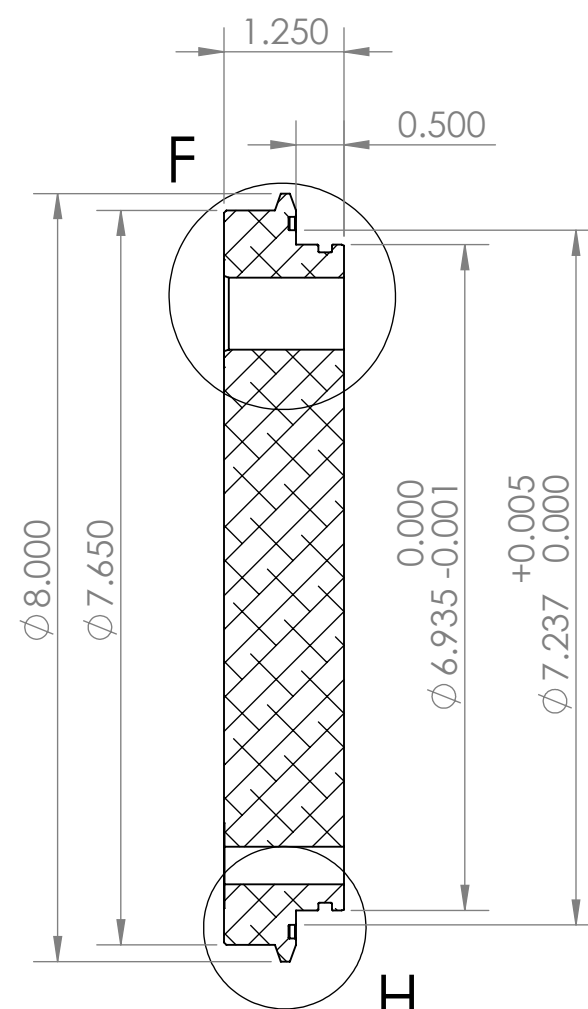
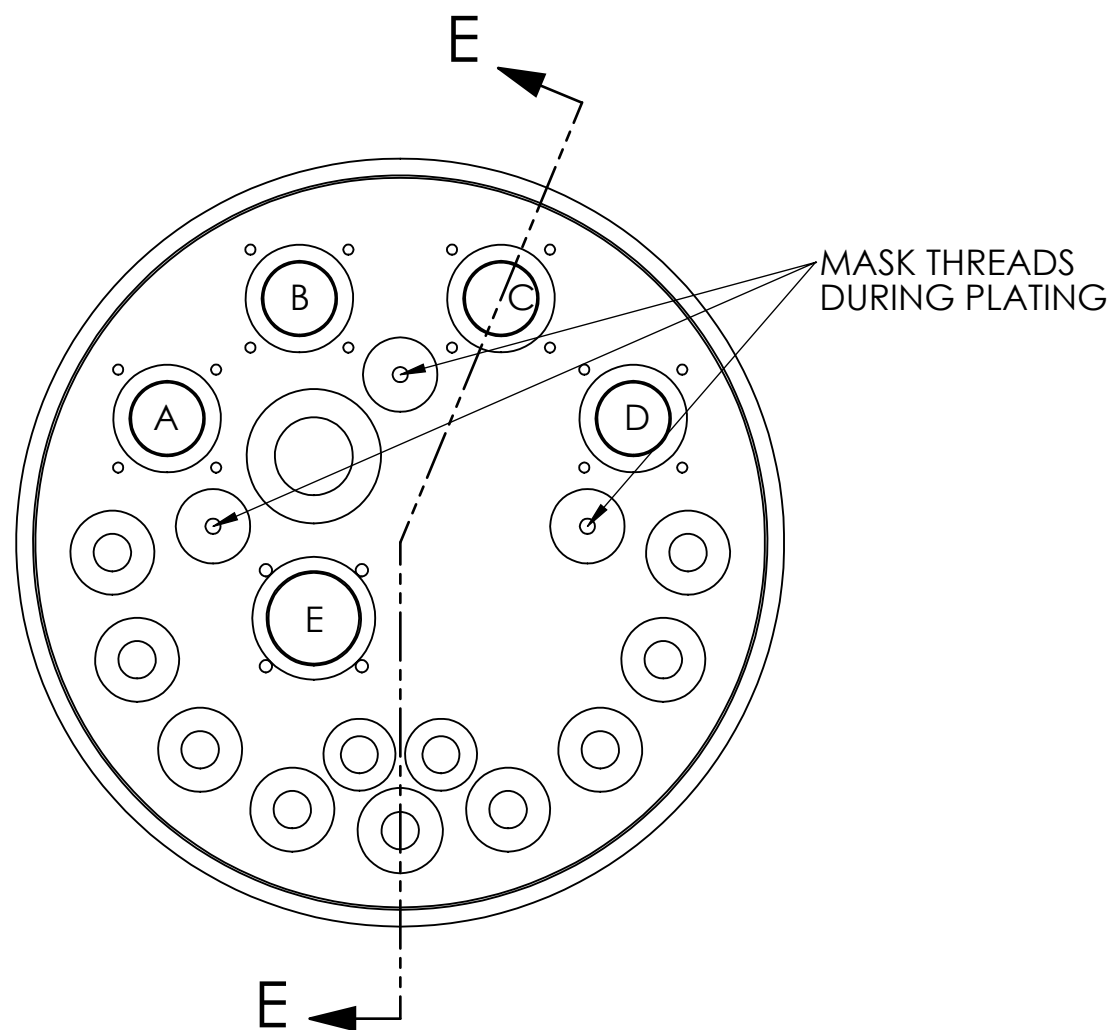
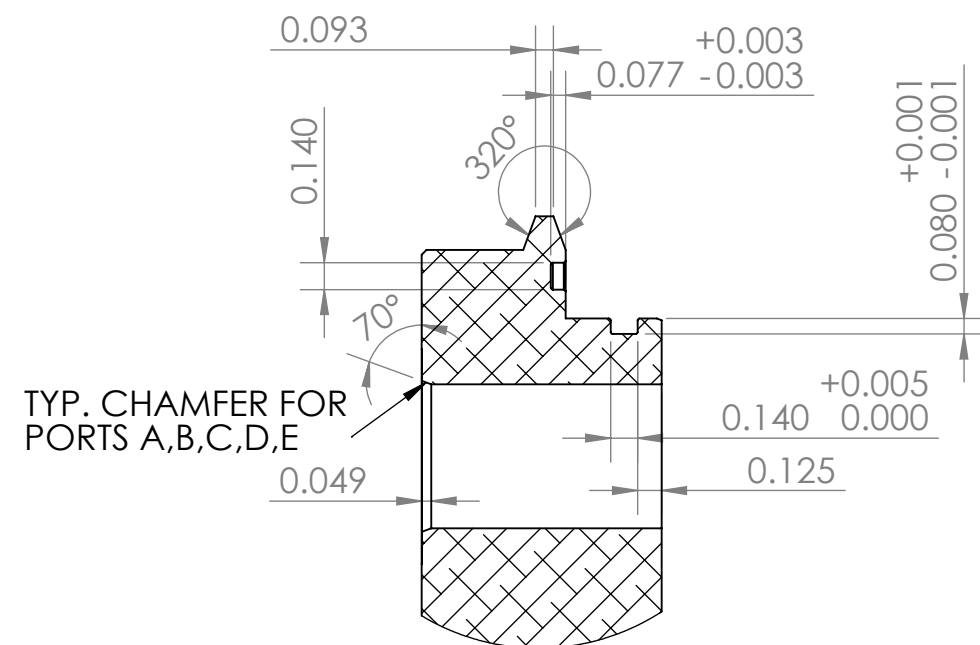


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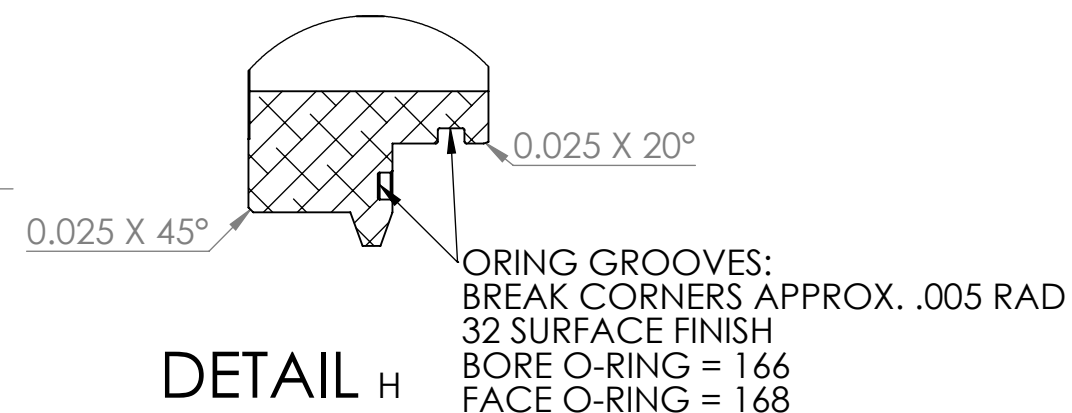
| REVISIONS |                 |      |          |
|-----------|-----------------|------|----------|
| REV.      | DESCRIPTION     | DATE | APPROVED |
|           | INITIAL RELEASE |      |          |



## SECTION E-E



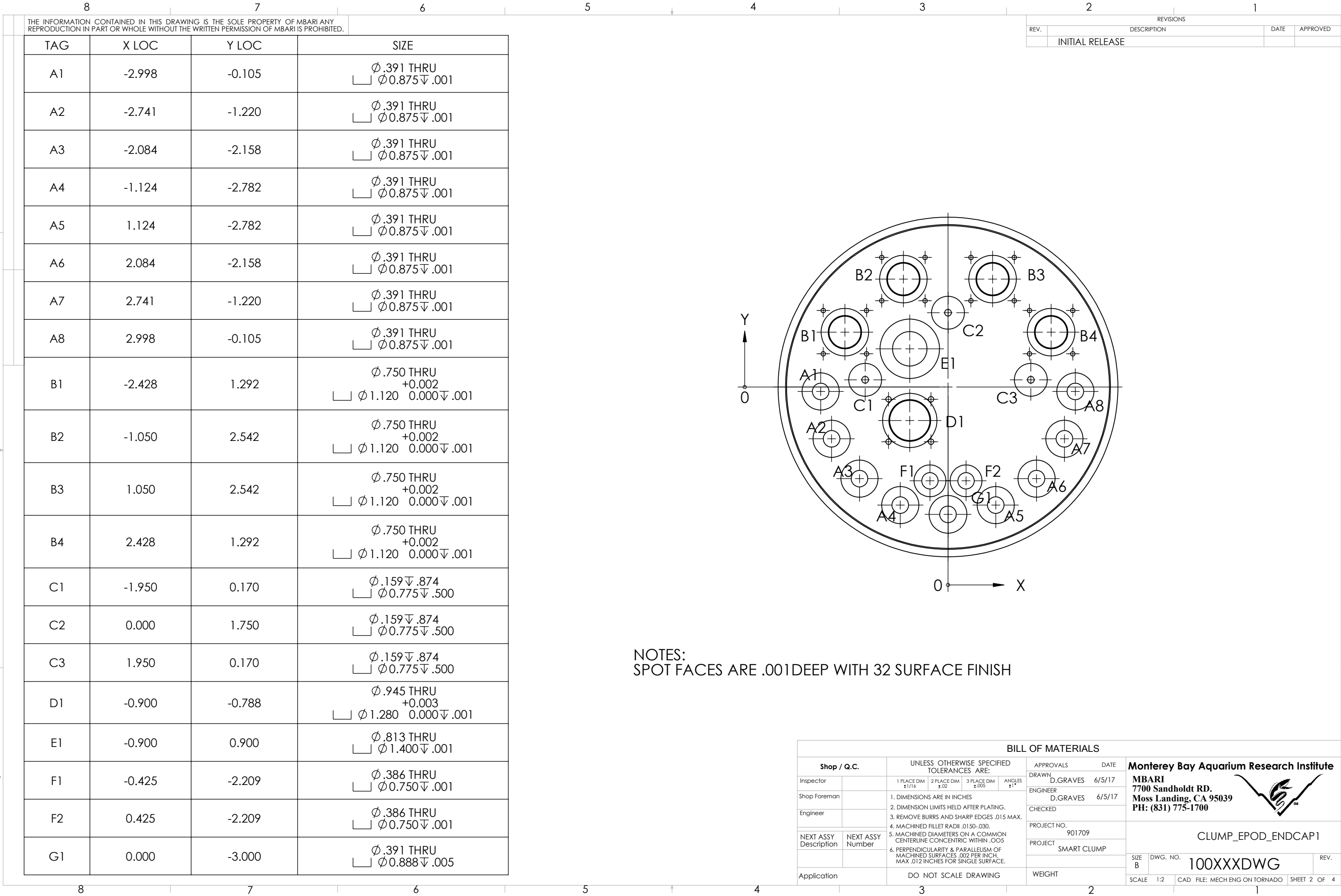
DETAIL F  
SCALE 1:1

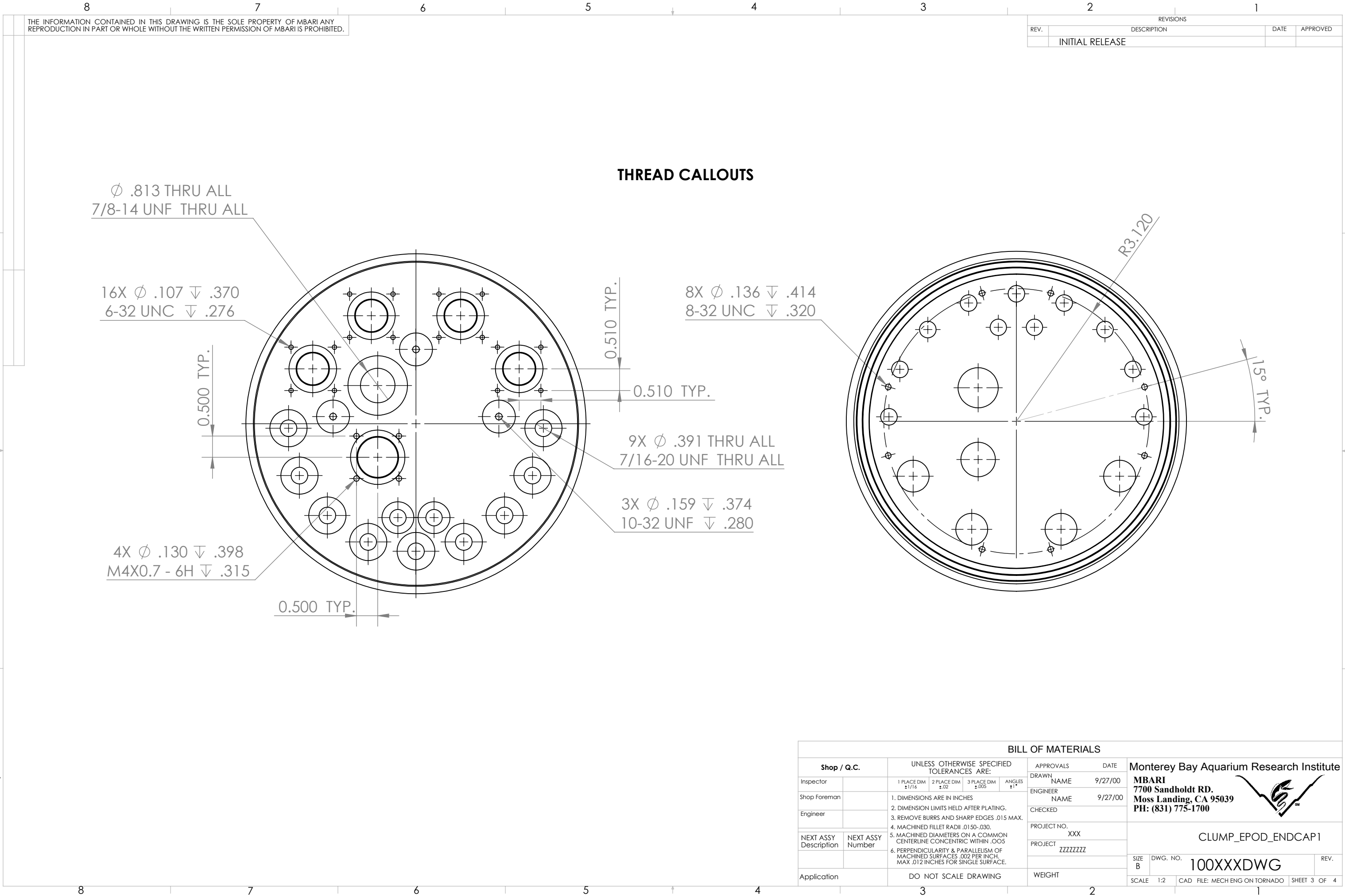


DETAIL H  
SCALE 1:1

**NOTES:**  
FRONT ENDCAP (DEFAULT CONFIGURATION)  
QTY. = 1  
MATERIAL = 6061-T6 ALUMINUM  
FINISH = HARD COAT ANODIZE

| BILL OF MATERIALS     |  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               |             |             |           |                    |                                                                                                                                                                                                                                                                             |              |
|-----------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------|-------------|-------------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Shop / Q.C.           |  | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                                                                                                                                                                                                                                                                                                      |                     |                      |               | APPROVALS   |             | DATE      |                    | <div>Monterey Bay Aquarium Research Institute</div> <div><div>MBARI</div><div>7700 Sandholdt RD.</div><div>Moss Landing, CA 95039</div><div>PH: (831) 775-1700</div></div> <div></div> |              |
| Inspector             |  | 1 PLACE DIM<br>±1/16                                                                                                                                                                                                                                                                                                                            | 2 PLACE DIM<br>±.02 | 3 PLACE DIM<br>±.005 | ANGLES<br>±1° | DRAWN       | D.GRAVES    | 6/5/2017  |                    |                                                                                                                                                                                                                                                                             |              |
| Shop Foreman          |  | 1. DIMENSIONS ARE IN INCHES<br>2. DIMENSION LIMITS HELD AFTER PLATING.<br>3. REMOVE BURRS AND SHARP EDGES .015 MAX.<br>4. MACHINED FILLET RADII .0150-.030.<br>5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005<br>6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE. |                     |                      |               | ENGINEER    | D.GRAVES    | 6/5/17    |                    |                                                                                                                                                                                                                                                                             |              |
| Engineer              |  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               | CHECKED     |             |           |                    |                                                                                                                                                                                                                                                                             |              |
|                       |  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               | PROJECT NO. | 901709      |           |                    |                                                                                                                                                                                                                                                                             |              |
| NEXT ASSY Description |  | NEXT ASSY Number                                                                                                                                                                                                                                                                                                                                |                     |                      |               | PROJECT     | SMART CLUMP |           | CLUMP_EP0D_ENDCAP1 |                                                                                                                                                                                                                                                                             |              |
|                       |  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               |             |             | SIZE B    | DWG. NO.           | 100XXXDWG                                                                                                                                                                                                                                                                   |              |
| Application           |  | DO NOT SCALE DRAWING                                                                                                                                                                                                                                                                                                                            |                     |                      |               | WEIGHT      |             | SCALE 1:2 |                    | CAD FILE: MECH ENG ON TORNADO                                                                                                                                                                                                                                               | SHEET 1 OF 4 |





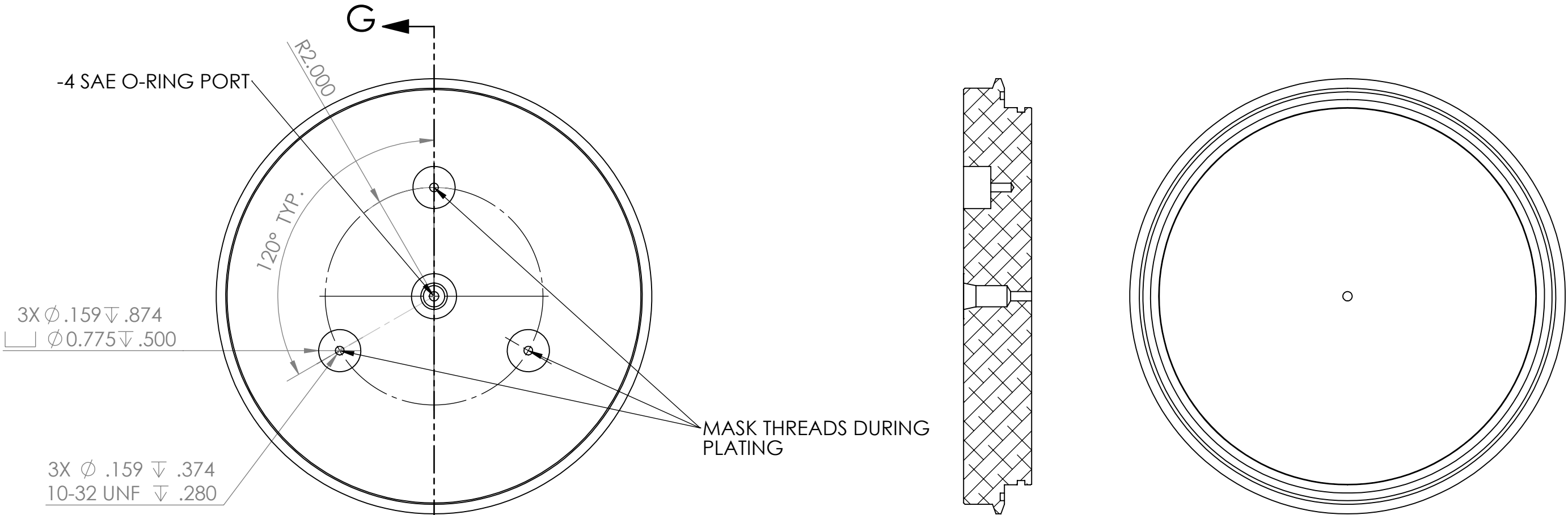
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| REVISIONS |                 |      |          |
|-----------|-----------------|------|----------|
| REV.      | DESCRIPTION     | DATE | APPROVED |
|           | INITIAL RELEASE |      |          |

| BILL OF MATERIALS     |                  |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         |                  |         |                                                                                                                                                            |                                            |
|-----------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------|-------------------------|------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Shop / Q.C.           |                  | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                                                                                                                                                                                                                                                                                                      |                          |                           |                         | APPROVALS        | DATE    | <b>Monterey Bay Aquarium Research Institute</b><br><b>MBARI</b><br><b>7700 Sandholdt RD.</b><br><b>Moss Landing, CA 95039</b><br><b>PH: (831) 775-1700</b> |                                            |
| Inspector             |                  | 1 PLACE DIM<br>$\pm 1/16$                                                                                                                                                                                                                                                                                                                       | 2 PLACE DIM<br>$\pm .02$ | 3 PLACE DIM<br>$\pm .005$ | ANGLES<br>$\pm 1^\circ$ | DRAWN NAME       | 9/27/00 |                                                                                                                                                            |                                            |
| Shop Foreman          |                  | 1. DIMENSIONS ARE IN INCHES<br>2. DIMENSION LIMITS HELD AFTER PLATING.<br>3. REMOVE BURRS AND SHARP EDGES .015 MAX.<br>4. MACHINED FILLET RADII .0150-.030.<br>5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005<br>6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE. |                          |                           |                         | ENGINEER NAME    | 9/27/00 |                                                                                                                                                            |                                            |
| Engineer              |                  |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         | CHECKED          |         |                                                                                                                                                            |                                            |
| NEXT ASSY Description | NEXT ASSY Number |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         | PROJECT NO. XXX  |         |                                                                                                                                                            |                                            |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         | PROJECT ZZZZZZZZ |         |                                                                                                                                                            |                                            |
| Application           |                  | DO NOT SCALE DRAWING                                                                                                                                                                                                                                                                                                                            |                          |                           |                         | WEIGHT           |         | CLUMP_EP0D_ENDCAP1                                                                                                                                         |                                            |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         |                  |         | SIZE B                                                                                                                                                     | DWG. NO. 100XXXDWG                         |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                          |                           |                         |                  |         | SCALE 1:2                                                                                                                                                  | CAD FILE: MECH ENG ON TORNADO SHEET 3 OF 4 |

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| REVISIONS |                 |      |          |
|-----------|-----------------|------|----------|
| REV.      | DESCRIPTION     | DATE | APPROVED |
|           | INITIAL RELEASE |      |          |



**NOTES:**  
REAR ENDCAP (BLANK CONFIGURATION)  
OVERALL DIMENSIONS TYP. OF FRONT ENDCAP  
QTY. = 1  
MATERIAL = 6061-T6 ALUMINUM  
FINISH = HARD COAT ANODIZE

SECTION G-G

| BILL OF MATERIALS     |                  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               |                        |          |                                                                                                                                                            |                       |
|-----------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------|------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Shop / Q.C.           |                  | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                                                                                                                                                                                                                                                                                                      |                     |                      |               | APPROVALS              | DATE     | <b>Monterey Bay Aquarium Research Institute</b><br><b>MBARI</b><br><b>7700 Sandholdt RD.</b><br><b>Moss Landing, CA 95039</b><br><b>PH: (831) 775-1700</b> |                       |
| Inspector             |                  | 1 PLACE DIM<br>±1/16                                                                                                                                                                                                                                                                                                                            | 2 PLACE DIM<br>±.02 | 3 PLACE DIM<br>±.005 | ANGLES<br>±1° | DRAWN<br>D.GRAVES      | 6/5/2017 |                                                                                                                                                            |                       |
| Shop Foreman          |                  | 1. DIMENSIONS ARE IN INCHES<br>2. DIMENSION LIMITS HELD AFTER PLATING.<br>3. REMOVE BURRS AND SHARP EDGES .015 MAX.<br>4. MACHINED FILLET RADII .0150-.030.<br>5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005<br>6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE. |                     |                      |               | ENGINEER<br>D.GRAVES   | 6/5/2017 |                                                                                                                                                            |                       |
| Engineer              |                  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               | CHECKED                |          |                                                                                                                                                            |                       |
| NEXT ASSY Description | NEXT ASSY Number |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               | PROJECT NO.<br>901709  |          | CLUMP_EP0D_ENDCAP1                                                                                                                                         |                       |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               | PROJECT<br>SMART CLUMP |          |                                                                                                                                                            |                       |
| Application           |                  | DO NOT SCALE DRAWING                                                                                                                                                                                                                                                                                                                            |                     |                      |               | WEIGHT                 |          | SIZE<br>B                                                                                                                                                  | DWG. NO.<br>100XXXDWG |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               |                        |          | SCALE<br>1:2                                                                                                                                               | REV.                  |
|                       |                  |                                                                                                                                                                                                                                                                                                                                                 |                     |                      |               |                        |          | CAD FILE: MECH ENG ON TORNADO                                                                                                                              | SHEET 4 OF 4          |