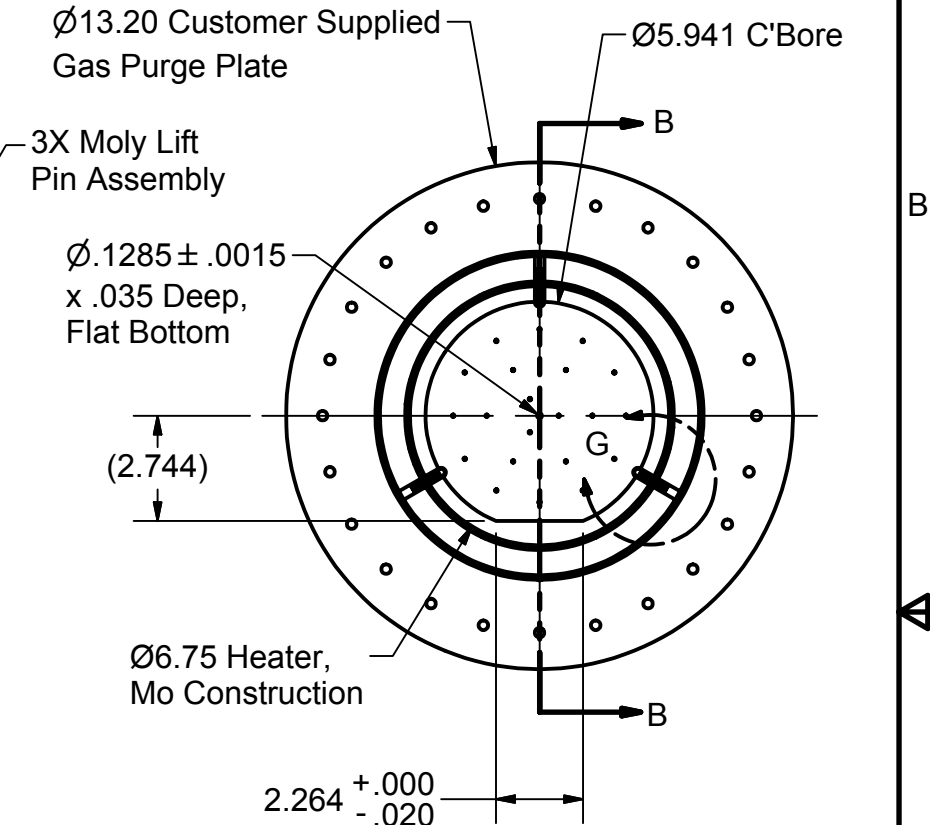
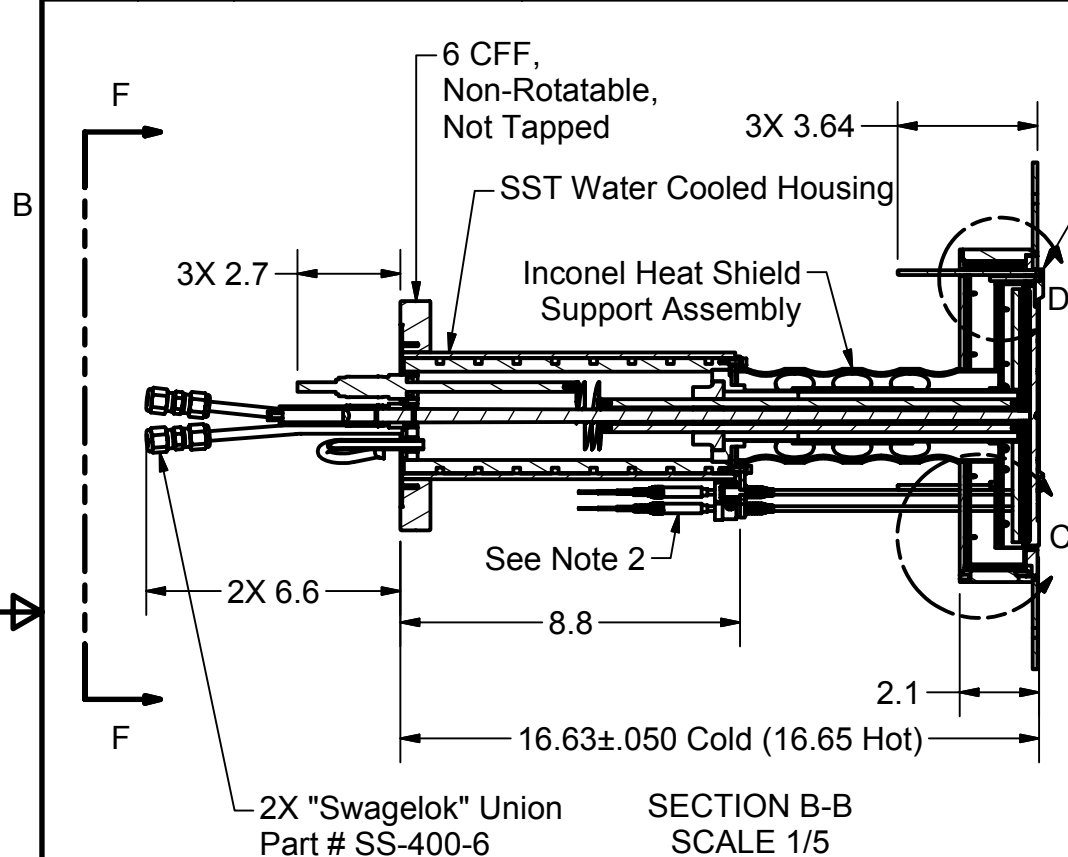


PARTS LIST

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|---------------------------------|
| 1 | 1 | 105861 | Ø6.0 Wafer Heater Assembly, BOM |

REVISION HISTORY

| REV | DESCRIPTION | DATE | APPROVE |
|-----|---------------------|---------|---------|
| A | Changed pad design. | 1/19/10 | MC |



Notes:

1. Estimated operation:

- Inner Zone:
 - 16.9V, 26.7A @ 800°C
 - 22.9V, 31.5A @ 1000°C
- Outer Zone:
 - 11.1V, 26.7A @ 800°C
 - 15.1V, 31.5A @ 1000°C

2. Thermocouples are Type "K", Inconel sheathed with Kapton insulated leads that will be terminated to thermocouple feedthrus. They Are positioned on a Ø5.5 and Ø4.0 BHC.

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| | |
|------------------|------------|
| DRAWN mcurtis | 10/13/2009 |
| CHECKED | |
| QA | |
| MFG | |
| APPROVED | |
| Material: | |
| - | |

HeatWave Labs, Inc.
 195 Aviation Way, Suite 100 P: 831-722-9081
 Watsonville, CA 95076 F: 831-722-5491
 www.cathode.com

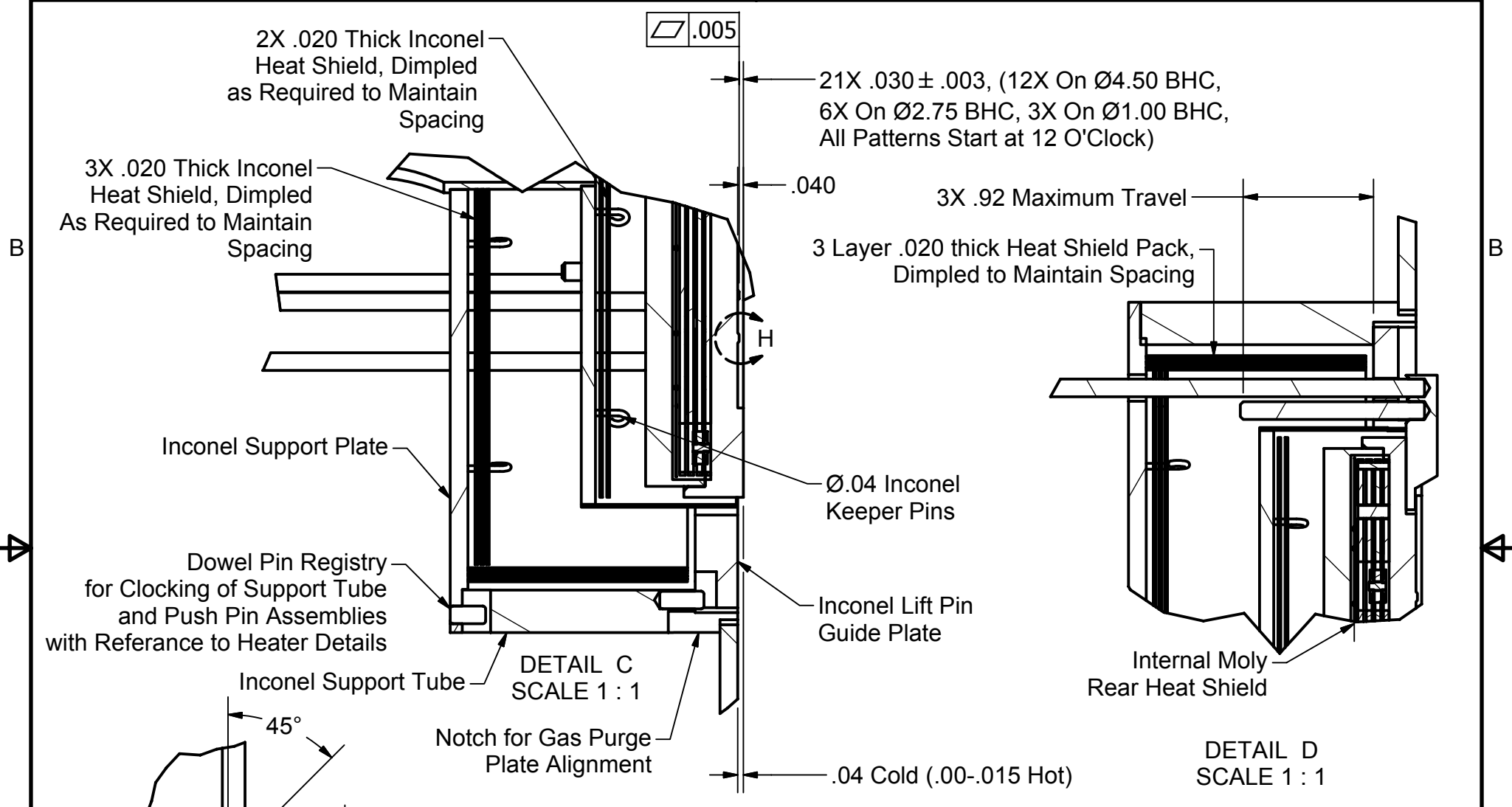
Ø6.0 Wafer Heater, 1100°C UHV, Sealed

| | | | |
|--------------|---------------------|------------------|----------|
| SIZE A | Cage Code: 1YAN4 | DWG NO 105656 | REV A |
| SCALE 1/5 | SHEET 1 OF 4 | | |

2

1

105656



A

A

DETAIL H
SCALE 4 : 1

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| | |
|------------------|------------|
| DRAWN mcurtis | 10/13/2009 |
| CHECKED | |
| QA | |
| MFG | |
| APPROVED | |

| | | | |
|--|------------------|---|--|
| HeatWave Labs, Inc. | | 195 Aviation Way, Suite 100 P: 831-722-9081 Watsonville, CA 95076 F: 831-722-5491 www.cathode.com | |
| Ø6.0 Wafer Heater, 1100°C UHV, Sealed | | | |
| SIZE A | DWG NO 105656 | REV A | |
| SCALE | SHEET 2 OF 4 | | |

2

1

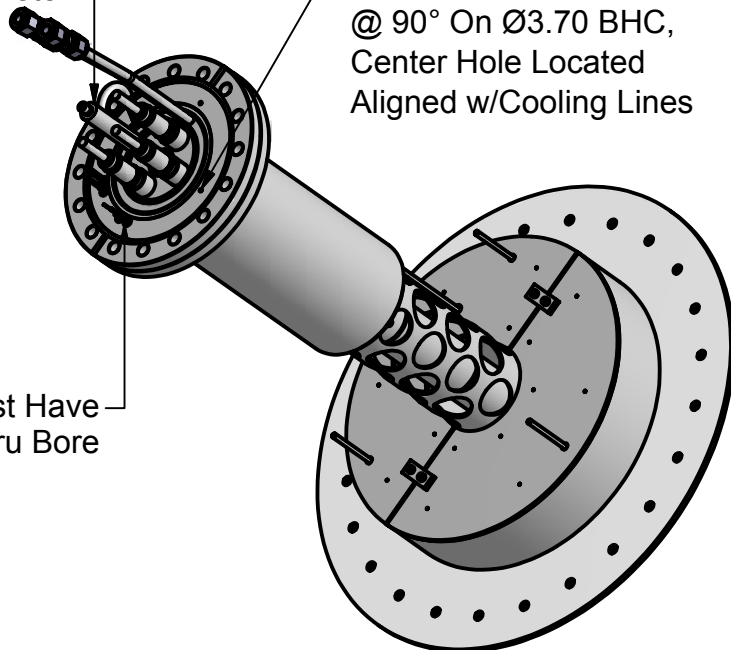




Shown with Customer Supplied Pyrometer

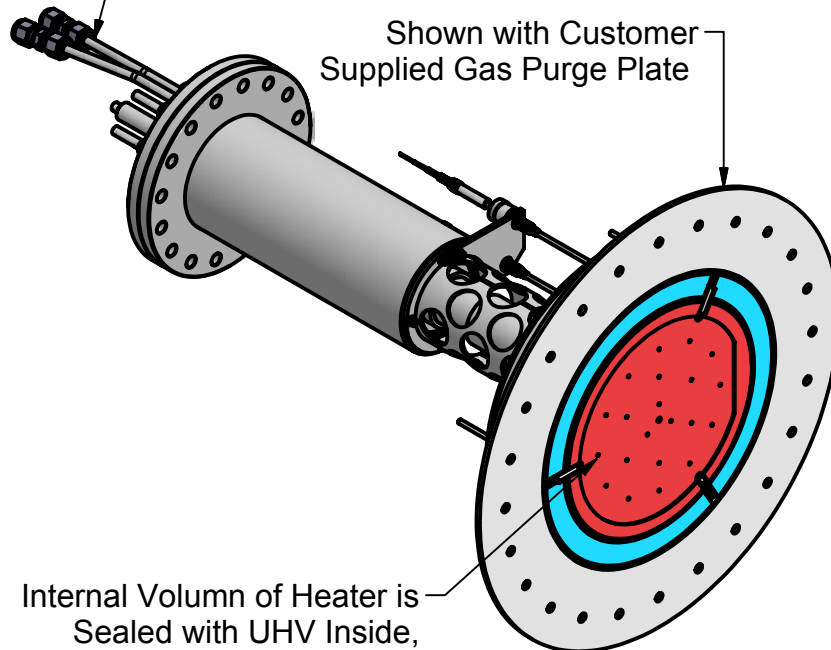
4-40 UNC - 2B ∇ .250 @ 90° On $\text{Ø}3.70$ BHC, Center Hole Located Aligned w/Cooling Lines

Mating CFF Must Have $\text{Ø}4.0$ Minimum Thru Bore



2X $\text{Ø}1/4$ Water Cooling Line

Shown with Customer Supplied Gas Purge Plate



Internal Volumn of Heater is Sealed with UHV Inside, Sealed w/Pinch Off Tube Loacted at CFF End

B

B



A

A

| | |
|------------------|------------|
| DRAWN mcurtis | 10/13/2009 |
| CHECKED | |
| QA | |
| MFG | |
| APPROVED | |
| | |

| | | | |
|--|--------|---|--|
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| $\text{Ø}6.0$ Wafer Heater, 1100°C UHV, Sealed | | | |
| SIZE | DWG NO | REV | |
| A | 105656 | A | |
| SCALE | 1/4 | SHEET 3 OF 4 | |

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2

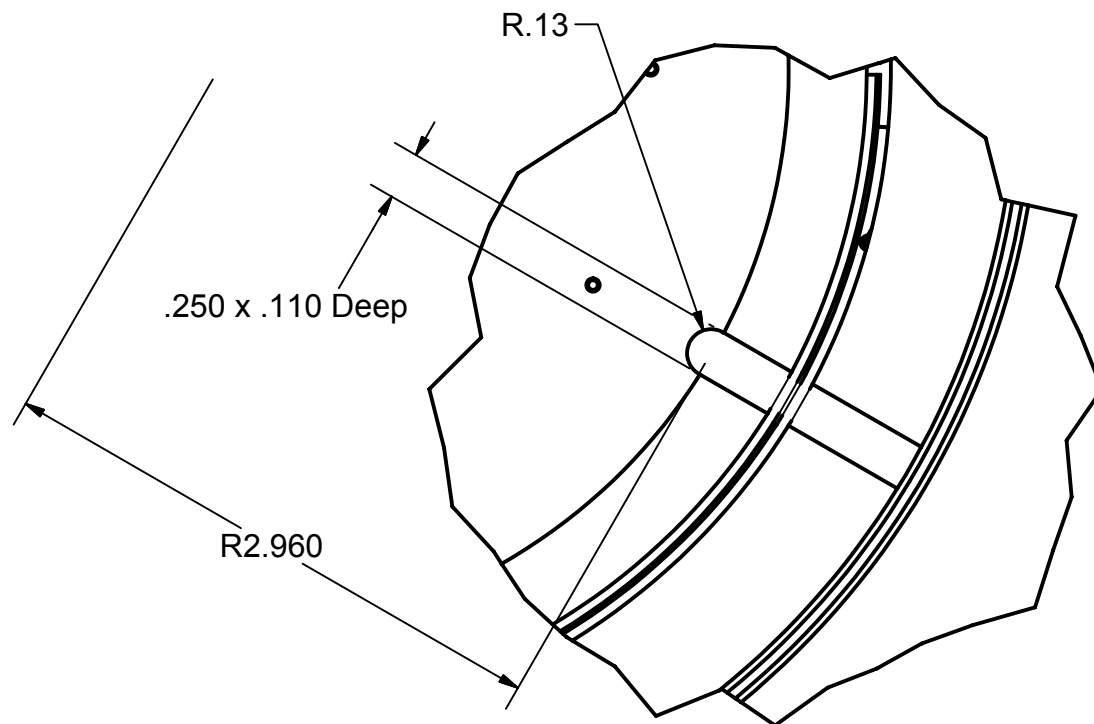


1

105656

B

B



DETAIL G
SCALE 1 : 1

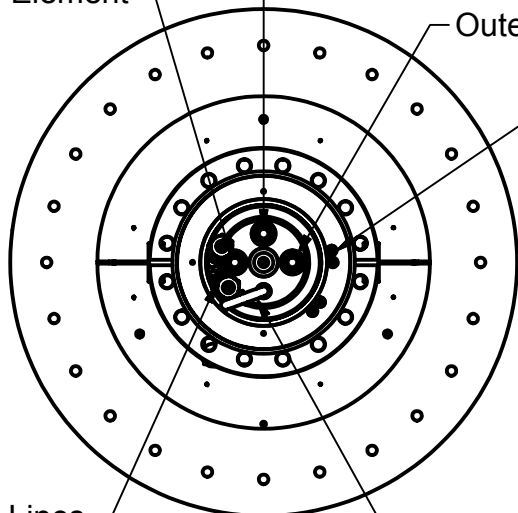
This view shown without Lift Pin

3X Ø1/4 Cu Power
Feedthru, Center Tap

Inner Element

Outer Element

2X Type K Thermocouple
Feedthru, Mini Connector



VIEW F-F
SCALE 1/5

Vacuum
Pinch Off

| | |
|------------------|------------|
| DRAWN mcurtis | 10/13/2009 |
| CHECKED | |
| QA | |
| MFG | |
| APPROVED | |
| | |

| | | | |
|----------------------------|------------------|---|--|
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| | | Ø6.0 Wafer Heater, 1100°C UHV, Sealed | |
| SIZE A | DWG NO 105656 | REV A | |
| SCALE | SHEET 4 OF 4 | | |

A

A

2



1