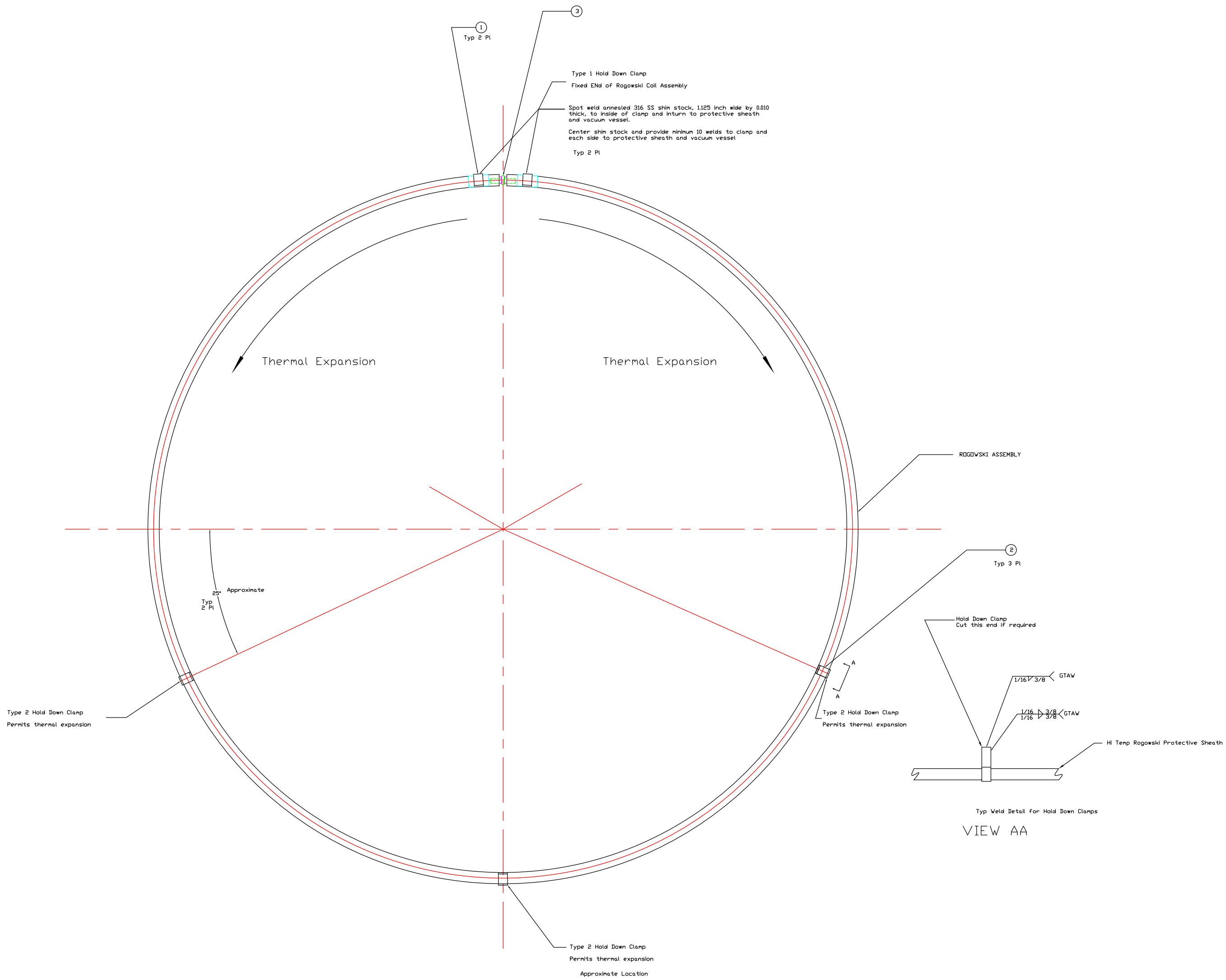

NOTES :

1. Install three Rogowski Coil Assembllies, 120 degrees apart, one on each of the 3 VV segments on the outer surface and at the weld joint. The orientation is : standing outside the machine field periods, looking at the NB port, with the vacuum vessel port 12 oriented vertically, top flange up, install on the left weld flange.

2. Add 0.010 inch thick shim stock between the Rogowski protective sheath and crossed external flux loops and spot weld to the vacuum vessel. This will act to protect the co axial cable.

3. Mandrel end fixture , one Rogowski Coil on VV1 to use Inconel with Lectrofluor PG coating (0.001 inch) by General Magnaplate and two Rogowski coils on VV2 and VV3 to use Zirconia.

4. Position mandrel ends against the dielectric end fitting

5. Per project requirements, Rogowski Coil Components, magnetic permeability <1.02

Weld Notes:

Welding shall be performed in accordance with the requirements of PPPL Procedure ENG 037.

Visual inspection shall be performed in accordance with the acceptance criteria of AWS D1.6

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PPPL Drafting:

NO.	REVISION	BY	CH	SUP	APPROVED	DATE

03	02	01	PART NO.	NOMENCLATURE OR DESCRIPTION	DRAWING NO.	MATERIAL
		1		ROGOWSKI COIL ASSEMBLY	THIS DWG SH 1	

WELDING ENGINEER
APPVD: DATE
APPVD: L. DUDEK DATE 3JUNE2008

COMPUTER GENERATED DRAWING
MANUAL CHANGES NOT PERMITTED
AutoCAD2000
DO NOT VERIFY INFORMATION BY SCALING DRAWING
SCALE:
NEXT ASSEMBLY

CENTRAL FILES:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
MACHINE SURFACES 125
BREAK SHARP EDGES .005/.020
TOLERANCES NON-CUMULATIVE

DECIMAL-INCH		FRACTIONS	
.X	± .100	6"-12"	±1/16
.XX	± .030	12"-72"	±1/8
.XXX	± .005	72"-120"	±1/4
ANGULAR	±0°-15'	OVER 120"	±1/2

PRINCETON PLASMA PHYSICS LABORATORY
PRINCETON UNIVERSITY
NATIONAL COMPACT STELLARATOR EXPERIMENT

HIGH TEMPERATURE ROGOWSKI COIL

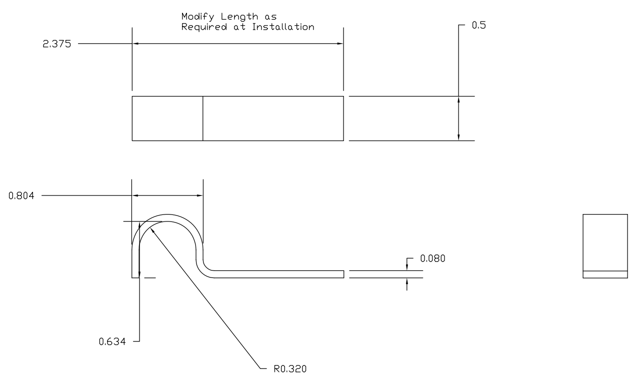
DIV: FOM
DATE: 3JUNE2008
CADD FILE:
ENG: G.LABIK
DWN: G.LABIK
CHK: L.GUTTADORA
APPROVED G.LABIK
CHK LG
SUPV JS

se 310-050

SHEET 1 OF 3
REV 0

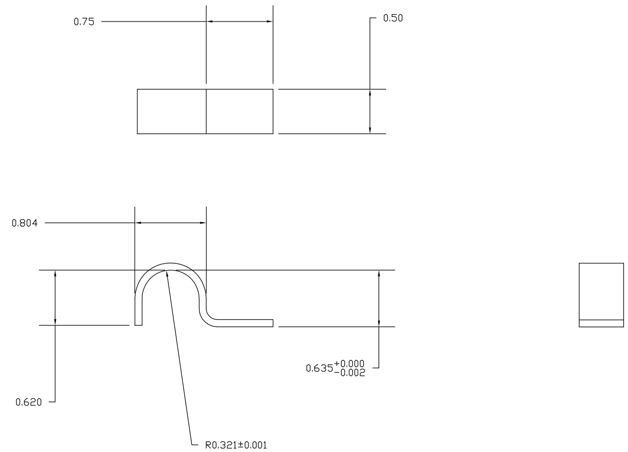
MechEsize1

NO.	REVISION	BY	CH	SUP	APPROVED	DATE



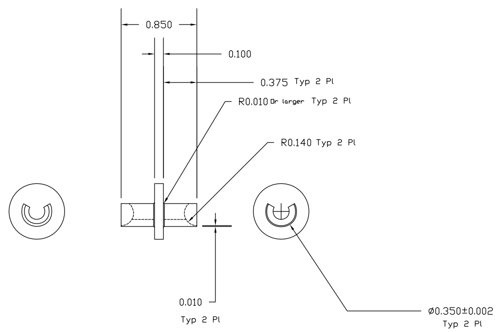
Type 2
Middle Supports

2



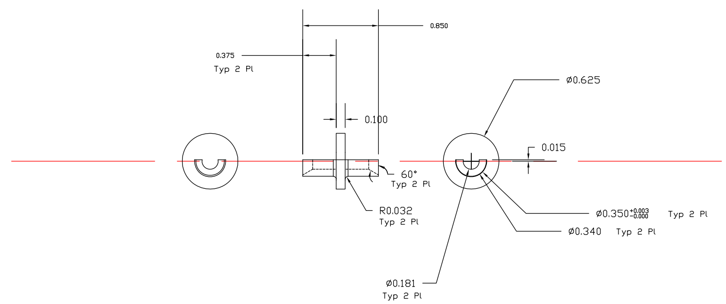
Type 1
Mandrel Ends

1



Inconel Detail

3a



Zirconia Detail

3b

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PPPL Drafting:

03	02	01	PART NO.	NOMENCLATURE OR DESCRIPTION	DRAWING NO.	MATERIAL
		1	3a,3b	MANDREL END ALIGNING FITTING Note 3	THIS DWG SH 2	Note 3.
		3	2	HOLD DOWN CLAMP TYPE 2	THIS DWG SH 2	INCONEL 625
		2	1	FIXED END HOLD DOWN CLAMP TYPE 1	THIS DWG SH 2	INCONEL 625
		1		SUB ASSEMBLY	THIS DWG SH 2	

WELDING ENGINEER
APPVD: ______ DATE ______
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DO NOT VERIFY INFORMATION BY SCALING DRAWING
SCALE:
NEXT ASSEMBLY

CENTRAL FILES:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES MACHINE SURFACES 125
BREAK SHARP EDGES .005/.020
TOLERANCES NON-CUMULATIVE

DECIMAL-INCH		FRACTIONS	
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ANGULAR	±0°-15'	OVER 120"	±1/2

PRINCETON PLASMA PHYSICS LABORATORY
PRINCETON UNIVERSITY
NATIONAL COMPACT STELLARATOR EXPERIMENT

HIGH TEMPERATURE ROGOWSKI COIL

DIV: FOM
DATE: 3JUNE2008
CADD FILE:
ENG: G.LABIK
DWN: G.LABIK
CHK: L.GUTTADORA
APPROVED G.LABIK
CHK LG
SUPV JS

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SHEET 2 OF 3
REV 0

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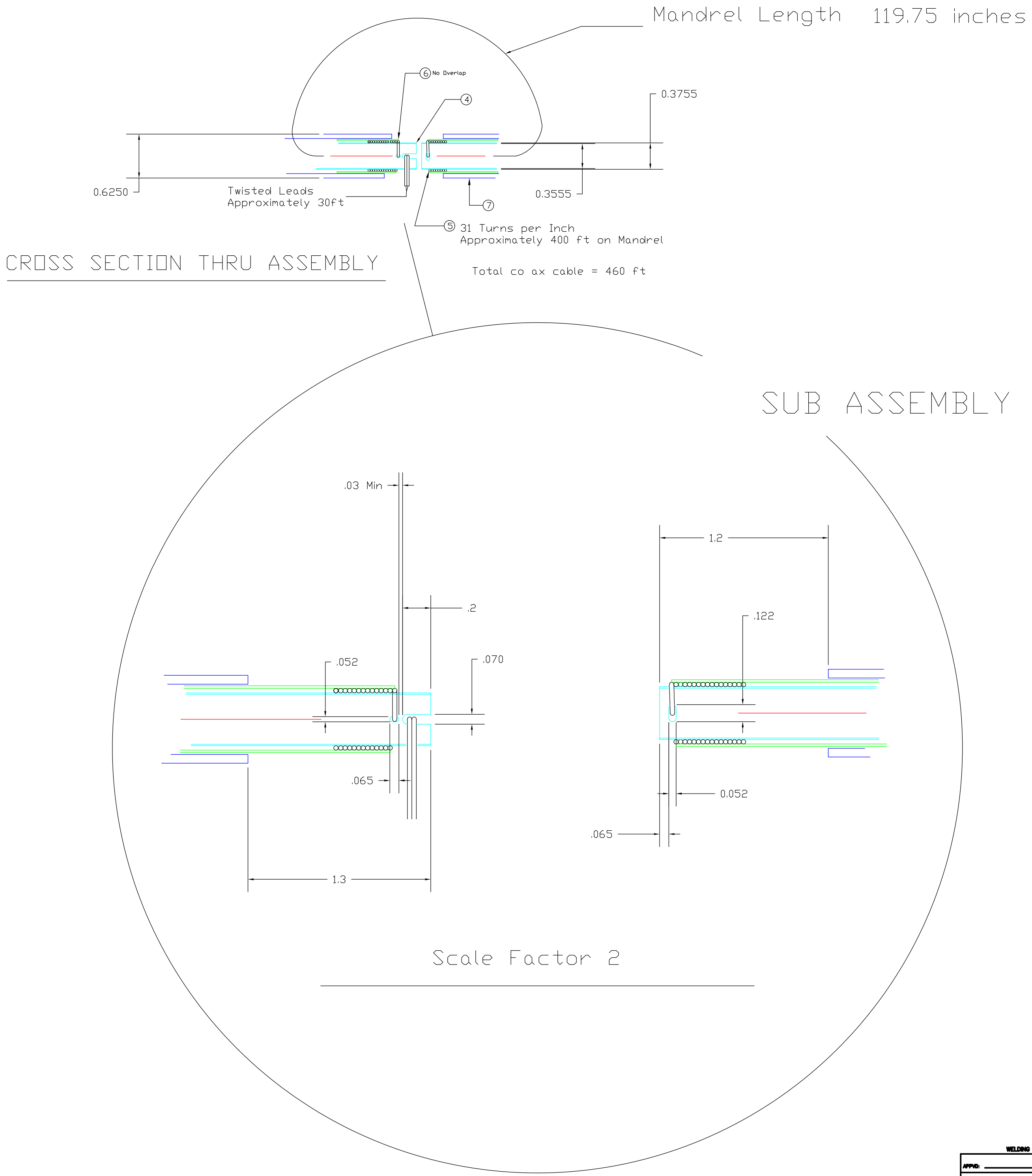

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PPPL Drafting:

NO.	REVISION	BY	CH	SUP	APPROVED	DATE

03	02	01	PART NO.	NOMENCLATURE OR DESCRIPTION	DRAWING NO.	MATERIAL
		1	7	PROTECTIVE SHEATH , 5/8 OD X 1/2 ID STOCK- 117.25 INCHES	THIS DWG SH 2	316 SS-ANNEALED
		1	6	NON ADHESIVE TAPE, 1 BY 0.018-20 FT	THIS DWG SH 2	NEXTEL
		1	5	ARI CO AXIAL CABLE, 0.032 OD , 0.008 CONDUCTOR, MgO INSULATOR - 460 FT	THIS DWG SH 2	316 SS-ANNEALED
		1	4	MANDREL , 0.375 OD BY 0.010 WALL STOCK-119.75 INCHES	THIS DWG SH 2	316 SS-ANNEALED
		1		SUB ASSEMBLY	THIS DWG SH 2	

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DO NOT VERIFY INFORMATION BY SCALING DRAWING

CENTRAL FILES:

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES MACHINE SURFACES 125

BREAK SHARP EDGES .005/.020

TOLERANCES NON-CUMULATIVE

DECIMAL-INCH		FRACTIONS	
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PRINCETON PLASMA PHYSICS LABORATORY
PRINCETON UNIVERSITY

NATIONAL COMPACT STELLARATOR EXPERIMENT

HIGH TEMPERATURE ROGOWSKI COIL

SCALE:

NEXT ASSEMBLY

DIV: FOM

DATE: 3JUNE2008

CADD FILE:

ENG: G.LABIK

DWN: G.LABIK

CHK: L.GUTTADORA

APPROVED G.LABIK

CHK LG SUPV JS

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SHEET 3 OF 3 REV 0

WELDING ENGINEER

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APPVD: ________ DATE ______

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