

CABLE DRAWING: **CAB-0XXX (SALEM CODE)**

DRAWING TITLE:  
**ADFB U-L Internal RF Cable**

DRAWING NO.: <b>MWACAB-0050</b>	DRAWN BY: <b>DRC</b>	DATE: 5-Jan-10	REV: <b>A</b>
		SHEET: 1 of 3	

**Cable Detail:**

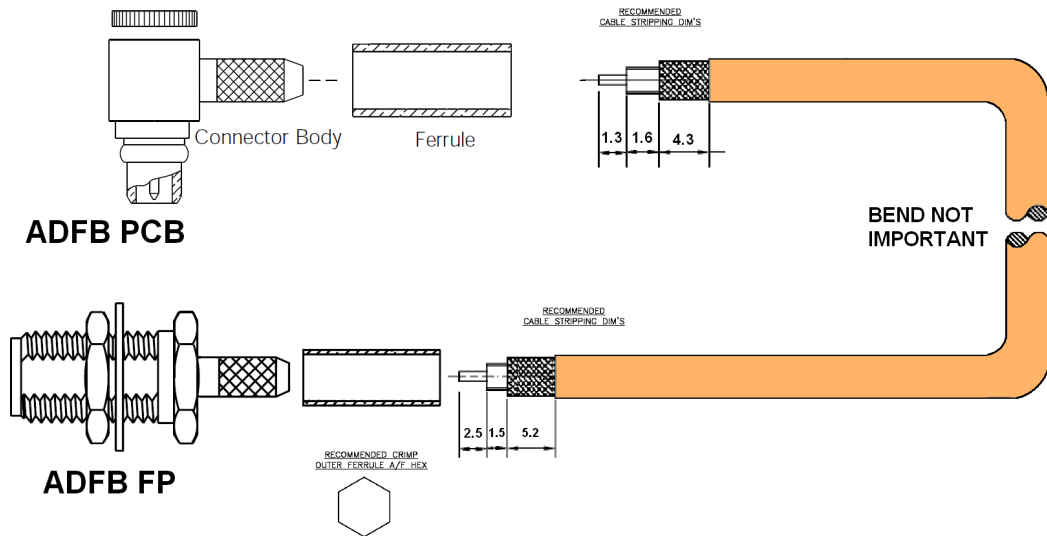
Connectors:	Description	Parts (Qty)
ADFB-PCB	AMPHENOL RF - 908-43300 Plug, MMCX, R/A	See Note1 Below(1)
ADFB-FP	AMPHENOL RF - 901-9875 SMA Bulkhead Jack	See Note2 Below(1)
Conductors:		
Cable	RG 316 Single Screen Cable DC-3GHz, 1.5dB/m@3GHz, Mil-C-17/113-RG316	See Note3 Below(??)
Misc:		
-		

Overall Length ??+/-5mm

**Notes:**

1. The MMCX Plug connector can be supplied from Farnell #160-8586. Any equivalent will be OK refer to data sheets supplied with this drawing.
2. The SMA Bulkhead Jack connector can be supplied from Farnell #170-4359. Any equivalent will be OK refer to data sheets supplied with this drawing.
3. The cable can be supplied from Rojone #CC-M17\_113\_RG316 or PSI stock (CAB-0182) Any equivalent will be OK refer to data sheets supplied with this drawing

**Typical Drawing:**



**REVISION**

Date	Rev	Remarks
05/01/10	A	Draft

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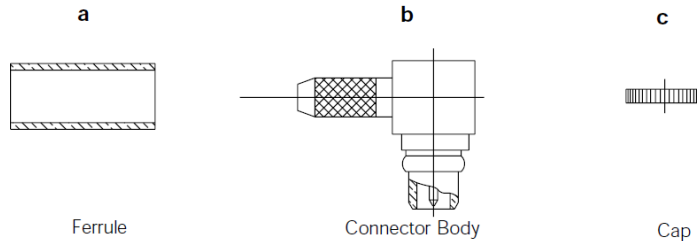
**Assembly Details:**

**ADFB PCB End**

**Assembly Instructions-C72  
MMCX**



**RIGHT ANGLE CONNECTORS FOR FLEXIBLE CABLE**



Amphenol Number	Connector Type	Cable RG-/U	Hex Crimp Data		Stripping Dimensions, inches (mm)		
			Cavity for Outer Ferrule	CTL Series Tool No.	d	e	f
908-43300	Right Angle Plug	RG-174, 188, 316	.128 (3.25)	CTL-13	.170 (4.32)	.235 (5.97)	.285 (7.24)

**Step 1** Prepare cable according to diagram. Do not damage braid and inner conductor of cable. Slide crimp ferrule "a" over the braid.

BRAID AND DIELECTRIC

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**Step 2** Flare braid and insert into body. Slide crimp ferrule over body and crimp the ferrule using appropriate crimp tool and die cavity.

CRIMP ZONE

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**Step 3** Solder inner conductor to contact (Sn 60 recommended). Place cap "c" on rear opening of body "b". Press cap "c" into housing "b" with a flat punch or tool #908-50100.

SOLDER

**REVISION**

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**MWACAB-0050**

DRAWN BY:  
**DRC**

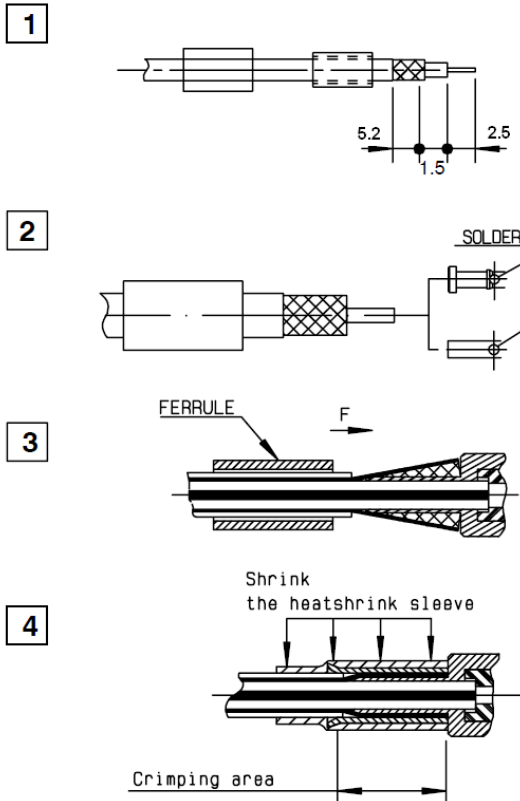
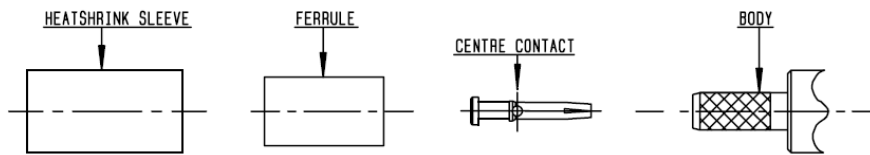
DATE: 5-Jan-10

REV:

SHEET: 3 of 3

**A**

**ADFB Front Panel End**



- 1.1 Slide onto the cable the ferrule and the heatshrink sleeve .
- 1.2 Strip the cable .

- 2.1 Slide on centre contact until it bottoms against cable dielectrique
- 2.2 Crimp or solder center contact
- 2.3 Clean soldering area .

- 3.1 Fan the braid .
- 3.2 Slide the cable into the body until it bottoms against insulator .
- 3.2 Slide the ferrule over the braid . (In direction F)

- 4.1 Crimp the ferrule.
- 4.2 Cut the excess of braid .
- 4.3 Slide sleeve over ferrule and heatshrink in place .

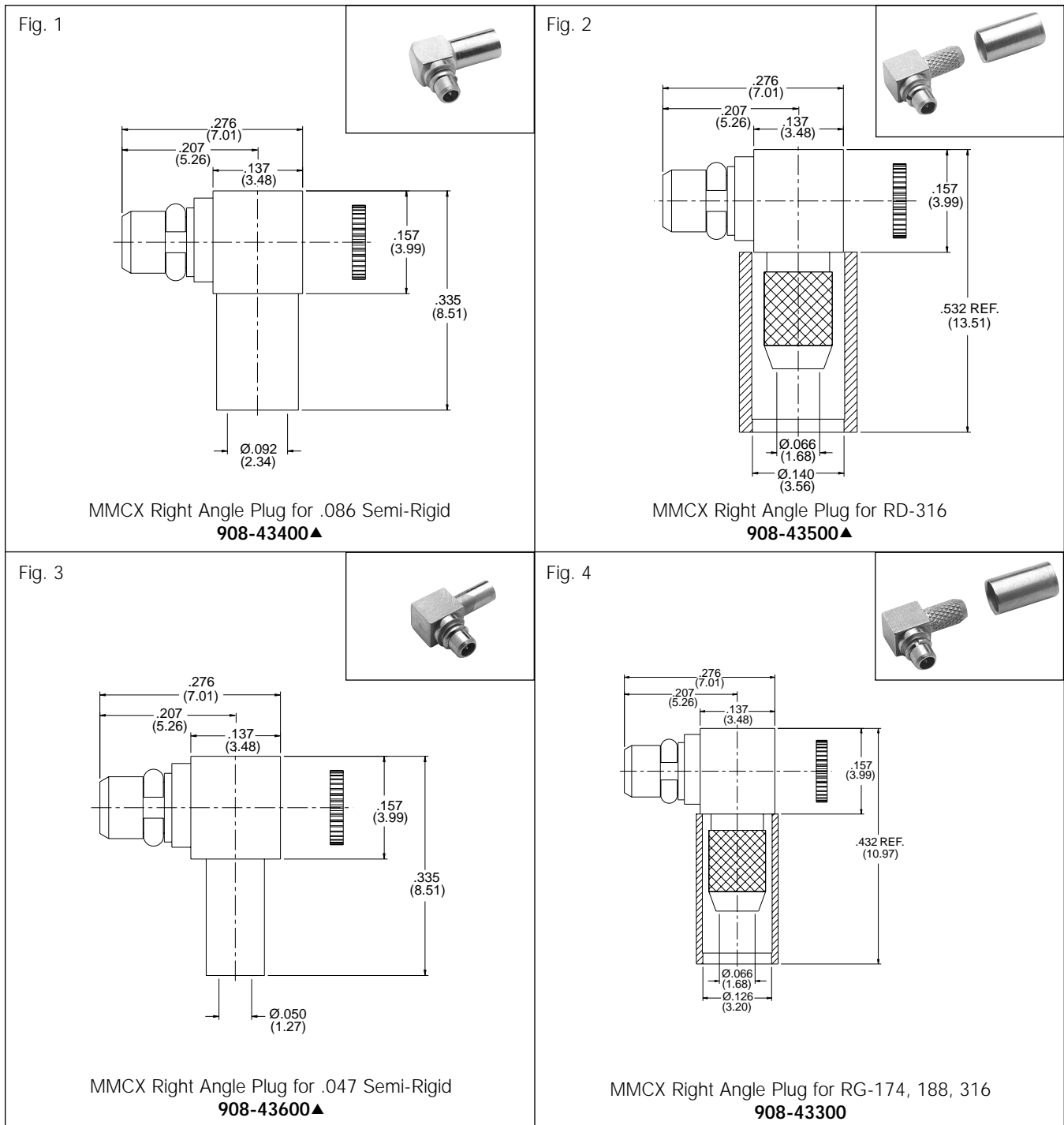
**Connection Detail:**

From: (ADFB-PCB)  
To: (ADFB-FP)

Attached to the ADFB PCB MMCX Conneters  
Attached to ADFB Front Panel

**REVISION**

Date	Rev	Remarks
05/01/10	A	Draft



## MicroMate™ (MMCX) CABLE CONNECTORS

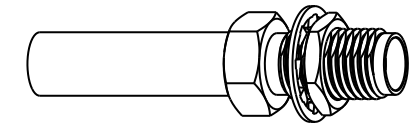
Cable RG-/U	Cable Attachment		CAI	Plt.	Ins.	Construction Notes	Amphenol Number	Fig.
	Outer	Inner						
.086 Semi-Rigid	Solder	Solder	C73	P11	D1	Captivated Contact	▲ 908-43400	1
RD-316	Crimp	Solder	C72	P11	D1	Captivated Contact	▲ 908-43500	2
.047 Semi-Rigid	Solder	Solder	C73	P11	D1	Captivated Contact	▲ 908-43600	3
RG-174, 188, 316	Crimp	Solder	C72	P11	D1	Captivated Contact	▲ 908-43300	4

▲ Distributor Stocked

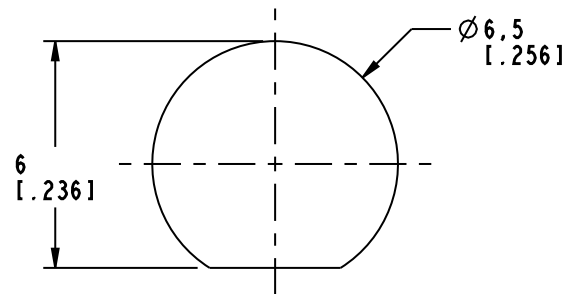
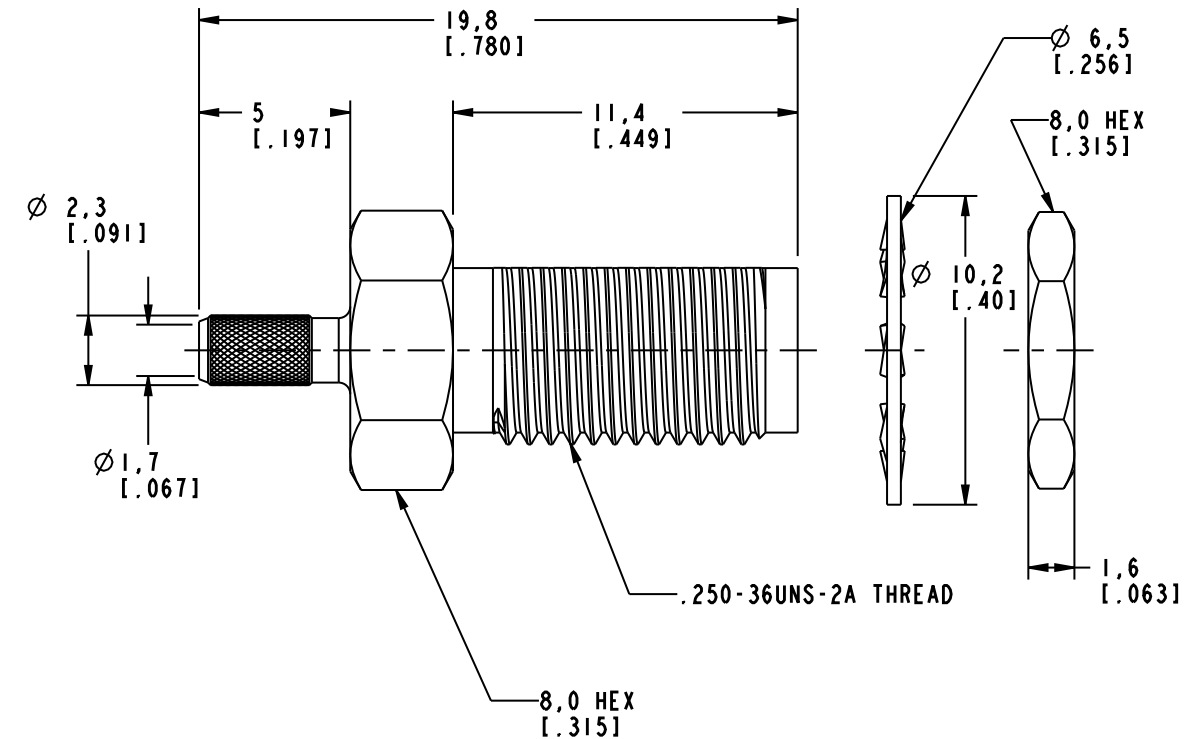
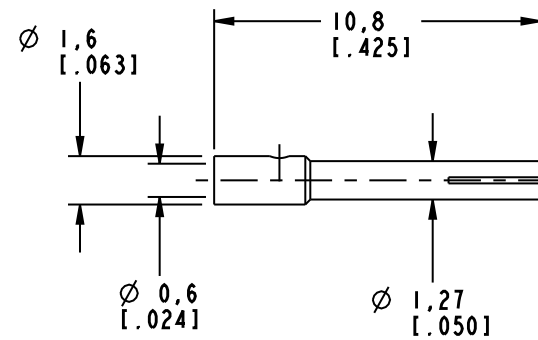
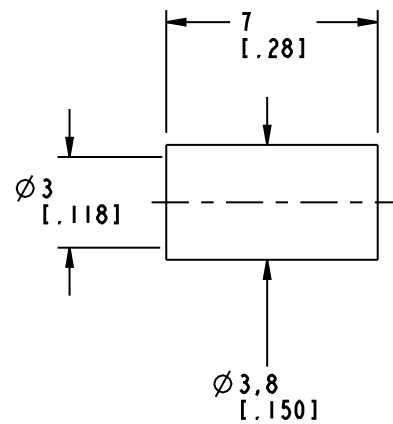
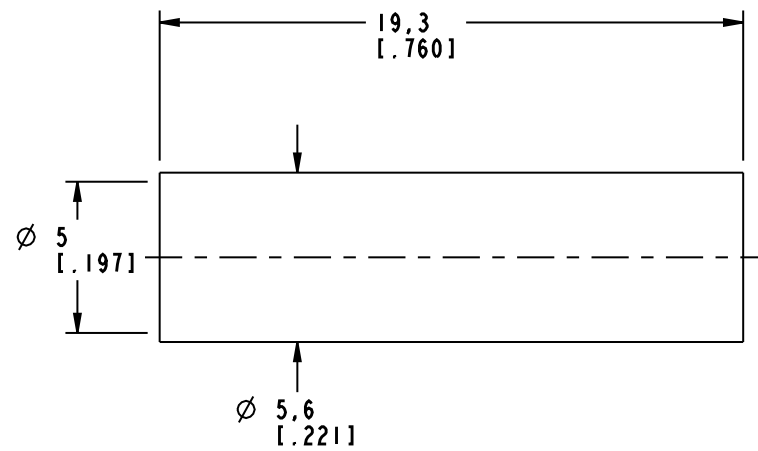
NOTES:

- MATERIALS OF CONSTRUCTION:  
 BODY & HEX NUT = BRASS (ASTM-B16 H02, C36000), GOLD PLATED (.000003 MIN THICK)  
 CONTACT PIN = BeCu (QQ-C-530), GOLD PLATED (.000050 MIN THICK)  
 LOCKWASHER = BRASS (QQ-B-613), GOLD PLATED (.000003 MIN THICK)  
 FERRULE = COPPER, GOLD PLATED (.000003 MIN THICK)  
 INSULATOR = PTFE, ASTM D 1710 OR EQUIV.  
 HEAT SHRINK TUBING = COLOR BLACK

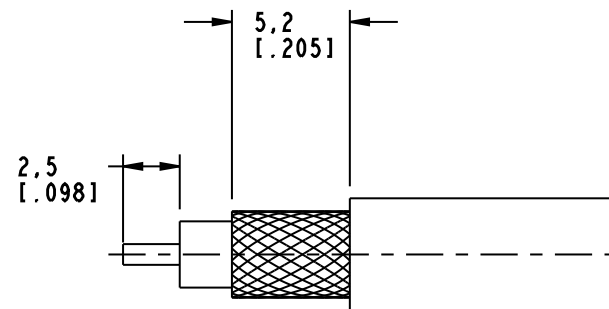
901-9875		REVISIONS			
DRAWING NO.	REV	DESCRIPTION	DATE	ECO	APPR
THIRD ANGLE PROJ.	A	RELEASE TO MFG.	4/7/95	40352	PB/RV
	C	SEE SHEET 1	10/2/02	44222	CPM



SCALE 1.500



RECOMMENDED MOUNTING HOLE DIMENSIONS  
SCALE 5.000



RECOMMENDED CABLE STRIPPING DIMENSIONS  
SCALE 3.000

**CUSTOMER OUTLINE DRAWING**

ALL OTHER SHEETS ARE FOR INTERNAL USE ONLY

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MM (INCHES) AND TOLERANCES ARE:  
 0.5 - 6mm ±0.2mm  
 6 - 30mm ±0.4mm  
 30 - 120mm ±0.6mm

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MATERIAL  
 REFERENCE  
 GEN# 901-10039-RFX\_ASSY  
 EAR 966280-3 & 111-964413

DRAWN  
 C. McGRATH  
 ENGINEER  
 O. BARTHELME  
 APPROVED  
 O. BARTHELME  
 CAD FILE  
 I:\SMA\901-9875

DATE  
 10/1/02  
 DATE  
 10/1/02  
 DATE  
 10/2/02

TITLE  
 SMA BULKHEAD  
 CRIMP JACK  
 (FOR RG-174/U, 188A/U,  
 316/U CABLES)

Amphenol  
 Amphenol Corporation  
 Communication and Network  
 Products Division  
 Danbury, CT U.S.A. 06810

SCALE: 4.0:1 SHEET 2 OF 2

CODE ID 74868 DWG SIZE B DRAWING NO. 901-9875 REV C

This specification describes a 50-ohm high temperature coaxial cable constructed to meet the requirements of Mil-C-17/113-RG316.

**CONDUCTOR**

Material: Silver-coated Copper Covered Steel  
 Size: AWG 25  
 Construction: 7 x .0067  
 OD(nom): .0201"

**INSULATION**

Material: Extruded PTFE  
 OD(nom): .059"

**SHIELD**

Material: Silver-coated Copper Braid  
 Size: AWG 38  
 Coverage(nom): 95.9%  
 OD(nom): .077"

**JACKET**

Material: Extruded FEP  
 OD: .098" ± .004"

**COLOR**

Natural  
 Jacket: Translucent Brown

**CABLE CHARACTERISTICS**

Impedance: 50 +/- 2 ohms  
 Capacitance(max): 32 pF/ft  
 Weight(max): 12.2 lbs/1,000 ft

Frequency (MHz)	Attenuation (dB/100 ft)
50	7.5
100	11
400	21
1000	38
3000	58

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TENSOLITE COMPANY  
 SUBSIDIARY OF CARLISLE CORPORATION  
 ST. AUGUSTINE, FL

Drawn by: **Chris Lowe** Date: **1/16/97**

Approved By: **John Beatty** Date: **1/16/97**

Customer Spec

Tensolite P/N File  
**M17/113-RG316**

-	1/16/97	Redrawn