

TOP GROUT ACCESS

FRONT GROUT ACCESS

| BILL OF MATERIALS | | |
|----------------------|---|--|
| PART NUMBER | DESCRIPTION | MATERIAL SPECIFICATION |
| 68 12 248 | 12-0.6" MULTI-PLANE ANCHOR CASTING GALVANIZED | ASTM A536 GR 65-45-12 DUCTILE IRON HOT DIPPED GALV. TO ASTM A123 |
| 68 12 254 | 12-0.6" STANDARD SPIRAL | ASTM A615, GR. 60, #5, 2-1/4" PITCH 12-7/8" O.D., ~7 TURNS |
| 68 12 143 | 12-0.6" FORGED WEDGE PLATE | STEEL FORGING, ASTM A-521-76, NORMALIZED, BHN = 180-220 |
| 68 12 981 (OPTIONAL) | 12-0.6" KEEPER PLATE, USED ONLY FOR INACCESSIBLE DEAD END OR WHEN PRE-ASSEMBLED W/BOLT & WASHER BY OTHERS | AISI 1020 OR EQUIV (3) 3/8"-16UNC BLACK HEX BOLTS, 1" LG WITH NARROW WASHERS |
| 68 00 0536 | 3-PART WEDGE FOR 0.6" STRAND | AISI-C12L14 HEAT TREATED |
| 68 12 587 | 12-0.6" PE TRUMPET | POLYETHYLENE |
| 68 12 7230 | PLASTIC GROUT CAP W/O-RING | NYLON 6, 20% GLASS FIBER FILLED |
| U00220350 | 3-3/8" (85mm) CORRUGATED PP DUCT | "PPEX3" |
| 68 12 584 | NEOPRENE SEAL | CLOSED CELL NEOPRENE BLEND |
| (BY OTHERS) | FOAM INSULATION FOR 1/2" & 3/4" PIPE NIPPLES | -- |
| 00 00 876 | 3/4" STEEL PIPE NIPPLE, 12" LONG | SCH 40 BLACK WELDED STEEL |
| 00 00 801 | (OPTIONAL) 21mm GROUT TUBE | HARD POLYETHYLENE |
| PLA-90-150-YE | (OPTIONAL) HEAT SHRINK SLEEVE | Acc. to FDOT spec. P.T., section 462-4,2,6,3 |
| PLA-90-450-YE | (OPTIONAL) HEAT SHRINK SLEEVE | Acc. to FDOT spec. P.T., section 462-4,2,6,3 |

| BILL OF MATERIALS | | |
|-------------------|---|----------------------------|
| PART NUMBER | DESCRIPTION | MATERIAL SPECIFICATION |
| 00 00 676 | 1/2" STEEL PIPE NIPPLE, 12" LONG | SCH 40 BLACK WELDED STEEL |
| 00 00 834 | 3/4" NPT VALVE | -- |
| 00 00 634 | 1/2" NPT VALVE | -- |
| 68 12 585 | 12-0.6" COUPLER FOR 85mm GTI DUCT | POLYETHYLENE |
| 00 00 847 | 3/4" BT PLUG (NIAGARA PLASTICS #BT0750) | NYLON |
| 00 00 647 | 1/2" BT PLUG (NIAGARA PLASTICS #BT0500) | NYLON |
| 68 00 583 | SEAL | CLOSED CELL NEOPRENE BLEND |
| 68 12 589 | 12-0.6" FILLER PIECE | HARD POLYETHYLENE |
| 00 00 771 | 3/8"-16UNC HEX BOLTS 2-3/4" LG | 316L STAINLESS STEEL |
| 00 00 774 | NARROW WASHER FOR 3/8"-16UNC | -- |
| 00 00 855 | 3/4" NPT GROUT VENT PORT | PES-TEC PART NUMBER 254-2 |
| OR | | |
| 00 00 857 | 21mm GROUT VENT PORT | PES-TEC PART NUMBER 251-2 |
| (OPTIONAL) | (FOR INTERMEDIATE GROUT VENT) | POLYPROPYLENE |

APPROVED BY FDOT 09-14-07



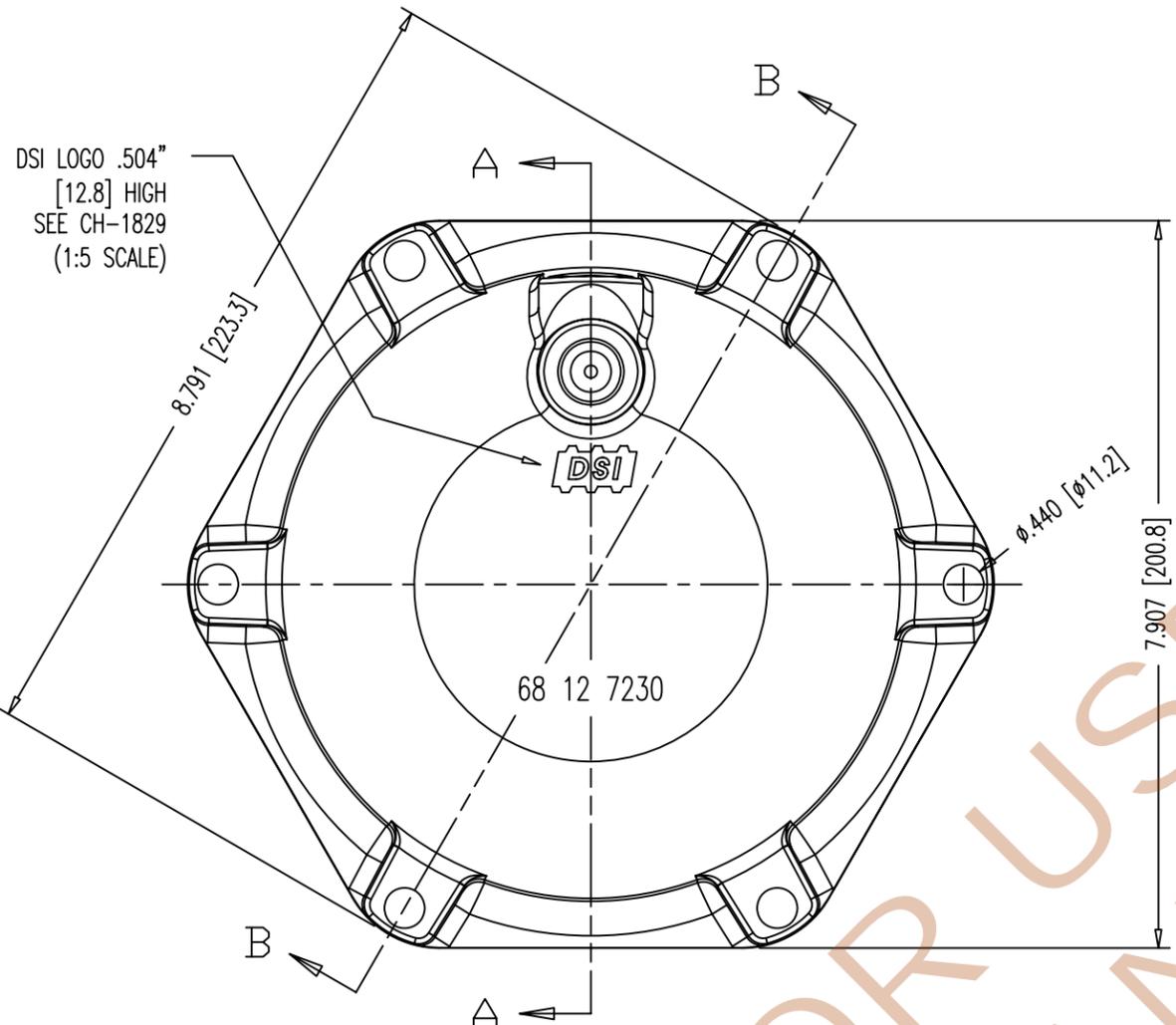
DUCT END VIEW

NOTES:

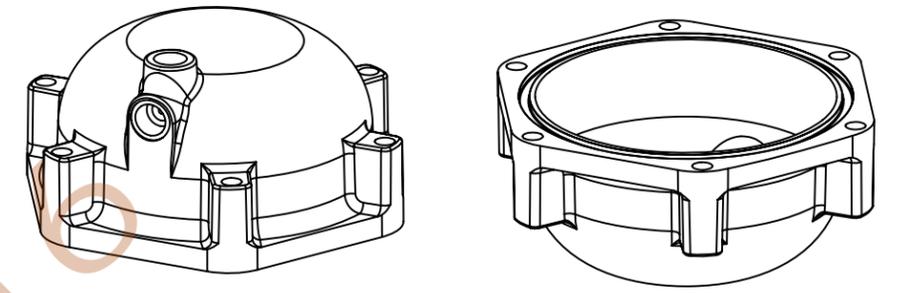
3. GTI DUCT IS DELIVERED IN STRAIGHT SECTIONS AND IS NOT INTENDED TO BE COILED.

| | | | | | |
|--|-----------------|--|-----------|-------------------------------------|--|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | REV. | DATE | NAME | |
| INTERNAL 12-0.6" MA SYSTEM 100 ASSEMBLY DRAWING | | | | | |
| | | SCALE: 1:5 | | | |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: S.N. | APP: E.A. | DRAWING NUMBER: MA 68 12 010 | |
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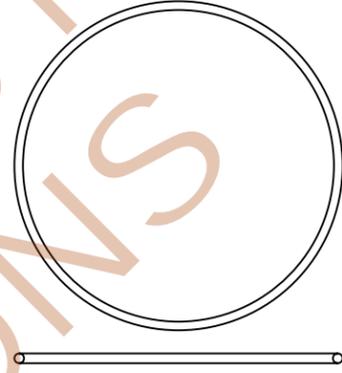




- NOTES:
1. ALL DIMENSIONS DEPENDENT ON 3D DATA BASE USED FOR MOLD FABRICATION
 2. USE 3/8"-16UNC 316L S.S. HEX BOLTS, 2-1/2" LONG W/SMALL DIA. WASHER.
 3. INSTALL O-RING IN GROOVE USING DROPS OF LIQUID ADHESIVE BEFORE SHIPPING. DON'T USE EXCESSIVE ADHESIVE. O-RING MUST STAY IN PLACE UNTIL INSTALLATION.
 4. THE CELL CLASSIFICATION SHALL CONFORM TO ASTM D5989 AND SHALL BE S-PA0141 (WEATHER RESISTANT), S-PA0231 OR S-PA0401 (TENSILE STRENGTH, YIELD 15000 PSI MIN., WITH UV STABILIZER ADDED).
 5. DRILL 1/2" [12.7] HOLE IN PORT BEING USED-CAUTION-RECOMMEND USING HOLE SAW BIT OR SPADE BIT (BY OTHERS), BE CAREFULL TO PREVENT DAMAGE TO THREADS OR CAP.
 6. WHEN PRESSURIZING GROUT CAPS, DO NOT STAND BEHIND CAPS!

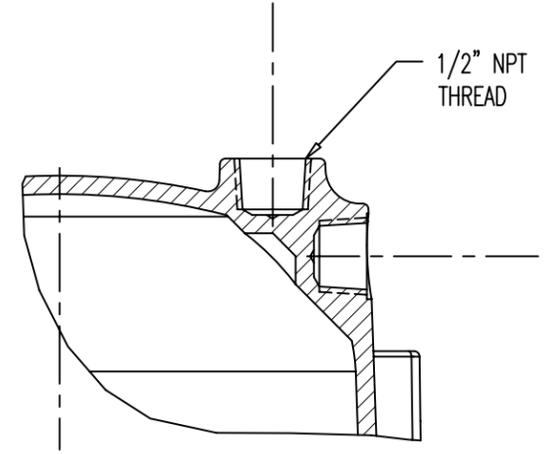


SCALE 1:2 IN COMPUTER
SCALE: 1:4 (11"x17" PLOT)

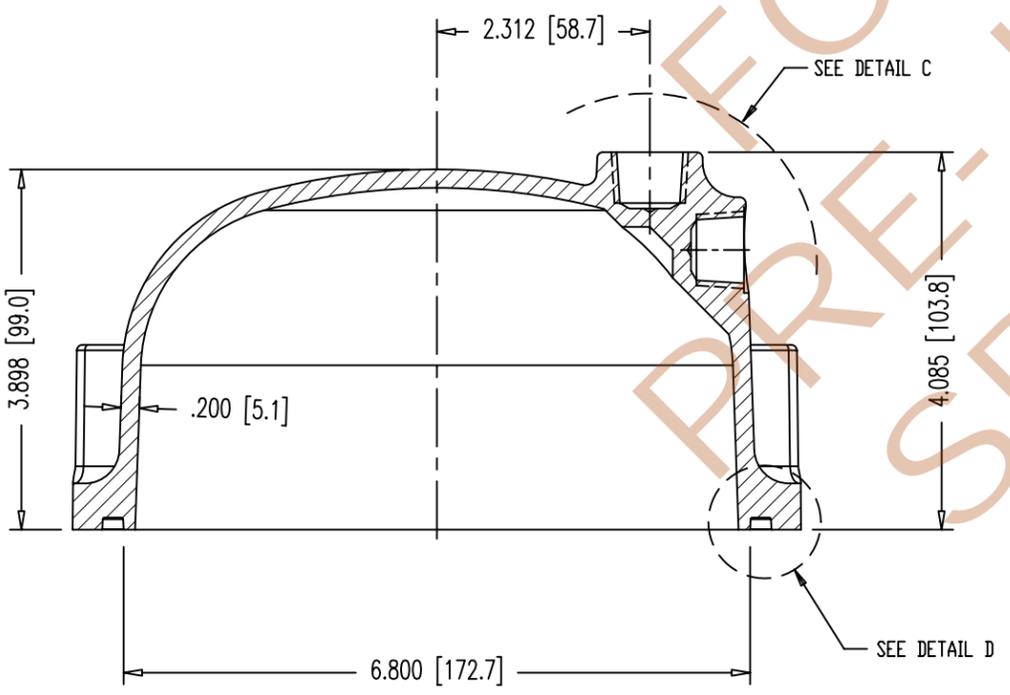


#364 O-RING
6-3/4"x7-1/8"x3/16"
O-RING MATERIAL: BUNA "N"

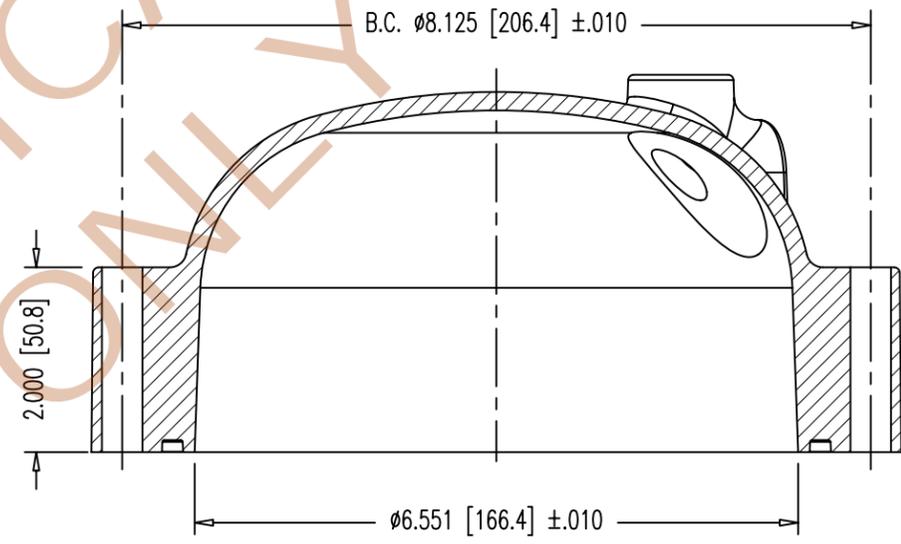
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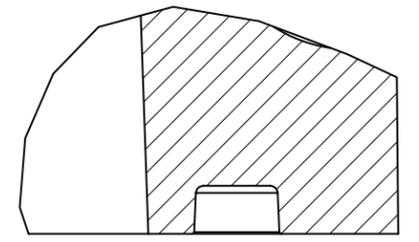
DETAIL C



SECTION A-A



SECTION B-B



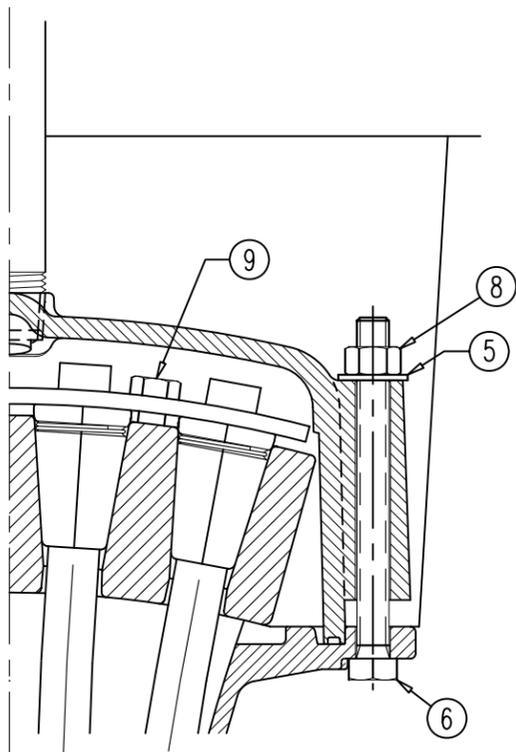
DETAIL D
SCALE 4:1 IN COMPUTER
SCALE: 2:1 (11"x17" PLOT)

Tolerance Note:
All tolerances are based on SPI/SPE and should be as follows unless specified otherwise:

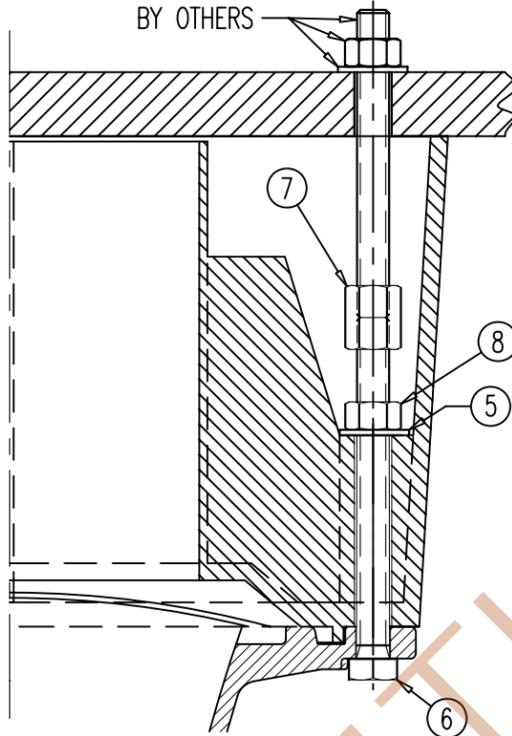
| Dim. | Tolerance |
|----------|------------|
| 0-1" = | +/- 0.005" |
| 1-2" = | +/- 0.007" |
| 2-3" = | +/- 0.009" |
| 3-4" = | +/- 0.011" |
| 4-5" = | +/- 0.013" |
| 5-6" = | +/- 0.015" |
| 6-7" = | +/- 0.017" |
| 7-8" = | +/- 0.019" |
| 8-9" = | +/- 0.021" |
| 9-10" = | +/- 0.023" |
| 10-11" = | +/- 0.025" |
| 11-12" = | +/- 0.027" |

APPROVED BY FDOT 09-14-07

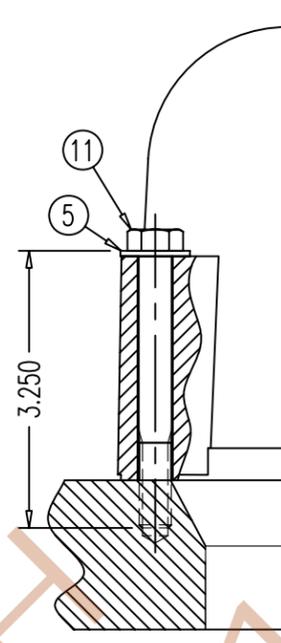
| | | | | | | | | | |
|---|--|-------------------------------------|--|--|---------------------------------|------|------|------|--------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS60072300P | | TOLERANCES: SEE TOLERANCE NOTE | WEIGHT 1.52 LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 7230 |
| 12-0.6" PLASTIC GROUT CAP | | | | MATERIAL: NYLON 6, 20% GLASS FIBER FILLED | SCALE 1:2 UNLESS NOTED | | | | DRAWING NUMBER: 68 12 7230 |
| DATE: 09-14-07 DWG: G. MALECKI CHK: E.A. APP: K.S. | | | | THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC. AND THEIR CONTENTS ARE THE PROPERTY OF DYWIDAG SYSTEMS INTERNATIONAL, USA, INC. THEY ARE NOT ALLOWED TO BE DUPLICATED WITHOUT OUR PERMISSION. THEY ARE ALSO NOT TO BE SHOWN OR EXPLAINED FOR ANY REASON TO A THIRD PARTY OTHER THAN FOR REASONS EXPRESSLY INTENDED BY DSI's SUBMITTAL TO THE ORIGINAL RECEIVER. THEY HAVE TO BE RETURNED UPON REQUEST. | | | | | |
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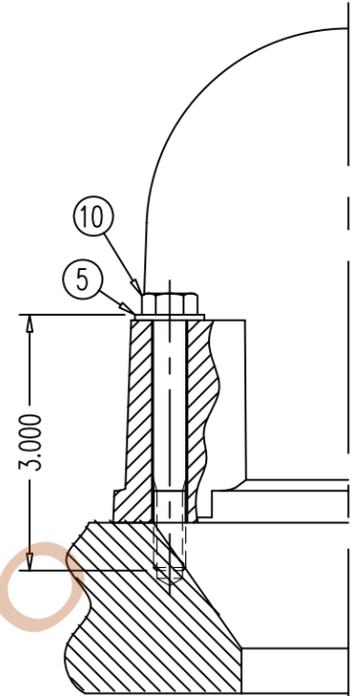
KEEPER PLATE 68 04 2637 ON
WEDGE PLATE 68 04 2534A &
GROUT CAP 68 04 2539 ON Δ
FLAT ANCHOR 68 04 2531



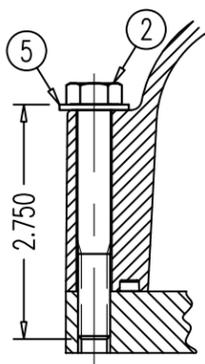
POCKET FORMER 68 04 2640
ON FLAT ANCHOR 68 04 2531



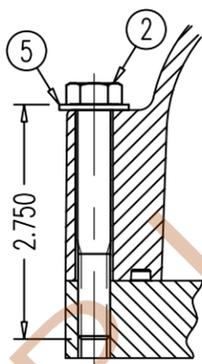
BAR GROUT CAP
B36E50700 & B65E50700



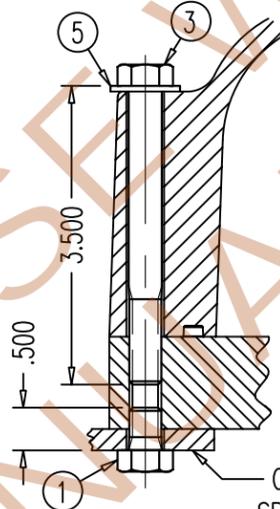
BAR GROUT CAP
B46E50700



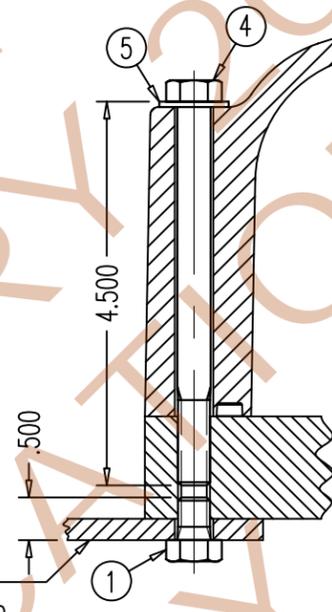
GROUT CAP 68 07 7230
ON MPA 68 07 216



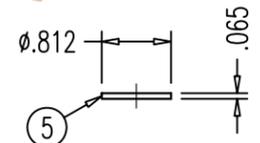
GROUT CAP 68 12 7230
ON MPA 68 12 216



GROUT CAP 68 19 7230
ON MPA 68 19 216



GROUT CAP 68 27 7230
ON MPA 68 27 216



TYPE A NARROW WASHER
FOR 3/8"-UNC BOLT

| POS. | PART NUMBER | DISCRIPTION (ALL PARTS 316L STAINLESS STEEL UNLESS NOTED) |
|------|-------------|---|
| ① | 00 00 770 | 3/8"-16UNC HEX BOLT, 1/2" LONG, ZINC PLATED |
| ② | 00 00 771 | 3/8"-16UNC HEX BOLT, 2-3/4" LONG (1" LONG THREAD) |
| ③ | 00 00 772 | 3/8"-16UNC HEX BOLT, 3-1/2" LONG (1" LONG THREAD) |
| ④ | 00 00 773 | 3/8"-16UNC HEX BOLT, 4-1/2" LONG (1" LONG THREAD) |
| ⑤ | 00 00 774 | TYPE A NARROW WASHER FOR 3/8"-UNC BOLT |
| ⑥ | 00 00 775 | 3/8"-16UNC HEX BOLT, 4" LONG (FULL THREAD) |
| ⑦ | 00 00 776 | 3/8"-16UNC COUPLER, ZINC COATED |
| ⑧ | 00 00 777 | 3/8"-16UNC HEX NUT |
| ⑨ | 00 00 778 | 5/16"-18UNC HEX BOLT, 7/8" LONG, ZINC PLATED |
| ⑩ | 00 00 782 | 3/8"-16UNC HEX BOLT, 3" LONG (1" LONG THREAD) |
| ⑪ | 00 00 783 | 3/8"-16UNC HEX BOLT, 3-1/4" LONG (1" LONG THREAD) |

NOTE:
THE 316L S.S. BOLTS ARE SPECIAL ORDER.
ALL WASHERS, HEX NUTS & COUPLERS HAVE
NO MARKINGS.

APPROVED BY FDOT 09-14-07

DIMENSIONS: INCH

QUALITY PLAN NUMBER:

STAINLESS STEEL 316L BOLTS AND WASHER FOR PLASTIC GROUT CAPS

DATE: 09-14-07 DWG: G. MALECKI CHK: E.A. APP: K.S.

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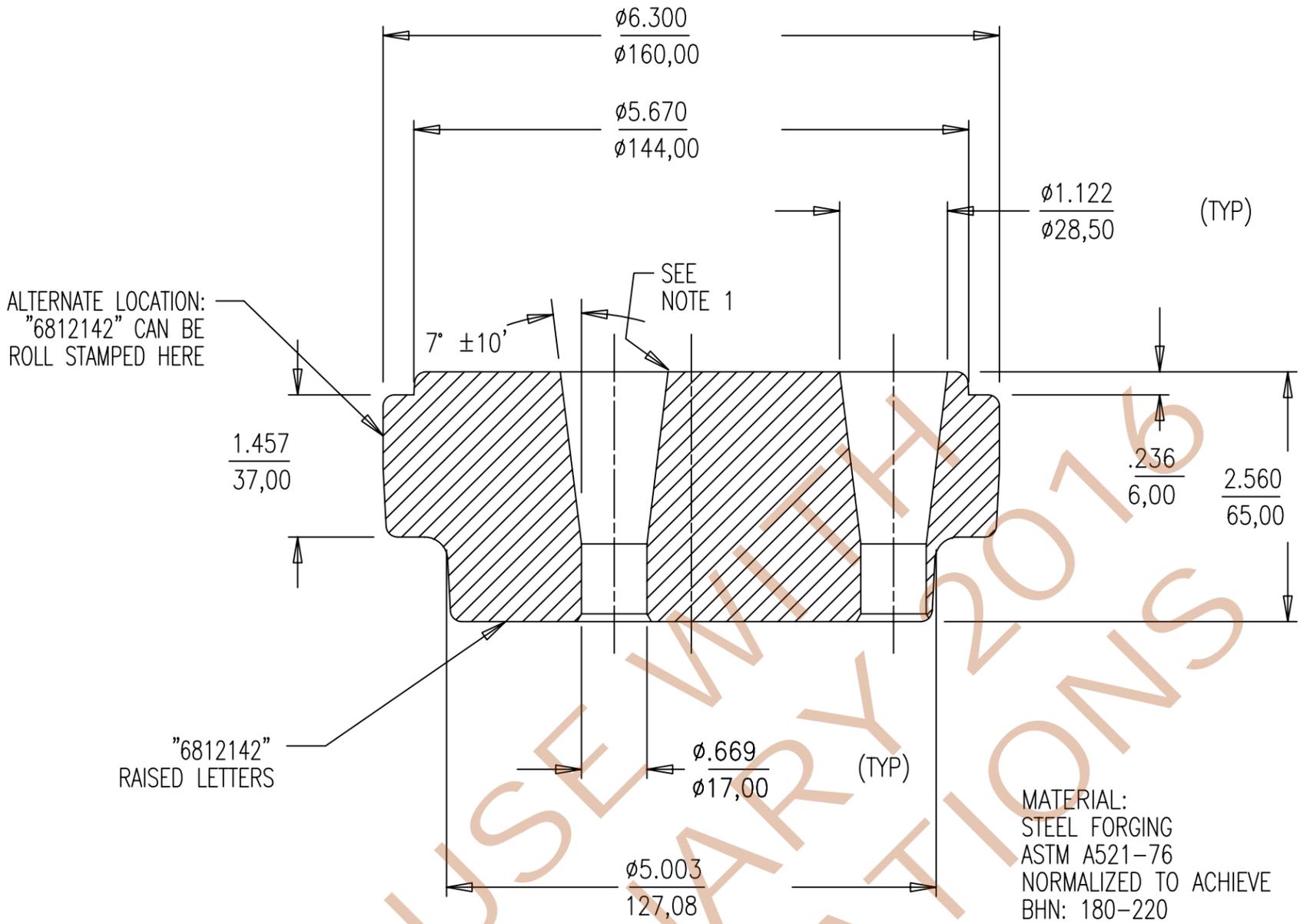
| REV. | DATE | NAME | PART NUMBERS: |
|------|------|------|---------------------|
| | | | 00 00 770 00 00 776 |
| | | | 00 00 771 00 00 777 |
| | | | 00 00 772 00 00 778 |
| | | | 00 00 773 00 00 782 |
| | | | 00 00 774 00 00 783 |
| | | | 00 00 775 |

SCALE
1:3

DRAWING NUMBER:
00 00 770

DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.
POST TENSIONING / REINFORCING UNIT PHONE: 630-739-1100
320 MARMON DRIVE - BOLINGBROOK, IL FAX: 630-739-1405





MATERIAL:
 STEEL FORGING
 ASTM A521-76
 NORMALIZED TO ACHIEVE
 BHN: 180-220
 MIN. YIELD STRENGTH: 50 KSI
 MIN. ELONG. IN 2": 18%

$3/8"$ THROUGH HOLE
 B.C. $\phi 2.126$
 B.C. $\phi 54,0$

$3/8"-16UNC$
 DRILL $1"$ (25,4) DEEP
 TAP $3/4"$ (19,1) DEEP
 (3) PLACES FOR KEEPER
 PLATE (SEE NOTE 4)

WEDGE PLATE DIPPED
 IN BEL-RAY RP-30 FOR
 CORROSION PROTECTION

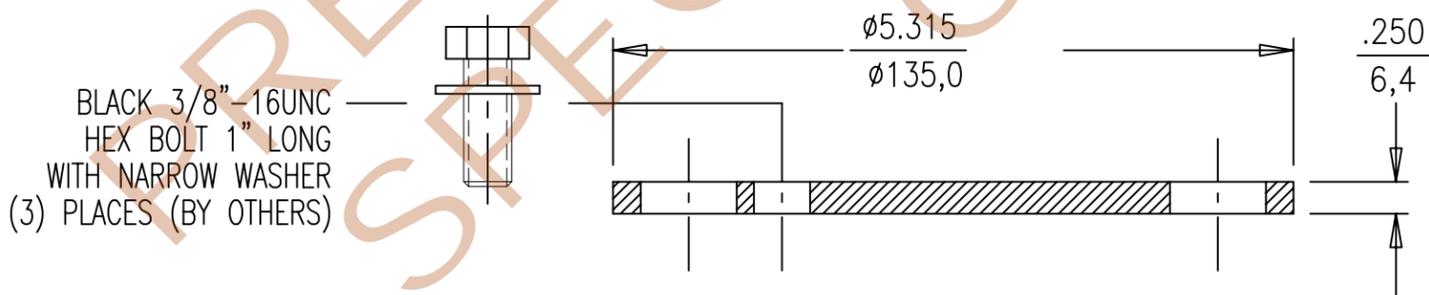
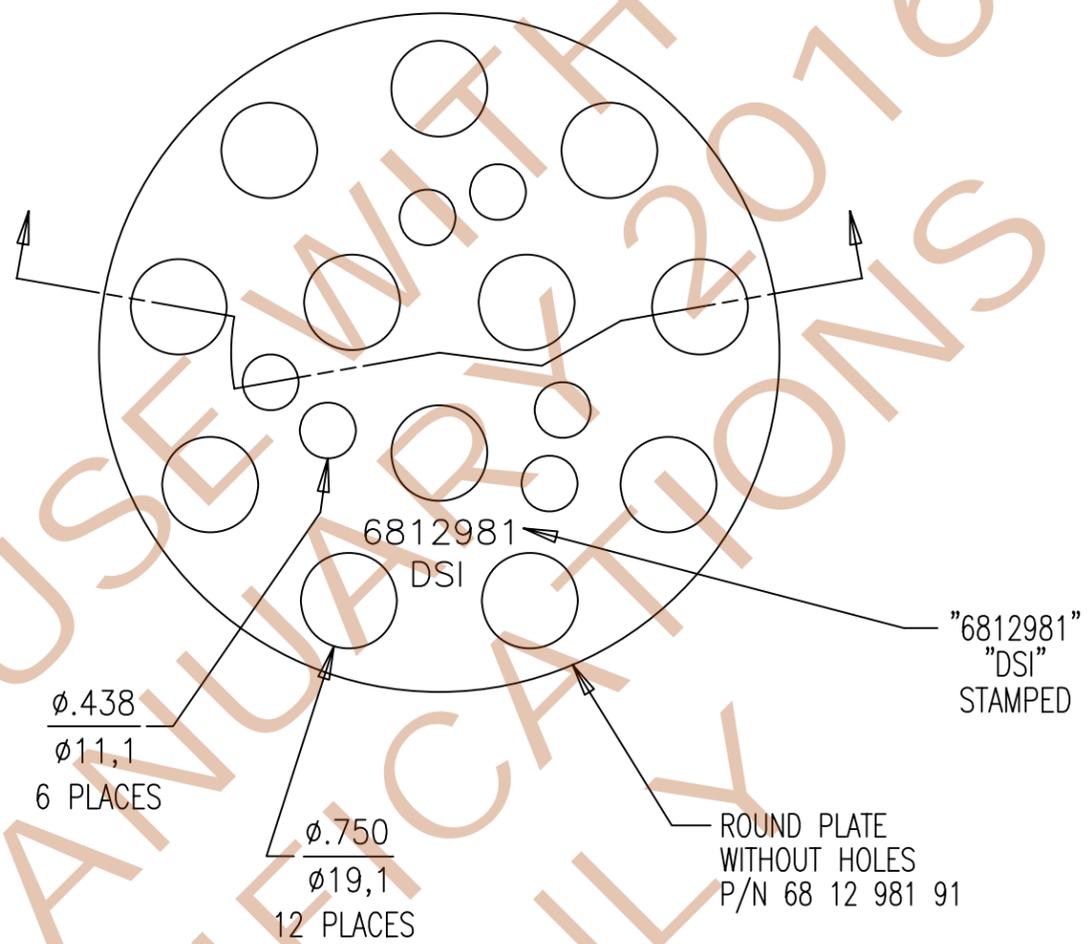
- NOTES:
- BREAK EDGES OF WEDGE HOLES.
 - USE 3-PART WEDGE P/N 68 00 0536.
 - USE FORGED WEDGE PLATE BLANK 68 12 142 91.
 - USE KEEPER PLATE ONLY FOR PRE-ASSEMBLED AND INACCESSIBLE DEAD END ANCHORS. USE (3) BLACK HEX BOLTS, $1"$ LONG WITH NARROW WASHERS (BY OTHERS).

APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|---|-----------------|-------------------------------------|-----------|---|----------------------|------|------|------|-------------------------------------|
| DIMENSIONS: INCH/mm mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS00014200F | | TOLERANCES: ± 0.20 UNLESS NOTED | WEIGHT 14 LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 143 |
| 12-0.6" FORGED WEDGE PLATE FOR FIXED END | | | | MATERIAL: SEE ABOVE | SCALE 1:2 | | | | DRAWING NUMBER: 68 12 143 |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: K.L. | APP: K.S. | DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405 | | | | | |



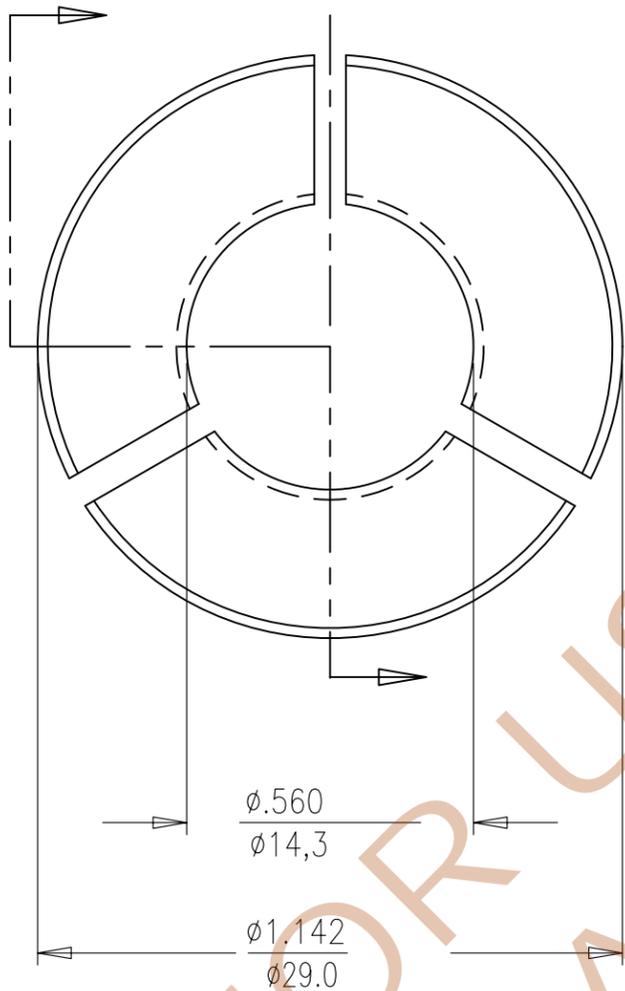
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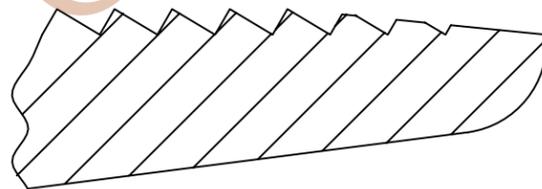
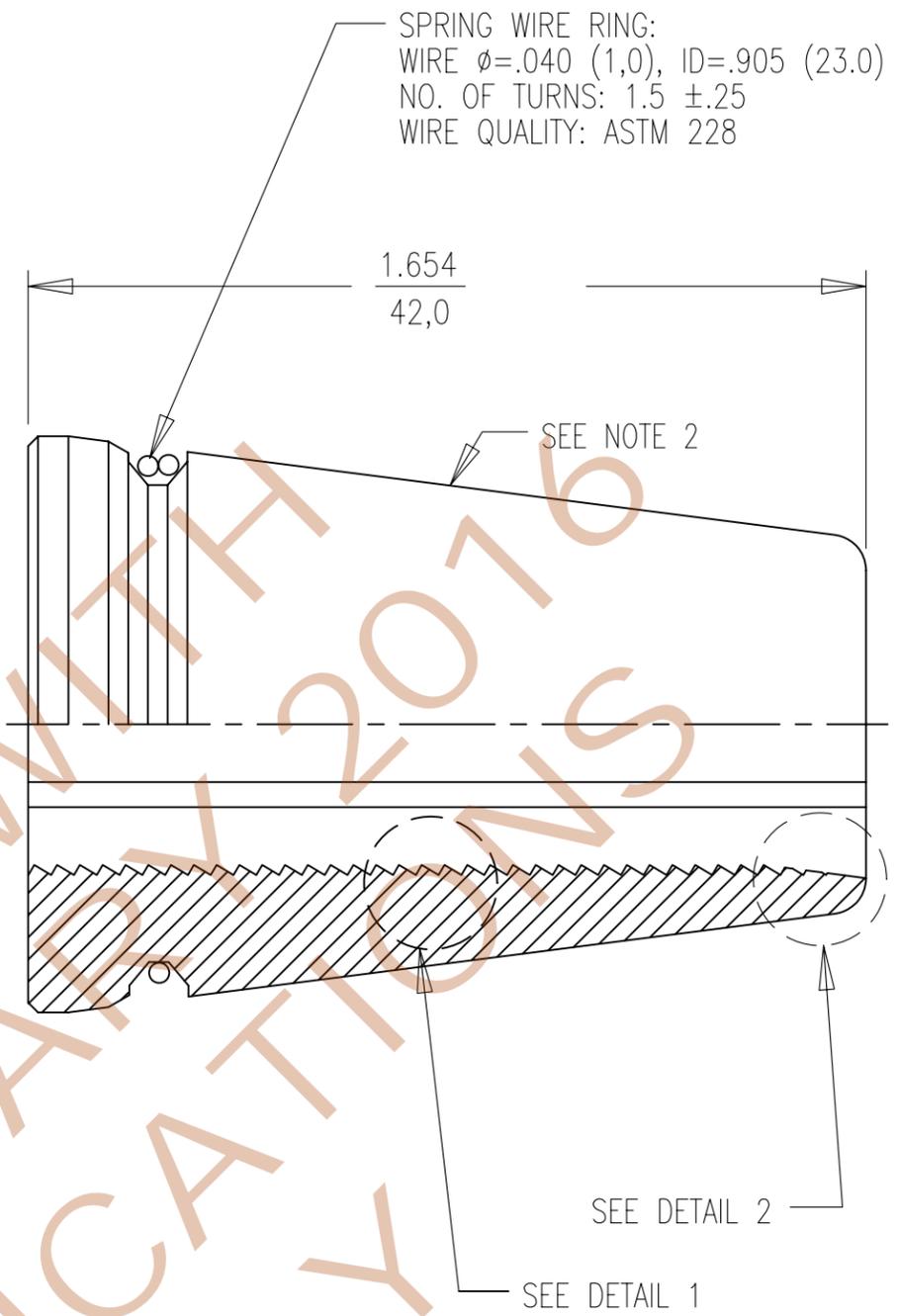
NOTE:
 USE KEEPER PLATE ONLY FOR PRE-ASSEMBLED
 AND INACCESSIBLE DEAD END ANCHORS.

APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|---|--|-------------------------------------|--|---|-----------------------|-----------|-----------|---|-------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS60098100L | | TOLERANCES: ±.020 UNLESS NOTED | WEIGHT 1.2 LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 981 |
| 12-0.6" KEEPER PLATE | | | | MATERIAL: AISI 1020 OR EQUIVALENT | SCALE 1:2 | | | | DRAWING NUMBER: 68 12 981 |
| | | | | DATE: 09-14-07 | DWG: G. MALECKI | CHK: K.L. | APP: K.S. | DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405 | |
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DETAIL 1
5:1



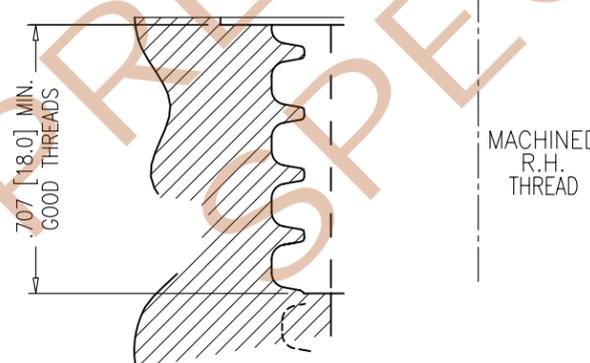
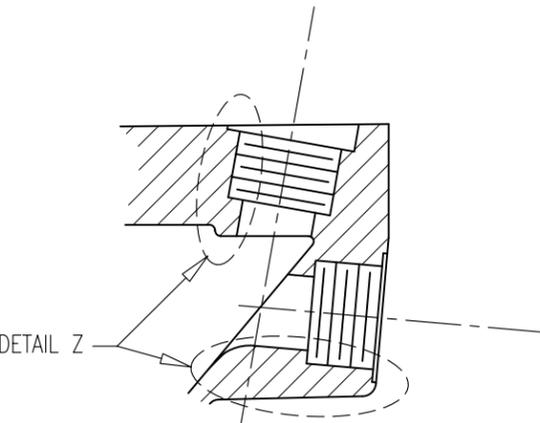
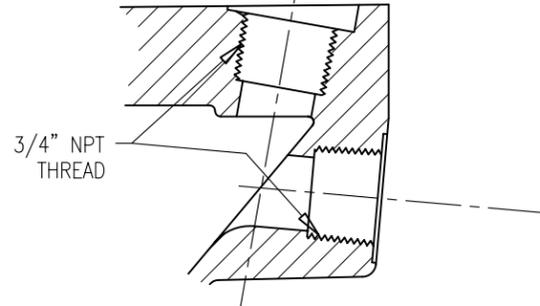
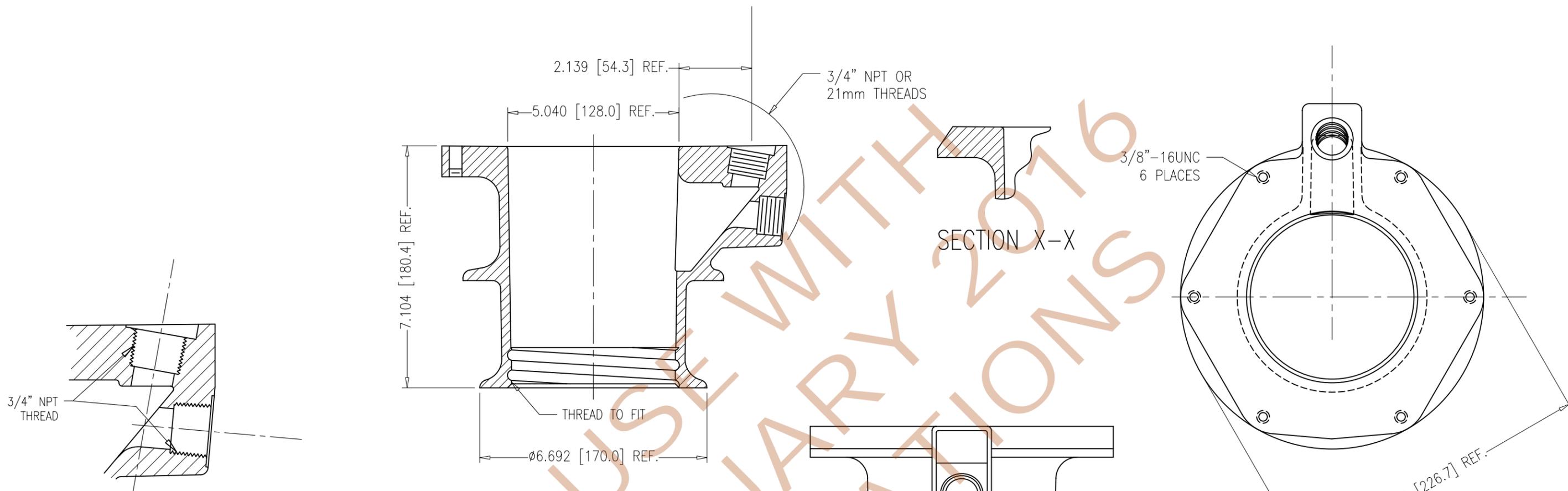
DETAIL 2
5:1

NOTES:

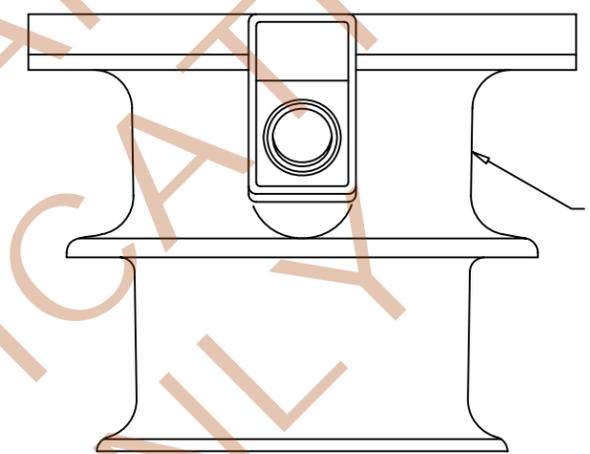
5. NO STAMPED PART NUMBER

APPROVED BY FDOT 05-31-07

| | | | | | | | | | |
|--|--|---------------------------------------|--|---|------------------------|-----------|-----------|------|--------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS00000500DP2 | | TOLERANCES: $\pm .010$; $\pm 2^\circ$ UNLESS NOTED | WEIGHT 0.19 LBS. | REV. | DATE | NAME | PART NUMBER: 68 00 0536 |
| 3-PART WEDGE 7° x 29 mm x 42 mm 0.6" STRAND | | | | MATERIAL: SEE MAT'L SPEC. PMU0005360B | SCALE 2:1 5:1 | | | | DRAWING NUMBER: 68 00 0536 |
| | | | | DATE: 05-31-07 | DWG: G. MALECKI | CHK: C.S. | APP: K.L. | | |
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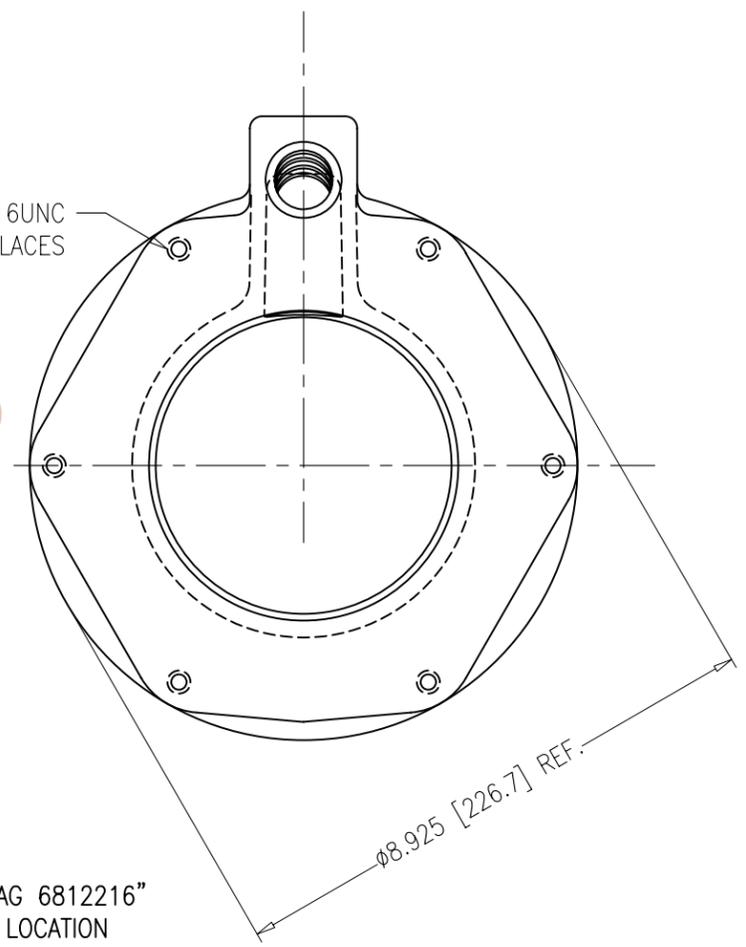


DETAIL Z
SCALE 6:1 IN COMPUTER



VIEW Y-Y

- NOTES FOR GALVANIZED PARTS:
1. HOT DIP GALV. ACCORD. TO ASTM A123.
 2. ASSURE THREADABILITY OF THREADED HOLES AFTER GALVANIZING.
 3. PROTECT THREADED HOLES WITH ZINC PAINT.



| GROUT PORT THREADS | |
|--------------------|----------|
| | 21mm |
| | 21mm |
| | 3/4" NPT |
| | 3/4" NPT |

SEE 68 12 216 90 FOR RAW CASTING. ALL PARTS HAVE 3/4"

APPROVED BY FDOT 09-14-07

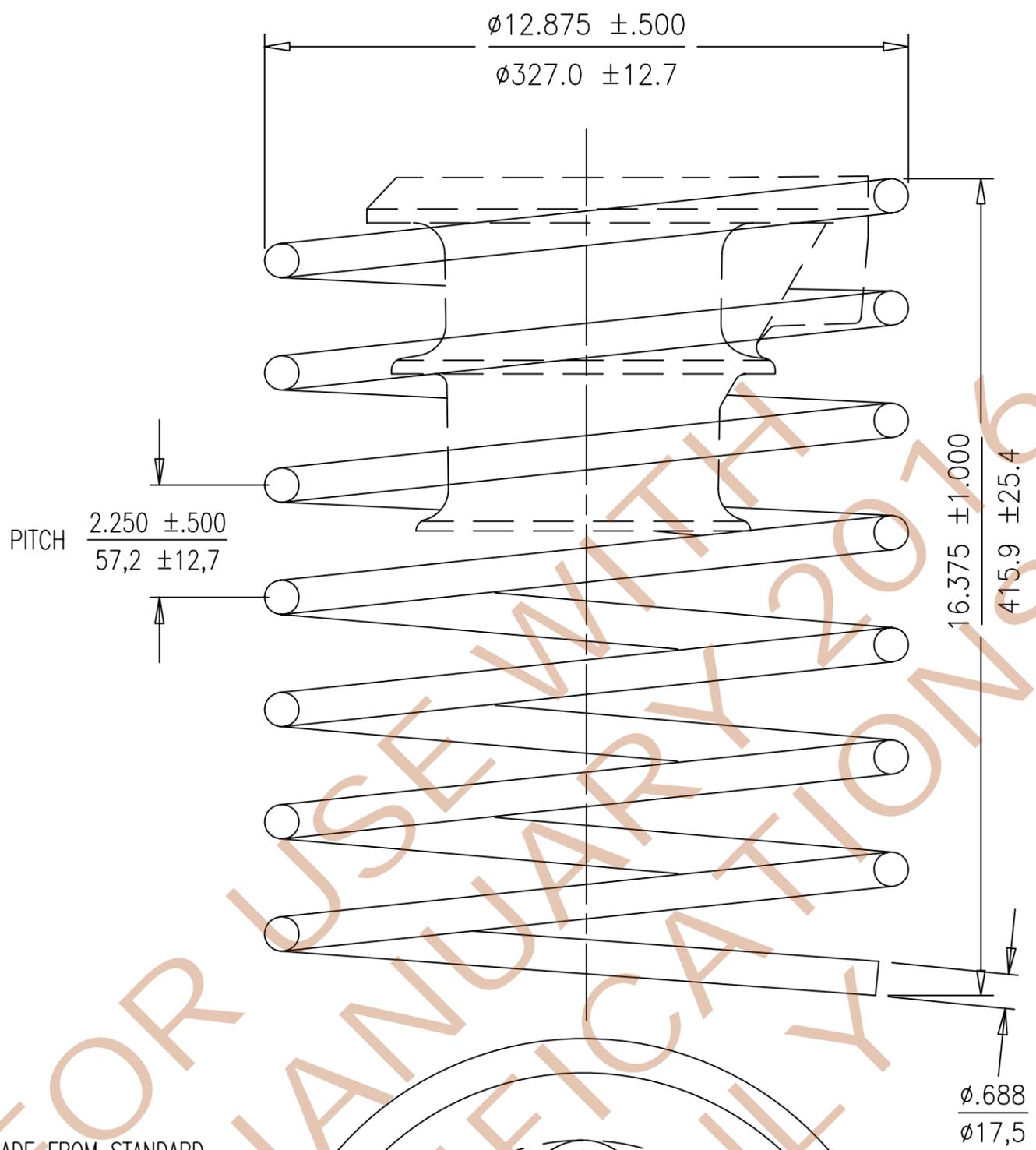
| | | | | | | | | | | |
|--|-----------------|----------------------|-----------|--|----------------------|------|------|------|--|-------------------------------------|
| DIMENSIONS: INCH/mm mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: | | TOLERANCES: 2 ±.030 ±2" UNLESS NOTED | WEIGHT 20 LBS. | REV. | DATE | NAME | PART NUMBER: | |
| 12-0.6"/15-0.5" MULTI-PLANE ANCHOR WITH TWO GROUT PORTS | | | | MATERIAL: SEE MAT'L SPEC. PM0021200C | SCALE 1:3 | | | | 68 12 216 68 12 238 68 12 246 68 12 248 | |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: H.K. | APP: K.S. | | | | | | | DRAWING NUMBER: 68 12 216 |

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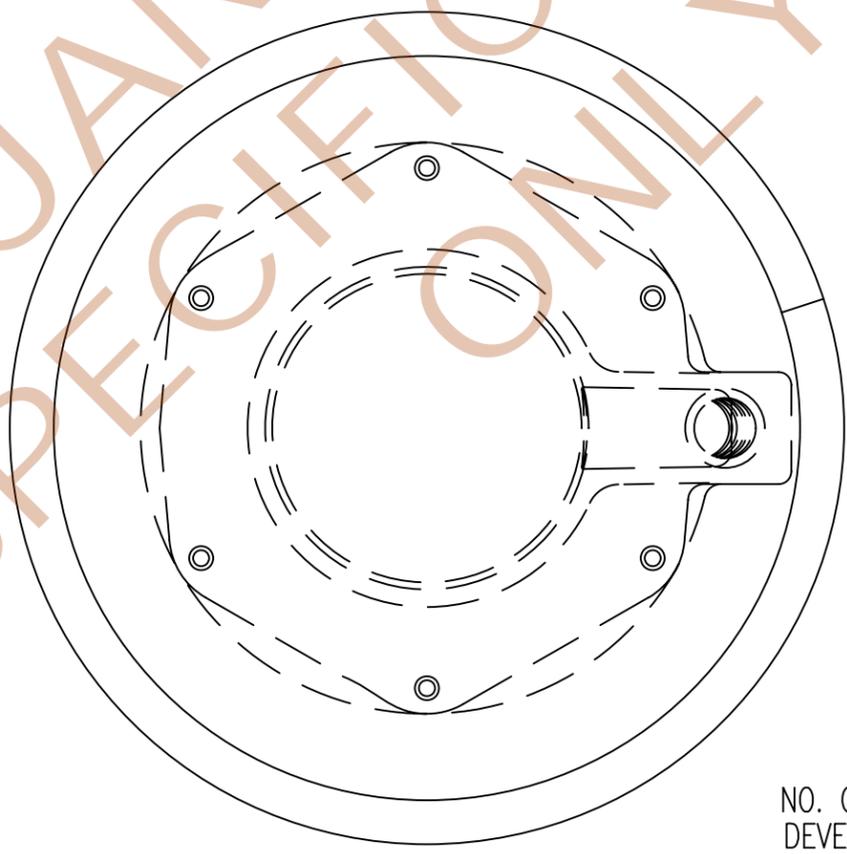
DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.
320 MARMON DRIVE - BOLINGBROOK, IL 60440
PHONE: 630-739-1100 FAX: 630-739-1405



SCALE 3:2 IN COMPUTER



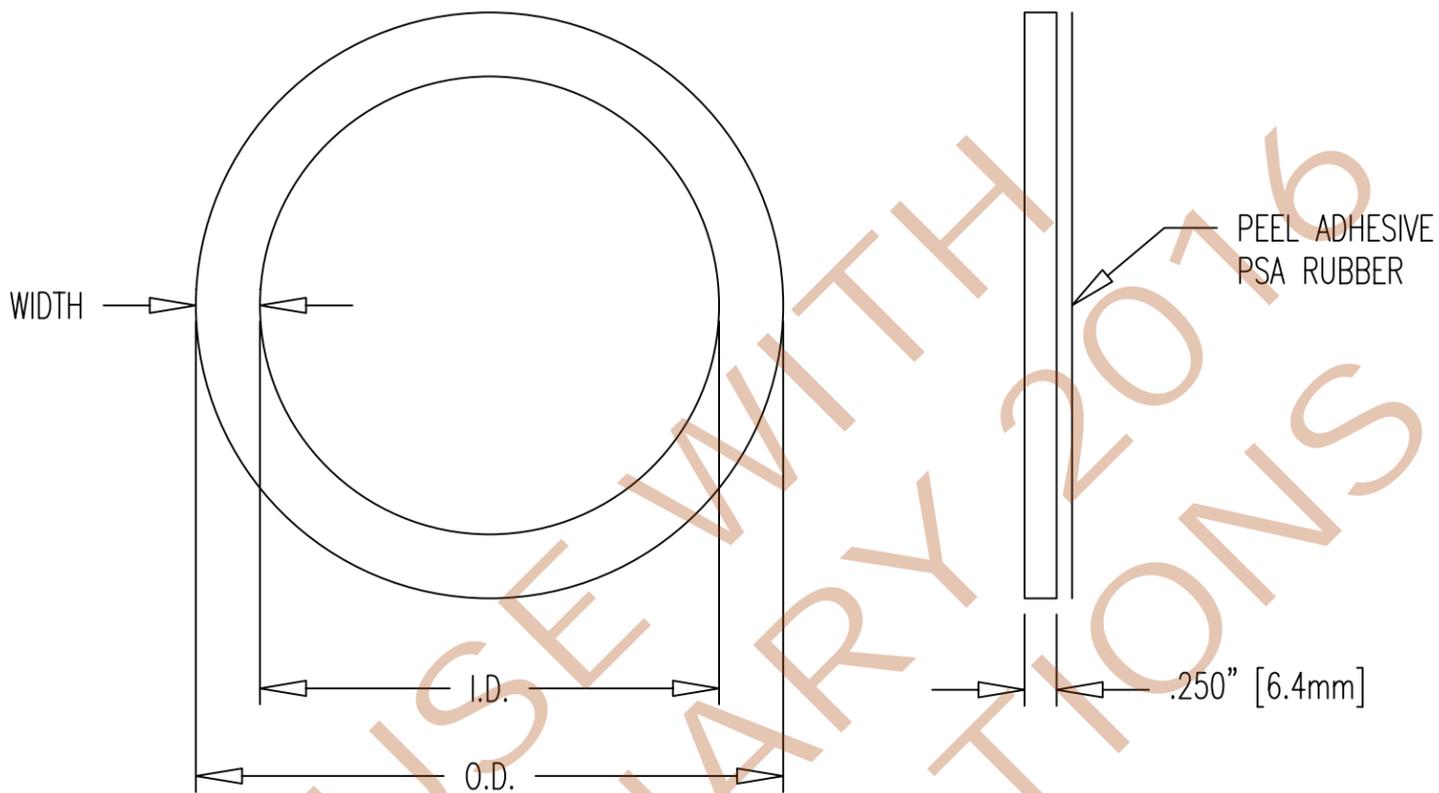
- NOTES:
1. SPIRAL IS MADE FROM STANDARD #5 REBAR, NO PART NUMBER MARKING IS SHOWN.
 2. KEEP SPIRAL AND MPA AXIS ALIGNED, IF USING SIDE PORT, ROTATE SPIRAL TO CLEAR.



NO. OF FULL TURNS: 7
 DEVELOPED LENGTH: 22'-6" ±1/4 IN.
 WEIGHT: 23.5

APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|--|--|-------------------------------------|--|--|------------------------|-----------|---|------|-------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS60021400A | | TOLERANCES: ±.020 UNLESS NOTED | WEIGHT 23.5 LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 254 |
| STANDARD SPIRAL FOR 12-0.6"/15-0.5" MPA | | | | MATERIAL: ASTM A615 SIZE #5, GR 60 | SCALE 1:4 | | | | DRAWING NUMBER: 68 12 254 |
| | | | | DATE: 09-14-07 | DWG: G. MALECKI | CHK: S.Y. | APP: K.S. | | |
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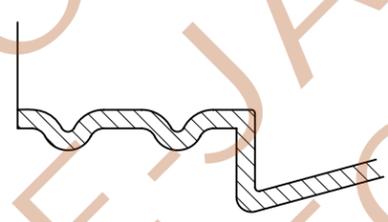
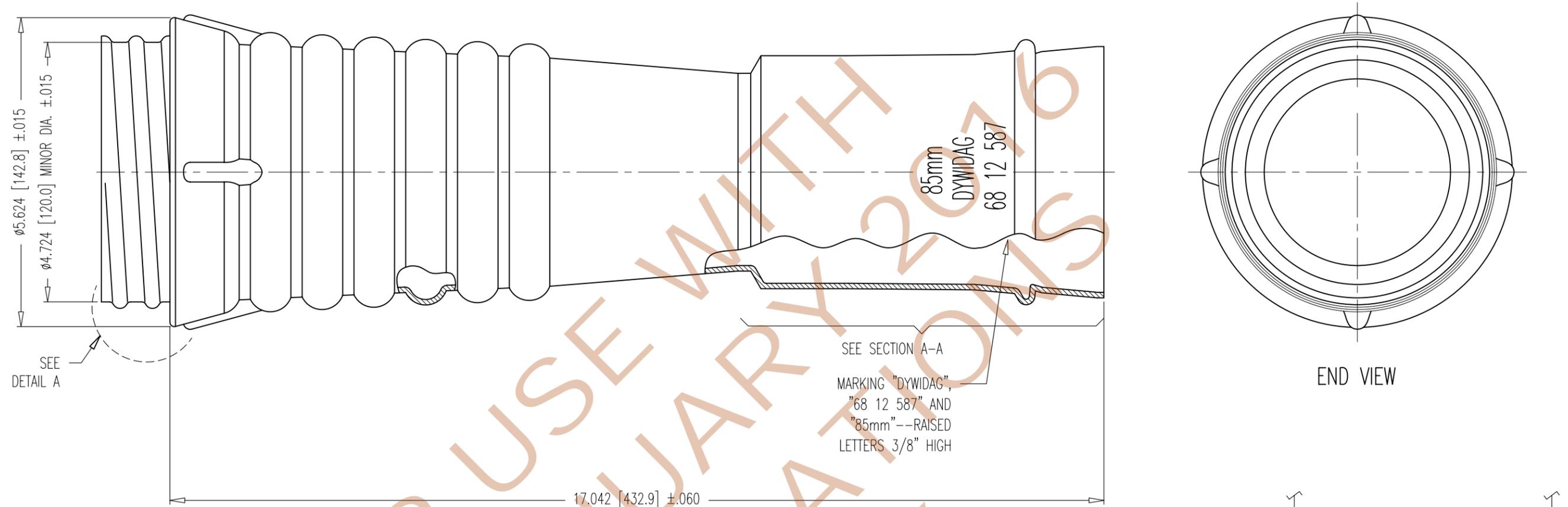


| PART NUMBER | SYSTEM | O.D. | I.D. | WIDTH |
|-------------|---------|-----------------|-----------------|----------------|
| 68 07 584 | 7-0.6" | ø4.580" [116mm] | ø3.580" [91mm] | .500" [12.7mm] |
| 68 12 584 | 12-0.6" | ø5.695" [145mm] | ø4.820" [122mm] | .438" [11.1mm] |
| 68 19 584 | 19-0.6" | ø6.675" [170mm] | ø5.800" [147mm] | .438" [11.1mm] |
| 68 27 584 | 27-0.6" | ø7.340" [186mm] | ø6.340" [161mm] | .500" [12.7mm] |

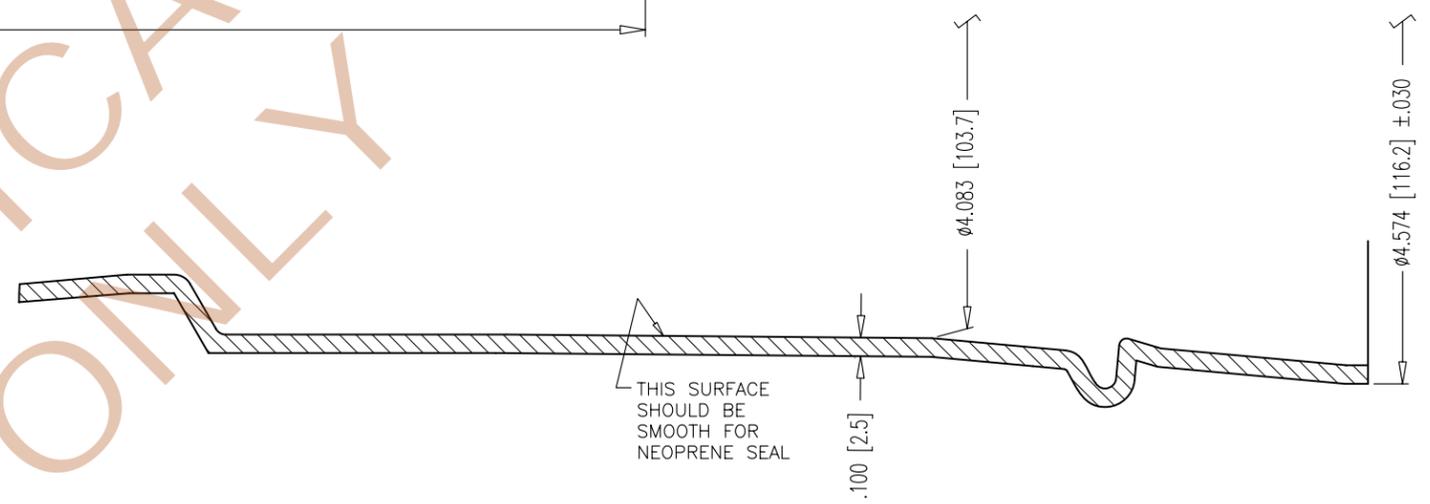
NOTE:
SPECIAL ORDER
NO STAMPED PART NUMBER

APPROVED BY FDOT 09-14-07

| | | | | | | | | | | | |
|--|--|-------------------------------------|--|---|--|-----------------|------|---|--|------------------------------|-----------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QS60063300R | | TOLERANCES: ±.030 UNLESS NOTED | | REV. | DATE | NAME | PART NUMBER: 68 07 584 68 12 584 68 19 584 68 27 584 | | |
| RUBBER SEAL BETWEEN MPA AND TRUMPET | | | | MATERIAL: CLOSED CELL NEOPRENE BLEND | | SCALE NTS | | | | DRAWING NUMBER: 68 00 584 | |
| | | | | DATE: 09-14-07 | | DWG: G. MALECKI | | CHK: C.N. | | | APP: E.A. |
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DETAIL A
 THREAD FITS INTO 12-0.6" MPA
 CASTING (SEE DRAWING 68 12 216)

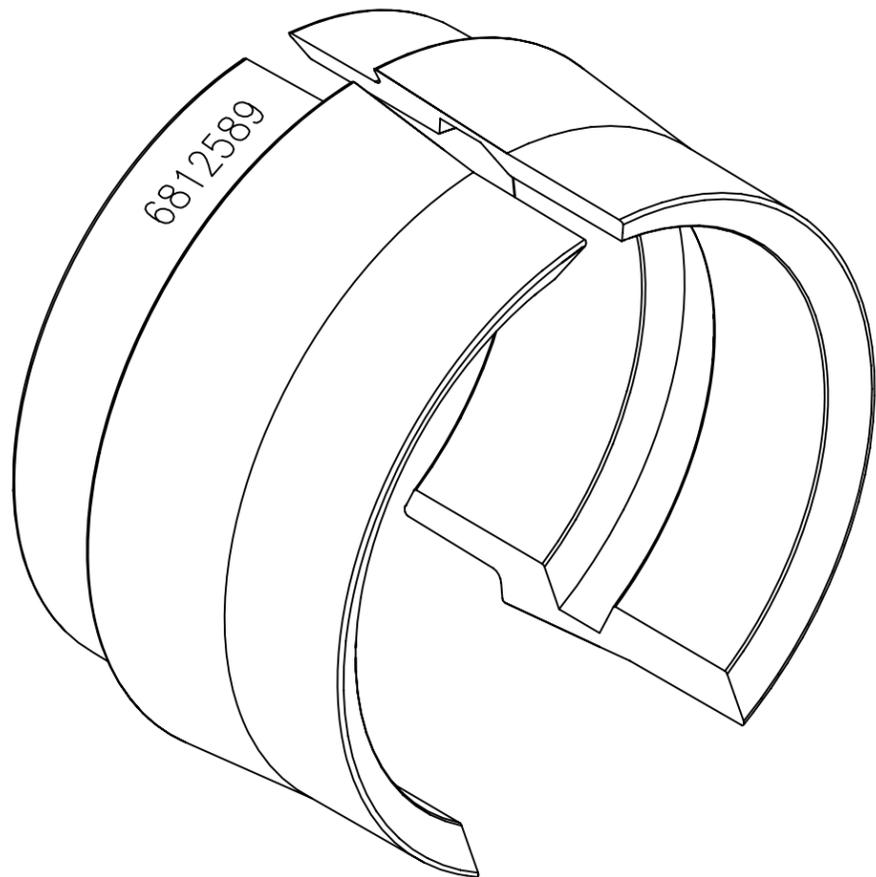


(THESE INSIDE DIMENSIONS ARE MORE
 IMPORTANT THAN OUTSIDE DIMENSIONS,
 MUST FIT OVER 85mm GTI DUCT U00220350)

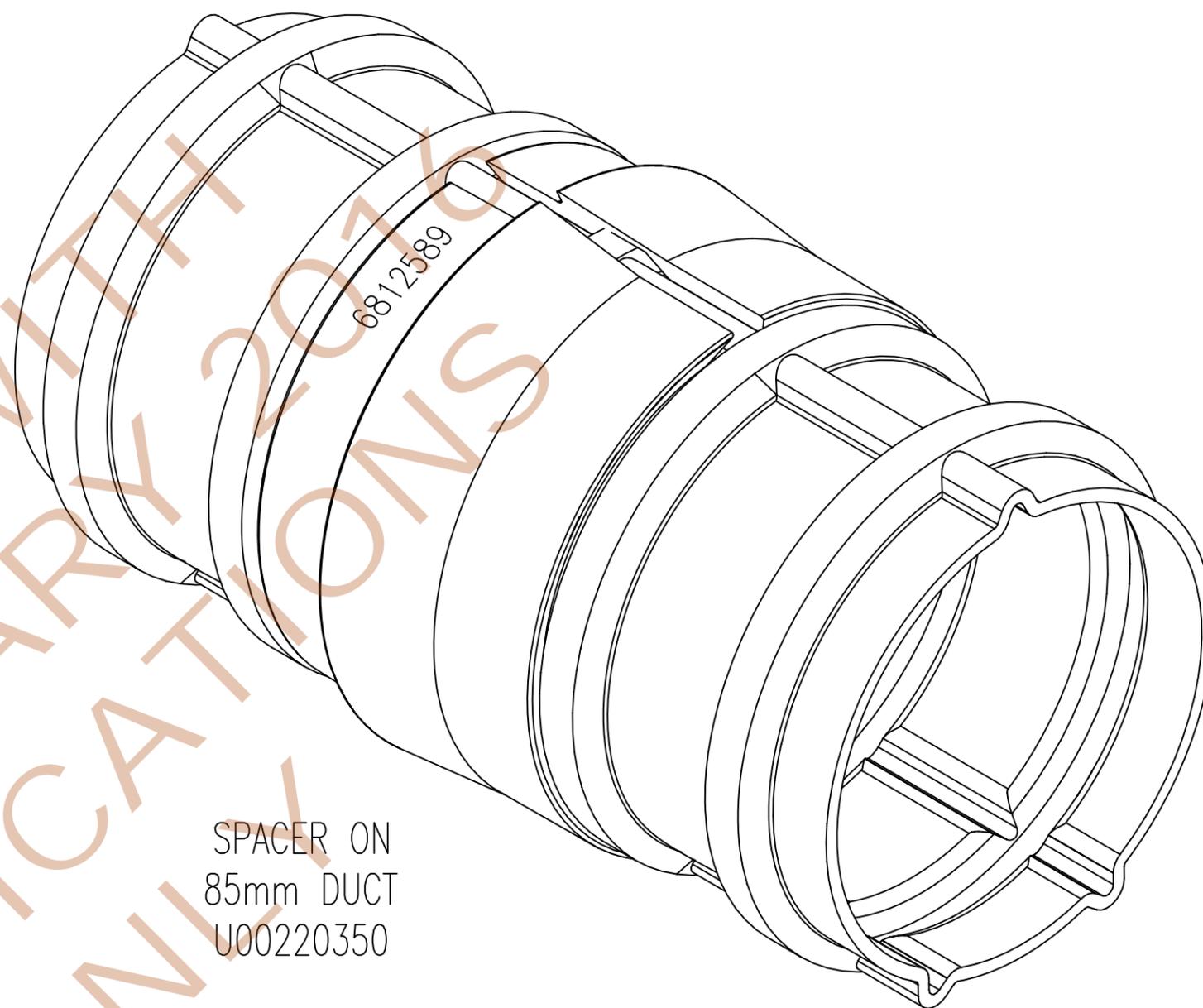
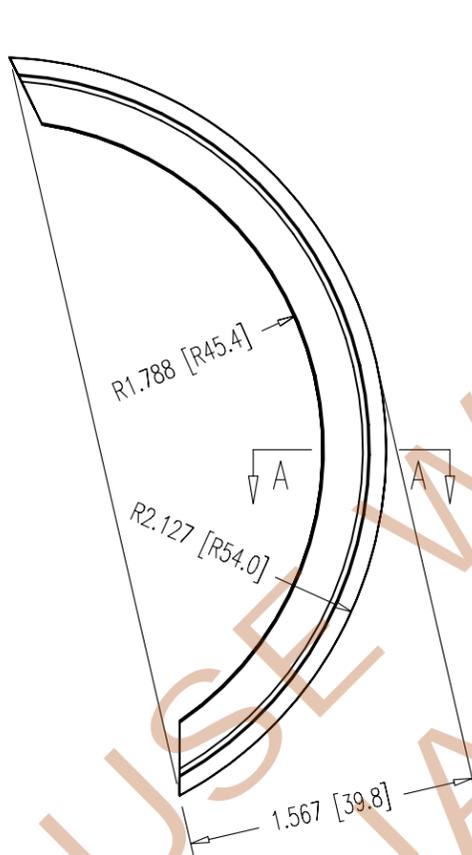
MATERIAL SPECIFICATIONS:
 MANUFACTURE TRUMPETS FROM NON-COLORED,
 UNFILLED POLYETHYLENE MEETING THE REQUIREMENTS
 OF ASTM D4976. THE TRUMPET SHALL BE WHITE IN
 COLOR CONTAINING ANTIOXIDANT(S) WITH A MINIMUM
 OXIDATION INDUCTION TIME (OIT) ACCORDING TO ASTM
 D 3895 OF 20 MINUTES AND CONTAINING A NON-YELLOWING
 LIGHT STABILIZER. THE STRESS CRACK RESISTANCE TEST OF
 THE TRUMPET SHALL RESULTS IN A MINIMUM FAILURE TIME OF
 3 HOURS ACCORDING TO F 2136 AT AN APPLIED STRESS OF 348 PSI

APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|---|-----------------|----------------------|-----------|---|--|------|------|------|-----------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: | | TOLERANCES: ± 0.020 UNLESS NOTED MATERIAL: SEE ABOVE | WEIGHT SCALE 1:2 1:1 1:4 | REV. | DATE | NAME | PART NUMBER: |
| 12-0.6" TRUMPET FOR MPA TO 85mm GTI DUCT | | | | | | | | | |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: E.A. | APP: K.S. | | | | | | DRAWING NUMBER: |
| THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC. AND THEIR CONTENTS ARE THE PROPERTY OF DYWIDAG SYSTEMS INTERNATIONAL, USA, INC. THEY ARE NOT ALLOWED TO BE DUPLICATED WITHOUT OUR PERMISSION. THEY ARE ALSO NOT TO BE SHOWN OR EXPLAINED FOR ANY REASON TO A THIRD PARTY OTHER THAN FOR REASONS EXPRESSLY INTENDED BY DSI's SUBMITTAL TO THE ORIGINAL RECEIVER. THEY HAVE TO BE RETURNED UPON REQUEST. | | | | DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. POST TENSIONING / REINFORCING UNIT PHONE: 630-739-1100 320 MARMON DRIVE - BOLINGBROOK, IL FAX: 630-739-1405 | | | | | |

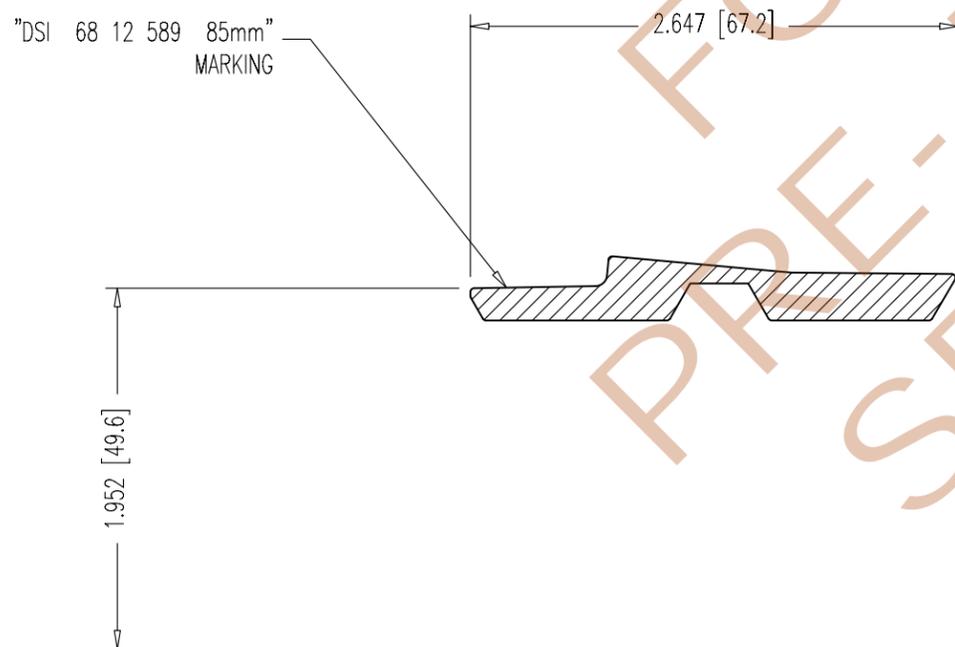


SPACER 68 12 589
(TWO SEGMENTS REQUIRED)



SPACER ON
85mm DUCT
U00220350

"DSI 68 12 589 85mm"
MARKING

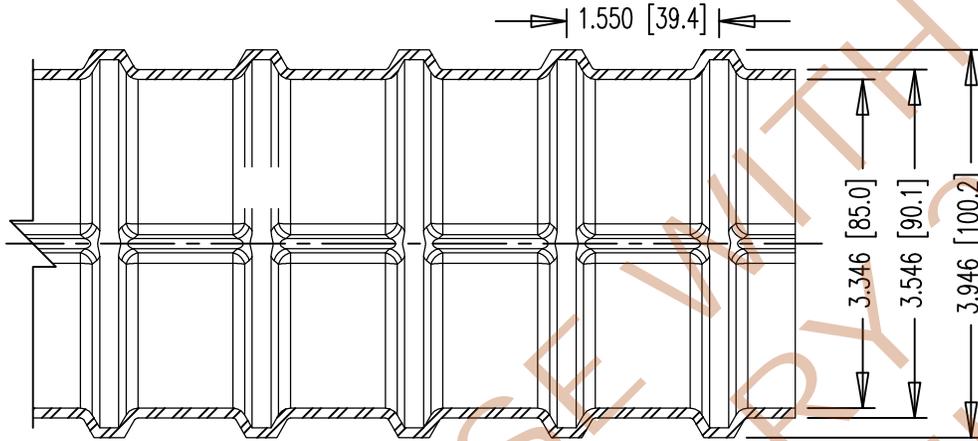
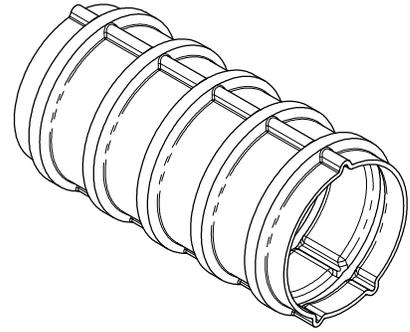
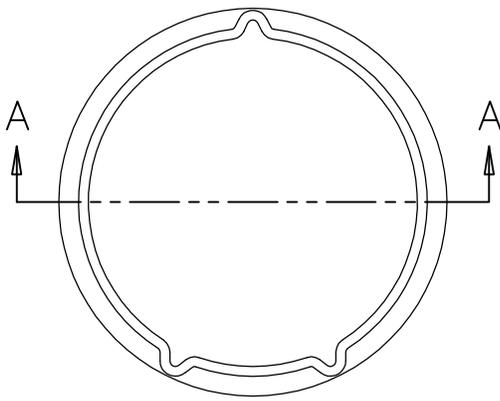


SECTION A-A

MATERIAL:
NYLON 6, 20% GLASS FIBER FILLED.
THE CELL CLASSIFICATION SHALL CONFORM
TO ASTM D5989 AND SHALL BE S-PA0141
(WEATHER RESISTANT), S-PA0231 OR
S-PA0401 (TENSILE STRENGTH, YIELD 15000
PSI MIN., WITH UV STABILIZER ADDED).

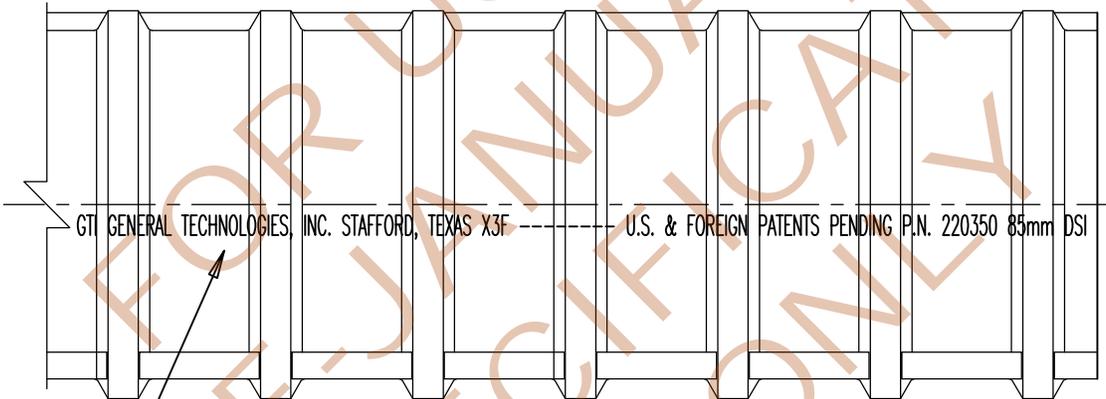
APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|---|-----------------|----------------------|-----------|---|----------------|------|------|------|-------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: | | TOLERANCES: ±.020 UNLESS NOTED | WEIGHT LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 589 |
| FILLER PIECE FOR 12-0.6" TRUMPET AND 3-3/8" (85mm) CORRUGATED PP DUCT | | | | MATERIAL: SEE ABOVE | SCALE 1:1 | | | | DRAWING NUMBER: 68 12 589 |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: E.A. | APP: K.S. | DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405 | | | | | |
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SECTION A-A

MATERIAL SPECIFICATIONS:
 MANUFACTURE DUCTS FROM NON-COLORED, UNFILLED POLYPROPYLENE MEETING THE REQUIREMENTS OF ASTM D4101 WITH A CELL CLASSIFICATION RANGE OF PP0340B44541 TO PP0340B67884. THE DUCT SHALL BE WHITE IN COLOR CONTAINING ANTIOXIDANT(S) WITH A MINIMUM OXIDATION INDUCTION TIME (OIT) ACCORDING TO ASTM D 3895 OF 20 MINUTES AND CONTAINING A NON-YELLOWING LIGHT STABILIZER.



1 RUNNING LATEX PRINT:
 "GTI GENERAL TECHNOLOGIES, INC. STAFFORD, TEXAS X3F U.S. & FOREIGN PATENTS PENDING P.N. 220350 85mm DSI" (----- = BATCH NUMBER).

- NOTES:
1. GTI GENERAL TECHNOLOGIES, INC. STAFFORD, TEXAS X3F U.S. & FOREIGN PATENTS PENDING P.N. 220350 85mm DSI (----- IS BATCH NO.).
 2. REFERENCE GTI DRAWING 220350.
 3. STANDARD FIT FOR 12-0.6" & 15-0.5" STRANDS.
 4. THIS DRAWING IS NOT INTENDED FOR MANUFACTURING PURPOSES.
 5. MIN. BENDING RADIUS, $R_{min} = 25.6$ FT.
 6. DUCT IS DELIVERED IN STRAIGHT SECTIONS AND IS NOT INTENDEND TO BE COILED.

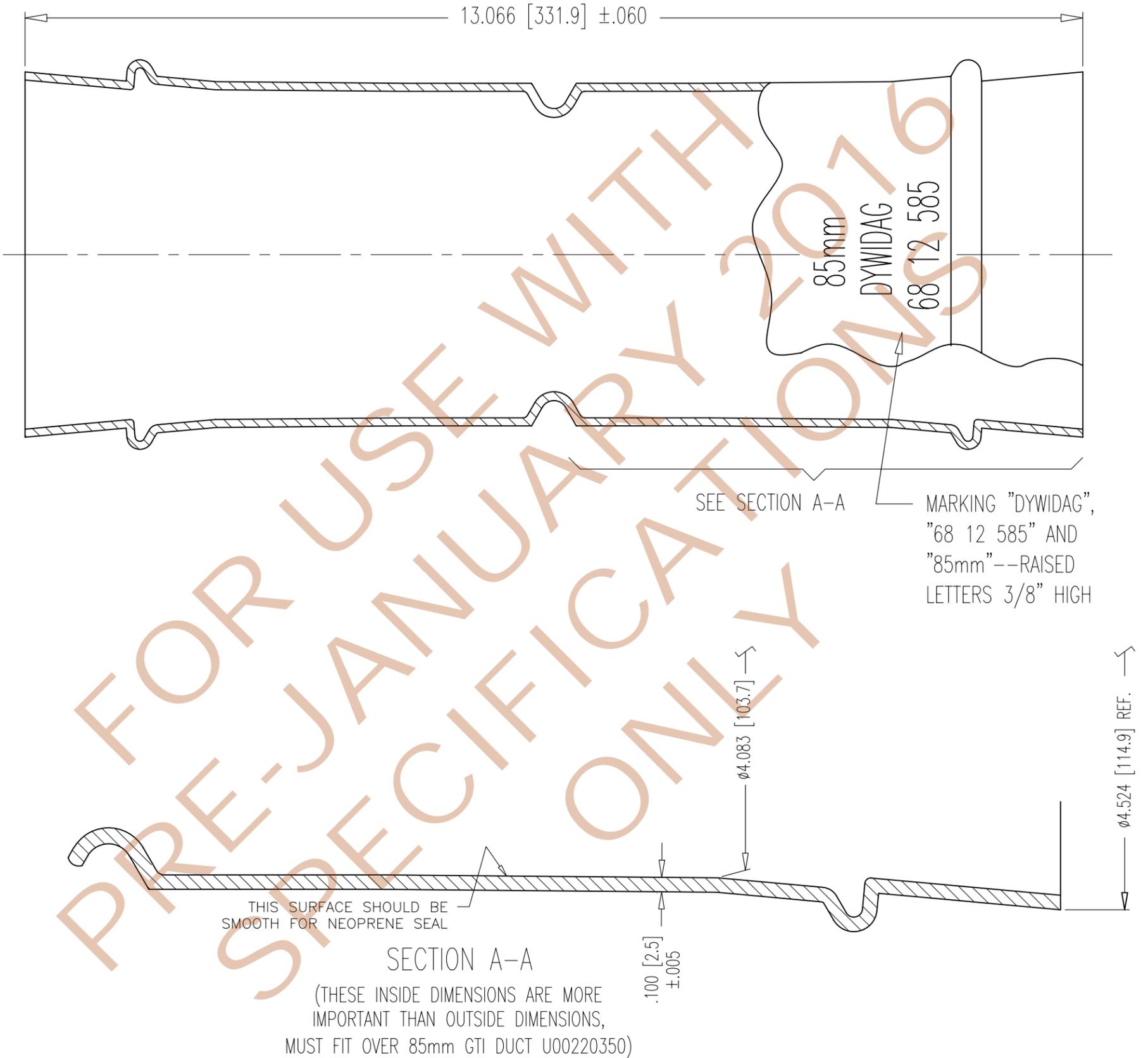
APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|---|-----------------|-------------------------------------|-----------|---|------------------------|----------------|------------------------------|----------------------|-------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: QU00041110P | | TOLERANCES: ±.010 UNLESS NOTED | WEIGHT 0.43 LBS. | REV. 1 2 | DATE 08-04-08 01-28-13 | NAME S.N. S.N. | PART NUMBER: U00220350 |
| 3-3/8" (85mm) CORRUGATED PP DUCT WITH FLOW CHANNELS | | | | MATERIAL: SEE ABOVE | SCALE 1:2 | | | | DRAWING NUMBER: U00220350 |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: H.K. | APP: K.S. | THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC. AND THEIR CONTENTS ARE THE PROPERTY OF DYWIDAG SYSTEMS INTERNATIONAL, USA, INC. THEY ARE NOT ALLOWED TO BE DUPLICATED WITHOUT OUR PERMISSION. THEY ARE ALSO NOT TO BE SHOWN OR EXPLAINED FOR ANY REASON TO A THIRD PARTY OTHER THAN FOR REASONS EXPRESSLY INTENDED BY DSI'S SUBMITTAL TO THE ORIGINAL RECEIVER. THEY HAVE TO BE RETURNED UPON REQUEST. | | | | | |
| DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. POST TENSIONING / REINFORCING UNIT PHONE: 630-739-1100 320 MARMON DRIVE - BOLINGBROOK, IL FAX: 630-739-1405 | | | | | | | | | |



MATERIAL SPECIFICATIONS:

MANUFACTURE COUPLERS FROM NON-COLORED, UNFILLED POLYPROPYLENE MEETING THE REQUIREMENTS OF ASTM D4101 WITH A CELL CLASSIFICATION RANGE OF PP0340B14541 TO PP0340B67884. THE COUPLER SHALL BE WHITE IN COLOR CONTAINING ANTIOXIDANT(S) WITH A MINIMUM OXIDATION INDUCTION TIME (OIT) ACCORDING TO ASTM D 3895 OF 20 MINUTES AND CONTAINING A NON-YELLOWING LIGHT STABILIZER. THE STRESS CRACK RESISTANCE TEST OF THE COUPLER SHALL RESULT IN A MINIMUM FAILURE TIME OF 3 HOURS ACCORDING TO ASTM F 2136 AT AN APPLIED STRESS OF 348 PSI.



APPROVED BY FDOT 09-14-07

| | | | | | | | | | |
|--|-----------------|----------------------|-----------|---|------------------------|------|------|------|-------------------------------------|
| DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY | | QUALITY PLAN NUMBER: | | TOLERANCES: ±.020 UNLESS NOTED | WEIGHT 0.61 LBS. | REV. | DATE | NAME | PART NUMBER: 68 12 585 |
| COUPLER FOR 85mm GTI DUCT FOR 12-0.6" STRANDS | | | | MATERIAL: SEE ABOVE | SCALE 1:2 9:10 | | | | DRAWING NUMBER: 68 12 585 |
| DATE: 09-14-07 | DWG: G. MALECKI | CHK: E.A. | APP: K.S. | DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405 | | | | | |
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