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**DIMENSIONAL DATA**

**UN-INSULATED - TDE COMMERCIAL DUCT**

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**Spunstrand**  
*Green duct that works*

620 North Post Street · Post Falls, ID 83854 · 208.777.7444 ph 208.777.7445 fax · [www.spunstrand.com](http://www.spunstrand.com)

## Un-Insulated-TDE Duct and Fittings – Shipping Weights

NOMINAL DIAM. (IN)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	STRAIGHT DUCT / FT (lbs)	45° ELBOW (lbs)	90° ELBOW (lbs)	CON. RED. (lbs)	ECC. RED. (lbs)	END CAP (lbs)	TEE (lbs)	SINGLE 45° Y (lbs)	SINGLE 90° Y (lbs)	CROSS (lbs)	DOUBLE 45° Y (lbs)	DOUBLE 90° Y (lbs)	TRUE Y (lbs)	SADDLE TAP (lbs)	TRANSITION (lbs)	FLANGE (lbs)
4	0.9	1	2	-	-	1	1	1	2	1	2	4	1	1	3	2
5	1.1	1	2	1	1	1	2	2	3	3	3	5	2	1	4	2
6	1.2	2	3	2	3	2	2	3	4	3	4	6	2	1	4	3
7	1.4	2	3	2	3	2	2	3	4	3	4	6	2	1	5	3
8	1.6	2	4	2	3	2	3	4	5	4	5	7	3	1	6	4
9	1.7	3	5	3	4	3	4	5	7	5	7	11	4	2	6	4
10	1.9	3	5	3	4	3	4	6	8	5	8	12	4	2	7	5
12	2.2	4	7	3	4	4	6	8	10	7	10	16	7	3	9	6
14	2.5	5	9	4	5	5	7	10	13	8	13	19	8	4	10	6
16	3.8	8	14	5	7	6	10	14	18	12	18	28	11	4	12	7
18	4.2	9	16	5	7	8	12	18	23	14	23	35	14	6	16	8
20	4.6	11	18	6	8	9	14	21	27	16	27	41	16	6	18	9
22	6.2	13	23	8	10	11	19	29	37	22	37	53	21	8	30	15
24	6.7	15	26	8	10	12	22	33	42	25	42	60	24	8	34	16
26	7.2	18	32	10	13	15	27	42	53	30	54	76	31	11	40	18
28	9.2	21	37	11	14	17	33	52	65	37	66	92	37	12	45	19
30	9.8	23	40	12	16	19	36	58	72	41	74	102	41	13	52	21
32	10.4	25	45	13	17	21	41	65	80	46	83	113	47	15	58	22
34	12.5	29	52	15	20	25	50	81	96	56	103	142	57	17	62	24
36	13.6	32	58	16	21	27	55	89	108	61	113	151	63	19	65	25
38	15.3	40	72	19	25	33	69	113	136	76	143	191	79	23	71	28
40	18.7	56	101	26	34	44	96	160	193	106	203	270	111	31	82	35
42	20.3	64	115	29	38	50	110	183	221	121	233	309	127	35	88	38
44	21.7	67	121	31	40	51	118	197	237	130	250	330	136	36	94	40
46	24.3	73	133	33	43	54	134	225	268	146	285	371	154	38	105	42
48	25.6	76	139	34	44	55	141	239	283	154	302	391	162	39	110	43
54	31.7	101	184	42	55	74	190	327	386	206	414	531	222	52	125	49
60	37.8	131	240	50	65	95	246	426	504	265	542	693	287	67	141	54
66	32.9	176	327	65	85	108	382	614	716	374	777	978	408	75	177	69
70	29.6	207	386	76	99	116	454	742	861	448	938	1173	490	81	201	79
*72	58.9	213	398	78	102	118	493	768	890	463	970	1212	507	82	206	81

*\*72" and larger diameter ductwork is not included in the ICC-ES listing.*

## OUTSIDE DIAMETER FOR UN-INSULATED TDE DUCT

Tolerance +/- 1/4"

NOMINAL INSIDE DIAMETER (Inches)	INNER WALL		DUCT OUTSIDE DIAMETER
	# of PLIES	NOM. WALL THICKNESS	
4	3	0.0675	4.1
5	3	0.0675	5.1
6	3	0.0675	6.1
7	3	0.0675	7.1
8	3	0.0675	8.1
9	3	0.0675	9.1
10	3	0.0675	10.1
12	3	0.0675	12.1
14	3	0.0675	14.1
16	4	0.09	16.2
18	4	0.09	18.2
20	4	0.09	20.2
22	5	0.1125	22.2
24	5	0.1125	24.2
26	5	0.1125	26.2
28	6	0.135	28.3
30	6	0.135	30.3
32	6	0.135	32.3
34	6	0.135	34.3
36	8	0.18	36.4
38	8	0.18	38.4
40	8	0.2025	40.4
42	9	0.2025	42.4
44	9	0.2025	44.4
46	9	0.225	46.4
48	10	0.225	48.5
54	12	0.27	54.5
60	13	0.2925	60.6
66	14	0.315	66.6
70	15	0.3375	70.7
*72	15	0.3375	72.7

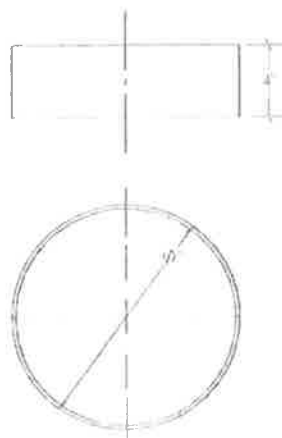
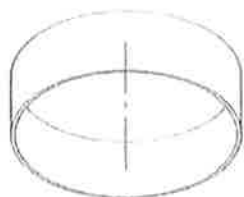
*\*72" and larger diameter ductwork is not included in the ICC-ES listing.*

### Straight Duct

4"  $\phi$  - 48"  $\phi$  L = 20'-0"  
 52"  $\phi$  - 72"  $\phi$  L = 10'-0"



### End Cap



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DATE	BY	DESCRIPTION	DESIGNED	CHECKED	DATE
		DESIGNED BY: [blank]	CJS		3/09
		CHECKED BY: [blank]			
		DATE: [blank]			
		BY: [blank]			
		DATE: [blank]			
		BY: [blank]			
		DATE: [blank]			
		BY: [blank]			
		DATE: [blank]			

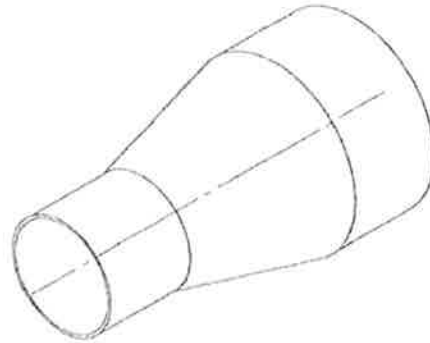
*Spunstrand Inc.*

Duct

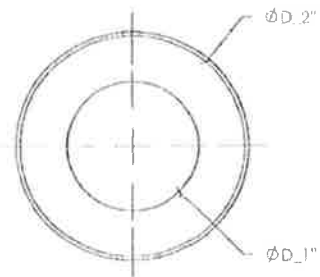
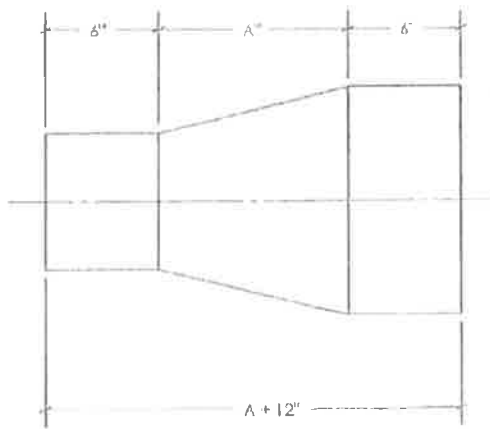
Under slab FRP



Inches of Reduction	A
1"	2 1/8"
2"	4
3"	5 7/8"
4"	7 3/4"
5"	9 5/8"
6"	11 1/2"
7"	13 3/8"
8"	15 1/8"
9"	17"
10"	18 7/8"
11"	20 3/4"
12"	22 5/8"
13"	24 1/2"
14"	26 3/8"
15"	28 5/8"
16"	32"
17"	33 7/8"
18"	35 3/4"
19"	36 5/8"
20"	37 5/8"



Inches of Reduction = D<sub>2</sub> - D<sub>1</sub>



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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± .0001 TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±
		MATERIAL
NEXT ASSY	USED ON	FINISH
APPLICATION	DO NOT SCALE DRAWING	

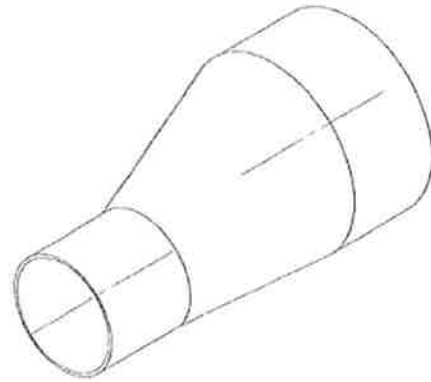
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DRAWN	CLC	2009
CHECKED		
ENG APPR		
MFG APPR		
Q.A.		
COMMENTS		

*Spunstrand Inc.*

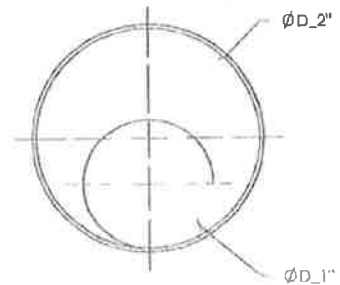
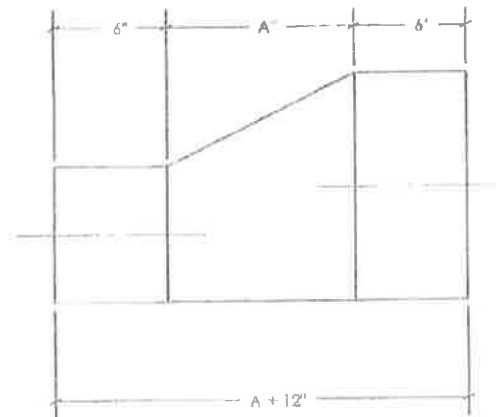
**Concentric Reducer**

A DWG. NO. **Underslab FRP**

Inches of Reduction	A
1"	4 1/4"
2"	8"
3"	11 3/4"
4"	15 1/2"
5"	19 1/4"
6"	23"
7"	26 3/4"
8"	30 1/4"
9"	34"
10"	37 3/4"
11"	41 1/2"
12"	45 1/4"
13"	49"
14"	52 3/4"
15"	57 1/4"
16"	64"
17"	67 3/4"
18"	69 1/4"
19"	71 1/2"
20"	75 1/4"



Inches of Reduction =  $D_2 - D_1$



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		DIMENSIONS ARE IN INCHES TOLERANCES FRACTIONAL ANGULAR MATCH BENDS & TWO PLACE DECIMAL & THREE PLACE DECIMAL &	NAME C.S.	DATE 7009
		MATERIAL	DRAWN CHECKED ENG APPR. MFG APPR. QA COMMENTS	
NEXT ASSY	USED ON	PROJ		
APPLICATION	DO NOT SCALE DRAWING			

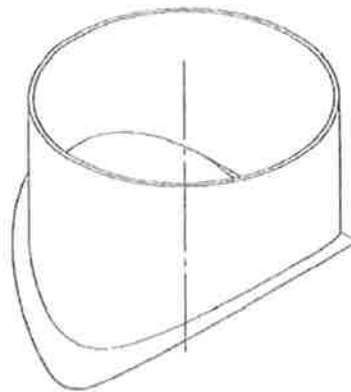
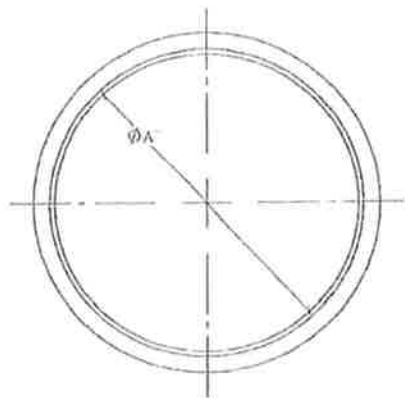
*Spunstrand Inc.*

**Eccentric Reducer**

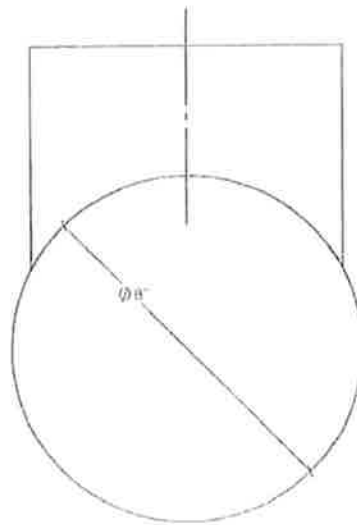
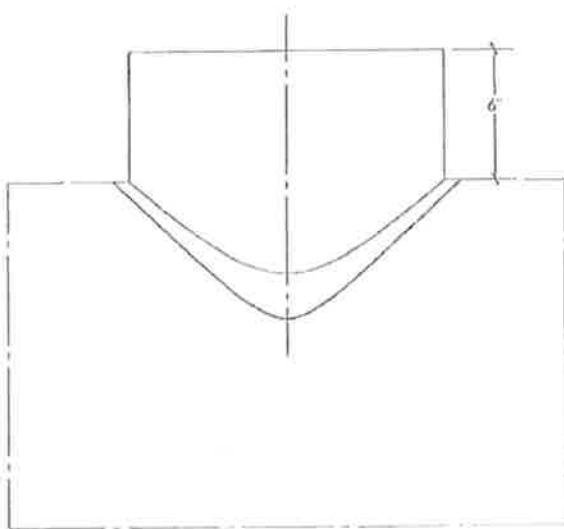
REV	QTY	NO	Under slab FRP	REV
A				







**A onto B**



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		DIMENSIONS ARE IN INCHES
		TOLERANCES
		FRACTIONALS
		ANGULAR: MAXIMUM 10.00
		TWO PLACE DECIMAL 0.00
		THREE PLACE DECIMAL 0.000
		MATERIAL
		FINISH
NEXT ASSY	USED ON	
APPLICATION		DO NOT SCALE DRAWING

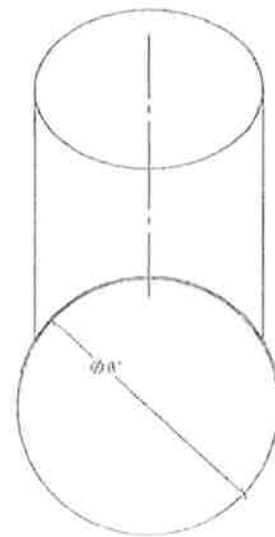
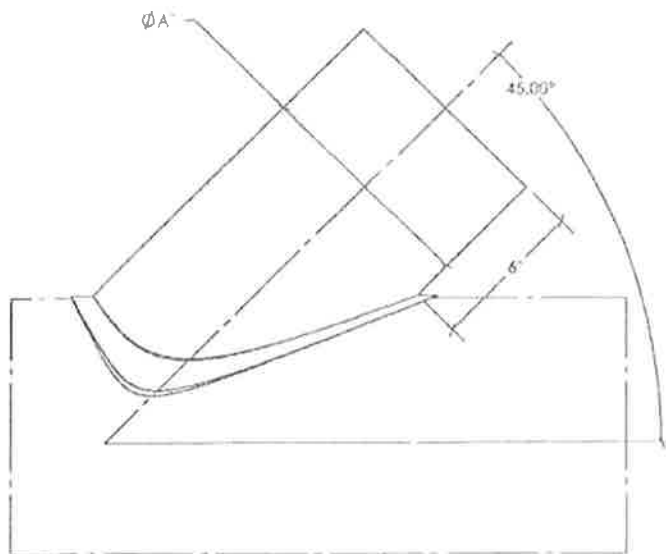
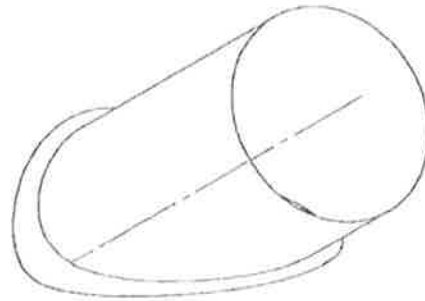
DRAWN	DESIGN	DATE
CJS		2009
ENGINEER		
INSPECTOR		
QA		
COMMENTS		

*Spunstrand Inc.*

**90deg Saddle Tap**

SHEET	REV. NO.	UNDERSLAB FRP	REV.
A			

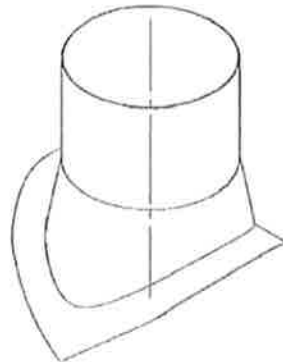
**A onto B**



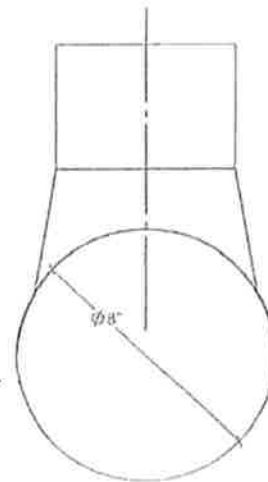
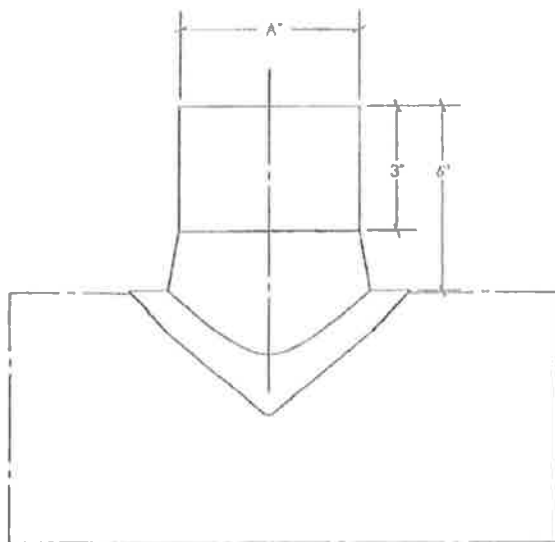
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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACHINE BEND ± TWO PLACE DECIMAL ± OTHER PLACE DECIMAL ±		NAME	DATE	<b>Spunstrand Inc.</b>
		MATERIAL		CJS	2009	
		FRUIT		DRAWN		<b>45deg Saddle Tap</b>
		NEXT ASSY		CHECKED		
		USED ON		ENG APPR		
		APPLICATION		MFG APPR		
		DO NOT SCALE DRAWING		Q.A.		SIZE <b>A</b>
				COMMENT:		DWG. NO. Underslab FRP
						REV.



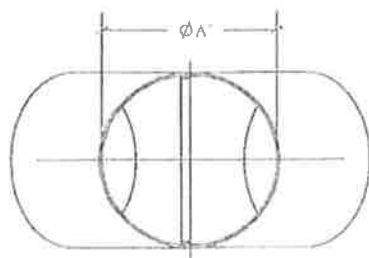
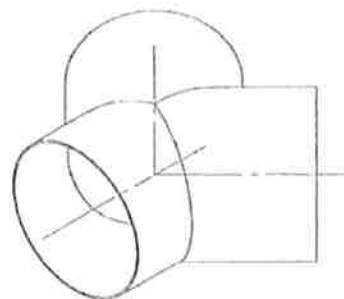
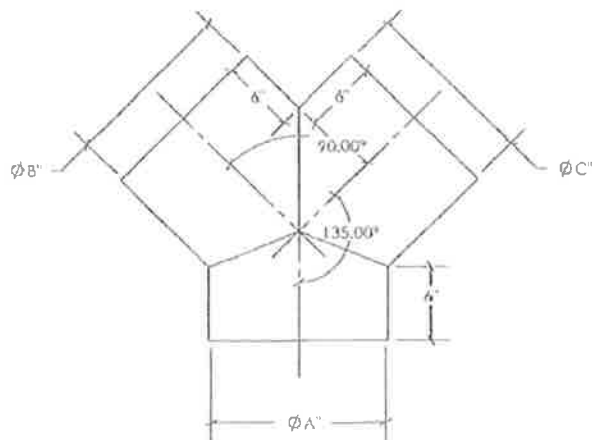


**A onto B**



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		DIMENSIONS ARE IN INCHES		NAME	DATE	<i>Spunstrand Inc.</i>	
		TOLERANCES:		DRAWN	CJS		<b>Conical Tap</b>
		FRACTIONAL ±		CHKD/APP			
		ANGULAR: MACH ±		ENG APPR			
		TWO PLACE DECIMAL ±		MFG APPR			
		THREE PLACE DECIMAL ±		Q.A.		SIZE <b>A</b> STAINL STEEL    Underslab FRP    REV	
		MATERIAL		COMMENTS			
NEXT ASSY	USED ON	FINISH					
APPLICATION		DO NOT SCALE DRAWING					



**A x B x C**

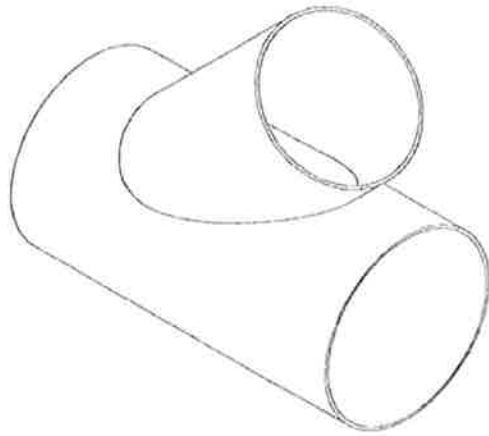
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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL : ANGULAR: MAXIMUM BEND : TWO PLACE DECIMAL : THREE PLACE DECIMAL :	NAME CJS DATE 2007
		MATERIAL	CHECKED ENG APPR MFG APPR
NEXT ASSY	USED ON	FINISH	Q.A. COMMENTS
APPLICATION	DO NOT SCALE DRAWING		

*Spunstrand Inc.*

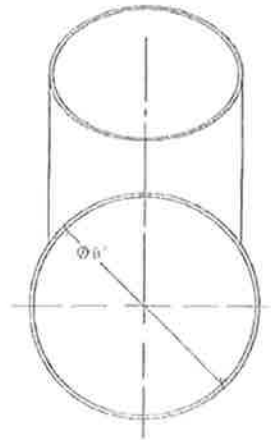
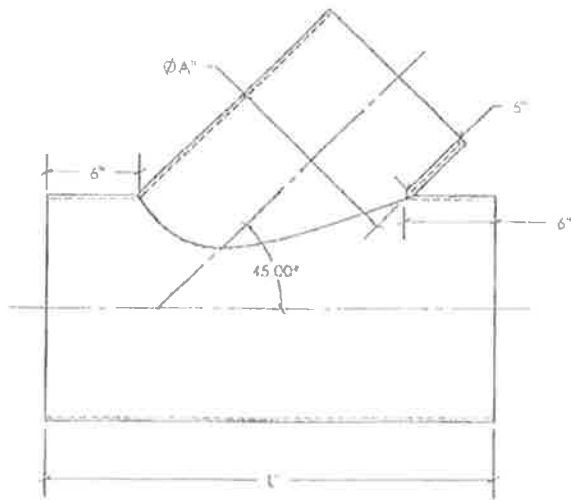
**True Wye**

W/P <b>A</b>	DWG. NO. Underslab FRP	REV.
-----------------	---------------------------	------



45 DEGREE LATERAL	
"A" DIAMETER	L
4	17 2/3
5	19
6	20 1/2
7	21 8/9
8	23 1/3
9	24 3/4
10	26 1/7
12	29
14	31 7/8
16	34 5/8
18	37 1/2
20	40 1/4
22	43 1/8
24	46
26	48 3/4
28	51 5/8
30	54 1/2
32	57 1/4
34	60
36	63
38	65 3/4
40	68 5/8
42	71 1/4
44	74 1/4
48	79.872
52	85 1/2
54	88 3/8
60	96 7/8
72	113 7/8

A x B



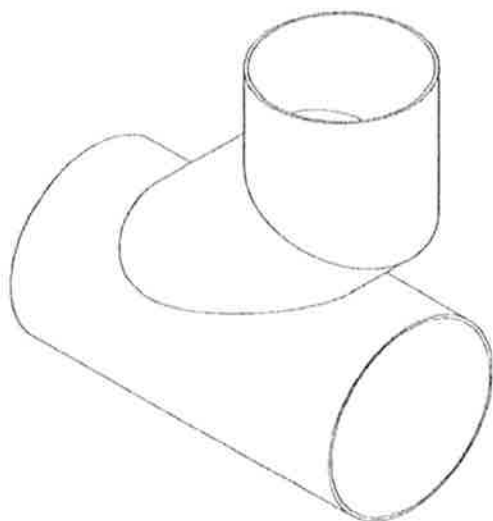
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		DIMENSIONS ARE IN INCHES	NAME	DATE
		TOLERANCES:	DRAWN	CJS
		FRACTIONAL ±	CHECKED	
		ANGULAR, MACH & BEND ±	ENG APPR	
		TWO PLACE DECIMAL ±	MFG APPR	
		THREE PLACE DECIMAL ±	D.A.	
		MATERIAL	COMMENTS	
NEXT ASSY	USED ON	REVISIONS		
APPLICATION	DO NOT SCALE DRAWING			

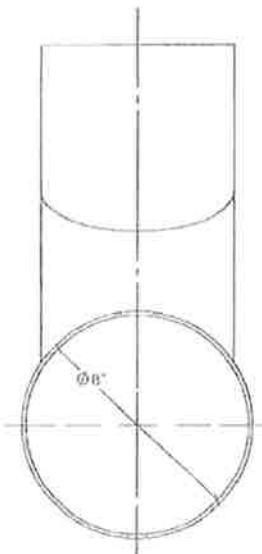
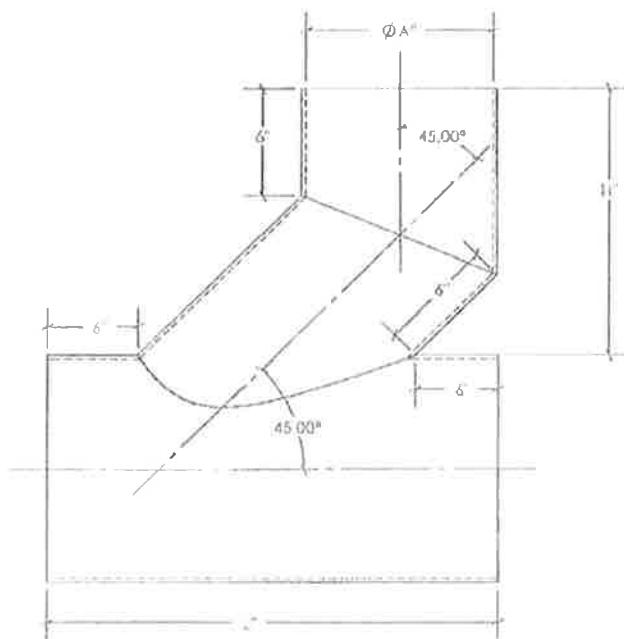
Spunstrand Inc.

45deg Lateral

REV	DESCRIPTION	DATE
A	Underlab FRP	



90 DEGREE LATERAL		
"A" DIAMETER	L	H
4	17 2/3	12
5	19	12 1/3
6	20 1/2	12 3/4
7	21 8/9	13 1/7
8	23 1/3	13 4/7
9	24 3/4	14
10	26 1/7	14 2/5
12	29	15 2/9
14	31 7/8	16
18	34 5/8	16 7/8
18	37 1/2	17 5/7
20	40 1/8	18 1/2
22	43 1/8	19 1/3
24	46	20 1/5
26	48 3/4	21
28	51 5/8	21 6/7
30	54 1/2	22 2/3
32	57 1/4	23 1/2
34	60	24 1/3
36	63	25 1/5
38	65 3/4	26
42	68 5/8	26 5/6
42	71 1/4	27 2/3
44	74 1/4	28 1/2
48	79 8/7	30 1/8
52	85 1/2	31 4/5
54	88 3/8	32 5/8
60	96 7/8	35 1/9
72	113 7/8	40



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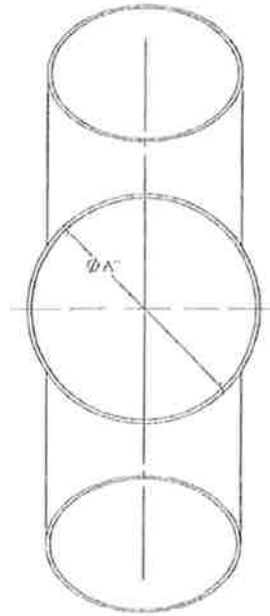
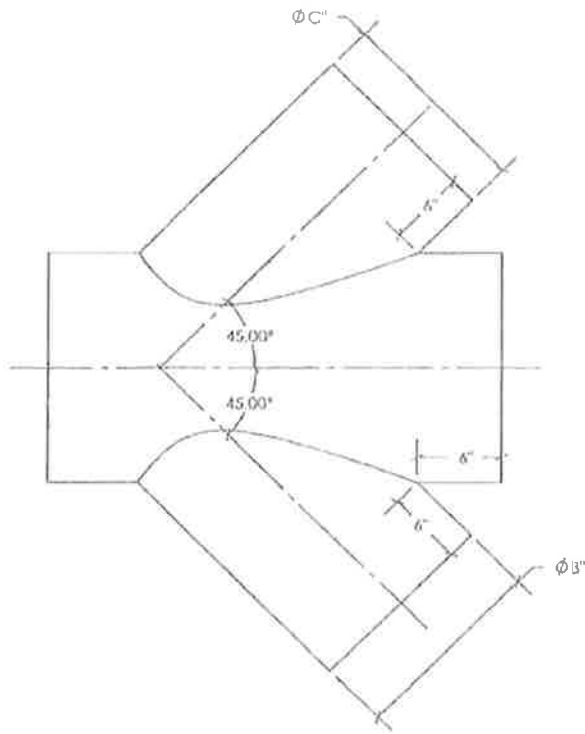
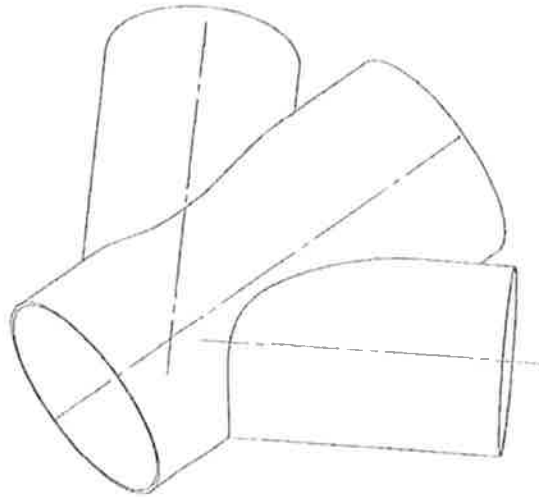
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR, MAXIMUM BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±		NAME	DATE
DRAWN		CLS	2019
CHECKED			
ENG APPR			
MFG APPR			
QA			
COMMENTS			
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		

*Spunstrand Inc.*

90deg Lateral

FIG	REV	NO	UNDERSLAB FRP	REV
A				

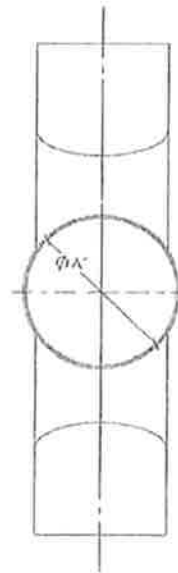
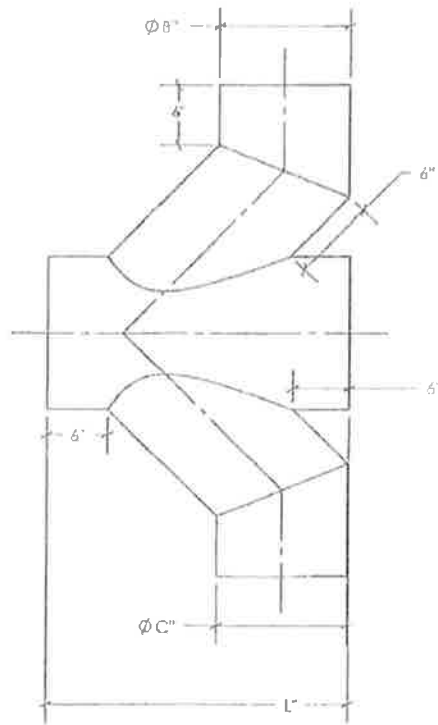
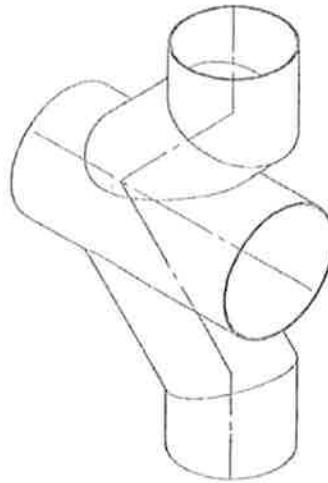
A x B x C



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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MAJOR ± BEYOND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	NAME CJS	DATE 2009	<b>Spunstrand Inc.</b>  Double 45deg Lateral
		MATERIAL	CHECKED ENG APPR MFG APPR	Q.A. COMMENTS	
		FINISH			REV.
	NEXT ASSY	USED ON			
	APPLICATION	DO NOT SCALE DRAWING			





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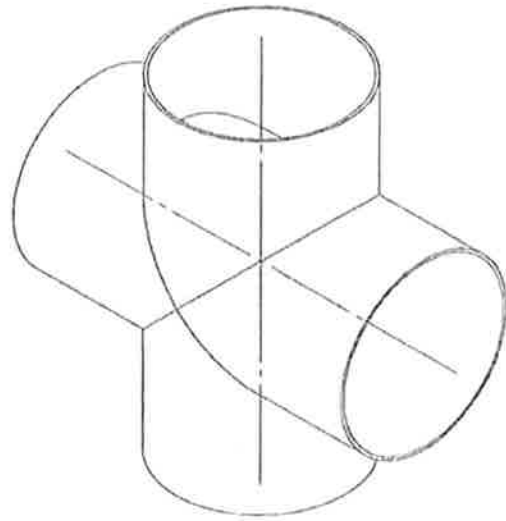
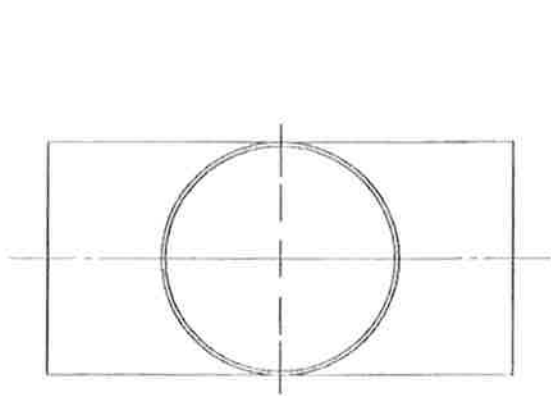
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		MATERIAL
NEXT ASSY	USED ON	62151
APPLICATION	DO NOT SCALE DRAWING	

	NAME	DATE
DRAWN	CS	2009
CHECKED		
ENG APPR		
MFG APPR		
QA		
COMMENTS		

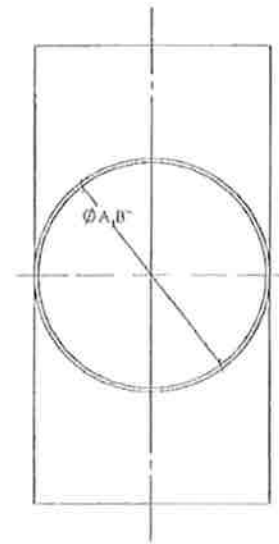
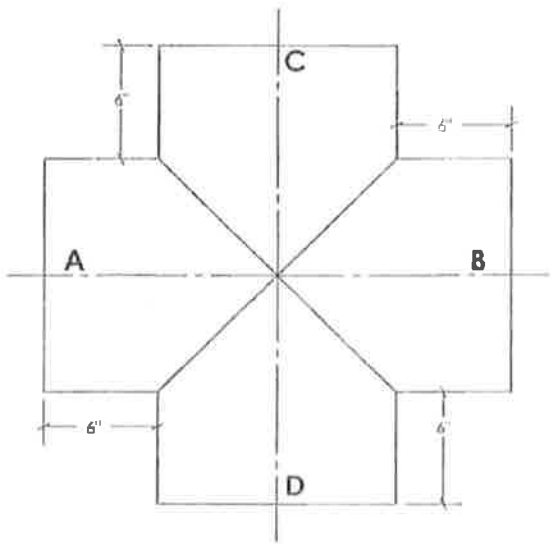
*Spunstrand Inc.*

Double 90deg Lateral

W/P <b>A</b>	DWG. NO. Underslab FRP	REV.
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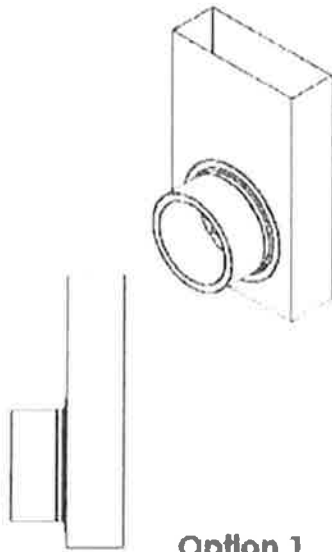


**A x B x C x D**  
**A & B must be equal diameter (Primary Air Flow)**  
**C diameter must be equal to or less than A,B**  
**D diameter must be equal to or less than A,B**

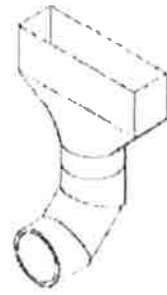


**\*Reducing Crosses Available by Request\***

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			MATERIAL	DRAWN CJS				
	NEXT ASSY	USED ON	FINISH	CHECKED EPS APPR INFO APPR Q.A.			COMMENTS:	
	APPLICATION		DO NOT SCALE DRAWING					
						SHEET A	ENVS UNDERSLAB FRP	DESG 1009



**Option 1**



**Option 2**

**CUSTOMER DRAWING APPROVAL**  
 APPROVED APPROVED AS MODIFIED

**APPROVED SIGNATURE**

THE SIGNATURE ABOVE INDICATES THE DRAWING IS TO BE CONSIDERED AS APPROVED BY THE CUSTOMER. THE CUSTOMER'S SIGNATURE IS REQUIRED FOR ALL DRAWINGS. THE CUSTOMER'S SIGNATURE IS REQUIRED FOR ALL DRAWINGS. THE CUSTOMER'S SIGNATURE IS REQUIRED FOR ALL DRAWINGS. THE CUSTOMER'S SIGNATURE IS REQUIRED FOR ALL DRAWINGS.

**DATE**

DATE IN CHARGE SPEC PROJ	NAME	DATE
DESIGNED AND MADE IN INCHES	C. J.	8/25/10
SCALE IS		
APPROVED BY		
TWO PLACE DECIMAL		
THREE PLACE DECIMAL		
DESCRIPTION		
DATE		
SCALE		
DATE		

DRAWN	NAME	DATE
CHECKED	C. J.	8/25/10
BY		
APPROVED		
DATE		
SCALE		
DATE		

<b>Spunstrand Inc.</b>		
<b>TITLE</b>		
Spunstrand FRP Register Boat Options		
<b>SIZE</b>	<b>DWG. NO.</b>	<b>REV</b>
A	Reg Boat Options	