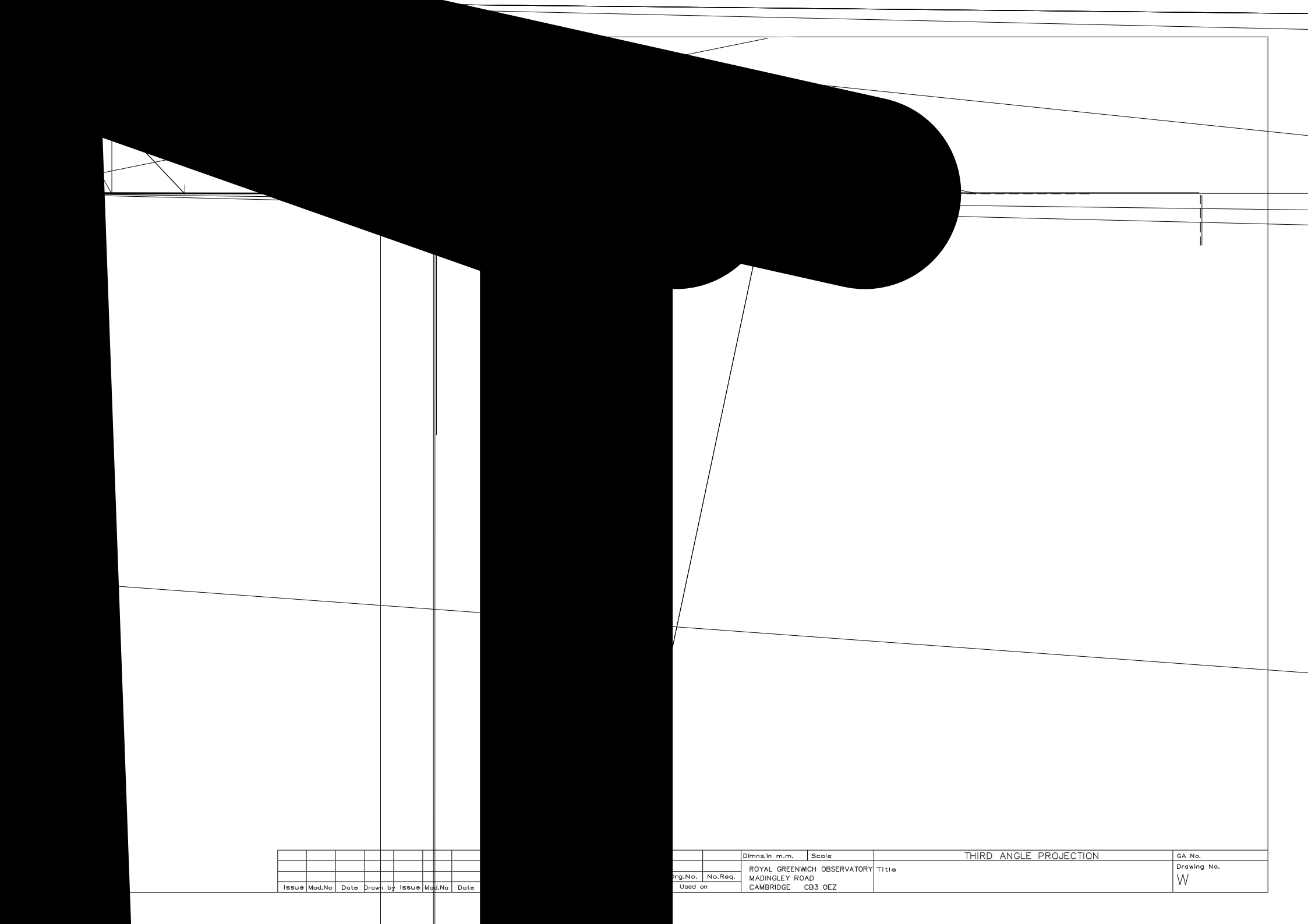


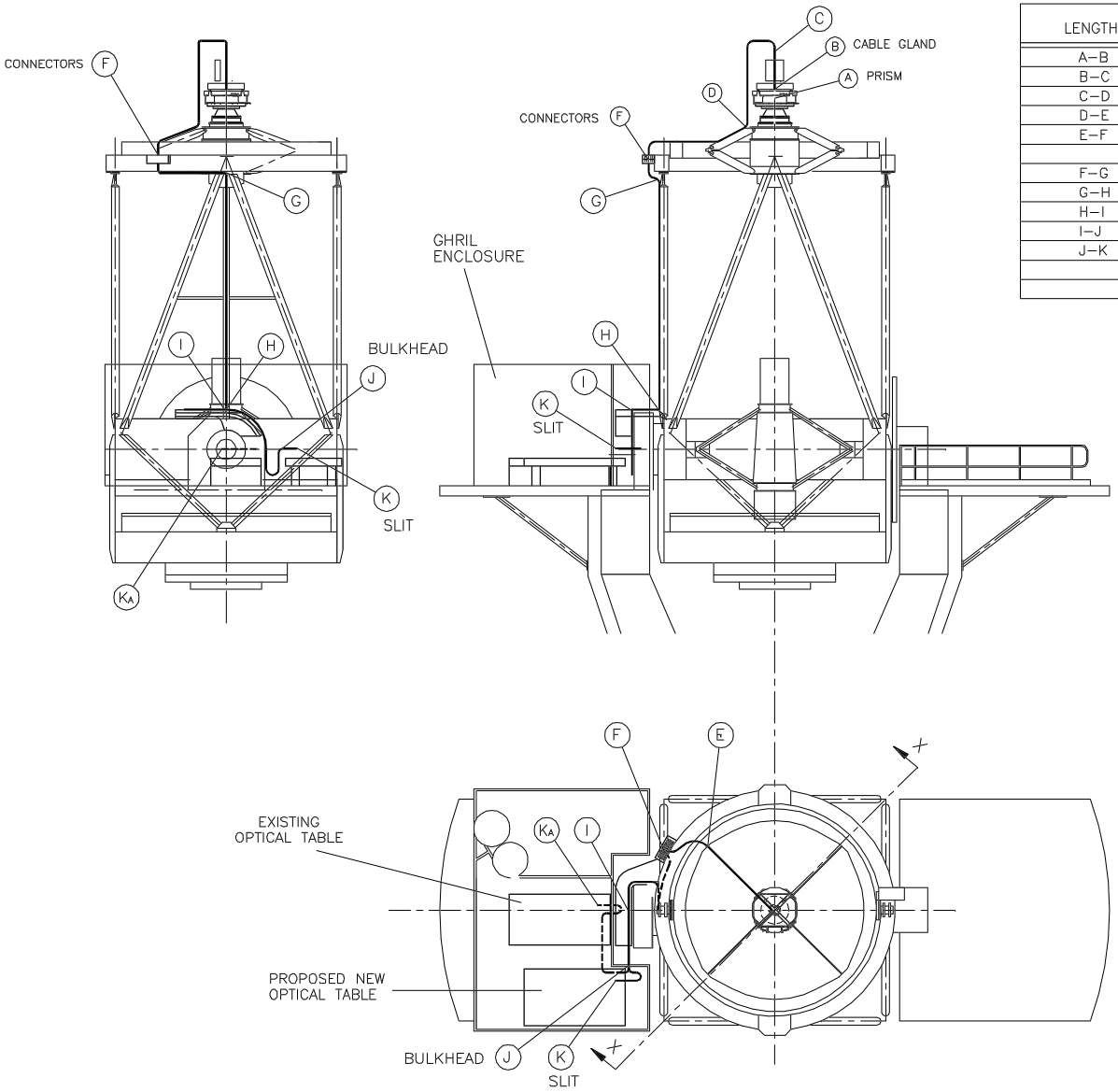
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date

Org.No.	No.Req.
Used on	

Dimns.in m.m.	Scale	THIRD ANGLE PROJECTION	GA No.
ROYAL GREENWICH OBSERVATORY MADINGLEY ROAD CAMBRIDGE CB3 0EZ	Title		Drawing No. W

Drawing No.
W/BL/141

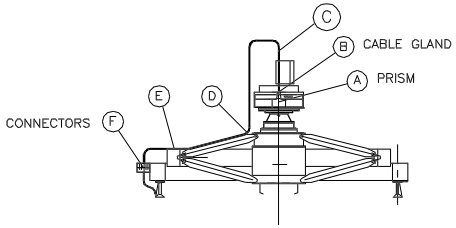
DO NOT SCALE



LENGTH	DISTANCE (MM)	NOTES
A–B	1154	DIM FROM FIBRE.DWG (DU)
B–C	800	
C–D	3050	
D–E	1800	
E–F	1600	
TOTAL LENGTH A–F = 8404		
F–G	3200	
G–H	5200	
H–I	2600	
I–J	2000	FIBRE RUNNING THRU. CABLE CHAIN
J–K	SEE BELOW	
TOTAL LENGTH F–K = SEE BELOW		
TOTAL LENGTH OF FIBRE = SEE BELOW		

LENGTH J–K = 2200 WITH NEW OPTICAL TABLE
LENGTH J–KA = 3700 WITH EXISTING OPTICAL TABLE
TOTAL LENGTH OF FIBRE F–K = 15200
TOTAL LENGTH OF FIBRE F–KA = 16700

OVERALL LENGTH OF FIBRE A–K = 23604
OVERALL LENGTH OF FIBRE A–KA = 25104 — USE THIS LENGTH FOR INITIAL PRODUCTION



SECTION X–X

BASED ON DRAWING FRS–02 BY DURHAM UNIVERSITY
AND MEASUREMENTS MADE BY N.FERNEYHOUGH & D.GELLATLY

Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by
				1		OCT.92	AJW

Tolerance (Unless otherwise stated)
X +/–
X.X +/–
X.XX +/–
ANG. +/–

Material
Finish
Drg.No. No.Req.
Used on

Dimns.in m.m. Scale 1:60
THIRD ANGLE PROJECTION
GA No.

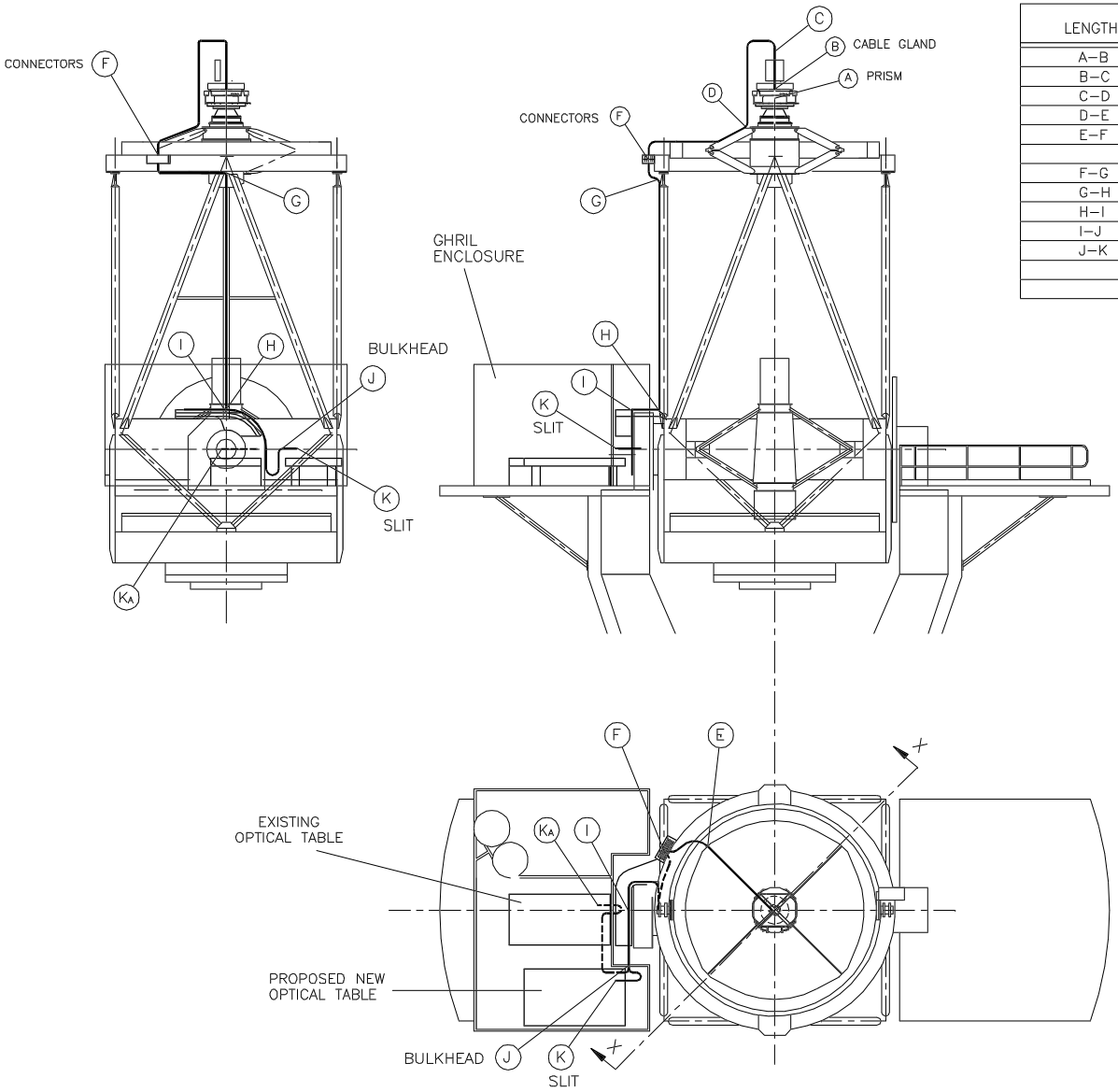
ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

Title
4.2m WHT – FIBRE OPTIC ROUTING

Drawing No.
W/BL/141

Drawing No.
W/BL/141

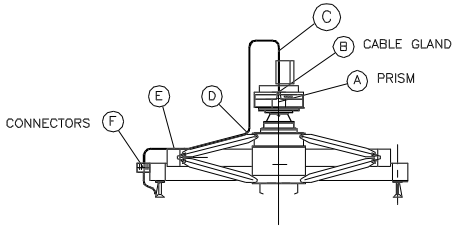
DO NOT SCALE



LENGTH	DISTANCE (MM)	NOTES
A–B	1154	DIM FROM FIBRE.DWG (DU)
B–C	800	
C–D	3050	
D–E	1800	
E–F	1600	
TOTAL LENGTH A–F = 8404		
F–G	3200	
G–H	5200	
H–I	2600	
I–J	2000	FIBRE RUNNING THRU. CABLE CHAIN
J–K	SEE BELOW	
TOTAL LENGTH F–K = SEE BELOW		
TOTAL LENGTH OF FIBRE = SEE BELOW		

LENGTH J–K = 2200 WITH NEW OPTICAL TABLE
LENGTH J–KA = 3700 WITH EXISTING OPTICAL TABLE
TOTAL LENGTH OF FIBRE F–K = 15200
TOTAL LENGTH OF FIBRE F–KA = 16700

OVERALL LENGTH OF FIBRE A–K = 23604
OVERALL LENGTH OF FIBRE A–KA = 25104 — USE THIS LENGTH FOR INITIAL PRODUCTION



SECTION X–X

BASED ON DRAWING FRS–02 BY DURHAM UNIVERSITY
AND MEASUREMENTS MADE BY N.FERNEYHOUGH & D.GELLATLY

Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by
				1		OCT.92	AJW

Tolerance (Unless otherwise stated)
X +/–
X.X +/–
X.XX +/–
ANG. +/–

Material
Finish
Drg.No. No.Req.
Used on

Dimns.in m.m. Scale 1:60
THIRD ANGLE PROJECTION
GA No.

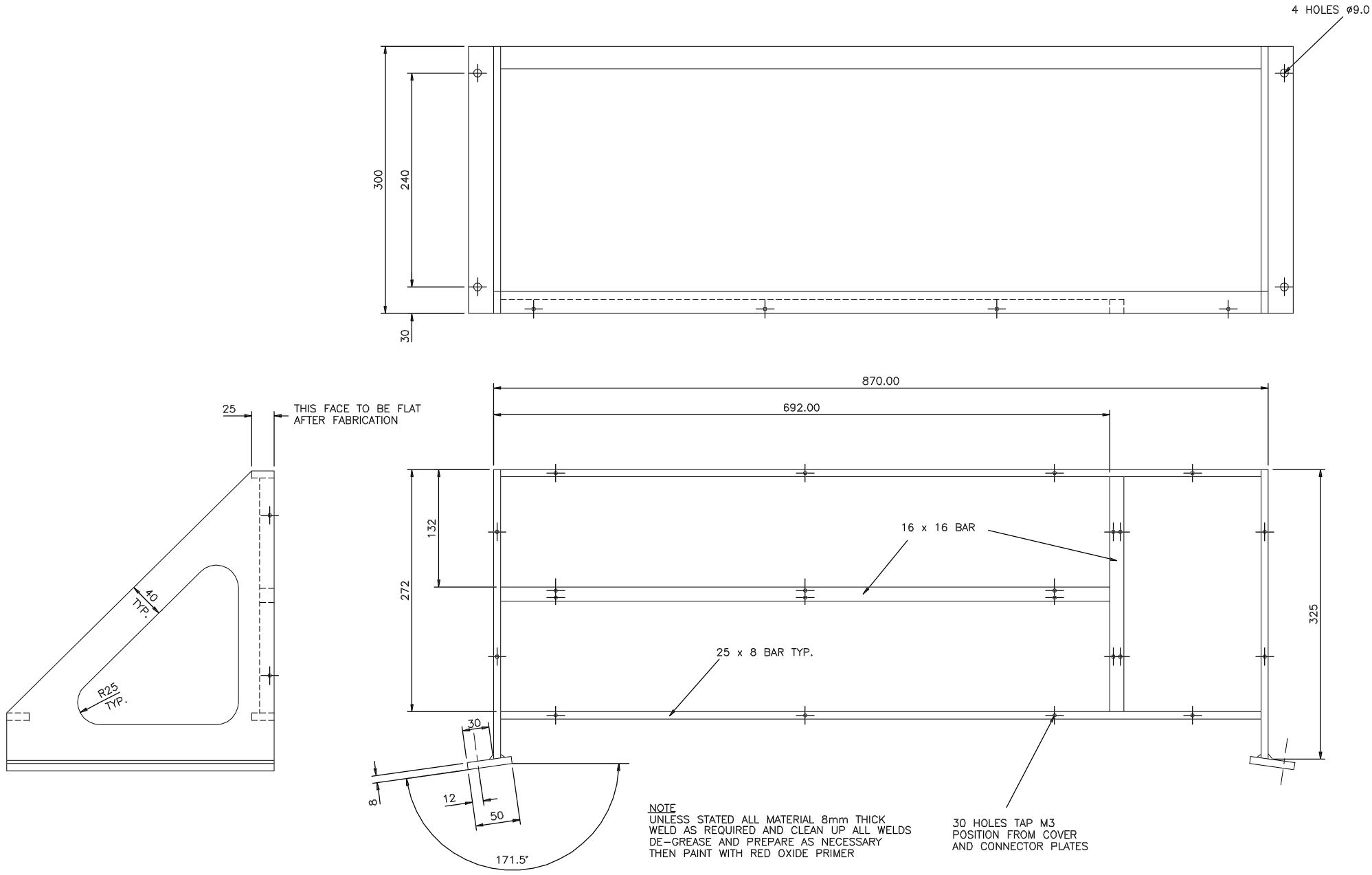
ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

Title
4.2m WHT – FIBRE OPTIC ROUTING

Drawing No.
W/BL/141

Drawing No.
W/BL/143

REMOVE ALL BURRS AND SHARP EDGES



NOTE
UNLESS STATED ALL MATERIAL 8mm THICK
WELD AS REQUIRED AND CLEAN UP ALL WELDS
DE-GREASE AND PREPARE AS NECESSARY
THEN PAINT WITH RED OXIDE PRIMER

30 HOLES TAP M3
POSITION FROM COVER
AND CONNECTOR PLATES

Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by
				2		MAY 93	AJW
				1		APR 93	AJW

Tolerance (Unless otherwise stated)
X +/- 1
X.X +/-
X.XX +/-
ANG. +/-

Material: MS FABRICATION
Finish: SEE NOTE
Drg.No. | No.Req.: 1 OFF
Used on

Dimns.in m.m. | Scale 1:2 | THIRD ANGLE PROJECTION

ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

Title: FIBRE OPTIC CONNECTOR BRACKET
4.2m TOP END RING

GA No.

Drawing No.
W/BL/143

DRAWING NUMBER	No. OF SHEETS	GA ITEM No.	DRAWING TITLE OR COMPONENT NAME	No. OFF	MATERIAL STOCK OR ORDER No. AND DATE	REMARKS	ISSUE DATE	ISSUED TO	FINISH DATE
W / BL / 120	1		ASSEMBLY						
W / BL / 121		121	MANDREL – FIBRE END	TBA	CZ121 BRASS				
/ / 122	1	122	WASHER	TBA	CZ121 BRASS				
/ / 123		123	SUPPORT TUBE	TBA	CNW 19 GUAGE ST.STL. TUBE				
W / BL / 124	1	124	FINGER	TBA	CZ121 BRASS				
W / BL / 125	1	125	FACET BLOCK	1	CZ121 BRASS				
W / BL / 126		126	BOBBIN	1	CZ121 BRASS				
/ / 127	1	127	COUPLING BODY – MALE	1	6082 AL.ALLOY				
/ / 128		128	COUPLING BODY – FEMALE	1	6082 AL.ALLOY				
/ / 129		129	COUPLING SLEEVE	1	6082 AL.ALLOY				
W / BL / 130		130	DOWEL – CENTRE LOCATION	1	303 ST.STL.				
/ / 131		131	DOWEL – RADIAL LOCATION	1	303 ST.STL.				
/ / 132	1	132	DOWEL BAYONET – CATCH	3	303 ST.STL.				
/ / 133		133	STOP COLLAR	1	6082 AL.ALLOY				
/ / 134		134	COUPLING COVER – MALE	1	6082 AL.ALLOY				
/ / 135		135	COUPLING COVER – FEMALE	1	6082 AL.ALLOY				
/ / 136									
/ / 137									
/ / 138									
/ / 139		139	SPRING	1	LEE SPRING LC				
/ / 140									
/ /									
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JOB TITLE
4.2m WYFFOS – FIBRE OPTIC FEED 0.153/ø2.0 LENS

ASS'Y DRG No. W/BL/120

SHEET No. 1 OF 1

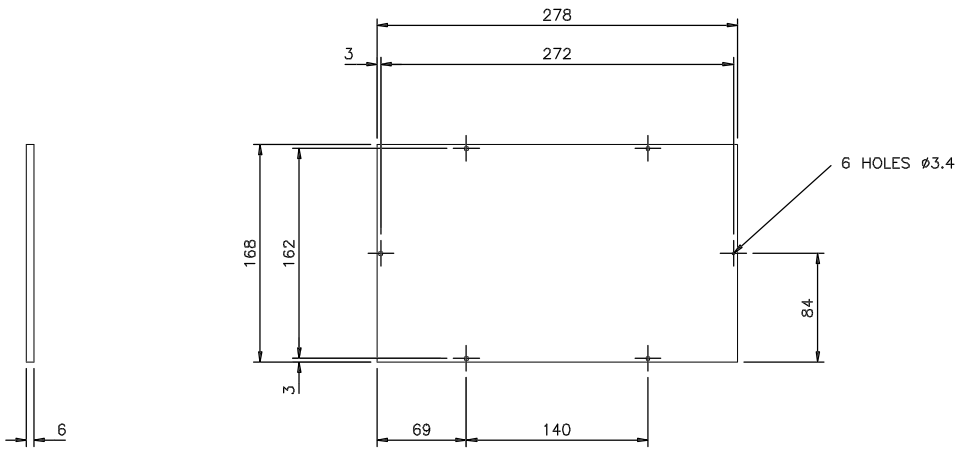
DRAWN BY AJW

DATE JUNE 92

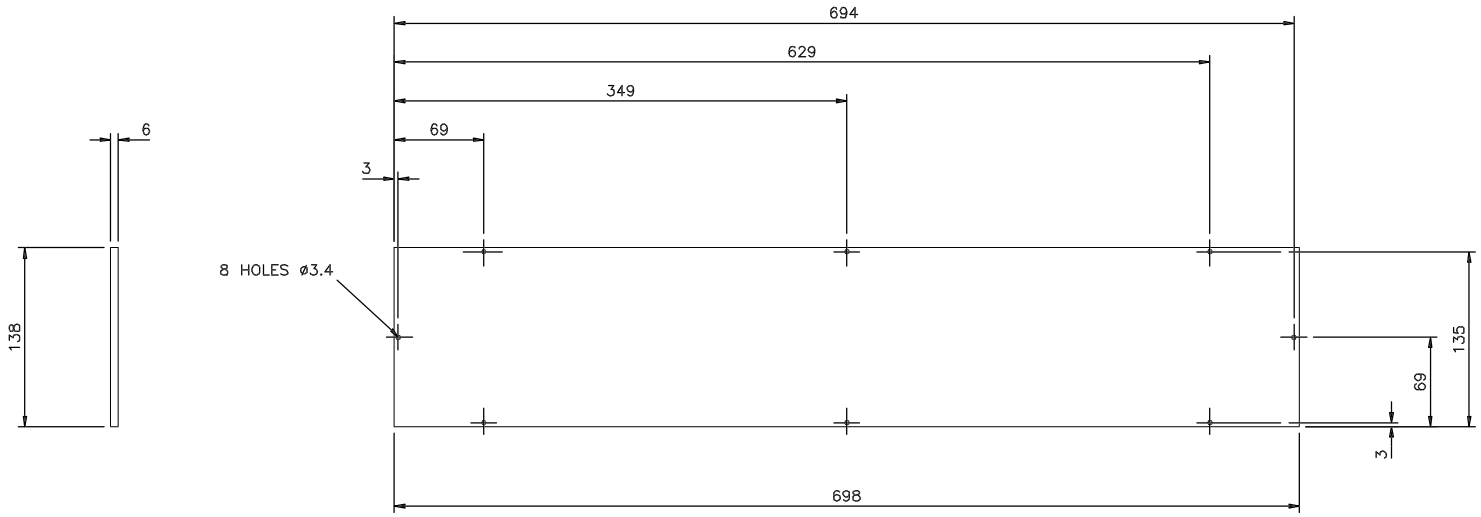
ROYAL GREENWICH OBSERVATORY, MADINGLEY ROAD, CAMBRIDGE

Drawing No.
W/BL/146-7

REMOVE ALL SHARP EDGES



146	TITLE: CONNECTOR PLATE BLANK	DISC REF.
MATERIAL: 6082 AL.ALLOY	SCALE: 1:2	TOLERANCES ± x 1, x.x, x.xx
FINISH: BLK.ANODISE	No. REQD. PER UNIT: 1 OFF	
G.A. No.	RGO	DRAWING No. W/BL/146



147	TITLE: CONNECTOR PLATE BLANK	DISC REF.
MATERIAL: 6082 AL.ALLOY	SCALE: 1:2	TOLERANCES ± x 0.3, x.x 0.1, x.xx
FINISH: BLK.ANODISE	No. REQD. PER UNIT: 1 OFF	
G.A. No.	RGO	DRAWING No. W/BL/147

Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by
				1		MAY.93	AJW

Tolerance (Unless otherwise stated): X +/- ; X.X +/- ; X.XX +/- ; ANG. +/-

Material: —
Finish: —
Drg.No. | No.Req. | Used on

Dimns.in m.m. | Scale: —

THIRD ANGLE PROJECTION

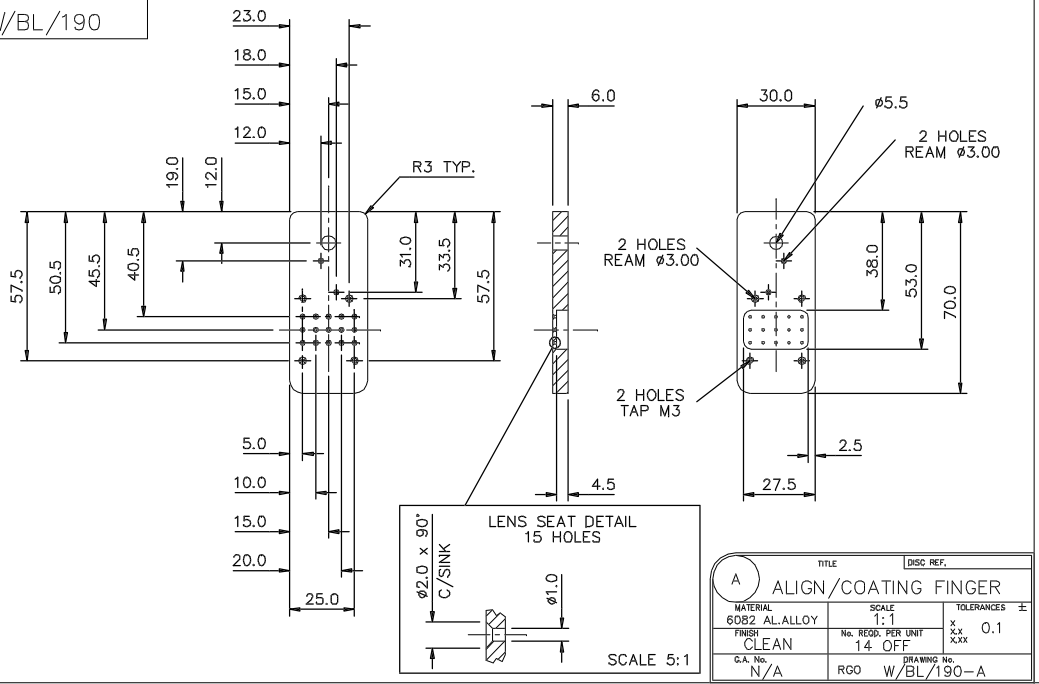
ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

Title: DETAILS – FIBRE OPTIC CONNECTOR BRACKET 4.2m TOP END RING

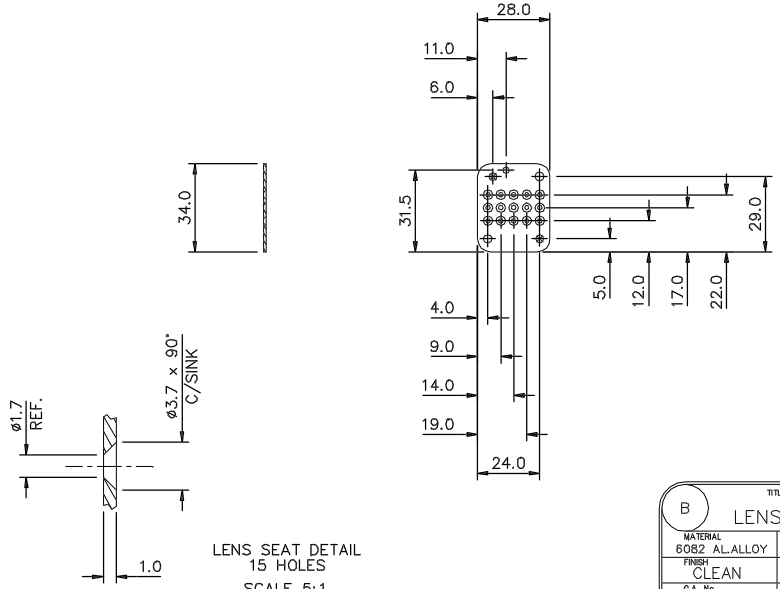
GA No.

Drawing No. W/BL/146-7

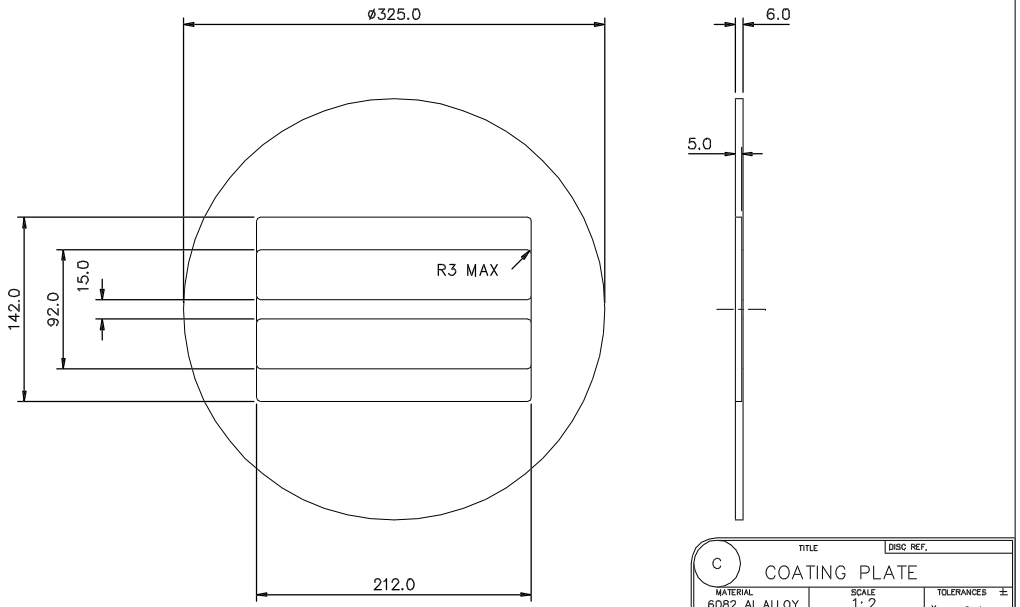
Drawing No.
W/BL/190



A	TITLE	DISC REF.
	ALIGN/COATING FINGER	
MATERIAL: 6082 AL.ALLOY	SCALE: 1:1	TOLERANCES ± x 0.1, x.x, x.xx
FINISH: CLEAN	No. REQD. PER UNIT: 14 OFF	
G.A. No.: N/A	DRAWING No.: RGO W/BL/190-A	



B	TITLE	DISC REF.
	LENS RETAINER	
MATERIAL: 6082 AL.ALLOY	SCALE: 1:1	TOLERANCES ± x 0.1, x.x, x.xx
FINISH: CLEAN	No. REQD. PER UNIT: 14 OFF	
G.A. No.: N/A	DRAWING No.: RGO W/BL/190-B	



C	TITLE	DISC REF.
	COATING PLATE	
MATERIAL: 6082 AL.ALLOY	SCALE: 1:2	TOLERANCES ± x 0.1, x.x, x.xx
FINISH: CLEAN	No. REQD. PER UNIT: 1 OFF	
G.A. No.: N/A	DRAWING No.: RGO W/BL/190-C	

Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by
				1		APRIL 92	AJW

Tolerance (Unless otherwise stated)
x +/-
x.x +/-
x.xx +/-
ANG. +/-

Material:
Finish:
Drg.No.:
No.Req.:
Used on:

Dimns.in m.m. | Scale

ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

THIRD ANGLE PROJECTION

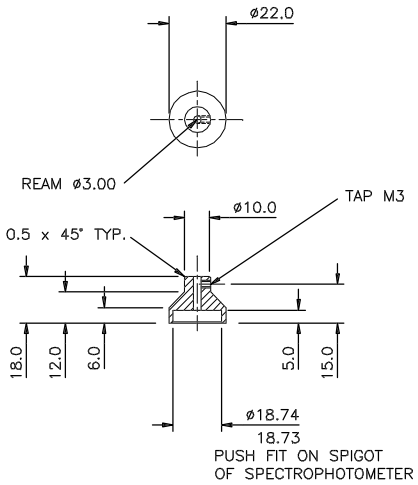
Title: 4.2m WYFFOS – FIBRE OPTIC FEED MICROLENS COATING TOOLING

GA No.

Drawing No.
W/BL/190

Drawing No.
W/BL/191

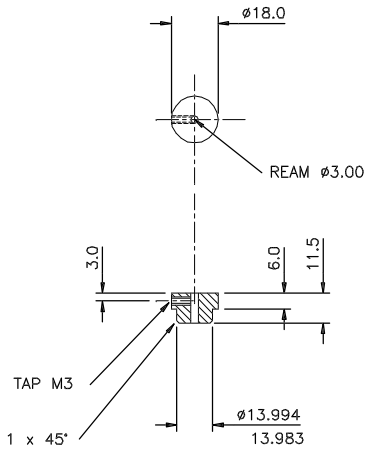
REMOVE ALL SHARP EDGES



PUSH FIT ON SPIGOT
OF SPECTROPHOTOMETER

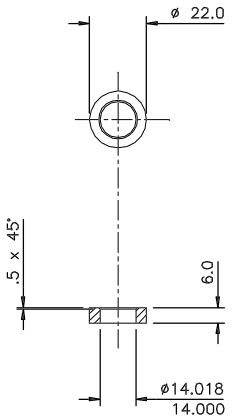
A	TITLE: FIBRE HOLDER	DISC REF.
MATERIAL: 6082 AL.ALLOY	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH: BLK.ANODISE	No. REQD. PER UNIT: 1 OFF	
G.A. No.: W/BL/191	DRAWING No.: RGO W/BL/191-A	

REMOVE ALL SHARP EDGES



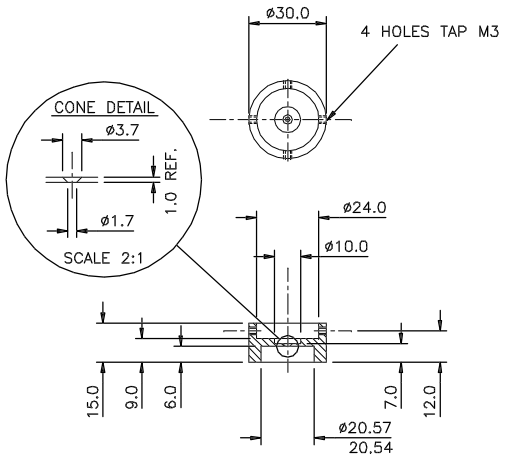
B	TITLE: FIBRE HOLDER	DISC REF.
MATERIAL: BRASS	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH: BLK.NICKEL PL	No. REQD. PER UNIT: 1 OFF	
G.A. No.: W/BL/191	DRAWING No.: RGO W/BL/191-B	

REMOVE ALL SHARP EDGES



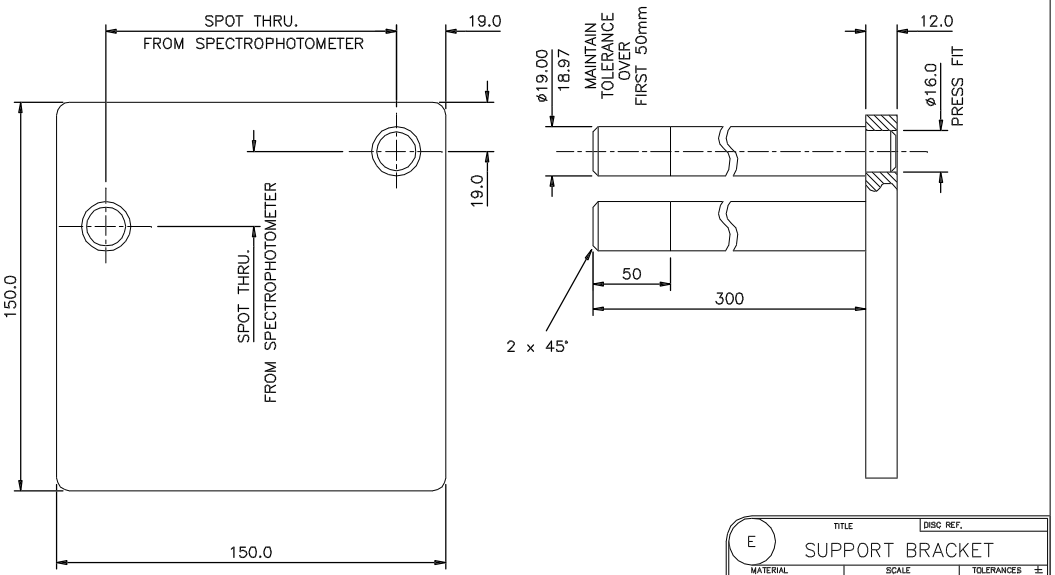
C	TITLE: CENTRING RING	DISC REF.
MATERIAL: BRASS	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH: BLK.NICKEL PL	No. REQD. PER UNIT: 1 OFF	
G.A. No.: W/BL/191	DRAWING No.: RGO W/BL/191-C	

REMOVE ALL SHARP EDGES

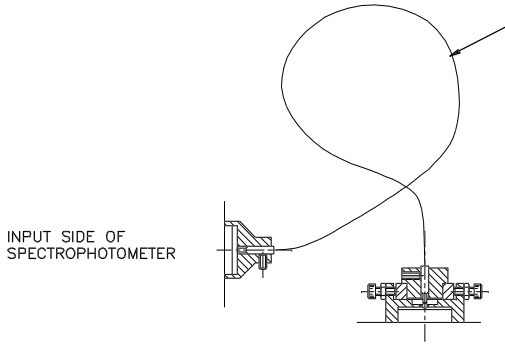


D	TITLE: LENS HOLDER	DISC REF.
MATERIAL: BRASS	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH: BLK.NICKEL PL	No. REQD. PER UNIT: 1 OFF	
G.A. No.: W/BL/191	DRAWING No.: RGO W/BL/191-D	

REMOVE ALL SHARP EDGES



E	TITLE: SUPPORT BRACKET	DISC REF.
MATERIAL: MILD STEEL	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH: CLEAN	No. REQD. PER UNIT: 1 OFF	
G.A. No.: W/BL/191	DRAWING No.: RGO W/BL/191-E	



DETECTOR SIDE OF
SPECTROPHOTOMETER
SUPPORTED ON BRACKET

	TITLE: ASSEMBLY	DISC REF.
MATERIAL	SCALE: 1:1	TOLERANCES ± x 0.1, x.x 0.1, x.xx
FINISH	No. REQD. PER UNIT: 1 OFF	
G.A. No.	DRAWING No.: RGO	

Issue	Mod.No	Date	Drawn by
1		APRIL 92	AJW

Tolerance (Unless otherwise stated)
x +/-
x.x +/-
x.xx +/-
ANG. +/-

Material:
Finish:
Drg.No.:
No.Req.:
Used on:

Dimns.in m.m. | Scale

THIRD ANGLE PROJECTION

ROYAL GREENWICH OBSERVATORY
MADINGLEY ROAD
CAMBRIDGE CB3 0EZ

Title: 4.2m WYFFOS – FIBRE FEED
MICROLENS COATING CALIBRATION

GA No.

Drawing No.
W/BL/191