

REV	DATE	BY	APP'D
INITIAL RELEASE	170714		

- NOTES: UNLESS OTHERWISE SPECIFIED
1. INTERPRET DRAWING IAW THE GLOBAL PROFESSIONAL PUBLICATIONS "DRAWING REQUIREMENTS MANUAL", EIGHTH EDITION.
 2. INTERPRET DIMENSIONS AND TOLERANCES IAW ANSI Y14.5M - 1982.
 3. INTERPRET ABBREVIATIONS IAW MIL-STD-12.
 4. MASS OF CATHODE FULLY ASSEMBLED IS 18 LBS., DRY.

5 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.

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

7 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.

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

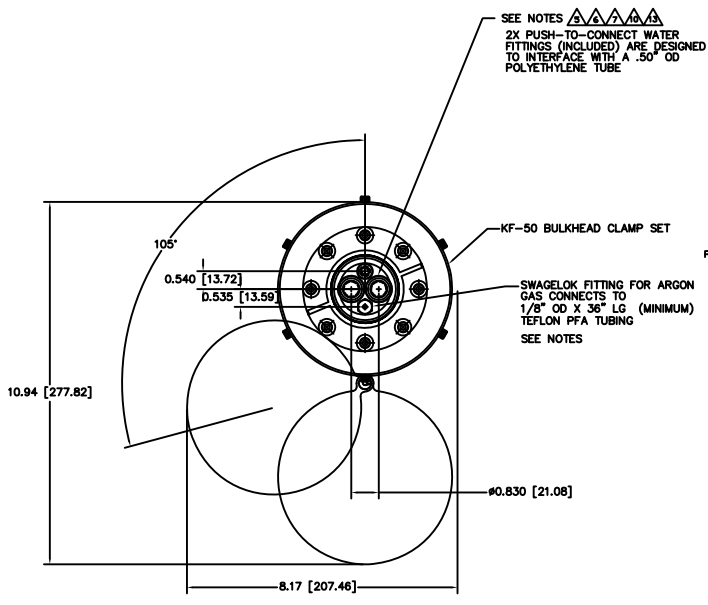
9 FOR PROPER INSTALLATION, OPERATION, AND USE OF THE SUNSOURCE PLANAR MAGNETRON CATHODE(S) SEE MATERIALS SCIENCE, INC. DOCUMENT NUMBER 251092.

10 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

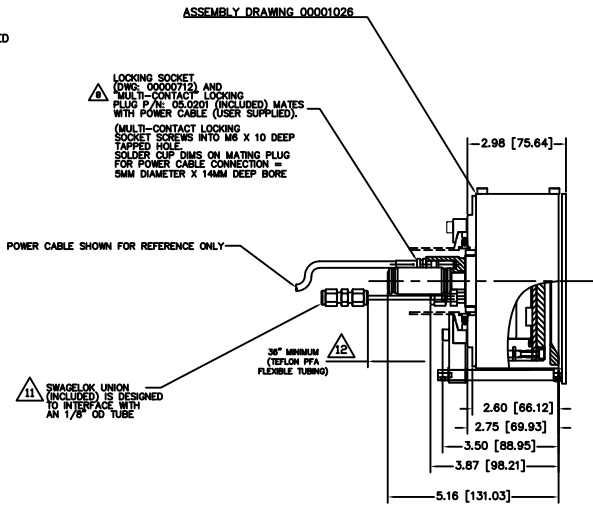
11 GAS FITTING (INCLUDED), SWAGelok UNION IS AVAILABLE FROM: HTTP://WWW.SWAGelok.COM. P/N SS-200-6.

12 MINIMUM 36" LONG TEFLON PFA LINE REQUIRED (36" INCLUDED WITH SOURCE) FOR SAFE OPERATION. DO NOT USE METAL GAS LINES TO MEET THIS REQUIREMENT - ELECTRICAL ISOLATION IS NECESSARY.

13 1/2" OD WATER TUBES AND PUSH-TO-CONNECT UNIONS CAN BE REPLACED WITH 3/8" OD OR 1/4" OD WATER LINES FOR LOWER POWER APPLICATIONS OR WHEN ONLY 1" BASEPLATE FEEDTHROUGHS ARE PRESENT (MUST USE 1/4" OD TUBING FOR THIS SIZE CONTACT FACTORY).



MINIMUM SHUTTER SWING CLEARANCE



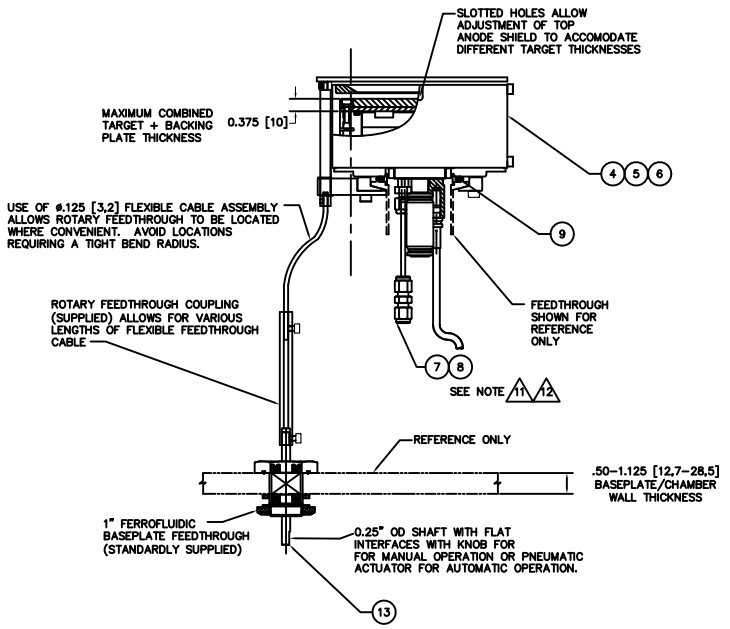
QTY	UNIT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ZONE	ITEM NO.
						19
						18
1		00002965	SHUTTER ASSEMBLY, 4 INCH SUNSOURCE, 1.33CF			17
1		00002964	SHUTTER ASSEMBLY, 4 INCH SUNSOURCE, 2.75CF			16
1		00002382	FEEDTHROUGH, ROTARY, FERROFLUID SEAL, 1.33CF			15
1		00002225	FEEDTHROUGH, ROTARY, FERROFLUID SEAL, 2.75CF			14
	1	00002132	FEEDTHROUGH, ROTARY, FERROFLUID SEAL, 1" BP			13
1	1	1	00002133	FEEDTHROUGH SHAFT CABLE CONNECTOR	304 CRES	12
1	1	1	00002134	FLEXIBLE CABLE ASSEMBLY	304 CRES	11
	1	1	00002490	SHUTTER ASSEMBLY, 4 INCH SUNSOURCE, 1" BP		10
1	1	1	00000100-4	CENTERING RING, KF-50		9
1	1	1	12	TUBING, 1/8" OD X 1/16" ID X 36" MINIMUM	TEFLON PFA	8
1	1	1	11	UNION, SWAGelok, SS-200-6	316 CRES	7
1			00001026-3	4 INCH INTERNAL CATHODE (CLAMPED TARGET)		6
	1		00001026-2	4 INCH INT CATHODE (DIRECT WATER COOLED TGT)		5
	1		00001026-1	4 INCH INTERNAL CATHODE (BONDED TARGET)		4
			00002953-3	4" DIA. INTERNAL SUNSOURCE WITH SHUTTER		3
			00002953-2	4" DIA. INTERNAL SUNSOURCE WITH SHUTTER		2
			00002953-1	4" DIA. INTERNAL SUNSOURCE WITH SHUTTER		1

INSTALLATION CONTROL DRAWING

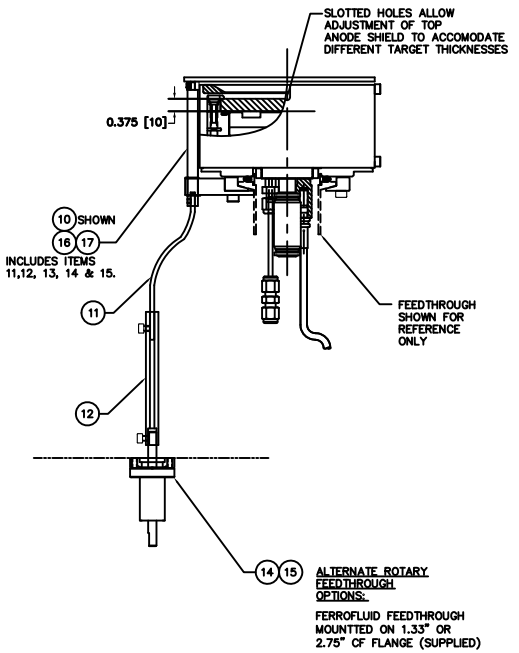
QTY FOR ASSEMBLY	590	DATE	07/07/14	DESIGNED BY	J MILLER	DATE	07/07/14	APPROVED BY		DATE	
NEXT ASSEMBLY		USED ON		MATERIALS SCIENCE, INC. Vacuum and Thin Film Technology		4" INTERNAL WITH SHUTTER INSTALLATION CONTROL DWG		MATERIAL SPECIFICATION		ZONE	ITEM NO.
APPLICATION		DO NOT SCALE DRAWING		SCALE		1/1		00002953			2

TARGET MOUNTING VARIATIONS

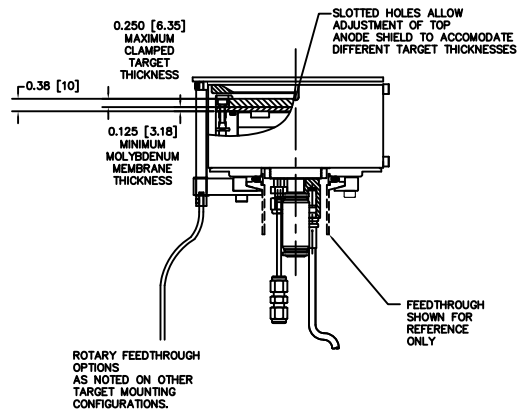
**BONDED TARGET ASSEMBLY
 (-1 ASSY)**



**DIRECTLY WATER COOLED TARGET
 (-2 ASSY)**



SEMI-PERMANENT MEMBRANE FOR CLAMPED TARGETS (-3 ASSY)



00002953