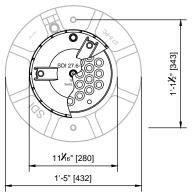


| <u>ITEM</u> | PART NUMBER | DRAWING | DESCRIPTION | MATERIAL |
|-------------|-------------|------------|--|---|
| 1 | 71012 | SDI-HD-061 | SDI 27.6 ANCHOR HEAD | ASTM A 536 GR. 80-55-06 |
| 2 | 72009 | SDI-HD-062 | SDI 27.6-PC BEARING PLATE | ASTM A 536 GR. 80-55-06 (GALVANIZED) |
| 3 | 76008 | SDI-HD-236 | O-RING SEAL | BUNA-N PER ASTM D2240, & D412 |
| 4 | 73006 | SDI-HD-063 | SDI 27.6 TRUMPET | HIGH DENSITY POLYETHYLENE PER ASTM D3350 |
| 5 | 74016 | SDI-HD-164 | STANDARD 27.6-PC6 SPIRAL | GRADE 60 STEEL PER ASTM A815 |
| 6 | 75005 | SDI-HD-064 | SDI 27.6-PC PERMANENT GROUT CAP | NYLON PER ASTM D5989 |
| 7 | 76002 | SDI-HD-236 | O-RING SEAL | BUNA-N PER ASTM D2240, & D412 |
| 8 | 77007 | SDI-HD-151 | (3) ½" x 3" BOLTS & WASHERS | STAINLESS STEEL, TYPE 316 |
| 9 | 76022 | SDI-HD-236 | O-RING SEAL | BUNA-N PER ASTM D2240, &D412 |
| 10 | 21001 | SDI-HD-148 | 0.6" STRAND | 270KSI STEEL PER ASTM A416, LOW RELAXATION |
| 11 | 81001 | SDI-HD-021 | SDI 0.6" STANDARD 2-PART WEDGE | AISI 11L17 OR 12L14 |
| 12 | 52010 | SDI-HD-337 | 1/2" NPT BALL VALVE (TEMPORARY) | BRASS |
| 13 | 52009 | SDI-HD-271 | 1" NPT BALL VALVE (TEMPORARY) | BRASS |
| 14 | 52010 | SDI-HD-272 | ¾" NPT BALL VALVE (TEMPORARY) | BRASS |
| 15 | 53013 | SDI-HD-366 | 1" NPT FEMALE TO MALE 90° ELBOW | STEEL PER ASTM A53 |
| 16 | 33006 | SDI-HD-043 | 4.5" (114mm) SLIP-ON DUCT COUPLER | POLYPROPYLENE PER ASTM D4101 |
| 17 | 37008 | SDI-HD-367 | KLNN HEAT SHRINK TUBING | ADHESIVE LINED POLYOLEFIN |
| 18 | 33116 | SDI-HD-137 | SDI 4.5" COUPLER SLIDE HOUSING | POLYPROPYLENE PER ASTM D4101 |
| 19 | 33118 | SDI-HD-140 | SDI 4.5" COUPLER SEAL | BUNA-N PER ASTM D2240, & D412 |
| 20 | 33115 | SDI-HD-136 | SDI 4.5" COUPLER WELDED HOUSING | POLYPROPYLENE PER ASTM D4101 |
| 21 | 35003 | SDI-HD-073 | 4.5" (114mm) HDPE PIPE | HIGH DENSITY POLYETHYLENE PER ASTM D2513, F1055 |
| 22 | 55004 | SDI-HD-257 | SDI GROUT PORT PLUG | POLYPROPYLENE PER ASTM D4101 |
| 23 | 57004 | SDI-HD-172 | ¾" (23mm) WELDABLE GROUT PORT | HIGH DENSITY POLYETHYLENE PER ASTM D2513, F1055 |
| 24 | 53011 | SDI-HD-222 | ½" (13mm) NPT COUPLER (TEMPORARY) | POLYPROPYLENE PER ASTM D4101 |
| 25 | 55001 | SDI-HD-156 | ¾" (23mm) PLUG | POLYPROPYLENE PER ASTM D4101 |
| 26 | 53014 | SDI-HD-365 | ½" NTP MALE BARBED HOSE ADAPTOR (TEMPORARY) | BRASS |
| 27 | 59001 | SDI-HD-364 | CLEAR HIGH TEMP. VACUUM TUBE (TEMPORARY) | FLUORINATED ETHYLENE PROPYLENE |
| 28 | 55023 | SDI-HD-361 | ¾" NPT CAP | POLYPROPYLENE PER ASTM D4101 |
| 29 | 55022 | SDI-HD-360 | ½" NPT CAP | POLYPROPYLENE PER ASTM D4101 |
| 30 | 51005 | SDI-HD-363 | ¾" NPT PIPE NIPPLE (TEMPORARY) | STEEL PER ASTM A53 |
| 31 | 51003 | SDI-HD-269 | 1" NPT PIPE NIPPLE (TEMPORARY) | STEEL PER ASTM A53 |
| 32 | 0000T | N/A | TEFLON TAPE (TEMPORARY) | TEFLON |
| 33 | 0000G | N/A | COMMERCIALLY AVAILABLE/COMPATIBLE LITHIUM GREASE | LITHIUM |
| 34 | 0000E | N/A | COMMERCIALLY AVAILABLE/COMPATIBLE EPOXY | EPOXY |

* ALL NON-FERROUS COMPONENTS CONTAIN VIRGIN MATERIAL



STEP-BY-STEP SYSTEM INSTALLATION PROCEDURE
STEP 1: HANG BEARING PLATE WITH 2 EACH ½" ALL THREAD. PLACE SO GROUT PORT IS IN 11 O'CLOCK OR 12 O'CLOCK POSITION.

STEP 2: PLACE O-RING IN LARGE CORRUGATION OF TRUMPET. (SEE NOTE: a)

TURN TRUMPET INTO BEARING PLATE AND ENSURE GROUT PORT HOLES LINE UP. USE STRAP WRENCH IF NECESSARY.

STEP 4: HANG SPIRAL 1" BEHIND BEARING PLATE. ENSURE SPIRAL IS CONCENTRIC AND PARALLEL TO PATH OF TENDON.

STEP 5: CONNECT PIPE TO TRUMPET.

IF USING SLIP COUPLER FOR CONNECTION:

1. SLIDE SLIP COUPLER OVER TRUMPET AND DUCT.

2. INSTALL CORRECT SIZE AND LENGTH OF HEAT SHRINK PER MANUFACTURER'S RECOMMENDATIONS.

STEP 7: PERFORM VACUUM TEST PER FDOT 462-8.2.1.2

STEP 8: INSTALL STRAND, LEAVE SUFFICIENT STRAND FOR STRESSING EQUIPMENT.

STEP 9: PLACE ANCHOR HEAD ENSURE ANCHOR HEAD WEDGE CAVITIES ARE RUST FREE AND CLEAN PRIOR TO WEDGE INSTALLATION.

STEP 10: ALIGN ANCHOR HEAD SO THAT TAPPED HOLE IS IN 1 O'CLOCK POSITION. AVOID CROSSING STRANDS. STEP 11: PUSH WEDGES OVER STRAND AND AGAINST INTO THE ANCHOR HEAD WEDGE CAVITIES USING A 3/4" PIPE

STEP 12: STRESS TENDONS AFTER CONCRETE HAS REACHED REQUIRED STRENGTH PER DRAWINGS AND/OR SPECIFICATION.

STEP 13: AFTER STRESSING AND APPROVAL FROM OWNERS REPRESENTATIVE, CUT STRAND TAILS 1" FROM FACE OF ANCHOR HEAD.

STEP 14: INSTALL VENTS. (SEE NOTE b)

STEP 15: INSTALL PERMANENT CAP BY TORQUEING BOLTS IN A STAR PATTERN TO 20 FT-LB. (SEE NOTE c)

STEP 16: PERFORM PRESSURE TEST PER FDOT 462-8.2.1.2

STEP 17: INSTALL TEMPORARY WAX INJECTION HARDWARE.

STEP 18: INJECT WAX PER WAX INJECTION PROCEDURE.

STEP 19: REMOVE ALL TEMPORARY HARDWARE ONCE WAXING PROCEDURE IS COMPLETE AND CAP OR PLUG PORTS PER DRAWINGS.

NOTES:

- LUBRICATE ALL O-RINGS FOR EASE OF INSTALLATION.
 EPOXY IS TO BE USED ON EVERY PERMANENT GROUT HOSE/COUPLER/PLUG THREADS, TEFLON TAPE IS TO BE USED ON EVERY TEMPORARY GROUT HOSE/COUPLER/PLUG THREADS. THREAD INTO ALL CONNECTIONS. DO NOT INJECT THROUGH VENTS.
- MAKE SURE O-RING AND WASHER IS INSTALLED WITH GROUT CAP BOLT. VENTS SHOWN FOR REFERENCE ONLY. FOR ACTUAL LOCATION, SEE PLACING DRAWINGS. VENT CAN BE ORIENTED TO ACT AS
- SEE SEGMENT COUPLER INSTALLATION PLAN FOR PARTS AND ASSEMBLY INFORMATION.
 FOLLOW BUTT FUSION PROCEDURE FOR ALL BUTT JOINTS PER MANUFACTURER'S INSTALLATION PROCEDURE.
- STEP-BY-STEP INSTALLATION PROCEDURE ARE GENERIC, FOLLOW FDOT AND PROJECT SPECIFICATION REQUIREMENTS. REFERENCE FDOT STANDARD PLANS 462-003 FOR POST-TENSIONING ANCHORAGE AND TENDON FILLING DETAIL.
- TENDON FILLER MATERIAL IS WAX.
- PERMANENT CAP AND ASSOCIATED HARDWARE ARE FOR VENTING ONLY. DO NOT INJECT THROUGH PERMANENT CAP.

L UNBONDE SYSTEM INTERNAL | LE FILLER S ഗ

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SDI-HD-351

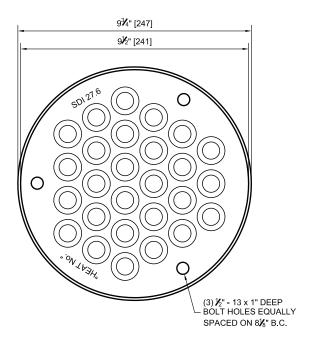
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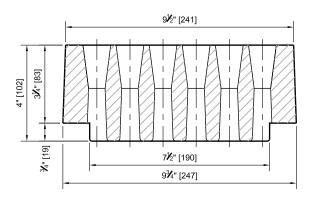
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SDI 27.6 ANCHOR HEAD

PART NO.: 71012

MATERIAL: ASTM A 536 GR. 80-55-06 MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 3" = 1'-0"

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SDI 27.6 ANCHOR HEAD

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 DRAWING No:
 SDI-HD-061

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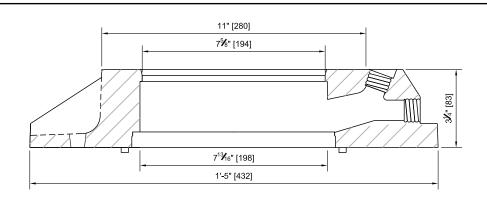
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 \$AN JOSE, CA 95136
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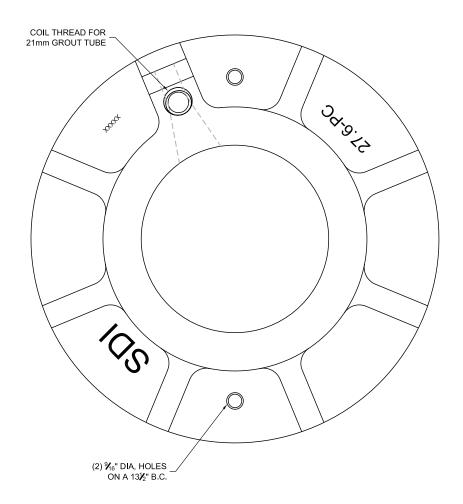
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| Div | DICAVING NO. GDI-11D-001 | | | | | | |
|-----|--------------------------|-------|---------|----------|----------|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | |
| 0 | RELEASE | ТНТ | MCS | MCS | 12/29/11 | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | |
| | | | | | | | |
| | | | | | | | |





SDI 27.6-PC BEARING PLATE

PART NO.: 72009

MATERIAL: ASTM A 536 GR. 80-55-06 (GALVANIZED)

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 3" = 1'-0"

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SDI 27.6-PC BEARING PLATE

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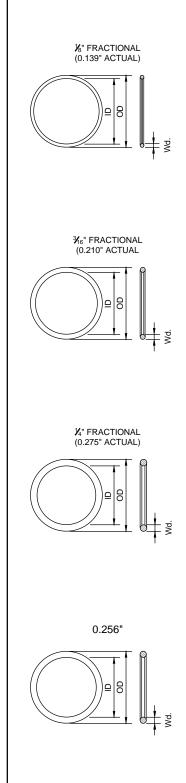
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| Div | DRAWING NO. OBI-11D-002 | | | | | | |
|-----|-------------------------|-------|---------|----------|----------|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | |
| 0 | RELEASE | THT | MCS | MCS | 12/29/11 | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | |
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| PART NO. | DASH NO. | FRACTIONAL SIZE, ID x OD | ACTUAL SIZE ID x OD | WIDTH | DUROMETER |
|----------|----------|-----------------------------|------------------------|--|-----------|
| 76022 | 2-204 | %" × %" | 0.359" x 0.637" | ½" FRACTIONAL (0.139" ACTUAL) | 70 |
| 76023 | 2-206 | ½" x ¾" | 0.484" x 0.762" | ⅓" FRACTIONAL (0.139" ACTUAL) | 70 |
| 76019 | 2-339 | 31⁄4" x 35⁄8" | 3.225" x 3.645" | ¾ ₆ " FRACTIONAL (0.210" ACTUAL) | 70 |
| 76014 | 2-407 | 2 ½ " x 2¾" | 2.225" x 2.775" | ¼" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76016 | 2-415 | 3 ½ " x 3¾" | 3.225" x 3.775" | ¼" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76017 | 2-422 | 4½" x 45%" | 4.100" x 4.650" | 1/4" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76018 | 2-427 | 4¾" x 5¼" | 4.725" x 5.275" | ½ " FRACTIONAL (0.275" ACTUAL) | 70 |
| 76025 | 2-432 | 5 % " x 5 ½ " | 5.350" x 5.900" | ¼" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76008 | 2-435 | 5 ¾ " × 6 ¼ " | 5.725" x 6.275" | ¼" FRACTIONAL (0.275" ACTUAL) | 40 |
| 76009 | 2-440 | 6 ¾ " × 7 ¼ " | 6.725" x 7.275" | ½ " FRACTIONAL (0.275" ACTUAL) | 40 |
| 76010 | 2-442 | 7½" x 7¾" | 7.225" x 7.775" | ½" FRACTIONAL (0.275" ACTUAL) | 40 |
| 76002 | 2-444 | 7 ¾ " x 8 ¼ " | 7.725" x 8.275" | ½" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76011 | 2-445 | 8" x 8½" | 7.975" x 8.525" | 光" FRACTIONAL (0.275" ACTUAL) | 40 |
| 76026 | 2-446 | 8½" x 9" | 8.475" x 9.025" | パ" FRACTIONAL (0.275" ACTUAL) | 40 |
| 76004 | 2-448 | 9 ½ " x 10" | 9.475" x 10.025" | ½" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76024 | 2-452 | 11 ½ " x 12" | 11.475" x 12.025" | ¼" FRACTIONAL (0.275" ACTUAL) | 70 |
| 76003 | CUSTOM | - | 8.747" x 9.259" | 0.256" | 70 |
| 76005 | CUSTOM | - | 10.226" x 10.738" | 0.256" | 70 |
| 76029 | 2-228 | 2 ½ " x 2 ½ " | 2.250" x 2.500" | %4" FRACTIONAL (0.139" ACTUAL) | 70 |
| 76030 | 2-425 | 4 ½ " x 5" | 4.475" x 5" | パ" FRACTIONAL (0.275" ACTUAL) | 70 |

STANDARD O-RINGS

MATERIAL: BUNA-N
MATERIAL MEETS ALL SPECIFICATIONS.

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STANDARD O-RINGS

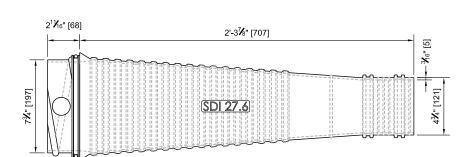
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| DF | RAWING No: SDI- | HD-236 | | | |
|----|-----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | MHA | MSC | MSC | 01/15/15 |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 2 | UPDATE | CSM | MSC | MSC | 06/07/16 |
| 3 | UPDATE | JSA | MSC | MSC | 06/20/18 |



SDI 27.6 TRUMPET

PART NO.: 73006 MATERIAL: HDPE

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1-1/2" = 1'-0"

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SDI 27.6 TRUMPET

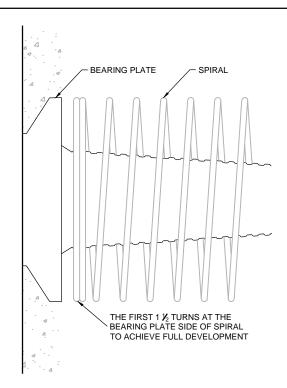
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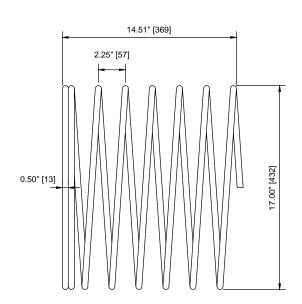


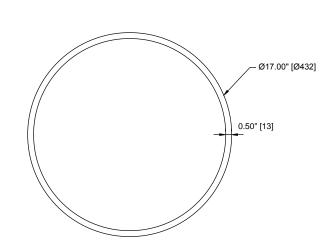
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| DR | DRAWING No: SDI-HD-063 | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | |
| 0 | RELEASE | тнт | MCS | MCS | 12/29/11 | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | |
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SDI 27.6-PC6 SPIRAL

PART NO.: 74016

MATERIAL: GRADE 60 STEEL ACCORDING TO ASTM A615

#4 REBAR - 17" O.D. 7.7 TURNS AT 2.25" PITCH

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1-1/2" = 1'-0"

NOTE: PROJECT SPECIFIC REQUIREMENTS WILL SUPERSEDED BURSTING STEEL REQUIREMENTS OF THIS SHEET

FOR USE WHEN CONCRETE STRENGTH AT TIME OF STRESSING IS 6,000 PSI OR HIGHER.

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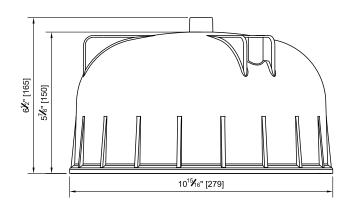
SDI 27.6-PC6 SPIRAL

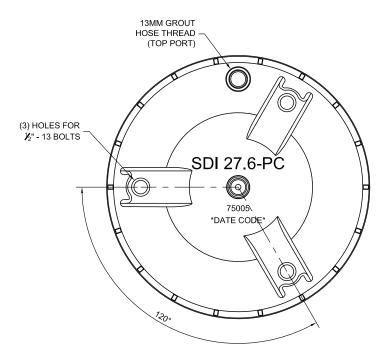
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| DF | RAWING No: SDI- | HD-164 | | | |
|----|-----------------|--------|---------|----------|------------------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | МНА | MSC | MSC | 04/02/14 |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 2 | UPDATE | JSA | MSC | MSC | 08/16/18 |
| | | | | | , and the second |





SDI 27.6-PC PERMANENT GROUT CAP

PART NO.: 75005

MATERIAL: NYLON 66, 30% GLASS FILLED MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 3" = 1'-0"

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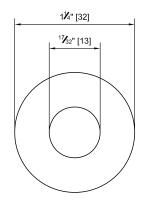
SDI 27.6-PC PERMANENT **GROUT CAP**

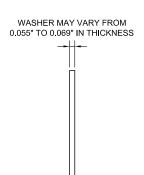
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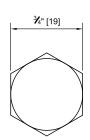


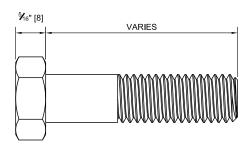
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| DR | DRAWING No: SDI-HD-064 | | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | |
| 1 | ORING CALLOUT | THT | MCS | MCS | 05/22/12 | | | | |
| 2 | REVISION | THT | MCS | MCS | 06/22/12 | | | | |
| 3 | UPDATE | MHA | JMY | JMY | 10/13/14 | | | | |
| 4 | UPDATE | CSM | MSC | MSC | 05/26/15 | | | | |









1/2"-13 BOLT & WASHER

PART NO.: 77007 - SDI 27.6-PC PERMANENT CAP BOLTS 77009 - SDI 31.6-PC PERMANENT CAP BOLTS

MATERIAL: STAINLESS STEEL, TYPE 316 ACCORDING TO ASTM F593

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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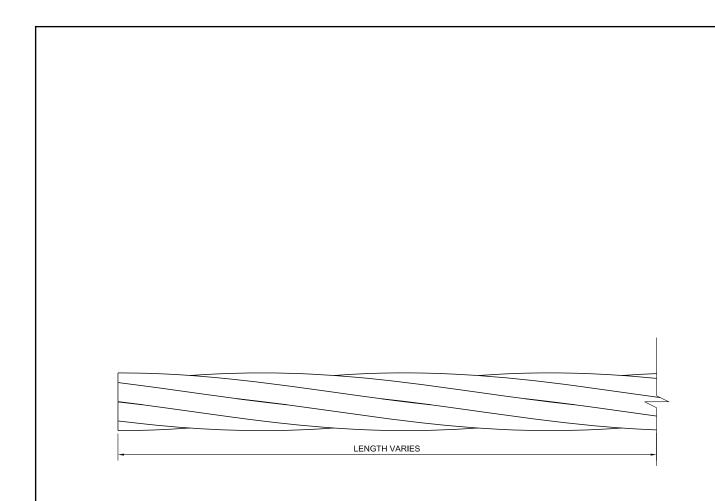
1/2"-13 BOLT & WASHER

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| DRAWING No: SDI-HD-151 | | | | | | |
|------------------------|-----------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | МНА | MSC | MSC | 04/02/14 | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | |
| | | | | | | |
| | | | | | | |





0.6" BARE STRAND

PART NO.: 21001

MATERIAL: 270 KSI LOW RELAXATION STEEL ACCORDING TO ASTM A416

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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0.6" BARE STRAND

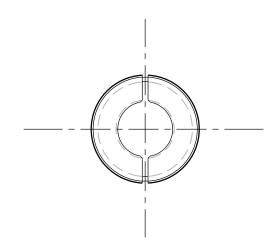
SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY

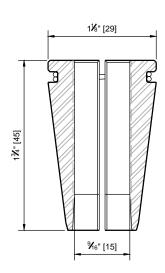


SCHWAGER DAVIS, INC.
DESIGN-BUILD CONTRACTOR
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SAN JOSE, CA 95136
PHONE: 408.281.9300
FAX: 408.281.9301

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| DR | DRAWING No: SDI-HD-148 | | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | |
| 0 | RELEASE | МНА | MSC | MSC | 04/02/14 | | | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | | | |
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SDI 0.6" WEDGE (2-PART)

PART NO.: 81001

MATERIAL: AISI 11L17 OR 12L14 MATERIAL MEETS ALL SPECIFICATIONS. PART IDENTIFICATION MARKED ON CONTAINER

SCALE: 1'-0" = 1'-0"

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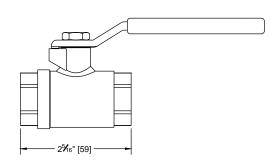
SDI 0.6" WEDGE (2-PART)

SCHWAGER DAVIS, INC. **POST-TENSION** SYSTEM LIBRARY



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| DR | AWING No: SDI- | HD-021 | | | |
|----|----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | MCS | GAS | MCS | 03/14/11 |
| 1 | COMMENTS | CMS | MCS | MCS | 07/05/13 |
| 2 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 3 | UPDATE | JSA | MSC | MSC | 06/14/18 |





1/2" NPT BALL VALVE (TEMPORARY)

PART NO.: 52010 MATERIAL: BRASS PRESSURE RATING 150 PSI MATERIAL MEETS ALL SPECIFICATIONS. SCALE: 6" = 1'-0"

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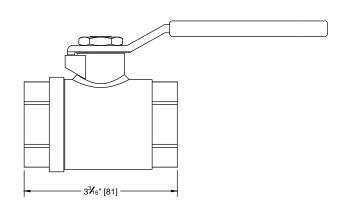
1/2" NPT BALL VALVE (BRASS)

SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY



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SAN JOSE, CA 95136
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| DR | DRAWING No: SDI-HD-337 | | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | |
| 0 | RELEASE | CSM | MSC | MSC | 06/07/16 | | | | |
| 1 | RELEASE | JSA | MSC | MSC | 06/28/18 | | | | |
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1" NPT BALL VALVE TEMPORARY

PART NO.: 52009 MATERIAL: BRASS

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

THESE DRAWINGS CONTAIN PROPRIETARY INFORMATION RESTRICTED SOLELY FOR USE ON THIS PROJECT. THESE DRAWINGS MAY NOT BE REPRODUCED IN WHOLE OR IN PART, FOR ANY OTHER USE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF SCHWAGER DAVIS INC. (SDI). SDI DOES NOT MAKE ANY JUDGMENT NOR WARRANTY, EXPRESSED OR INFULIED, AS TO THE ADEOUACY OF THE STRUCTURAL DESION BY OTHERS AND HEREBY DISCLAIMS ANY LIABILITY FOR DESIGNS OF OTHERS.

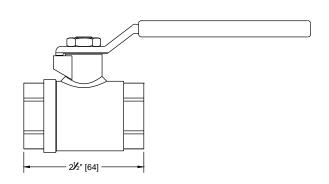
1" NPT BALL VALVE (BRASS)

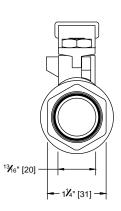
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SAN JOSE, CA 95136
PHONE: 408.281.9300

| DRAWING No: SDI-HD-271 | | | | | | |
|------------------------|-----------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | CSM | MSC | MSC | 06/07/16 | |
| 1 | UPDATE | JSA | MSC | MSC | 06/27/18 | |
| | | | | | | |
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0.75" NPT BALL VALVE (TEMPORARY)

PART NO.: 52010 MATERIAL: BRASS

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

THESE DRAWINGS CONTAIN PROPRIETARY INFORMATION RESTRICTED SOLELY FOR USE ON THIS PROJECT. THESE DRAWINGS MAY NOT BE REPRODUCED IN WHOLE OR IN PART, FOR ANY OTHER USE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF SCHWAGER DAVIS INC. (SDI). SDI DOES NOT MAKE ANY JUDGMENT NOR WARRANTY, EXPRESSED OR INFULIED, AS TO THE ADEOUACY OF THE STRUCTURAL DESION BY OTHERS AND HEREBY DISCLAIMS ANY LIABILITY FOR DESIGNS OF OTHERS.

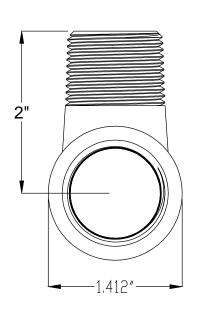
3/4" NPT BALL VALVE (BRASS)

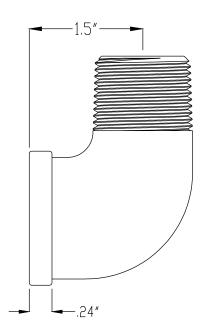
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SAN JOSE, CA 95136
PHONE: 408.281.9300

| DRAWING No: SDI-HD-272 | | | | | | |
|------------------------|-----------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | CSM | MSC | MSC | 06/07/16 | |
| 1 | UPDATE | JSA | MSC | MSC | 06/18/18 | |
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1" NPT FEMALE TO MALE 90° ELBOW

PART NO.: 53013 MATERIAL: STEEL PER ASTM A53 PRESSURE RATING: 150 PSI MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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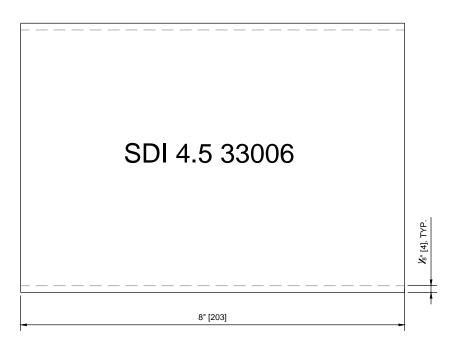
1" NPT FEMALE TO MALE 90° **ELBOW**

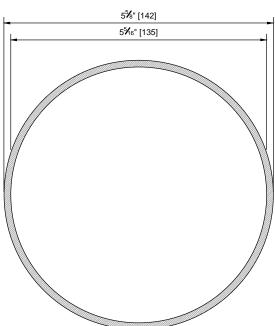
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| DR | DRAWING No: SDI-HD-366 | | | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | | |
| 0 | RELEASE | JSA | MSC | MSC | 08/08/18 | | | | | |
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SDI 4.5" SLIP-ON DUCT COUPLER

PART NO.: 33006

MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

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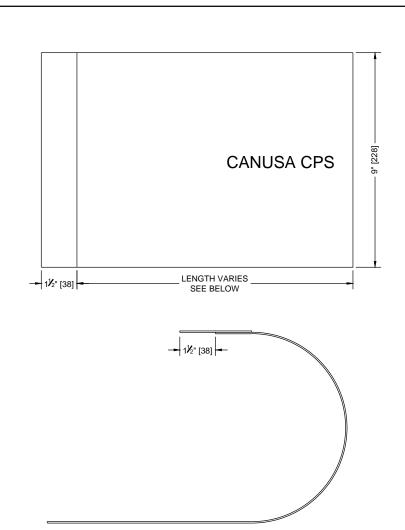
SDI 4.5" SLIP-ON DUCT COUPLER

SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY



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| DF | DRAWING No: SDI-HD-043 | | | | | | | | |
|----|------------------------|-------|---------|----------|---------|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | |
| 0 | RELEASE | MCS | JWM | MCS | 8-19-11 | | | | |
| 1 | UPDATE | CSM | MSC | MSC | 5-26-15 | | | | |
| 2 | UPDATE | JSA | MSC | MSC | 8-21-18 | | | | |
| | | | | | | | | | |



KLNN HEAT SHRINK

PART NO.: 37008 MATERIAL: POLYOLEFIN MATERIAL MEETS ALL SPECIFICATIONS.

1" x 3" & 2" - KLNN-63 WS BK/L 9" HEAT SHRINK SLEEVE

3" - KLNN-90 WS BK/L 9" HEAT SHRINK SLEEVE

4" - KLNN-115 WS BK/L 9" HEAT SHRINK SLEEVE

4.5" & 5"- KLNN-125 WS BK/L 9" HEAT SHRINK SLEEVE

NOTE: FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS

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KLNN HEAT SHRINK

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| DR | DRAWING No: SDI-HD-367 | | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | | |
| 0 | RELEASE | JSA | MSC | MSC | 08/09/18 | | | | |
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CANUSA-CPS

KLON & KLNN

One-piece protective sleeve with pre-attached closure

Product Description



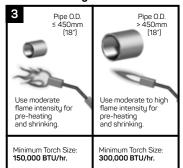
Canusa WrapidSleeves* are shipped precut with a pre-attached closure. The adhesive is protected from contamination by an inner liner.

Equipment List



Propane tank, hose, torch & regulator; Appropriate tools for surface abrasion; Knife, roller, rags & approved solvent cleanser; Digital thermometer with suitable probe; Standard safety equipment; gloves, goggles, hard hat, etc.

Flame Intensity & Torch Size



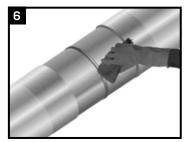
Surface Preparation



Ensure that the PE coating edges are beveled to 30°. Clean exposed steel and adjacent pipe coating with a solvent cleanser to remove the presence of oil, grease, and other contaminants.

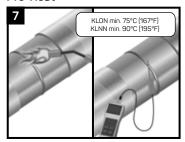
5

Ensure that the pipe is dry before cleaning. Using a power wire brush, abrade the pipe to a minimum of St3/SP3 (abrasive blast to Sa2.5/SP10 recommended). Lightly abrade the pipe coating adjacent to the cutback area to a distance of 50mm (2") beyond each end of the sleeve width.



Wipe clean or air blast the steel and pipe coating to remove foreign contaminants.

Pre-Heat



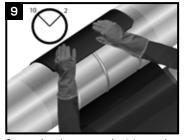
Pre-heat the joint area to the minimum required temperature. Using a temperature measuring device, ensure that the correct temperature is reached on the steel and at least 50mm (2") on each side of the sleeve.

Sleeve Installation

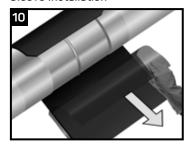


Partially remove the release liner and gently heat the underlap approximately 150 mm (6") from the edge.

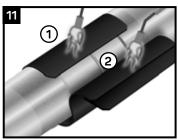
Sleeve Installation



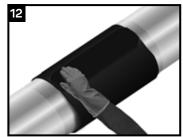
Centre the sleeve over the joint so that the sleeve overlaps between the 10 and 2 o'clock positions. Press the underlap firmly into place.



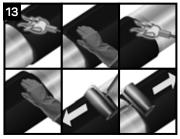
Remove the remaining release liner.



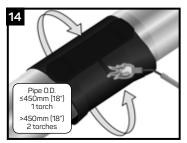
Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap and the adhesive side of the overlap.



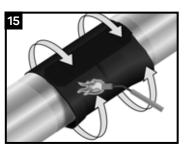
Press the closure firmly into place.



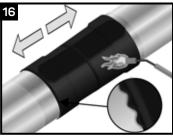
Gently heat the closure and pat it down with a gloved hand. Repeating this procedure, move from one side to the other. Smooth any wrinkles by gently working them outward from the centre of the closure with a roller.



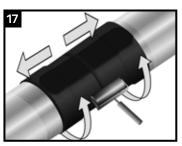
Using the appropriate torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.



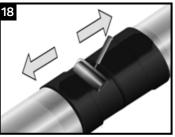
Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.



Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.



While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.



Continue the procedure by also firmly rolling the closure with long horizontal strokes from the weld outwards.

Inspection



Visually inspect the installed patch for the following:

- Sleeve is in full contact with the steel ioint.
- Adhesive flows beyond both sleeve edges.
- No cracks or holes in sleeve backing.

Backfilling Guidelines

After shrinking is complete, allow the sleeve to cool for 2 hours prior to lowering and backfilling. To prevent damage to the sleeve, use selected backfill material, (no sharp stones or large particles) otherwise an extruded polyethylene mesh or other suitable shield should be used.

Storage & Safety Guidelines

To ensure maximum performance, store Canusa products in a dry, ventilated area. Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage at temperatures above 35°C (95°F) or below -20°C (-4°F). Product installation should be done in accordance with local health and safety regulations.

These installation instructions are intended as a guide for standard products. Consult your Canusa representative for specific projects or wains a policytic of the contract o unique applications.

Canusa-CPS A division of Shawcor Ltd.

Head Office

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Dome Tower St. 2200, 333-7th Avenue SW Calgary, AB, Canada T2P 2Z1 Tel: +1 403 218 8207

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ADPC - Mussafah Port, P.O. Box 2621 Abu Dhabi, UAE

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Dellaertweg 9-E, Gebouw "Le Carrefour" 2316 WZ Leiden, The Netherlands (NL) Tel: +31718080270

Fax: +31718080271

Asia-Pacific

101 Thomson Road, #11-03 United Square 307591 Singapore

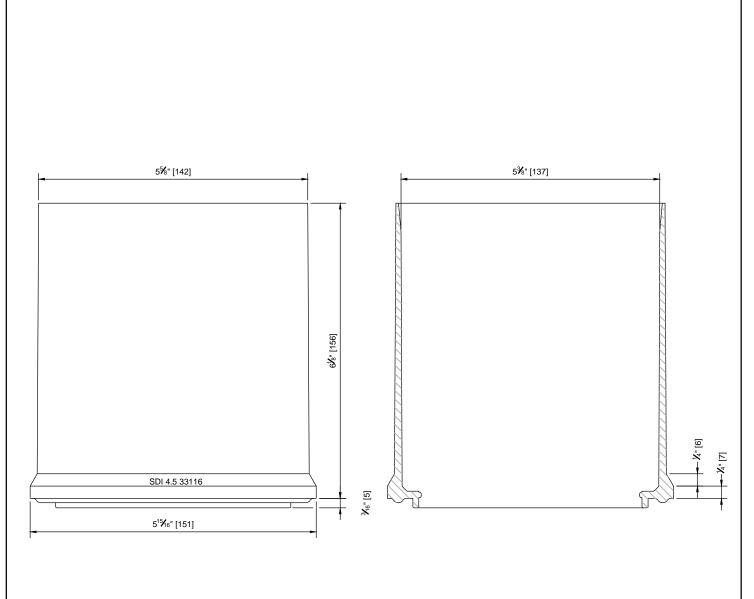
Tel: +65 6749 8918 Fax: +65 6749 8919

Quality Management system registered to ISO 9001

Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide when used in compliance with Canusa's written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith. Canusa's liability is stated in the standard terms and conditions of sale. Canusa makes no other warrantu of sale. Canusa makes no other warranty either expressed or implied. All information contained in this installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product. E&OE

Part No. 99060-266 IG_KLON & KLNN_rev013





SDI 4.5" SEGMENT COUPLER SLIDE HOUSING

PART NO.: 33116 MATERIAL: POLYPROPYLENE CELL CLASS RANGE:PP0340B44541 TO PP0340B67884 MATERIAL MEETS ALL SPECIFICATIONS. SCALE: 6" = 1'-0"

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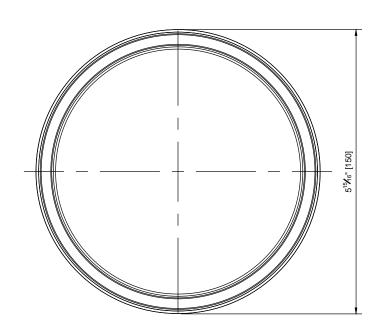
SDI 4.5" SEGMENT **COUPLER SLIDE** HOUSING

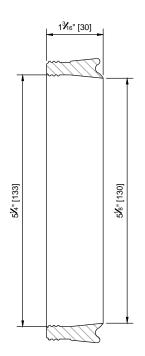
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| DR | AWING No: SDI- | HD-137 | | | |
|----|----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | МНА | JMY | MSC | 12/06/13 |
| 1 | UPDATE | MHA | JMY | MSC | 09/19/14 |
| 2 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 3 | UPDATE | JSA | MSC | MSC | 06/29/18 |





SDI 4.5" SEGMENT COUPLER SEAL

MATERIAL: BUNA-N PER ASTM D2240, & D412 MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

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SDI 4.5" SEGMENT **COUPLER SEAL**

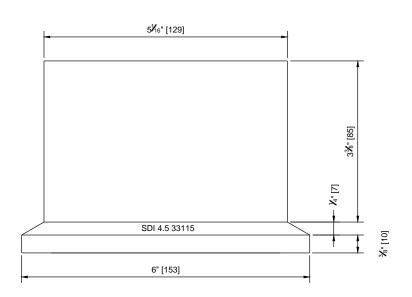
SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY

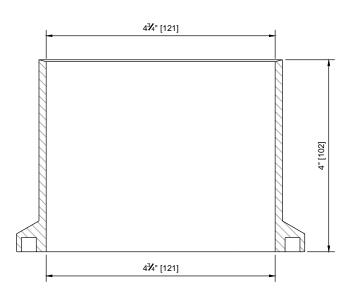


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| DR | AWING No: SDI- | HD-140 | | | |
|----|-----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 1 | UPDATE | МНА | JMY | MSC | 09/19/14 |
| 2 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 3 | MATERIAL UPDATE | CSM | JMY | MSC | 06/08/16 |
| 3 | MATERIAL UPDATE | JSA | MSC | MSC | 06/29/18 |





SDI 4.5" SEGMENT COUPLER WELDED HOUSING

PART NO.: 33115

MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

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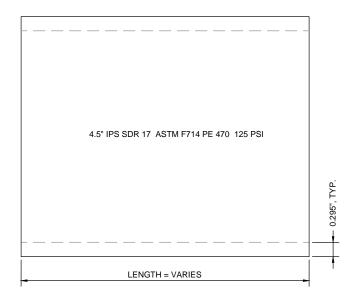
SDI 4.5" SEGMENT **COUPLER WELDED** HOUSING

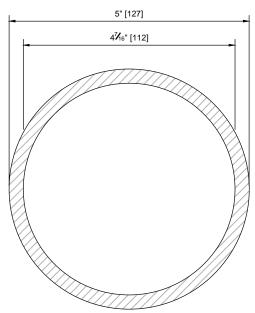
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| DR | AWING No: SDI- | HD-136 | | | |
|----|----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | MHA | JMY | MSC | 12/06/13 |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 2 | UPDATE | JSA | MSC | MSC | 06/29/18 |
| | | | | | |





4.5" HDPE EXTERIOR PIPE

PART NO.: 35003

MATERIAL: HDPE WITH A DIMENSION RATIO (DR) OF 17 $\,$

BEND RADIUS: 25 FT

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 6" = 1'-0"

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4.5" HDPE EXTERIOR PIPE

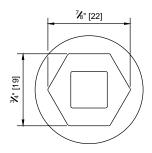
SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY

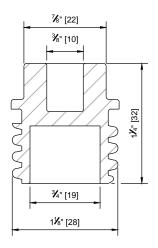


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| DF | DRAWING No: SDI-HD-073 | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | |
| 0 | RELEASE | THT | MCS | MCS | 03/20/12 | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | |
| 2 | UPDATE | JSA | MSC | MSC | 08/16/18 | | |
| | | | | | | | |





SDI GROUT PORT PLUG

PART NO.: 55004

MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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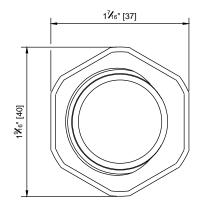
SDI GROUT PORT PLUG

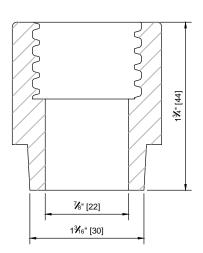
SCHWAGER DAVIS, INC. **POST-TENSION** SYSTEM LIBRARY



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| DR | AWING No: SDI- | | | | |
|----|----------------|-------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | CSM | MSC | MSC | 05/26/15 |
| 1 | UPDATE | JSA | MSC | MSC | 06/19/18 |
| | | | | | |
| | _ | | | | |





HDPE WELDABLE GROUT PORT WITH 3/4" NOM. (23mm) GROUT THREAD

PART NO.: 57004 MATERIAL: HDPE PRESSURE RATING:150 PSI MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

NOTE: FOLLOW MANUFACTURE'S INSTALLATION INSTRUCTIONS.

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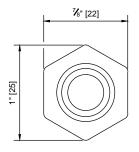
HDPE WELDABLE GROUT PORT WITH $^3\!\!4$ " NOM. (23mm) GROUT THREAD

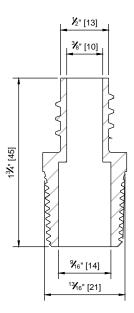
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PHONE: 408.281.9300

| DR | RAWING No: SDI- | HD-172 | | | |
|----|-----------------|--------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | MHA | MSC | MSC | 03/25/14 |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 |
| 2 | UPDATE | JSA | MSC | MSC | 07/02/18 |
| | | | | | |





1/2" NOM. (13mm) NPT COUPLER

PART NO.: 53011

MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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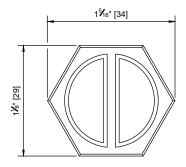
½" NOM. (13mm) NPT COÙPLER

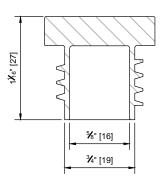
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| DR | DRAWING No: SDI-HD-222 | | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | | |
| 0 | RELEASE | МНА | MSC | MSC | 10/10/14 | | | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | | | |
| 2 | UPDATE | JSA | MSC | MSC | 06/19/18 | | | |
| | | | | | | | | |





3/4" NOM. (23mm) GROUT TUBE PLUG

PART NO.: 55001

MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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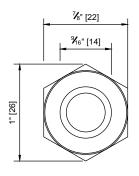
3/4" NOM.(23mm) GROUT TUBE PLUG

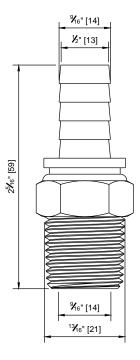
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SAN JOSE, CA 95136
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| DR | DRAWING No: SDI-HD-156 | | | | | |
|----|------------------------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | МНА | MSC | MSC | 04/02/14 | |
| 1 | UPDATE | CSM | MSC | MSC | 05/26/15 | |
| 2 | UPDATE | JSA | MSC | MSC | 06/19/18 | |
| | | | | | | |





1/2" MALE BARB HOSE ADAPTOR

PART NO.: 53014 MATERIAL: BRASS

PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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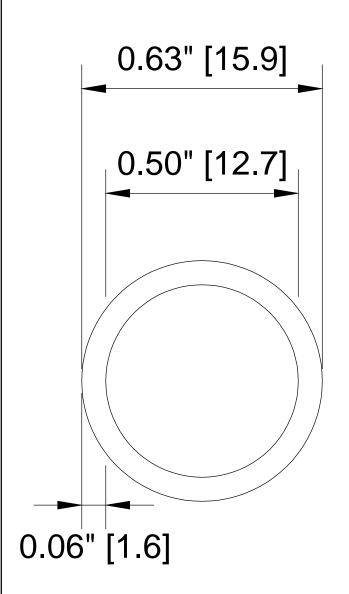
½" BARB HOSE ADAPTOR

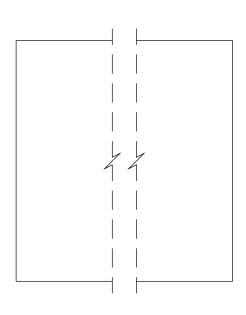
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PHONE: 408.281.9300

| DR | DRAWING No: SDI-HD-365 | | | | | | |
|----|------------------------|-------|---------|----------|----------|--|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | | |
| 0 | RELEASE | JSA | MSC | MSC | 08/08/18 | | |
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1/2" CLEAR HIGH TEMP. VACUUM TUBE

MATERIAL: FLUORINATED ETHYLENE PROPYLENE

PRESSURE RATING: 180 PSI @ 72° F

TEMPERATURE RANGE: -100° TO 400° F

BENDING RADIUS: 3"

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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1/2" CLEAR HIGH TEMP. **VACUUM TUBE**

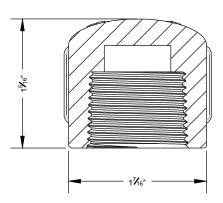
SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY



SCHWAGER DAVIS, INC. DESIGN-BUILD CONTRACTOR 198 HILLSDALE AVENUE SAN JOSE, CA 95136

| DR | DRAWING No: SDI-HD-364 | | | | | |
|----|------------------------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | JSA | MSC | MSC | 08/08/18 | |
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3/4" POLYPROPYLENE NPT CAP

PART NO.: 55023

MATERIAL: POLYPROPYLENE PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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SDI 3/4" POLYPROPROPYLENE NPT CAP

SCHWAGER DAVIS, INC. POST-TENSION SYSTEM LIBRARY

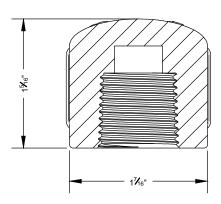


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198 HILLSDALE AVENUE
SAN JOSE, CA 95136
PHONE: 408.281.9300

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| DR | DRAWING No: SDI-HD-361 | | | | | |
|----|------------------------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | МНА | MSC | MSC | 08/21/18 | |
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1/2" POLYPROPYLENE NPT CAP

PART NO.: 55022

MATERIAL: POLYPROPYLENE PRESSURE RATING: 150 PSI

MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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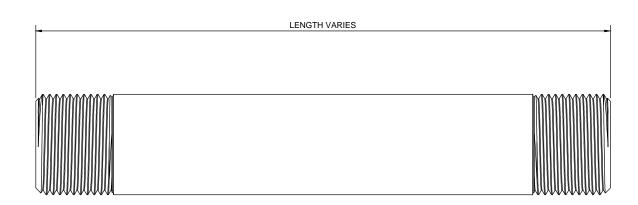
1/2" POLYPROPROPYLENE NPT CAP

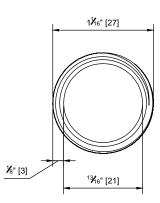
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| DR | RAWING No: SDI- | | | | |
|----|-----------------|-------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | MHA | MSC | MSC | 08/21/18 |
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3/4" NPT PIPE NIPPLE

PART NO.: 51005 MATERIAL: HIGH DENSITY POLYETHYLENE PRESSURE RATING: 150 PSI MATERIAL MEETS ALL SPECIFICATIONS.

SCALE: 1'-0" = 1'-0"

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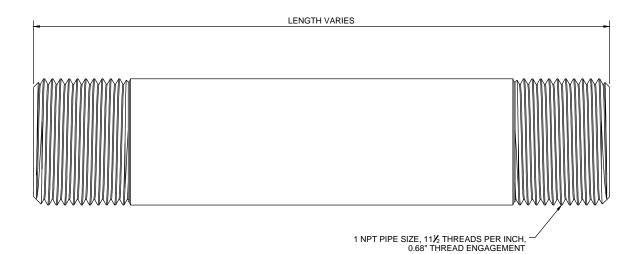
3/4" NPT PIPE NIPPLE (HDPE)

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SAN JOSE, CA 95136
PHONE: 408.281.9300

| DF | DRAWING No: SDI-HD-363 | | | | | |
|----|------------------------|-------|---------|----------|----------|--|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE | |
| 0 | RELEASE | JSA | MSC | MSC | 06/18/18 | |
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1.315" [33] 0.133" [3] 1.049" [27]

1" NPT PIPE NIPPLE (TEMPORARY)

PART NO.: 51003 MATERIAL: STEEL, ASTM A53 THREADS PER ANSI/ASME B1.20.1 PRESSURE RATING 150 PSI MATERIAL MEETS ALL SPECIFICATIONS. SCALE: 1'-0" = 1'-0"

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1" NPT PIPE NIPPLE

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| DRAWING No: SDI-HD-269 | | | | | |
|------------------------|-----------|-------|---------|----------|----------|
| # | REVISIONS | DRAWN | CHECKED | APPROVED | DATE |
| 0 | RELEASE | CSM | MSC | MSC | 06/07/16 |
| 1 | UPDATE | JSA | MSC | MSC | 06/18/18 |
| | | | | | |
| | | | | | |

www.lsc-online.com



Technical Product Information

RED-i PT CABLE COATING GREASE

RED-/ PT CABLE COATING IS SPECIALLY FORMULATED FOR THE POST TENSIONING CONSTRUCTION INDUSTRY, AND EXCEEDS THE POST TENSIONING INSTITUTE (PTI) SPECIFICATIONS IN CORROSION PROTECTION FOR UNBONDED AND SINGLE-STRAND TENDONS IN CORROSIVE SERVICE.



Product Description: RED-i PT CABLE COATING is a premium lithium grease fortified with effective corrosion inhibitors. The coating is specifically designed to provide extended protection against corrosion of metal cables or any metallic surface exposed to moisture.

Features:

- Adhesive properties protects metal surfaces from air, moisture, and sea water.
- Excellent corrosion and rust inhibition properties.
- · Exceeds PTI specifications.
- · Member Post Tensioning Institute.
- · High dropping point.
- · Contains antimicrobial agent.

Typical Uses:

- Preserves metallic cables and wires exposed to corrosive environments.
- Preserves steel reinforcement bars or rods used for concrete structures against corrosion.
- Recommended for use in marine and construction industries.

| Typical Specifications: | | | |
|---|---------------------|--|--|
| GRADE, NLGI | 2 | | |
| Penetration @ 77° F. (ASTM Worked) | 265-295 | | |
| Dropping Point, ASTM D-2265, °F. | 383 | | |
| Color | Amber | | |
| Texture | Butter | | |
| Appearance | Smooth | | |
| Soap Type | Lithium | | |
| Soap, % | 7.0 | | |
| Rust Test, ASTM D-1743 | Pass | | |
| Corrosion Test, ASTM B-117 | Pass (No Rust) | | |
| Soak Test, ASTM B-117 Modified | Pass | | |
| Emulsification Of Coating | None | | |
| Oil Separation, FTM 321.2 , Wt.% | 0.5 | | |
| Flash Point, ASTM D-92, Coc, °F | 350 | | |
| Water Content, ASTM D-95, Wt.% | <0.1 | | |
| Base Oil Viscosity | | | |
| cSt. @ 40° C. | 321.0 | | |
| cSt. @ 100° C. | 21.0 | | |
| SUS@100° F. | 74 | | |
| Viscosity Index | <0.5 | | |
| Chlorides, PPM ASTM D-512 | <0.1 | | |
| Nitrates, PPM, ASTM D3867 | 8.54 | | |
| Tensile Strength Change Of Polymer, ASTM D638 | | | |
| VALUES SHOWN HERE ARE TY | PICAL AND MAY VARY. | | |

112 GREASES



SET High Strength Epoxy-Tie[®] Anchoring Adhesive

SET Epoxy-Tie® epoxy is a two-component, 1:1 ratio, high solids, epoxy-based adhesive for use as a high strength, non-shrink anchor grouting material. Resin and hardener are dispensed and mixed simultaneously through the mixing nozzle. SET meets or exceeds the requirements of ASTM C-881 specification for Type I, II, IV and V, Grade 3, Class B and C.

GALLERY: ROLL OVER IMAGES BELOW TO SEE LARGER IMAGE SET22 EMN22i EDT22B

SET56

SET1.7KTA



- Threaded-rod anchoring
- Rebar doweling

SET-PAC EZ™

Adhesive U.S. Patent 6,634,524

- Bonding hardened concrete to hardened concrete
- Pick-proof sealant around doors, windows and fixtures
- Paste-over for crack injection

CODE REPORTS

- ICC Evaluation Service <u>ESR-1772</u> (formerly ICBO-ES ER-5279) (PDF) (CMU & URM)
- City of L.A. <u>RR25279</u> (PDF)
- Caltrans approved
- Florida Statewide Product Approval FL11506.4
- multiple DOT listings
- NSF/ANSI Standard 61 (216 in²/1000 gal) (PDF), except SET1.7KTA
- SET-PAC EZ[™] adhesive covered by ICC-ES, City of L.A. and NSF/ANSI listings only

The <u>load tables</u> list values based upon results from the most recent testing and may not reflect those in current code reports. Where code jurisdictions apply, consult the current



LINKS:

- Supplemental Topics for Adhesive Anchors
- Estimating Guide
- Limited Warranty Information
- Tension and Shear Load Tables
- Load-Adjustment Factors
- Documents:
 - Anchor Catalog Section (PDF)
 - Product Submittal (PDF)
 - Material Safety Data Sheet: SET (PDF)
 - Material Safety Data Sheet: SET en Español (PDF)
 - SET-PAC-EZ™ Epoxy-Tie® Anchoring Adhesive Flier (PDF)
 - Rebar Yield and Tensile Strength Embedments
 Technical Bulletin (PDF)
 - Rebar Yield and Tensile Strength Embedments
 (Canada) Technical Bulletin (PDF)
 - Anchor Tension Loads in Masonry Chair Block
 Technical Bulletin (PDF)
- Free Softw are:
 - Anchor Designer 🗁
 - Adhesive Cartridge Quantity Estimator

reports for applicable load values.

APPLICATION

Surfaces to receive epoxy must be clean. For installations in or through standing water, see <u>Supplemental Topics for Adhesive Anchors</u> for details. The base material temperature must be 40° F or above at the time of installation. For best results, material should be 70° - 80° F at the time of application. Cartridges should not be immersed in water to facilitate warming. To warm cold material, the cartridges should be stored in a warm, uniformly heated area or storage container for a sufficient time to allow epoxy to warm completely. Mixed material in nozzle can harden in 5-7 minutes at a temperature of 40° F or above.

TEST CRITERIA

Anchors installed with SET Epoxy-Tie® adhesive have been tested in accordance with ICC-ES's *Acceptance Criteria for Adhesive Anchors (AC58)* for the following:

- Seismic/wind loading
- Long-term creep at elevated-temperature
- Static loading at elevated-temperature
- Damp and water-filled holes
- Freeze-thaw conditions
- Critical and minimum edge distance and spacing

In addition, anchors installed with SET Epoxy-Tie® adhesive have been tested in accordance with ICC-ES's *Acceptance Criteria for Unreinforced Masonry Anchors (AC60)*.

| PROPERTY | TEST METHOD | RESULTS |
|----------------------------|-------------|---|
| Consistency | ASTM C 881 | Non-sag/ thixotropic paste |
| Heat deflection | ASTM D 648 | 136° F (58° C) |
| Bond strength (moist cure) | ASTM C 882 | 3,218 psi (2 days) 3,366 psi (14 days) |
| Water absorption | ASTM D 570 | 0.110% (24 hrs) |
| Compressive yield strength | ASTM D 695 | 5,065 psi (24 hours) 12,650 psi (7 days) |
| Compressive modulus | ASTM D 695 | 439,000 psi (7 days) |
| Gel time (75° F) | ASTM C 881 | 30 min - 60 gram mass 60 min - thin film |

ACCESSORIES / RELATED PRODUCTS

- Dispensing Tools
- Mixing Nozzles
- Plastic Anchoring Screens
- Steel Anchoring Screens
- Hole Cleaning Brushes

SUGGESTED SPECIFICATIONS

Anchoring adhesive shall be a two-component high-solids epoxy based system supplied in manufacturer's standard cartridge and dispensed through a static-mixing nozzle supplied by the manufacturer. Epoxy shall meet the minimum requirements of ASTM C-881 specification for Type I, II, IV, and V, Grade 3, Class B and C and must develop a minimum 12,650 psi compressive yield strength after 7 day cure. Epoxy must have a heat deflection temperature of a minimum 136°F (58°C). Adhesive shall be SET Epoxy-Tie® adhesive from Simpson Strong-Tie, Pleasanton, CA. Anchors shall be installed per Simpson Strong-Tie instructions for SET Epoxy-Tie® adhesive.

ASD DESIGN EXAMPLE

For design example, click here.

INSTALLATION

IMPORTANT For installation instructions, click here.

SHELF LIFE

24 months from date of manufacture in unopened side-by-side cartridge. SET-PAC EZ^{TM} cartridge - 24 months from date of manufacture, unopened.

STORAGE CONDITIONS

For best results store between 45° F - 90° F. To store partially used cartridges, leave hardened nozzle in place. To re-use, attach new nozzle.

COLOR

Resin – white, hardener – black When properly mixed SET adhesive will be a uniform light gray color.

CLEAN UP

Uncured material – Wipe up with cotton cloths. If desired scrub area with abrasive, waterbased cleaner and flush with water. If approved, solvents such as ketones (MEK, acetone, etc.), lacquer thinner or adhesive remover can be used. DO NOT USE SOLVENTS TO CLEAN ADHESIVE FROM SKIN. Take appropriate precautions when handling flammable solvents. Solvents may damage surfaces to which they are applied. Cured material – Chip or grind off surface.

CHEMICAL RESISTANCE

Very good to excellent against distilled water, inorganic acids and alkalis. Fair to good against organic acids and alkalis, and many organic solvents. Poor against ketones. For more detailed information download <u>Technical Bulletin T-SAS-CHEMRES08</u> (PDF).

SET Cartridge Systems

| Model No. | Capacity ounces (cubic inches) | Cartridge Type | Carton Quantity | Dispensing Tool(s) | Mixing ⁴ Nozzle |
|--------------|---|-------------------|--------------------|--|-------------------------------|
| SET1.7KTA | 1.7 (3.1) | side-by-side | 12 | Adaptor included for standard caulking tool | EMN1.7 (2 included) |
| SET-PAC-EZ | 8.5 (16.2) | single | 12 | CDT10 or high quality standard caulking tool | 2 included |
| SET22 | 22 (39.7) | side-by-side | 10 | EDT22B, EDT22AP, or EDT22CKT | EMN22i |
| SET56 | 56 (101.1) | side-by-side | 6 | EDT56AP | EMN22i or EMN50 |

- 1. Bulk containers also available, <u>contact Simpson Strong-Tie</u> for details.
- 2. Cartridge and bulk estimation guides are available.
- 3. Detailed information on dispensing tools, mixing nozzles and other adhesive accessories is available.
- 4. Use only appropriate Simpson Strong-Tie mixing nozzle in accordance with Simpson's instructions. Modification or improper use of mixing nozzle may impair epoxy performance.

Cure Schedule

| Base Material Temperature | | Cure Time |
|------------------------------|----|--------------|
| °F | °C | Tillie |
| 40 | 4 | 72 hrs. |
| 65 | 18 | 24 hrs. |
| 85 | 29 | 20 hrs. |
| 90 | 32 | 16 hrs. |

In-Service Temperature Sensitivity

| Base Material Temperature | | Percent Allowable |
|------------------------------|----|----------------------|
| °F | °C | Load |
| 40 | 4 | 100% |
| 70 | 21 | 100% |
| 110 | 43 | 100% |
| 135 | 57 | 75% |
| 150 | 66 | 44% |
| 180 | 82 | 20% |

- Refer to temperature sensitivity chart for allowable bond strength reduction for temperature. See <u>Supplemental Topics for Adhesive Anchors</u>.
- 2. Percent allowable load may be linearly interpolated for intermediate base material temperatures.
- 3. $^{\circ}C = (^{\circ}F-32) / 1.8$

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POLY-TEMP® MD MEDIUM DENSITY THREAD SEAL TAPE

Technical Data Sheet P/N 16000 SERIES Page 1 of 1

Date: 3/18/2010

WWW.ANTISEIZE.COM

Product Description

POLY-TEMP® MD Medium Density Thread Seal Tape is a general purpose PTFE Thread Seal Tape designed to be used on all types of metal and plastic pipe threads.

Our **POLY-TEMP**® Tapes are made from 99.9% virgin PTFE resins for optimum purity and performance. **POLY-TEMP**® **MD** Medium Density Thread Seal Tape is malleable to easily conform to thread profiles to ensure a positive seal.

Because **POLY-TEMP® MD** Medium Density Thread Seal Tape is composed of pure PTFE, it touts an extremely broad range of chemical compatibilities and is unaffected by most chemicals and concentrations.

POLY-TEMP® MD Medium Density Thread Seal Tape is our most popular grade of thread sealing tape and has been Industry Leader for over 30 years.

Features & Benefits

- Meets FDA and USDA requirements
- UL Listed
- Ideal for all tapper thread connections
- PTFE's high lubricity makes for easy assembly
- Only 3 wraps need for most applications
- · Chemically inert, non-Toxic
- Suitable for oxygen service
- Our most popular grade of Thread Seal Tape
- Easy to handle and apply
- Temperature range from -400F to 550F (-240C to 287C)
- Pressures up to 10,000psi (Liquid), 2000 psi (Gas)
- Connections can be put into service right away, no dry time
- · Never dries out and an unlimited shelf life.
- Meets MIL-T-27730A
- Extremely versatile.

Typical Properties

| Property | Value |
|------------------|----------------|
| Color | White |
| Thickness | 3.5 mils |
| Specific Gravity | 0.7 to 0.8g/cc |
| Toxicity | Non toxic |
| RoHS | Compliant |

Cautions

Read all information on labels and Material Safety Data Sheets prior to use. All products should be tested and evaluated for a particular purpose prior to use.

Product Limited Warranty

This information is based on information we believe to be reliable and accurate, but no guarantee of its accuracy is made for a particular application. We urge and recommend that Users pretest their application prior to incorporating the product into use and assume that the User will conduct such testing. Also see warranty statement on website.

Available In:

Size: ½"x 60" ¼"x520" ½"x260" ½"x520" ½"x1296"
P/N: 16006 16025 16030 16035 16040

<u>Size: 34"x260" 34"x520" 1"x260" 1"x520"</u> P/N: 16045 16050 16055 16060

Size: Counter Display ½"x260" 1/2"x520" ¾"x520" P/N: 16030A 16035A 16050A

 $\mathbf{POLY\text{-}TEMP}^{\otimes}$ IS A REGISTERED TRADEMARK OF ANTI-SEIZE TECHNOLOGY