

00 00 678 1/2" NPT PIPE NIPPLE, LENGTH AS REQ'D (TEMP.) SCH 40 BLACK STEEL

PVC

SILICONE

NYLON 6, WHITE

POLYPROPYLENE

CLOSED CELL NEOPRENE BLEND

1/2" NPT BALL VALVE (TEMPORARY)

TEFLON TAPE OR PASTE FOR THREADS

**PREMIUM 100% SILICONE** 

00 00 861 (OPTIONAL) 3/4" NPT GROUT VENT PORT

1" x 1/4" SEAL

CAP: NYLON 6, 20% GLASS FILLED

270 KSI LOW RELAX STRAND

AISI-C12L14 HEAT TREATED

ACCORDING TO FDOT SPEC, 960-2,2,1,8

00 00 634

ANS

68 00 583

O-RING: EPDN

POLYPROPYLENE

68 19 7230

U00220410

301060 0.6" STRAND

19-0.6" NYLON CAP WITH O-RING

U00220415 (OPTIONAL) 4" SLIP-ON COUPLER

68 00 0536 3-PART WEDGE FOR 0.6" STRAND

U00044115 HEAT SHRINK SLEEVE, PLA-115-450-BK

4" (100mm) CORR. DUCT (Rmin,=23.59 FT.) POLYPROPYLENE

**INSTALLATION PROCEDURE:** 

BELOW PROCEDURE IS GENERIC, USERS SHALL REFER TO FOOT

- PREASSEMBLE THE MULTI-PLANE ANCHOR, SPIRAL AND PE TRUMPET. USE PREMIUM 100% SILICONE BETWEEN MPA AND TRUMPET TO HAVE A STRONG CONNECTION. GREASE THE BOLTS TO FACILITATE REMOVAL LATER
  - BOLT THE MULTI-PLANE ANCHOR (MPA) WITH PE TRUMPET TO THE POCKET FORMER USING SOME OF THE SIX THREADED HOLES IN MPA. THE MPA SHALL BE ORIENTED SUCH THE GROUT HOLE POINTS UP. THE SPIRAL SHOULD BE ATTACHED TO ADJACENT REBARS AND ROTATED SUCH THAT IT WON'T INTERFERE WITH 3/4" NPT PIPE ATTACHMENT (IF USING SIDE GROUT HOLE IN MPA). ALIGN AXIS OF SPIRAL WITH ANCHOR. USE PLUG IN UNUSED PORT IN MPA AS SHOWN. INSTALL PIPE NIPPLE WITH FOAM INSULATION FOR ANY PIPE NIPPLE CAST IN
  - INSTALL THE DUCT SYSTEM AS SHOWN ON SHOP DRAWINGS. INSERT DUCT WITH SPACER INTO TRUMPET AND HEAT SHRINK. SECURE DUCT PROFILE EVERY TWO FEET.
- PRESSURE TEST DUCT SYSTEM PER FDOT SPECS 462-8.2.1.1.

#### CONCRETING CAN NOW PROCEED

- AFTER COMPLETION OF CONCRETE PLACEMENT, PROVE THAT THE DUCTS ARE CLEAR OF ANY OBSTRUCTIONS OR DAMAGE. PASS A TORPEDO THROUGH THE DUCT TO DEMONSTRATE.
- PROVE THAT ALL GROUT VENTS ARE FREE AND SECURED
- AFTER THE CONCRETE HAS GAINED STRENGTH, THE STRESSING INSTALL STRANDS BY PUSHING OR PULLING INDIVIDUALLY OR
- AS A BUNDLE INTO DUCTS. ALLOW SUFFICIENT TAIL LENGTH CHECK THE WEDGE PLATE FOR RUST, DIRT AND GRIT. CLEAN
- WEDGE HOLES WITH WIRE BRUSH IF NECESSARY. LIGHTLY GREASE OR OIL WEDGE HOLES.
- CHECK WEDGES FOR RUST, DIRT AND GRIT. DISCARD RUSTY WEDGES. USE ONLY CLEAN WEDGES.
- 11. INSTALL WEDGE PLATE, SLIP THE WEDGES OVER THE STRANDS AND LOOSELY SEAT IN WEDGE HOLES

STRESSING CAN PROCEED WHEN CONCRETE STRENGTH IN CONTRACT DRAWING NOT LESS THAN 4000 PSI.

- 12. AFTER THE STRESSING OPERATION IS COMPLETED AND THE ELONGATIONS FALL WITHIN ±7%, OBTAIN APPROVAL FROM THE ENGINEER TO CUT THE STRAND TAILS APPROXIMATELY 3/4" AWAY FROM THE WEDGES.
- 13. EVALUATE STRESSING OPERATION IF ELONGATIONS FALL OUTSIDE THE 7% LIMIT.
- 14. INSTALL GROUT CAP WITH O-RING USING SIX BOLTS. CONNECT 1/2" PIPE NIPPLE IN PORT TO BE USED, INSERT DRILL BIT INTO PIPE NIPPLE AND DRILL 1/2" HOLE IN CAP USING SAW BIT OR SPADE BIT (BY OTHERS) TO PREVENT DAMAGE TO THREADS
- 15. CONNECT THE 3/4" NPT PIPE NIPPLE ASSEMBLY INTO THE FRONT PORT OF THE MPA.
- THREAD 1/2" NPT PIPE NIPPLE ASSEMBLY INTO THE THREADED PORTS PROVIDED IN THE GROUT CAP. THIS PORT CAN BE USED AS AN INJECTION VENT ONLY.
- 17. PRESSURE TEST DUCT SYSTEM PER FDOT SPECS 462-8.2.2.

#### **GROUTING CAN NOW PROCEED**

REMOVE GROUT PORT PIPES AND INSERT PLUGS . FILL BLOCKOUT AND HOLES WITH NON-SHRINK GROUT AFTER POST GROUTING OPERATIONS AND INSPECTIONS ARE COMPLETED.

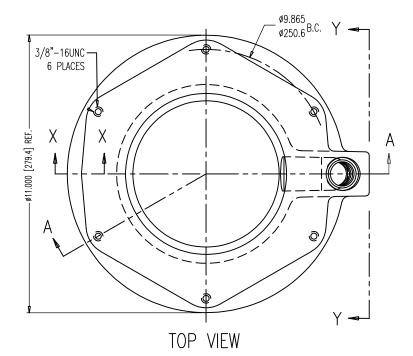
REFER TO STANDARD PLANS 462-003 FOR PT ANCHORAGE AND TENDON FILLING DETAILS

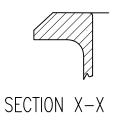
## **INTERNAL GROUTED 19-0.6" MA ASSEMBLY DRAWING**

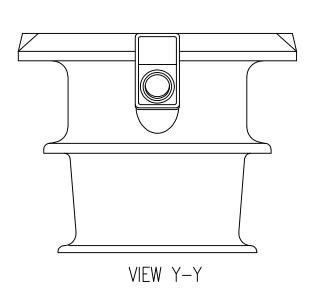
DATE: 05-07-19 DWG: G. MALECKI CHK: S.I.

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	REV.	DATE	NAME	PART NUMBER:
SCALE				
1:6				DRAWING NUMBER:
				MA 68 19 200
				IVIA 60 19 200

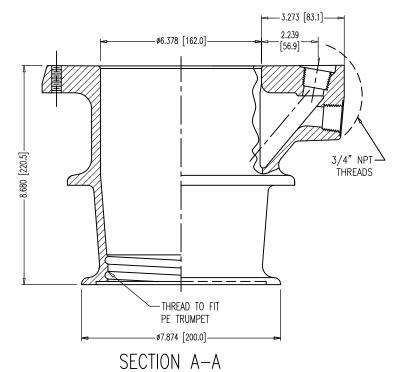






NOTES FOR GALVANIZING PARTS:

- AFTER CASTING IS STRIPPED, GRIND AND TOUCH UP TOP AND BOTTOM SURFACES AS NECESSARY TO ELIMINATE ANY PARTING LINES OR UNEVEN AREAS.
- GALVANIZE ACCORDING TO ASTM A123 AND TAKE CARE HOW CASTINGS ARE STORED TO PREVENT RUST.
- DRILL & TAP BOLT HOLES AND GROUT PORTS AND MACHINE GROOVE IN BOTTOM OF ANCHOR USING A WATER BASED CUTTING FLUID AND SPRAY THEM WITH ZINC RICH PAINT ACCORDING TO ASTM A780, ENSURE THREADABILITY.



DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY QUALITY PLAN NUMBER: QS60021200C

# 19-0.6"/27-0.5" MULTI-PLANE ANCHOR WITH TWO GROUT PORTS-GALV.

DATE: 10-13-04 DWG: G. MALECKI CHK: H.K. APP: K.S.

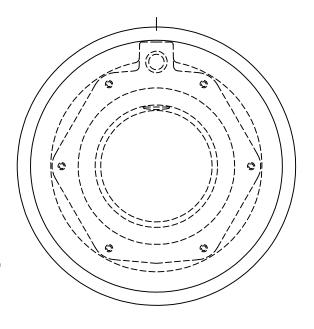
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	TOLERANCES:	WEIGHT	REV.	DATE	NAME	ECRN	PART NUMBER:
_	±.020	40					68 19 248
	UNLESS NOTED	LBS.					00 19 240
ı	MATERIAL:	SCALE					
	DUCTILE IRON						1
4	65-45-12	1:4					1
4	ASTM A536						DRAWING NUMBER
							68 19 216

DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440

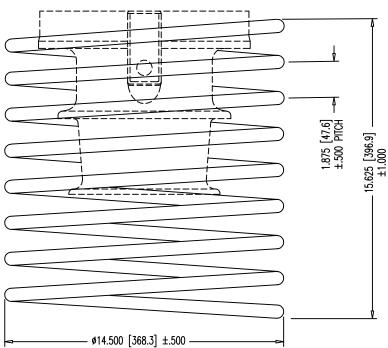
320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405





#### 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.

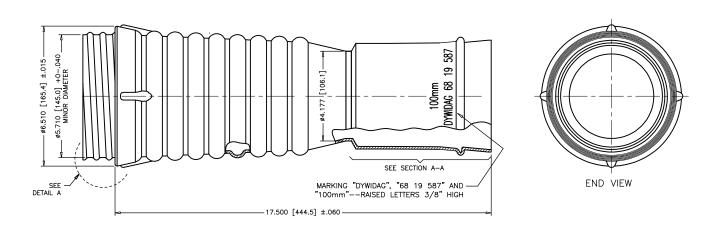


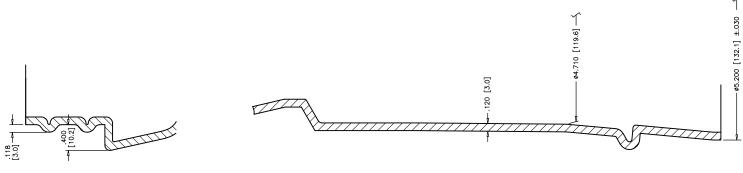
NO. OF FULL TURNS: 8
DEVELOPED LENGTH: 29'-1" ±.250"
WEIGHT: 30.4 LBS.

DIMENSION mm FOR REF	DIMENSIONS: INCH [mm] QUALITY PLAN NUMBER: mm FOR REFERENCE ONLY QS60021400A		TOLERANCES: ±.020	WEIGHT 33.5	REV.	DATE	NAME	ECRN	PART NUMBER: 68 19 254	
STANDARD SPIRAL FOR			UNLESS NOTED	WEIGHT					00 19 23-	
				MATERIAL:	SCALE					
·	19-0.6"/27-0	.5" MPA		ASTM A615	1:5					
DATE: 01-19-07	DWG: G. MALECKI	CHK: S.Y.	APP: E.A.	SIZE #5, GR 60						DRAWING NUMBER:
THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC.			1						68 19 254	

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DETAIL A-A THREAD FITS INTO 19-0.6" MPA CASTING (SEE DRAWING 68 19 216)

SECTION A-A

MATERIAL SPECIFICATIONS:

- MAIERIAL SPECIFICATIONS:

  HIGH-DENSITY POLYETHYLENE, CONFORMING TO THE FOLLOWING:

  1. MEETS REQUIREMENTS OF ASTM D3350 WITH A MINIMUM CELL CLASS OF 445574C.

  - 1. MILES AUTOXIDANTS WITH A MINIMUM OXIDATIVE—INDUCTION TIME (OIT) ACCORDING TO ASTM D3895 OF 40 MINUTES.

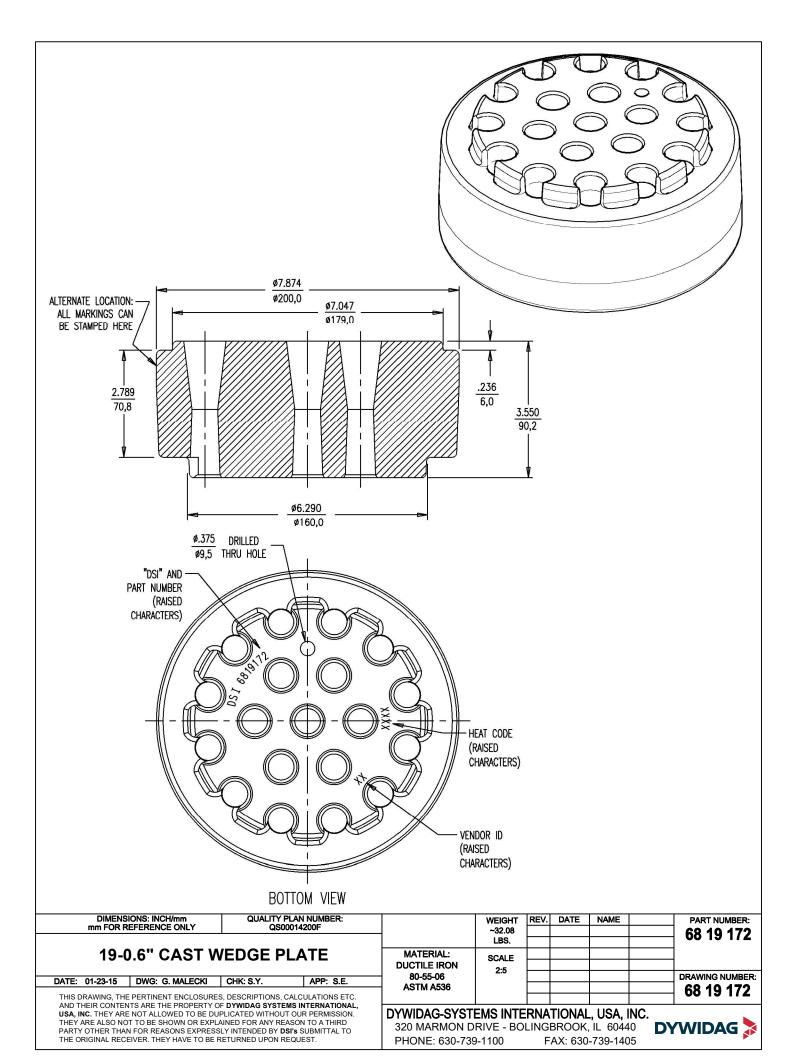
    3. REMOLDED FINISHED MATERIAL HAS A MINIMUM FAILURE TIME OF 24 HOURS WHEN TESTED FOR STRESS CRACK RESISTANCE USING ASTM F2136 AT AN APPLIED STRESS

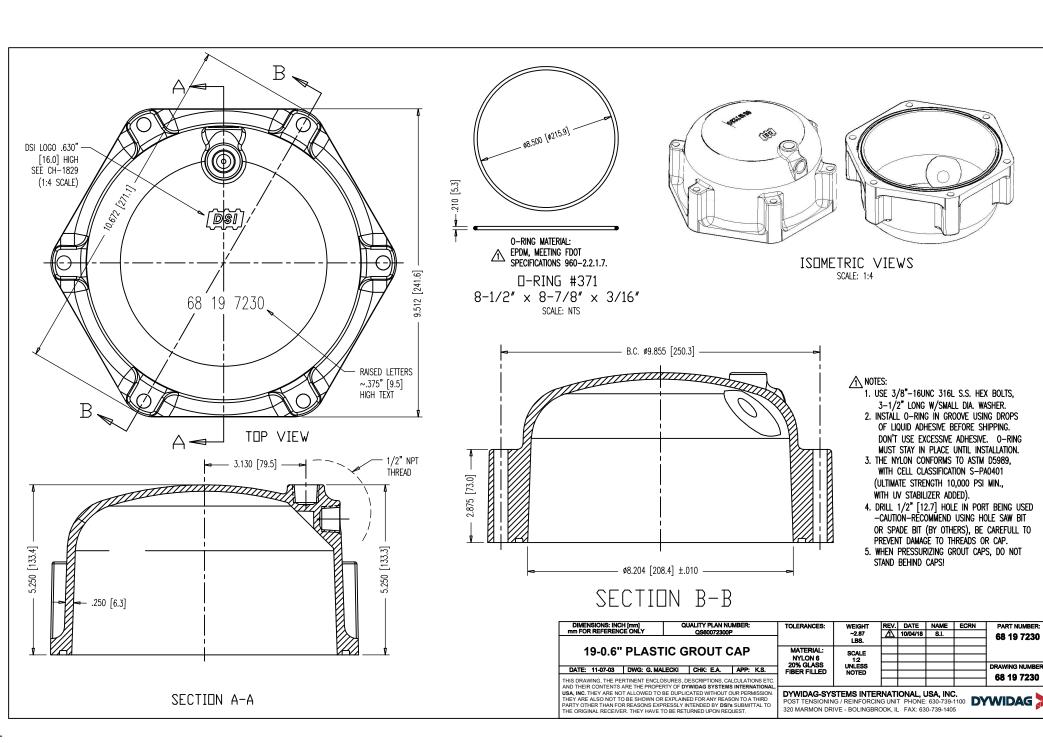
DIMENSIONS: INCH [mm] QUALITY PLAN NUMBER: mm FOR REFERENCE ONLY QS60058800P								
19-0.6" TRUMP	19-0.6" TRUMPET FOR MPA TO							
100mm PP DUCT OR 4" HDPE PIPE								
DATE: 10-16-06 DWG: G. MALECK	CHK: E.A. APP: K.S.							

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TOLERANCES:	WEIGHT	REV.	DATE	NAME	PART NUMBER:
±.020		A	01-11-19	S.I.	68 19 587
UNLESS NOTED					00 .0 00.
MATERIAL:	SCALE				
SEE ABOVE	1:3				
	1:1				DRAWING NUMBER:
					68 19 587
					00 19 307





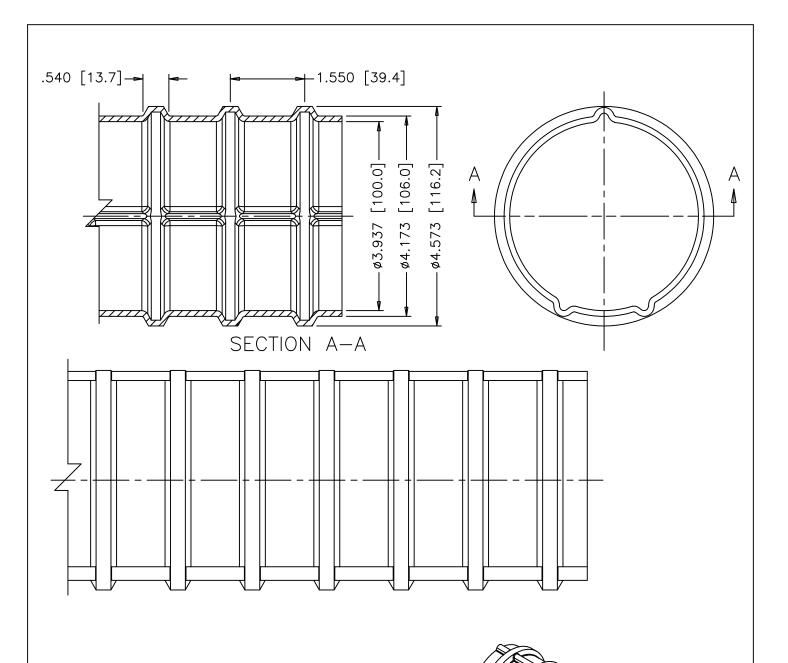


PART NUMBER:

68 19 7230

DRAWING NUMBER:

68 19 7230





- 1. MIN. BENDING RADIUS, Rmin = 23.6 FT.
- 2. DUCT IS DELIVERED IN STRAIGHT SECTIONS AND IS NOT INTENDEND TO BE COILED.

MATERIAL: POLYPROPYLENE

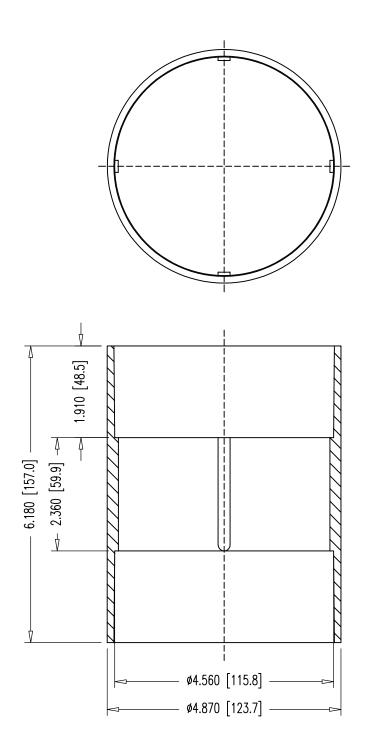
CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

MATERIAL MEETS FDOT SPECS. 960-2.4.3.

	S: INCH [mm]		AN NUMBER:	TOLERANCES:	WEIGHT	RĘV.	DATE	NAME	PART NUMBER:
mm FOR REFE	RENCE ONLY	QU0004	1110P	±.010	0.74	1	01-11-19	S.I.	U00220410
4" (100mm) CORRUGATED PP DUCT			UNLESS NOTED	LBS.				000220410	
				MATERIAL:	SCALE				]
WIII	Ĥ FLOW CH	ANNELS	5	SEE ABOVE	1:2				
DATE: 10-28-04	DWG: G. MALECKI	CHK: H.K.	ADD: KC	OLE ABOVE	1.2				DRAWING NUMBER:
DATE: 10-26-04	DWG: G. MALECKI	CHK: H.K.	APP: K.S.	1					1
THIS DRAWING THE PER	THIS DRAWING THE DEPTINENT ENCLOSURES DESCRIPTIONS CALCULATIONS ETC								U00220410

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MATERIAL: POLYPROPYLENE

CELL CLASS RANGE: PP0340B44541 TO PP0340B67884

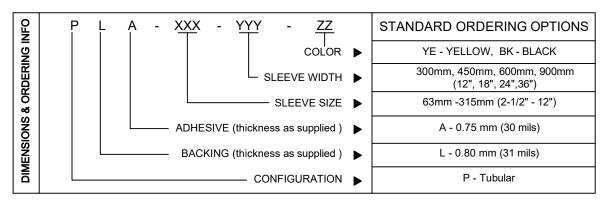
MATERIAL MEETS FDOT SPECS. 960-2.4.3.

	ONS: INCH [mm] EFERENCE ONLY	QUALITY PL	AN NUMBER:	TOLERANCES: ±.010	WEIGHT	REV.	DATE 01-11-19	NAME S.I.		PART NUMBER:
,				UNLESS NOTED	LBS.	<del>                                     </del>	01-11-19	5.1.		U00220415
4" (100mm) SLIP-0N COUPLER			MATERIAL:	SCALE						
	` ,			SEE ABOVE	1:2					DRAWING NUMBER:
DATE: 02-09-07	DWG: G. MALECKI	CHK: S.Y.	APP: K.S.							U00220415
	HE PERTINENT ENCLOSU									000220415
	ENTS ARE THE PROPERT'		. ,	DYWIDAG-SYSTE	MS INTER	TANS	IONAL	ISA IN	<del>c</del>	

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320 MARMON DRIVE - BOLINGBROOK, IL 60440
PHONE: 630-739-1100 FAX: 630-739-1405



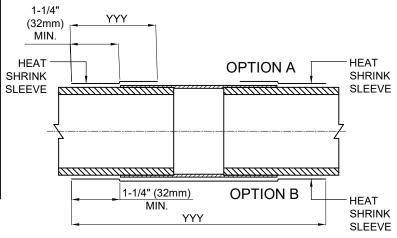


PMA - HIGH SHRINK SLEEVE. HIGH SHRINK TUBULAR BACKING.

TUBULAR SLEEVE	TUBULAR SLEE AS SUPPLIED	EVE DIAMETER FULLY RECOVERED
PLA 63-YYY YE	3.5" [90mm]	2.5" [63mm]
PLA 90-YYY YE	4.8" [120mm]	3.3" [81mm]
PLA 115-YYY BK	5.5" [145mm]	3.8" [98mm]
PLA 125-YYY YE	6.3" [160mm]	4.3" [110mm]
PLA 160-YYY BK	7.5" [190mm]	5.2" [130mm]
PMA 90/30-YYY BK	3.5" [90mm]	1.2" [30mm]
PMA 120/40-YYY BK	4.7" [120mm]	1.6" [40mm]

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

COLOR: YE = YELLOW; BK = BLACK



#### NOTE:

**FOLLOW MANUFACTORER'S** INSTALLATION INSTRUCTIONS.

#### MATERIAL:

POLYELEFIN FDOT SPECS 960-2.2.1.8 FOR **GROUTED APPLICATIONS** 

	DUCT SIZE	STRAND SYSTEM	BAR SYSTEM	HEAT SHRINK SLEEVE SIZE	PART NUMBER
	1" x 3" (25mm x 76mm)	4-0.6"		PLA-63-450 YE	U00044063
	0.7/0"/50	7-0.6"		PLA-63-450 YE	U00044063
	2-3/8" (59mm)		1", 1–1/4", 1–3/8"	PMA-90/30-450 BK	U00044030
	3" (76mm)		1 3/4"	PMA-120/40-450 BK	U00044040
CORRUGATED DUCT	3-3/8" (85mm)	12-0.6"		PLA-90-450 YE	U00044090
	4" (100mm)		2-1/2"	PLA-90-450 YE	U00044090
	4" (100mm)	19-0.6"		PLA-115-450 BK	U00044115
	4-1/2" (115mm)	27-0.6"		PLA-125-450 YE	U00044125
	5-1/8" (130mm)	31-0.6", 37-0.6"		PLA-160-450 BK	U00044160
SMOOTH DUCT	3" SDR 17 HDPE PIPE		1-3/8"	PLA-63-450 YE	U00044063

IIIII I OITTEI EILEIOE OITEI	
HEAT SHRINK S	LEEVE SIZES
FOR INTERNAL GROU	TED APPLICATIONS

CHK: S.I.

DIMENSIONS: INCH [mm]

DATE: 07-31-19

DWG: G. Malecki

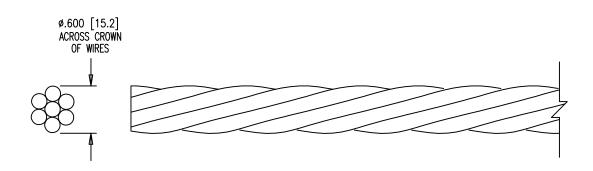
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	REV.	DATE	NAME	ECRN	PART NUMBERS:
	1	05-28-20	S.I.		. ,
	<b>A</b>	02-15-21	S.I.		SEE TABLE ABOVE
SCALE					SEE IABLE ABOVE
NTS					
NIS					DRAWING NUMBER:
					U00044000
				· ·	UUUTTUUU

FAX: 630-739-1405

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**DYWIDAG** 



NOTES:
1. NO PART NUMBER OR IDENTIFICATION MARKS ON STRAND.

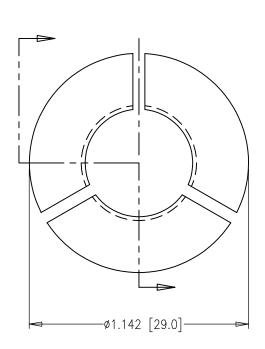
2. RUST PRODUCING VISIBLE PITTING TO THE UN-AIDED EYE IS NOT ALLOWED.

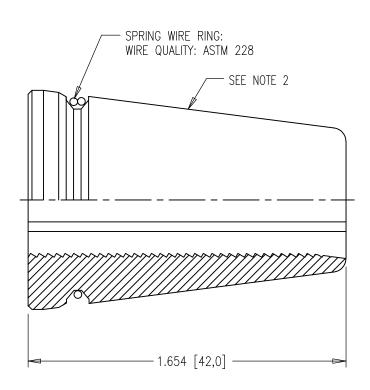
MATERIAL: 0.6" 270 KSI LOW RELAX STRAND ASTM A416

DIMENSIONS: INCH [mm] QUALITY PLAN NUMBER: mm FOR REFERENCE ONLY QS000301000			TOLERANCES: ±.020	WEIGHT .738	REV.	DATE	NAME	PART NUMBER:
0.6" BARE 270 KSI STRAND			UNLESS NOTED	PER/FT				301060
			MATERIAL:	SCALE				
			SEE ABOVE	1:1				
DATE: 02-18-19 DWG: G. MALECKI	CHK: C.S.	APP: K.S.	SEE ABOVE	""				DRAWING NUMBER:
			-					301060
THIS DRAWING, THE PERTINENT ENCLOSU								001000

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#### NOTES:

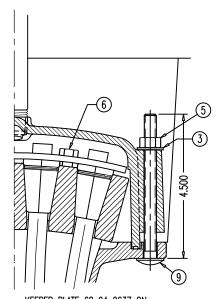
- 1. SHARP EDGES MUST BE BROKEN.
- 2. VIBRATE TO SURFACE FINISH OF 63 JUN. MAX.
  3. DIP IN SQ70 OIL OR EQUIV. FOR CORROSION PROTECTION.
- 4. MAKE SURE THAT THE BUTTRESS THREAD IS ORIENTED IN THE DIRECTION SHOWN ON THIS DRAWING.
- 5. NO STAMPED PART NUMBER

MATERIAL: 12L14 ALL HARDENED

DIMENSIONS: INCH/mm mm FOR REFERENCE ONLY		AN NUMBER: 000500D	TOLERANCES: ±.010: ±2°	WEIGHT 0.19	REV.	DATE	NAME	PART NUMBER: 68 00 0536
2 DADT WEDGE FOR A CU STRAND			·	LBS.				00 00 0550
3-PART WEDGE FO	R 0.6" ST	RAND	MATERIAL:	SCALE				
			SEE ABOVE	2:1				
DATE: 06-01-18 DWG: G. MALECKI	CHK: C.S.	APP: S.I.	SEE ABOVE					DRAWING NUMBER:
								68 00 0536

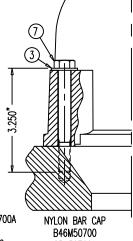
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BY OTHERS -

(3) NYLON BAR CAP B36E50700 OR 50700A

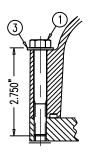


KEEPER PLATE 68 04 2637 ON WEDGE PLATE 68 04 2534A & NYLON CAP 68 04 2539 ON FLAT ANCHOR 68 04 2548

POCKET FORMER 68 04 2640 ON FLAT ANCHOR 68 04 2548

ON GALV. BEARING PLATE B26E22510, 22610, 22700, 22800, B32E22510, 22610, 22700, 22800, <u>∕</u> B36E22410, 22420, 22910, 22510, 22610, 22700, 22800 & NYLON BAR CAP B66E50700 OR 50700A ON GALV. BEARING PLATE B66E22700

OR 50700A ON GALV. BEARING PLATE B46E22700 & ⚠ B46E22800



NYLON CAP 68 07 7230 OR 7230A ON MPA 68 07 248

9

(11)

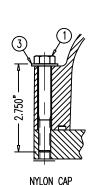
DIMENSIONS: INCH

PART NUMBER

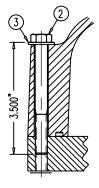
00 00 771

00 00 789

00 00 790



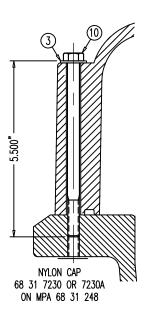
68 12 7230 OR 7230A ON MPA 68 12 248



NYLON CAP 68 19 7230 OR 7230A ON MPA 68 19 248

4.250"		8	
<u> </u>			
	NN/I ON	040	

NYLON CAP 68 27 7230 OR 7230A ON MPA 68 27 248





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

$\sim$		, , , , , , , , , , , , , , , , , , , ,
2	00 00 772	3/8"-16UNC HEX BOLT, 3-1/2" LONG (1" LONG THREAD)
3	00 00 774	TYPE A NARROW WASHER FOR 3/8"-UNC BOLT
4	00 00 776	3/8"-16UNC COUPLER, ZINC COATED
(5)	00 00 777	3/8"-16UNC HEX NUT
(6)	00 00 778	5/16"-18UNC HEX BOLT, 7/8" LONG, ZINC PLATED
7	00 00 783	3/8"-16UNC HEX BOLT, 3-1/4" LONG (1" LONG THREAD)
8	00 00 784	3/8"-16UNC HEX BOLT, 4-1/4" LONG (FULL THREAD)

3/8"-16UNC CARRIAGE BOLT, 4-1/2" LONG

3/8"-16UNC CARRIAGE BOLT, 5-1/2" LONG

QUALITY PLAN NUMBER:

DISCRIPTION (ALL PARTS 316L STAINLESS STEEL UNLESS NOTED)

3/8"-16UNC HEX BOLT, 2-3/4" LONG (1" LONG THREAD)

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

CTAINI FOC CTEFL 2	ACL BOLTS AND
STAINLESS STEEL 3	JIOL BOLIS AND
WASHER FOR N	VI ON CADS
WASHERIORIN	ILUN CAFS

DATE	00.10.04	DWG: G MALECKI	CHK: E V	ADD: KG	

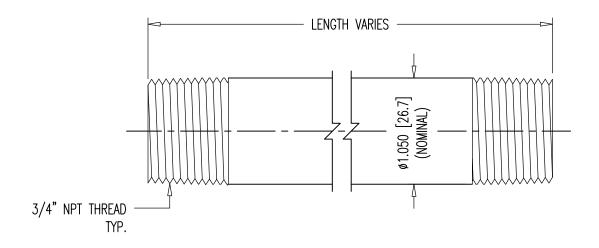
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	REV.	DATE	NAME	NAME	PART NUMBERS:
	1	05/01/19	S.I.		SEE TABLE
	<b>2</b>	05/28/20	S.I.		
SCALE					
1:3					
1.3					
					DRAWING NUMBER:
					00 00 770

### DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC.

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

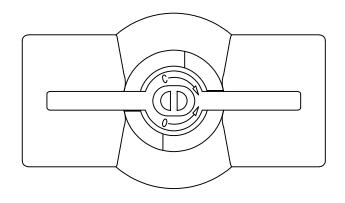


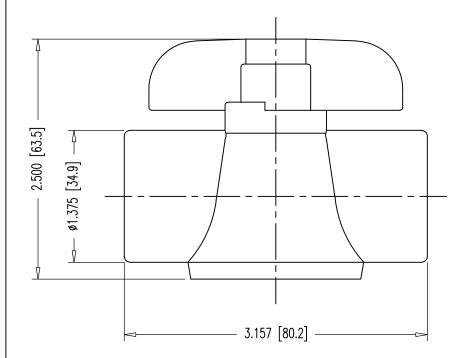


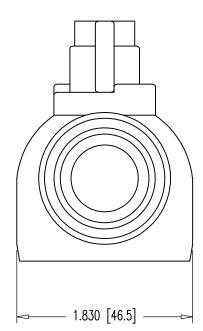
DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY QUALITY PLAN NUMBER: Q000000020P REV. DATE NAME ECRN PART NUMBER: 00 00 878 3/4" NPT PIPE NIPPLES MATERIAL: SCALE SCH 40 1:1 **BLACK WELDED** DRAWING NUMBER: DATE: 01-29-19 DWG: G. MALECKI CHK: S.I. APP: S.I. STEEL 00 00 878 THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC.

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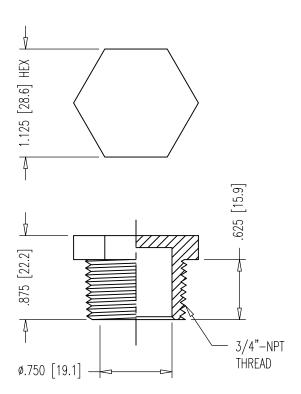


NOTE:
PRESSURE RATED: 150 PSI.

DIMENSIONS: INCH [mm] QUALITY PLAN mm FOR REFERENCE ONLY		WEIGHT 0.213	REV.	DATE 01-11-19	NAME S.I.	PART NUMBER:	
		LBS.			· · · ·	00 00 834	
3/4" NPT BALL VALVE	MATERIAL:	SCALE					
	PVC	1:1					
DATE: 04-30-07 DWG: G. MALECKI CHK: S.N.	APP: E.A.						DRAWING NUMBER:
THIS DRAWING. THE PERTINENT ENCLOSURES, DESCRIPTIONS, CAL						00 00 834	
AND THEIR CONTENTS ARE THE PROPERTY OF DYWIDAG SYSTEMS							

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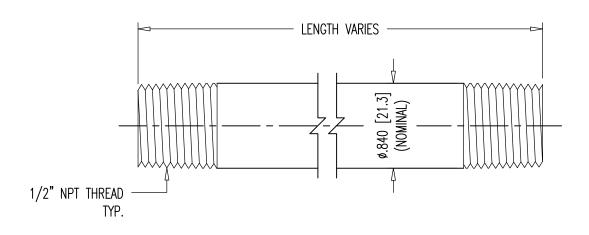




DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY	QUALITY PLAN	NUMBER:		WEIGHT .009	REV.	DATE	NAME	PART NUMBER:
3/4" NPT NYLON PLUG			MATERIAL:	LBS.				00 00 849
			NYLON 6	1:1				
DATE: 03-12-19 DWG: G. MALECKI	CHK: S.I.	APP: S.I	COLOR: WHITE					DRAWING NUMBER:
THIS DRAWING. THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC.		1					00 00 849	
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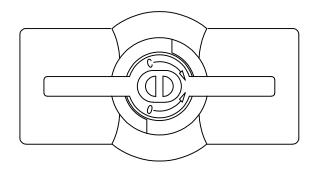


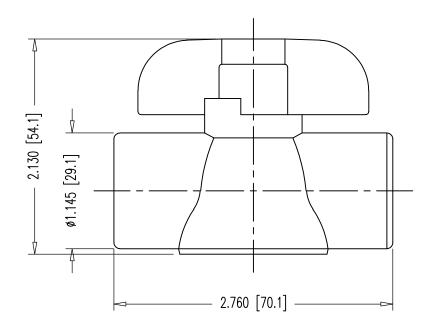
QUALITY PLAN NUMBER: Q00000020P DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY DATE NAME PART NUMBER: REV. 00 00 678 1/2" NPT PIPE NIPPLES MATERIAL: **SCALE** SCH 40 1:1 **BLACK WELDED** DRAWING NUMBER: DATE: 01-29-19 DWG: G. MALECKI CHK: S.I. APP: S.I. STEEL 00 00 678 THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC.

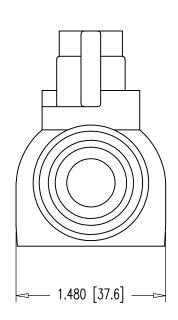
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DYWIDAG-SYSTEMS INTERNATIONAL, USA, INC. 320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405

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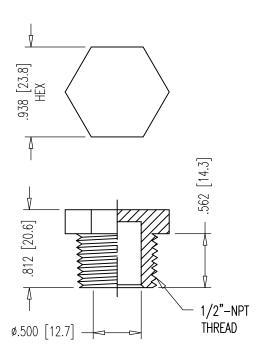


NOTE:
PRESSURE RATED: 150 PSI.

r	DIMENSIONS: INCH [mm] QUALITY PLAN NUMBER: mm FOR REFERENCE ONLY				WEIGHT 0.138	REV.	DATE 01-11-19	NAME S.I.	PART NUMBER: 00 00 634
	1/2" NPT BALL VALVE			MATERIAL: PVC	LBS. SCALE				00 00 034
THIS	04-30-07 DWG: G. MALECKI				1:1				DRAWING NUMBER: 00 00 634

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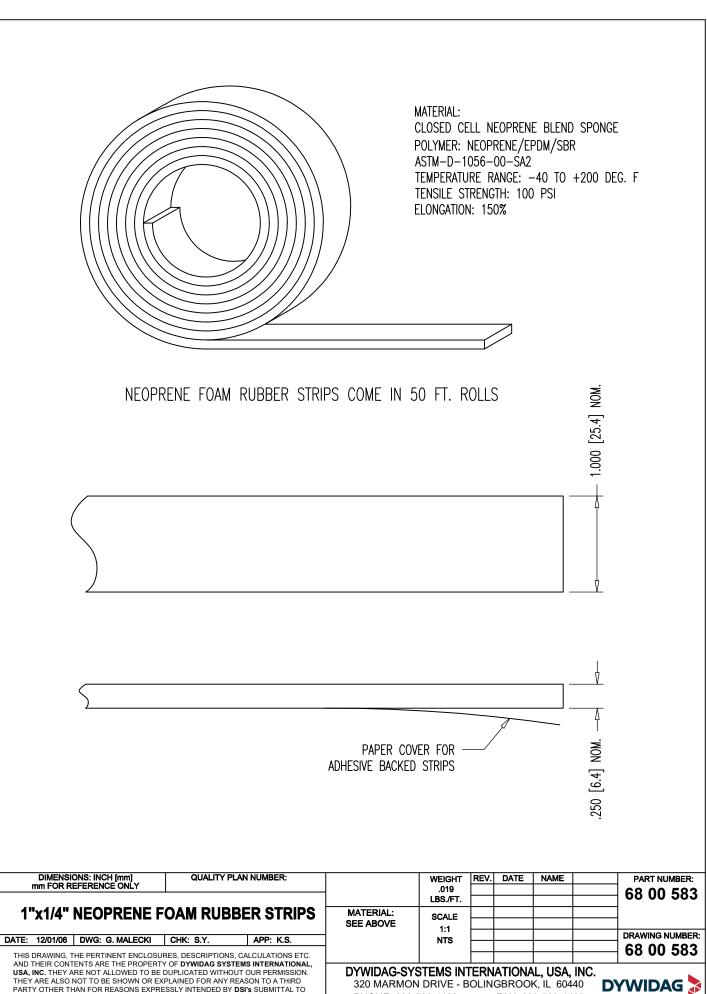




MENSIONS: INCH [mm] mm FOR REFERENCE ONLY	QUALITY PLAN NUMBER:		WEIGHT .006	REV.	DATE	NAME	ECRN	PART NUMBER:
		LBS.					00 00 649	
1/2" NPT NY	MATERIAL:	SCALE						
		NYLON 6	1:1					
DATE: 03-12-19 DWG: G. MALECKI C	CHK: S.I. APP: S.I.	COLOR: WHITE						DRAWING NUMBER:
THIS DRAWING, THE PERTINENT ENCLOSURES, DESCRIPTIONS, CALCULATIONS ETC.								00 00 649

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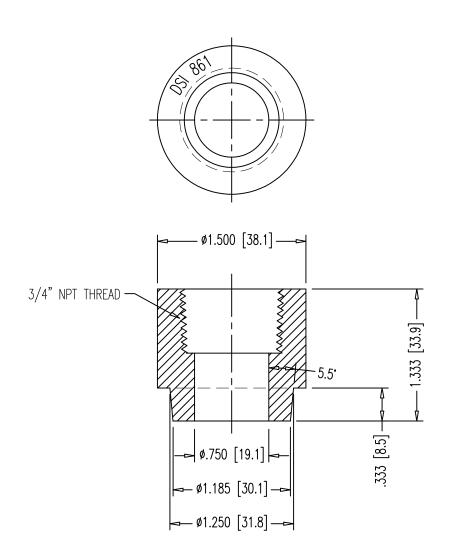




THE ORIGINAL RECEIVER. THEY HAVE TO BE RETURNED UPON REQUEST.

320 MARMON DRIVE - BOLINGBROOK, IL 60440 PHONE: 630-739-1100 FAX: 630-739-1405

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**WELDING OPERATIONS:** 

DRILL A HOLE USING SPECIFIED CONE DRILL TOOL WHEREVER NEEDED IN COMMON POLYPROPYLENE DUCTS OF ALL BRANDS. HEAT UP POLYPROPYLENE GROUT PORT AND THE HOLE IN DUCT FOR ABOUT 10 SECONDS USING PES—TEC WELDING EQUIPMENT. RELEASE THE GROUT PORT AND PRESS INTO THE HOLE IN DUCT BY HAND FOR 15 SECONDS.

MATERIAL: POLYPROPYLENE

USAGE: FOR CORRUGATED PP DUCTS

PRESSURE RATED: 150 PSI

DIMENSIONS: INCH [mm] mm FOR REFERENCE ONLY			WEIGHT 0.045	 DATE	NAME	PART NUMBER:
	±.020 UNLESS NOTED	LBS.			00 00 861	
3/4" NPT I	MATERIAL:	SCALE				
		SEE ABOVE	1:1			
DATE: 01-11-19 DWG: G. MALECKI	CHK: S.I. APP: S.I.	7				DRAWING NUMBER:
	7				00 00 861	
THIS DRAWING, THE PERTINENT ENCLOSUR	RES, DESCRIPTIONS, CALCULATIONS ETC.					00 00 001

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