

## Sure-Clamp™ Spiral Pipe & Fittings



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

http://www.langdonsheetmetal.com

## Sure-Clamp<sup>TM</sup> Spiral

# ANGDON INC.

### Phone (513) 733-5955 Fax (513) 733-5955 9865 Wayne Avenue • Cincinnati, Ohio 45215

Sure•Clamp<sup>™</sup> Spiral, a clamp together modular ductwork system. Our new (patented) connection is constructed using a precision fabricated clamp with a silicone sponge gasket and zinc coated latch. With Sure•Clamp<sup>™</sup> Spiral, complete systems can be installed with ease and taken apart and reassembled just as easy.

Imagine ductwork components that can be maintained or changed at a low cost to your customer. Sure•Clamp™ Spiral has many applications, such as Lab Hoods, HVAC, Dust, Fume and Dryer Vent systems. Langdon fabricates ductwork to SMACNA construction standards as well as specialty systems. Sure•Clamp<sup>™</sup> Spiral is available in galvanized, galvanneal and stainless steel in even and odd sizes from 3" to 22". Sure•Clamp™ is also available in longitudinal seam ductwork.





### Diameter Even and Odd Sizes 4" to 22"

Static Pressure Negative Pressure to 20" W.G.

**Spiral Ductwork** 24 - 22 - 20 Gauge

**Continuous Welded** 18 - 16 - 14 Gauge

### Materials

Galvanized Galvanneal Stainless Steel

#### Sure Class Products

Sure•Seal<sup>™</sup> Spiral Sure•Clamp<sup>™</sup> Double Wall Sure•Clamp<sup>™</sup> Access (Round) Sure•Clamp<sup>™</sup> Access (Rect.)

- Application: Lab Hoods, HVAC, Dust, Fume and Dryer Vent systems.
- The advantage of Sure Clamp Spiral is a manufactured system with low leakage rates.
- PCD (polyvinyl coated ductwork) A duct system that is properly sealed can make your work environment safer, more comfortable and energy efficient.
  - Our gasketed clamping system will give you a sealed system and finished look for exposed areas.
  - Continuous Welded Sure
    Clamp<sup>™</sup> Ductwork is also available.

### http://www.langdonsheetmetal.com

## Sure-Clamp<sup>TM</sup> Spiral Energy Savings

Sure•Clamp<sup>™</sup> 12" diameter test results

(AirTab International Certified Tab Report 3-18-10, Page 16)

Test results for 10" wg positive pressure had .53 cfm leakage for 100 square feet of 12" dia ductwork Test results for 10" wg negative pressure had .60 cfm leakage for 100 square feet of 12" dia ductwork

> Sure•Clamp<sup>™</sup> Leakage For 10" Positive Pressure \$ for 100 sqft \$ for 1,000 sqft \$ for 10,000 sqft CFM \$ CFM Leakage 0.53 X \$5.00 = \$2.65 \$26.50 \$265.00 \$ per year Sure•Clamp<sup>™</sup> Leakage For 10" Negative Pressure CFM \$ for 100 sqft \$ for 1,000 sqft \$ for 10,000 sqft \$ CFM Leakage 0.60 X \$5.00 \$3.00 \$30.00 \$300.00 = \$ 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	Х	\$5.00	=	\$67.50	\$675.00	\$6,750.00	\$ per year

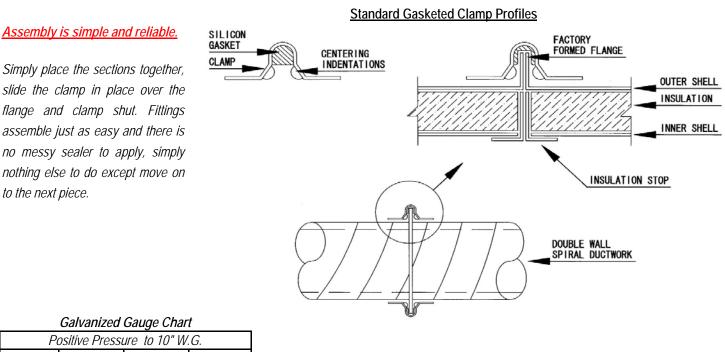
Average cost to heat and cool 1 cfm for 1 year is \$ 5.00

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 the field and SMACNA does not recommended that 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 SMACNA 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**•Clamp<sup>™</sup> Spiral is a manufactured system with low leakage rates, this eliminates field workmanship, sealant application and leak testing.

## Sure-Clamp™ Double Wall Spíral

### Product Overview

Our new **(patented)** connection is constructed using a precision fabricated clamp with a silicone sponge gasket. With Sure•Clamp<sup>™</sup> Double Wall Spiral, complete systems can be installed with ease and taken apart and reassembled just as easy, imagine a ductwork system that can be maintained or changed at a low cost to your customer. Assembly is simple and reliable, simply place the sections together, slide the clamp in place over the flange and clamp shut. Fittings assemble just as easy and there is no messy sealer to apply. Langdon fabricates ductwork to SMACNA construction standards as well as specialty systems. Sure•Clamp<sup>™</sup> Spiral Double Wall is available in galvanized, galvanneal, stainless steel and PCD (polyvinyl coated ductwork) in even and odd sizes from 4" to 22".



Galvanized Gauge Chart								
P	Positive Pressure to 10" W.G.							
Diameter	Fitting	Spiral	Solid or Perforated Inner Liner					
4" - 12"	22 Gauge	22 Gauge	26 Caudo					
13" - 22"	20 Gauge	20 Gauge	26 Gauge					

### The Benefit of Sure-Clamp<sup>™</sup> Double Wall Spiral is a quality product at a cost effective price.

Typical HVAC double wall spiral is fabricated with an inner and outer slip connection, after field assembly of double wall spiral pipe and fittings duct sealer is applied to the outer connection. Langdon can reduce installation costs by eliminating a <u>sometime difficult</u> inner and outer connection and sealing requirements, with the ease and speed of our clamping system. Simply place the sections together, slide the clamp in place over the flange and clamp shut. **Our gasketed clamping system will give you a finished look for exposed areas and allow future removal of ductwork for inspection or cleaning of the system.** 

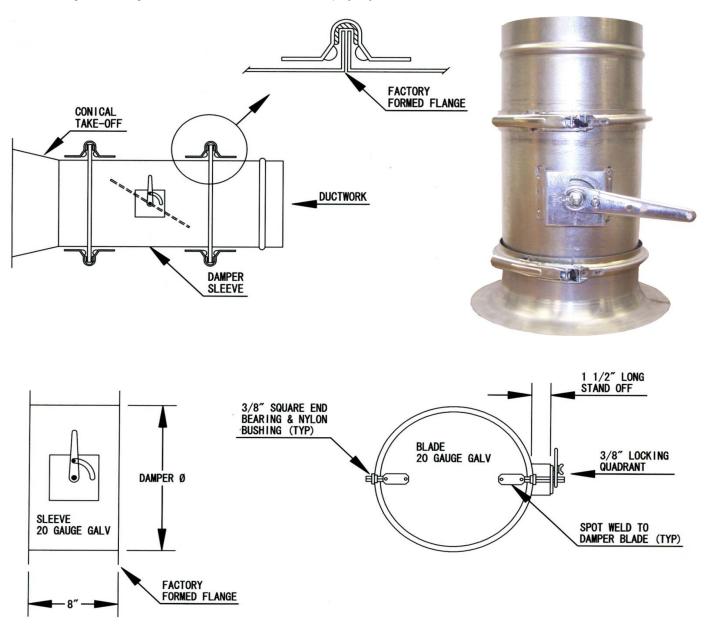
www.langdonsheetmetal.com

## Sure-Clamp<sup>TM</sup> Take Off Damper

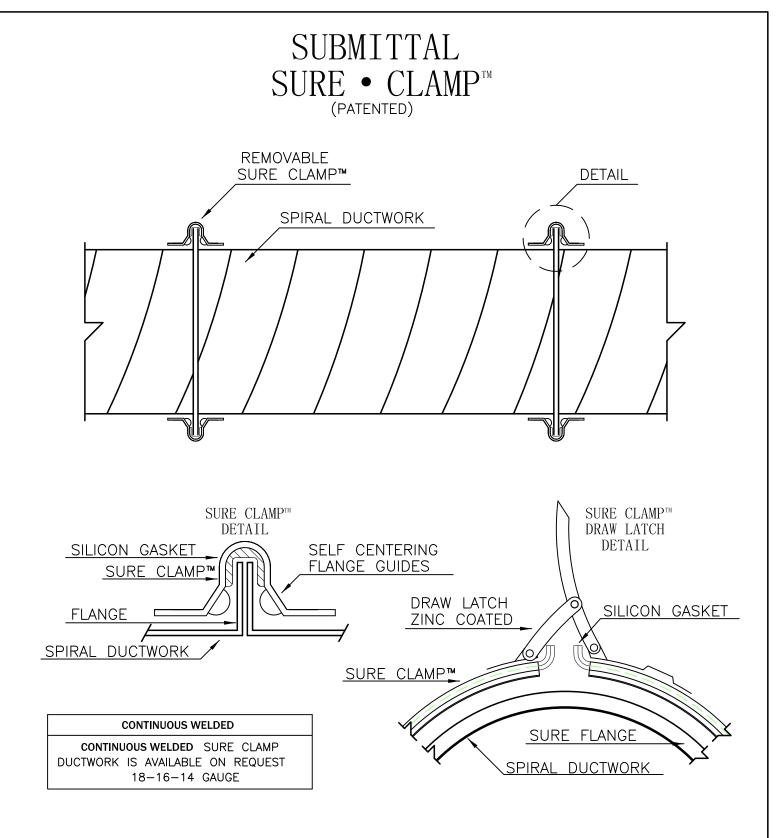
The benefits of Sure•Clamp<sup>™</sup> Take Off Damper is a quality product at a cost effective price.

### Product Overview

Langdon's Sure Clamp<sup>™</sup> Take Off Damper is a high efficiency take off that is fabricated using a conical tap collar. Our medium duty manual balancing damper and sleeve is constructed of 20 GA galvanized metal with 3/8" end bearings and nylon bushing, this will reduce air leakage and minimize damper vibration. The 1-½" standoff on dampers sleeve allow access to the heavy duty locking dial regulator after ductwork is externally insulated. Our clamping system will give you a finished look for exposed areas and allow future removal of the damper for inspection and or cleaning of the ductwork system. Sure Clamp<sup>™</sup> and TDC connections can also be used to allow access for other components in the ductwork system. Sure Clamp<sup>™</sup> Take Off Dampers are available in galvanized, galvanneal, stainless steel and PCD (polyvinyl coated ductwork) in even and odd sizes from 6" to 22".



www.langdonsheetmetal.com



GALVANIZED	SPIRAL	&	FITTING	GAUGE	CHART	
UNREINFORCED						

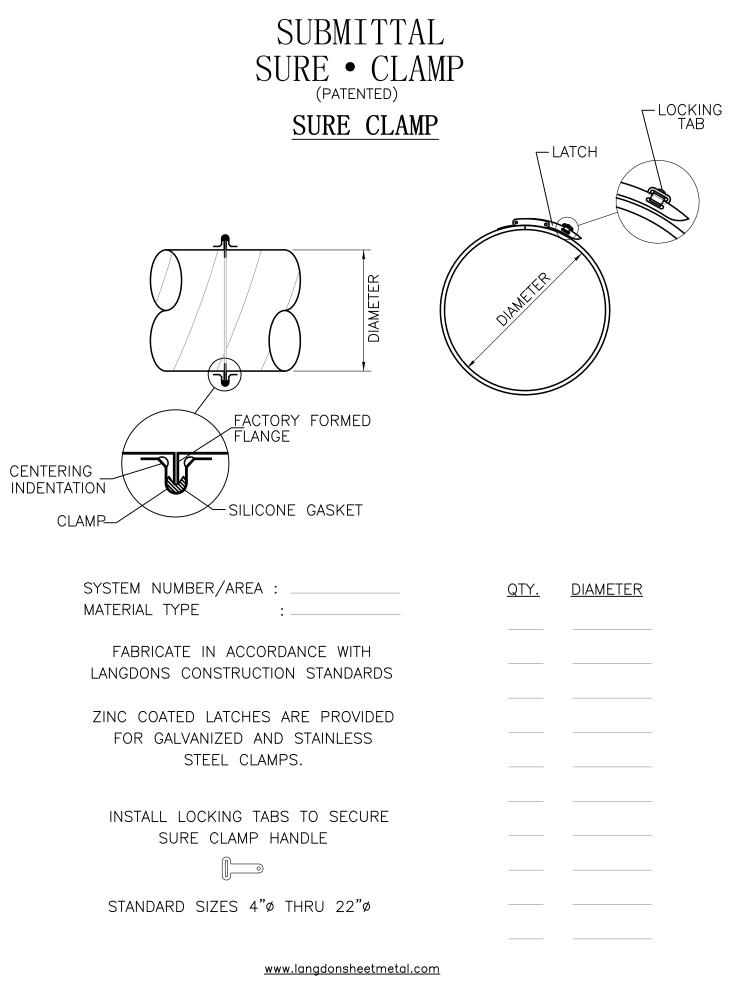
NEGATIVE PRESSURE TO 20" W.G.						
DIAMETER	FITTING	SPIRAL				
4"-12"	22 GAUGE	22 GAUGE				
13"-22"	20 GAUGE	20 GAUGE				

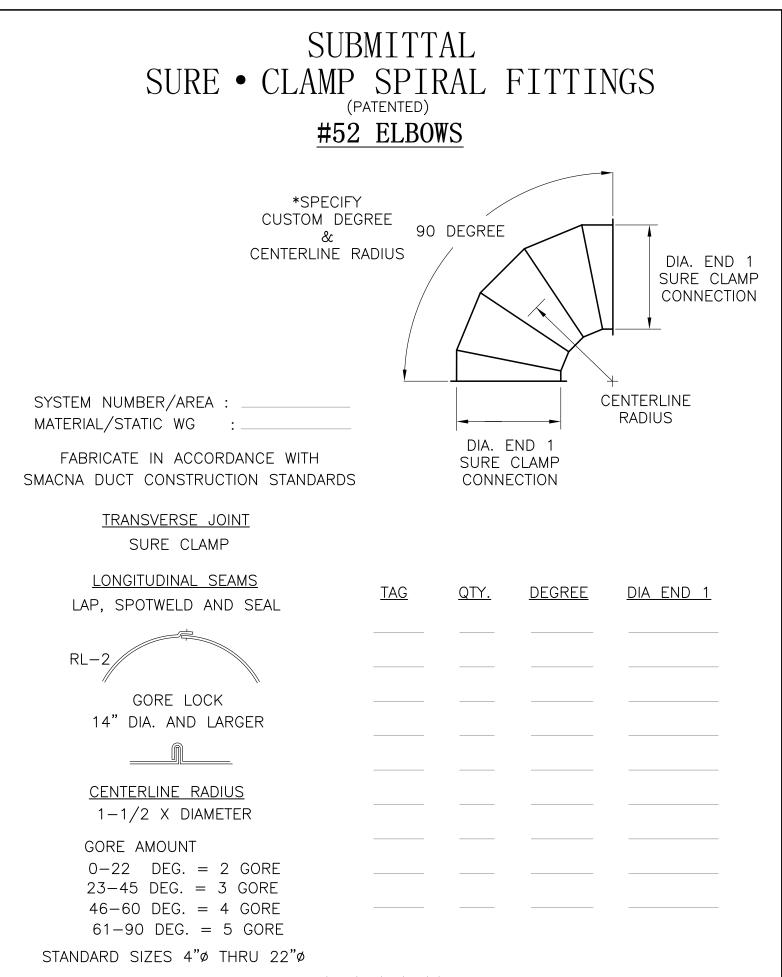
#### **STAINLESS STEEL** SPIRAL & FITTING GAUGE CHART REINFORCE PER SMACNA STANDARDS

NEGATIVE PRESSURE TO 10" W.G.					
DIAMETER	FITTING	SPIRAL			
4"-12"	24 GAUGE	24 GAUGE			
13"-22"	22 GAUGE	22 GAUGE			

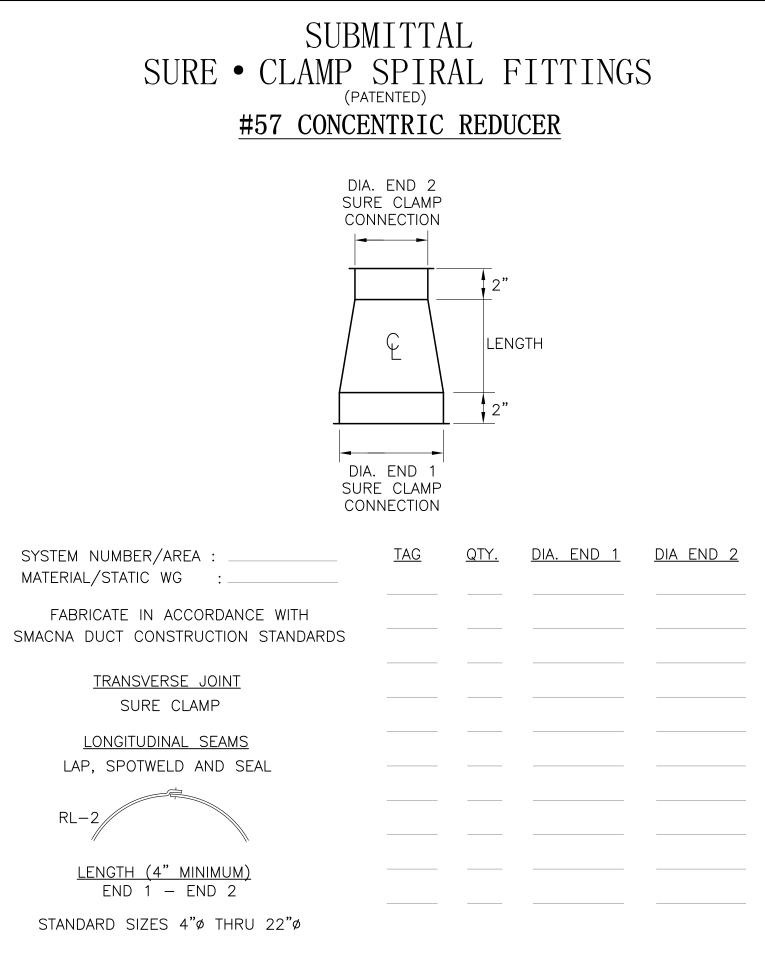
www.langdonsheetmetal.com

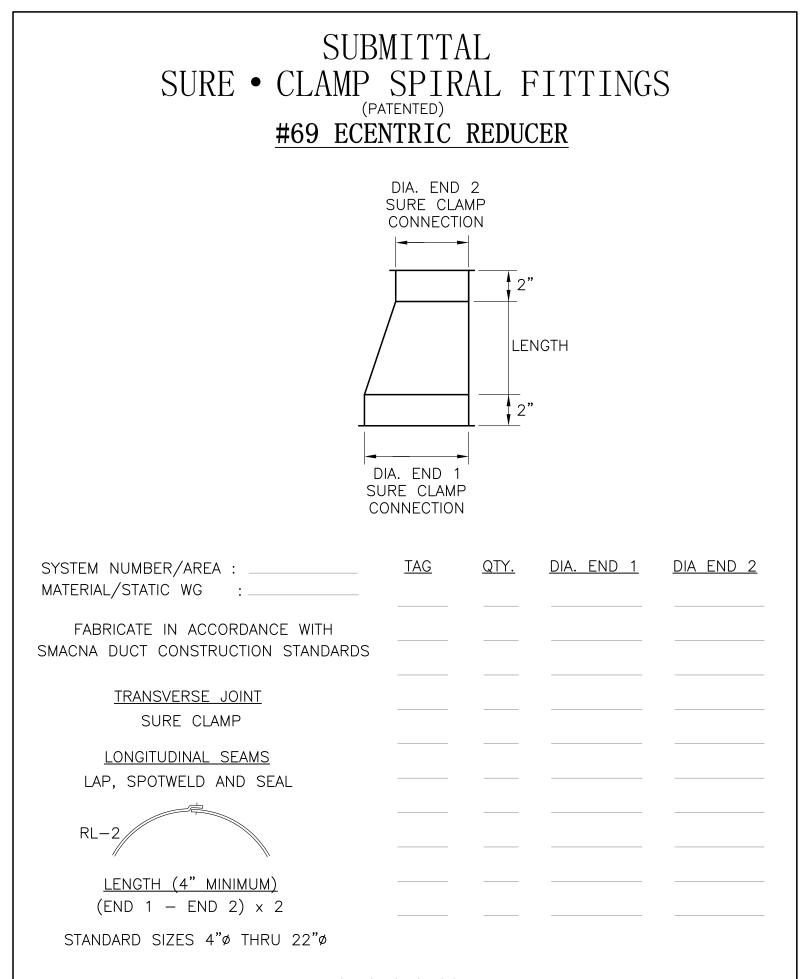
Cincinnati, Ohio. 45215 The above mentioned product, is protected by patents and trade marks All Rights Reserved updated 2/15/13



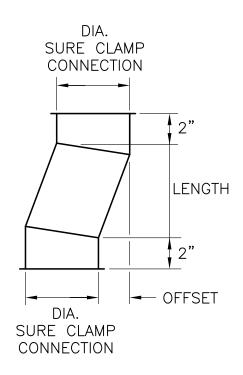


#### <u>www.langdonsheetmetal.com</u>





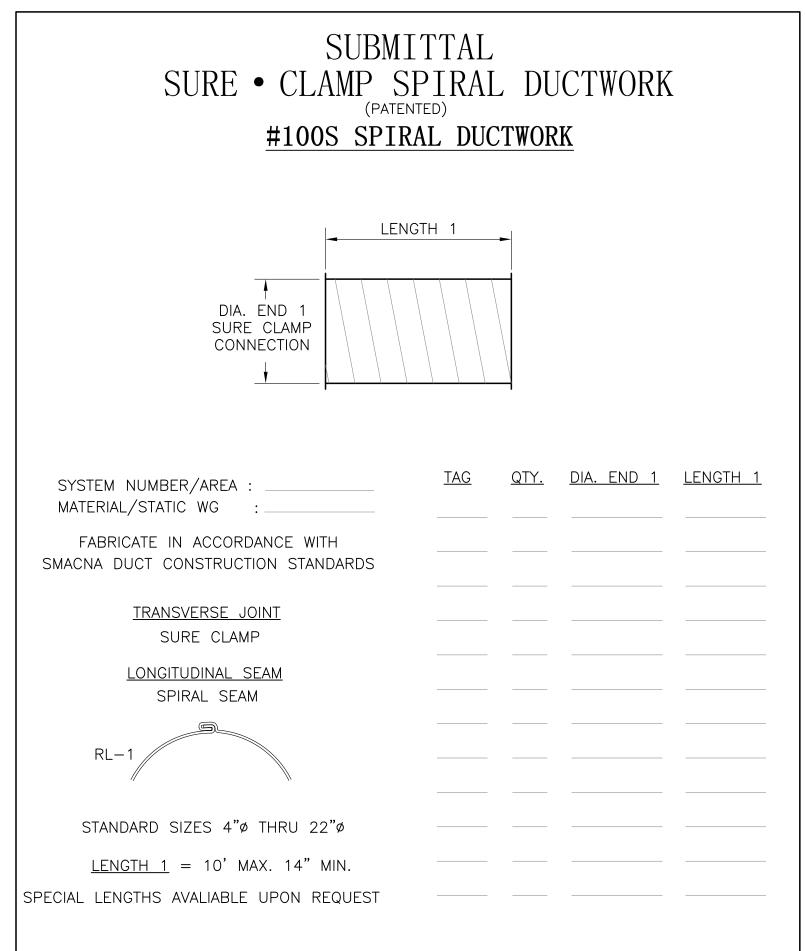
## SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #53 OFFSET

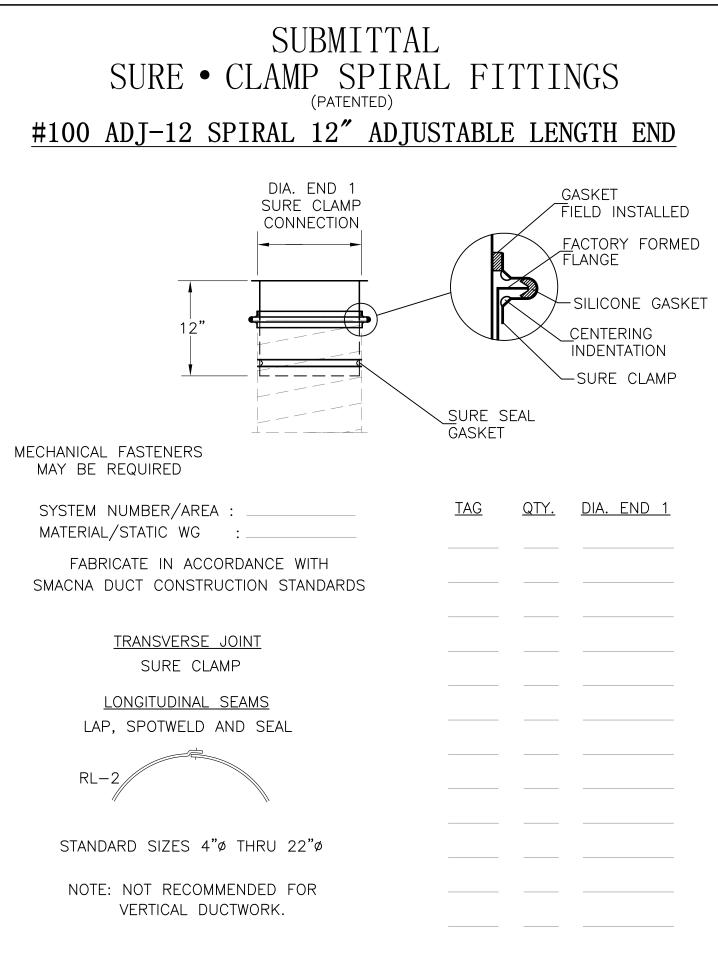


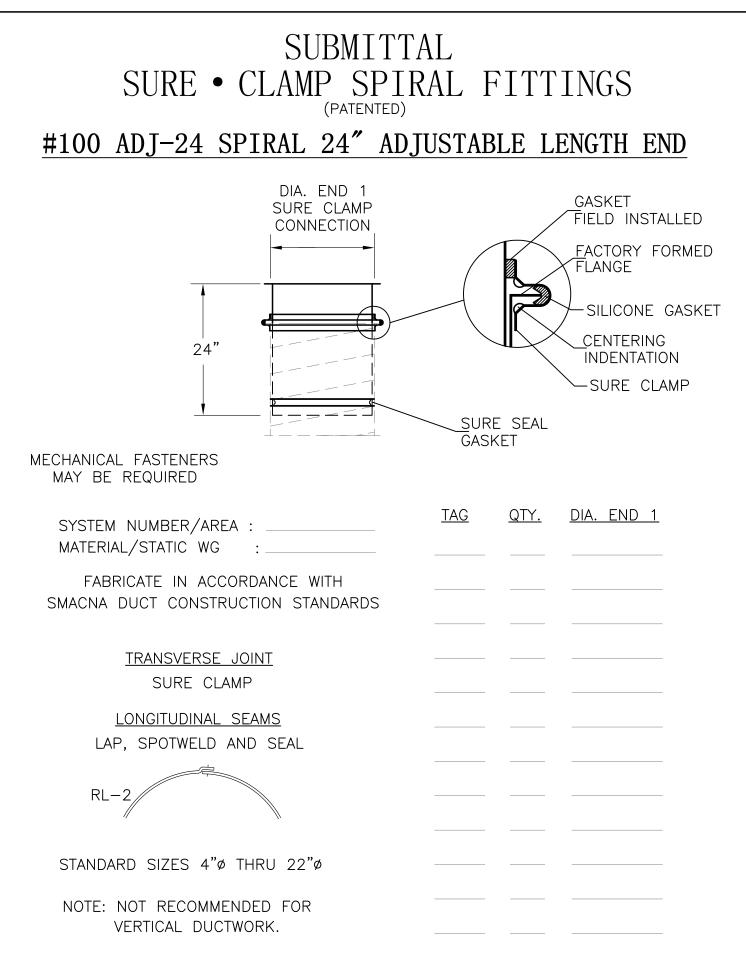
SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	TAG	<u>QTY.</u>	<u>DIA.</u>	<u>OFFSET</u>
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS				
TRANSVERSE JOINT SURE CLAMP				
LONGITUDINAL SEAMS LAP, SPOTWELD AND SEAL				
RL-2				
<u>LENGTH (6" MINIMUM)</u> OFFSET X 2				

STANDARD SIZES 4"Ø THRU 22"Ø

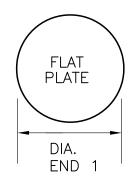
#### www.langdonsheetmetal.com





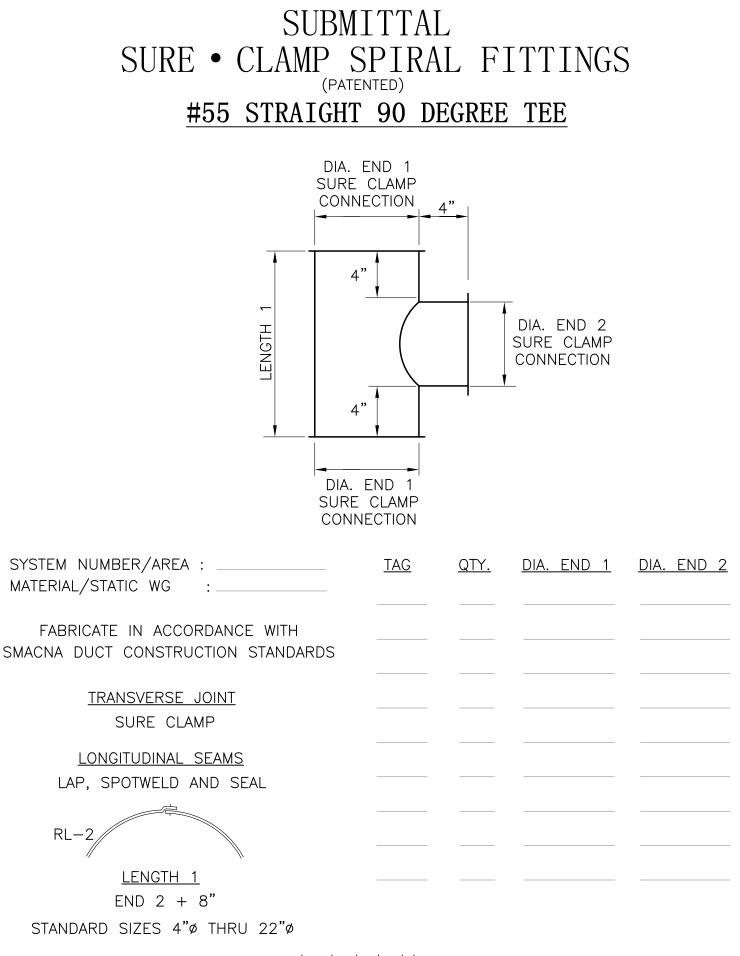


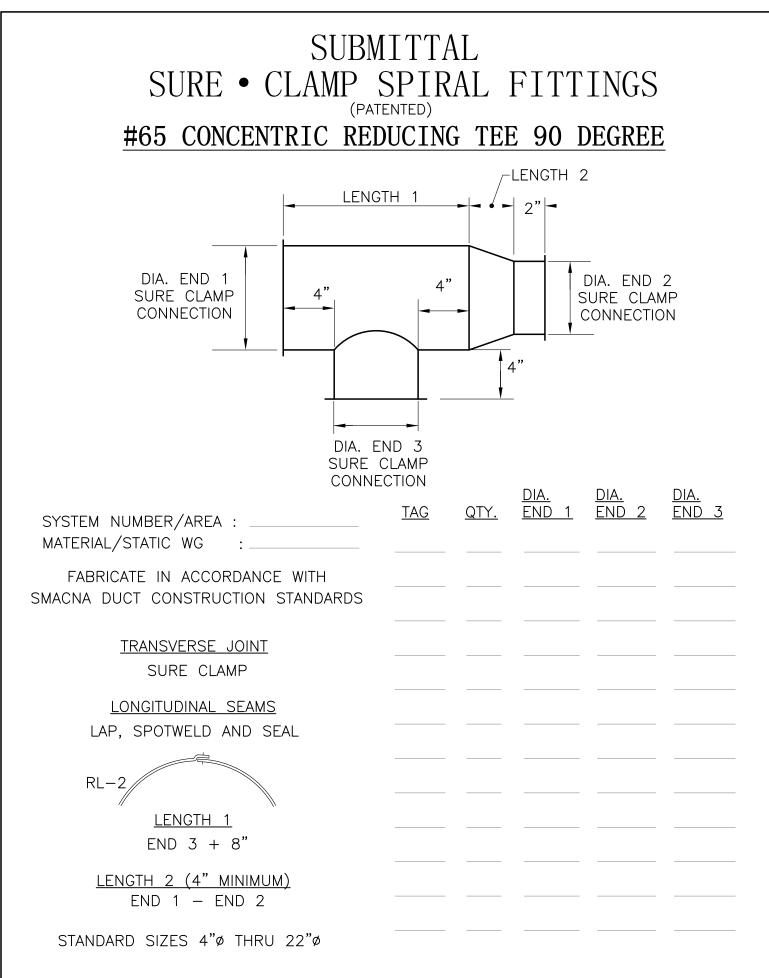
## SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #02 END CAP

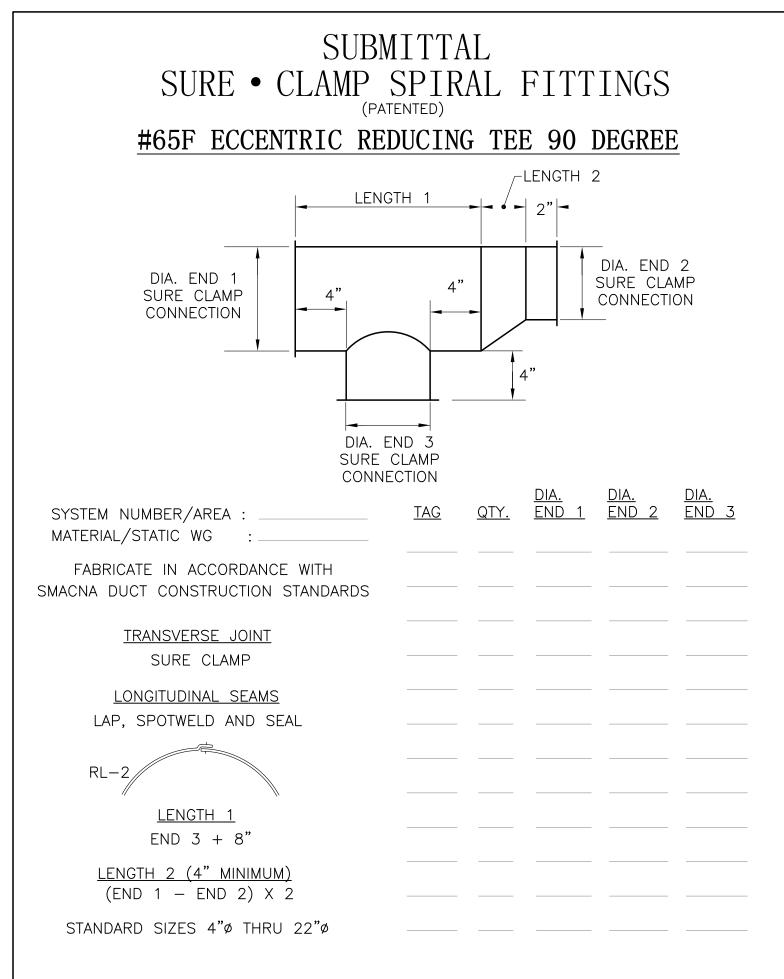


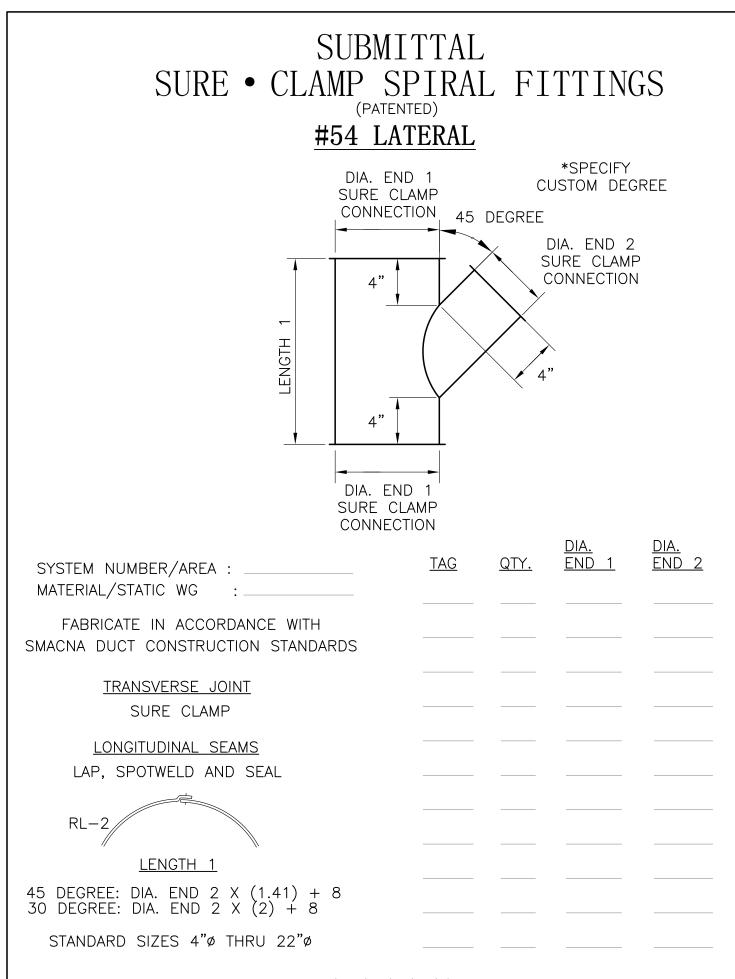
	TAG	<u>QTY.</u>	<u>DIA. END 1</u>
SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :			
FABRICATE IN ACCORDANCE WITH			
SMACNA DUCT CONSTRUCTION STANDARDS			
TRANSVERSE JOINT			
SURE CLAMP			
LONGITUDINAL SEAMS			
LAP, SPOTWELD AND SEAL			
RL-2			
// ***			
STANDARD SIZES 4"Ø THRU 22"Ø			

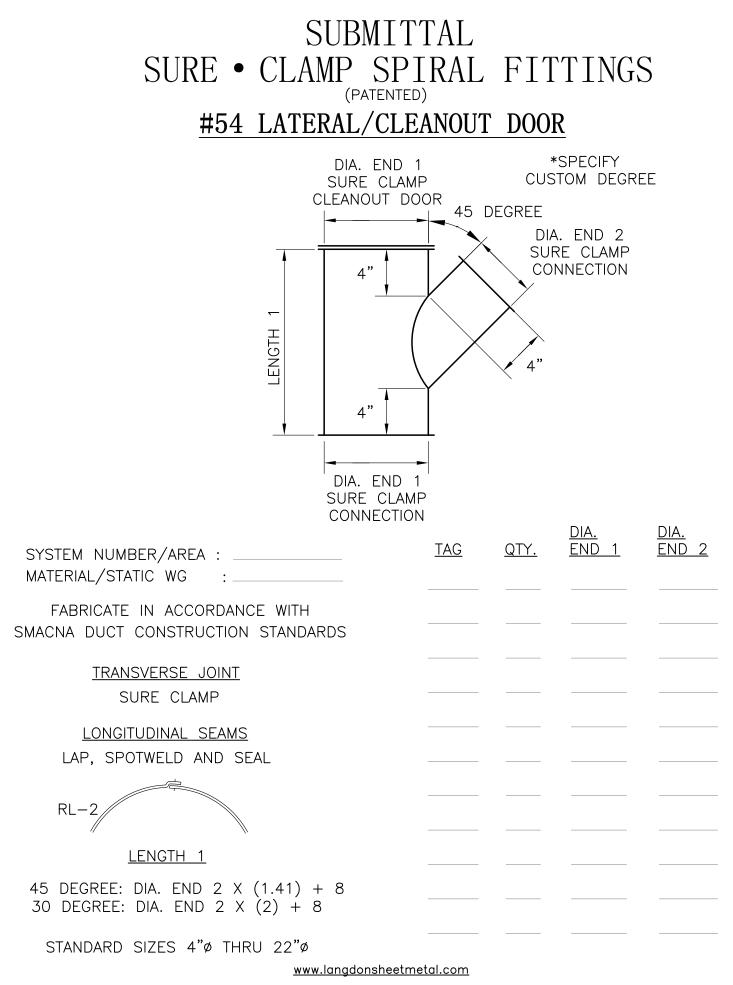
www.langdonsheetmetal.com

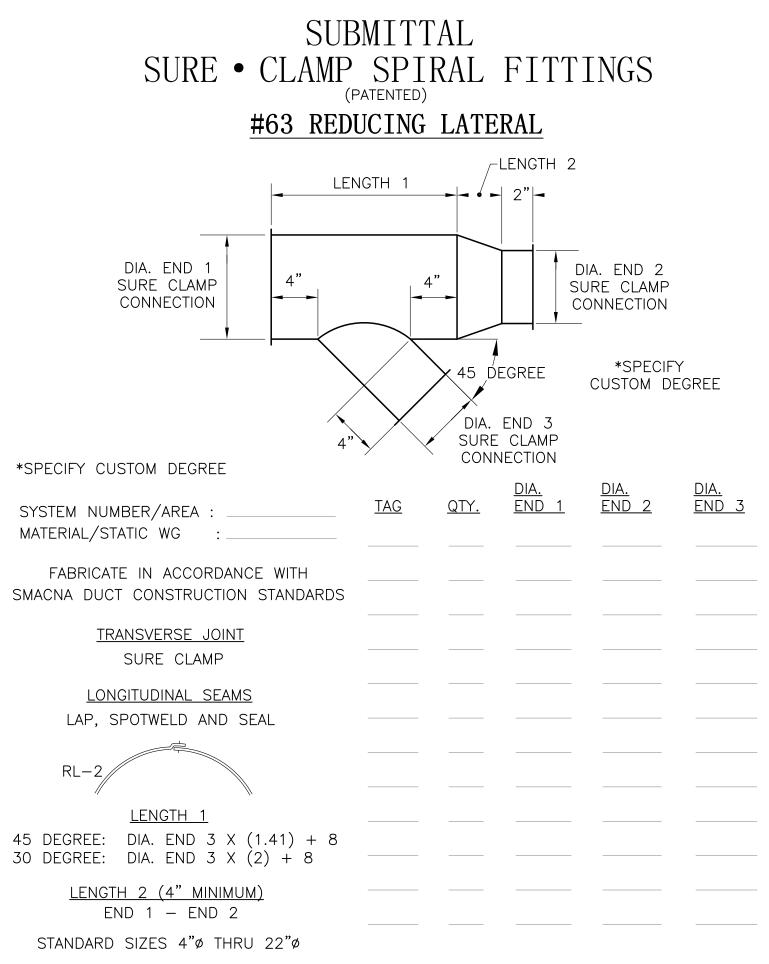


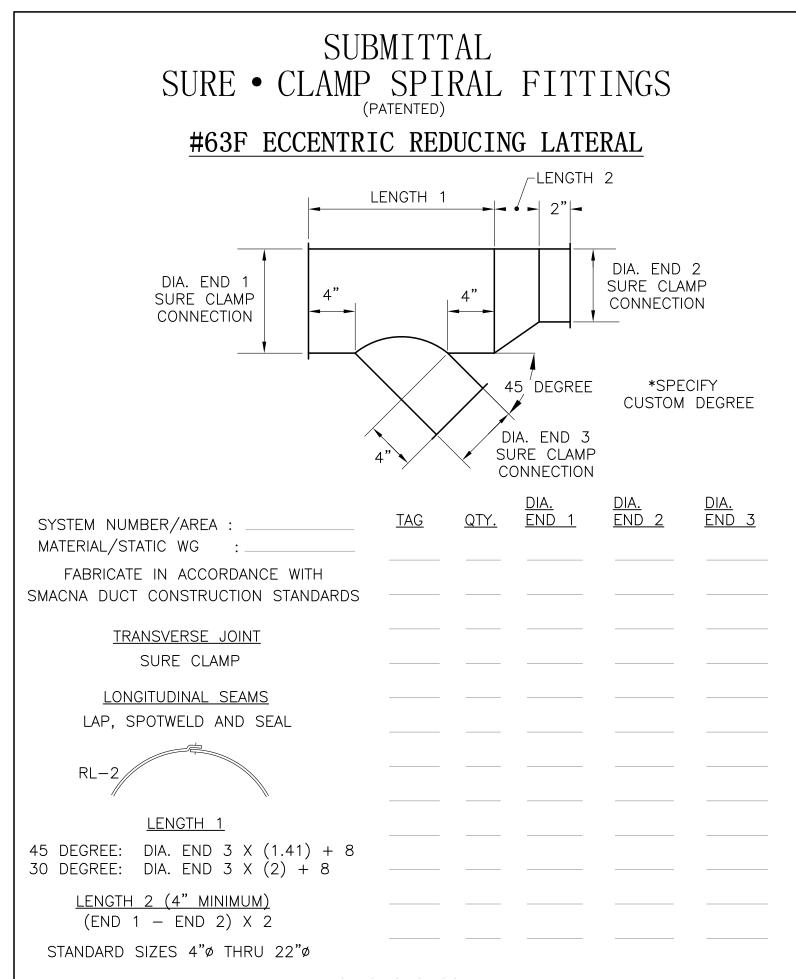


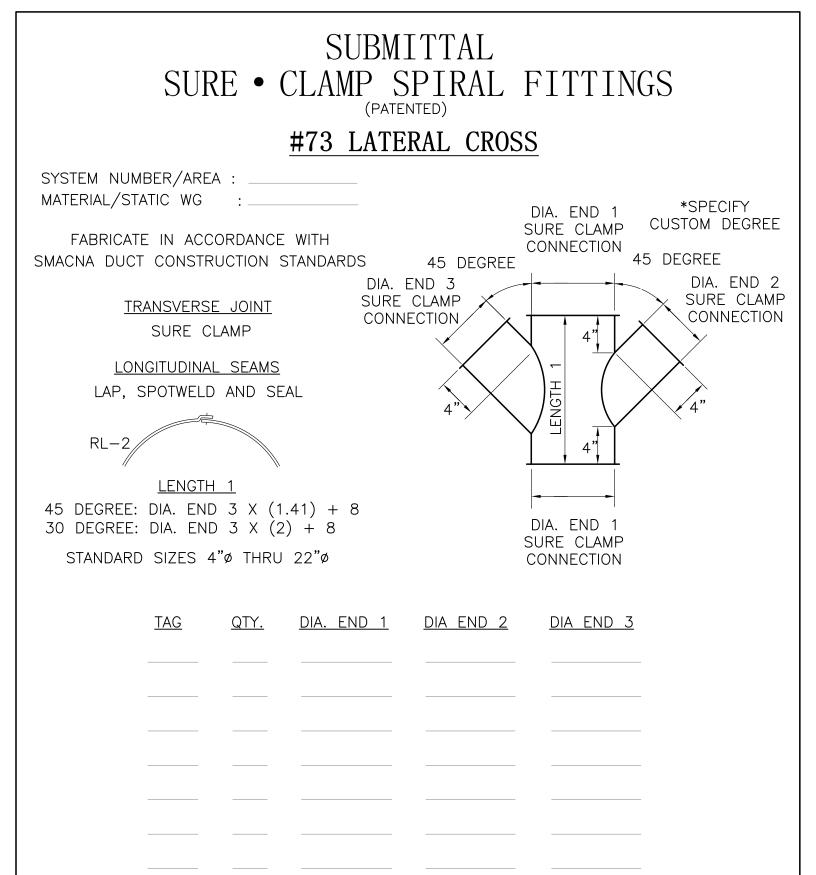


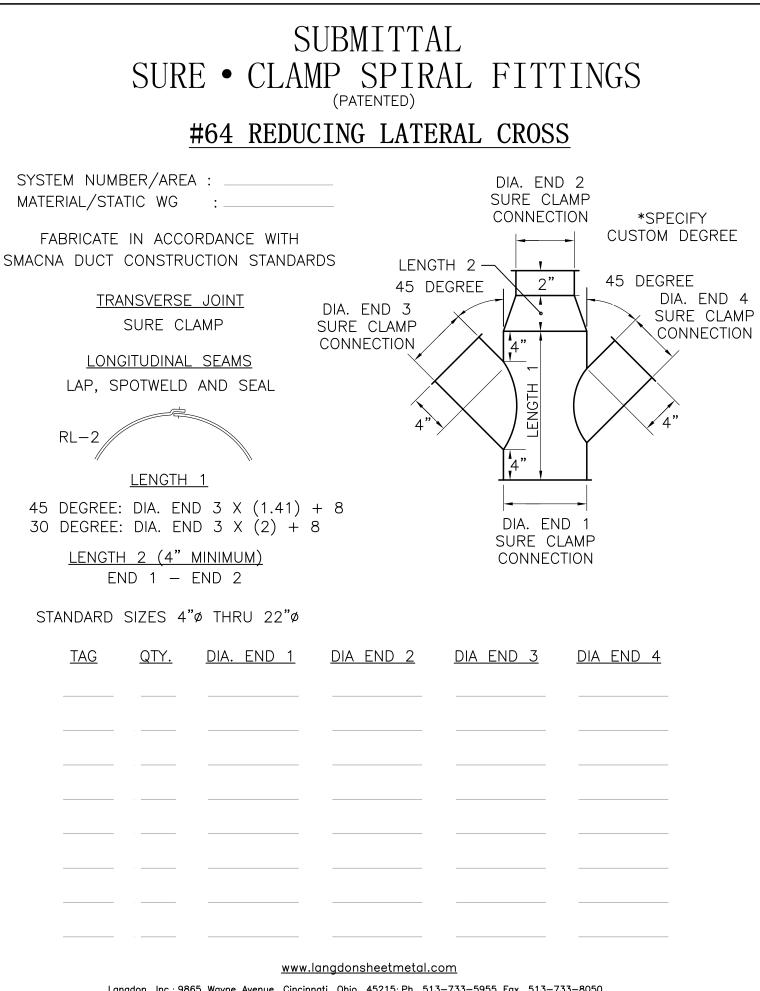


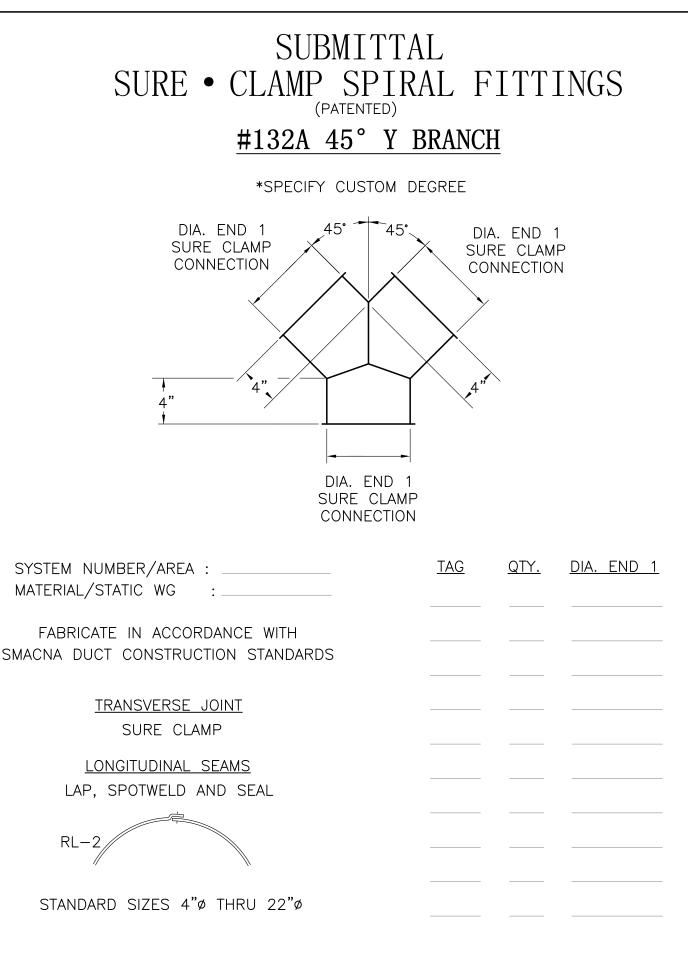


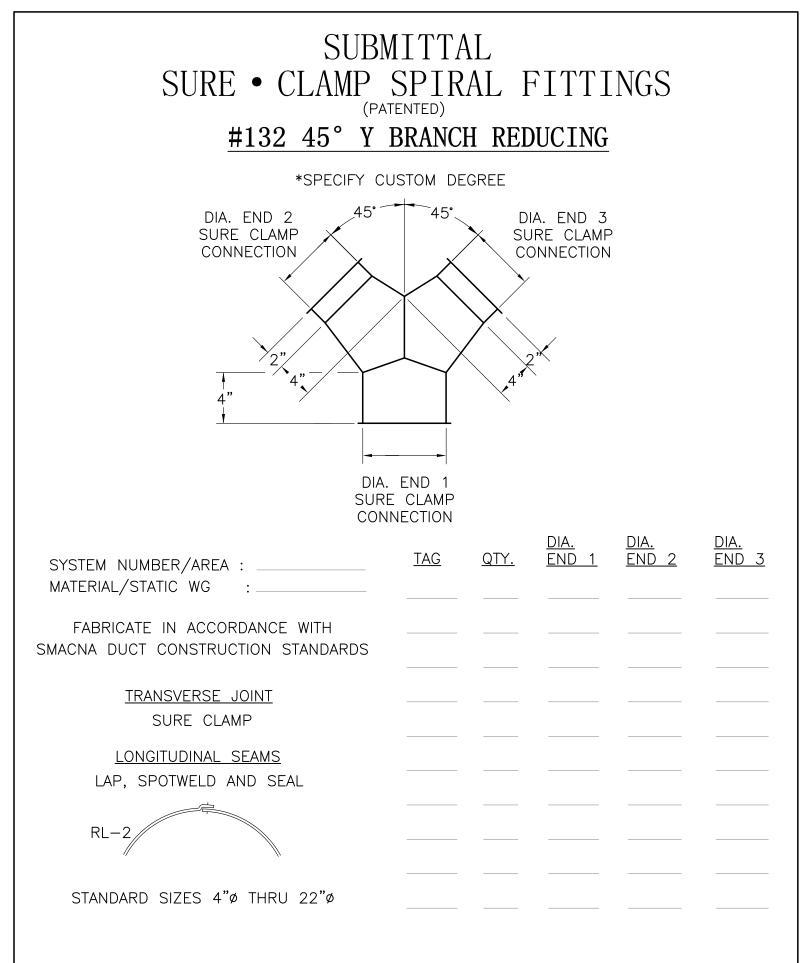


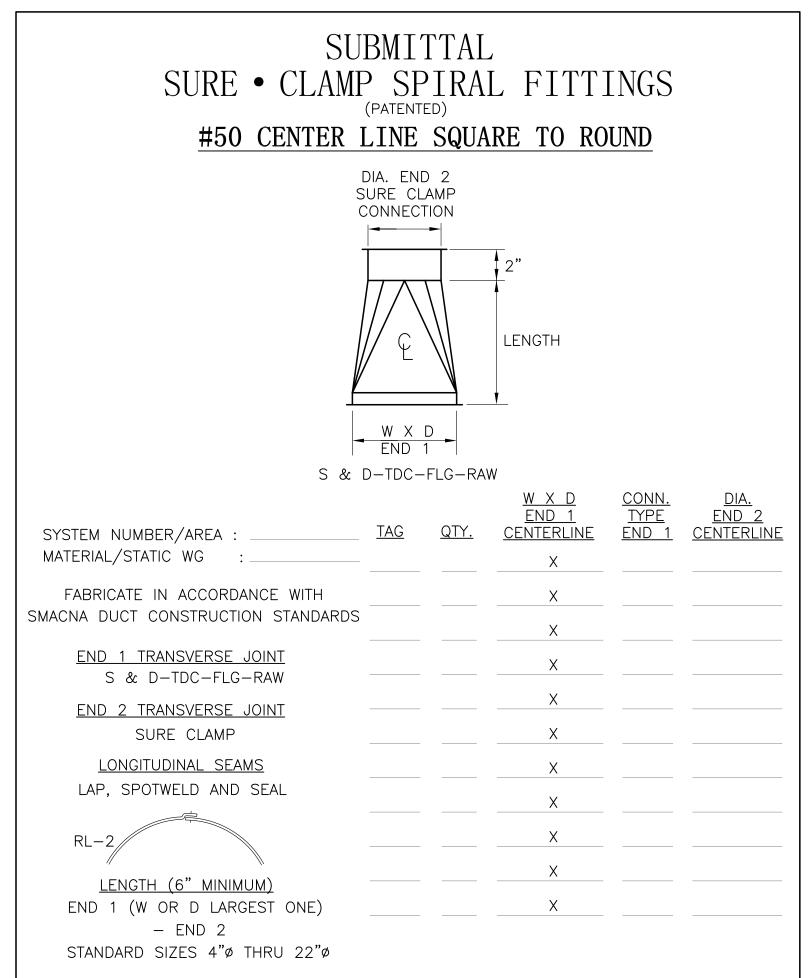










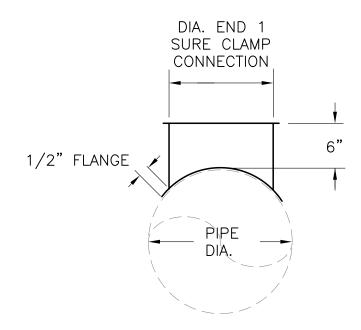


SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #74 OFFSET SQUARE TO ROUND						
DIA. END 2 SURE CLAMP CONNECTION 2" LENGTH LENGTH S & D-TDC-FLG-RAW						
SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	<u>TAG QTY.</u>	<u>W X D</u> END 1 X	<u>CONN.</u> <u>TYPE</u> END 1	<u>DIA</u> END 2 OFFSET	<u>ELE.</u> <u>TU/TD</u>	
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARE	)S	Х				
END 1 TRANSVERSE JOINT S & D-TDC-FLG-RAW		X X				
END 2 TRANSVERSE JOINT		Х				
SURE CLAMP		X				
LONGITUDINAL SEAMS		X				
LAP, SPOTWELD AND SEAL		X				
RL-2		X				
<u>LENGTH (6" MINIMUM)</u> OFFSET X 2		X				

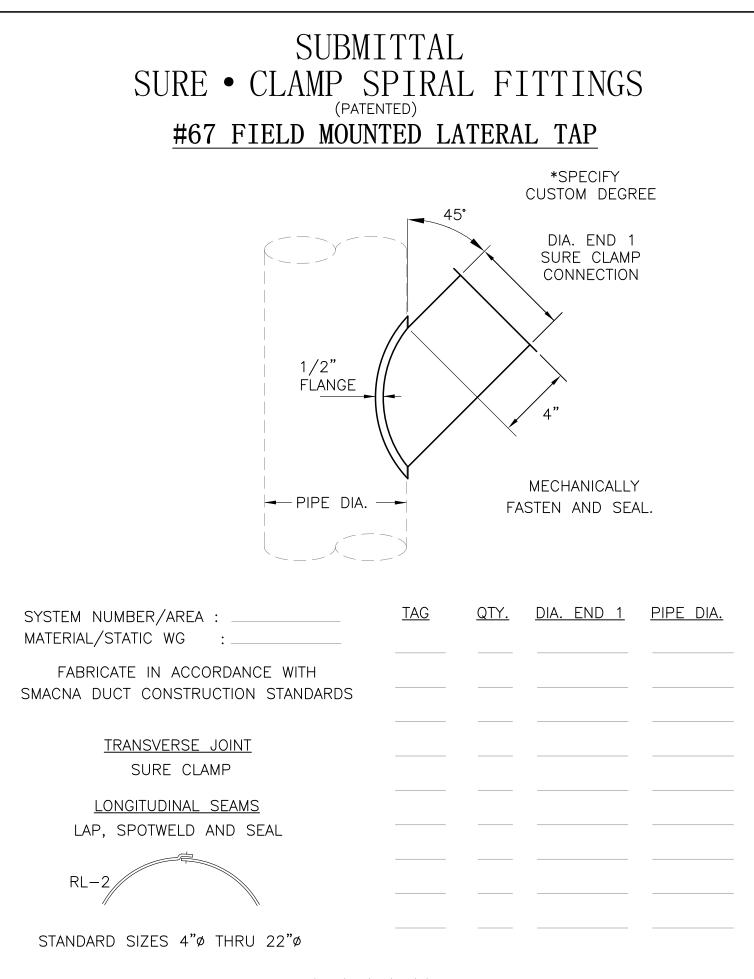
STANDARD SIZES 4"Ø THRU 22"Ø

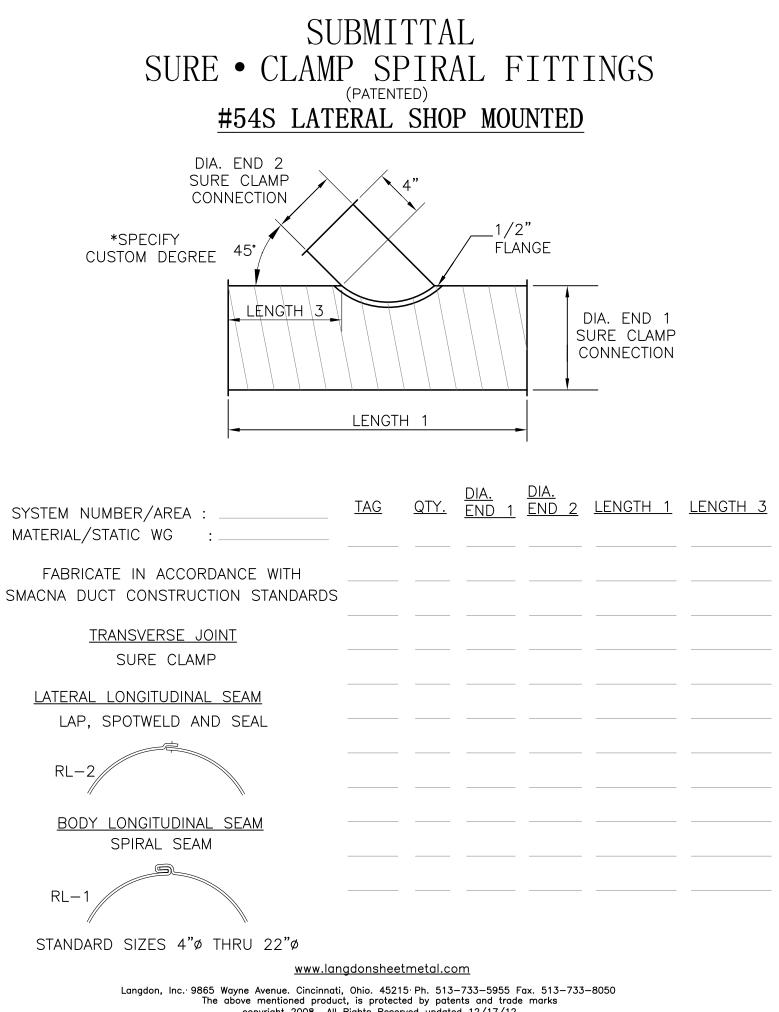
www.langdonsheetmetal.com

### SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #67-90 FIELD MOUNTED STRAIGHT TAP ON ROUND



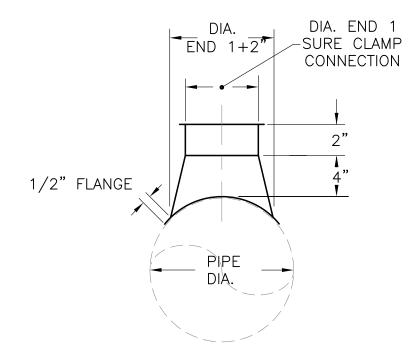
www.langdonsheetmetal.com





copyright 2008 All Rights Reserved updated 12/17/12

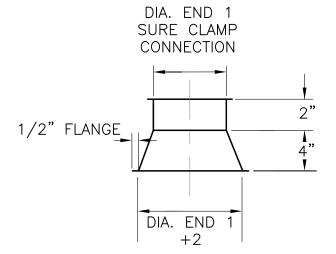
## SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #56T CONICAL TAP ON ROUND



SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	TAG	QTY.	<u>DIA. END 1</u>	<u>PIPE DIA.</u>
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS				
TRANSVERSE JOINT SURE CLAMP				
LONGITUDINAL SEAMS LAP, SPOTWELD AND SEAL				
RL-2				
STANDARD SIZES 4"Ø THRU 22"Ø				

www.langdonsheetmetal.com

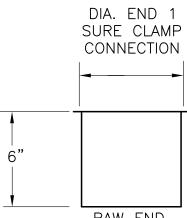
### SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #57T CONICAL TAP ON RECTANGULAR DUCTWORK



SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	TAG	<u>QTY.</u>	<u>DIA. END 1</u>
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS			
TRANSVERSE JOINT SURE CLAMP			
LONGITUDINAL SEAMS LAP, SPOTWELD AND SEAL			
RL-2			
<i>"</i>			
STANDARD SIZES 4"Ø THRU 22"Ø			

www.langdonsheetmetal.com

## SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #100C EQUIPMENT COLLAR-(HOODS, AIR VALVES, ECT.)

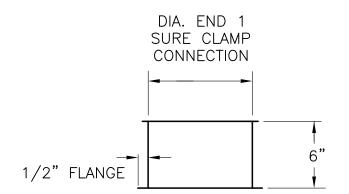


RAW END

SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	TAG	<u>QTY.</u>	<u>DIA. END 1</u>
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS			
TRANSVERSE JOINT			
SURE CLAMP			
<u>LONGITUDINAL SEAMS</u> LAP, SPOTWELD AND SEAL			
RL-2			
STANDARD SIZES 4"Ø THRU 22"Ø			

www.langdonsheetmetal.com

## SUBMITTAL SURE • CLAMP SPIRAL FITTINGS (PATENTED) #100T FIELD MOUNTED STRAIGHT TAP ON RECTANGULAR



SYSTEM NUMBER/AREA : MATERIAL/STATIC WG :	TAG	<u>QTY.</u>	<u>DIA. END 1</u>
FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS			
TRANSVERSE JOINT SURE CLAMP			
LONGITUDINAL SEAMS LAP, SPOTWELD AND SEAL			
RL-2			
STANDARD SIZES 4"Ø THRU 22"Ø			

www.langdonsheetmetal.com

