

- 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.
  - METRIC DIMENSIONS NOTED IN BRACKETS "E J".

**⚠** TOP AND SIDE GROUND SHIELDS ARE FABRICATED FROM 304 CRIES.

**⚠** WARNING:  
WATER FITTINGS HAVE A CLEAR ID OF .25 (3/16") OD OR .375 (1/2") OD INCHES. 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.

**⚠** WATER CHANNELS ARE SYMMETRICAL THROUGHOUT. ORIENTATION OF WATER INLET OR OUTLET IS NOT CRITICAL.

**⚠** WARNING:  
MINIMUM HOSE LENGTH OF 60" IS REQUIRED TO ENSURE RESISTIVITY RELATIVE TO ELECTRICAL GROUND WITHIN 50 KILOHMS.  
TEST CABLE WITH AN OHM METER OR OTHER SUITABLE DEVICE BEFORE USE.

**⚠** MULTI-CONTACT-USA:  
5560 SKYLINE BLVD.  
SANTA ROSA, CA 95403  
VOICE: (707) 575-7575  
FAX: (707) 575-7373  
INTERNET: WWW.MULTI-CONTACT-USA.COM

10. FOR PROPER INSTALLATION, OPERATION, AND USE OF THE SUNSOURCE PLANAR MAGNETRON CATHODE(S), SEE MATERIALS SCIENCE, INC. DOCUMENT NUMBER 251091.

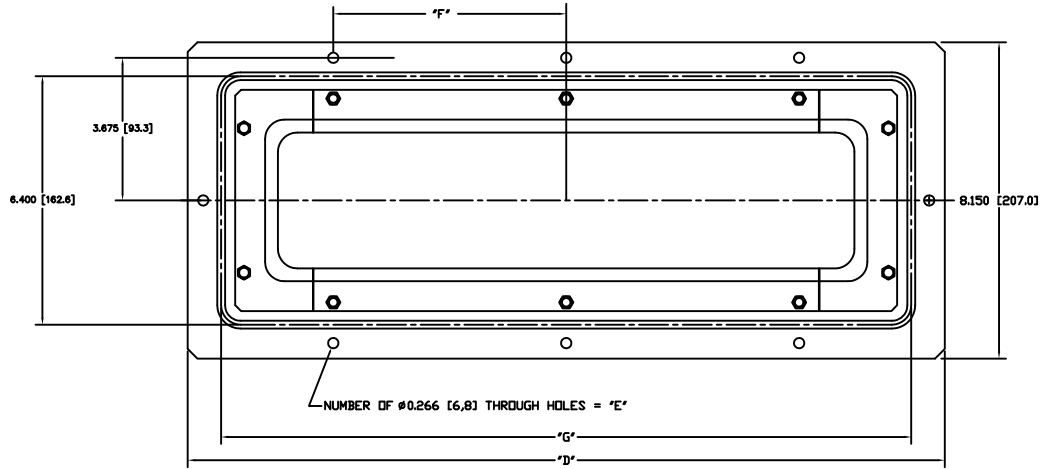
**⚠** P/N 88040-08 (.50") IS AVAILABLE FROM:  
ALPHA TECHNOLOGIES  
320 PREMIER COURT, SUITE 222  
FRANKLIN, TN 37087  
TEL: (615) 771-8650  
HTTP://WWW.ALPHAFITTINGS.COM

**⚠** P/N 88040-06 (.375") IS AVAILABLE FROM:  
ALPHA TECHNOLOGIES  
320 PREMIER COURT, SUITE 222  
FRANKLIN, TN 37087  
TEL: (615) 771-8650  
HTTP://WWW.ALPHAFITTINGS.COM

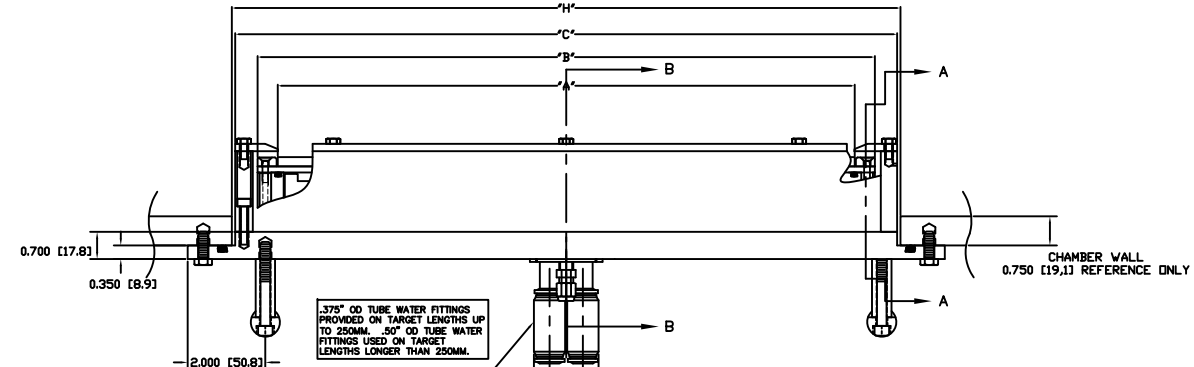
13. ALL FASTENERS ARE METRIC.

**⚠** ADD .100 [2.54] WHEN CLAMPED TARGETS ARE USED. A TALLER SET OF SIDE INLET/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.

15. 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.



VACUUM SIDE



.375" OD TUBE WATER FITTINGS PROVIDED ON TARGET LENGTHS UP TO 250MM. .50" OD TUBE WATER FITTINGS USED ON TARGET LENGTHS LONGER THAN 250MM.

FITTINGS (INCLUDED) ARE DESIGNED TO INTERFACE WITH A .375" OD OR .50" OD POLYETHYLENE TUBE. .375" OD WATER FITTINGS SHOWN.

**⚠** **⚠** **⚠** **⚠** **⚠** **⚠**

TARGET LENGTH	"A" DIMENSION	"B" DIMENSION	"C" DIMENSION	"D" DIMENSION
200MM	7.874 [200]	8.875 [225.4]	10.025 [254.8]	12.475 [316.9]
250MM	9.848 [250]	10.847 [275.9]	11.997 [304.7]	14.447 [367]
381MM	15.000 [381]	15.900 [403.9]	17.050 [433.1]	19.500 [495.3]
400MM	15.748 [400]	16.748 [425.4]	17.899 [454.8]	20.348 [516.9]
500MM	19.885 [500]	20.586 [522.9]	21.936 [557.2]	24.286 [616.9]

TARGET LENGTH	"E" DIMENSION	"F" DIMENSION	"G" DIMENSION	"H" DIMENSION
200MM	6 EACH	3.500 [88.9]	10.75 [273.1]	"C"+.20 [5.08]
250MM	6 EACH	3.500 [88.9]	12.75 [323.9]	"C"+.20 [5.08]
381MM	8 EACH	6.000 [152.4]	17.775 [451.5]	"C"+.20 [5.08]
400MM	8 EACH	6.000 [152.4]	18.75 [476.3]	"C"+.20 [5.08]
500MM	8 EACH	6.000 [152.4]	22.75 [577.9]	"C"+.20 [5.08]

INSTALLATION CONTROL DRAWING

- NOTES:  
A. TARGET DIMENSIONS NOTED IN TABLE ARE FOR COMMON SIZES.  
B. OTHER TARGET LENGTHS CAN BE ACCOMMODATED.  
C. LINEAR DIMENSIONS IN TABLE SCALE EXACTLY.

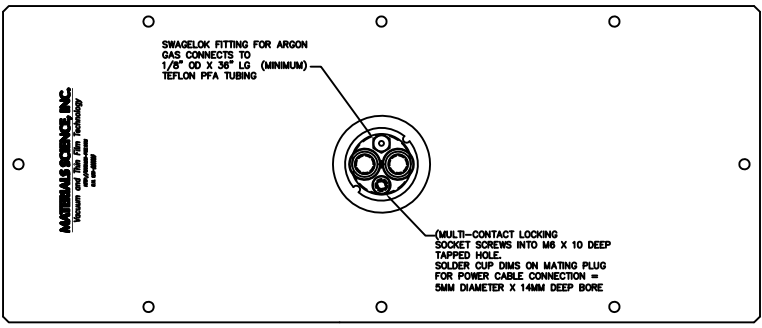
QUANTITY PER ASSEMBLY	CAGE CODE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ZONE	ITEM NO
			PARTS LIST			
			DATE: J. MILLER 10/18/17	MATERIALS SCIENCE INC. Vacuum and Thin Film Technology		
			REVISIONS:	SUNSOURCE, 90 MM WIDE, FLG MOUNT, SHORT, INSERT STYLE		
			DATE: 10/18/17	REV: E	REV: 1/1	00003085
			USED ON:			
			APPLICATION:	DO NOT SCALE DRAWING		

00003085

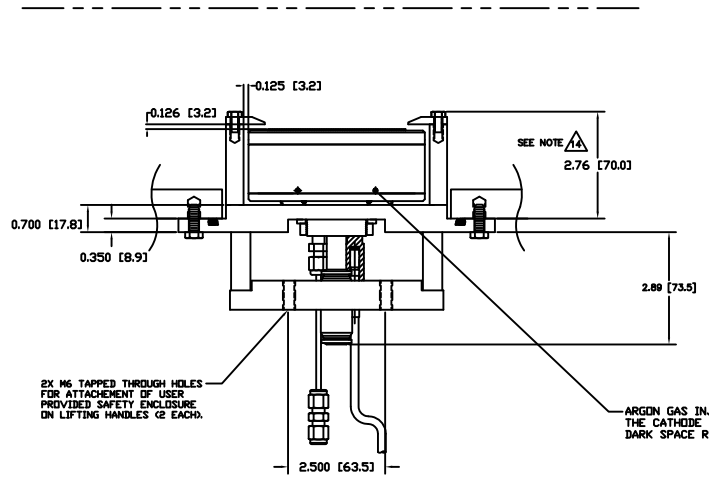
8 7 6 5 4 3 2 1

REV	DATE	BY	APP'D	REVISION
1				SEE SHEET 1

H  
G  
F  
E  
D  
C  
B  
A



ATMOSPHERE SIDE



BONDED TARGET ASSEMBLY WITH ARGON GAS INJECTION PORTS SHOWN

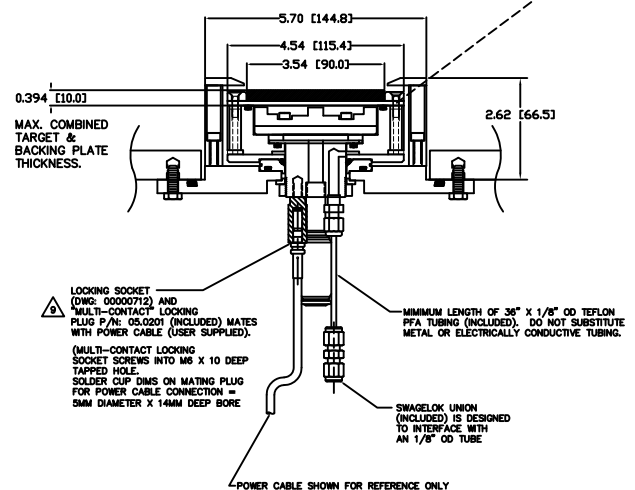
SECTION A-A

8 7 6 5 4 3 2 1

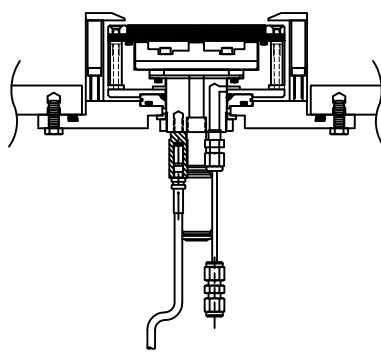
E	00003085	1/1	2
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00003085

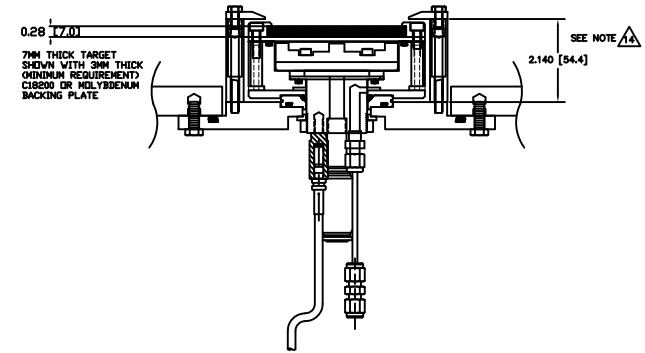
THREADED INSERT  
 INSERTED INSTEAD  
 OF TAPPED  
 AND THREADED  
 HOLES IN  
 CATHODE BODY

BONDED TARGET ASSEMBLY SHOWN  
 SECTION B-B

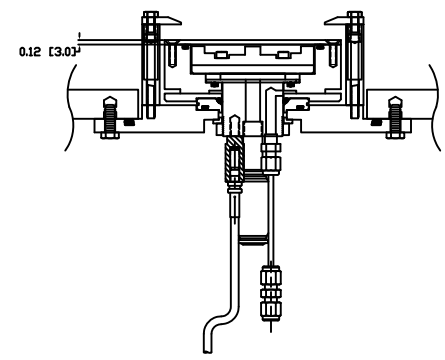


DIRECT WATER COOLED TARGET SHOWN  
 SECTION B-B



TARGET CLAMPED TO "SEMI-PERMANENT" BACKING PLATE

NOTE: THIS STYLE CATHODE BODY IS  
 DIFFERENT. IT HAS TAPPED HOLES TO  
 RETAIN SEMI-PERMANENT MEMBRANE  
 (BACKING PLATE) SO CLAMPED TARGETS  
 CAN BE EXCHANGED WITHOUT BREAKING  
 THE WATER TO VACUUM SEAL.  
 HOLES WITH THREADED T-INSERTS  
 ARE USED TO RETAIN THE TARGETS AS  
 SHOWN IN THE OTHER VIEWS.



"SEMI-PERMANENT" BACKING PLATE SHOWN  
 WITH TARGET AND CLAMPING BARS REMOVED  
 SECTION B-B

00003085