



Sure-Seal™ Spiral Pipe & Fittings



**9865 WAYNE AVENUE CINCINNATI, OHIO 45215
PHONE (513) 733-5955 FAX (513) 733-8050**

<http://www.langdonsheetmetal.com>



Sure-Seal™ Spiral Self-Sealing Spiral Ductwork System



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- No messy sealer is required, simply slide the pieces together and secure with gasketed tek screw fasteners #10-16-3/4.
- Self sealing spiral will give you a finished look for exposed areas.
- Available in single wall and double wall
- The advantage of Sure Seal Spiral is a manufactured system with low leakage rates.
- Considerable Energy Savings.

Diameter

Even Sizes 4" to 30"

Static Pressure

2" W.G. Negative to
10" W.G. Positive

EPDM Gasket

Thermal Properties

200° F to -20° F

Gauge

26 - 24 - 22

Materials

Galvanized

Galvanneal

Stainless Steel

Aluminum

PCD (polyvinyl coated duct)

Sure Class Products

Sure-Clamp™ Spiral

Sure-Clamp™ Double Wall

Sure-Clamp™ Access (Round)

Sure-Clamp™ Access (Rect.)

Langdon's Sure-Seal™ Spiral is a single wall self-sealing spiral ductwork system that reduces installation cost. Our new gasketed connection is quick and easy. No messy sealer is required, simply slide the pieces together and secure with gasketed tek screw fasteners #10-16-3/4. Self sealing spiral will give you a finished look for exposed areas. Our patented gasket is a dual lipped profile of EPDM rubber that has been tested (using Langdon's manufactured spiral pipe) from Negative 2" W.G. to Positive 10" W.G. achieving a Class 3 seal rating in accordance with SMACNA HVAC Air Duct Leakage Test Manual (first edition 1985). The EPDM gaskets thermal properties are suitable for use in applications from 200°F to -20°F. Sure-Seal™ Spiral is available in single wall and double wall in even sizes from 4" to 30" diameter, 26 gauge to 22 gauge in galvanized, galvanneal, stainless steel, aluminum and PCD (polyvinyl coated ductwork). Tapes and mastic are conventional choices for sealing ductwork and the most cost effective time to seal ductwork is at installation of system. The cost of restoring systems not receiving the required sealing or not being properly sealed can greatly exceed the cost of a proper application.

The transverse ductwork joint may have up to a 3/16" gap around circumference of the duct that will have to be sealed in field and SMACNA does not recommended that a duct system constructed to 3" wg class or lower be leak tested. Concerns for energy conservation, humidity control, space temperature control, room air movement, necessitate regulating leakage by prescriptive measures in SMANCA Construction Standards. Leakage is largely a function of static pressure and the amount of leakage in a system is significantly related to system size. Adequate airtightness can normally be ensured by a. selecting a static pressure, construction class suitable for the operating condition and b. sealing ductwork properly, if the ductwork system is not properly sealed this will result in air leakage above ceiling, energy loss and higher utility costs. **The advantage of Sure-Seal™ Spiral is a manufactured system with low leakage rates, this eliminates field workmanship, sealant application, leak testing. As a price comparison, the elimination of sealing ductwork in the field would offset any additional manufacturing cost.**

Sure•Seal™ Spiral Energy Savings

Sure•Seal™ 12" diameter test results

(AirTab International Certified Tab Report 3-18-10, Page 6)

Test results for 10" wg positive pressure had .52 cfm leakage for 100 square feet of 12" dia ductwork

Sure•Seal™ Leakage For 10" Positive Pressure

CFM	\$ CFM	\$ for 100 sqft	\$ for 1,000 sqft	\$ for 10,000 sqft	Leakage
0.52	X \$5.00	= \$2.60	\$26.00	\$260.00	\$ per year

Average cost to heat and cool 1 cfm for 1 year is \$ 5.00

SMACNA Construction Standards

SMACNA maximum allowable leakage is 13.50 cfm for 100 square feet of 12" diameter ductwork

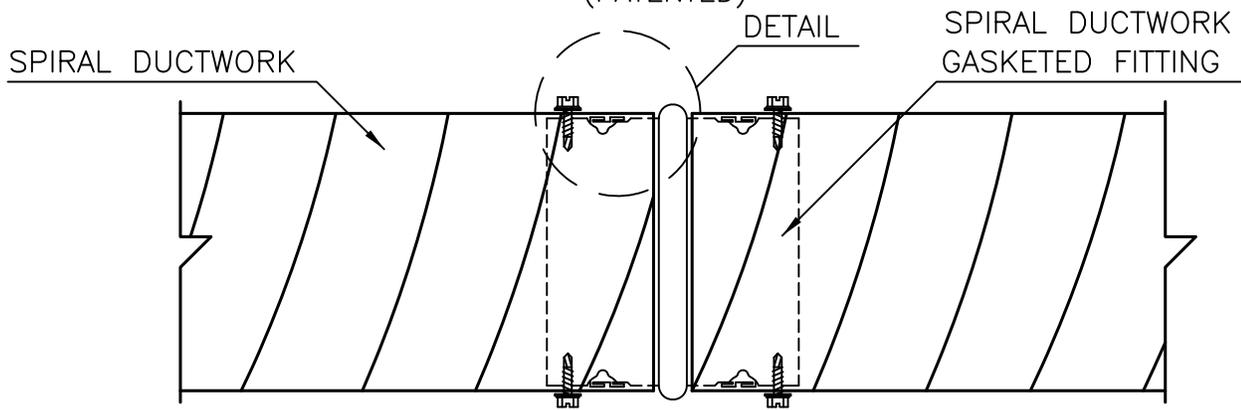
SMACNA Standards Allowable Leakage

CFM	\$ CFM	\$ for 100 sqft	\$ for 1,000 sqft	\$ for 10,000 sqft	Leakage
13.50	X \$5.00	= \$67.50	\$675.00	\$6,750.00	\$ per year

Average cost to heat and cool 1 cfm for 1 year is \$ 5.00

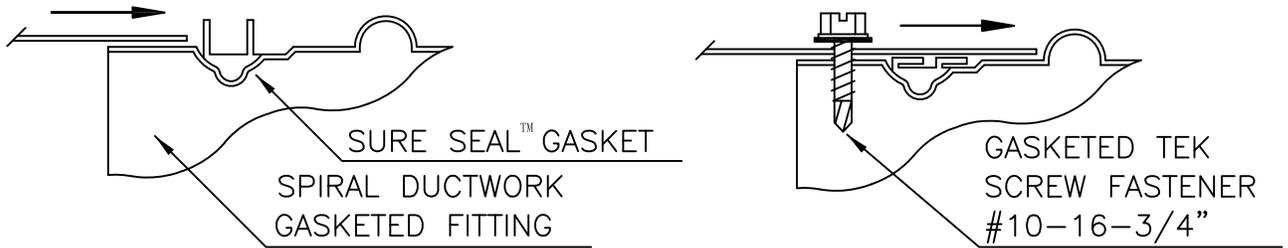
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SUBMITTAL SURE • SEAL™ (PATENTED)



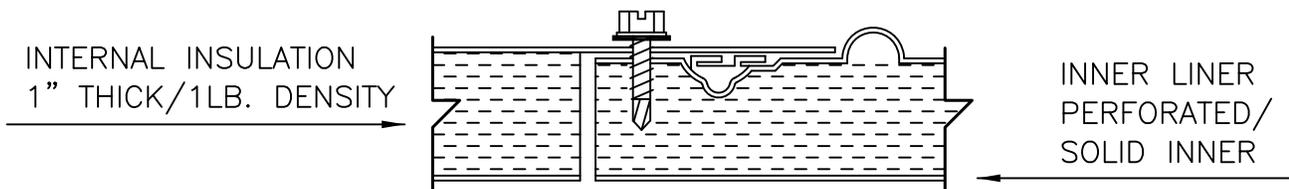
SURE SEAL™ DETAIL

SINGLE WALL SPIRAL DUCTWORK



SURE SEAL™ DETAIL

DOUBLE WALL SPIRAL DUCTWORK



PROFILE
EPDM RUBBER GASKET

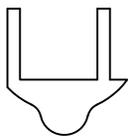
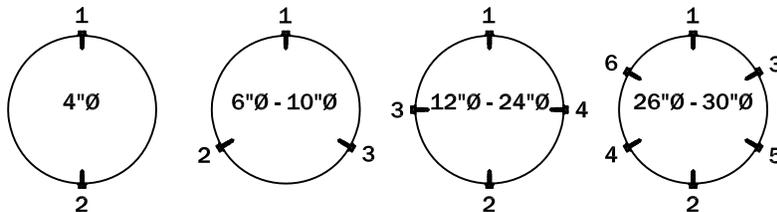


DIAGRAM BELOW SHOWS TEK SCREW
QUANTITY AND PLACEMENT SEQUENCE



SURE SEAL™ SPIRAL DUCTWORK 4"–30" ROUND DUCTWORK GAUGE UNREINFORCED POSITIVE PRESSURE TO 10" W.G.			
DIAMETER	FITTING	DIAMETER	SPIRAL
4"–20"	24 GAUGE	4"–24"	26 GAUGE
21"–30"	22 GAUGE	25"–30"	24 GAUGE

MATERIAL, GALVANIZED, GALVANNEALED,
STAINLESS STEEL, PVC COATED.

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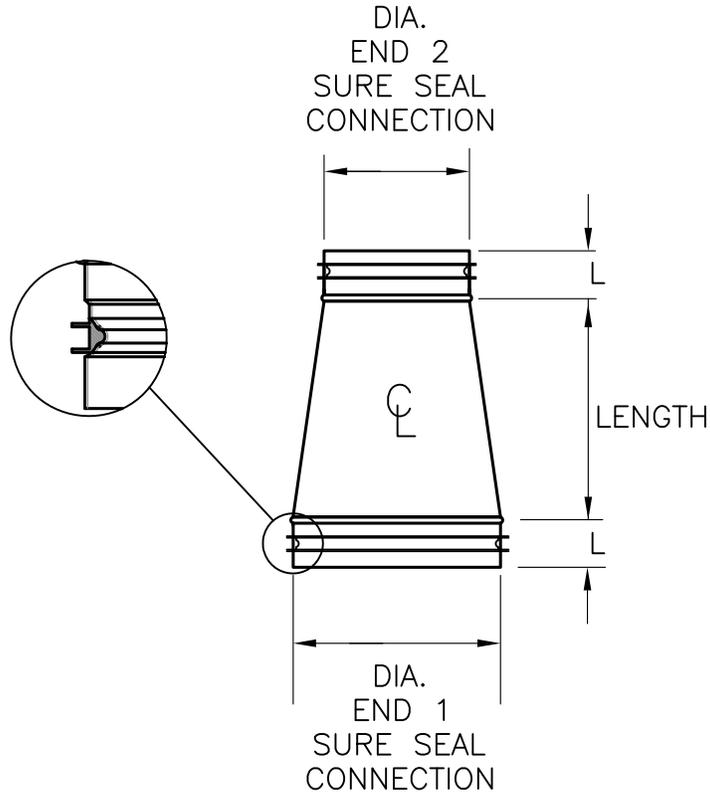
Cincinnati, Ohio. 45215
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#57 CONCENTRIC REDUCER



SYSTEM NUMBER/AREA : _____	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>DIA END 2</u>
MATERIAL/STATIC WG : _____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

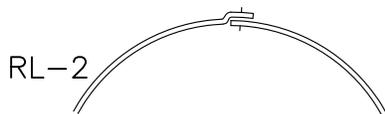
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"-11" DIA. L=2 1/2" ±
- 12"-20" DIA. L=2 7/8" ±
- 22"-36" DIA. L=3 1/4" ±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



LENGTH (4" MINIMUM)
END 1 - END 2

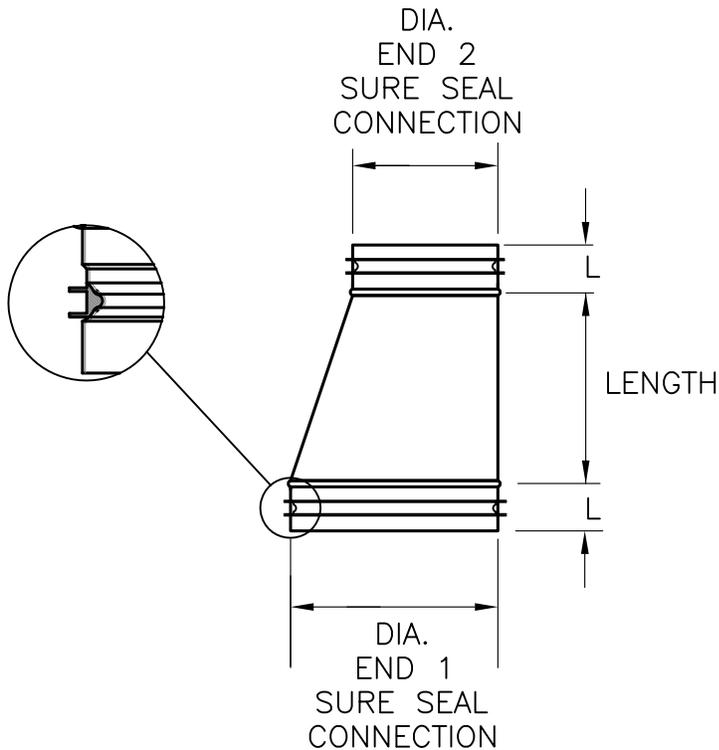
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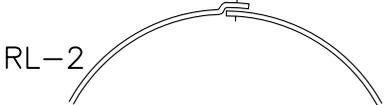
SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#69 ECENTRIC REDUCER



SYSTEM NUMBER/AREA : _____	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>DIA. END 2</u>
MATERIAL/STATIC WG : _____	_____	_____	_____	_____
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS				
<u>TRANSVERSE JOINT</u>				
SMALL END SLIP CONNECTION				
3"–11" DIA. L=2 1/2"±				
12"–20" DIA. L=2 7/8"±				
22"–36" DIA. L=3 1/4"±				
<u>LONGITUDINAL SEAMS</u>				
LAP, SPOTWELD AND SEAL				
				
<u>LENGTH (4" MINIMUM)</u>				
(END 1 – END 2) x 2				

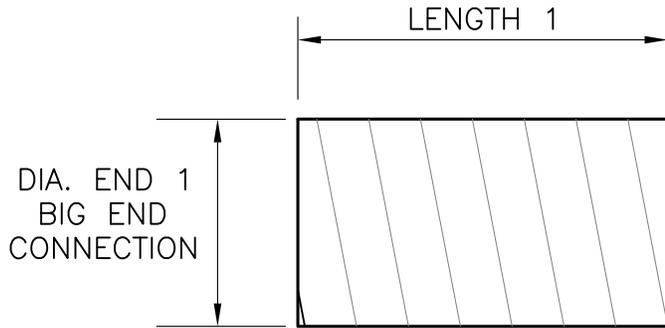
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SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#100S SPIRAL DUCTWORK



	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>LENGTH 1</u>
SYSTEM NUMBER/AREA : _____	_____	_____	_____	_____
MATERIAL/STATIC WG : _____	_____	_____	_____	_____
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS	_____	_____	_____	_____
<u>TRANSVERSE JOINT</u>	_____	_____	_____	_____
BIG END RAW CONNECTION	_____	_____	_____	_____
<u>LONGITUDINAL SEAM</u>	_____	_____	_____	_____
SPIRAL SEAM	_____	_____	_____	_____
RL-1 	_____	_____	_____	_____
<u>LENGTH 1</u> = 10' MAX. 14" MIN.	_____	_____	_____	_____
SPECIAL LENGTHS AVAILABLE UPON REQUEST	_____	_____	_____	_____
	_____	_____	_____	_____

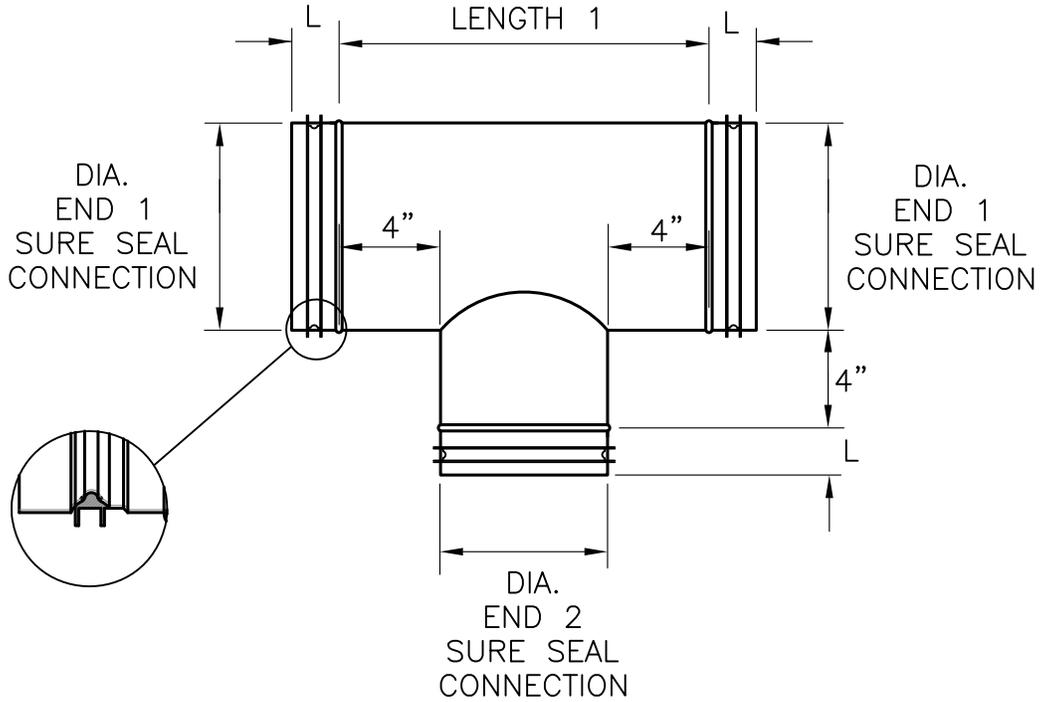
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SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#55 STRAIGHT 90 DEGREE TEE



SYSTEM NUMBER/AREA :	TAG	QTY.	DIA. END 1	DIA. END 2
MATERIAL/STATIC WG :				

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

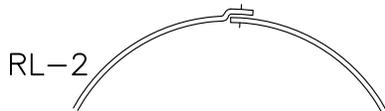
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"–11" DIA. L=2 1/2"±
- 12"–20" DIA. L=2 7/8"±
- 22"–36" DIA. L=3 1/4"±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



LENGTH 1

END 2 + 8"

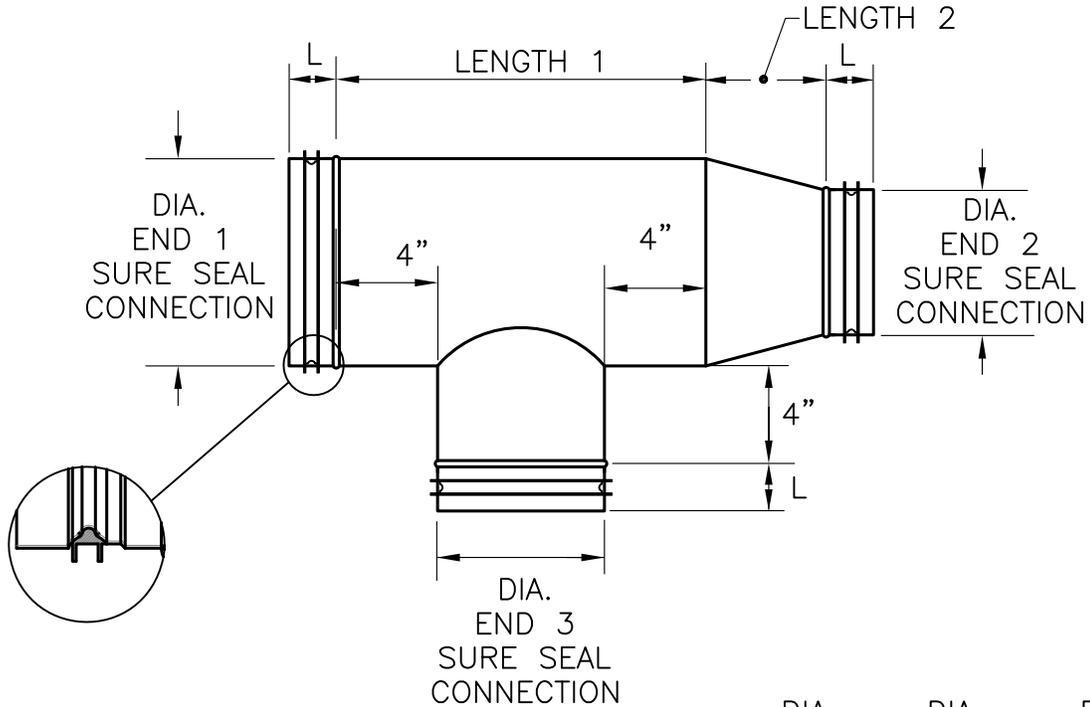
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#65 CONCENTRIC REDUCING TEE 90 DEGREE



	<u>TAG</u>	<u>QTY.</u>	<u>DIA.</u> <u>END 1</u>	<u>DIA.</u> <u>END 2</u>	<u>DIA.</u> <u>END 3</u>
SYSTEM NUMBER/AREA : _____	_____	_____	_____	_____	_____
MATERIAL/STATIC WG : _____	_____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

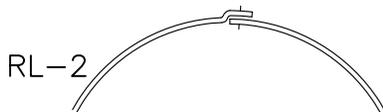
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"-11" DIA. L=2 1/2" ±
- 12"-20" DIA. L=2 7/8" ±
- 22"-36" DIA. L=3 1/4" ±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



LENGTH 1
END 3 + 8"

LENGTH 2 (4" MINIMUM)
END 1 - END 2

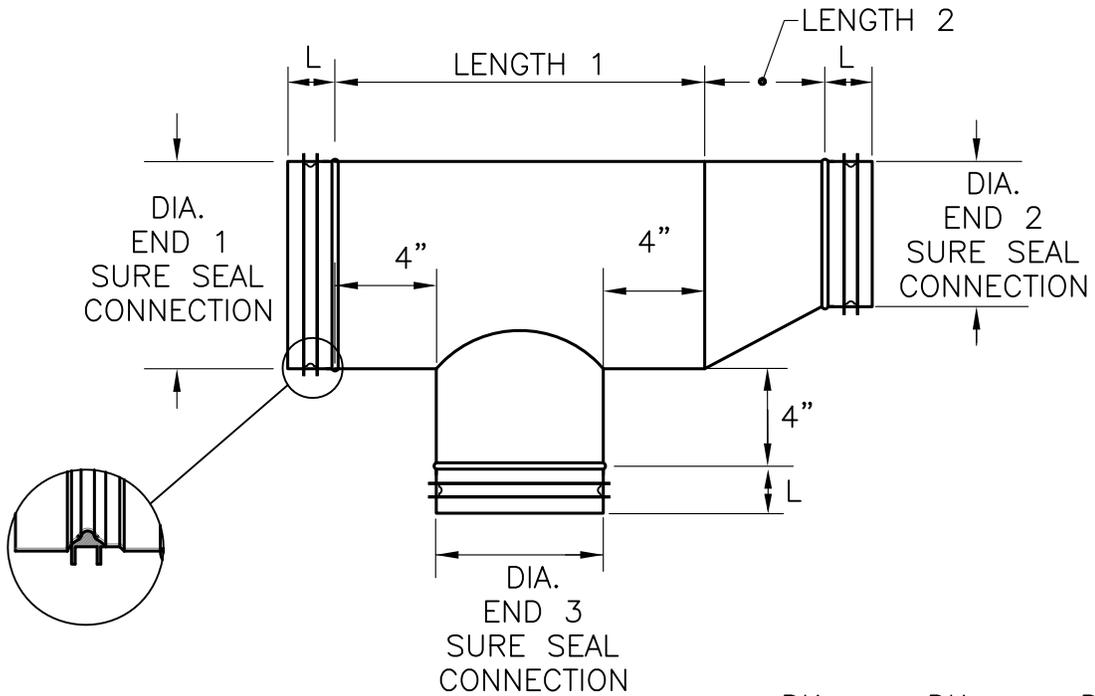
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#65F ECCENTRIC REDUCING TEE 90 DEGREE



	<u>TAG</u>	<u>QTY.</u>	<u>DIA.</u> <u>END 1</u>	<u>DIA.</u> <u>END 2</u>	<u>DIA.</u> <u>END 3</u>
SYSTEM NUMBER/AREA : _____	_____	_____	_____	_____	_____
MATERIAL/STATIC WG : _____	_____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

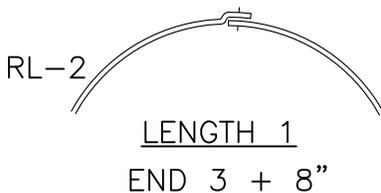
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"–11" DIA. L=2 1/2"±
- 12"–20" DIA. L=2 7/8"±
- 22"–36" DIA. L=3 1/4"±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



LENGTH 2 (4" MINIMUM)
(END 1 – END 2) X 2

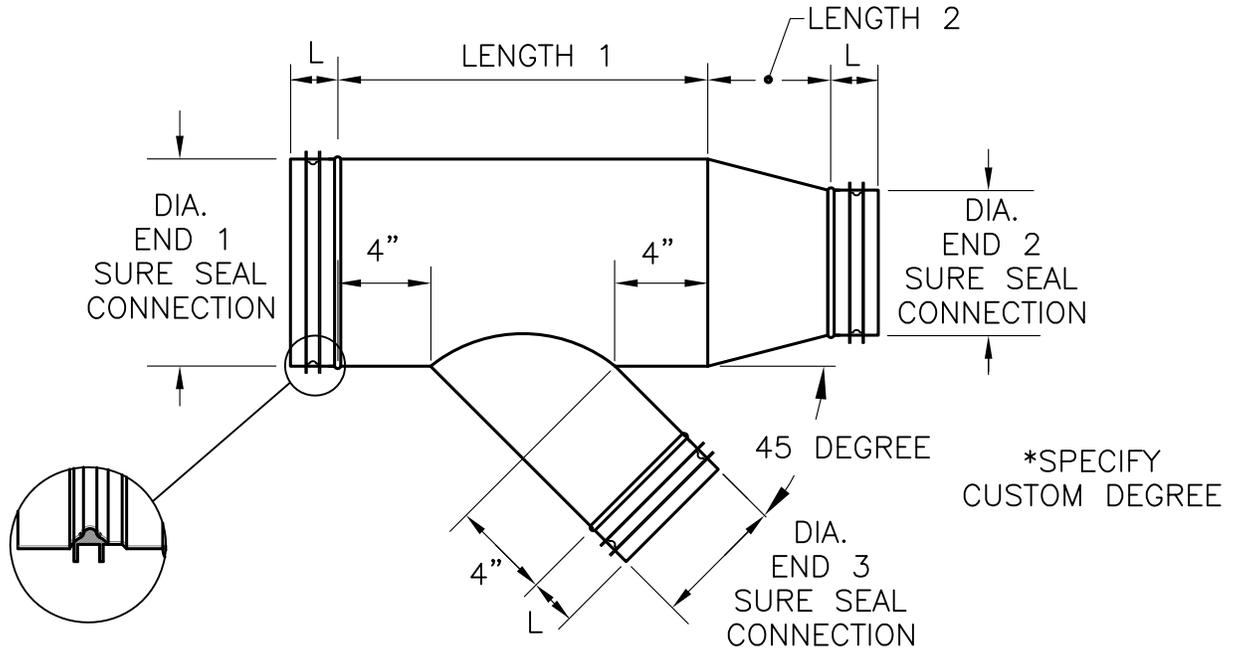
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#63 REDUCING LATERAL



SYSTEM NUMBER/AREA : _____	TAG	QTY.	DIA. END 1	DIA. END 2	DIA. END 3
MATERIAL/STATIC WG : _____	_____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

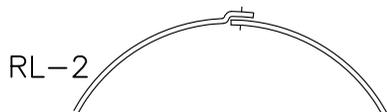
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"-11" DIA. L=2 1/2"±
- 12"-20" DIA. L=2 7/8"±
- 22"-36" DIA. L=3 1/4"±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



LENGTH 1

- 45 DEGREE: DIA. END 3 X (1.41) + 8
- 30 DEGREE: DIA. END 3 X (2) + 8

LENGTH 2 (4" MINIMUM)

END 1 - END 2

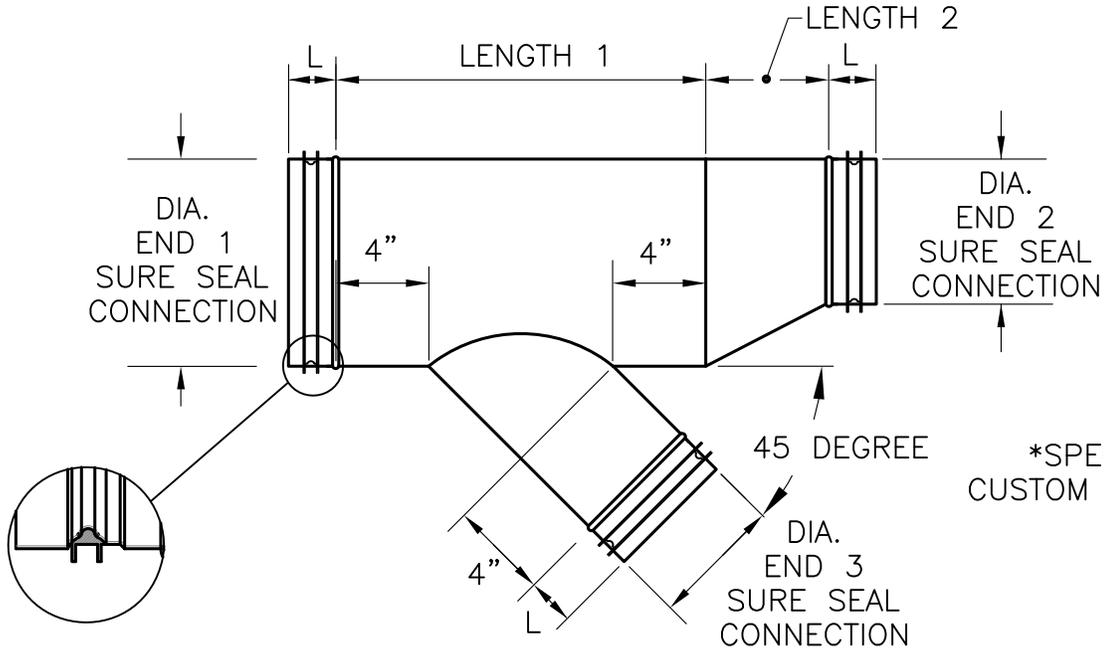
www.langdonsheetmetal.com

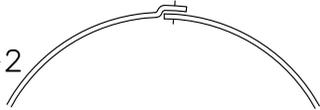
SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#63F ECCENTRIC REDUCING LATERAL



	<u>TAG</u>	<u>QTY.</u>	<u>DIA.</u> <u>END 1</u>	<u>DIA.</u> <u>END 2</u>	<u>DIA.</u> <u>END 3</u>
SYSTEM NUMBER/AREA : _____	_____	_____	_____	_____	_____
MATERIAL/STATIC WG : _____	_____	_____	_____	_____	_____
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS	_____	_____	_____	_____	_____
<u>TRANSVERSE JOINT</u>	_____	_____	_____	_____	_____
SMALL END SLIP CONNECTION	_____	_____	_____	_____	_____
3"-11" DIA. L=2 1/2"	_____	_____	_____	_____	_____
12"-20" DIA. L=2 7/8"	_____	_____	_____	_____	_____
22"-36" DIA. L=3 1/4"	_____	_____	_____	_____	_____
<u>LONGITUDINAL SEAMS</u>	_____	_____	_____	_____	_____
LAP, SPOTWELD AND SEAL	_____	_____	_____	_____	_____
RL-2 	_____	_____	_____	_____	_____
<u>LENGTH 1</u>	_____	_____	_____	_____	_____
45 DEGREE: DIA. END 3 X (1.41) + 8	_____	_____	_____	_____	_____
30 DEGREE: DIA. END 3 X (2) + 8	_____	_____	_____	_____	_____
<u>LENGTH 2 (4" MINIMUM)</u>	_____	_____	_____	_____	_____
(END 1 - END 2) X 2	_____	_____	_____	_____	_____

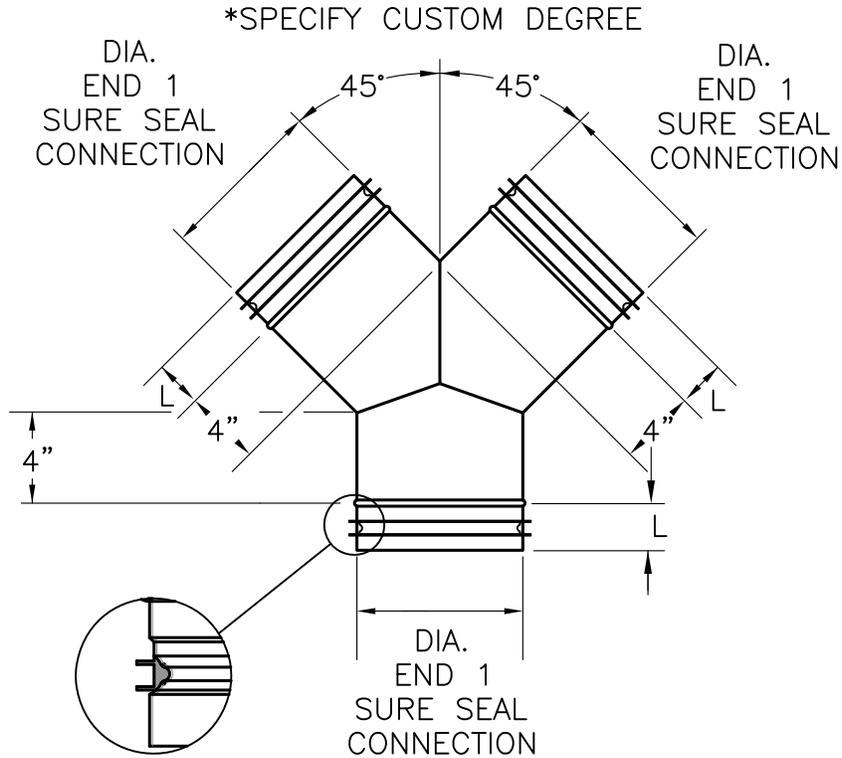
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#132A 45° Y BRANCH



SYSTEM NUMBER/AREA : _____
 MATERIAL/STATIC WG : _____

TAG QTY. DIA. END 1

FABRICATE IN ACCORDANCE WITH
 SMACNA DUCT CONSTRUCTION STANDARDS

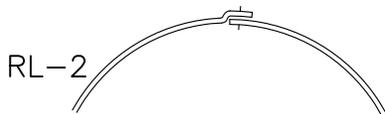
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

3"-11" DIA. L=2 1/2" ±
 12"-20" DIA. L=2 7/8" ±
 22"-36" DIA. L=3 1/4" ±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



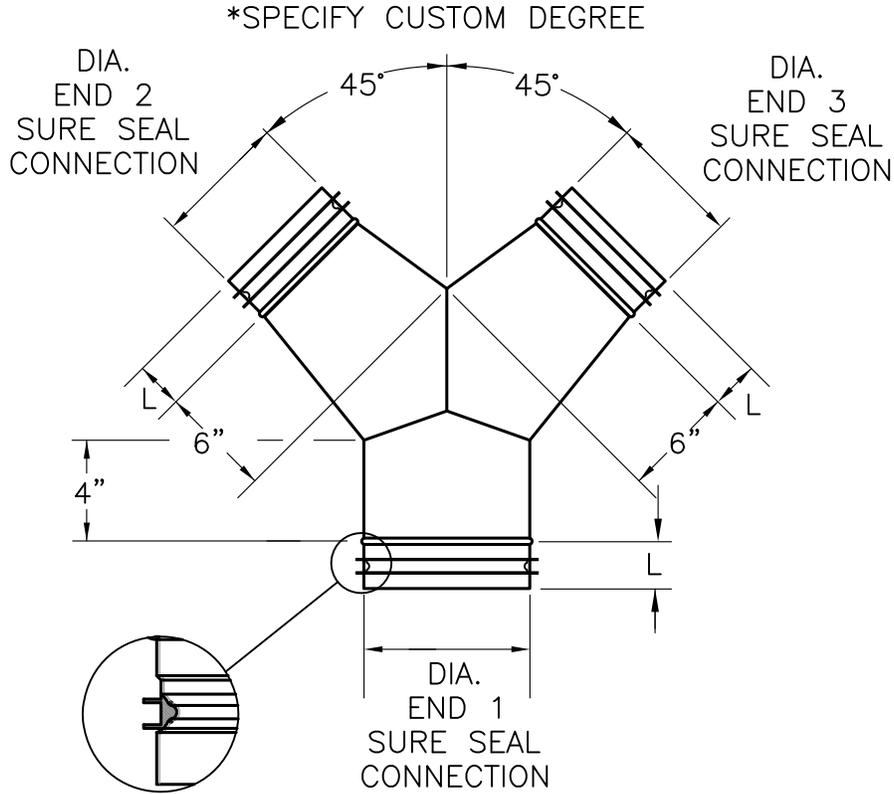
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#132 45° Y BRANCH REDUCING



	<u>TAG</u>	<u>QTY.</u>	<u>DIA.</u> <u>END 1</u>	<u>DIA.</u> <u>END 2</u>	<u>DIA.</u> <u>END 3</u>
SYSTEM NUMBER/AREA : _____	_____	_____	_____	_____	_____
MATERIAL/STATIC WG : _____	_____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

TRANSVERSE JOINT

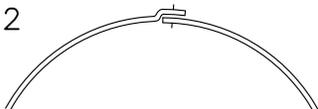
SMALL END SLIP CONNECTION

- 3"-11" DIA. L=2 1/2" ±
- 12"-20" DIA. L=2 7/8" ±
- 22"-36" DIA. L=3 1/4" ±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL

RL-2



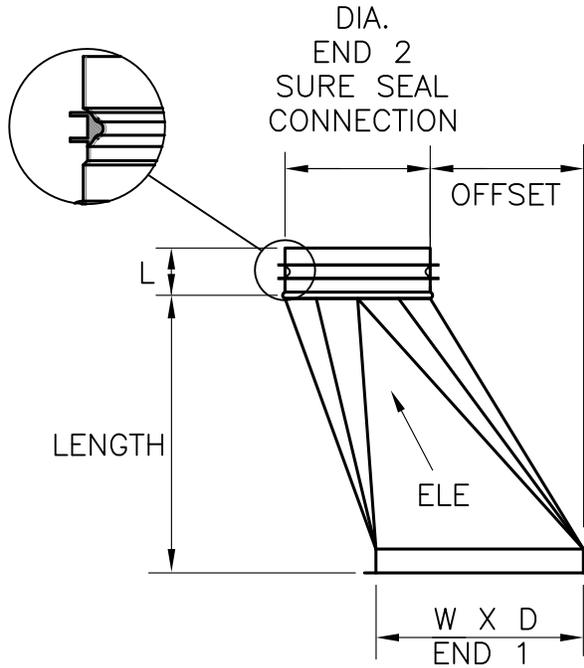
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#74 OFFSET SQUARE TO ROUND



S & D-TDC-FLG-RAW

SYSTEM NUMBER/AREA : _____

MATERIAL/STATIC WG : _____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

END 1 TRANSVERSE JOINT

S & D-TDC-FLG-RAW

END 2 TRANSVERSE JOINT

SMALL END SLIP CONNECTION

3"-11" DIA. L=2 1/2[±]

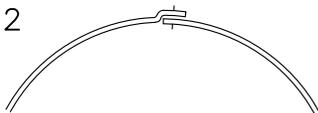
12"-20" DIA. L=2 7/8[±]

22"-36" DIA. L=3 1/4[±]

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL

RL-2



LENGTH (6" MINIMUM)

OFFSET X 2

	<u>TAG</u>	<u>QTY.</u>	<u>W X D</u> <u>END 1</u>	<u>CONN.</u> <u>TYPE</u> <u>END 1</u>	<u>DIA</u> <u>END 2</u>	<u>OFFSET</u>	<u>ELE.</u> <u>TU/TD</u>
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____
	_____	_____	X	_____	_____	_____	_____

www.langdonsheetmetal.com

Langdon, Inc.: 9865 Wayne Avenue, Cincinnati, Ohio, 45215 Ph. 513-733-5955 Fax. 513-733-8050

The above mentioned product, is protected by patents and trade marks

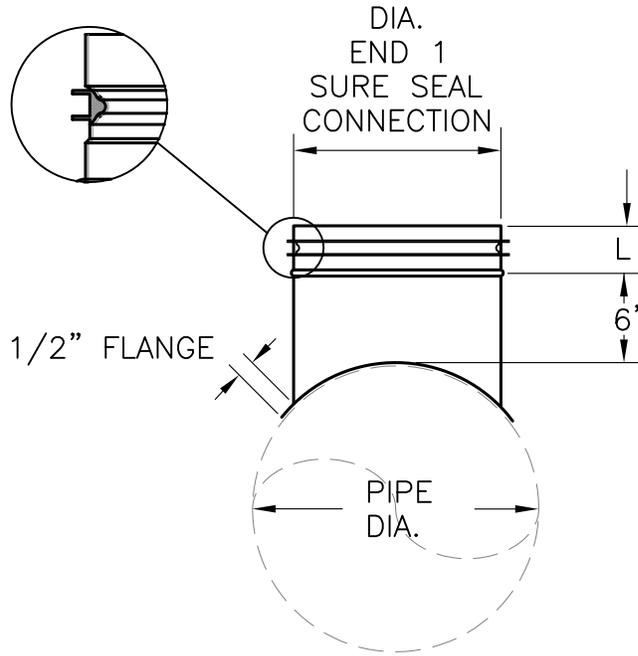
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#67-90 FIELD MOUNTED STRAIGHT TAP ON ROUND



SYSTEM NUMBER/AREA : _____	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>PIPE DIA.</u>
MATERIAL/STATIC WG : _____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

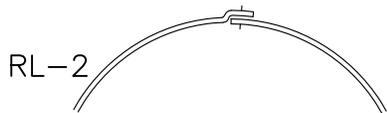
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"–11" DIA. L=2 1/2"±
- 12"–20" DIA. L=2 7/8"±
- 22"–36" DIA. L=3 1/4"±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



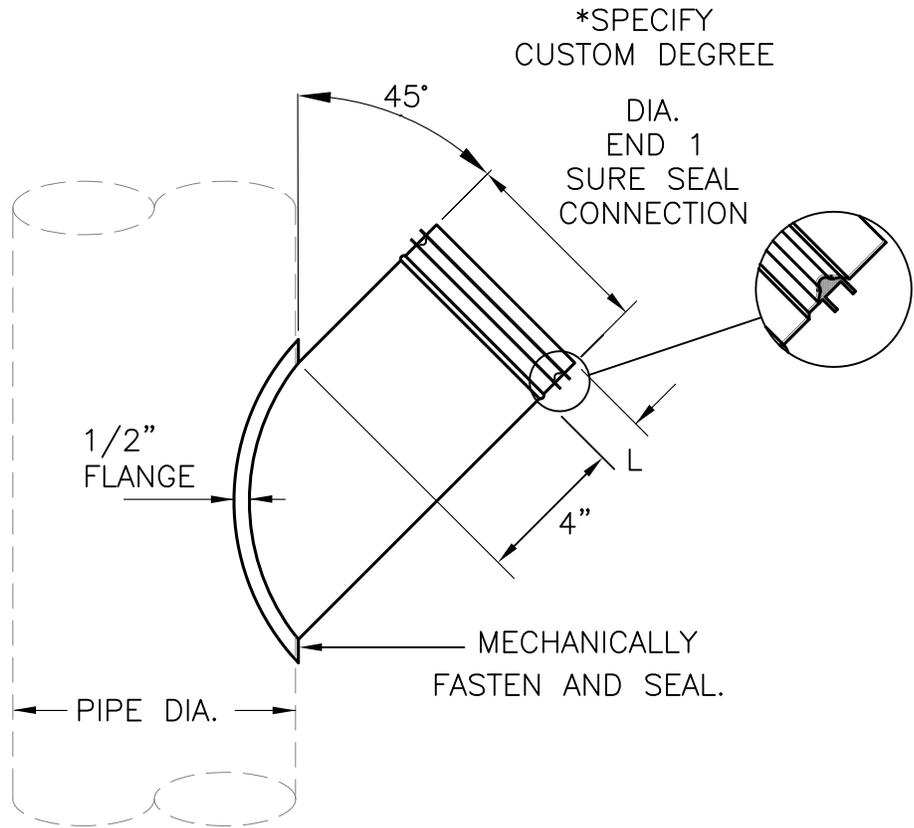
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____

SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#67 FIELD MOUNTED LATERAL TAP



SYSTEM NUMBER/AREA : _____	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>PIPE DIA.</u>
MATERIAL/STATIC WG : _____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

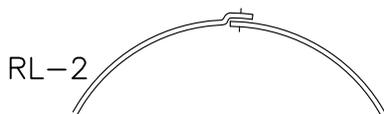
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"–11" DIA. L=2 1/2"±
- 12"–20" DIA. L=2 7/8"±
- 22"–36" DIA. L=3 1/4"±

LONGITUDINAL SEAMS

LAP, SPOTWELD AND SEAL



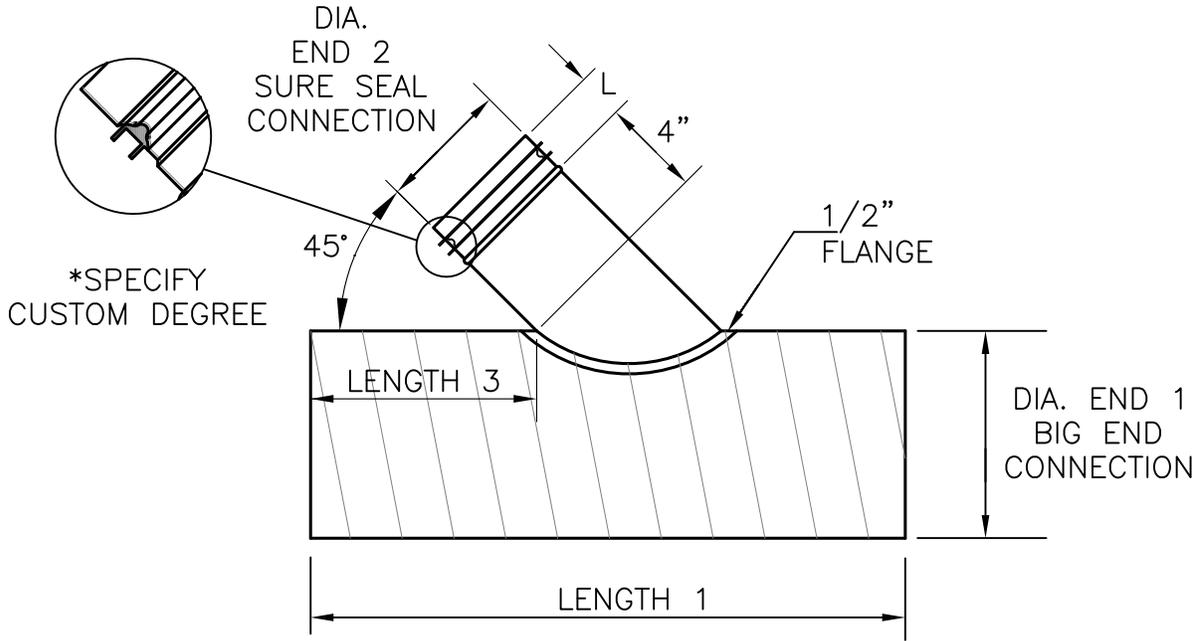
www.langdonsheetmetal.com

SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#54S LATERAL SHOP MOUNTED



SYSTEM NUMBER/AREA :							
MATERIAL/STATIC WG :		<u>TAG</u>	<u>QTY.</u>	<u>DIA.</u> <u>END 1</u>	<u>DIA.</u> <u>END 2</u>	<u>LENGTH 1</u>	<u>LENGTH 3</u>

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

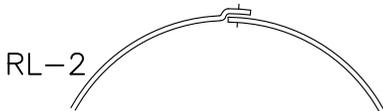
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

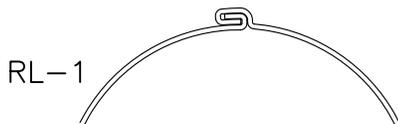
- 3"–11" DIA. L=2 1/2"±
- 12"–20" DIA. L=2 7/8"±
- 22"–36" DIA. L=3 1/4"±

LATERAL LONGITUDINAL SEAM

LAP, SPOTWELD AND SEAL



BODY LONGITUDINAL SEAM
SPIRAL SEAM



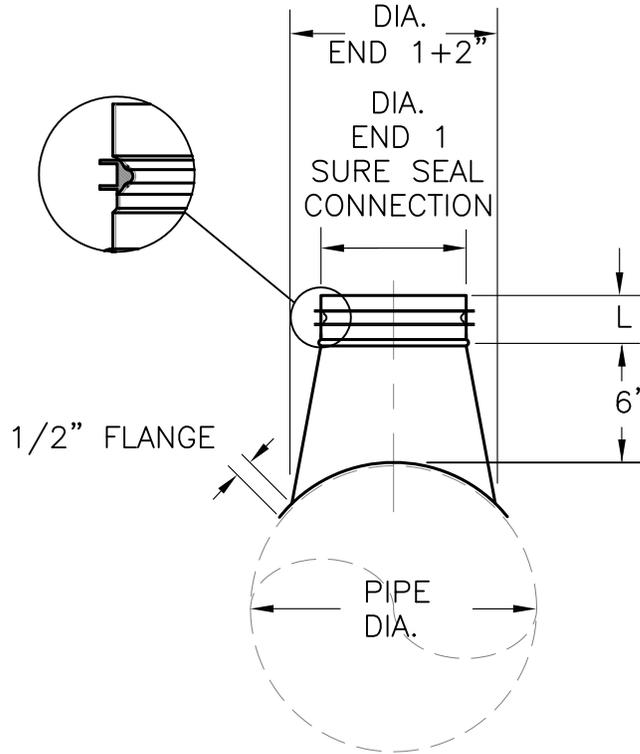
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SUBMITTAL

SURE • SEAL SPIRAL FITTINGS

(PATENTED)

#56T CONICAL TAP ON ROUND



SYSTEM NUMBER/AREA : _____	<u>TAG</u>	<u>QTY.</u>	<u>DIA. END 1</u>	<u>PIPE DIA.</u>
MATERIAL/STATIC WG : _____	_____	_____	_____	_____

FABRICATE IN ACCORDANCE WITH
SMACNA DUCT CONSTRUCTION STANDARDS

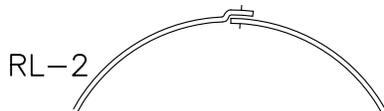
TRANSVERSE JOINT

SMALL END SLIP CONNECTION

- 3"–11" DIA. L=2 1/2" ±
- 12"–20" DIA. L=2 7/8" ±
- 22"–36" DIA. L=3 1/4" ±

LONGITUDINAL SEAMS

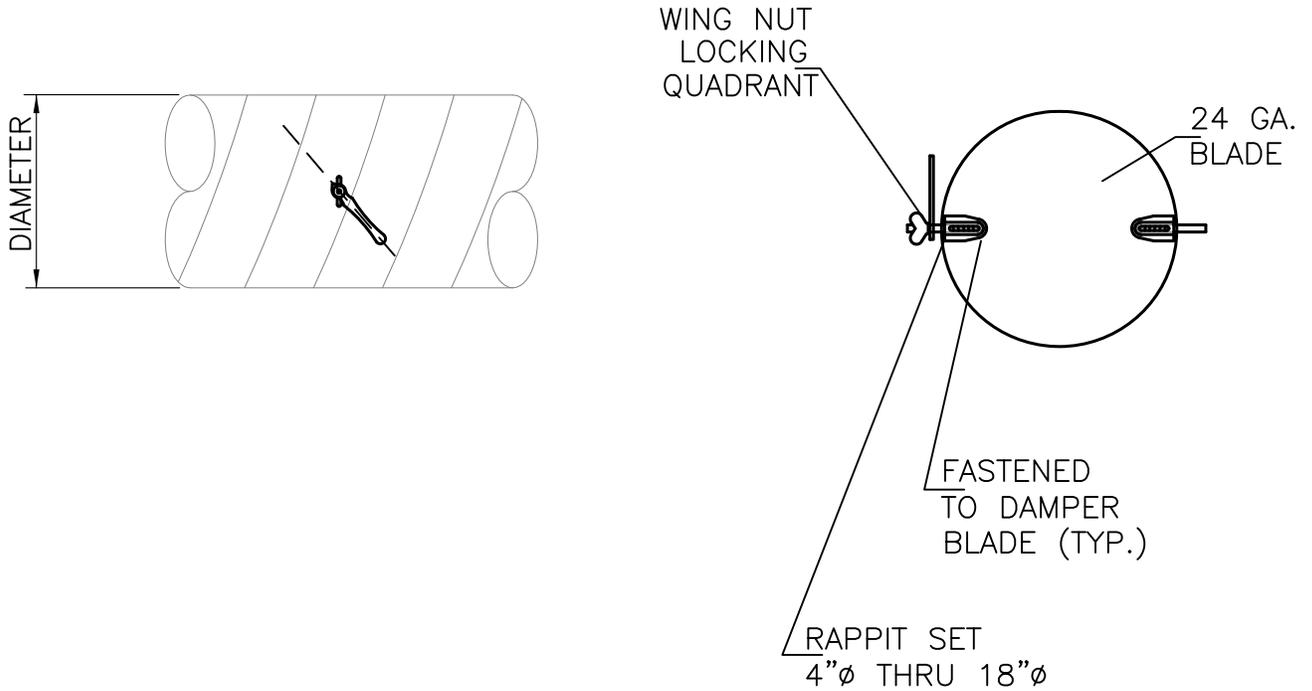
LAP, SPOTWELD AND SEAL



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SUBMITTAL SPIRAL FITTINGS

MANUAL VOLUME DAMPER 4"Ø TO 18"Ø



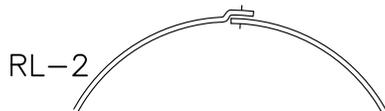
SYSTEM NUMBER/AREA : _____
 MATERIAL/STATIC WG : _____

TAG QTY. DIAMETER

FABRICATE IN ACCORDANCE WITH
 SMACNA DUCT CONSTRUCTION STANDARDS

TRANSVERSE JOINT
 SMALL END SLIP CONNECTION

LONGITUDINAL SEAMS
 LAP, SPOTWELD AND SEAL



STANDARD SIZES 4"Ø THRU 18"Ø

_____	_____	_____
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