

COOKE**VACUUM PRODUCTS**

A DIVISION OF CVP, INC.

Systems • Components • Instrumentation

12/27/95

Chris,

we didn't have a manual specific to your sputterer, but the info enclosed should be just as good. Note:

- ① The guns were US Gun products, and are setup for $\frac{1}{8}$ " targets
- ② There is, or was a capacitance manometer.
- ③ There are, or were, mass flow controllers.

Overall, the system looks to be very well equipped for nearly any deposition or etch purpose.

Good luck!

R. Stein

Two of these

INTRODUCTION TO THE US' GUN II™

Specifications

Target Size:	2 inches diameter
Target Thickness:	1/32"-1/4"
Mounting:	3/4" quick coupler, may be mounted in top of chamber, in the baseplate, or in a feedthrough collar. Gun will operate in any orientation.
Power Required:	Maximum 500 watts, 13.56 Mhz R.F. or maximum 1000 watts D.C.
Cooling Water:	.2 GPM (See discussion on water, page 4.)
Target Mounting:	No special bonding is required. Thermal contact is made to the mounting surface with a silver enhanced heat sink material. The target is secured mechanically with a clamp ring.
Overall Height:	5 1/8 inches
Largest Diameter:	4 inches
Nominal Operating Pressure:	5μ argon (may be used at any pressure from 2μ-50μ. (2 X 10 ⁻³ to 5 X 10 ⁻² Torr)
Sputtering Orientation, Vertical Mount:	Up or down, substrate to target distance may be adjusted by moving the gun in the quick coupler feed through.
Horizontal Mount:	May be rotated for operation, either up, down or sideways. Target to substrate distance is fixed, radial to the mounting tube.

CUSTOMER: UNIVERSITY OF SOUTHERN CALIFORNIA

JOB NO: 2649

MODEL NO: C71-3M-J-SB-D-SSB-SHC-MKS-CM-IGC-VAT-X

DELIVERY: 3/1/88

DESCRIPTION: Manual RF/DC sputtering system, 3"

ASSEMBLY: 1/18/88

DPD, VAT gate valve, IGC20T, MKS system,

ISSUED: 12/22/87

hoist, 14x14 SS cylinder, J arm, ENI650

REV 1:

supply, D8B Fomblin, plus customer items

REV 2:

BOM MASTER: BMC71

Component	Drwg No.	Description/Comments	Progress
Assembly	C-2649-11		
Frame	C-300-15		
Baseplate	SEB-301-1		
Spoolpiece top	A-2649-1		
Throttle valve	MKS 253A-4-3-2	3" ASA	
Valve controller	MKS 252A-1		
Spoolpiece middle	A-2649-6	w/ ball valve neck, BF clearance	
Hi vac valve	VAT 12040-TA06	3" ASA	
LN2 trap	TCC-301-2	modify top flange	
Diffusion pump	C-7407-1	w/c	
Roughing valve	B-200-008-1	special handle-longer	
Mech pump	LEYBOLD D8B	Fomblin prepared	
Ballast tank	SPB-301-6A		
C71 chamber asmbly			
SS cylinder	14"x14"	4" view port	
Top plate	C-2649-13		
(2) US guns II	customer supplied		
J arm body	C-4003-1-11	supply 2 position rotation	
J arm annode	A-4003-2-25		
Substrate heater		w/ PS and control	
Shutter	B-4003-7-1A	modify to cover both targets	
Hoist	D-301-4A		
Gas iso valve	Peter paul		
Gas dist manifold			
Mass flow valves	MKS 1259B-00050-SV	(3 reqd) 0 to 50 sccm, O2, N2, Ar	
Mass flow control	MKS 247C		
Vent valve	Hoke 1513-M2S		
Water flow switch	Hayes shurflow and proteus for gun water		
Instrumentation	IGC20T		
Cap. manometer	MKS 127AA-00001-E	w/ VCO fitting	
Manometer PS	MKS PDR-C-1C		
System controls	manual		
RF power supply	ENI HF650	650 watt RF	
Sputter module	SB-D	w/ select switch	
DC power supply	Advanced Energy MDX-1K	customer supplied	
Feedthrus	(1) rotary, (1) J arm port, (1) gas, (1) SHC,		
	(5) blanks		

eni powersystems OEM-6 RF supply

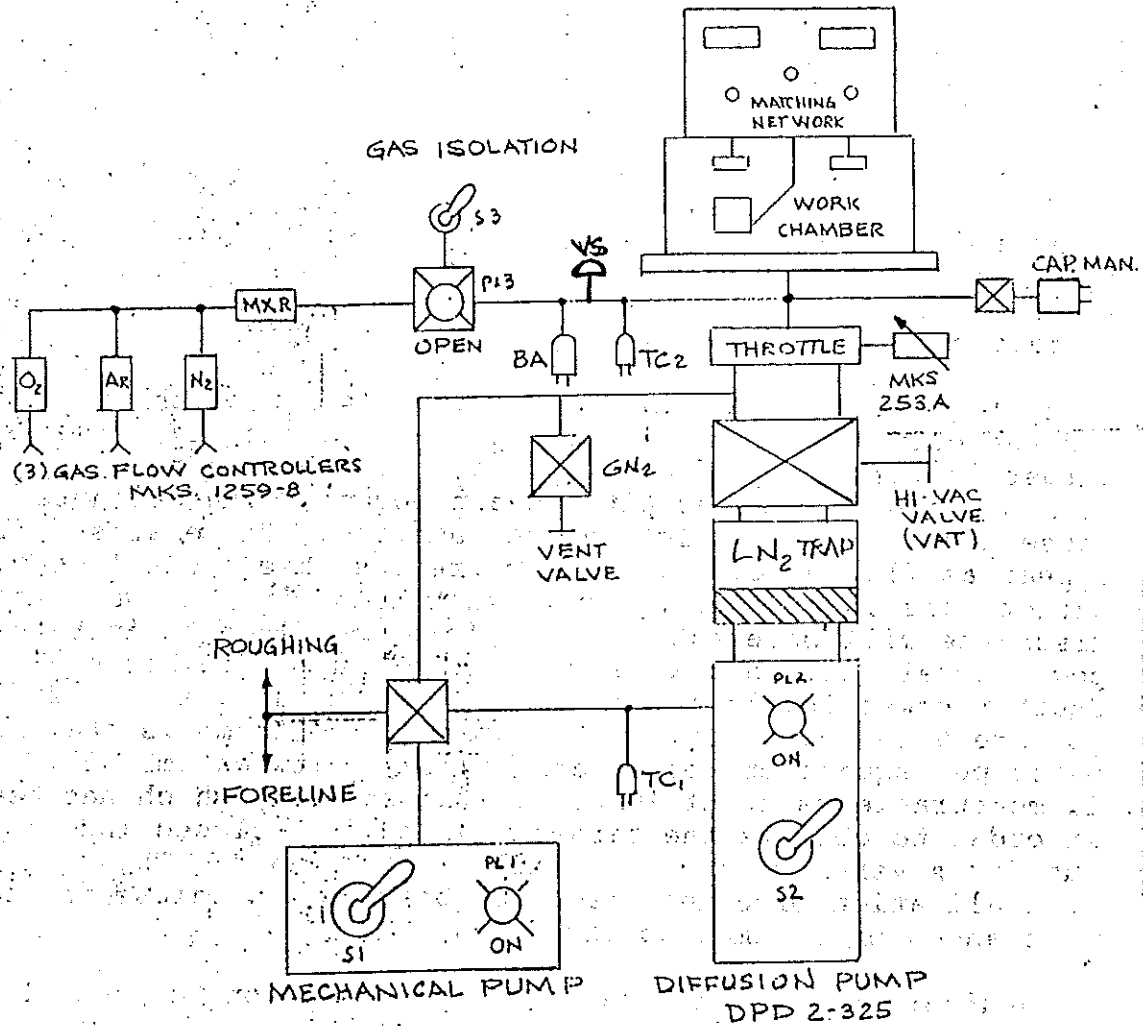
RAISE
LIFT
LOWER

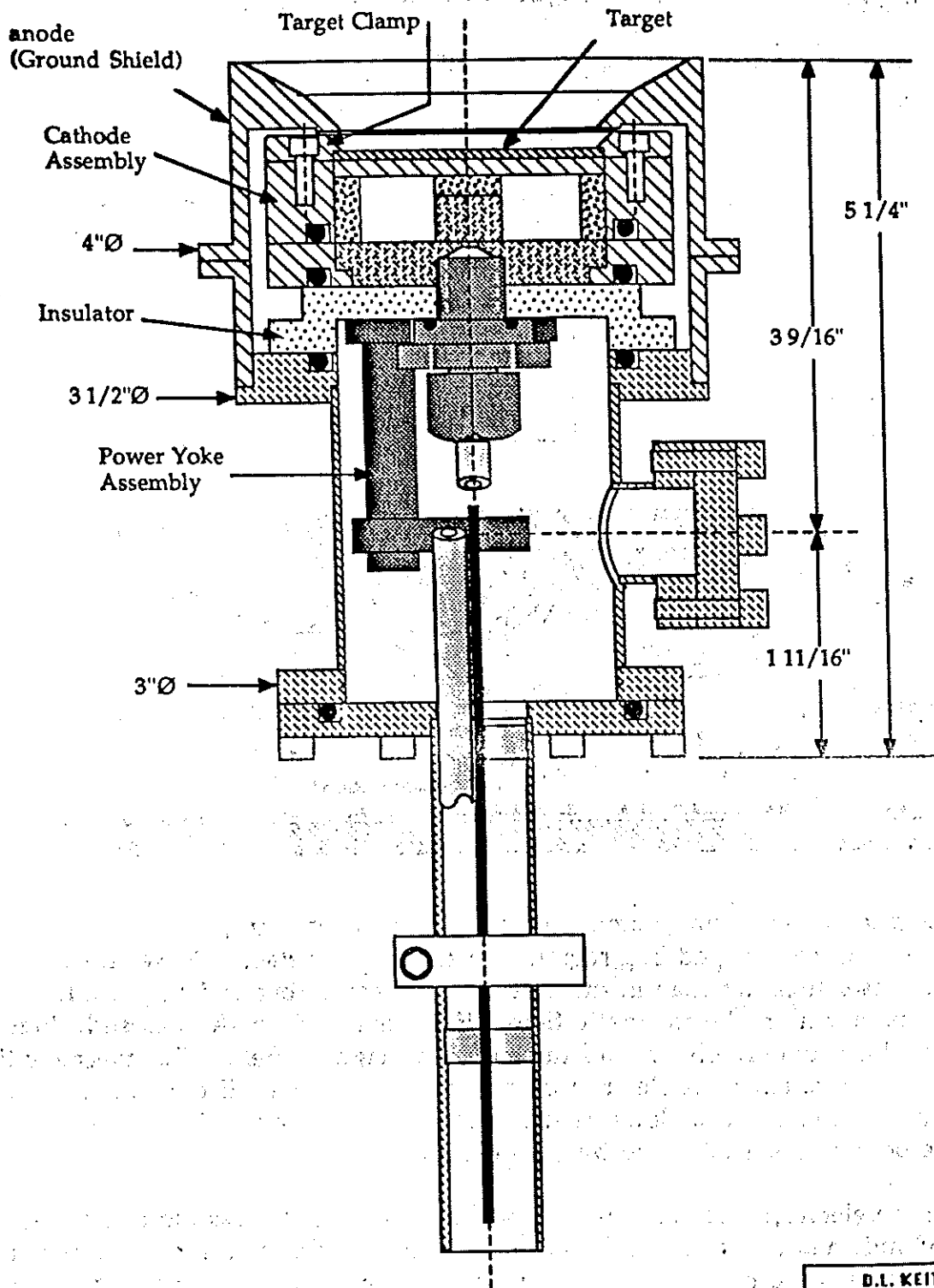
F8

CONTROL POWER

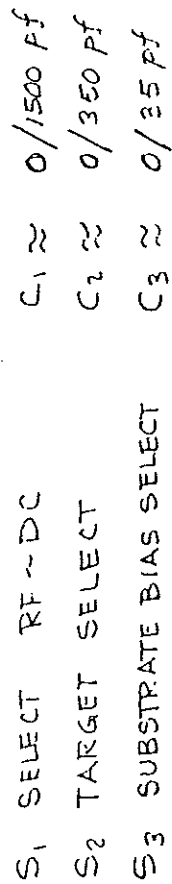
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PL4
ON



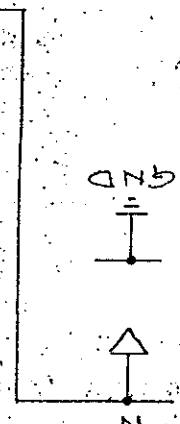
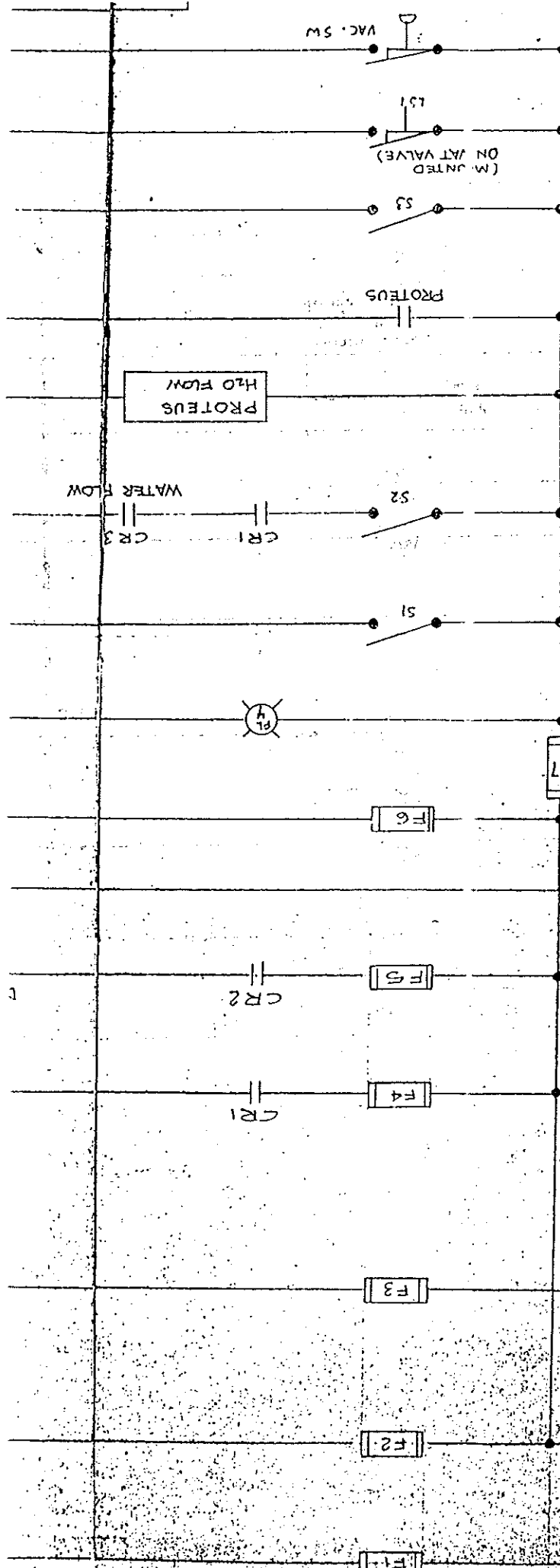


D.L. KEITH
 8-3-86
 ASSEMBLY 1



SPUTTERING HEAD
C71 SPECIAL

JOB	TITLE	PRO	SCA	DR.
C				



208/230 V. 60Hz

