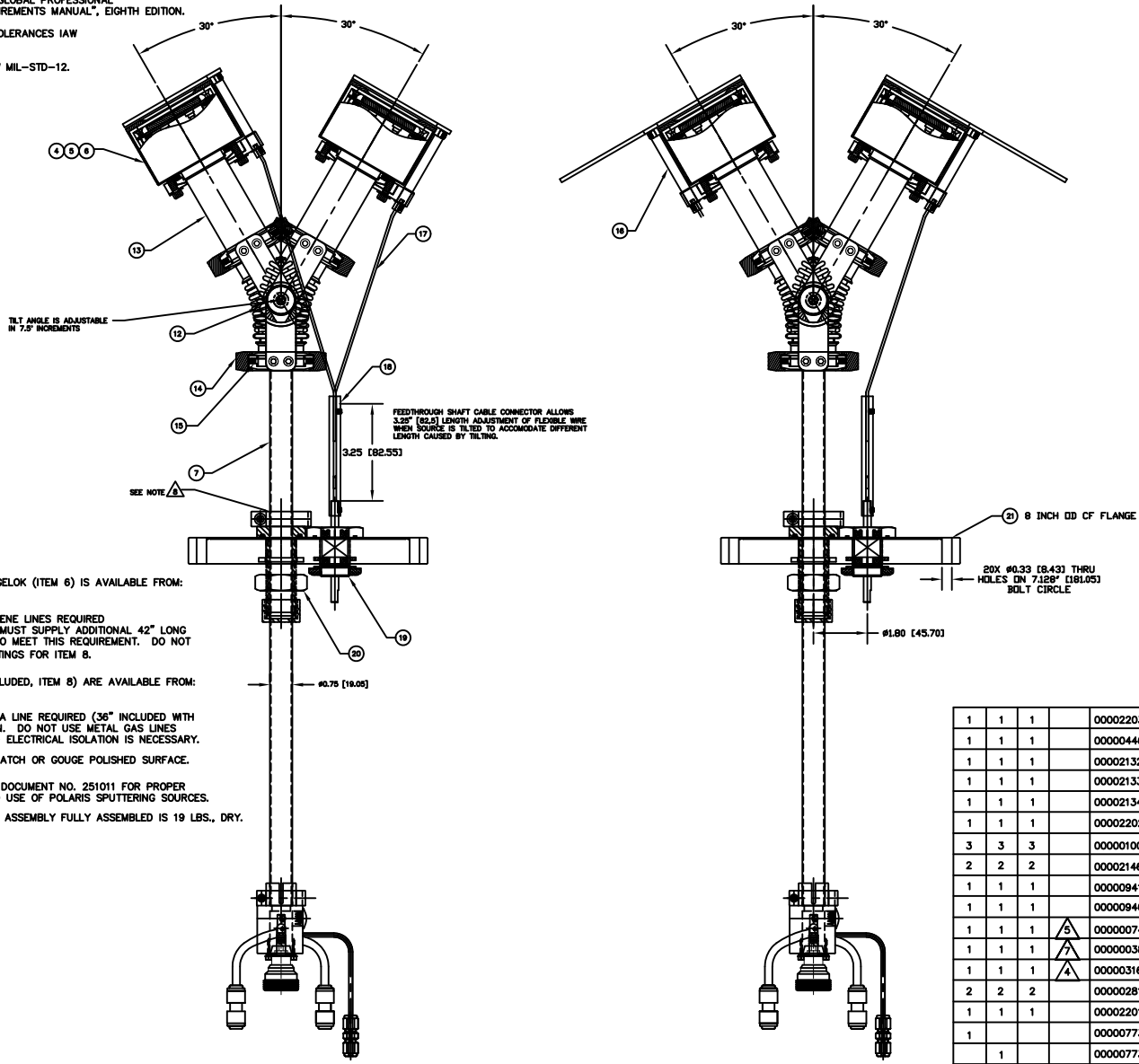


REV	DATE	DESCRIPTION	BY	APP'D
INITIAL RELEASE	080305			
A	101017	A NEW SHUTTER AND TILT MECHANISMS	J. MILLER	

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.

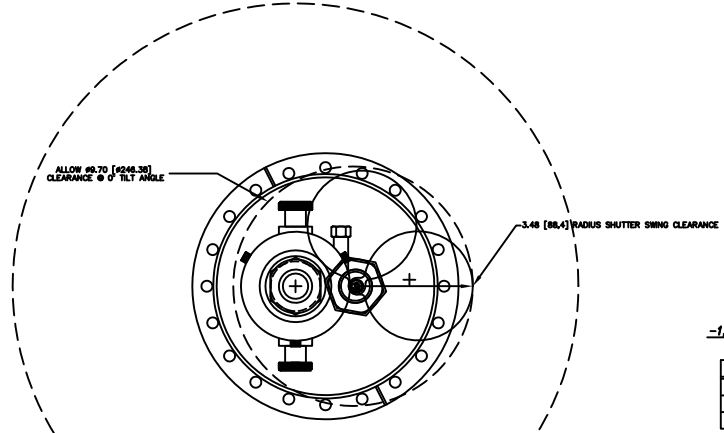
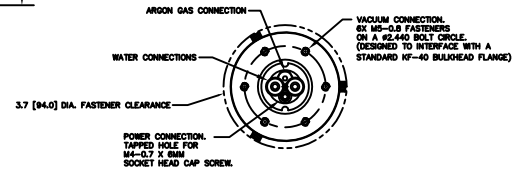
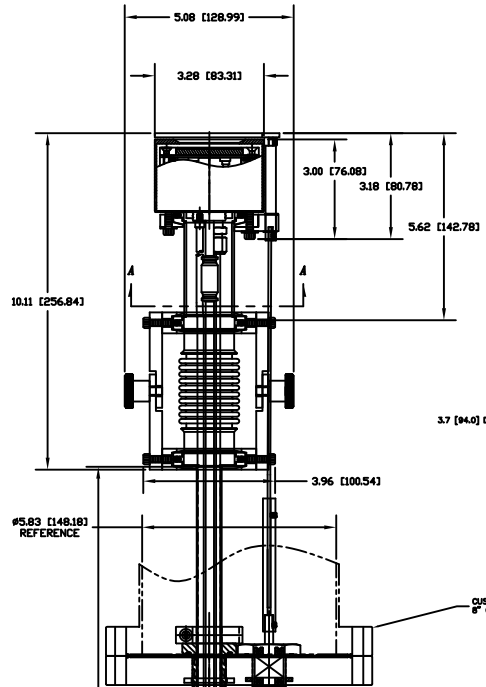
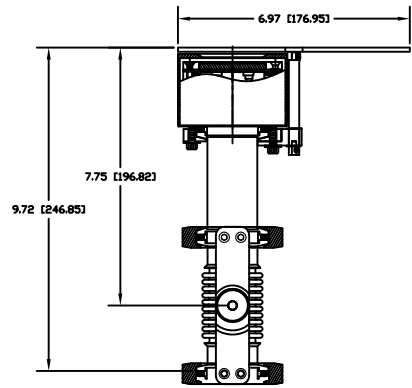


- ⚠ GAS FITTING (INCLUDED), SWAGelok (ITEM 6) IS AVAILABLE FROM: [HTTP://WWW.SWAGELOK.COM](http://www.swagelok.com)
  - ⚠ MINIMUM 60" LONG POLYETHYLENE LINES REQUIRED FOR SAFE OPERATION. USER MUST SUPPLY ADDITIONAL 42" LONG POLYETHYLENE WATER LINES TO MEET THIS REQUIREMENT. DO NOT SUBSTITUTE METAL WATER FITTINGS FOR ITEM 8.
  - ⚠ WATER LINE CONNECTORS (INCLUDED, ITEM 8) ARE AVAILABLE FROM: [HTTP://WWW.JOHNQUEST.COM](http://www.johnguest.com)
  - ⚠ 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.
  - ⚠ TAKE CARE NOT TO DING, SCRATCH OR GOUGE POLISHED SURFACE.
- SEE MATERIALS SCIENCE, INC. DOCUMENT NO. 251011 FOR PROPER INSTALLATION, OPERATION AND USE OF POLARIS SPUTTERING SOURCES.
  - MASS OF SPUTTERING SOURCE ASSEMBLY FULLY ASSEMBLED IS 19 LBS., DRY.

QTY	REV	DESCRIPTION	MATERIAL SPECIFICATION	ZONE	ITEM NO	
1	1	1	00002203	8 INCH CF FLANGE, MODIFIED	304 CRES	21
1	1	1	00000446	FEEDTHROUGH, 1" BASEPLATE TO 3/4" OD TUBE		20
1	1	1	00002132	FEEDTHROUGH, ROTARY, FERROFLUID SEAL		19
1	1	1	00002133	FEEDTHROUGH SHAFT CABLE CONNECTOR	304 CRES	18
1	1	1	00002134	FLEXIBLE CABLE ASSEMBLY	304 CRES	17
1	1	1	00002202	SHUTTER ASSEMBLY, 2 INCH POLARIS	304 CRES	16
3	3	3	00000100-3	CENTERING RING, KF-40		15
2	2	2	00002146	CLAMP, KF-40, STAINLESS STEEL	304 CRES	14
1	1	1	00000941	NIPPLE, KF-40 X 3.20 LONG	316 CRES	13
1	1	1	00000940	TILT MECHANISM ASSEMBLY, POLARIS GEN II		12
1	1	1	⚠ 00000074-1	TUBING, 1/4" OD X .170" ID X 18"	POLYETHYLENE	11
1	1	1	⚠ 00000038-1	TUBING, 1/8" OD X 1/16" ID X 36" MINIMUM	TEFLON PFA	10
1	1	1	00000316	FITTING, SWAGelok, SS-200-6	316 CRES	9
2	2	2	00000281-1	1/4 INCH OD COUPLING, QUICK CONNECT	P/N C1040BW	8
1	1	1	00002201	3/4 INCH TUBE FEEDTHROUGH ASSEMBLY	304 CRES	7
1			00000773-1	2 INCH INTERNAL CATHODE (CLAMPED TARGET)		6
1			00000773-2	2 INCH INT CATHODE (DIRECT WATER COOLED TGT)		5
1			00000773-3	2 INCH INTERNAL CATHODE (BONDED TARGET)		4
			00000947-3	2" POLARIS SOURCE, VARIABLE, TILT & SHUTTER		3
			00000947-2	2" POLARIS SOURCE, VARIABLE, TILT & SHUTTER		2
			00000947-1	2" POLARIS SOURCE, VARIABLE, TILT & SHUTTER		1

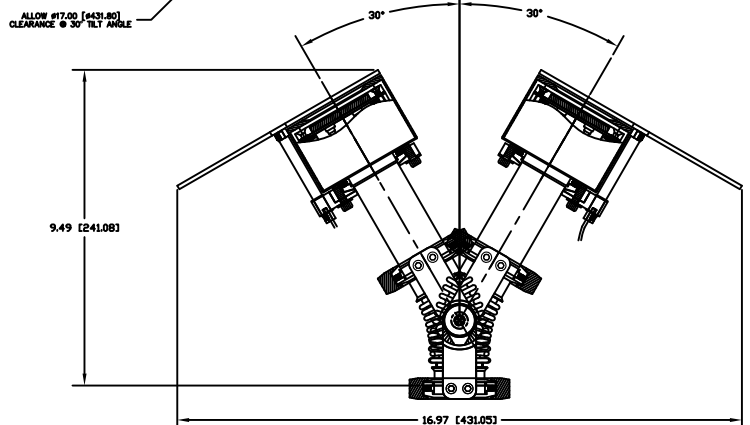
INSTALLATION CONTROL DRAWING

QUANTITY FOR ASSEMBLY	CAGE CODE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ZONE	ITEM NO
PARTS LIST						
DATE	BY	CHK'D	APP'D	MATERIALS SCIENCE, INC. Vacuum and Thin Film Technology		
				2" POLARIS, VARIABLE POSITION TILT, SHUTTER - 8" CF FLANGE		
DATE	BY	CHK'D	APP'D	00000947		
SCALE	DO NOT SCALE DRAWING					



-1, -2, AND -3 ASSY SHOWN

DASH NO	DIM "A"
-1	12"
-2	18"
-3	24"



0.25" OD SHAFT WITH FLAT INTERFACES WITH KINGS FOR FOR MANUAL OPERATION OR PNEUMATIC ACTUATOR FOR AUTOMATIC OPERATION.

⑩ WATER FITTINGS ARE DESIGNED TO INTERFACE WITH A 1/4" OD POLYETHYLENE OR POLYPROPYLENE TUBE. SEE NOTES ⚠️

FEMALE HN CONNECTOR @ 300 WATTS MAXIMUM RF POWER LEVELS.

⑨ SEE NOTE ⚠️

FEMALE DIN 7/16 CONNECTOR @ GREATER THAN 300 WATTS RF POWER LEVELS.

00000947