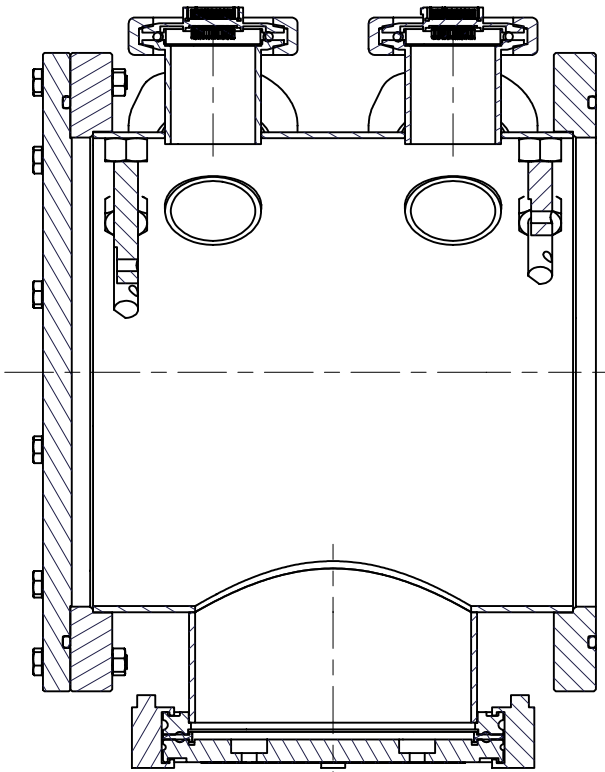
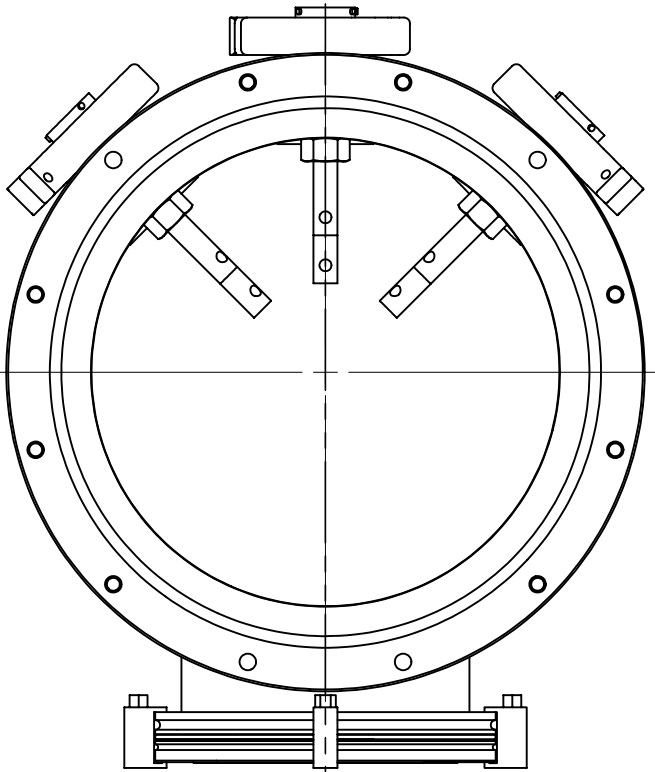


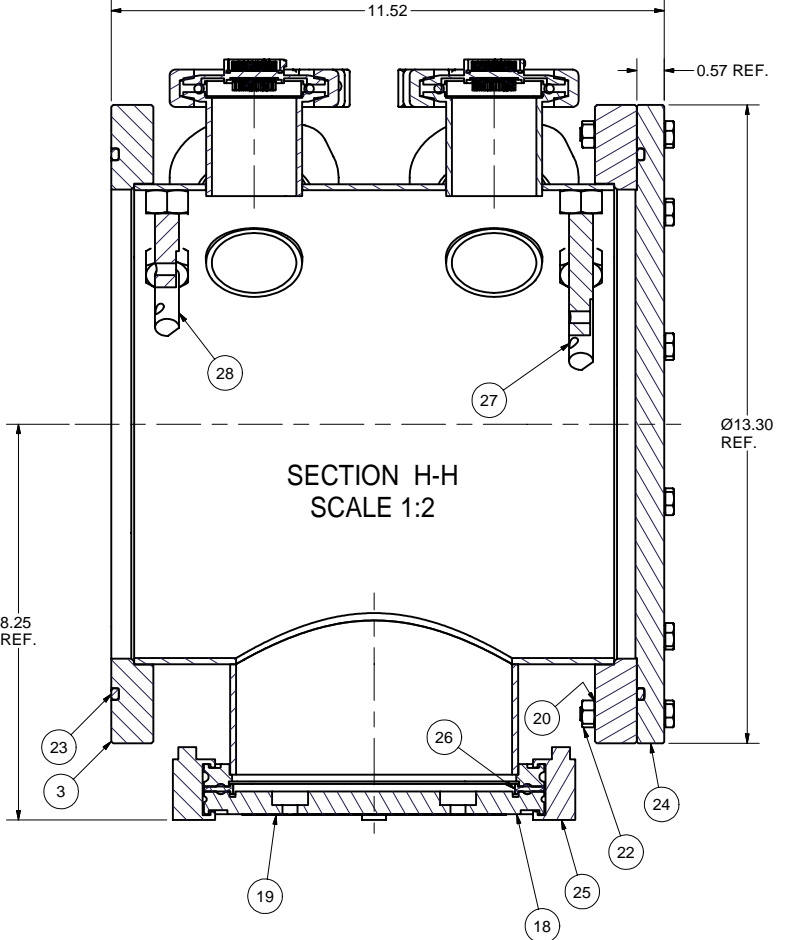
| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION   | DATE    | APP. |
| A         |      | General nomenclature edits to clarify quantities. This sheet was sheet 2. | 2/29/08 | TIO  |



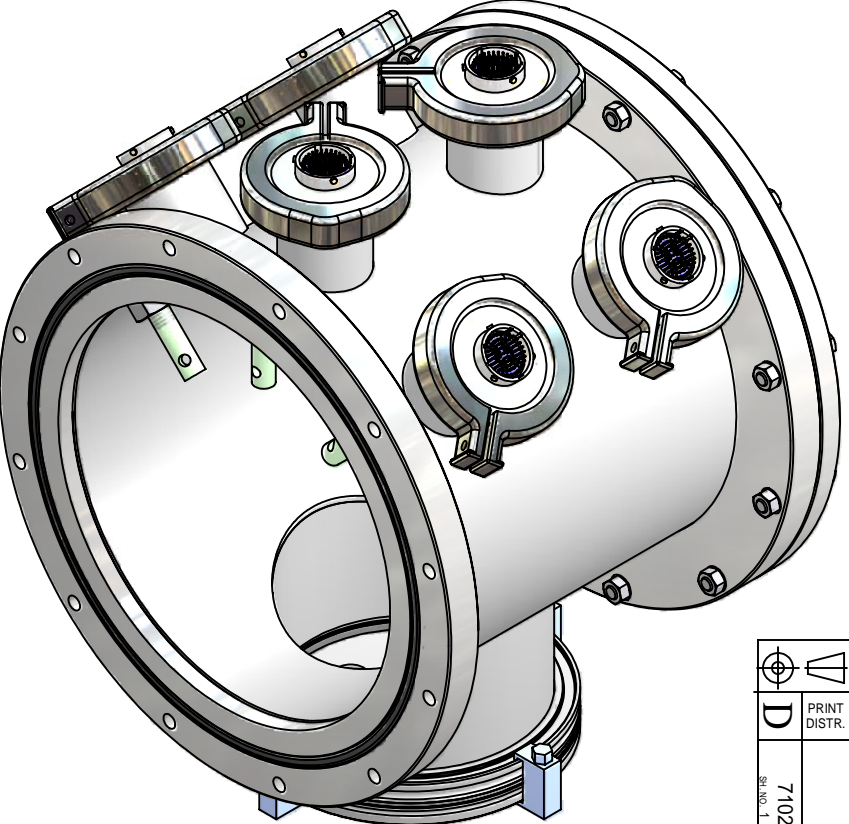
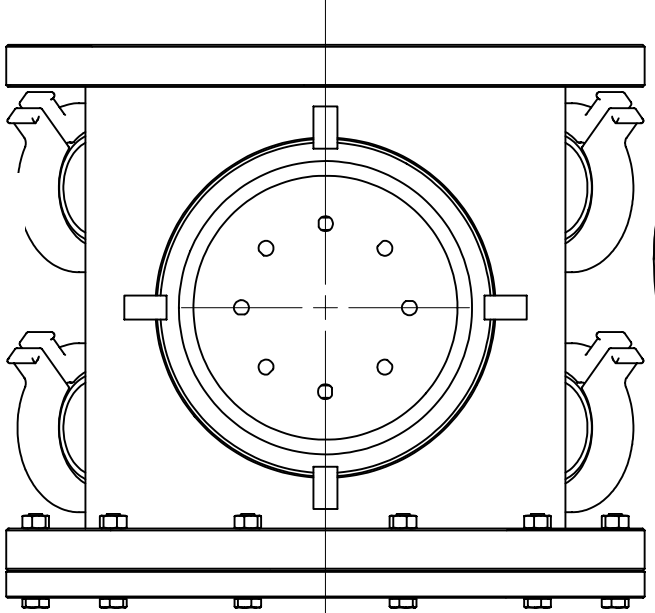
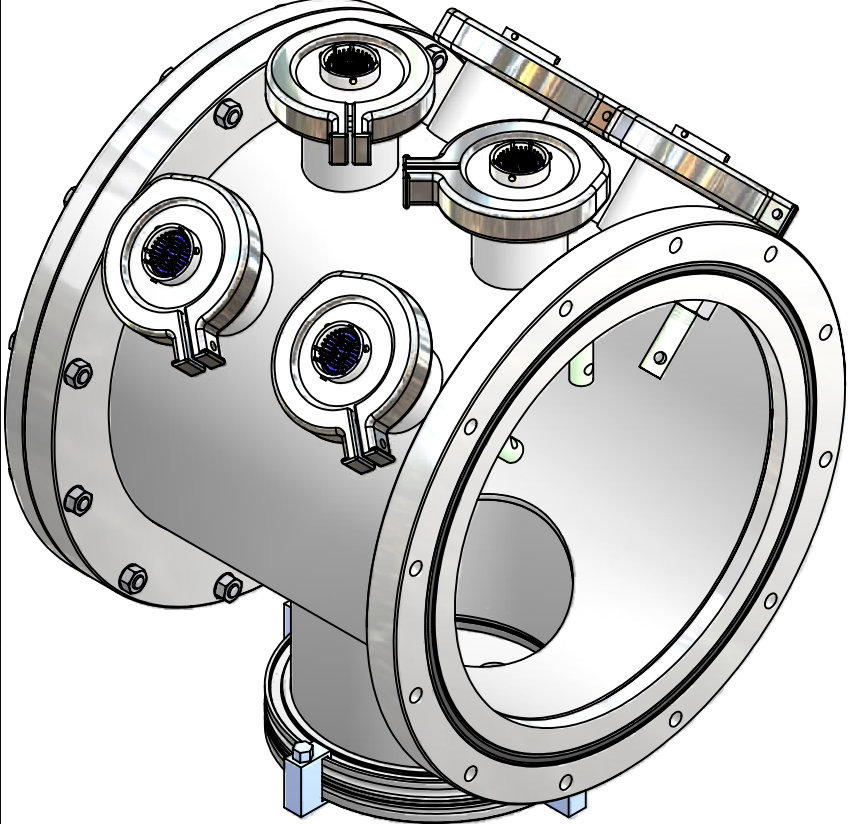
SECTION J-J  
SCALE 1:2



SECTION H-H  
SCALE 1:2











SECTION H-H  
SCALE 1:2



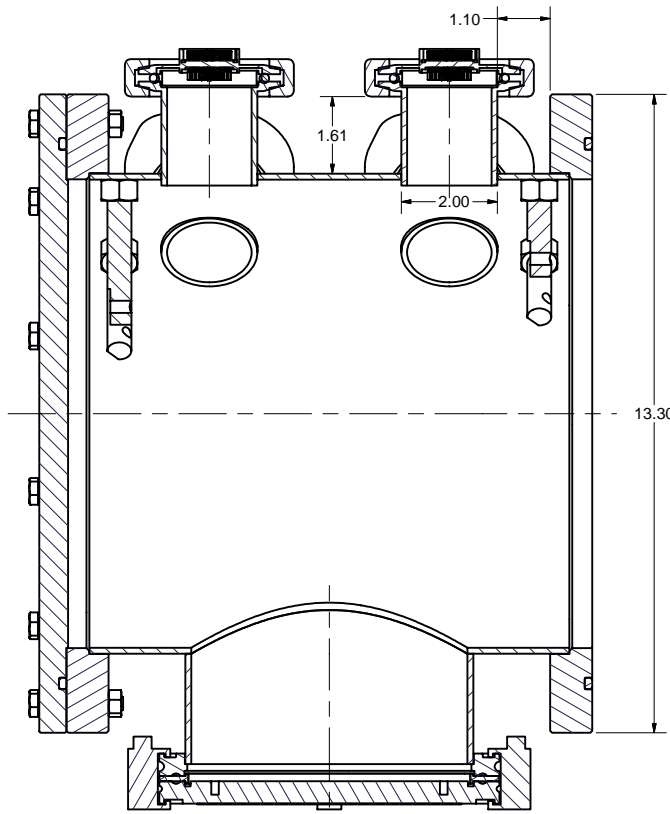
2 300K SENSOR INTERFACE FOR ICM-8 SMA, ASM  
FILE NAME: 7102-082  
SHEET NO.: 1  
DFT. SCALE: 1:2  
MATERIAL: AS NOTED  
QTY: 2 PER CRYOMODULE  
NOTES: This sub-assy bolts directly to the cryomodule.

Quantities in parts list below reflect parts required to build 1 complete sub-assy item #2.

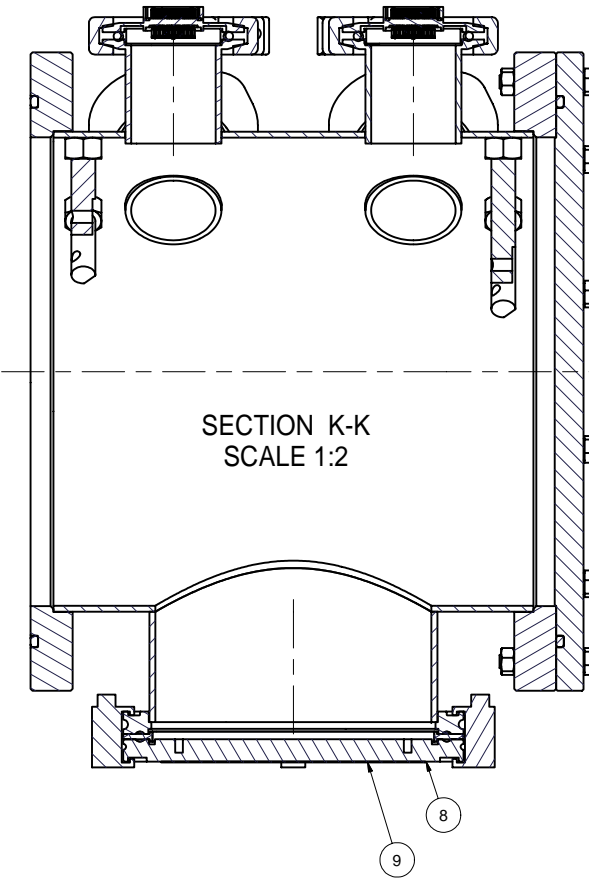
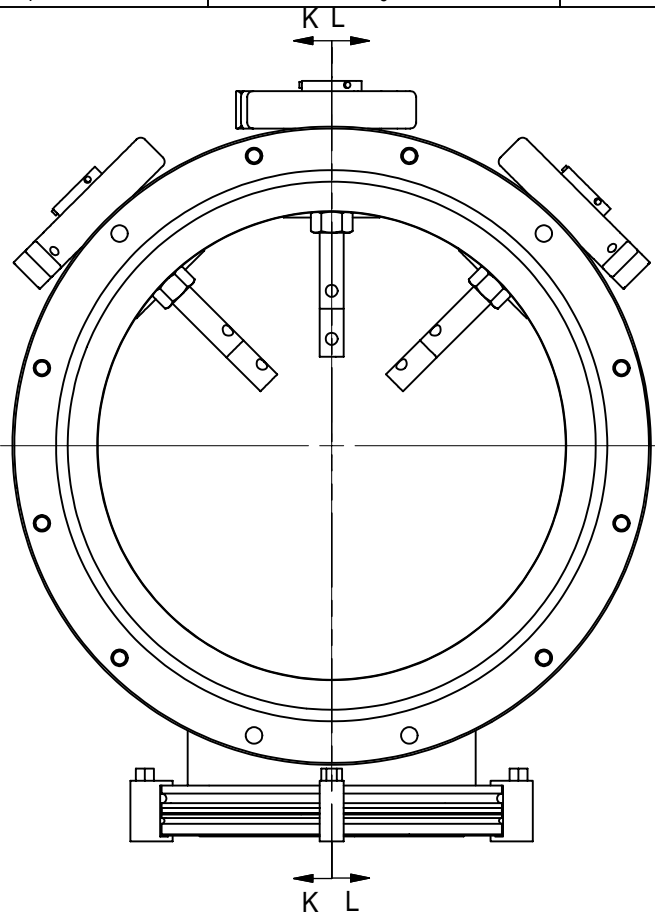
|    |                  |                                     |    |  |  |  |  |                  |  |
|----|------------------|-------------------------------------|----|--|--|--|--|------------------|--|
| 28 | Sh.8             | G10 Wire Support-2                  | 3  |  |  |  |  |                  |  |
| 27 | Sh.8             | G10 Wire Support-1                  | 3  |  |  |  |  |                  |  |
| 26 |                  | MDC-810022                          | 2  |  |  |  |  |                  |  |
| 25 |                  | MDC-802002                          | 4  |  |  |  |  |                  |  |
| 24 | 7110-018 item #6 | Input Coupler Port Blank 13.30 Dia. | 1  |  |  |  |  |                  |  |
| 23 |                  | 11.0 ID x 3/16 W (#379) O-RING      | 2  |  |  |  |  | Purchase         |  |
| 22 |                  | 5/16-24UNC Hex Nut                  | 12 |  |  |  |  | Stn Stl Purchase |  |
| 21 |                  | 5/16-24UNC Hex Cap Screw X 1.75 Lg  | 12 |  |  |  |  | Stn Stl Purchase |  |
| 20 |                  | Helical Spring Lock Washer 5/16     | 12 |  |  |  |  | Purchase         |  |
| 19 | Sh.8             | SMA-D-Hole (8) Shim 0.015" Thk SS   | 1  |  |  |  |  |                  |  |
| 18 | Sh.8             | Modified ISO160 - 8 Holes           | 1  |  |  |  |  |                  |  |
| 3  | Sh.3             | Sensor Interface Weldment, Sub-Asm  | 1  |  |  |  |  |                  |  |

|   | ITEM  | DWG. NO.   | DESCRIPTION   |          |           | G1  | G2       | G3 | REMARKS                        | REV.      |
|---|---|--|---|----------|-----------|---|----------|----|--------------------------------|-----------|
|   |   |  |   |          |           |   | QUANTITY |    |                                |           |
|   | PRINT<br>DISTR.   | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |   |          |           |   |          |    |                                |           |
| 7102-082<br>SH. NO. 1<br>OF 11  |   | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES;<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES  | <br>CORNELL UNIVERSITY<br>FLOYD R. NEWMAN LABORATORY<br>Ithaca, NY 14853 |          |           | ICM 300K Sensor Interface<br>Asm Using 8 Hole Modified ISO160 |          |    |                                |           |
|   |   |  |   |          |           |   |          |    |                                |           |
|   |   | REV.<br>A  | CHECKED BY: PGQ   | DRAWN BY | DRAWN FOR | DATE  | SCALE    | D  | 7102-082<br>SH. NO. 1<br>OF 11 | REV.<br>A |
| APPROVED BY: PGQ  | TMK   | PQ   | 1/22/2008   |          |           |   |          |    |                                |           |

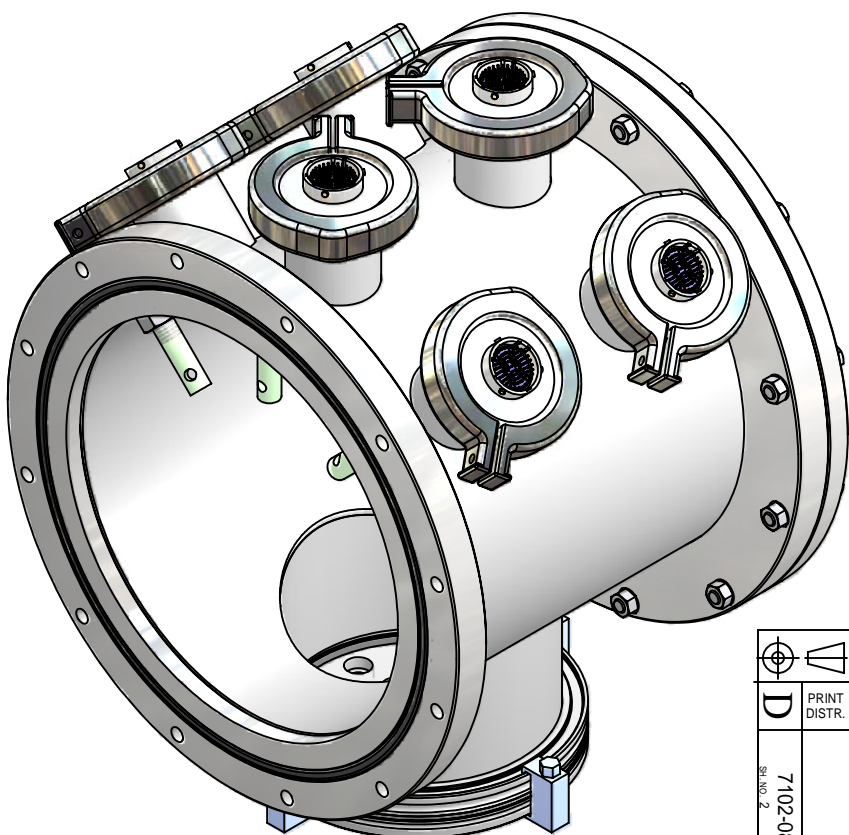
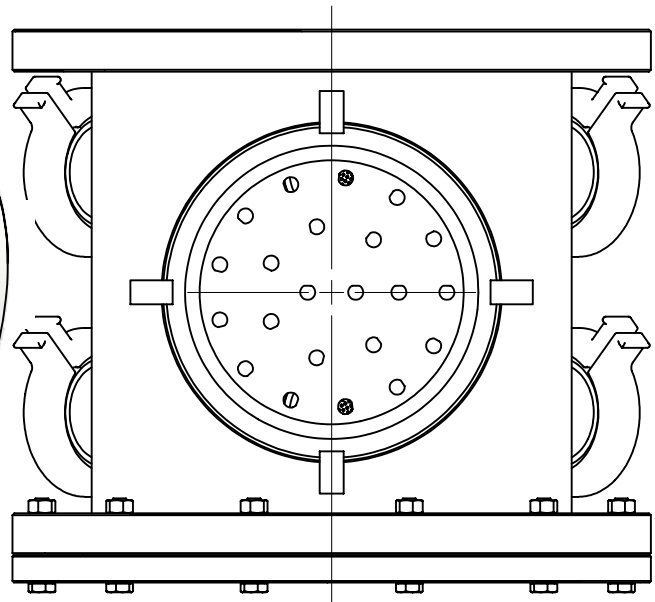
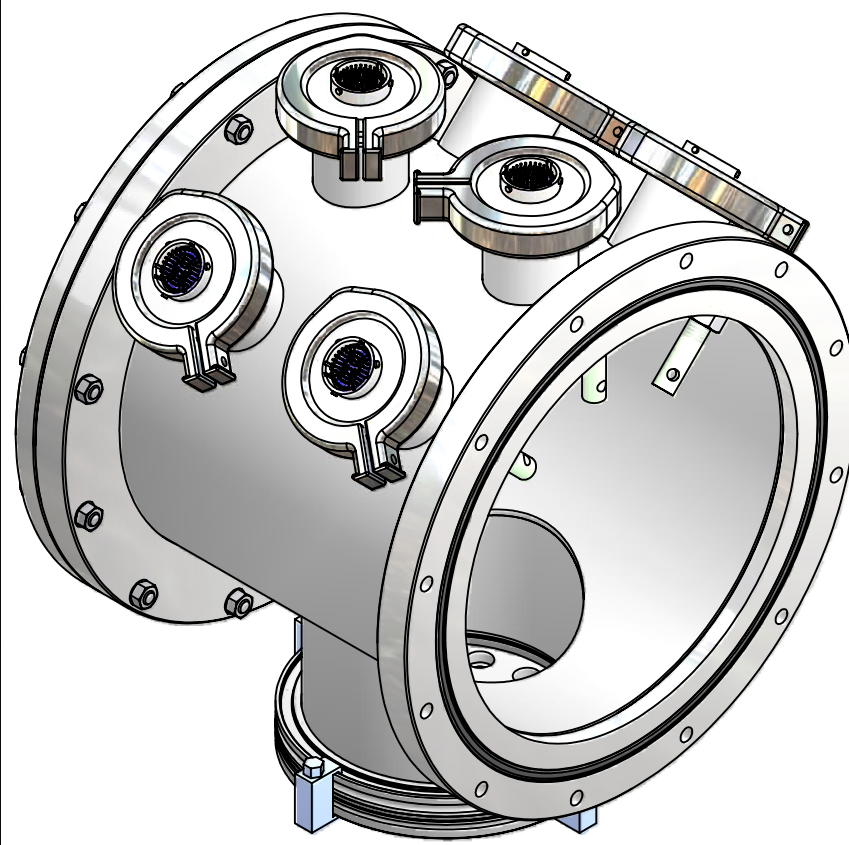
| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION   | DATE    | APP. |
| A         |      | General nomenclature edits to clarify quantities. This sheet was sheet 1. | 2/29/08 | TIO  |



SECTION L-L  
SCALE 1:2







SECTION K-K  
SCALE 1:2



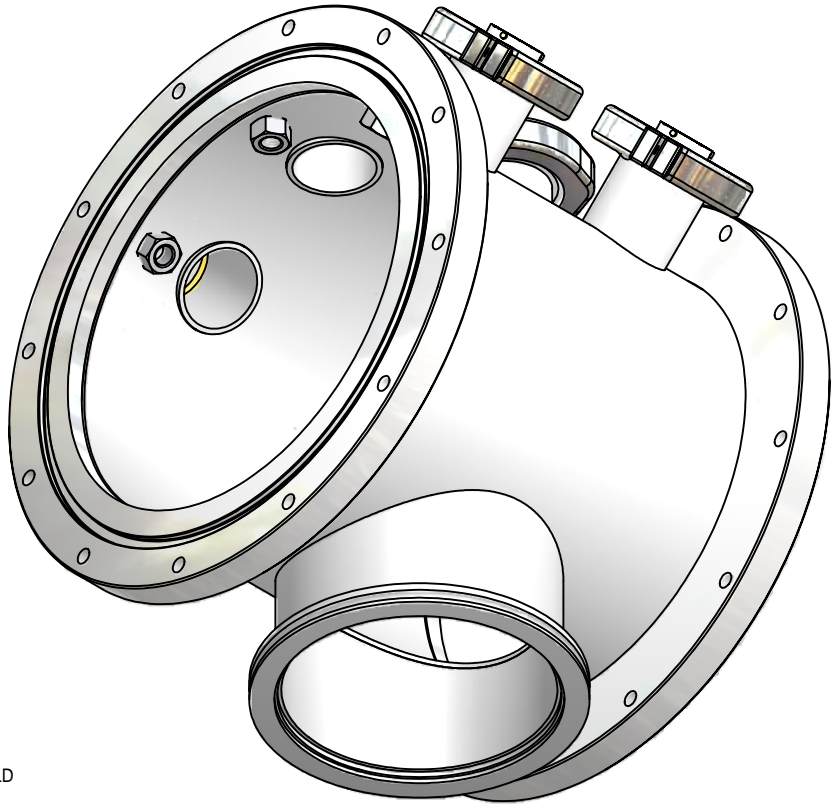
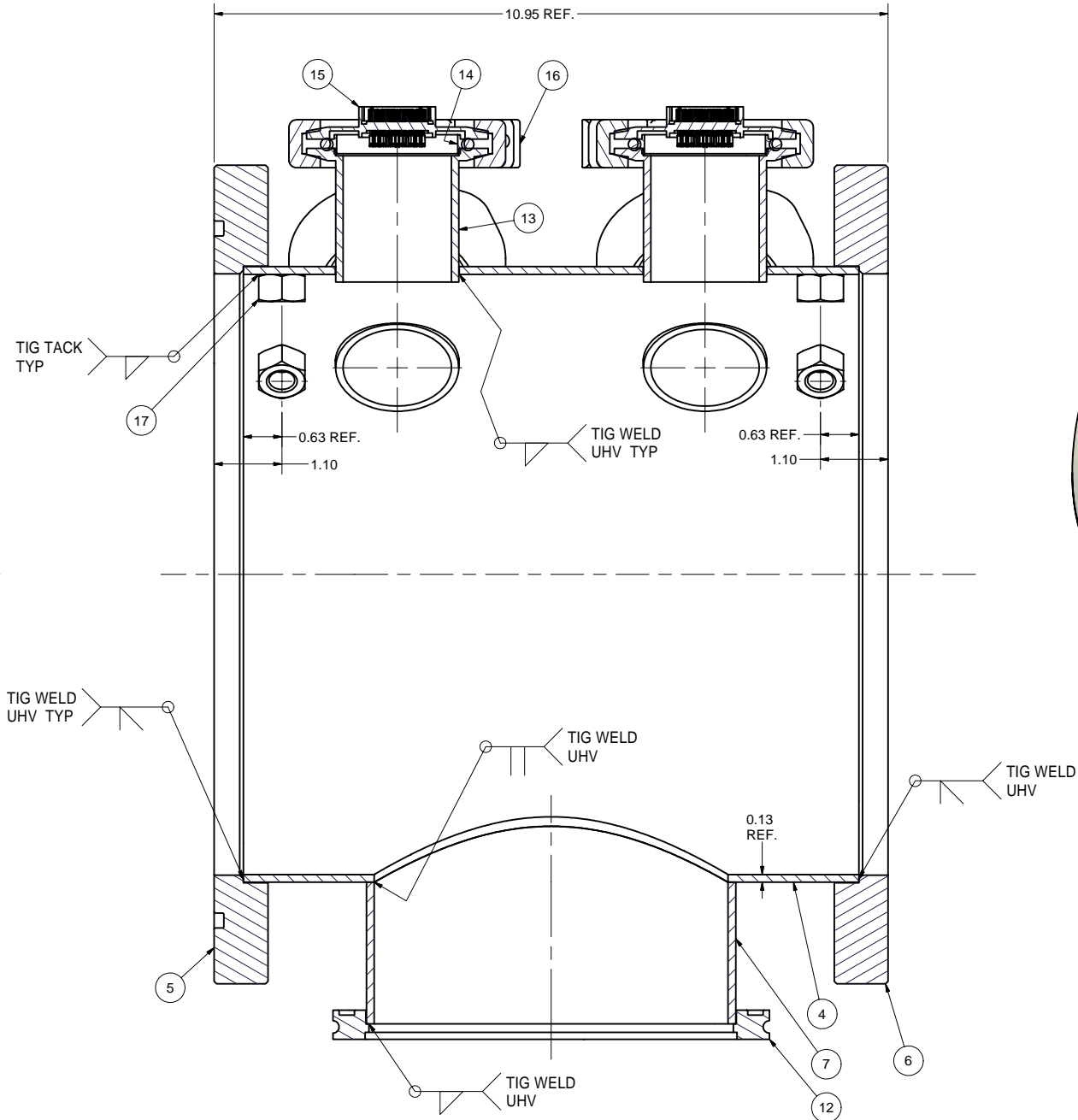
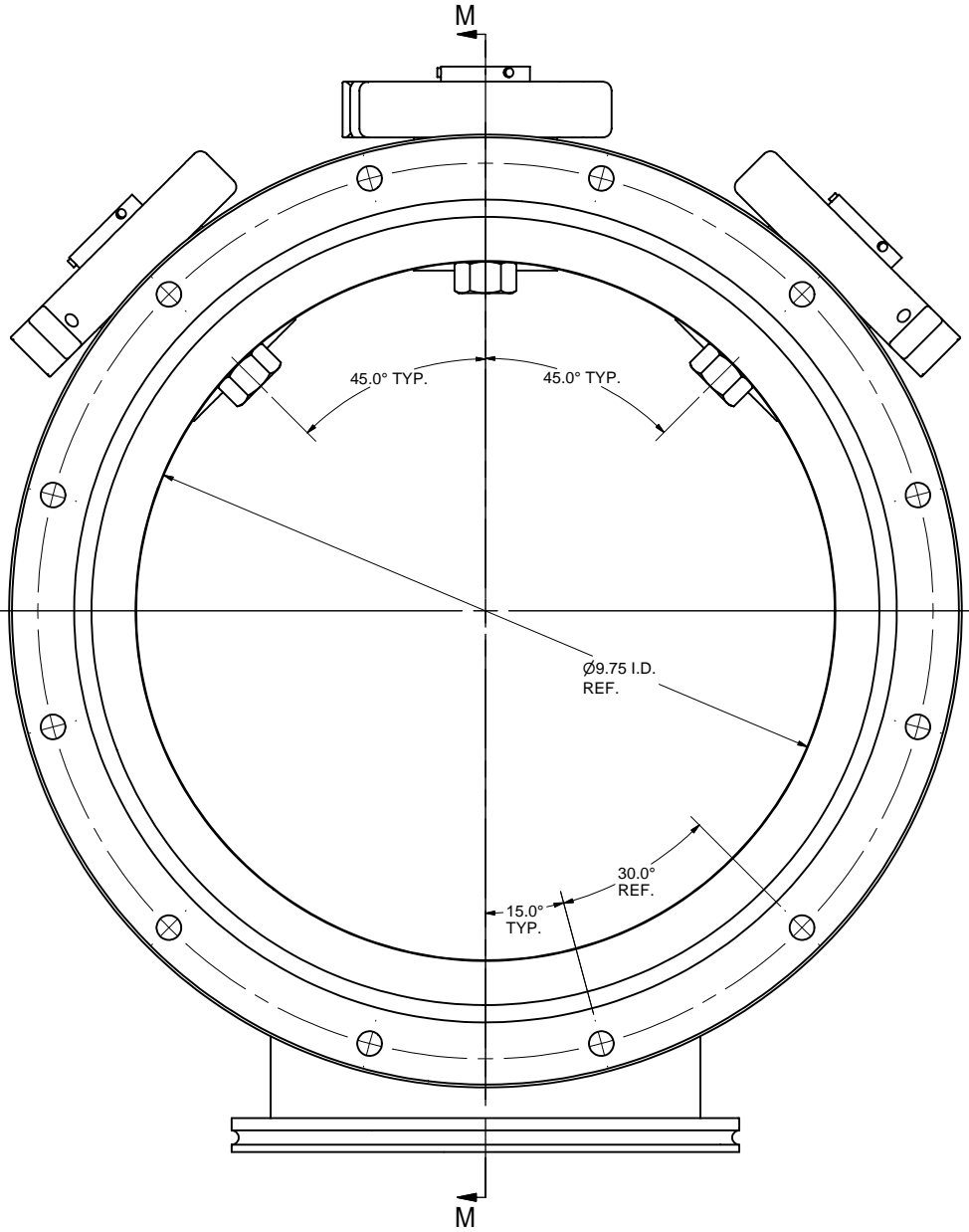
1 300K SENSOR INTERFACE FOR ICM-21 SMA, ASM  
FILE NAME: 7102-082  
SHEET NO.: 2  
DFT. SCALE: 1:2  
MATERIAL: As Noted  
QTY: 3 PER CRYOMODULE  
NOTES: This sub-assy bolts directly to the cryomodule.

NOTE: ITEM 1 IS THE SAME AS ITEM 2 BUT  
REPLACE PARTS 18+19 WITH PARTS 8+9

|   |   |  |                 |                              |          |  |    |                |      |  |
|---|---|--|-----------------|------------------------------|----------|--|----|----------------|------|--|
|   |   | 9  | Sh.7            | SMA 'D' Hole Shim - 22 Holes | 1        |  |    | 1 per sub-assy |      |  |
|   |   | 8  | Sh.7            | Modified ISO160 - 22 holes   | 1        |  |    | 1 per sub-assy |      |  |
|  |  | ITEM   | DWG. NO.        | DESCRIPTION                  | G1       | G2   | G3 | REMARKS        | REV. |  |
|   |   |  |                 |                              | QUANTITY |  |    |                |      |  |
|  | PRINT<br>DISTR.   | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |                 |                              |          |  |    |                |      |  |
|   |   | <div>UNLESS OTHERWISE SPECIFIED:<br/><br/>DIMENSIONS ARE IN INCHES:<br/>TOLERANCES ON:<br/>.0 ± .02<br/>.00 ± .010<br/>.000 ± .005<br/>FRACTIONS ± 1/32<br/>ANGLES ± 0.5°<br/>ALL SURFACES ✓</div> |                 |                              |          | <div><div> CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div><div>ICM 300K Sensor Interface<br/>Asm Using 21 Hole Modified ISO160</div></div> |    |                |      |  |
|   |   |  |                 |                              |          | DRAWN BY<br>TMK  |    |                |      |  |
| SH. NO. 2 OF 11   | 7102-082  | REV.<br>A  | CHECKED BY: PGQ |                              |          |  |    |                |      |  |
|   |   | APPROVED BY: PGQ   |                 |                              |          |  |    |                |      |  |



| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION                                       | DATE    | APP. |
| A         |      | General nomenclature edits to clarify quantities. | 2/29/08 | TIO  |



Quantities in parts list below reflect parts required to build 1 complete sub-assy item #3.

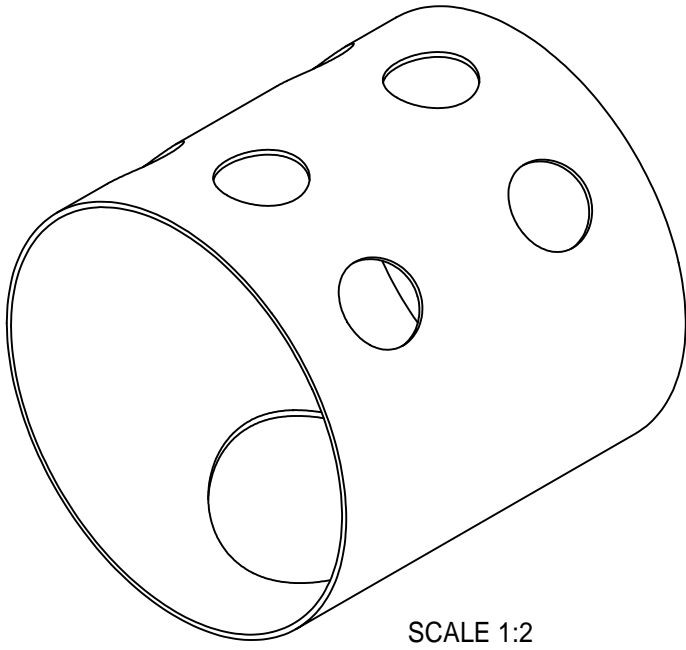
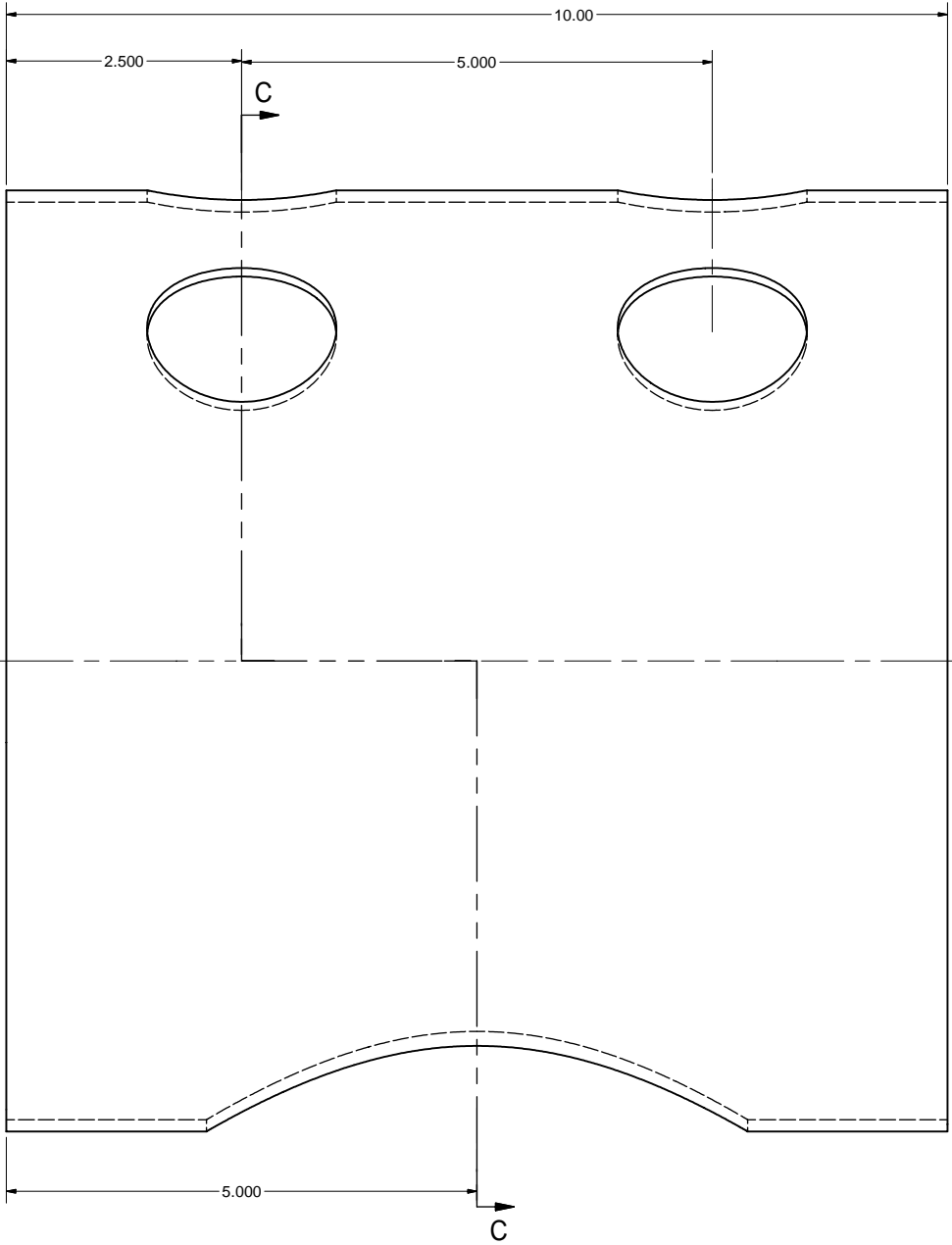
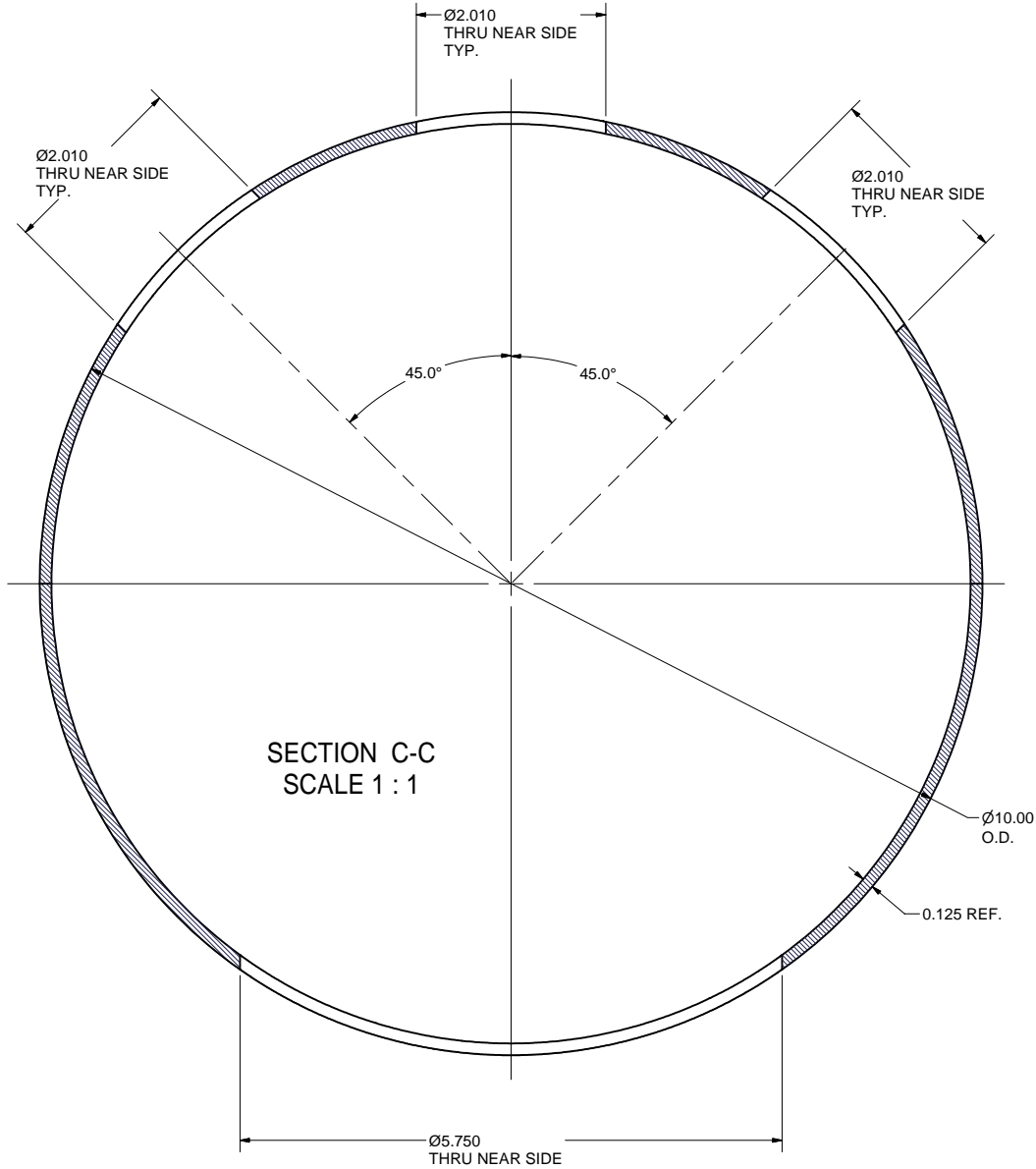
|    |      |                               |   |  |  |          |  |
|----|------|-------------------------------|---|--|--|----------|--|
| 17 | Sh.3 | 1/2-13UNC Hex Nut - Stn Stl   | 6 |  |  | Purchase |  |
| 16 | Sh.3 | K50 Clamp Wingnut             | 6 |  |  | Purchase |  |
| 15 | Sh.3 | CONNECTOR SS900002-20B-35P-27 | 6 |  |  | Purchase |  |
| 14 | Sh.3 | NW50 Gasket Asm               | 6 |  |  | Purchase |  |
| 13 | Sh.3 | K50 Stub 2 Inch               | 6 |  |  | Purchase |  |
| 12 | Sh.3 | ISO 160-MDC                   | 1 |  |  | Purchase |  |
| 7  | Sh.7 | Down Tube                     | 1 |  |  |          |  |
| 6  | Sh.6 | Input Coupler Flange          | 1 |  |  |          |  |
| 5  | Sh.5 | Spool Piece Flange            | 1 |  |  |          |  |
| 4  | Sh.4 | 300K Sensor Interface Body    | 1 |  |  |          |  |

3 SENSOR INTERFACE WELDMENT, SUB-ASM  
FILE NAME: 7102-082  
SHEET NO.: 3  
DFT. SCALE: 3:4  
MATERIAL: AS NOTED  
QTY: 1 PER ASM ITEM 1 AND 1 PER ASM ITEM 2  
NOTES:


| ITEM | DWG. NO. | DESCRIPTION                   | QUANTITY |    |    | REMARKS  | REV. |
|------|----------|-------------------------------|----------|----|----|----------|------|
|      |          |                               | G1       | G2 | G3 |          |      |
| 17   | Sh.3     | 1/2-13UNC Hex Nut - Stn Stl   | 6        |    |    | Purchase |      |
| 16   | Sh.3     | K50 Clamp Wingnut             | 6        |    |    | Purchase |      |
| 15   | Sh.3     | CONNECTOR SS900002-20B-35P-27 | 6        |    |    | Purchase |      |
| 14   | Sh.3     | NW50 Gasket Asm               | 6        |    |    | Purchase |      |
| 13   | Sh.3     | K50 Stub 2 Inch               | 6        |    |    | Purchase |      |
| 12   | Sh.3     | ISO 160-MDC                   | 1        |    |    | Purchase |      |
| 7    | Sh.7     | Down Tube                     | 1        |    |    |          |      |
| 6    | Sh.6     | Input Coupler Flange          | 1        |    |    |          |      |
| 5    | Sh.5     | Spool Piece Flange            | 1        |    |    |          |      |
| 4    | Sh.4     | 300K Sensor Interface Body    | 1        |    |    |          |      |

|  |   |
|--|---|
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES;<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES | <b>CORNELL UNIVERSITY</b><br><b>LEPP</b><br>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS<br>CORNELL UNIVERSITY<br>Floyd R. Newman Laboratory<br>Ithaca, NY 14853<br>ICM 300K Sensor Interface<br>Sensor Interface Weldment, Sub-Asm |
| CHECKED BY: PGQ<br>APPROVED BY: PGQ  | DRAWN BY: TMK<br>DRAWN FOR: PQ<br>DATE: 1/22/2008<br>SCALE: D<br>7102-082<br>SH. NO. 3 OF 11<br>REV. A  |

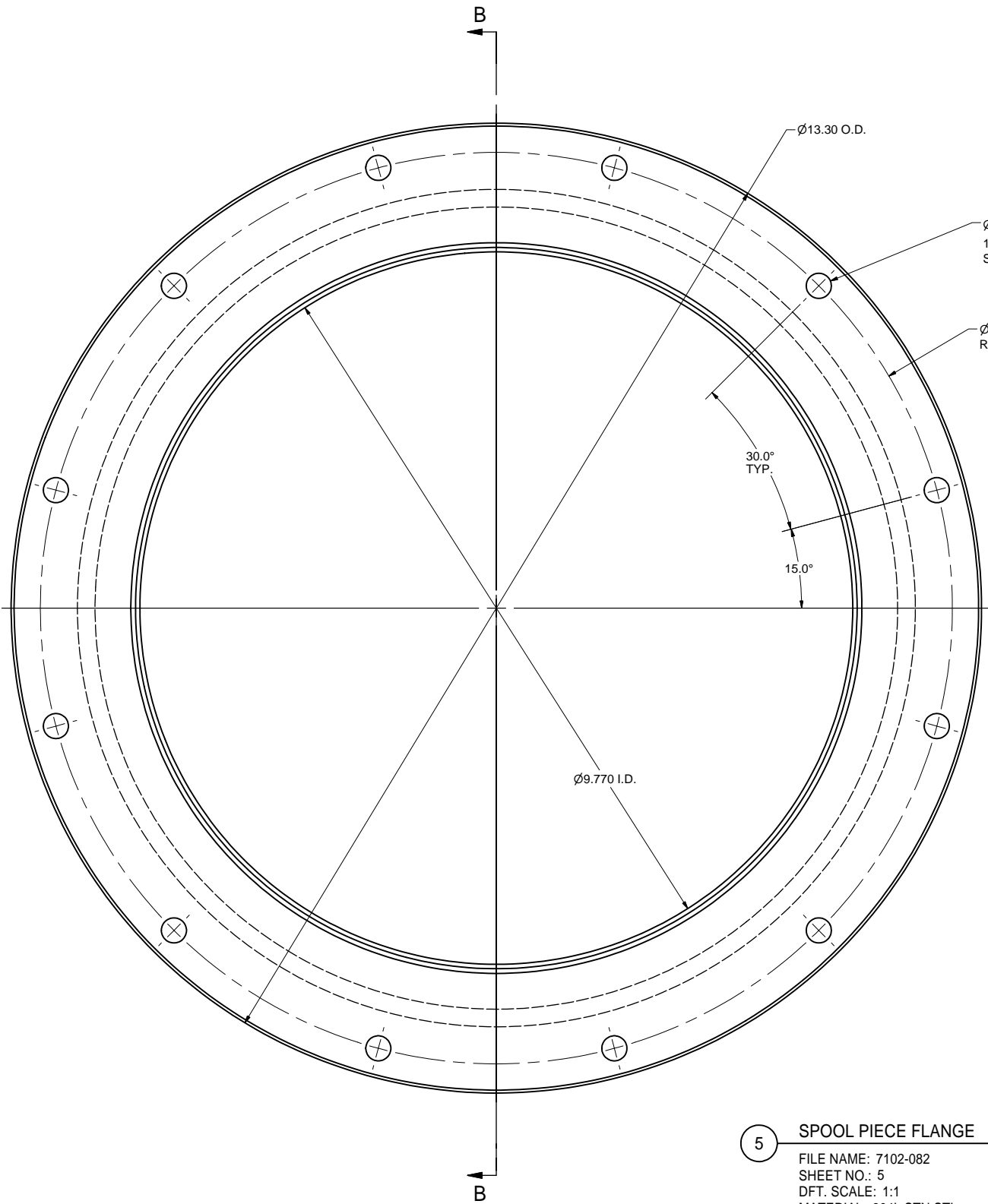
| REVISIONS |      |             |           |
|-----------|------|-------------|-----------|
| SYM.      | ZONE | DESCRIPTION | DATE APP. |



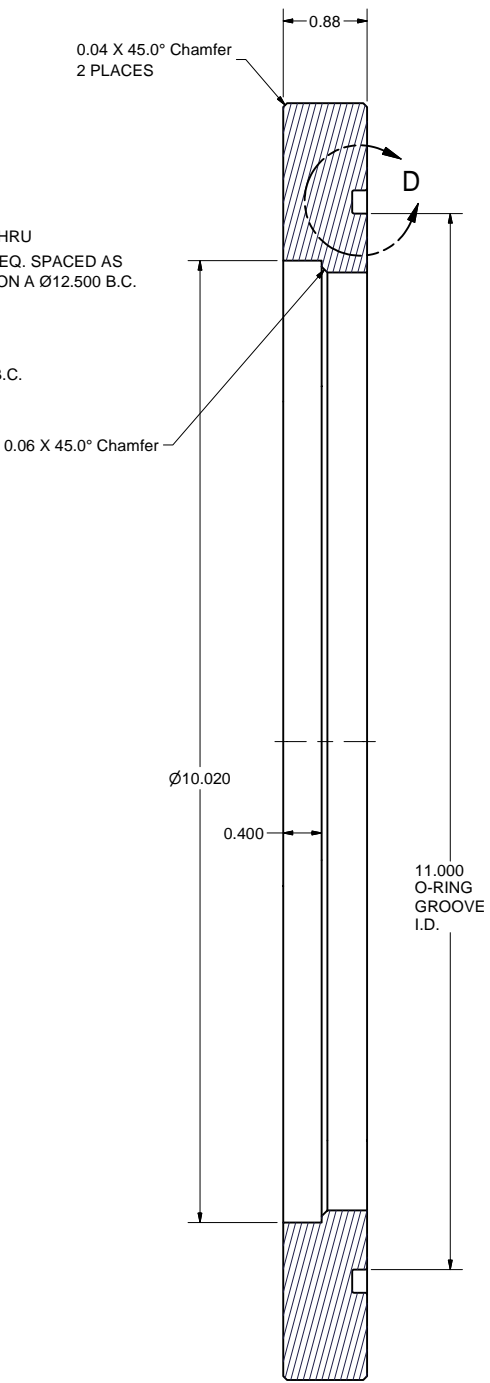
4 300K SENSOR INTERFACE BODY  
FILE NAME: 7102-082  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: .125" THK. 304L STN STL  
QTY: 1 PER ASM  
NOTES:

|   |                 |  |          |   |             |               |  |               |    |                 |         |          |      |                             |
|---|-----------------|--|----------|---|-------------|---------------|--|---------------|----|-----------------|---------|----------|------|-----------------------------|
|  |                 | ITEM   | DWG. NO. |   | DESCRIPTION |               |  | G1            | G2 | G3              | REMARKS |          | REV. |                             |
|   |                 |  |          |   |             |               |  | QUANTITY      |    |                 |         |          |      |                             |
| D   | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |          |   |             |               |  |               |    |                 |         |          |      |                             |
| 7102-082<br>SH. NO. 4<br>OF 11  | REV.            | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES:<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES ✓ |          | <div>CORNELL UNIVERSITY<br/>FLOYD R. NEWMAN LABORATORY<br/>ITHACA, NY 14853</div> <div>ICM 300K Sensor Interface<br/>300K Sensor Interface Body</div> |             |               |  |               |    |                 |         |          |      |                             |
|   |                 |  |          | CHECKED BY: PGQ   |             | DRAWN BY: TMK |  | DRAWN FOR: PQ |    | DATE: 1/22/2008 |         | SCALE: D |      | 7102-082<br>SH. NO. 4 OF 11 |
|   |                 | APPROVED BY: PGQ   |          |   |             |               |  |               |    |                 |         |          |      |                             |

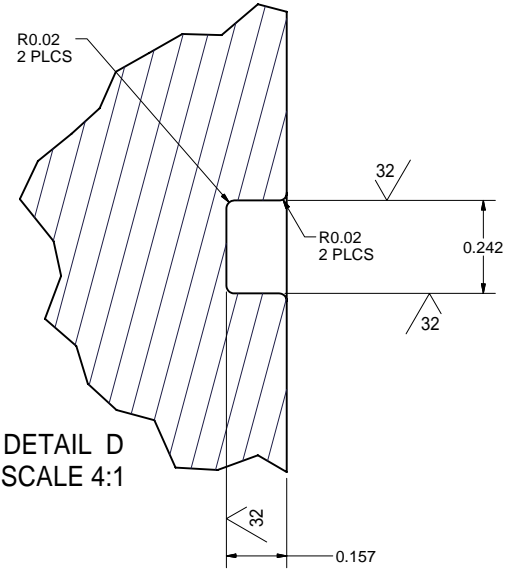
| REVISIONS |      |             |      |      |
|-----------|------|-------------|------|------|
| SYM.      | ZONE | DESCRIPTION | DATE | APP. |







5 SPOOL PIECE FLANGE  
FILE NAME: 7102-082  
SHEET NO.: 5  
DFT. SCALE: 1:1  
MATERIAL: 304L STN STL  
QTY: 1 PER ASM  
NOTES:



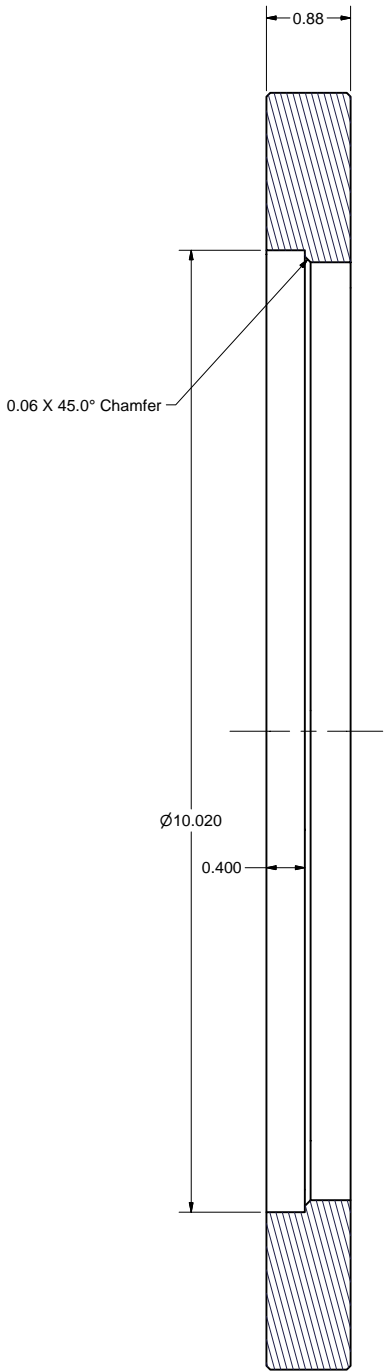
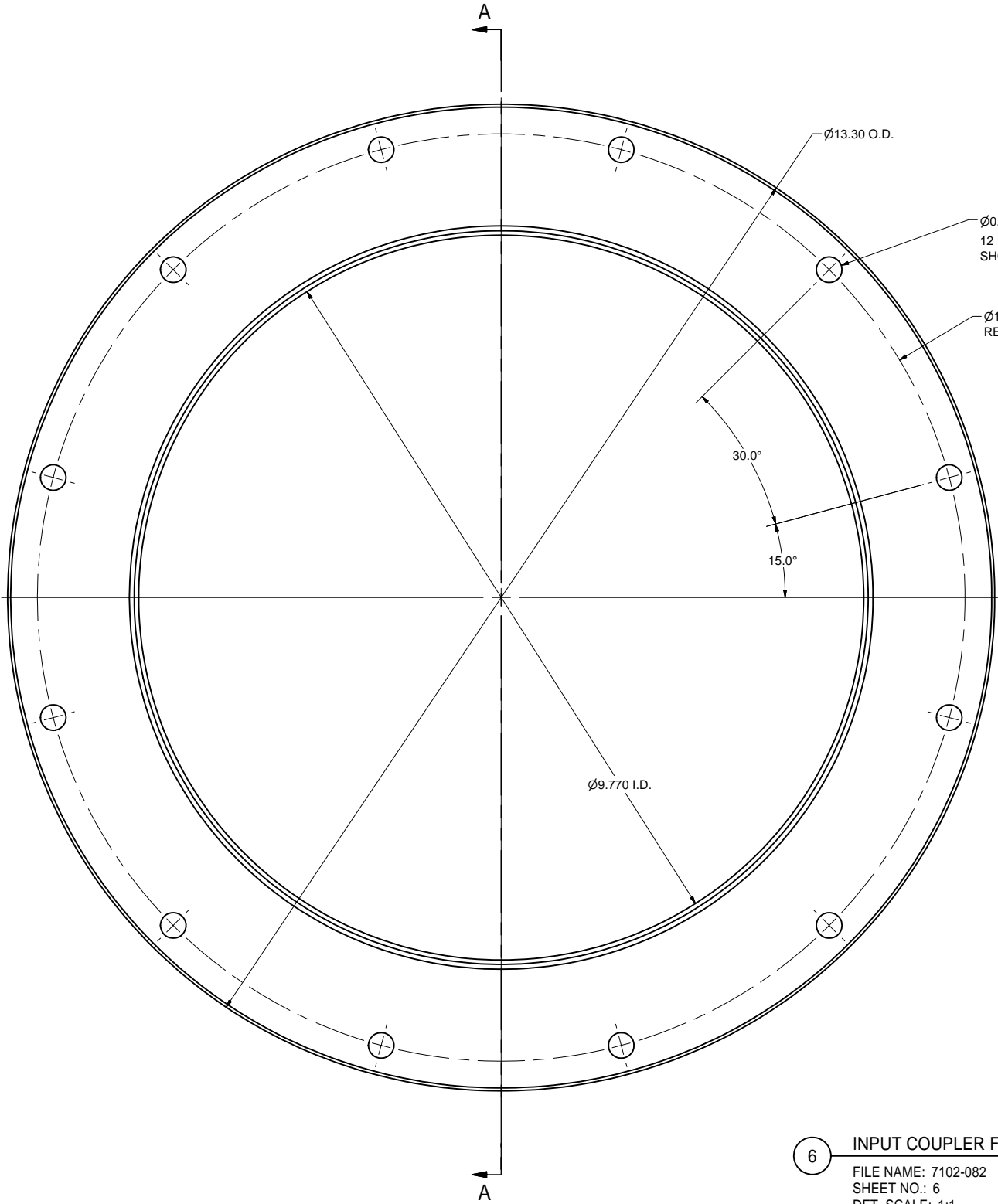
SECTION B-B  
SCALE 1 : 1



DETAIL D  
SCALE 4:1

|   |                  |  |                 |  |               |                 |          |          |    |         |  |      |
|---|------------------|--|-----------------|--|---------------|-----------------|----------|----------|----|---------|--|------|
|   |                  | ITEM   | DWG. NO.        | DESCRIPTION  |               |                 | G1       | G2       | G3 | REMARKS |  | REV. |
|   |                  |  |                 |  |               |                 |          | QUANTITY |    |         |  |      |
| D   | PRINT<br>DISTR.  | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |                 |  |               |                 |          |          |    |         |  |      |
| 7102-082<br>SH. NO. 5<br>OF 11  |                  | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES;<br><br>TOLERANCES ON:<br><br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br><br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES ✓ |                 | <div> </div> <div>CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div> |               |                 |          |          |    |         |  |      |
|   |                  |  |                 |  |               |                 |          |          |    |         |  |      |
|   |                  | REV.   | CHECKED BY: PGQ | DRAWN BY: TMK  | DRAWN FOR: PQ | DATE: 1/22/2008 | SCALE: D | 7102-082 |    | REV.    |  |      |
|   | APPROVED BY: PGQ |  |                 |  |               | SH. NO. 5 OF 11 |          |          |    |         |  |      |

| REVISIONS |      |             |           |
|-----------|------|-------------|-----------|
| SYM.      | ZONE | DESCRIPTION | DATE APP. |



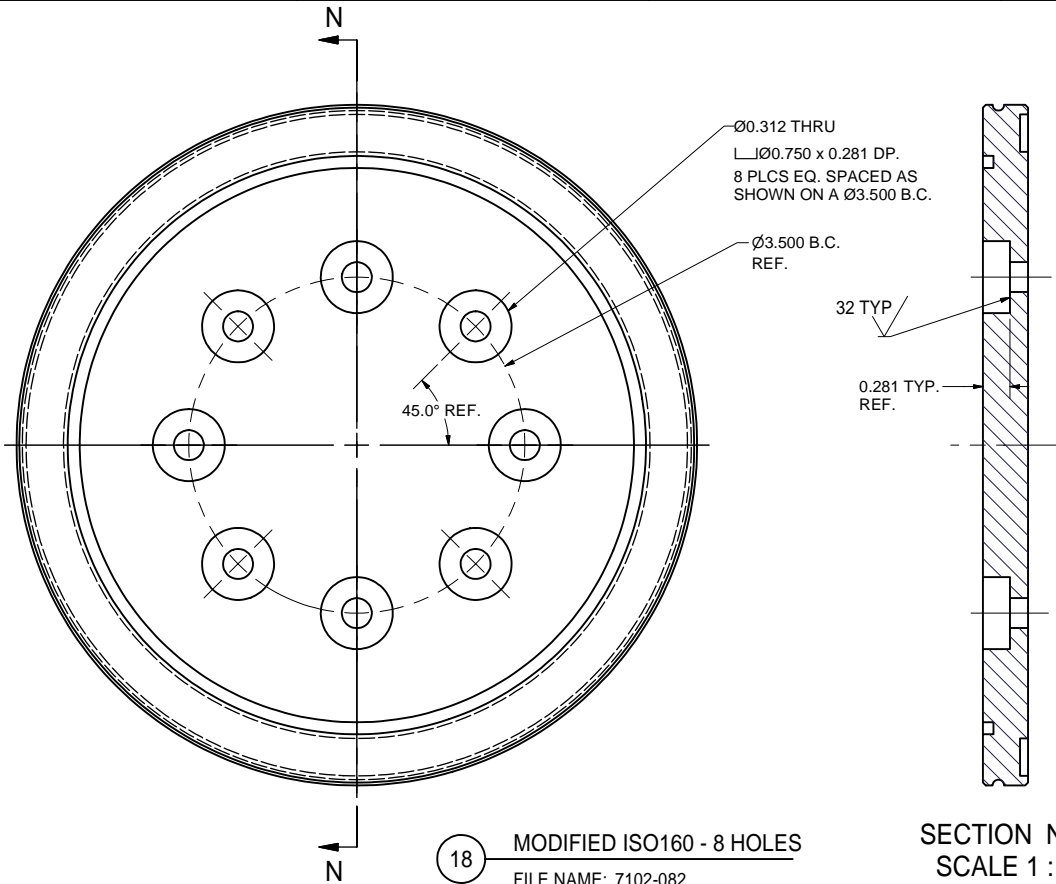
6 INPUT COUPLER FLANGE  
FILE NAME: 7102-082  
SHEET NO.: 6  
DFT. SCALE: 1:1  
MATERIAL: 304L STN STL  
QTY: 1 PER ASM  
NOTES:

|                                |                 |  |          |   |             |           |       |          |                 |    |         |  |      |
|--------------------------------|-----------------|--|----------|---|-------------|-----------|-------|----------|-----------------|----|---------|--|------|
|                                |                 | ITEM   | DWG. NO. |   | DESCRIPTION |           |       | G1       | G2              | G3 | REMARKS |  | REV. |
|                                |                 |  |          |   |             |           |       | QUANTITY |                 |    |         |  |      |
| D                              | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |          |   |             |           |       |          |                 |    |         |  |      |
| 7102-082<br>SH. NO. 6<br>OF 11 | REV.            | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES;<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES ✓ |          | <div>CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div> <div>ICM 300K Sensor Interface<br/>Input Coupler Flange</div> |             |           |       |          |                 |    |         |  |      |
|                                |                 | CHECKED BY: PGQ  |          | DRAWN BY  | DRAWN FOR   | DATE      | SCALE | D        | 7102-082        |    | REV.    |  |      |
|                                |                 | APPROVED BY: PGQ   |          | TMK   | PQ          | 1/22/2008 |       |          | SH. NO. 6 OF 11 |    |         |  |      |



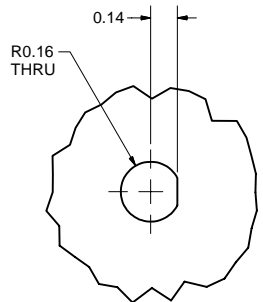


| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION   | DATE    | APP. |
| A         |      | ADDED SHEET 9, 10, & 11.  | 2/18/08 | VM   |
| B         |      | Edit dims on item 27 & 28 to be fractional. Removed note stating these items are purchased. | 2/29/07 | TIO  |



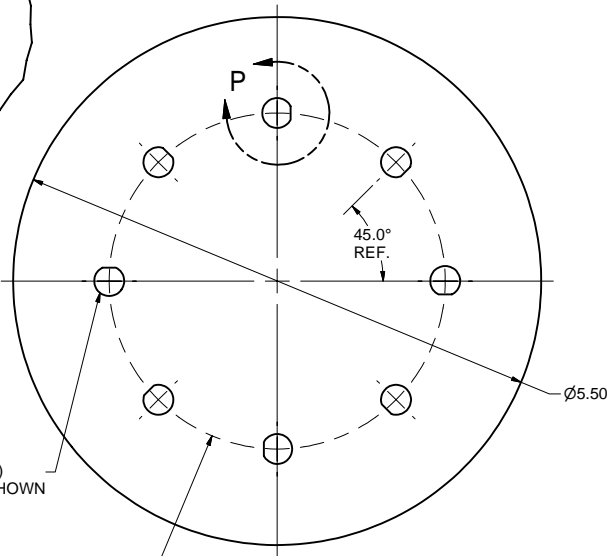
**18** **MODIFIED ISO160 - 8 HOLES**  
FILE NAME: 7102-082  
SHEET NO.: 8  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM MDC ISO160 BLANK  
QTY: 1 PER ASM  
NOTES: SEE PT.8, SH.7 FOR ALL REF. DIMENSIONS  
OF THE MDC ISO160 BLANK

**SECTION N-N**  
**SCALE 1 : 1**

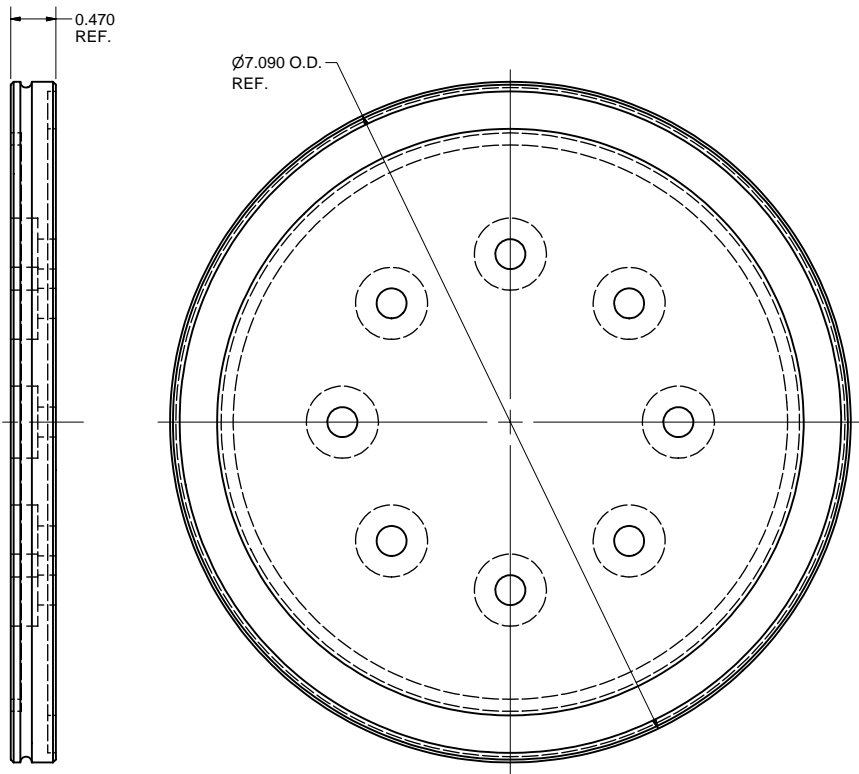


**DETAIL P**  
**SCALE 2 : 1**

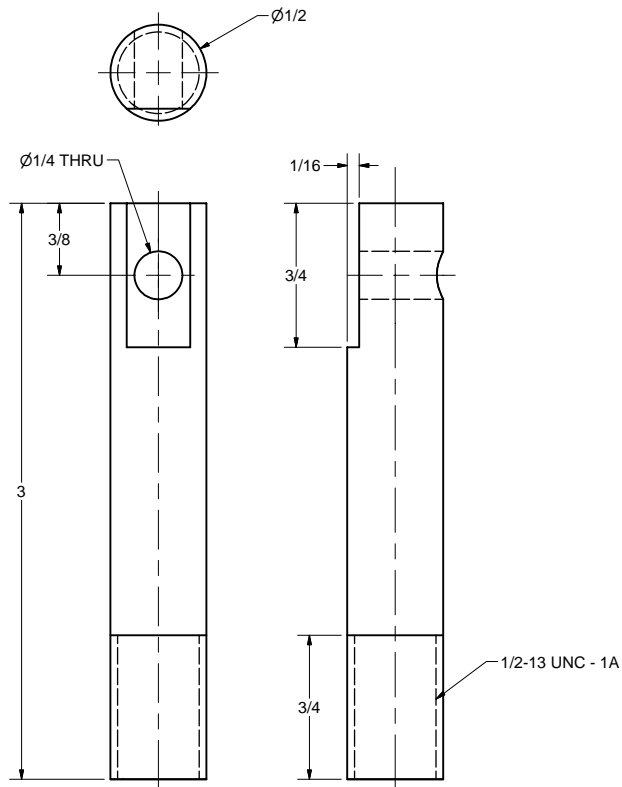
'D' HOLE THRU (DETAIL 'P')  
8 PLCS EQ. SPACED AS SHOWN  
ON A Ø3.500 B.C.





**19** **SMA 'D' HOLE SHIM-8 HOLES**  
FILE NAME: 7102-082  
SHEET NO.: 8  
DFT. SCALE: 1:1  
MATERIAL: 0.015 THK. 304L STN STL  
QTY: 1 PER ASM  
NOTES:



**28** **G10 WIRE SUPPORT-2**  
FILE NAME: 7102-082  
SHEET NO.: 8  
DFT. SCALE: 2:1  
MATERIAL: 1/2" DIA. G10 ROD  
QTY: 3 PER ASM  
NOTES:

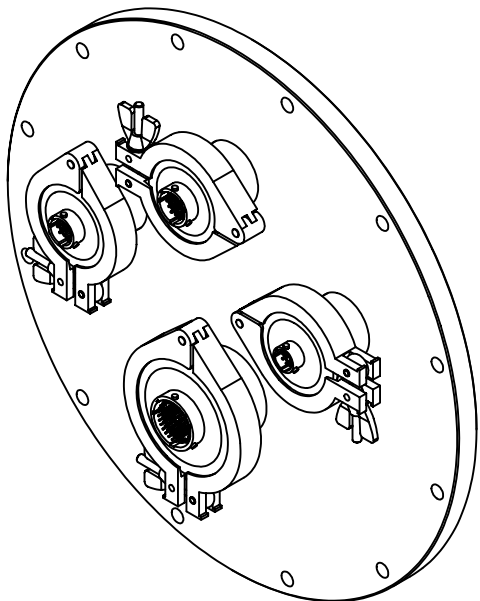
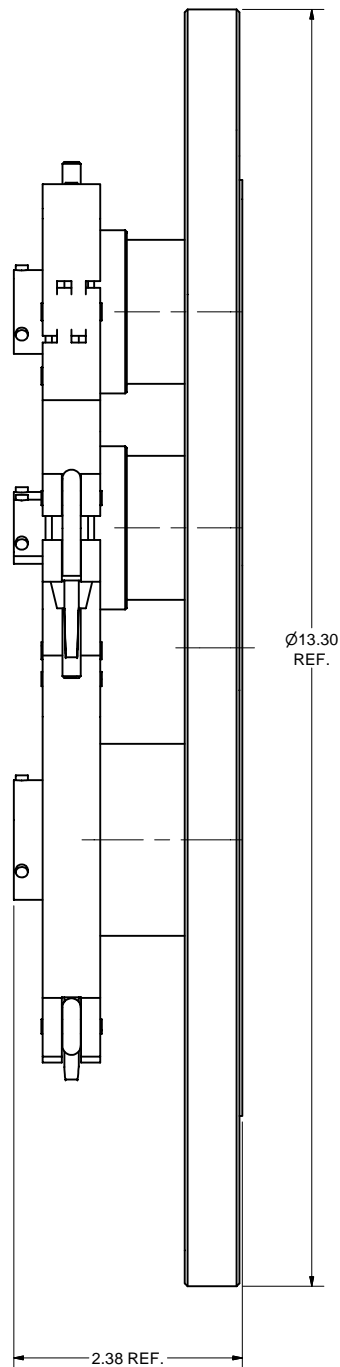
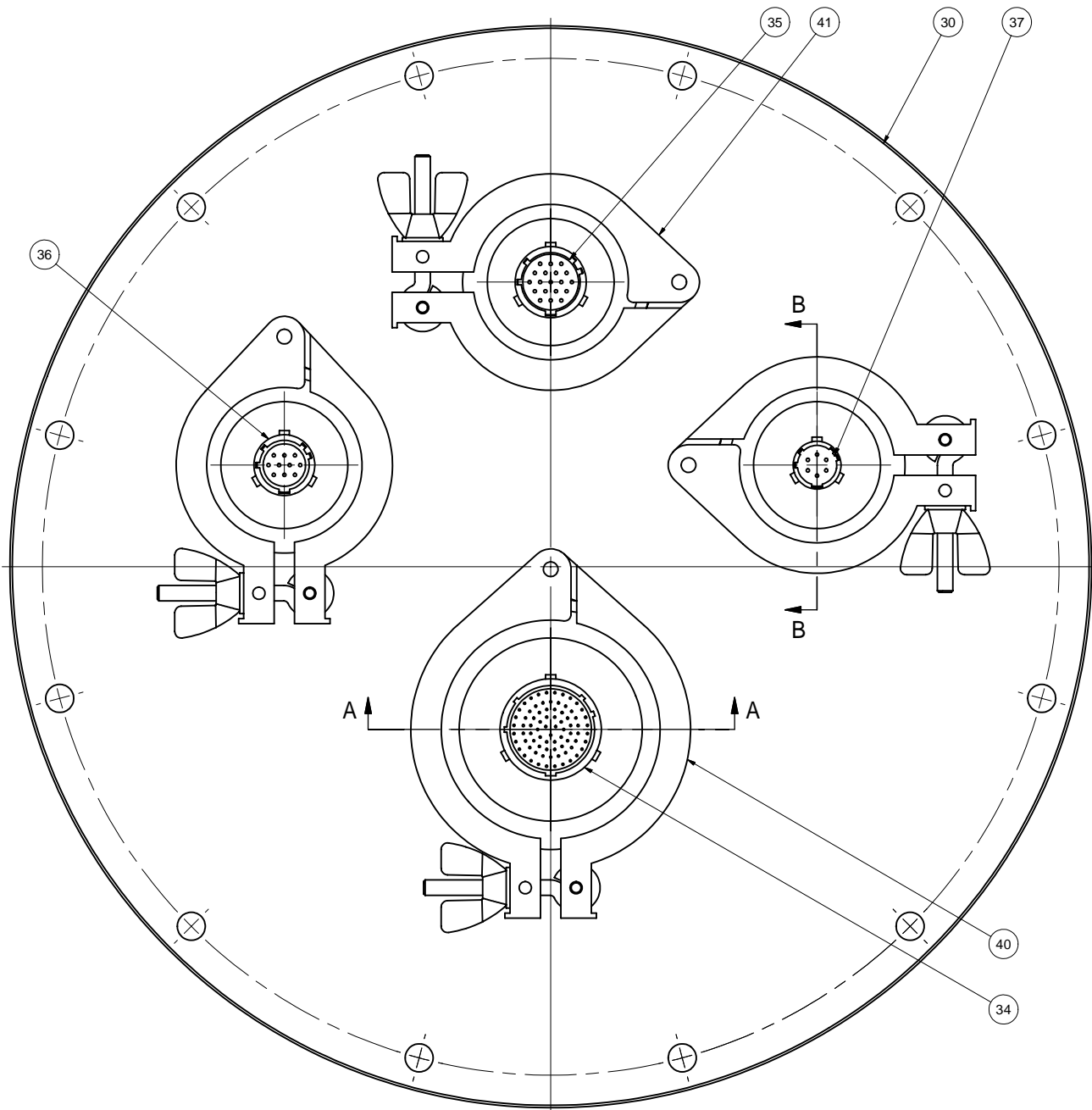


**27** **G10 WIRE SUPPORT-1**  
FILE NAME: 7102-082  
SHEET NO.: 8  
DFT. SCALE: 2:1  
MATERIAL: 1/2" DIA. G10 ROD  
QTY: 3 PER ASM  
NOTES:

|                             |                 |   |          |  |             |           |  |           |    |       |         |   |                             |           |
|-----------------------------|-----------------|---|----------|--|-------------|-----------|--|-----------|----|-------|---------|---|-----------------------------|-----------|
|                             |                 | ITEM  | DWG. NO. |  | DESCRIPTION |           |  | G1        | G2 | G3    | REMARKS |   | REV.                        |           |
|                             |                 |   |          |  |             |           |  | QUANTITY  |    |       |         |   |                             |           |
| D                           | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw   |          |  |             |           |  |           |    |       |         |   |                             |           |
| 7102-082<br>SH. NO. 8 OF 11 |                 | UNLESS OTHERWISE SPECIFIED:   |          | <div><div><div>CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div></div></div> |             |           |  |           |    |       |         |   |                             |           |
|                             |                 | DIMENSIONS ARE IN INCHES:<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES  |          |  |             |           |  |           |    |       |         |   |                             |           |
|                             |                 |   |          | ICM 300K Sensor Interface  |             |           |  |           |    |       |         |   |                             |           |
|                             |                 |   |          | Details  |             |           |  |           |    |       |         |   |                             |           |
| B                           | REV.            | CHECKED BY: PGQ   |          | DRAWN BY   |             | DRAWN FOR |  | DATE      |    | SCALE |         | D | 7102-082<br>SH. NO. 8 OF 11 | REV.<br>B |
|                             |                 | APPROVED BY: PGQ  |          | TMK  |             | PQ        |  | 1/22/2008 |    |       |         |   |                             |           |



| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION                                       | DATE    | APP. |
| A         |      | General nomenclature edits to clarify quantities. | 2/29/08 | TIO  |



SCALE 1 : 2

- 10 300 K ACTIVE ELEMENTS FLANGE-I ASSEMBLY
- FILE NAME: 7102-082  
SHEET NO.: 9  
DFT. SCALE: 1:1  
MATERIAL:  
QTY: 1 PER CRYOMODULE  
NOTES: This sub-assy bolts directly to the cryomodule.

Quantities in parts list below reflect parts required to build 1 complete sub-assy item #10.

|    |                  |   |   |  |  |                           |  |
|----|------------------|---|---|--|--|---------------------------|--|
| 41 | Purchased        | Kwik Flange NW-40 Hinged Clamp                      | 3 |  |  | MDC's #701002             |  |
| 40 | Purchased        | Kwik Flange NW-50 Hinged Clamp                      | 1 |  |  | MDC's #701003             |  |
| 39 | Purchased        | NW-40 Kwik Flange Viton O-Ring on SS Centering Ring | 3 |  |  | MDC's #710002 and #711002 |  |
| 38 | Purchased        | NW-50 Kwik Flange Viton O-Ring on SS Centering Ring | 1 |  |  | MDC's #710003 and #711003 |  |
| 37 | Purchased        | KF-40 Double Ended 6-Pin Connector                  | 1 |  |  | CeramTec's #17181-01-KF   |  |
| 36 | Purchased        | KF-40 Double Ended 10-Pin Connector                 | 1 |  |  | CeramTec's #17182-01-KF   |  |
| 35 | Purchased        | KF-40 Double Ended 19-Pin Connector                 | 1 |  |  | CeramTec's #18900-01-KF   |  |
| 34 | Purchased        | KF-40 Double Ended 79-Pin Connector                 | 1 |  |  | CeramTec's Custom Made    |  |
| 30 | 7102-082 (Sh.11) | 300 K ACTIVE ELEMENTS FLANGE SUB-ASM                | 1 |  |  |                           |  |
| 10 | 7102-082 (Sh.9)  | 300 K ACTIVE ELEMENTS FLANGE-I ASSEMBLY             | X |  |  |                           |  |

PRINT DISTR.

7102-082

SH. NO. 9 OF 11

REV. A

ITEM

DWG. NO.

DESCRIPTION

G1G2G3

QUANTITY

REMARKS

REV.

PLOT DATE: 2/29/2008  
CAD FILE NAME: 7102-082.idw

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES;  
TOLERANCES ON:  
.0 ± .02  
.00 ± .010  
.000 ± .005  
FRACTIONS ± 1/32  
ANGLES ± 0.5°  
ALL SURFACES

CORNELL UNIVERSITY  
Floyd R. Newman Laboratory  
Ithaca, NY 14853

ICM 300K Sensor Interface

300 K ACTIVE ELEMENTS FLANGE-I ASSEMBLY

CHECKED BY: PGQ  
APPROVED BY: PGQ

DRAWN BY: TMK  
DRAWN FOR: PQ

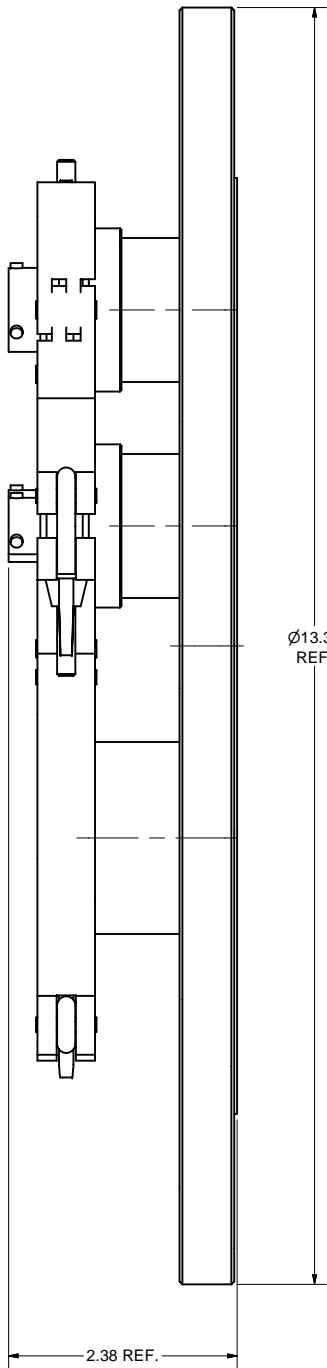
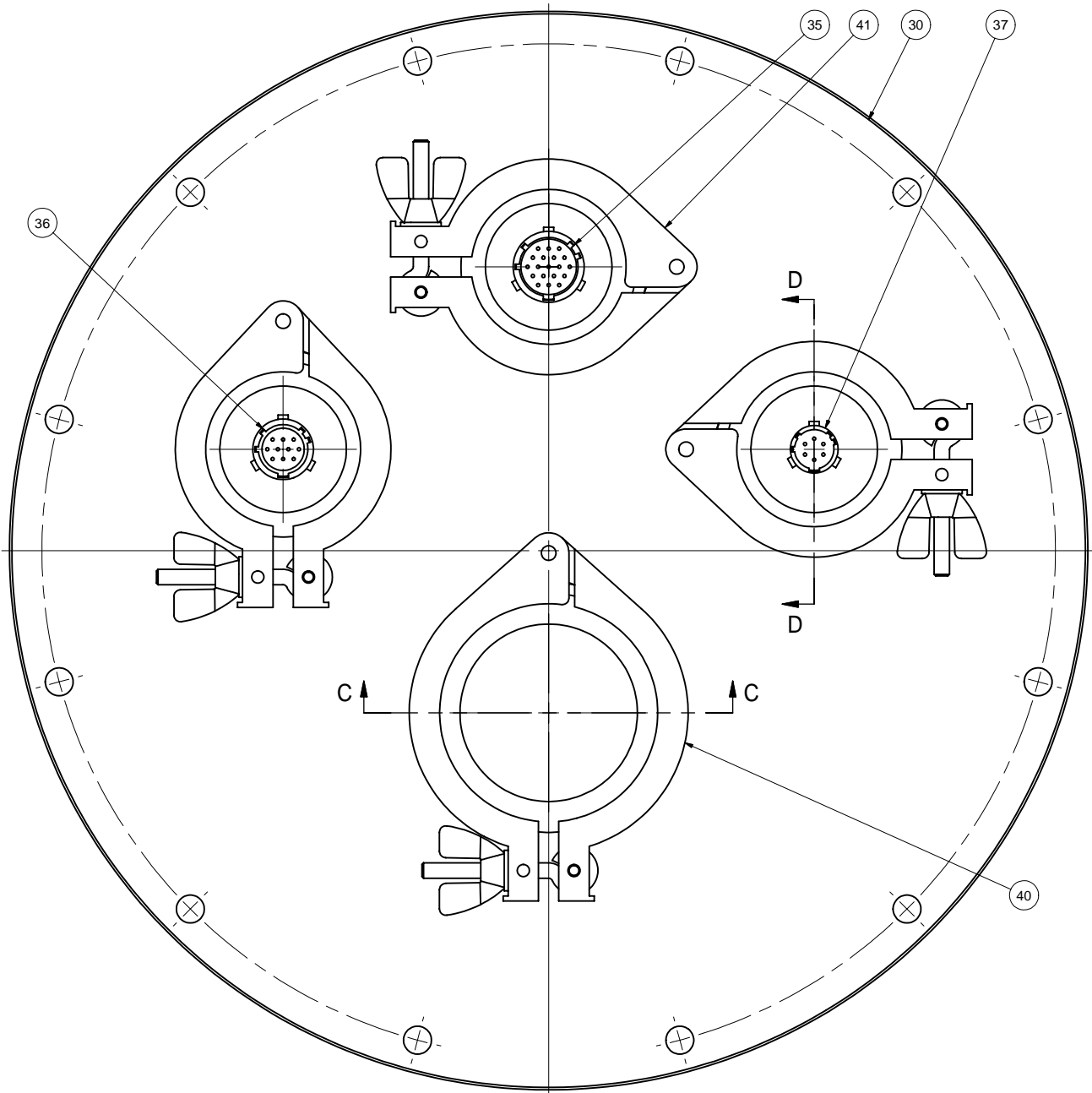
DATE: 1/22/2008

SCALE: D

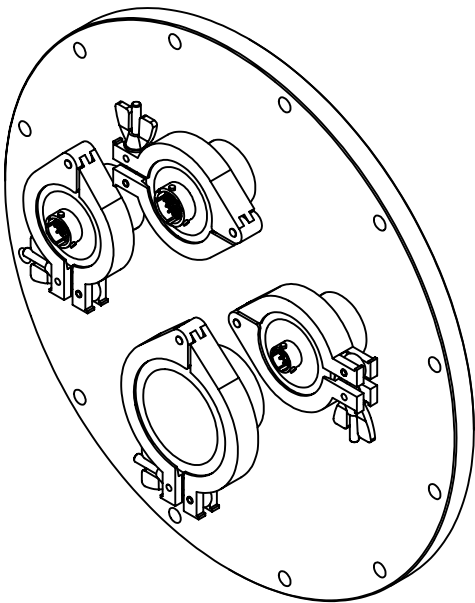
7102-082  
SH. NO. 9 OF 11

REV. A

| REVISIONS |      |   |         |      |
|-----------|------|---|---------|------|
| SYM.      | ZONE | DESCRIPTION                                       | DATE    | APP. |
| A         |      | General nomenclature edits to clarify quantities. | 2/29/08 | TIO  |



Ø13.30  
REF.

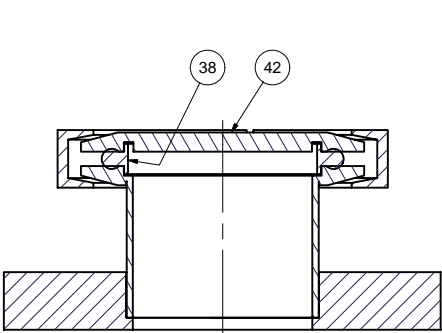


SCALE 1 : 2

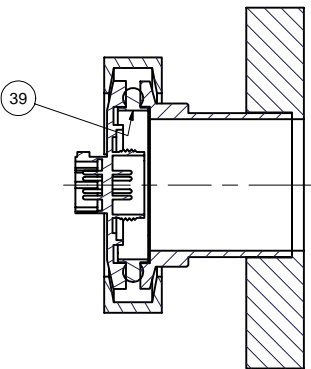
- 11 300 K ACTIVE ELEMENTS FLANGE-II ASSEMBLY
- FILE NAME: 7102-082  
SHEET NO.: 10  
DFT. SCALE: 1:1  
MATERIAL:  
QTY: 4 PER CRYOMODULE  
NOTES: This sub-assy bolts directly to the cryomodule.

Quantities in parts list below reflect parts required to build 1 complete sub-assy item #11.



|    |                  |   |   |  |  |                           |  |
|----|------------------|---|---|--|--|---------------------------|--|
| 42 | Purchased        | Kwik-Flange, NW-50, Blank                           | 1 |  |  | MDC's #712003             |  |
| 41 | Purchased        | Kwik Flange NW-40 Hinged Clamp                      | 3 |  |  | MDC's #701002             |  |
| 40 | Purchased        | Kwik Flange NW-50 Hinged Clamp                      | 1 |  |  | MDC's #701003             |  |
| 39 | Purchased        | NW-40 Kwik Flange Viton O-Ring on SS Centering Ring | 3 |  |  | MDC's #710002 and #711002 |  |
| 38 | Purchased        | NW-50 Kwik Flange Viton O-Ring on SS Centering Ring | 1 |  |  | MDC's #710003 and #711003 |  |
| 37 | Purchased        | KF-40 Double Ended 6-Pin Connector                  | 1 |  |  | CeramTec's #17181-01-KF   |  |
| 36 | Purchased        | KF-40 Double Ended 10-Pin Connector                 | 1 |  |  | CeramTec's #17182-01-KF   |  |
| 35 | Purchased        | KF-40 Double Ended 19-Pin Connector                 | 1 |  |  | CeramTec's #18900-01-KF   |  |
| 30 | 7102-082 (Sh.11) | 300 K ACTIVE ELEMENTS FLANGE SUB-ASM                | 1 |  |  |                           |  |
| 11 | 7102-082 (Sh.10) | 300 K ACTIVE ELEMENTS FLANGE-II ASSEMBLY            | X |  |  |                           |  |



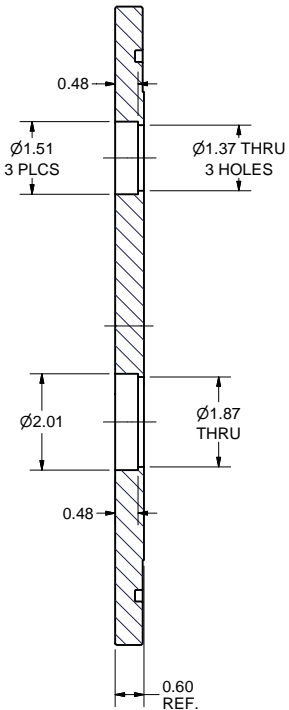
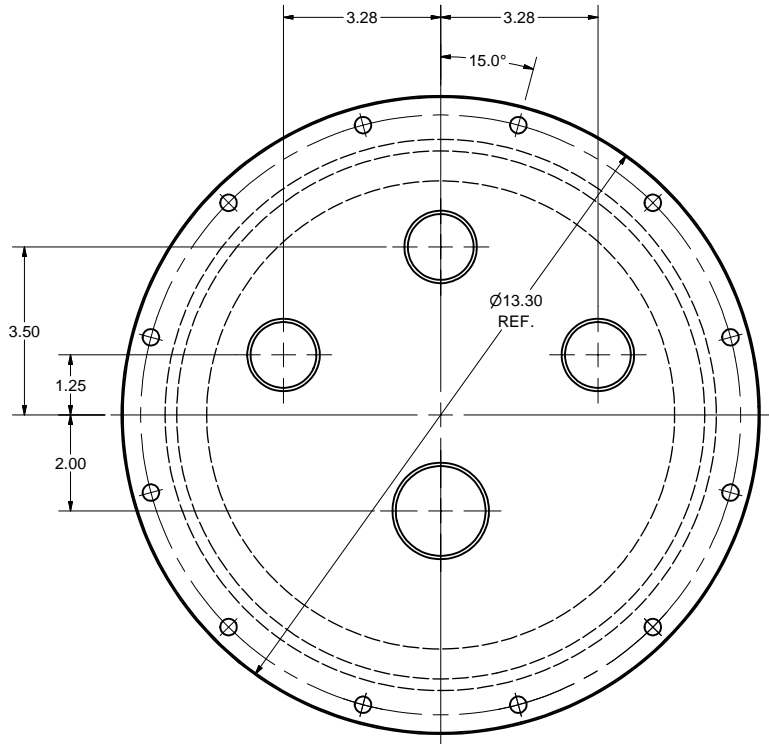
SECTION C-C



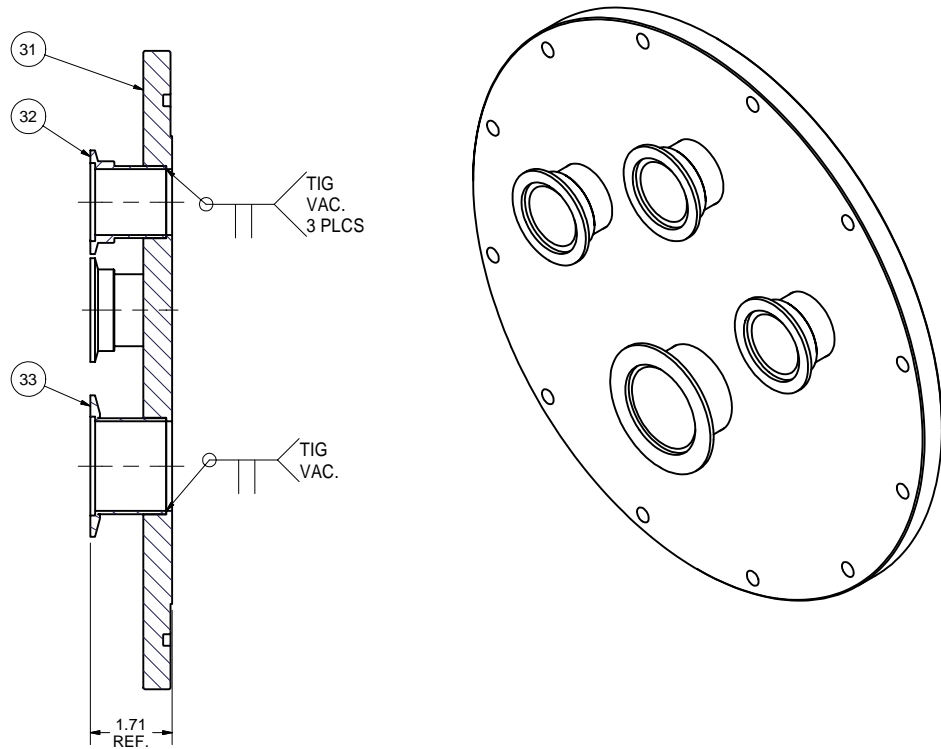
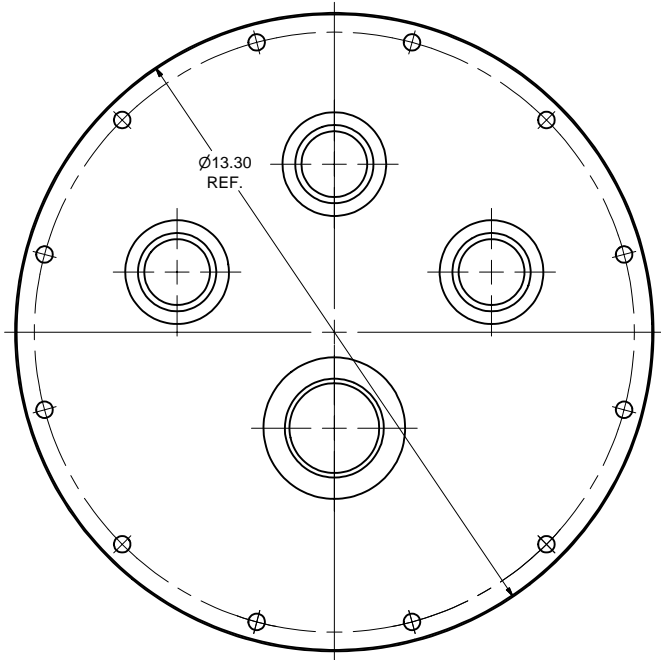
SECTION D-D

|   |                 |  |          |   |  |               |    |                 |    |          |  |                              |        |
|---|-----------------|--|----------|---|--|---------------|----|-----------------|----|----------|--|------------------------------|--------|
|  |                 | ITEM   | DWG. NO. | DESCRIPTION   |  |               | G1 | G2              | G3 | REMARKS  |  | REV.                         |        |
|   |                 |  |          |   |  |               |    | QUANTITY        |    |          |  |                              |        |
| D   | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |          |   |  |               |    |                 |    |          |  |                              |        |
| 7102-082<br>SH. NO. 10 OF 11  |                 | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES:<br>TOLERANCES ON:<br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES ✓ |          | <div><div><div>CORNELL UNIVERSITY</div><div></div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div><div>CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div></div> <div>ICM 300K Sensor Interface<br/>300 K ACTIVE ELEMENTS FLANGE-II ASSEMBLY</div> |  |               |    |                 |    |          |  |                              |        |
| A   |                 | CHECKED BY: PGQ  |          | DRAWN BY: TMK   |  | DRAWN FOR: PQ |    | DATE: 1/22/2008 |    | SCALE: D |  | 7102-082<br>SH. NO. 10 OF 11 | REV. A |
|   |                 | APPROVED BY: PGQ   |          |   |  |               |    |                 |    |          |  |                              |        |

| REVISIONS |      |                                      |         |      |
|-----------|------|--------------------------------------|---------|------|
| SYM.      | ZONE | DESCRIPTION                          | DATE    | APP. |
| A         |      | Revised quantities and nomenclature. | 2/28/08 | TIO  |







**31 300 K ACTIVE ELEMENTS FLANGE**  
FILE NAME: 7102-082  
SHEET NO.: 11  
DFT. SCALE: 1:2  
MATERIAL: SEE NOTE 1  
QTY: 1 PER EACH SUB-ASSY # 30  
NOTES: 1. MAKE FROM INPUT COUPLER PORT BLANK (7110-018, Item 6),  
304L STAINLESS STEEL.



**30 300 K ACTIVE ELEMENTS FLANGE SUB-ASM**  
FILE NAME: 7102-082  
SHEET NO.: 11  
DFT. SCALE: 1:2  
MATERIAL:  
QTY: 5 PER CRYOMODULE  
NOTES:

Quantities in parts list below reflect parts required to build 1 complete sub-assy item #30.

|    |                  |  |   |  |  |               |  |
|----|------------------|--|---|--|--|---------------|--|
| 33 | Purchased        | KF-50 2" Tube 1.58" Long Half Nipple   | 1 |  |  | MDC's #715109 |  |
| 32 | Purchased        | KF-40 1.5" Tube 1.58" Long Half Nipple | 3 |  |  | MDC's #715108 |  |
| 31 | 7102-082 (Sh.11) | 300 K ACTIVE ELEMENTS FLANGE           | 1 |  |  |               |  |
| 30 | 7102-082 (Sh.11) | 300 K ACTIVE ELEMENTS FLANGE SUB-ASM   | X |  |  |               |  |

|   |                 |  |          |  |          |    |    |         |      |
|---|-----------------|--|----------|--|----------|----|----|---------|------|
|  |                 | ITEM   | DWG. NO. | DESCRIPTION  | G1       | G2 | G3 | REMARKS | REV. |
|   |                 |  |          |  | QUANTITY |    |    |         |      |
| D   | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw  |          |  |          |    |    |         |      |
| 7102-082<br>SH. NO. 11 OF 11  |                 | UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES:<br>TOLERANCES ON:<br><br>.0 ± .02<br>.00 ± .010<br>.000 ± .005<br><br>FRACTIONS ± 1/32<br>ANGLES ± 0.5°<br>ALL SURFACES  |          | <div> <b>LEPP</b> </div> <div>CORNELL UNIVERSITY<br/>Floyd R. Newman Laboratory<br/>Ithaca, NY 14853</div> <div>ICM 300K Sensor Interface<br/>300 K ACTIVE ELEMENTS FLANGE SUB-ASM</div> |          |    |    |         |      |
|   |                 | CHECKED BY: PGQ<br><br>APPROVED BY: PGQ  |          |  |          |    |    |         |      |

|   |                 |   |  |   |                 |          |   |                              |        |  |  |
|---|-----------------|---|--|---|-----------------|----------|---|------------------------------|--------|--|--|
| D | PRINT<br>DISTR. | PLOT DATE: 2/29/2008<br>CAD FILE NAME: 7102-082.idw |  |   |                 |          |   |                              |        |  |  |
|   |                 | <div>7102-082</div> <div>SH. NO. 11 OF 11</div>     | <div>UNLESS OTHERWISE SPECIFIED:<br/><br/>DIMENSIONS ARE IN INCHES;<br/>TOLERANCES ON:<br/>.0 ± .02<br/>.00 ± .010<br/>.000 ± .005<br/>FRACTIONS ± 1/32<br/>ANGLES ± 0.5°<br/>ALL SURFACES ✓</div> | <div>CORNELL UNIVERSITY<br/>FLOYD R. NEWMAN LABORATORY<br/>ITHACA, NY 14853</div> <div>ICM 300K Sensor Interface<br/>300 K ACTIVE ELEMENTS FLANGE SUB-ASM</div> |                 |          |   |                              |        |  |  |
|   |                 |   |  |   |                 |          |   |                              |        |  |  |
|   |                 |   |  |   |                 |          |   |                              |        |  |  |
|   |                 |   |  |   |                 |          |   |                              |        |  |  |
|   |                 |   |  |   |                 |          |   |                              |        |  |  |
| A | REV.            | CHECKED BY: PGQ                                     | DRAWN BY: TMK  | DRAWN FOR: PQ   | DATE: 1/22/2008 | SCALE: D | D | 7102-082<br>SH. NO. 11 OF 11 | REV. A |  |  |
|   |                 | APPROVED BY: PGQ                                    |  |   |                 |          |   |                              |        |  |  |