

**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

TF **TABLE OF
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Issued: 4/21/2017

Revision: 4

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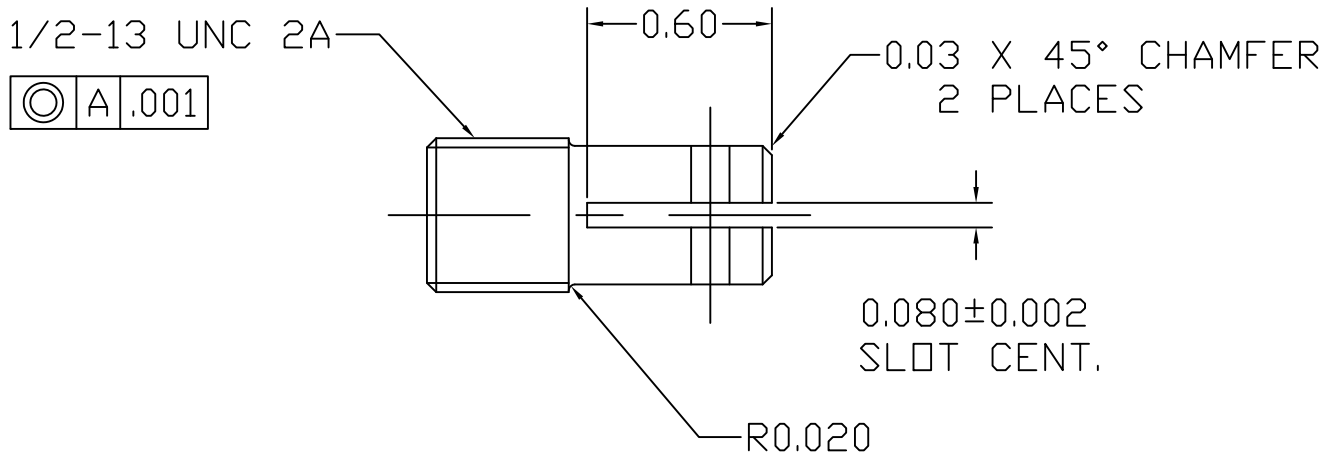
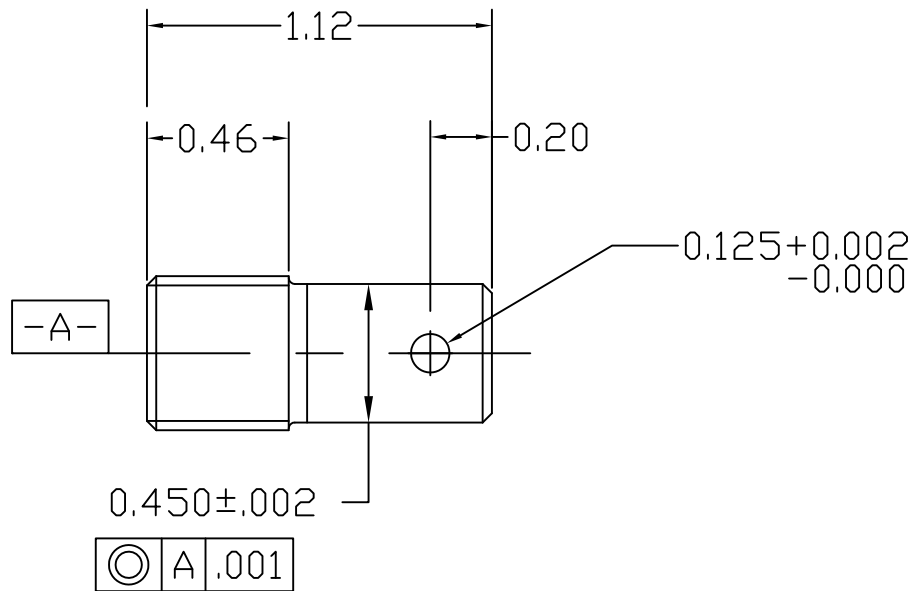
TEST FIXTURE MANUAL

	<u>Spec Number</u>	<u>Revision Number</u>	<u>Revision Date</u>	<u>Review Date</u>	<u>Title</u>
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	TF 56	Original	9/14/2011	2/11/2017	New Gauge Length Punch
	TF 56A	Original	9/14/2011	2/11/2017	Re-Sharpended Gauge Length Punch
	TF 57	1	10/26/2011	3/14/2017	1.680" Wide Punch

<u>Spec Number</u>	<u>Revision Number</u>	<u>Revision Date</u>	<u>Review Date</u>	<u>Title</u>
TF 59	Original	9/14/2011	2/11/2017	1.753" Wide Punch
TF 60	Original	9/14/2011	2/11/2017	2.000" Wide Punch
TF 61	Original	9/14/2011	2/11/2017	1.000" Wide Punch
TF 62	Original	9/14/2011	2/11/2017	0.800" Wide Punch
TF 63	Original	9/14/2011	2/11/2017	0.720" Wide Punch
TF 64	Original	9/14/2011	2/11/2017	0.640" Wide Punch
TF 65	1	4/4/2017	4/4/2017	Caliper Points
TF 66	1	4/4/2017	4/4/2017	Caliper Point Adapter
TF 67	Original	10/26/2011	3/14/2017	1/2" Extensometer Fixture Assembly
TF 67A	Original	10/26/2011	3/14/2017	1/2" Extensometer Fixture Assembly
TF 68	Original	10/26/2011	3/14/2017	1" Extensometer Fixture Assembly
TF 68A	Original	10/26/2011	3/14/2017	1" Extensometer Fixture Assembly
TF 69	Original	10/26/2011	3/14/2017	S/R Furnace Insulation
TF 69A	Original	10/26/2011	3/14/2017	Clamp for Furnace Insulation
TF 70	Original	10/26/2011	3/14/2017	C/R Furnace Insulation
TF 70A	Original	10/26/2011	3/14/2017	C/R Furnace Insulation
TF 71	Original	9/14/2011	2/11/2017	0.500" Wide Punch

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES
- 2. MATERIAL: AS-CAST IN 713C



Arconic Power and
Propulsion

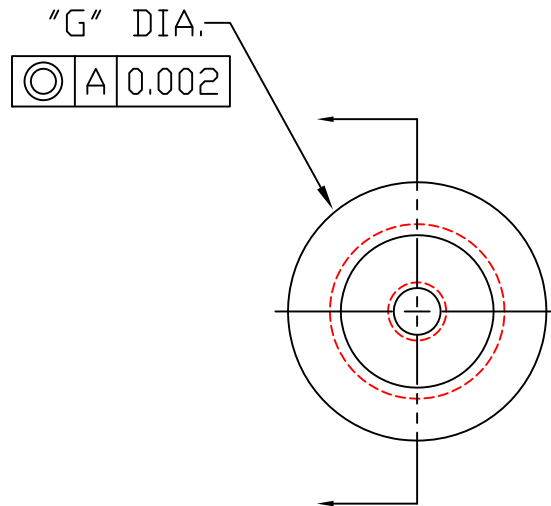
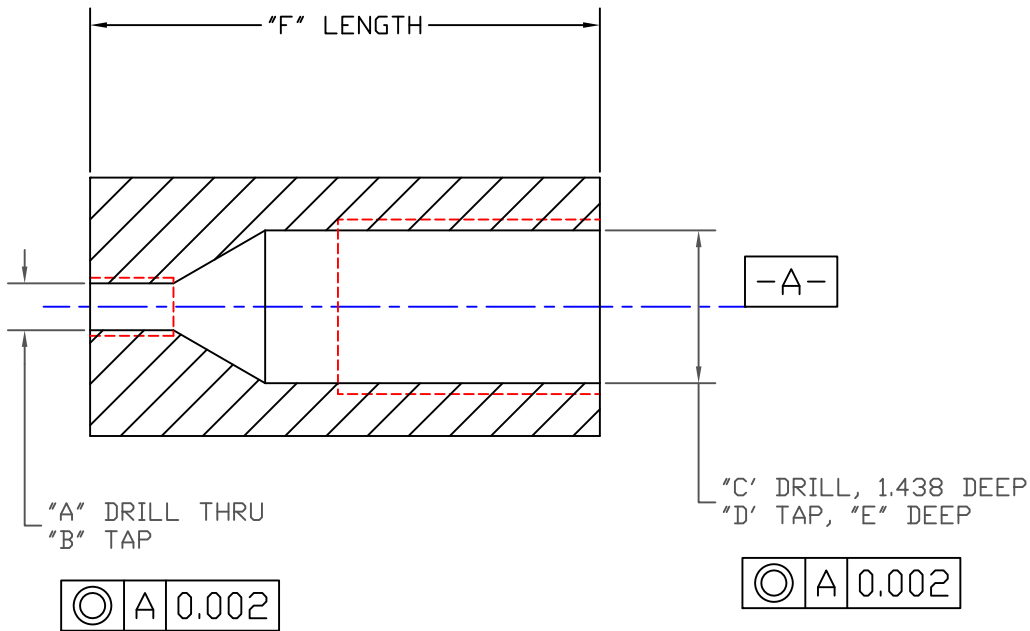
TEST FIXTURE MANUAL

MINI-FLAT STRESS RUPTURE TEST COUPLING

TF 10
09/14/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. THREAD CLASS 2B UNLESS OTHERWISE SPECIFIED.
- 4. SEE TABLE FOR SIZES



ADAPTER SIZES & DIMENSIONS

"A" DRILL	"B" TAP	"C" DRILL	"D" TAP	"E" DEEP	"F" LENGTH	CLASS	"G" DIA	MATERIAL
#7 (0.201)	1/4-20	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
#F (0.257)	5/16-18	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
5/16	3/8-16	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
27/64	1/2-13	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
21/32	3/4-10	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
#3 (0.212)	1/4-28	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
21 (0.159)	#10-32	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
#7 (0.201)	#5-40	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
#29 (0.136)	#8-32	0.656	3/4-10NC	1.125	2.19	2B	1.110	IN 713
8mm (60%)	M9 X 1.25		3/4-10NC	1.125	2.25	3B	1.125	MAR 246
7.5mm (60%)	5/16-24NF		3/4-10NC	1.125	2.25	3B	1.125	MAR 246
8.5mm	M10 X 1.5		M10 X 1.5	0.500	2.25	6G	1.125	IN 713
5.25mm	M6 X .75		M6 X .75	0.500	2.25	6G	1.125	IN 713
#U (0.368)	7/16-14NC		1-8NC	1.375	2.25	3B	1.50	IN 713
5/16	3/8-16NC		1-8NC	1.375	2.25	3B	1.50	IN 713
#29 (0.136)	#8-36NF		#8-36NF		2.25	3B		
	5/16-24NF		5/16-24NF					
21/32	3/4-10		1-8NC	1.375	2.375	3B	1.625	IN 718
5mm	M6 X 10		3/4-10NC		2.25	3B	1.125	IN713
	M18 X 25		3/4-10NC		2.25	3B	1.125	
#U (0.368)	7/16-14NC		3/4-10NC					

**Arconic Power and
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TEST FIXTURE MANUAL

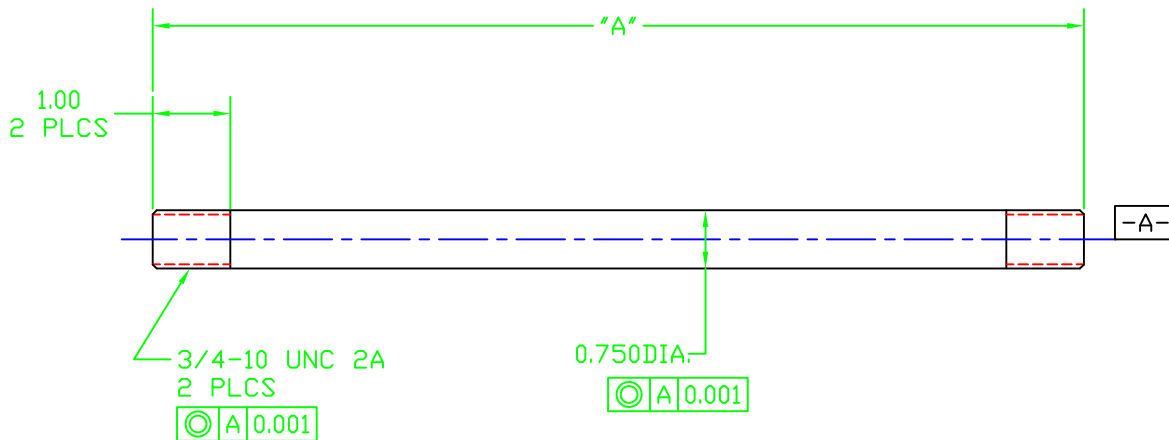
STRESS RUPTURE ADAPTERS

TF 11A
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL IN713.
4. THREADS CLASS 2A UNLESS OTHERWISE SPECIFIED.

PART #	"A" LENGTH
TF-13A	12.00
TF-13B	13.00
TF-13C	19.00
TF-13D	21.00
TF-13E	10.75
TF-13F	14.00
TF-13G	



**Arconic Power and
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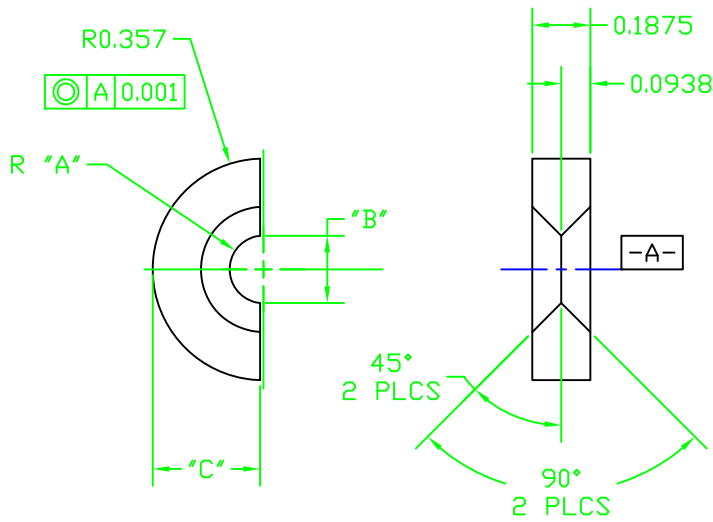
TEST FIXTURE MANUAL

3/4 DIA PULLING STUD

TF 12
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. TF-14D IS CLAMPED ON GAUGE SECTION, NO GROOVES IN BAR.
4. TOLERANCES TO BE ± 0.002 UNLESS OTHERWISE SPECIFIED.



PART #	TBM #	"A"	"B"	"C"	SHOULDER ϕ OF BAR
TF-14A	2004	0.109	0.218	0.346	0.250
TF-14A	2510	0.109	0.218	0.346	0.250
TF-14A	3004	0.109	0.218	0.346	0.250
TF-14A	3009	0.109	0.218	0.346	0.250
TF-14B	3104	0.141	0.282	0.346	0.3125
TF-14B	3109	0.141	0.282	0.346	0.3125
TF-14B	3114	0.141	0.282	0.346	0.3125
TF-14C	3064	0.172	0.344	0.346	0.375
TF-14C	4004	0.172	0.344	0.346	0.375
TF-14C	4014	0.172	0.344	0.346	0.375
TF-14C	4025	0.172	0.344	0.346	0.375
TF-14D	4200	0.1785	0.357	0.346	N/A
TF-14E	HOT TEN	0.125	0.250	0.312	0.375

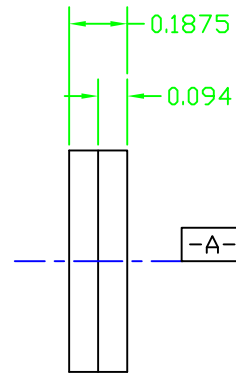
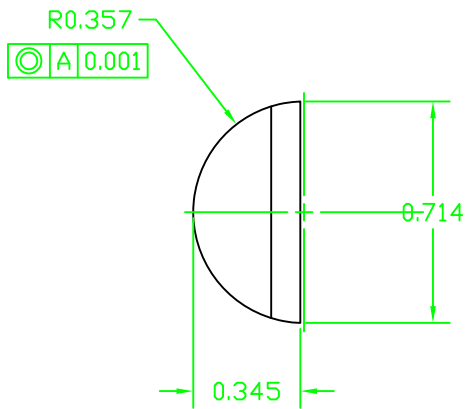
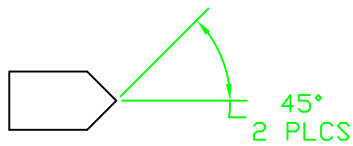
Arconic Power and Propulsion

TEST FIXTURE MANUAL

SPECIMEN KNIFE EDGE CLAMP

TF 13
 10/26/11
 Original
 1 of 1

- NOTES:
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. THESE INSERTS TO BE CLAMPED ON
GUAGE SECTION, NO GROOVES IN BAR.
4. TOLERANCES TO BE ± 0.002 UNLESS
OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

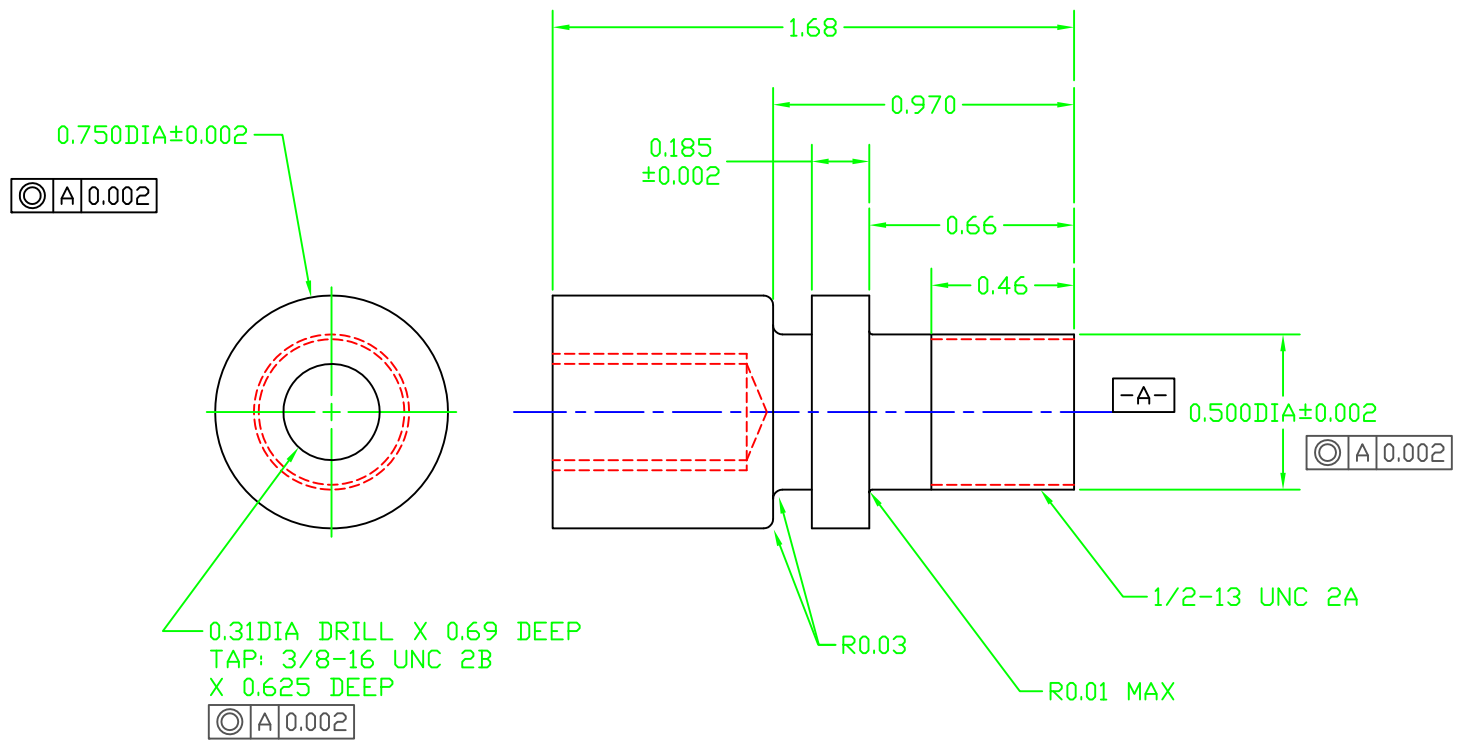
TEST FIXTURE MANUAL

SPECIMEN KNIFE EDGE CLAMP (FLAT HOT TENSILE USE)

TF 14
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL IN713.
- 4. CHECK 3/8-16 HOLE WITH GO/NO GO THREAD PLUG.



Arconic Power and Propulsion

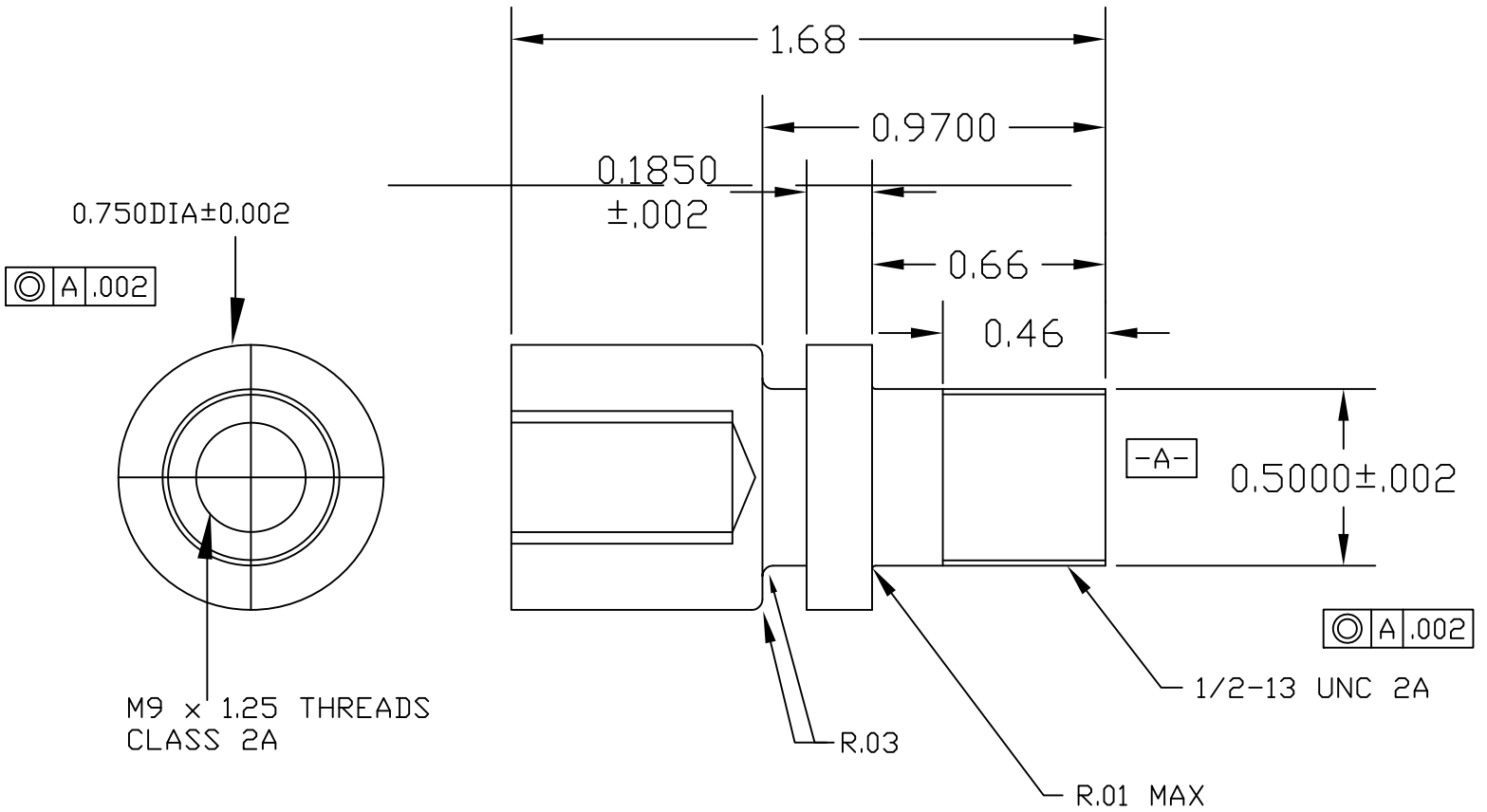
TEST FIXTURE MANUAL

3/8 C/R ADAPTER COUPLING

TF 15
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL IN713.
- 4. NUMBER REQUIRED: 1
- 5. CHECK M9 x 1.25 2A WITH GO/NO GO THREAD PLUG.



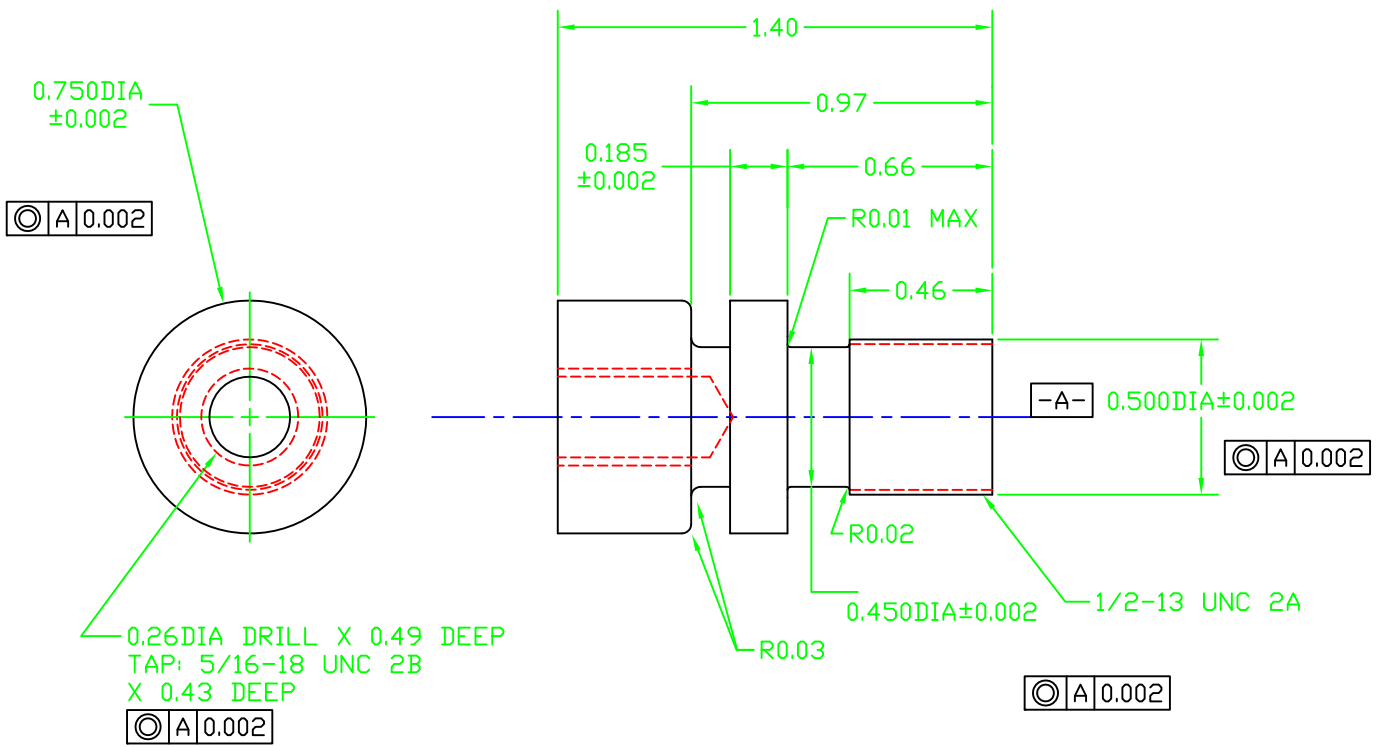
ARCONIC POWER AND PROPULSION

TEST FIXTURE MANUAL

TC Part #: TF 15A
Issued: 04/21/17
Revision: Original
Page: 1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL IN713.
4. CHECK 5/16-HOLE WITH GO/NO GO THREAD PLUG.



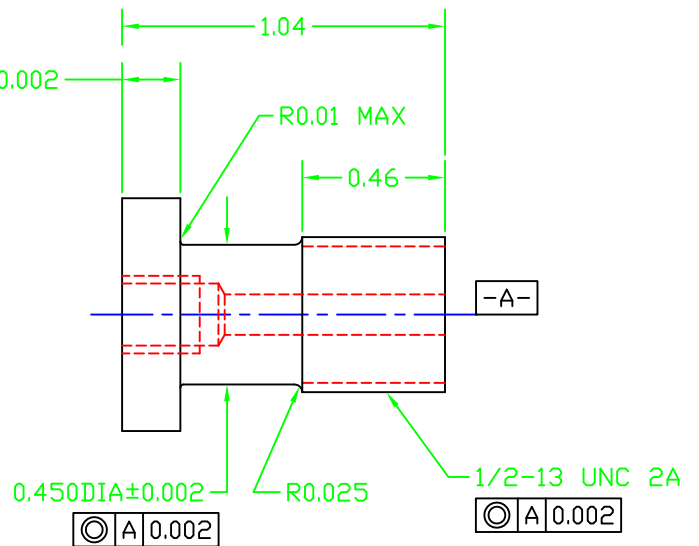
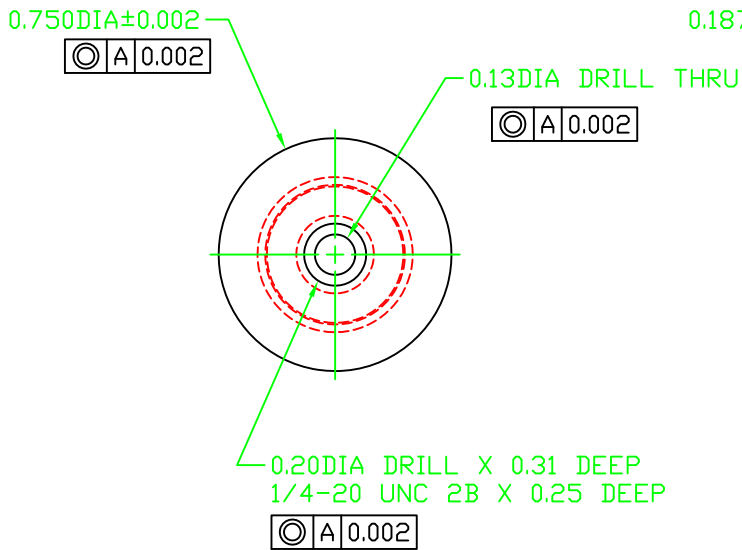
Arconic Power and Propulsion

TF 16
10/26/11
Original
1 of 1

TEST FIXTURE MANUAL

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL PWA 1480.
4. CHECK 1/4-20 WITH GO/NO GO THREAD PLUG.



**Arconic Power and
 Propulsion**

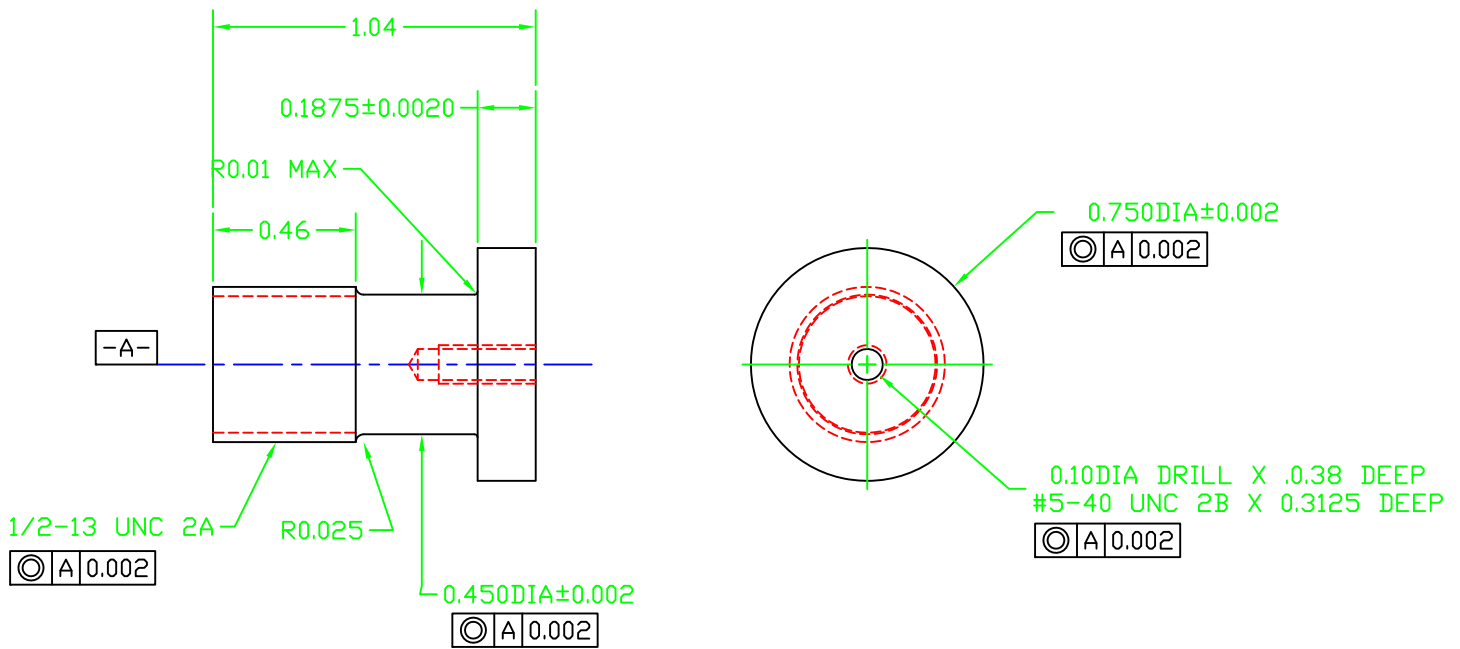
TEST FIXTURE MANUAL

1/4-20 C/R ADAPTER COUPLING

TF 17
 10/26/11
 Original
 1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL PWA 1480.
- 4. CHECK #5-40 WITH GO/NO GO THREAD PLUG.



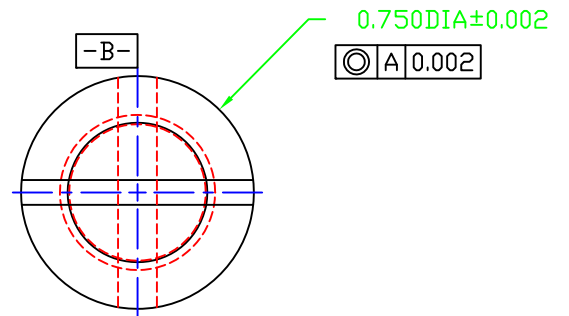
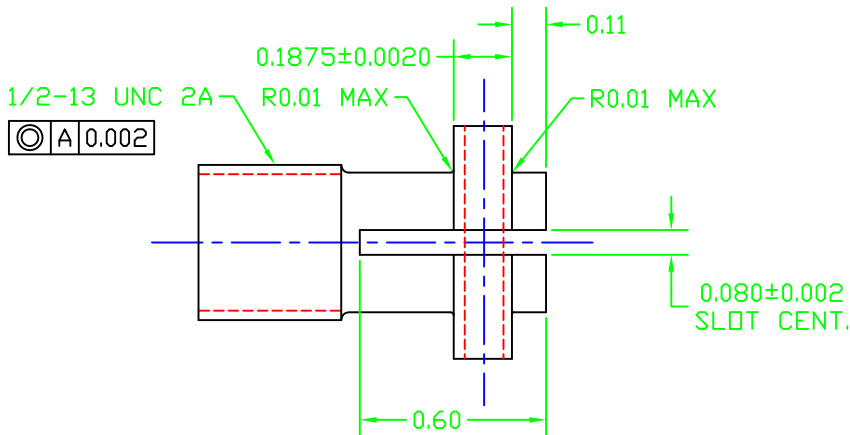
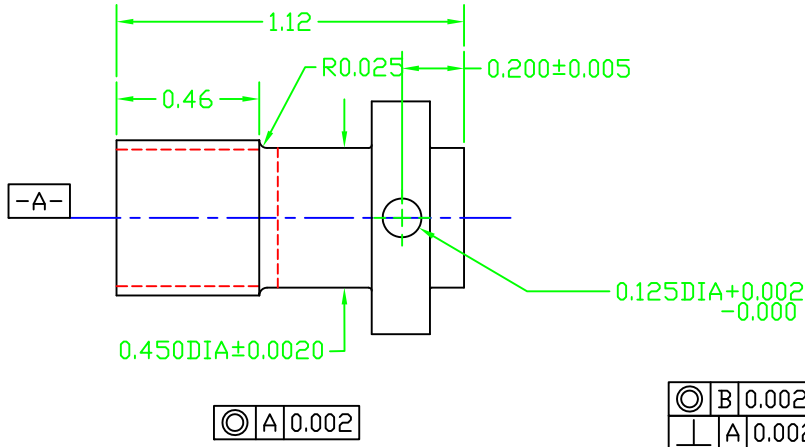
Arconic Power and
Propulsion

TEST FIXTURE MANUAL

5-40 C/R ADAPTER COUPLING

TF 18
10/26/11
Original
1 of 1

- NOTES:
 1. DO NOT SCALE THIS DRAWING.
 2. ALL DIMENSIONS ARE IN INCHES.
 3. MATERIAL IN713.



Arconic Power and
 Propulsion

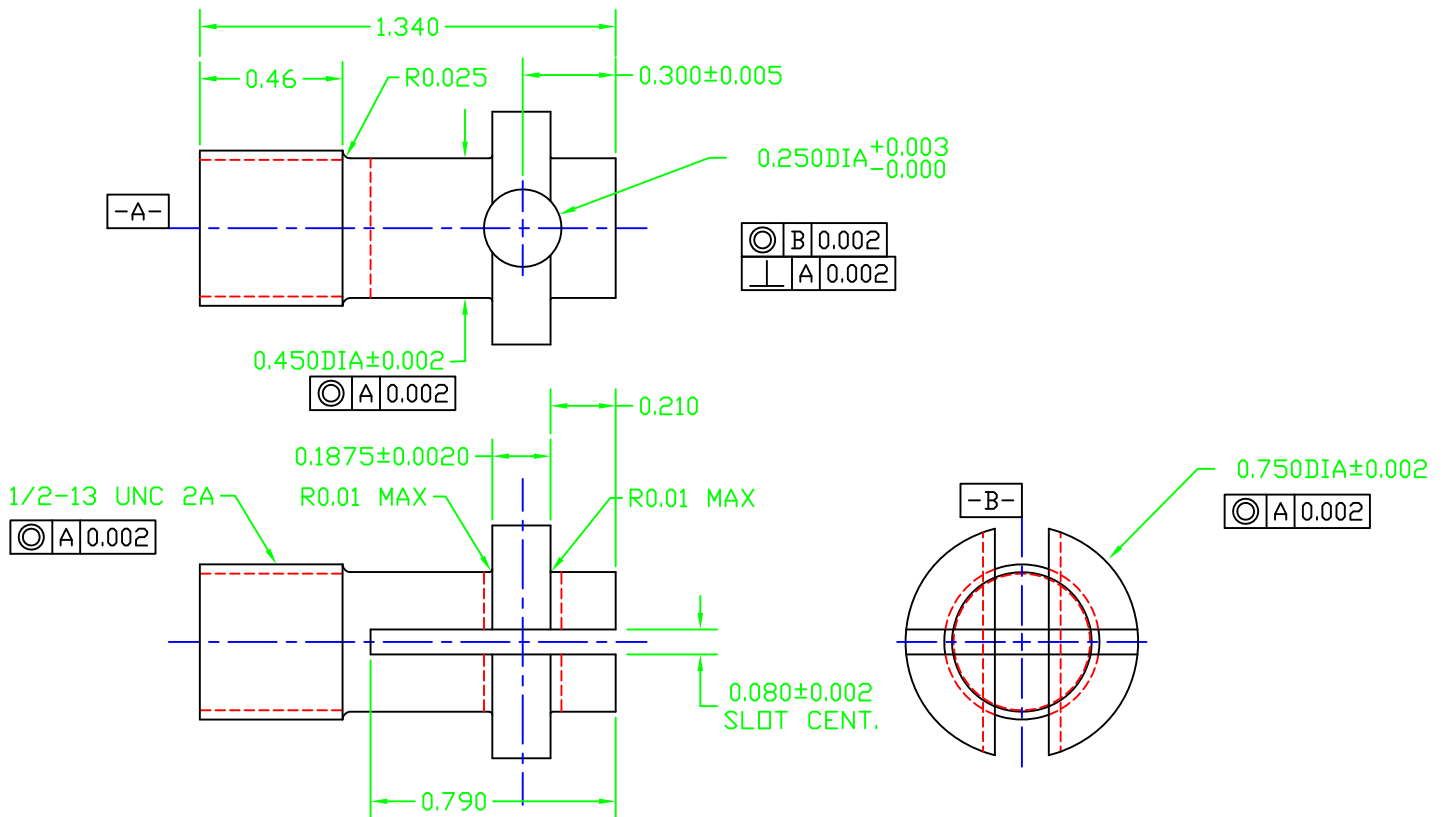
TEST FIXTURE MANUAL

MINI-FLAT SPECIMEN GRIPS CREEP RUPTURE DETAIL, 0.600 DIM.

TF 19
 10/26/11
 Original
 1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL IN713.
4. NUMBER REQUIRED: 2 PER.



Arconic Power and
Propulsion

TEST FIXTURE MANUAL

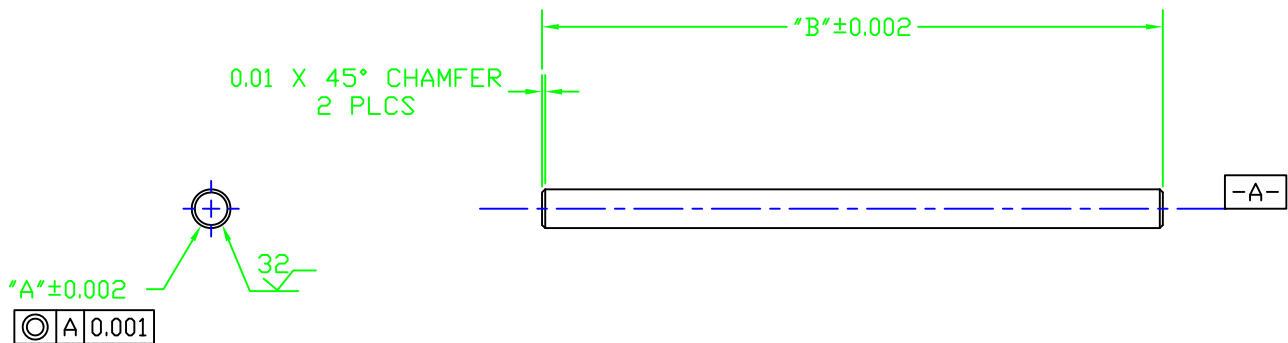
MINI-FLAT SPECIMEN 1/2-13 GRIP ADAPTERS, CR DETAIL, 0.790 SLOT

TF 20
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.

P/N	"A"	"B"	MAT'L
23A	0.125	2.00	MM246
23B	0.1875	1.50	MM246
23C	0.246	1.30	IN 713
23D	0.370	1.30	IN 713
23E	0.248	1.00	IN 713
23F	0.310	1.20	RENE 80
23G	0.730	1.20	IN 713
23H	0.246	.350	IN 713
23I	0.120	.760	IN 713



**Arconic Power and
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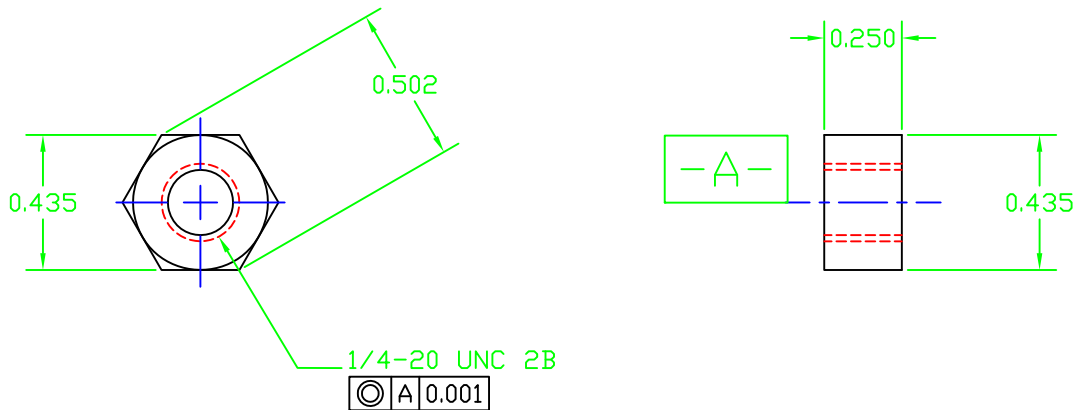
TEST FIXTURE MANUAL

LOCKING TEST PIN TABLE

TF 21
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL IN713.
4. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.
5. CHAMFER D.D. TOP & BOTTOM.
6. BREAK I.D. TOP & BOTTOM.
7. NUT TO FIT STANDARD 7/16" WRENCH.



**Arconic Power and
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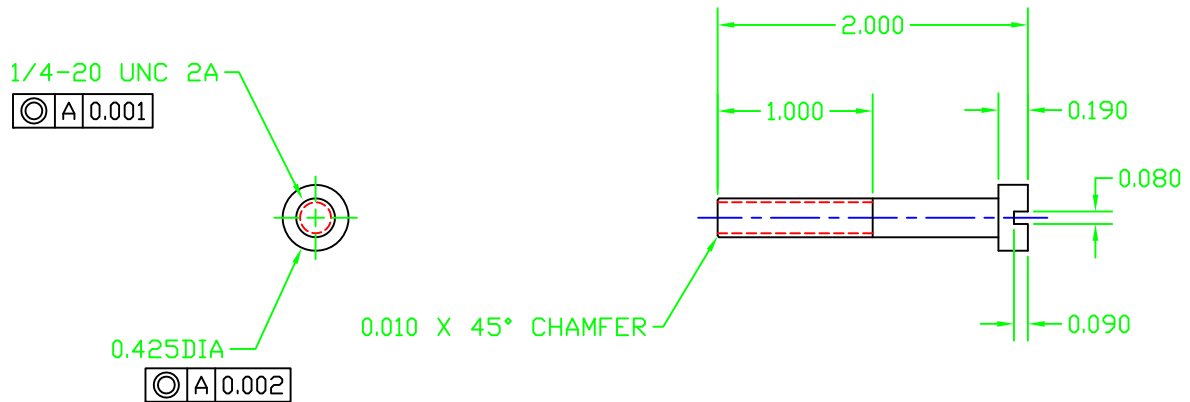
TEST FIXTURE MANUAL

1/4 HARNESS NUT

TF 24
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL IN713.
- 4. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

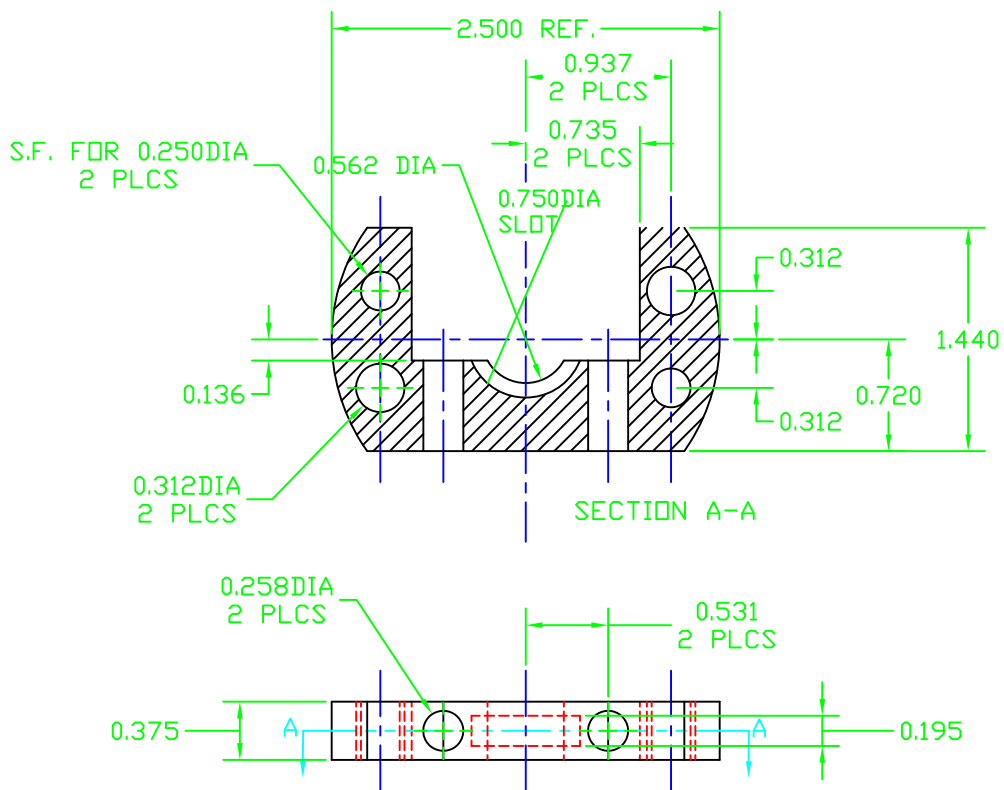
TEST FIXTURE MANUAL

1/4 HARNESS BOLT

TF 25
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. BREAK CORNERS R0.031 TYPICAL.



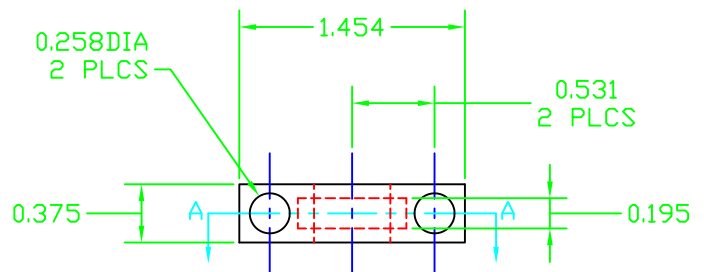
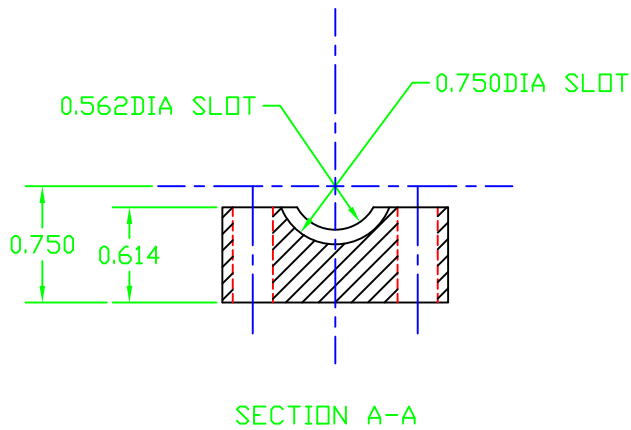
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

CROSSHEAD ASSEMBLY

TF 26
10/26/11
Original
1 of 1

- NOTES:
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. BREAK CORNERS R0.031 TYPICAL.



**Arconic Power and
Propulsion**

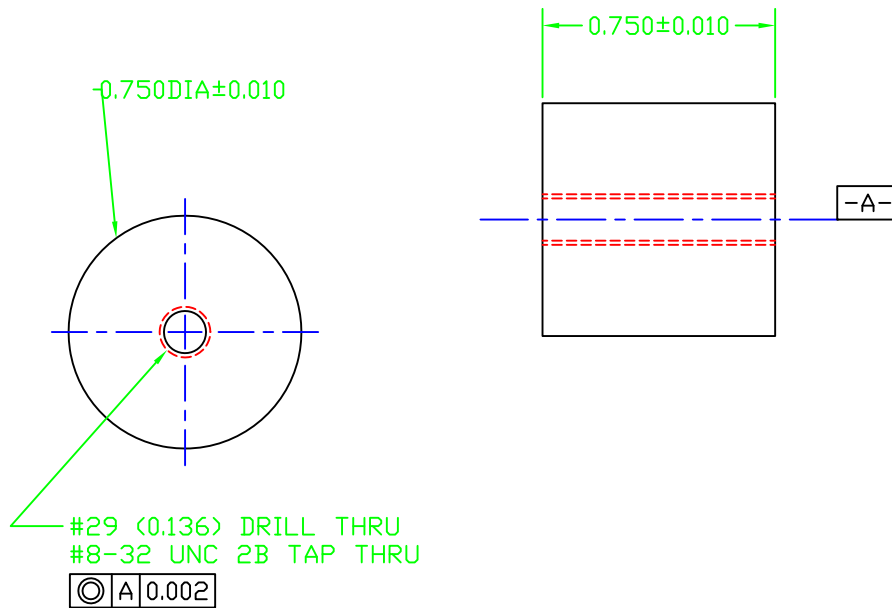
TEST FIXTURE MANUAL

CROSSHEAD ASSEMBLY

TF 26A
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL IN713.
- 4. FOR TANDEM TESTING.



**Arconic Power and
Propulsion**

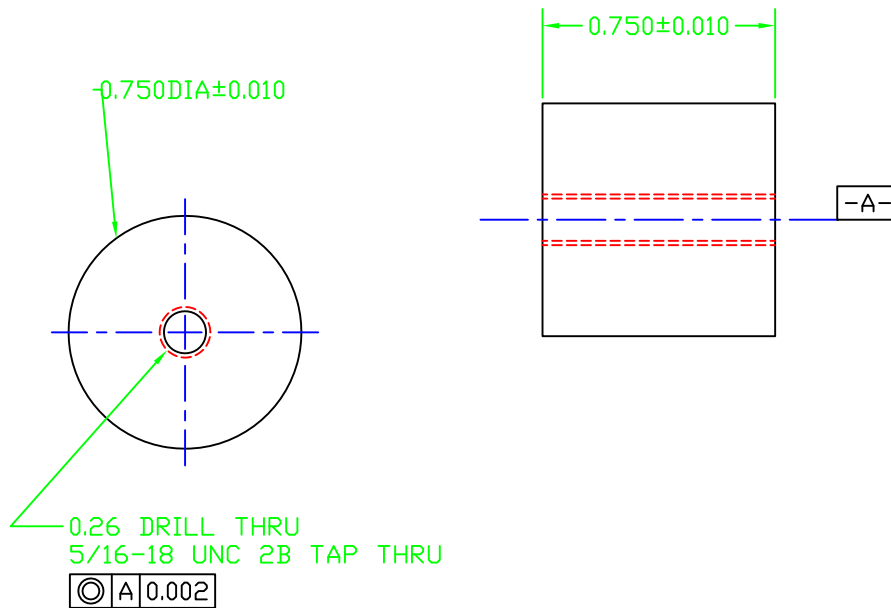
TEST FIXTURE MANUAL

S/R TANDEM ADAPTER USED WITH TBM 1106 (RR)

TF 34
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL IN713.
4. FOR TANDEM TESTING.



**Arconic Power and
Propulsion**

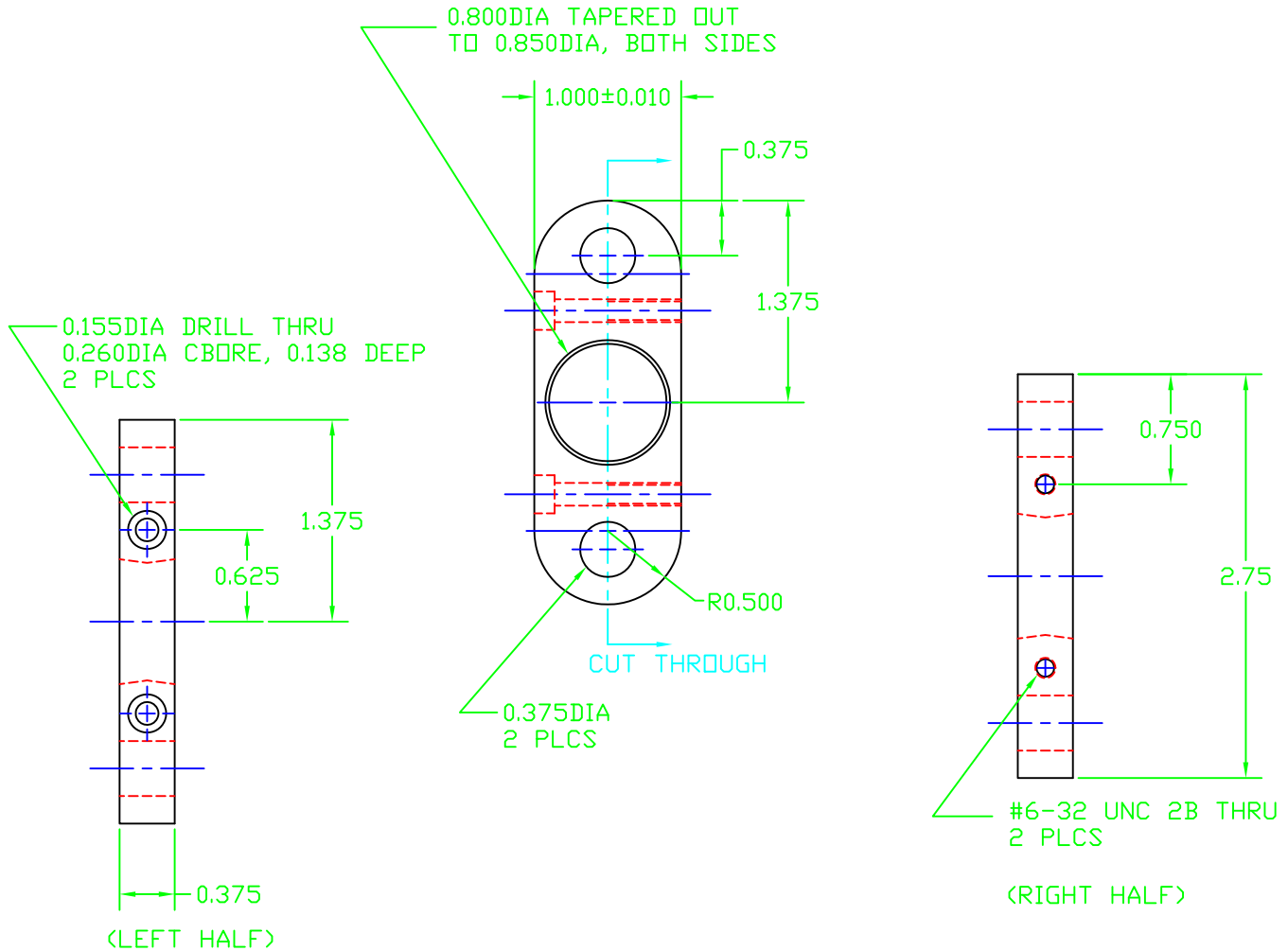
TEST FIXTURE MANUAL

S/R TANDEM ADAPTER USED WITH TBM 3110

TF 34A
10/29/15
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL: T6 ALUMINUM PLATE.
- 4. TOLERANCE TO BE ± 0.005 , UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

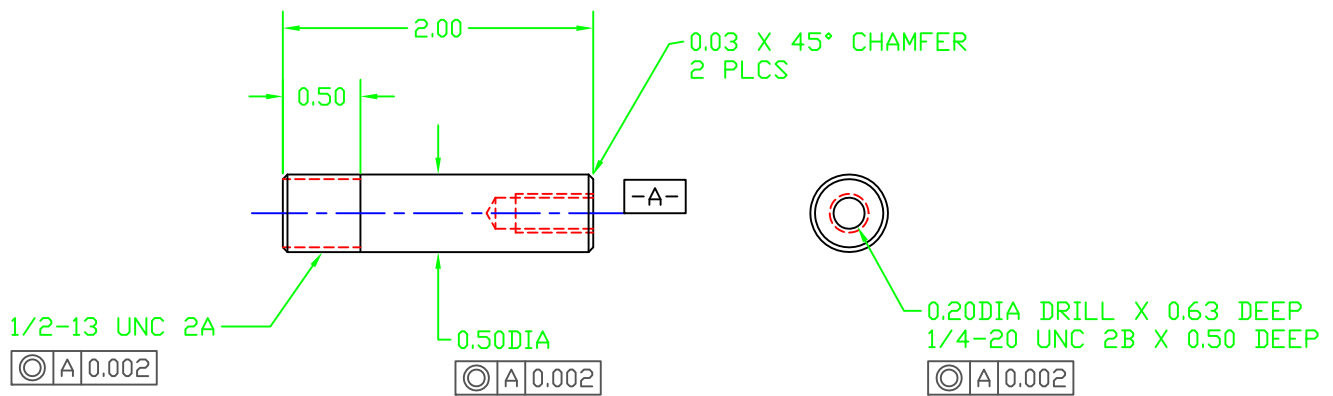
TEST FIXTURE MANUAL

HOT TENSILE HARNESS BRACKET

TF 41
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL: 8620 HOT ROLLED STEEL.



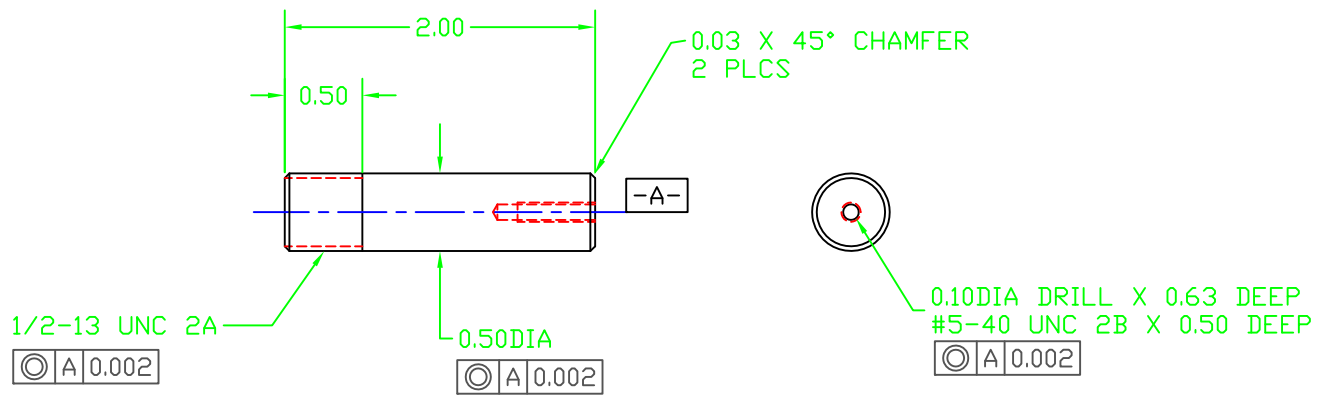
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

1/4-20 TENSILE TEST ADAPTER (MINI ROUND TEST MATERIAL)

TF 50
10/26/11
Original
1 of 1

- NOTES:
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL: 8620 HOT ROLLED STEEL.



**Arconic Power and
Propulsion**

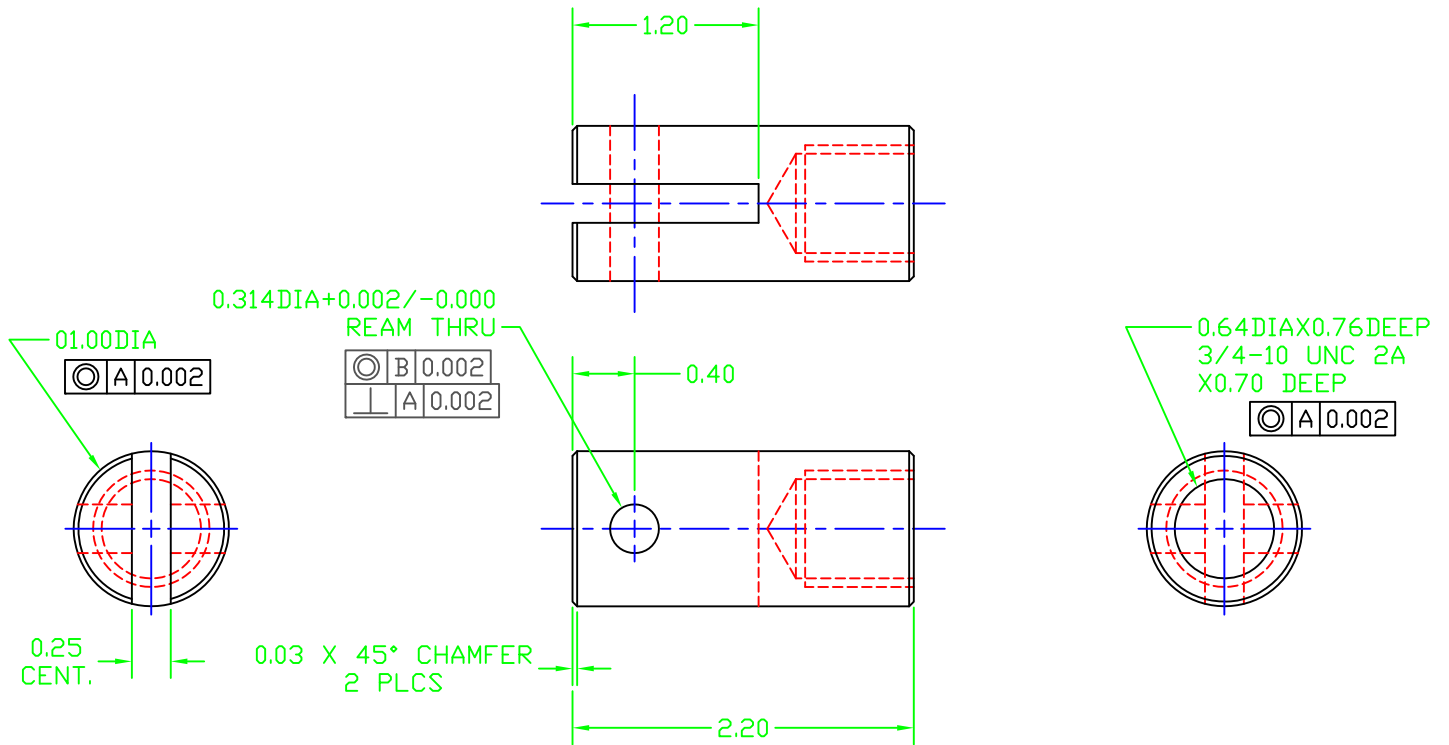
TEST FIXTURE MANUAL

#5-40 TENSILE TEST ADAPTER (MINI ROUND TEST MATERIAL)

TF 51
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL IN713.



Arconic Power and
Propulsion

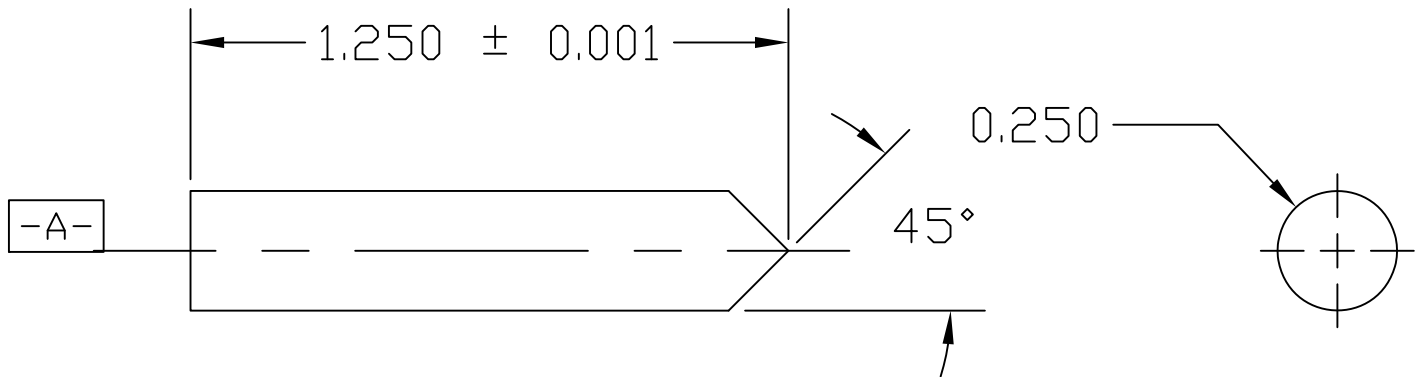
TEST FIXTURE MANUAL

RUPTURE FLAT BAR ADAPTER

TF 52
10/26/11
Original
1 of 1

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES
- 2. MATERIAL: HSS DRILL BLANKS 0.250"
- 3. TIP SHALL BE CONCENTRIC WITH "A" AXIS WITHIN 0.00025" DIAMETER
- 4. LABEL PACKAGING WITH THE FINISHED LENGTH DIMENSIONS



**Arconic Power and
Propulsion**

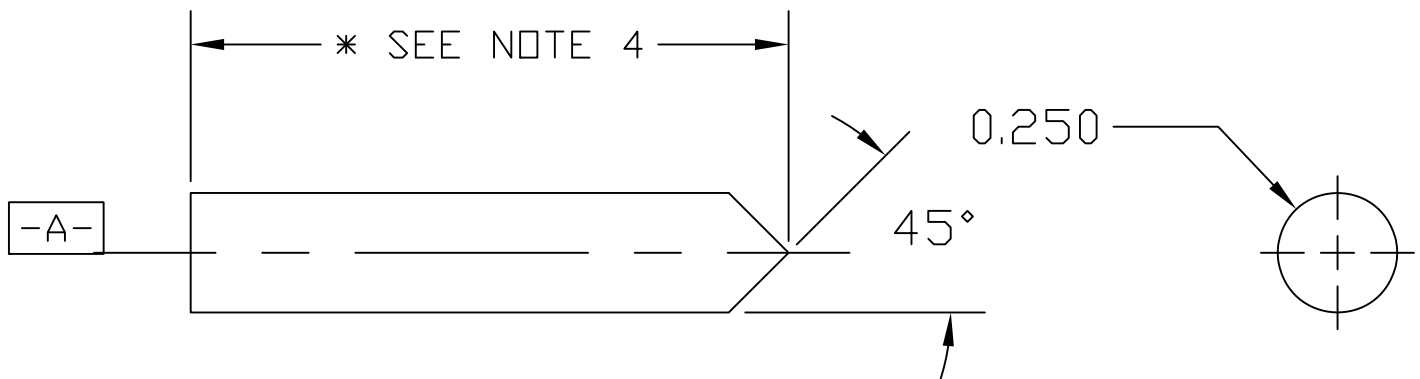
TEST FIXTURE MANUAL

NEW GAUGE LENGTH PUNCH

TF 56
09/14/11
Original
1 of 1

NOTES:

1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: HSS DRILL BLANKS 0.250"
3. TIP SHALL BE CONCENTRIC WITH "A" AXIS WITHIN 0.00025" DIAMETER
4. - RE-SHARPEN ALL USED PUNCHES SUPPLIED IN A BATCH TO THE SAME LENGTH WITHIN 0.001"
- THE LENGTH SHALL BE NOTATED ON THE PACKAGING SUPPLIED WITH THE USED PUNCHES
- THE MINIMUM RE-SHARPENED PUNCH LENGTH SHALL BE NO LESS THAN 1.000"
- LABEL PACKAGING WITH THE FINISHED LENGTH DIMENSION OF THE RE-SHARPENED PUNCHES



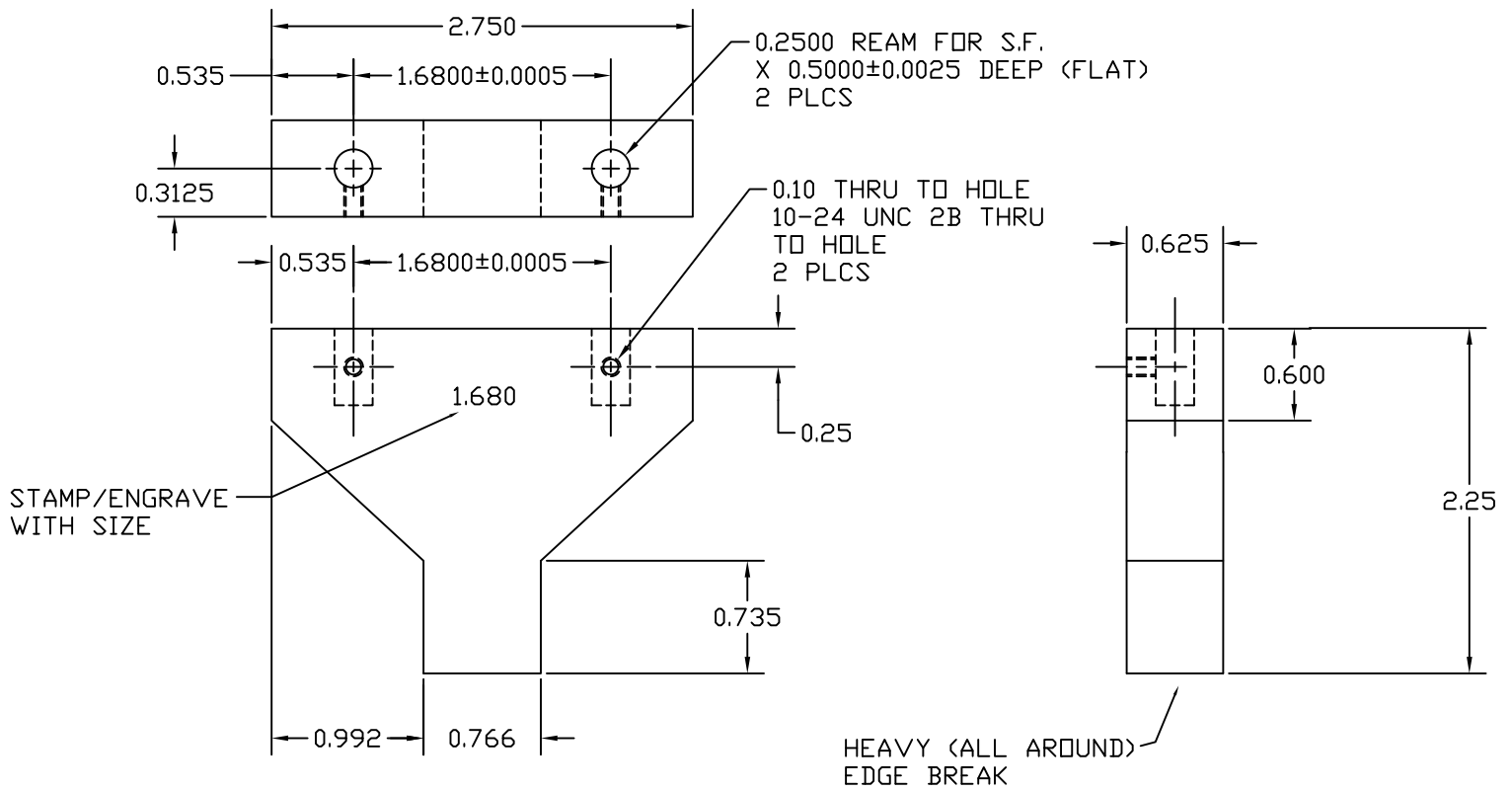
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

RE-SHARPENED GAUGE LENGTH PUNCH

TF 56A
09/14/11
Original
1 of 1

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: S-7 TOOL STEEL



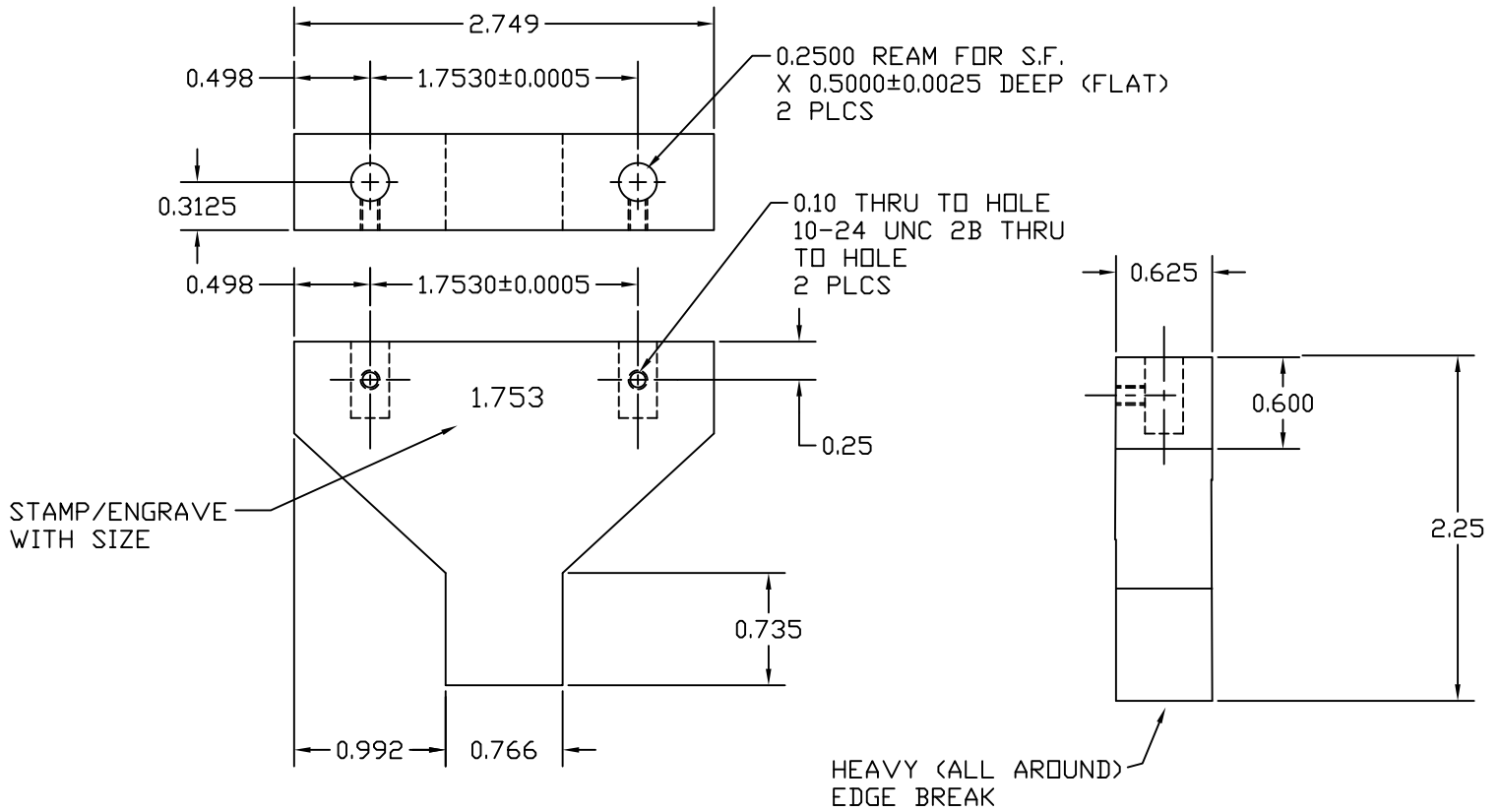
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

Ø 1.680" WIDE PUNCH

TF 57
10/26/11
1
1 of 1

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: S-7 TOOL STEEL



Arconic Power and Propulsion

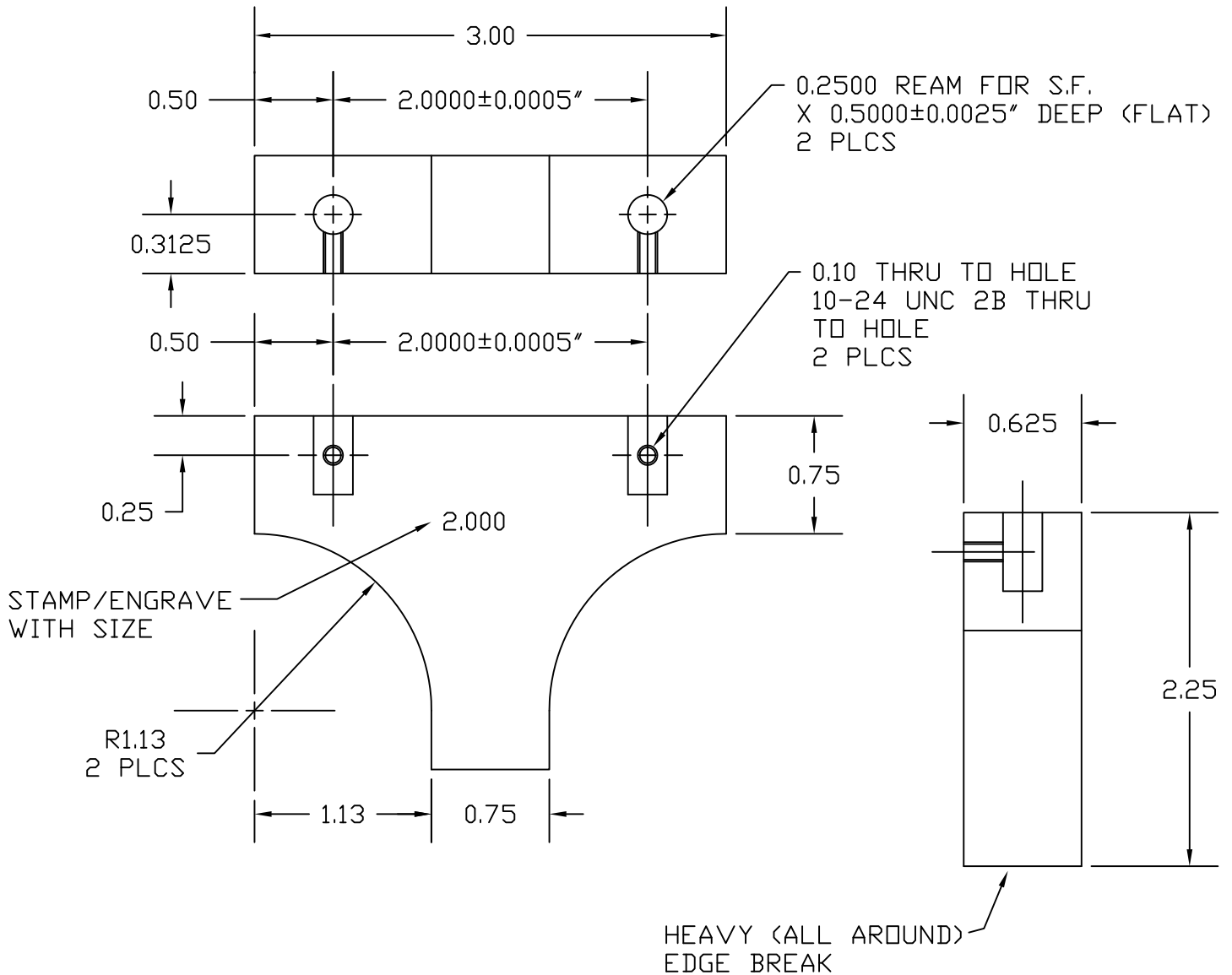
TEST FIXTURE MANUAL

1.753" WIDE PUNCH

TF 59
09/14/11
Original
1 of 1

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES
- 2. MATERIAL: S-7 TOOL STEEL



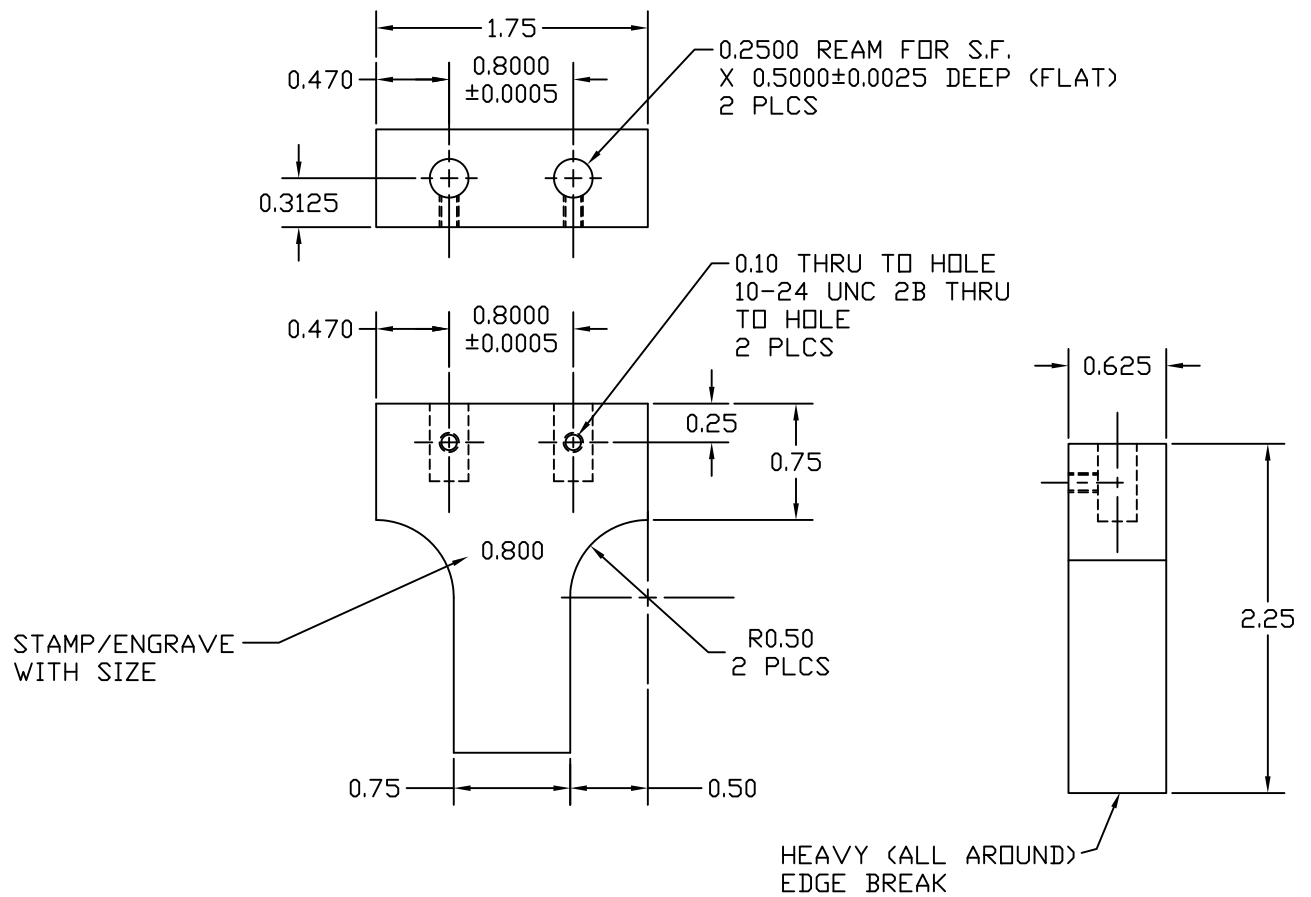
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

TF 60
09/14/11
Original
1 of 1

2.000" WIDE PUNCH

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: S-7 TOOL STEEL



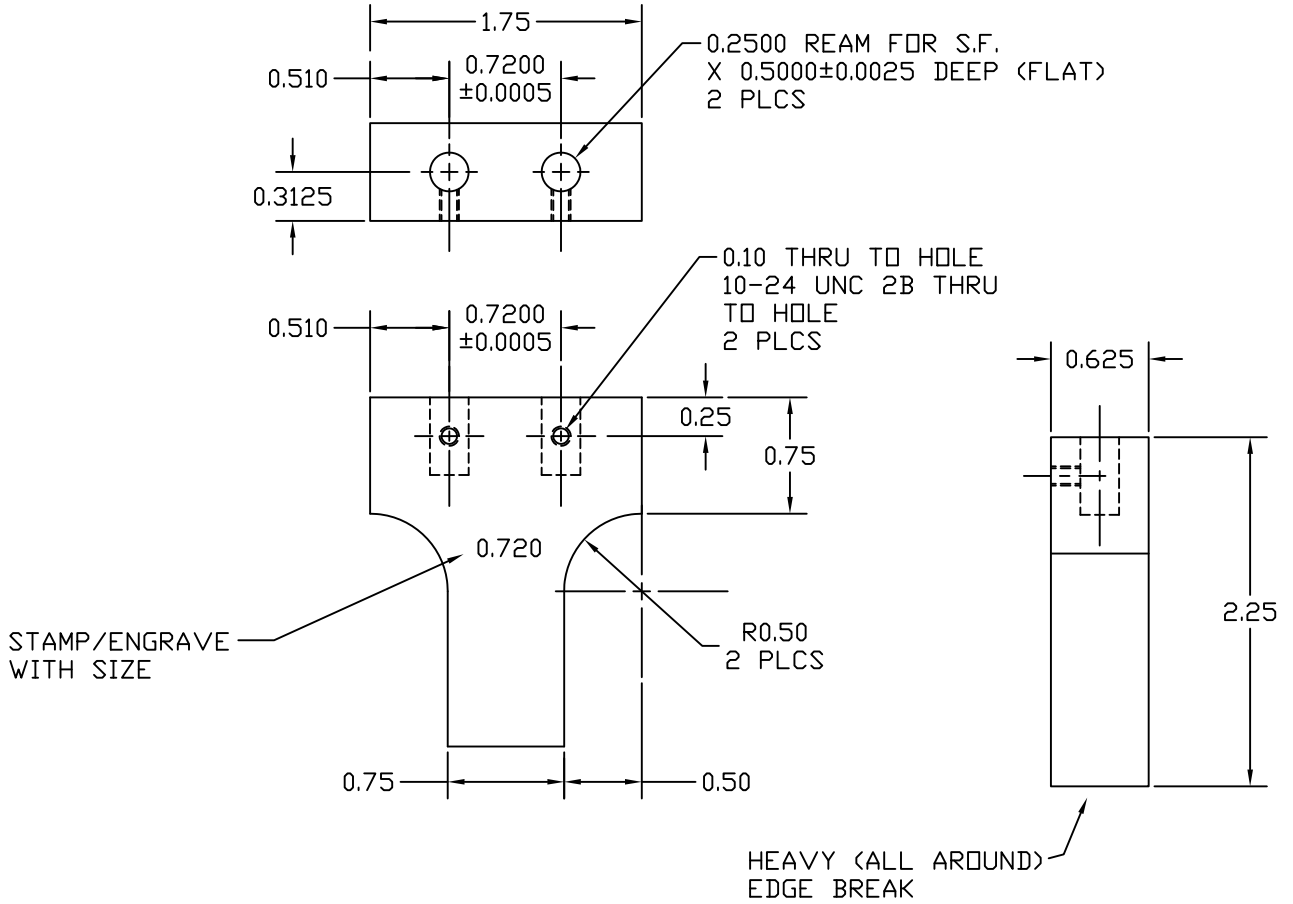
Arconic Power and
Propulsion

TEST FIXTURE MANUAL

.800" WIDE PUNCH

TF 62
09/14/11
Original
1 of 1

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: S-7 TOOL STEEL



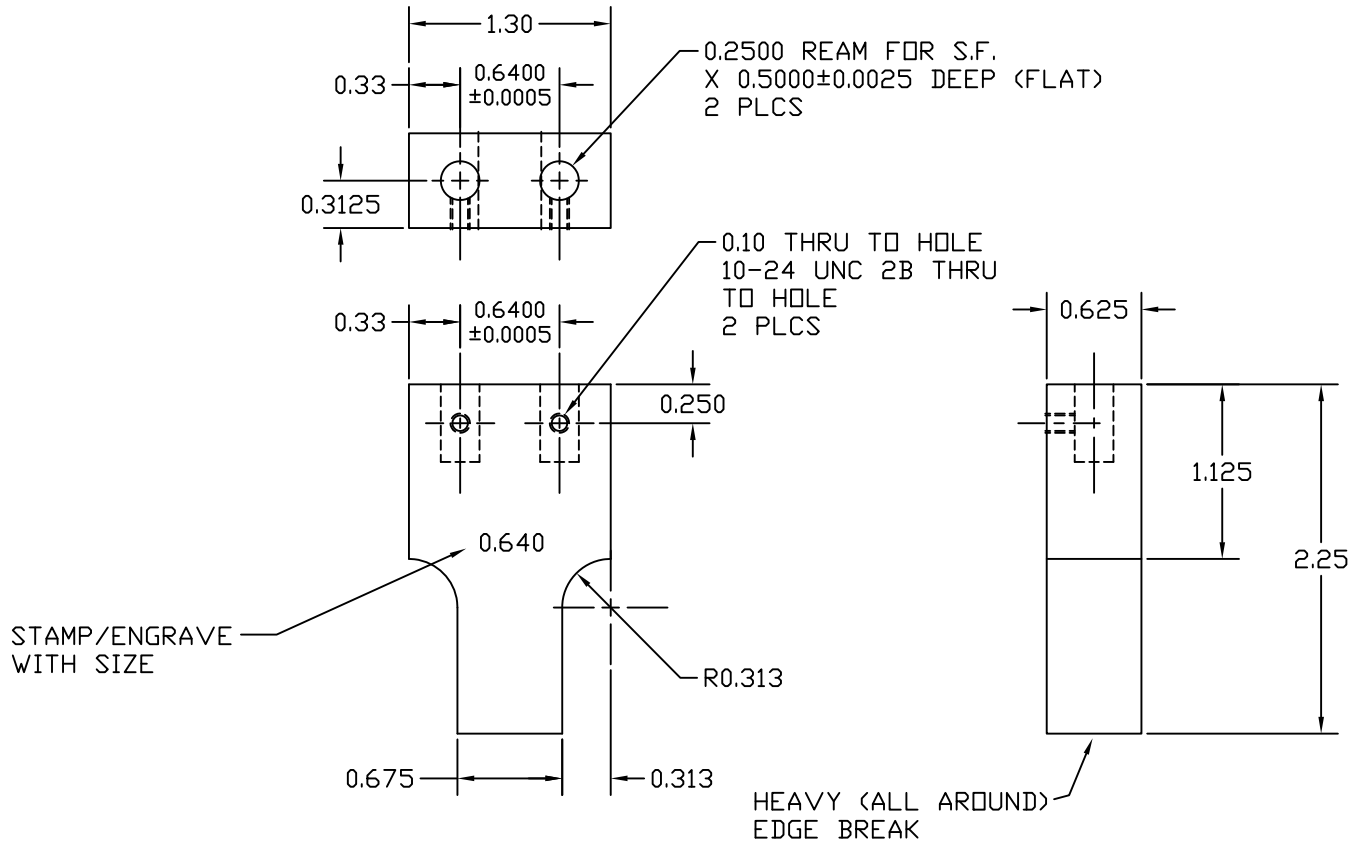
Arconic Power and
Propulsion

TEST FIXTURE MANUAL

.720" WIDE PUNCH

TF 63
09/14/11
Original
1 of 1

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES
2. MATERIAL: S-7 TOOL STEEL



Arconic Power and
Propulsion

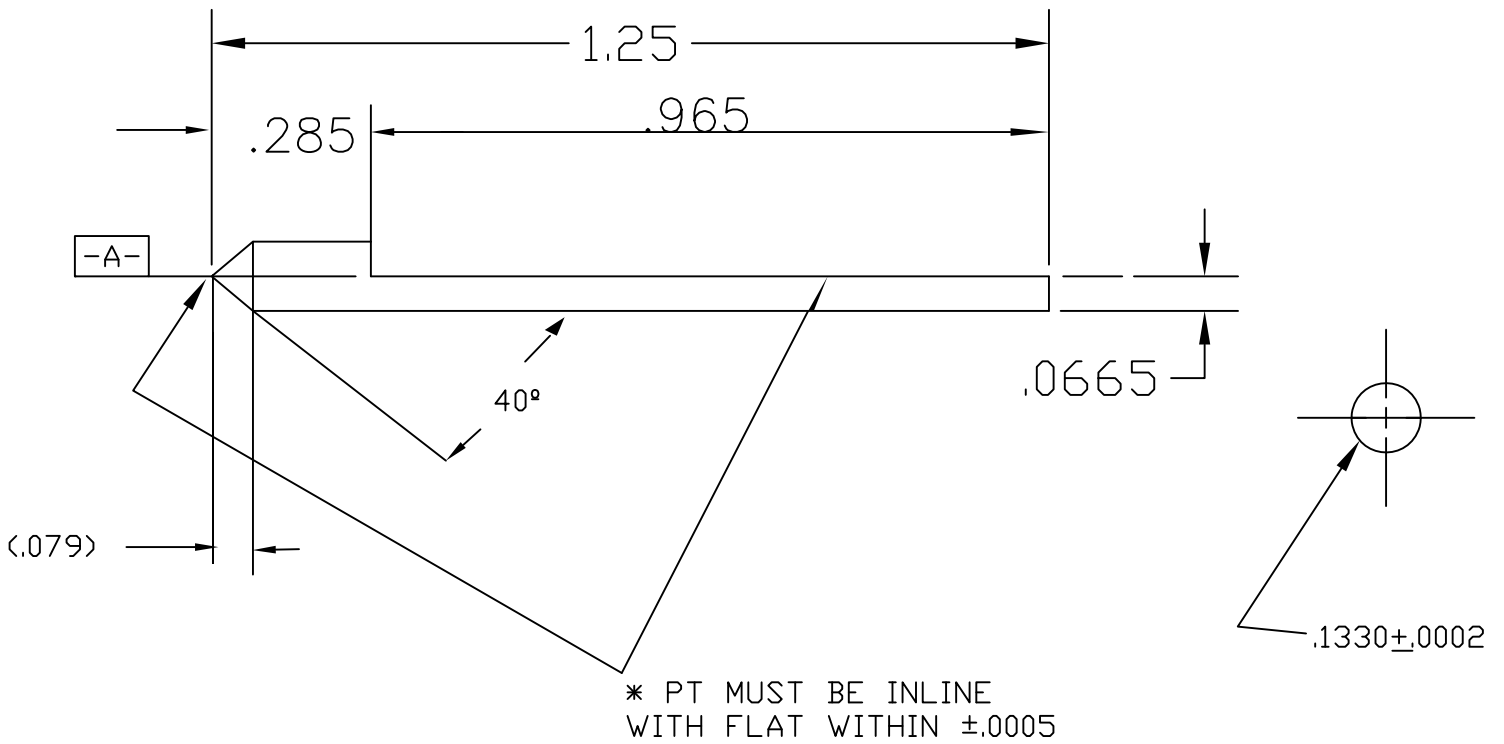
TEST FIXTURE MANUAL

.640" WIDE PUNCH

TF 64
09/14/11
Original
1 of 1

NOTES:

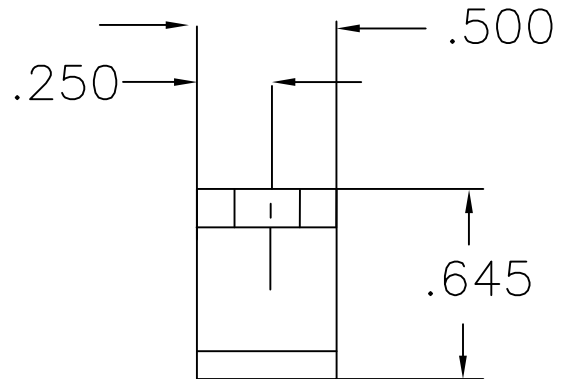
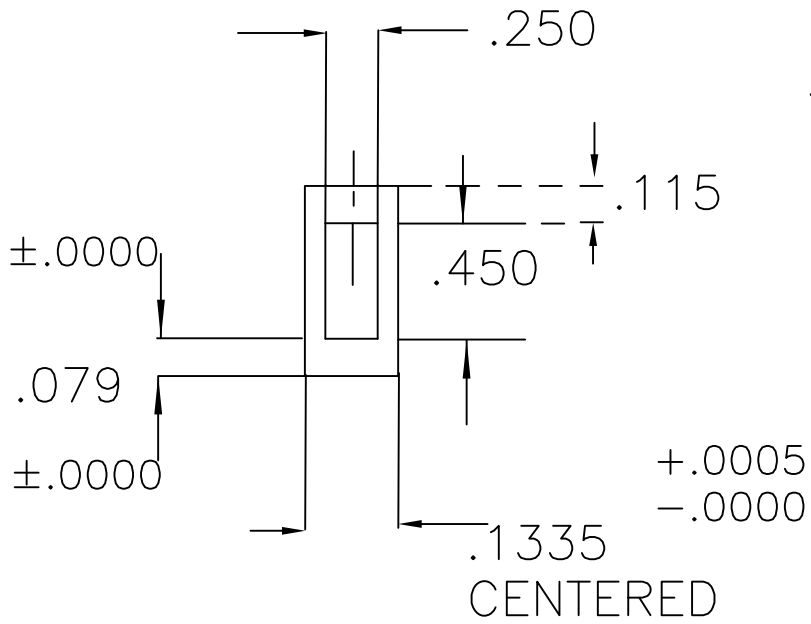
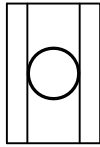
- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. MATERIAL: CARBIDE DRILL ROD.



© A 0.001

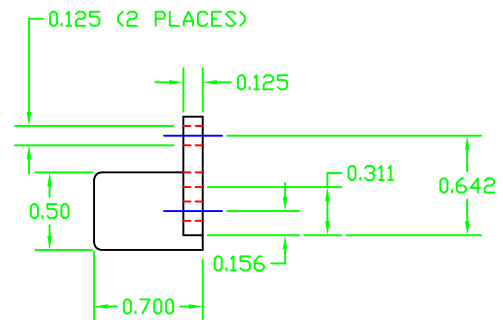
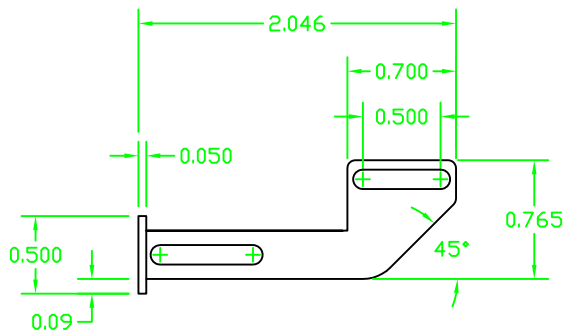
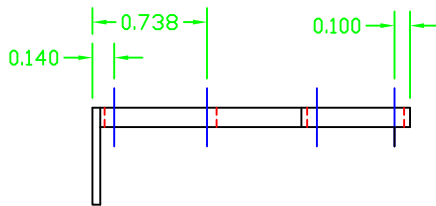
NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL: COLD ROLLED STEEL.
4. TOLERANCE TO BE $-0.000/+0.005$.
5. MATERIAL: FOR USE WITH TF-65.



NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

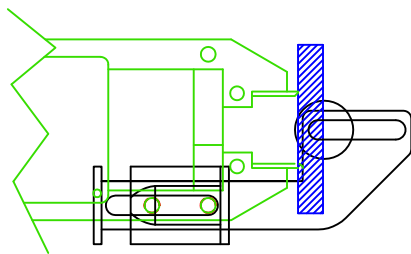
TEST FIXTURE MANUAL

$\frac{1}{2}$ " EXTENSOMETER FIXTURE ASSEMBLY

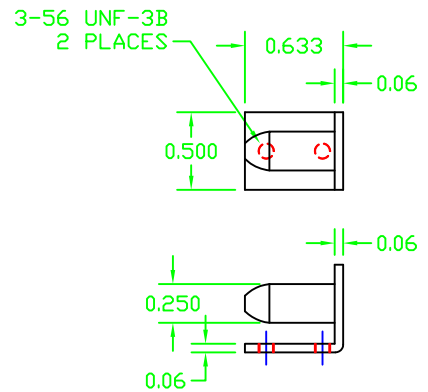
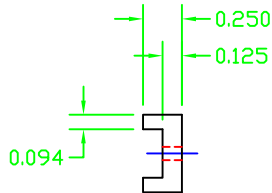
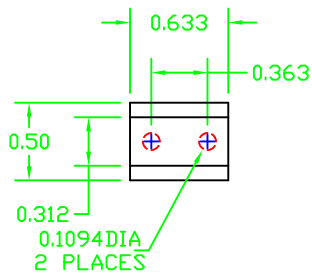
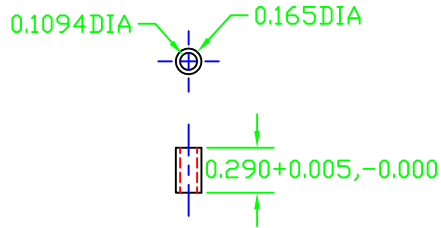
TF 67
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



ASSEMBLY VIEW



Arconic Power and
Propulsion

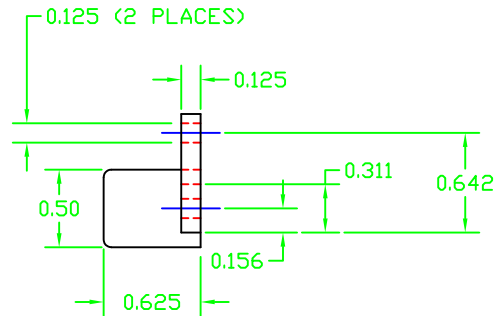
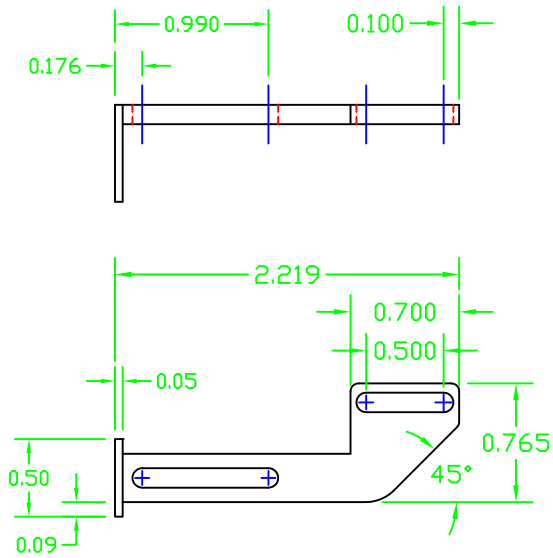
TEST FIXTURE MANUAL

$\frac{1}{2}$ " EXTENSOMETER FIXTURE ASSEMBLY

TF 67A
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

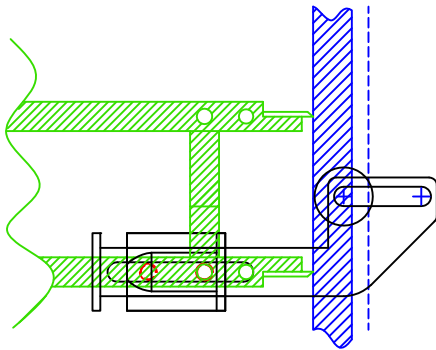
TEST FIXTURE MANUAL

1" EXTENSOMETER FIXTURE ASSEMBLY

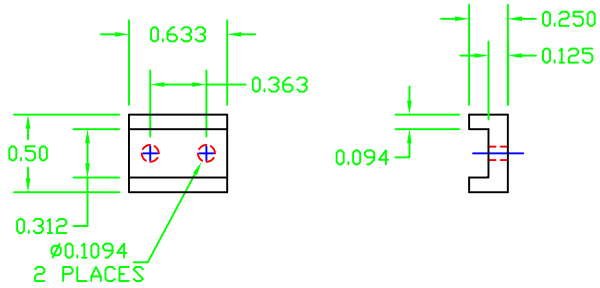
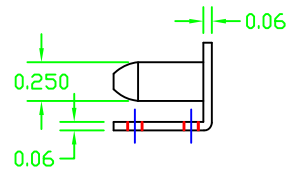
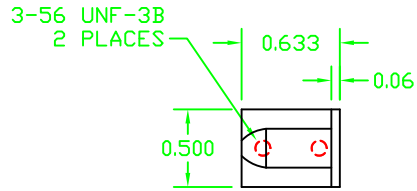
TF 68
10/26/11
Original
1 of 1

NOTES:

- 1. DO NOT SCALE THIS DRAWING.
- 2. ALL DIMENSIONS ARE IN INCHES.
- 3. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



ASSEMBLY VIEW



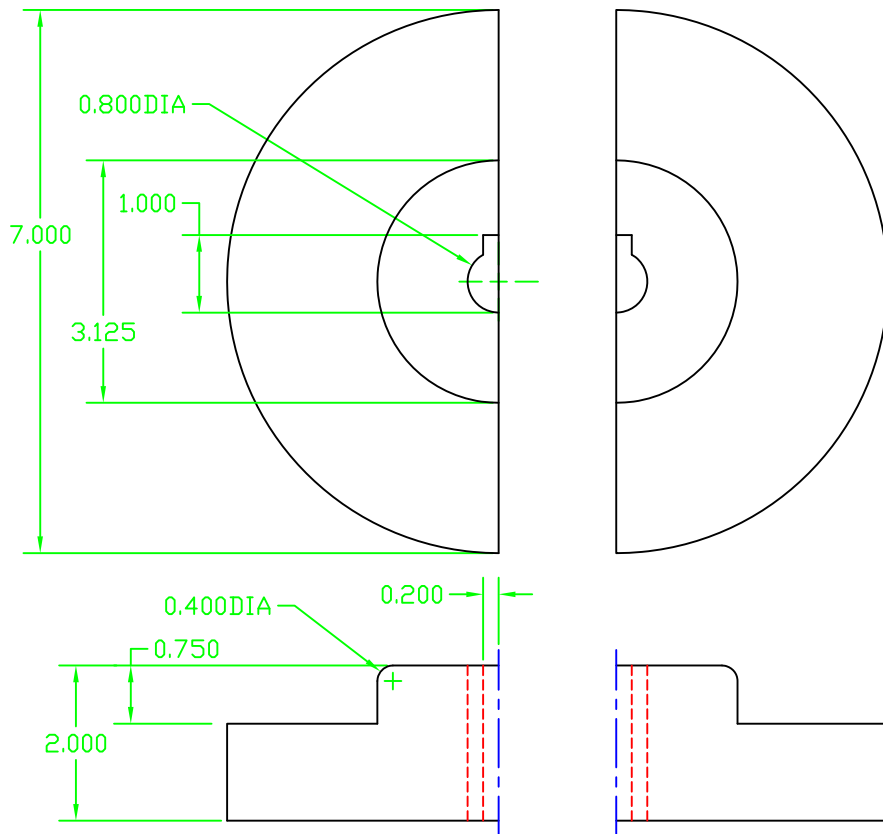
Arconic Power and Propulsion

TEST FIXTURE MANUAL

1" EXTENSOMETER FIXTURE ASSEMBLY

TF 68A
10/26/11
Original
1 of 1

- NOTES:
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL: B3 (PYROTEK)
4. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

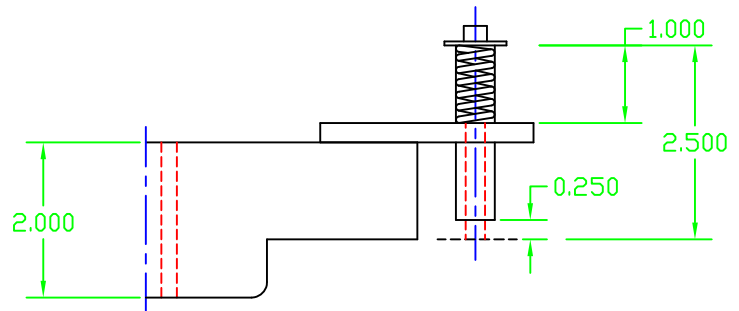
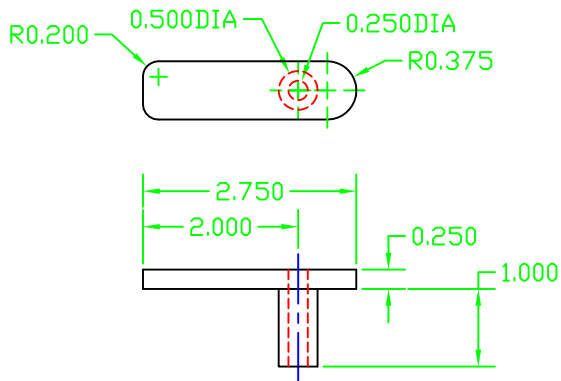
TEST FIXTURE MANUAL

S/R FURNACE INSULATION

TF 69
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



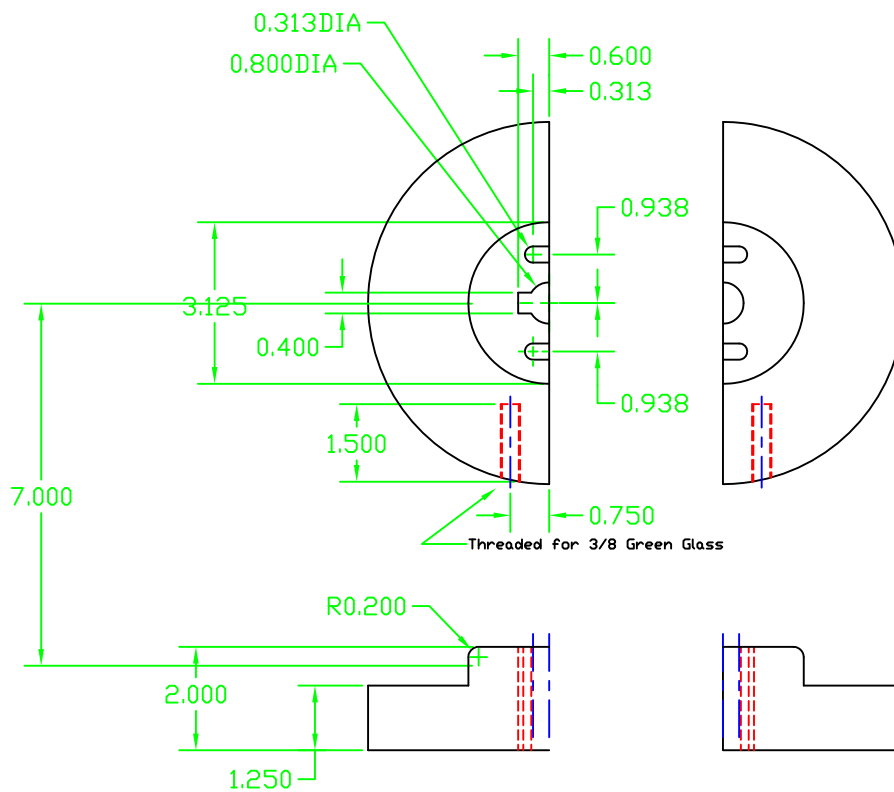
**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

CLAMP FOR FURNACE INSULATION

TF 69A
10/26/11
Original
1 of 1

- NOTES:
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL: B3 (PYROTEK)
4. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

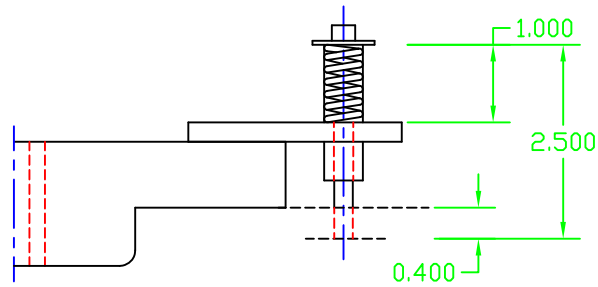
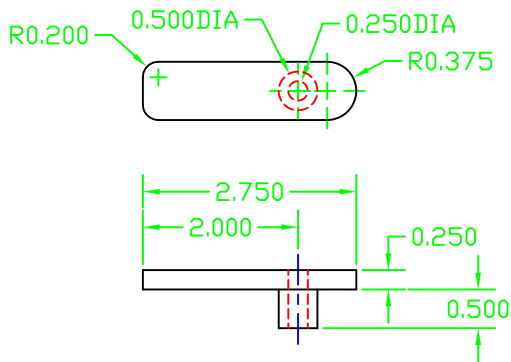
TEST FIXTURE MANUAL

C/R FURNACE INSULATION

TF 70
10/26/11
Original
1 of 1

NOTES:

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN INCHES.
3. MATERIAL: B3 (PYROTEK)
4. TOLERANCE TO BE $-0.000/+0.005$, UNLESS OTHERWISE SPECIFIED.



**Arconic Power and
Propulsion**

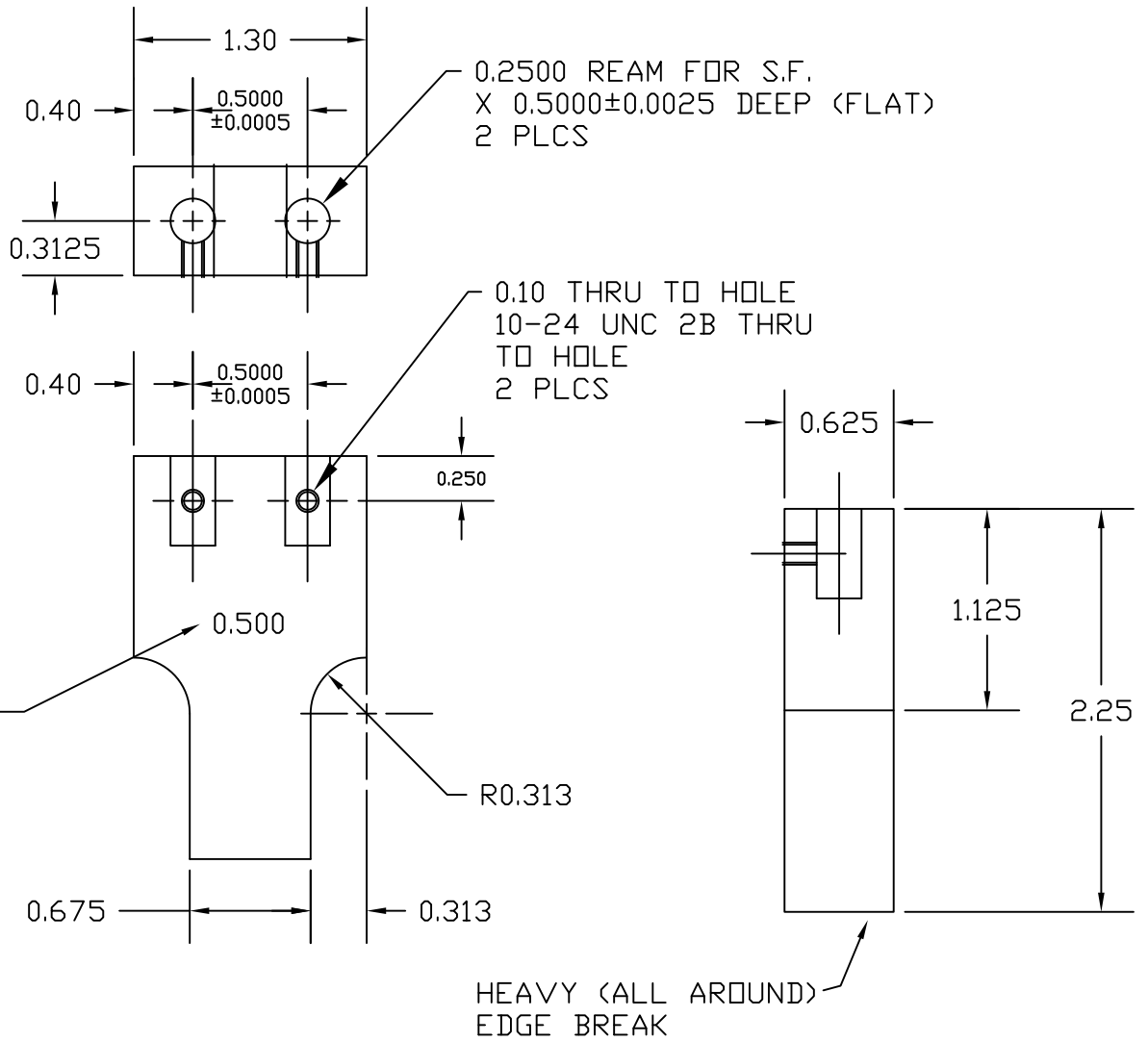
TEST FIXTURE MANUAL

C/R FURNACE INSULATION

TF 70A
10/26/11
Original
1 of 1

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES
- 2. MATERIAL: S-7 TOOL STEEL



**Arconic Power and
Propulsion**

TEST FIXTURE MANUAL

TF 71
09/14/11
Original
1 of 1

.500" WIDE PUNCH