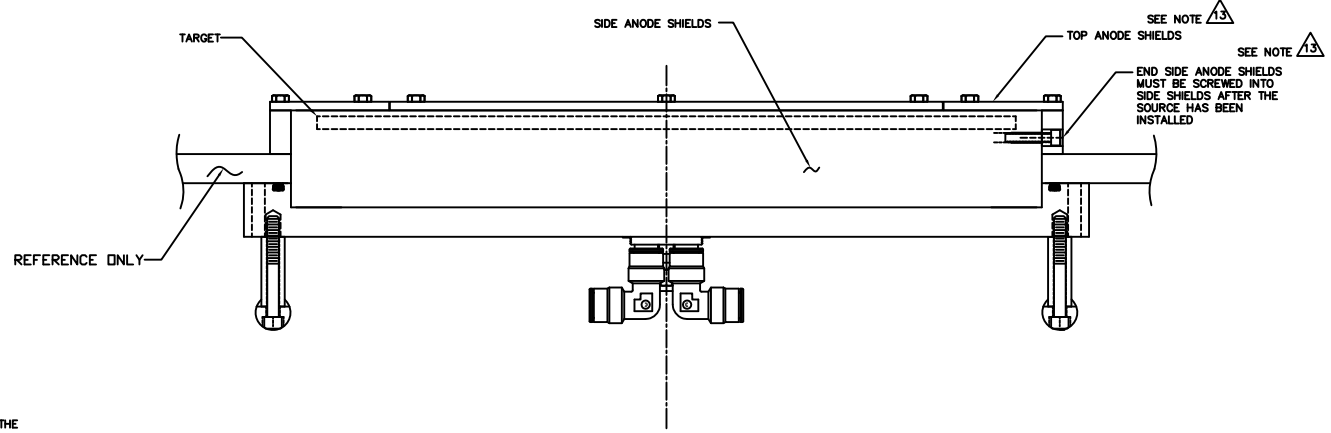
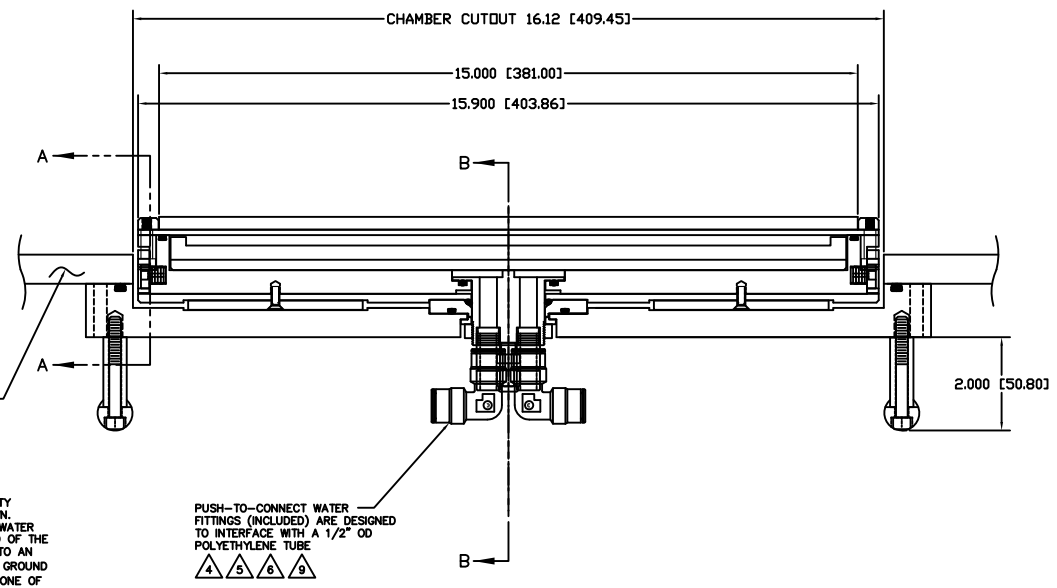


REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	110331	J. MILLER
A	EXPANDED NOTE 13	120330	J. MILLER
B	SHORTER WATER TUBES & 90° WATER FITTINGS	120721	J. MILLER
C	SMALL VIEW CHANGES ON SHEETS 2 & 3, NO DIMENSIONAL CHANGES.	121201	J. MILLER

- 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.
 - WARNING:** WATER FITTINGS HAVE A CLEAR ID OF .375 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 KILO OHMS. TEST CABLE WITH AN OHM METER OR OTHER SUITABLE DEVICE BEFORE USE.
 - MULTI-CONTACT-USA:
5560 SKYLANE BLVD.
SANTA ROSA, CA 95403
VOICES: (707) 575-7575
FAX: (707) 575-7373
INTERNET:
WWW.MULTI-CONTACT-USA.COM
 - FOR PROPER INSTALLATION, OPERATION, AND USE OF THE SUNSOURCE PLANAR MAGNETRON CATHODE(S), SEE MATERIALS SCIENCE, INC. DOCUMENT NUMBER 251091.
 - P/N 88130-08 IS AVAILABLE FROM:
ALPHA TECHNOLOGIES
320 PREMIER COURT, SUITE 222
FRANKLIN, TN 37067
TEL: (615) 771-6650
HTTP://WWW.ALPHAFITTINGS.COM
 - ALL FASTENERS ARE METRIC.



- TO ENSURE A SUCCESSFUL INSTALLATION: NOT ALL MRC SYSTEMS ARE CONSTRUCTED THE SAME. BE SURE TO VERIFY THE DESIRED SOURCE TO SUBSTRATE DISTANCE. THIS DISTANCE IS CONTROLLED BY VARYING THE MOUNTING FLANGE THICKNESS TO ACCOMMODATE WALL THICKNESS VARIATIONS. THINNER TARGET ASSEMBLIES WILL REDUCE THE OVERALL INSERTION DEPTH PROPORTIONATELY.
- 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 USED THE STANDARD SIDE SHIELDS SHOWN AND DIMENSIONED.
- THE SIDE AND TOP ANODE SHIELDS AT BOTH ENDS MUST BE ATTACHED TO THE SIDE ANODE SHIELDS AFTER THE SOURCE IS MOUNTED IN THE SYSTEM USING THE 4 HEX HEAD FASTENERS PROVIDED. THESE SHIELDS EXCEED THE OVERALL CHAMBER CUTOUT LENGTH. THE END SIDE SHIELDS MUST BE SCREWED INTO THE SIDE SHIELDS AFTER THE SOURCE HAS BEEN INSTALLED IN THE TOP PLATE. THIS REQUIRES THE TOP PLATE TO BE HINGED OPEN.
- THE GROUND CONNECTION MADE FROM SOME ORIGINAL OEM CONFIGURATION SYSTEMS IS NOT REQUIRED. THE MOUNTING FLANGE AND SCREWS THAT RETAIN THE MOUNTING FLANGE TO THE CHAMBER TOP PLATE PROVIDE THE NECESSARY GROUND RETURN. THE MOUNTING FLANGE ON THE ORIGINAL OEM SYSTEMS WAS AT CATHODE POTENTIAL, NOT AT GROUND POTENTIAL AS IS THIS RETROFIT SOURCE. CONNECT THE OEM CONFIGURATION POWER LEAD TO THE UTILITY MODULE AS SHOWN USING A 6MM SCREW INSTEAD OF THE CONNECTOR SET SHOWN. POWER WAS TRANSMITTED TO THE CATHODE MOUNTING FLANGE USING POLYFLOW WATER LINES, NOT COAXIAL CABLE. THIS CREATED A CAPACITOR ARRANGEMENT INSTEAD OF THE ELECTRICAL SHORT ONE WOULD EXPECT WHEN CONNECTING POWER AND GROUND TO AN ELECTRICALLY "HOT" SURFACE. IF THE NEED IS FELT TO MAINTAIN THE ORIGINAL GROUND CONNECTION, "JUST BECAUSE," THEN CONNECT THE ORIGINAL GROUND STRAP TO ONE OF FLANGE MOUNTING SCREWS. DO NOT USE THE EXISTING SCREW INSULATORS.

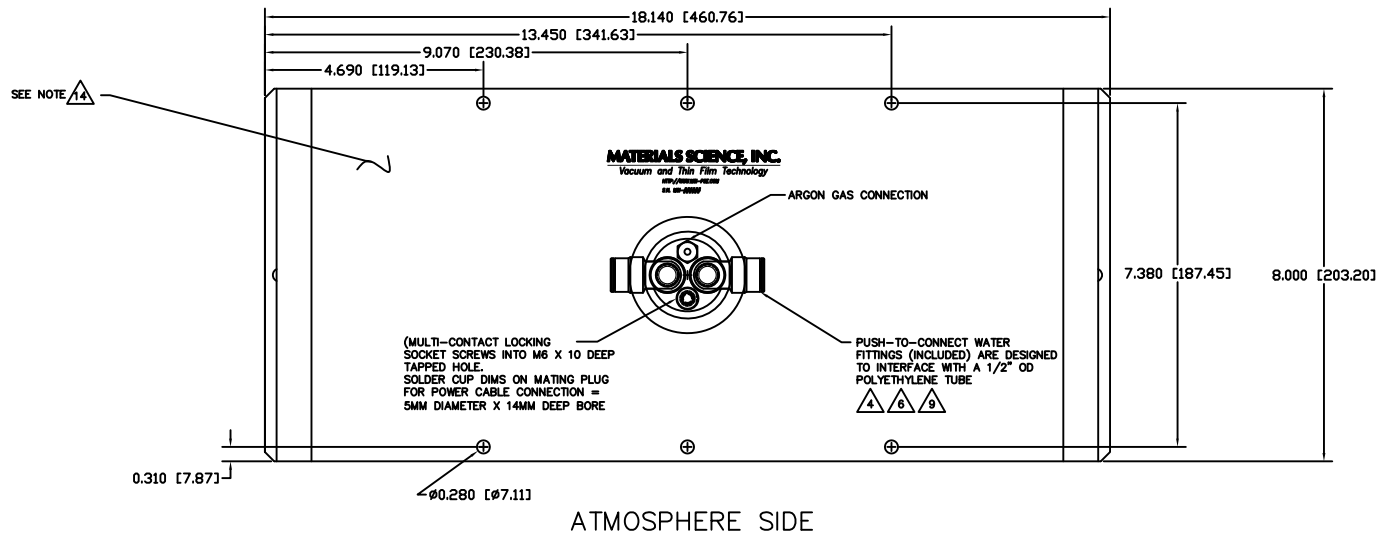
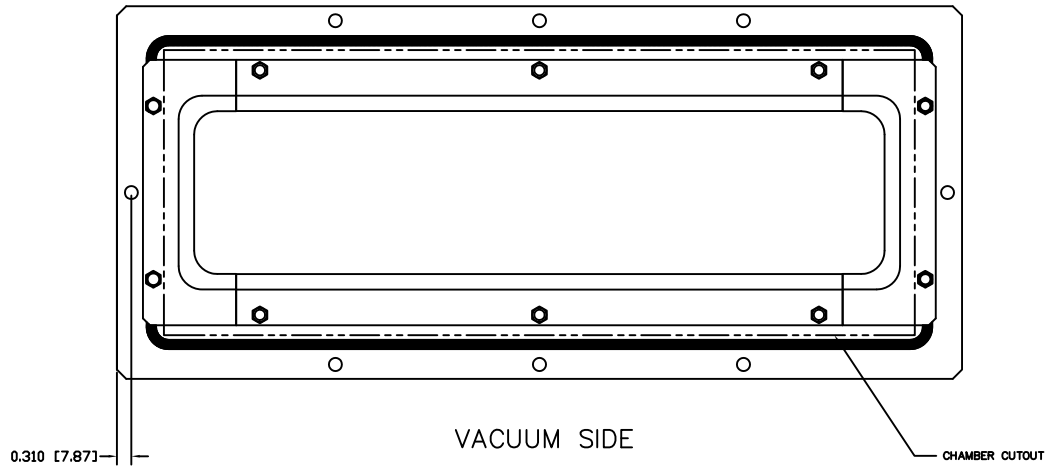


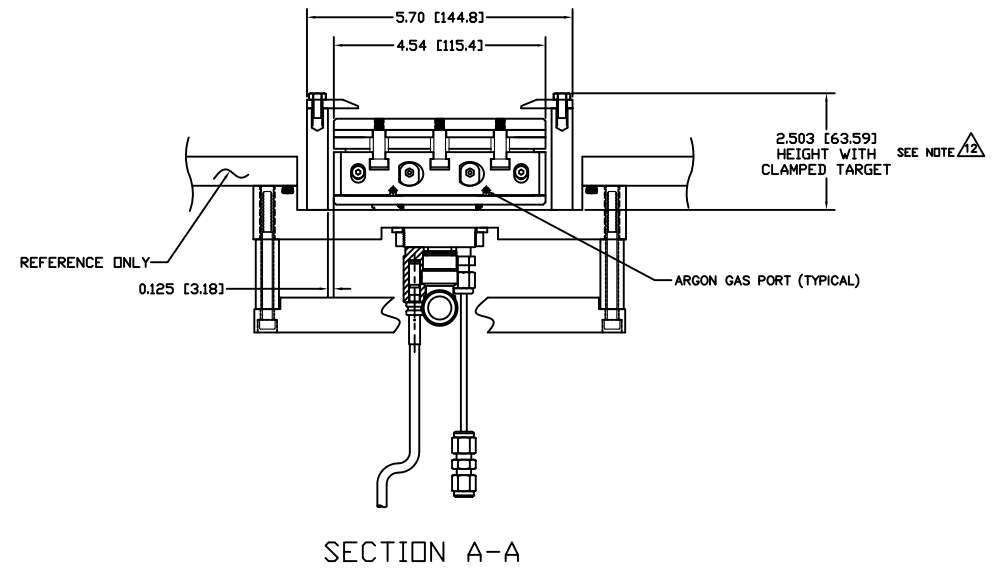
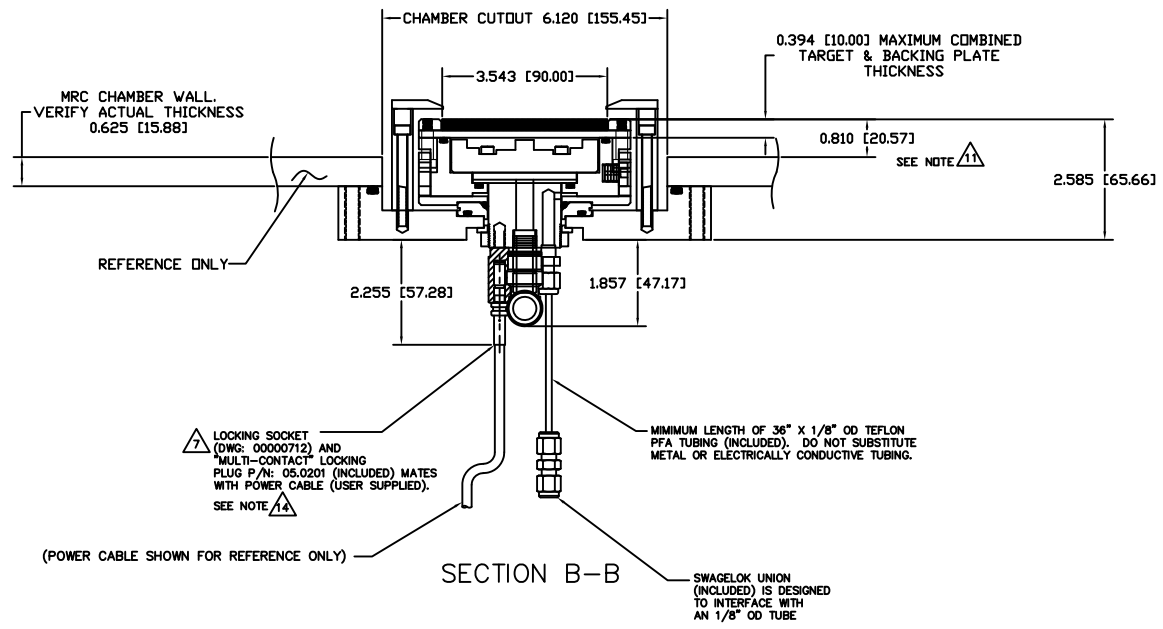
15. MASS OF SOURCE FULLY ASSEMBLED IS 57 LBS [25.85 KG] DRY.

INSTALLATION CONTROL DRAWING

QUANTITY PER ASSEMBLY	CAGE CODE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ZONE	ITEM NO
			PARTS LIST			
			BY: JOHN MILLER 11/08/01	MATERIALS SCIENCE, INC. Vacuum and Thin Film Technology		
			SUNSOURCE, 90x381MM KAMLOK STYLE, MRC 600/900 RETROFIT			
			DATE: 11/08/01	REV: E	00002341	2
			APPLICATION	DO NOT SCALE DRAWING	1/1	2

00002341





00002341 C