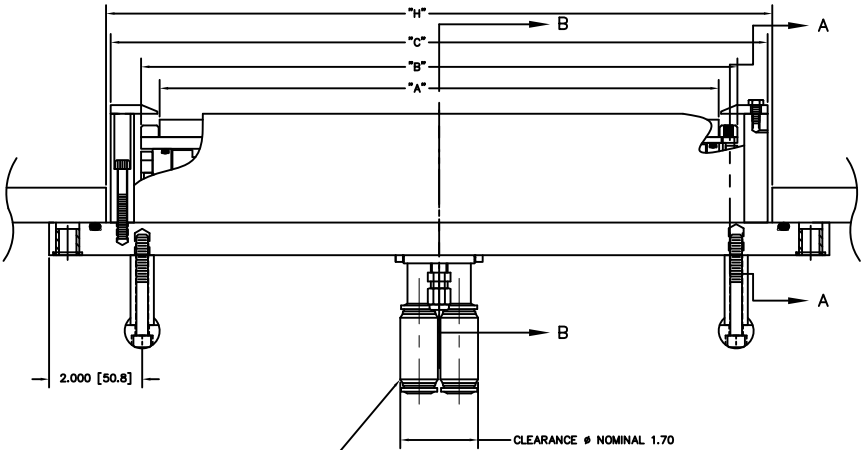
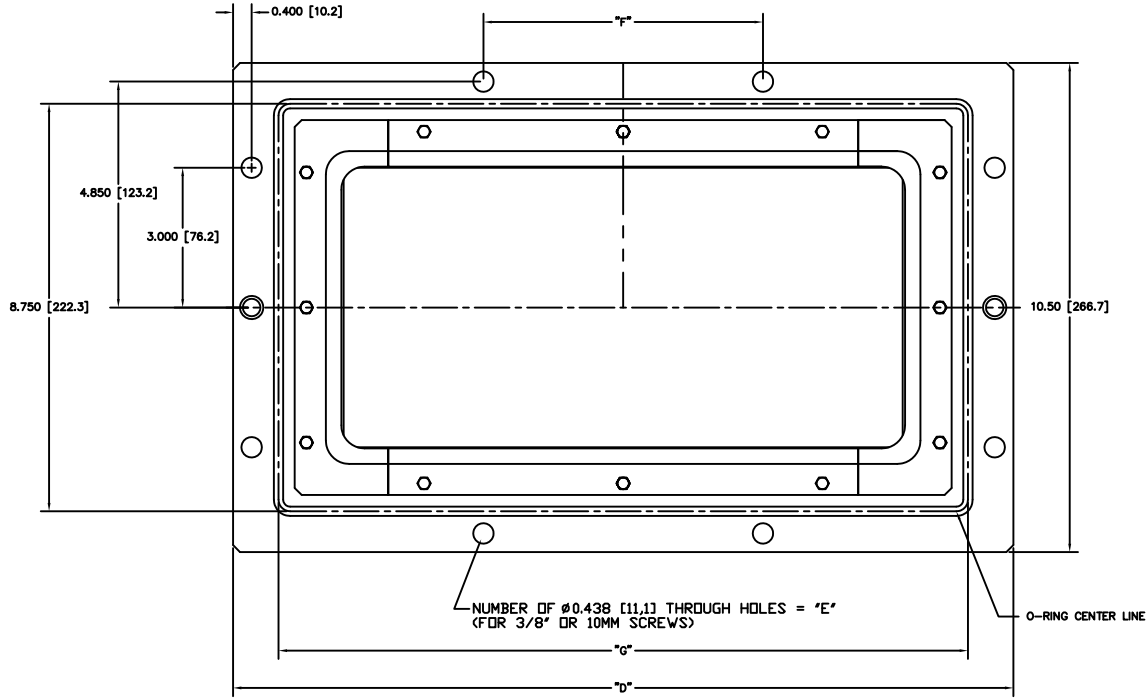


| REV | DATE | DESCRIPTION     | BY     | APP'D |
|-----|------|-----------------|--------|-------|
| 1   |      | INITIAL RELEASE | 100710 |       |

- NOTES: UNLESS OTHERWISE SPECIFIED
- INTERPRET DRAWING IAW THE GLOBAL PROFESSIONAL PUBLICATIONS "DRAWING REQUIREMENTS MANUAL", EIGHTH EDITION.
  - INTERPRET DIMENSIONS AND TOLERANCES IAW ANSI Y14.5M - 1982.
  - INTERPRET ABBREVIATIONS IAW MIL-STD-12.
- 4** WARNING:  
WATER FITTINGS HAVE A CLEAR ID OF .375". USING A SLEEVE OR SIMILAR DEVICE INSIDE THE WATER HOSE MAY CAUSE FLUID RESTRICTIONS AND INTERFERENCE WITH THE NORMAL OPERATION OF THE CATHODE AND THEREFORE IS NOT RECOMMENDED.
- 5** WATER CHANNELS ARE SYMMETRICAL THROUGHOUT. ORIENTATION OF WATER INLET OR OUTLET IS NOT CRITICAL.
- 6** WARNING:  
MINIMUM HOSE LENGTH OF 60" [1524 MM] IS REQUIRED TO ENSURE RESISTIVITY RELATIVE TO ELECTRICAL GROUND WITHIN 50 KILO OHMS. TEST CABLE WITH AN OHM METER OR OTHER SUITABLE DEVICE BEFORE USE.
- 7** MULTI-CONTACT-USA:  
5560 SKYLANE BLVD.  
SANTA ROSA, CA 95403  
VOICE: (707) 575-7575  
FAX: (707) 575-7373  
INTERNET:  
www.multi-contact-usa.com
- 8** FOR PROPER INSTALLATION, OPERATION, AND USE OF THE SUNSOURCE PLANAR MAGNETRON CATHODE(S), SEE MATERIALS SCIENCE, INC. DOCUMENT NUMBER 251091.
- 9** P/N 88040-08 IS AVAILABLE FROM:  
ALPHA TECHNOLOGIES  
320 PREMIER COURT, SUITE 222  
FRANKLIN, TN 37067  
TEL: (615) 771-6650  
HTTP://WWW.ALPHAFITTINGS.COM
10. ALL FASTENERS ARE METRIC.
11. DIMENSIONS IN BRACKETS "[ ]" DENOTE REFERENCE DIMENSIONS IN MILLIMETERS.
12. TARGET UTILIZATION IS HIGHEST FOR BONDED & CLAMPED TARGETS. DIRECTLY WATER COOLED TARGETS MUST BE SLIGHTLY LONGER & WIDER - THIS EXTRA AREA IS NOT SPUTTERED. THEREFORE TARGET UTILIZATION IS LOWER - BY DEFINITION.
- 13** ADD .100 [2.54] WHEN CLAMPED TARGETS ARE USED. A TALLER SET OF SIDE ANODE/GROUND SHIELDS ARE REQUIRED TO MAINTAIN THE PROPER DARK SPACE GAP WHEN CLAMPED TARGETS ARE USED. BONDED AND DIRECTLY WATER COOLED TARGETS USE THE STANDARD SIDE SHIELDS SHOWN AND DIMENSIONED.



| TARGET LENGTH | "A" DIMENSION  | "B" DIMENSION | "C" DIMENSION | "D" DIMENSION |
|---------------|----------------|---------------|---------------|---------------|
| 8 [203,2]     | 8.000 [203,2]  | 8.80 [223,5]  | 10.05 [255,3] | 12.75 [323,9] |
| 10 [254,0]    | 10.000 [254,0] | 10.80 [274,3] | 12.05 [306,1] | 14.75 [374,7] |
| 12 [304,8]    | 12.000 [304,8] | 12.80 [325,1] | 14.05 [356,9] | 16.75 [425,5] |
| 15 [381,0]    | 15.000 [381,0] | 15.80 [401,3] | 17.05 [433,1] | 19.75 [501,7] |
| 20 [508,0]    | 20.000 [508,0] | 20.80 [528,3] | 22.05 [560,1] | 24.75 [628,7] |

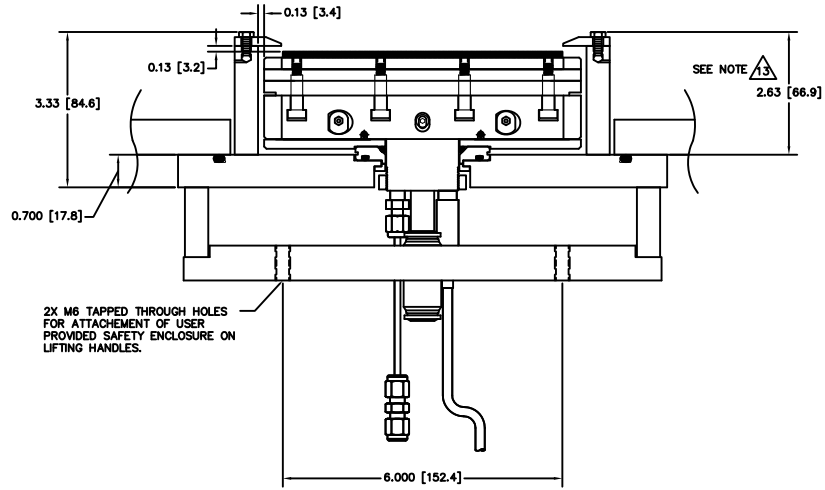
| TARGET LENGTH | "E" DIMENSION | "F" DIMENSION | "G" DIMENSION | "H" DIMENSION   |
|---------------|---------------|---------------|---------------|-----------------|
| 8 [203,2]     | 6 EACH        | 3.500 [88,9]  | 10.75 [273,1] | "C" + .20 [5,1] |
| 10 [254,0]    | 6 EACH        | 3.500 [88,9]  | 12.75 [323,9] | "C" + .20 [5,1] |
| 12 [304,8]    | 8 EACH        | 6.000 [152,4] | 14.75 [374,7] | "C" + .20 [5,1] |
| 15 [381,0]    | 8 EACH        | 6.000 [152,4] | 17.75 [450,9] | "C" + .20 [5,1] |
| 20 [508,0]    | 10 EACH       | 6.000 [152,4] | 22.75 [577,9] | "C" + .20 [5,1] |

- NOTES:
- TARGET DIMENSIONS NOTED IN TABLE ARE FOR COMMON SIZES.
  - OTHER TARGET LENGTHS CAN BE ACCOMMODATED.
  - LINEAR DIMENSIONS IN TABLE SCALE EXACTLY.
  - "G" DIMENSION = 2.75 PLUS TARGET LENGTH

# INSTALLATION CONTROL DRAWING

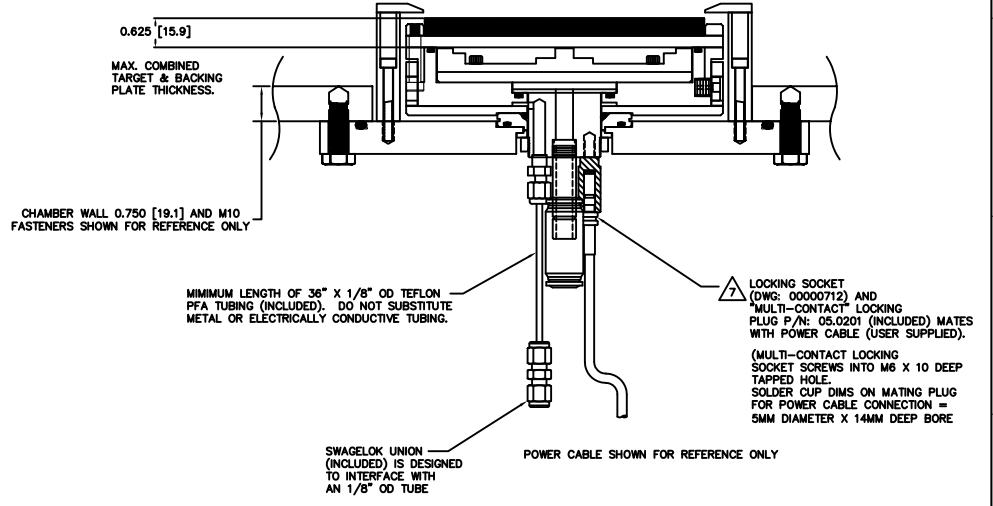
| QUANTITY PER ASSEMBLY | CAGE CODE | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION                                | MATERIAL SPECIFICATION | ZONE | ITEM NO |
|-----------------------|-----------|-------------------------|--|------------------------|------|---------|
|                       |           |                         | PARTS LIST   |                        |      |         |
|                       |           |                         | DATE: J. MILLER 10/01/10                                   |                        |      |         |
|                       |           |                         | MATERIALS SCIENCE, INC.<br>Vacuum and Thin Film Technology |                        |      |         |
|                       |           |                         | SUNSOURCE, 6" WIDE FLANGE MOUNT, SHORT, 1 UTIL. MODULE     |                        |      |         |
|                       |           |                         | REV: E   |                        |      |         |
|                       |           |                         | DATE: 1/1  |                        |      |         |
|                       |           |                         | 00002124   |                        |      |         |
|                       |           |                         | APPLICATION  |                        |      |         |
|                       |           |                         | DO NOT SCALE DRAWING                                       |                        |      |         |

00002124



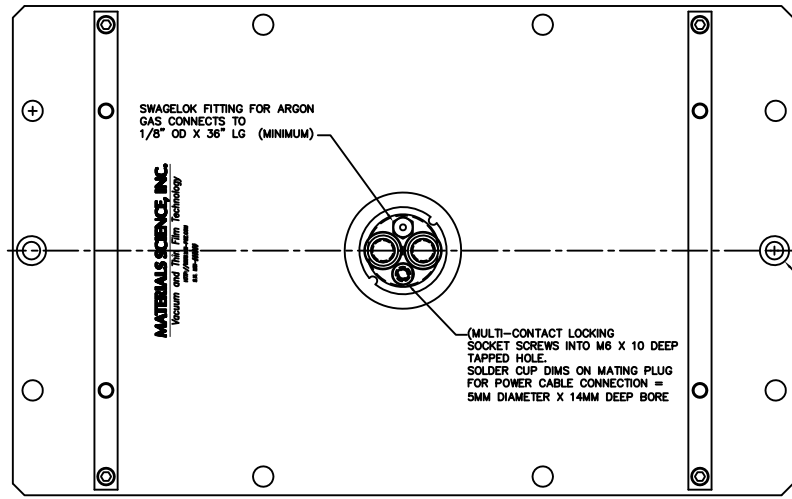
**BONDED TARGET ASSEMBLY SHOWN**

SECTION A-A

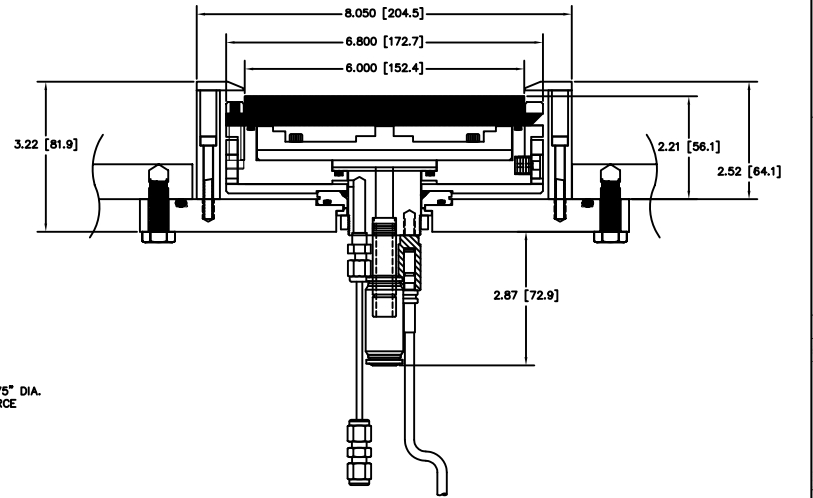


**BONDED TARGET ASSEMBLY SHOWN**

SECTION B-B



ATMOSPHERE SIDE



**DIRECT WATER COOLED TARGET SHOWN**