

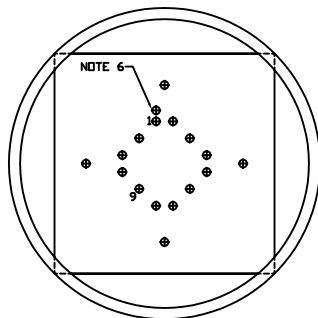
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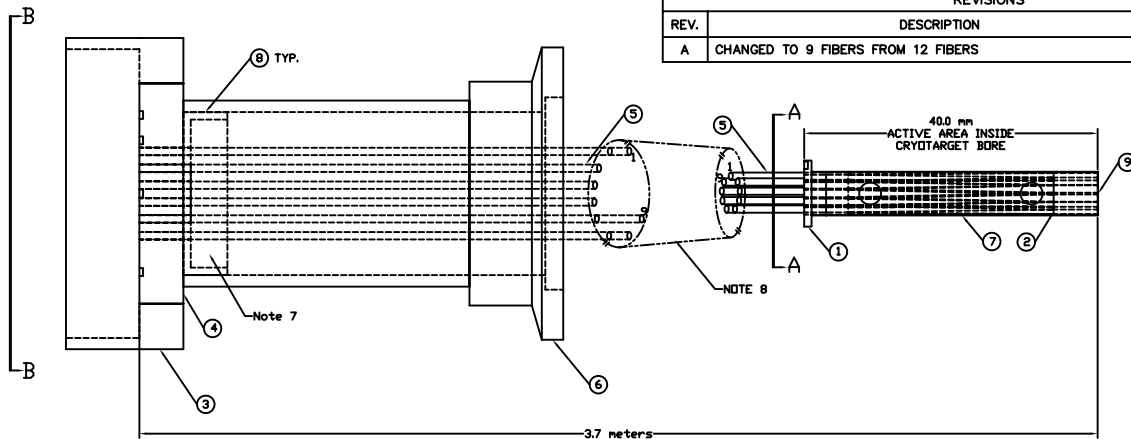
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DWG. NO. 66850-C-03959 SHT. 1 REV. A 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	CHANGED TO 9 FIBERS FROM 12 FIBERS	12/2/03	

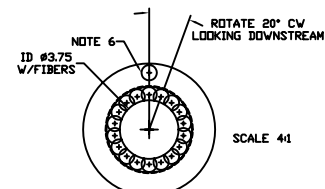


VIEW B_B



TRANSLATION TABLE

FIBER POS. #	HAMAMATSU PIXEL #
1	13
2	12
3	19
4	26
5	34
6	43
7	52
8	53
9	46

SECTION A_A
WITH OVERLAP PATTERN
SEE NOTE 5

NOTES:

1. USED WITH HAMAMATSU PHOTOMULTIPLIER TUBE ASSEMBLY H7546B. THERE ARE 64 PIXELS ARRANGED IN A 8X8 MATRIX. EACH PIXEL IS 2 MM SQUARE AND SEPARATED BY 0.3 MM. THE 1-1/2" PHOTOMULTIPLIER TUBE ADAPTER (ITEM 3) IS USED WITH ITEM 4 TEMPORARILY, WITH A 1-1/2" DIA. PMT, UNTIL THE HAMAMATSU TUBE ARRIVES THEN IT (ITEM 3) IS REMOVED.

2. ATTACH TO DOWNSTREAM END OF FORWARD RING AFTER FIBERS ARE POLISHED USING BICRON OPTICAL CEMENT. BE SURE THE REFLECTIVE SIDE OF THE FOIL FACES THE POLISHED ENDS OF THE FIBERS.

3. USE 0.002" THICK KAPTON FILM. FORM CYLINDER USING TOOLING 66850-A-03966 WITH A 3 MM OVERLAP AT THE SEAMS. SAND OVERLAPPING SURFACES WITH 320 GRIT PAPER AND GLUE USING DP-190. USE YELLOW MYLAR TAPE TO HOLD SEAM WHILE CURING. ALLOW EXTRA MATERIAL OVER THE ENDS. TRIM FLUSH WITH TOOLING AFTER EPOXY HAS CURED.

4. CUT FIBERS TO 3.7 METER LENGTHS. ALLOW 0.1-1.0 MM EXCESS PAST END OF RINGS. POLISH TO FACE OF RING AFTER EPOXY HAS SET.

5. FORWARD RING (ITEM 1) IS TWISTED BY 15° CW WITH RESPECT TO REAR RING (ITEM 2) TO GIVE OVERLAPPING COVERAGE OF FIBERS. ASSEMBLE BY FIRST GLUING RINGS TO KAPTON TUBE. WHEN EPOXY HAS CURED, THREAD FIBERS THROUGH RINGS AND GLUE THEM INTO PLACE BY PUSHING OR PULLING PAST END OF RING, APPLY GLUE THEN PUSH OR PULL FIBER BACK INTO THE HOLE.

6. INDEX MARK DENOTING POSITION #1. NUMBERING OF THE FIBERS ON THE REAR RING AND THE POSITION SENSITIVE PHOTOMULTIPLIER ADAPTER INDEX UPWARD IN CLOCKWISE FASHION IF YOU ARE FACING THE PART. FOR THE 1-1/2" PMT ADAPTER, THE NUMBERING INDEXES UPWARD FROM LEFT TO RIGHT AS IF READING ENGLISH.

7. GLUE WELL FOR SECURING FIBERS TO ADAPTER.

8. FIBERS ARE ROUTED FROM THE REAR OF THE CRYOTARGET (WHERE THE ACTIVE AREA IS INSERTED) TO THE KF-25 BEAM LINE FLANGE ON THE UPSTREAM END OF THE SACLAY ASSEMBLY (WHERE IT IS READ OUT BY THE PMT). THE KF-25 FLANGE IS PERPENDICULAR TO THE BEAM LINE SO THE FIBERS HAVE TO BEND 90° ON THAT END. KEEP THE BEND AS LARGE AS POSSIBLE. KEEP THE FIBERS OUT OF THE BEAM PATH.

QTY	ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	NOTES/MATERIAL SPECIFICATION
1	9	66850-A-03965	FOIL REFLECTOR	NOTE 2
1	8	3M DP-190 GRAY	EPOXY	0.001-0.005" FILM ON ALL CONTACT SURFACES
1	7	66850-A-03964	KAPTON TUBE	NOTE 3
1	6	MDC PART NO. 720001	KF-25 NIPPLE	
12	5	SANT-GOBAN BCF-99 OR LEAFLEX 98-100	1 MM DIA. CLEAR PLASTIC OPTICAL FIBER	NOTE 4
1	4	66850-A-03963	POSITION SENSITIVE PHOTOTUBE ADAPTER	NOTE 1
1	3	66850-A-03962	1-1/2 IN. PHOTOTUBE ADAPTER	NOTE 1
1	2	66850-A-03961	FORWARD RING	
1	1	66850-A-03960	REAR RING	

PARTS LIST

DIM & TOL PER ANSI Y14.5 - UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		CADD I.D. NO. christo\l\d:\ACAD DRAWINGS\dwg1\for_fiber_safety_ring_9hole.dwg		 Thomas Jefferson National Accelerator Facility RESEARCH TRIANGLE PARK, N.C. 27615 UNITED STATES DEPARTMENT OF ENERGY	
FRACTIONS	DECIMAL	APPROVALS	DATE	CLAS CRYOTARGET BEAM OFFSET MONITOR (IOF2H01) ASSEMBLY	
ANGLES		DRAWN			
* .X ± .1	* .1	CHECKED			
* .XX ± .02	* 1.0"	APPROVED/ORIGINATOR			
MATERIAL	UNLESS OTHERWISE NOTED	S. Christo	11/3/03	SIZE	DWG. NO.
FINISH	DEBURR & BREAK ALL SHARP EDGES	S. Christo	11/5/03	C	66850-C-03959
DO NOT SCALE DRAWING		APPROVED	11/5/03	SCALE	2:1
		DHK		USED ON ASSY NO.	VARIOUS
				SHEET	1 OF 1

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