

# Submittal Comments

**Item No:** 232113.02  
**(CSI No:)**

**Item**  
**Descript:** Metal Ducts

**Re:** **Submittal Comments**  
**Cascade Science Lab Renovation**  
**2008-046.CSL 8.3**

*Architecture*  
*Engineering*  
*Technology*  
*Interior Design*  
*Landscape Architecture*

*Wil-Fra-Mar Building*  
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Reviewed and checked only for conformance with design concepts and with the information given in the Contract Documents. Approval does not release the Contractor from the responsibility to provide appropriate quantities, field measurements, dimensional stability, installation, anchorage, and coordination with other trades or release the Contractor from responsibility for deviations from the requirements of the Contract Documents or from responsibility for errors and omissions contained thereon.	
	Reviewed as Submitted - No Resubmittal Required.
	Reviewed as Noted - No Resubmittal Required.
	Reviewed as Noted - Revise and Resubmit.
XX	Rejected - Revise and Resubmit.
	Not Required for Review - Returned.
By: Lennie Brim	
Date: May 6, 2009	

## Comments

1. **Indy metal Works not an approved manufacturer Resubmit with duct construction standards showing compliance with SMACNA standards**

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## SUBMITTAL DATA

K.P. MEIRING CO

KPM

CHECKED BY: \_\_\_\_\_

DATE CHECKED: April 20, 2009

REVIEWED NO EXCEPTIONS: \_\_\_\_\_ XX

REVIEWED WITH EXCEPTIONS: \_\_\_\_\_

REJECTED RESUBMIT: \_\_\_\_\_

The review is only for general conformance with design concepts given in the contract documents. Subcontractor is responsible for dimensions, quantities, coordination with other trades and performing his work in a safe manner. No change to contract requirements is intended.

### SINGLE WALL ROUND SPIRO PIPE

Indy Metal Works Spiral Product Specifications.			
Pipe and Fitting Gauges			
Diameter	Length/Ft	Gauge	Fittings Gauge
4	10	26	24
5	10	26	24
6	10	26	24
7	10	26	24
8	10	26	24
9	10	26	24
10	10	26	24
12	10	26	24
14	10	24	24
16	10	24	24
18	10	24	22
20	10	24	22

#### Spiral Duct:

- 1) Flat Seam
- 2) Double corrugations on all pipe 14" round and larger.
- 3) Other pipe lengths are available.

#### Fittings:

- 1) All standard fittings are slip-fit.
- 2) Fittings are manufactured with gore lock or overlapped edges with riveted seams.
- 3) All fittings will be externally sealed.

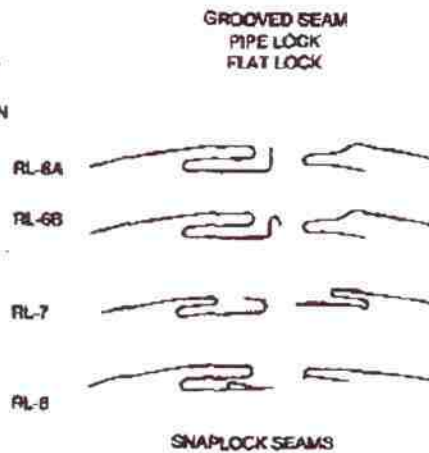
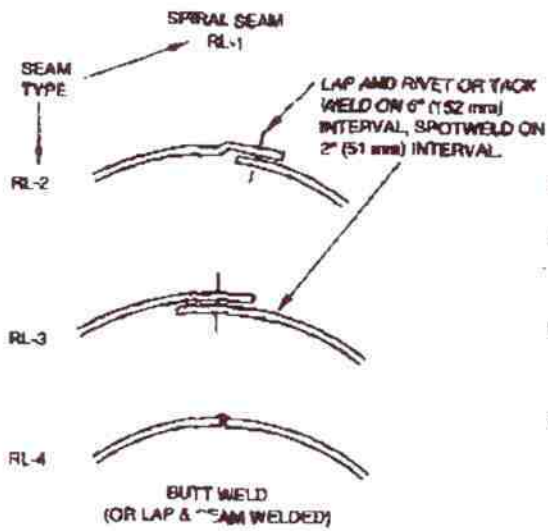
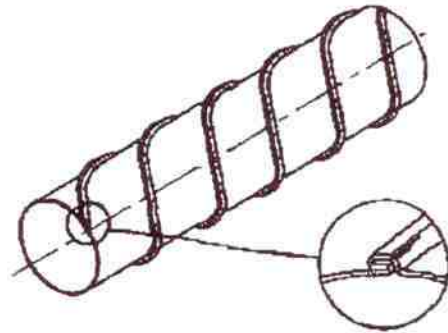
#### Elbows:

- 1) All elbows are adjustable with slip joint connections.

See round duct and fittings seams next page.



# SUBMITTAL DATA



PRESSURE CLASS (IN W.G. (Pa))		SEAM TYPE PERMITTED
<b>POSITIVE</b>		
To +10" W.G. (2500)		RL-1, 4, 5 (2", 3")
To +4" W.G. (1000)		RL-1, 2, 3, 4, 5,
To +2" W.G. (500)		ALL
<b>NEGATIVE</b>		
To -10" W.G. (-2500)		RL-1, 4 (2", 3")
To -4" W.G. (-1000)		RL-1, 2, 3, 4 (5")
To -2" W.G. (-500)		ALL

\* ACCEPTABLE IF SPOTWELDED ON 1" (25 mm) INTERVALS OR TACK WELDED ON 3" (75 mm) INTERVALS.

\*\* RL-5 PRESSURE LIMIT IS -3" W.G. (-750 Pa)

## SEAMS - ROUND DUCT AND FITTINGS

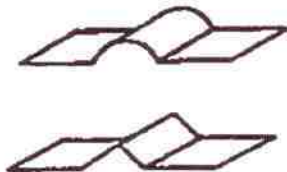
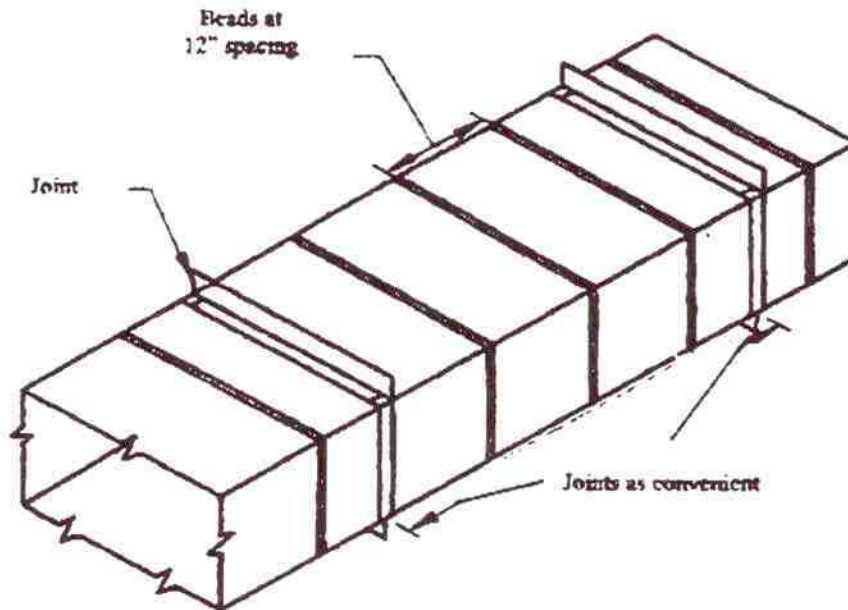


## SUBMITTAL DATA

Duct sizes 19" wide and larger that have more than 10 square feet of unbraced panel shall be beaded unless ducts will have insulation covering or acoustical liner. This requirement is applicable to 20 gauge or less thickness and 3" W.G. or less. It is unnecessary to break or bead or bend all sides unless each duct dimension requires it

Ducts for 4" W.G. or more require  
No cross breaks beads.

Bead direction may be random on fittings.



Tie ends of reinforcement at 4" W.G.



## SUBMITTAL DATA

Ductwork  
3" W.G. Static Pos. or Neg.  
48" Joints

Dimension of Longest Duct Side	Gauge	Intermediate Reinforcement	Joint Reinforcement
0 - 12	26	<b>Supplied by Mechanical Contractor</b>	<b>Flat S-Hook and *Drive</b>
13 - 30	24		<b>Flat S-Hook and *Drive</b>
31 - 55	22		<b>Standing S. and *Drive</b>
55 - 59	20		<b>Standing S. and *Drive</b>
60 - 96	20		<b>TDF</b>

\*T-1 Flat Drive.

### **Longitudinal Seams**

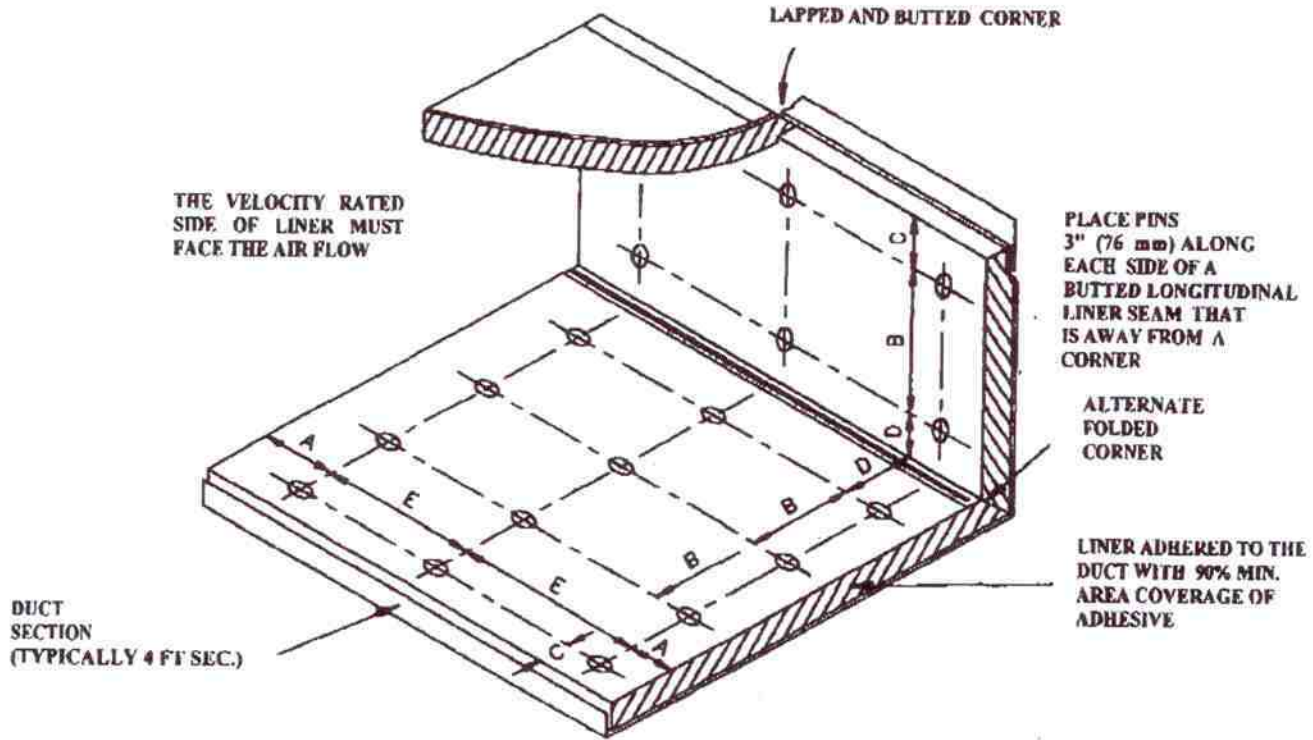
0 - 59 Snap Lock  
60 - 96 Pittsburg Lock

**TDF Equals a T-25b Per SMACNA Table 1-12**



# SUBMITTAL DATA

## DUCT LINER INSTALLATION



MAXIMUM SPACING FOR FASTENERS. ACTUAL INTERVALS ARE APPROXIMATE.

Velocity*	Dimensions				
	A	B	C	D	E
0 - 2500 FPM (0 - 12.7 MPS)	3" (76.2)	12" (305)	4" (102)	6" (152)	18" (457)
2501 - 6000 FPM (12.7 - 30.5 MPS)	3" (76.2)	6" (152)	4" (102)	6" (152)	16" (406)

\* UNLESS A LOWER LEVEL IS SET BY MANUFACTURER OR LISTING AGENCY



## SUBMITTAL DATA

- 1) LINER MANUFACTURER KNAUF
- 2) ½" LINER 2 LB DENSITY
- 3) 1" LINER 1.5 LB DENSITY