td>
</tr>
<tr>
<td>5-1/8&quot; (130mm)</td>
<td>31-0.6&quot;, 37-0.6&quot;</td>
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<td>U00044160</td>
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<td>1-3/8&quot;</td>
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