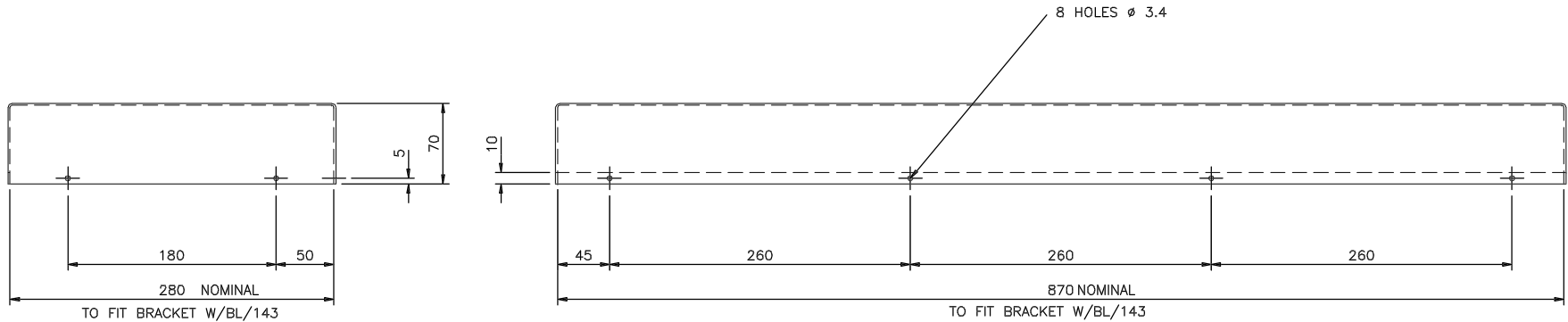


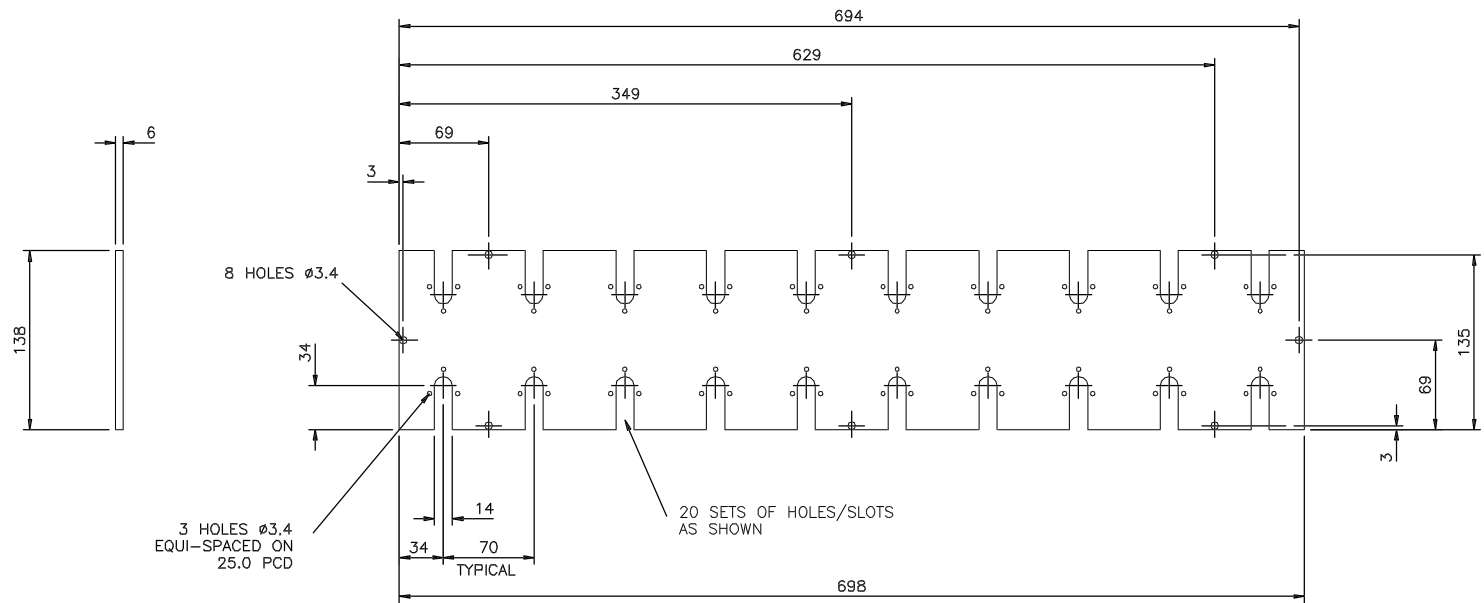


NOTE
INTERNAL DIMENSIONS ARE NOMINAL
AND NEED TO BE MADE TO SUIT THE
CONNECTOR BRACKET

MATERIAL
1.6mm MILD STEEL FABRICATION
FOLD AS REQUIRED AND CONTINUOUSLY
WELD SEAMS. DRESS WELDS TO CLEAN UP
AND PROVIDE SMOOTH RADIUS EDGES

FINISH
DEGREASE AND PREPARE AS NECESSARY
THEN PAINT WITH RED OXIDE PRIMER

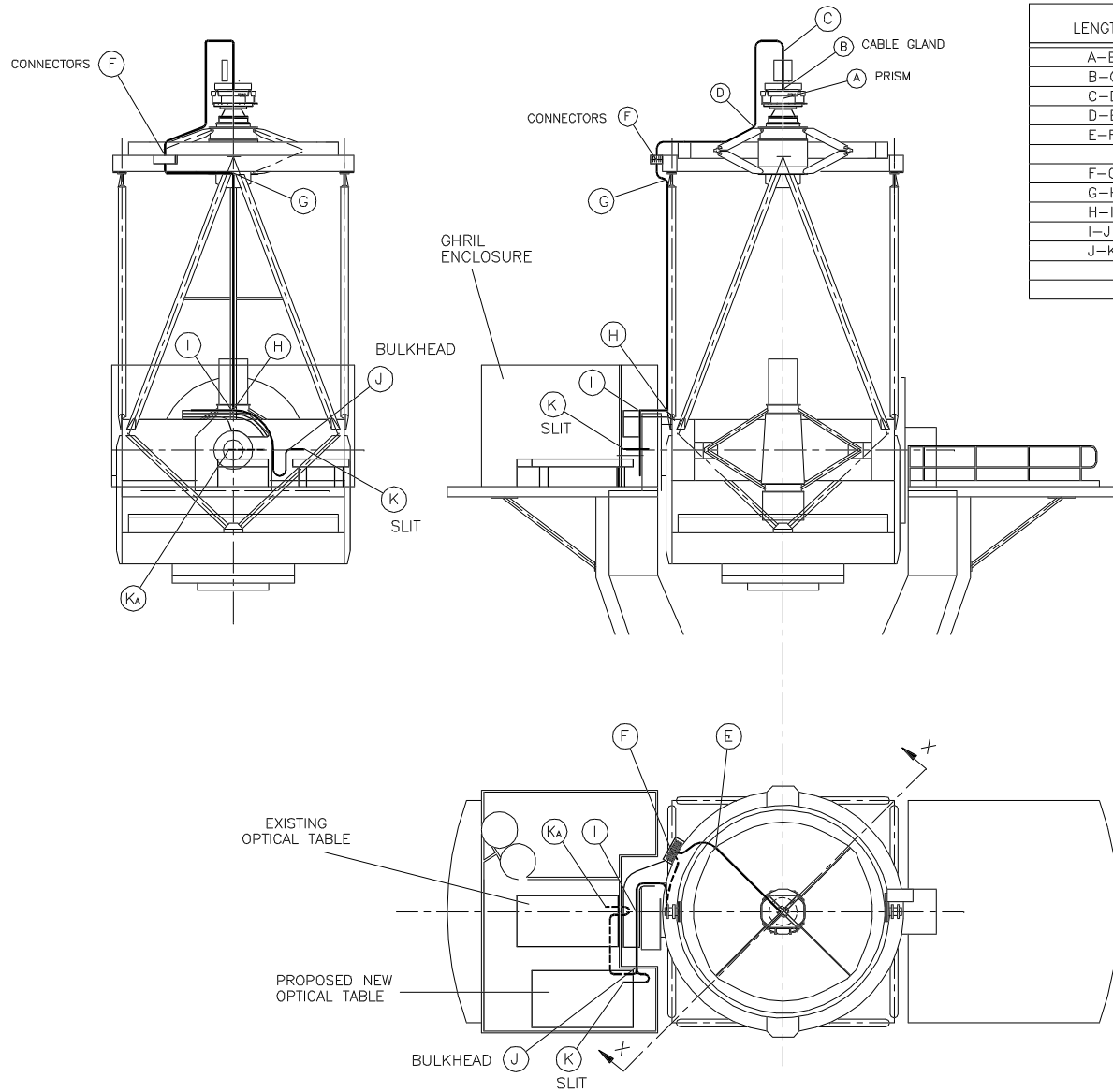
144	TITLE COVER		DISC REF.
MATERIAL	SEE NOTE	SCALE 1:2	TOLERANCES ±
FINISH	SEE NOTE	No. REQD. PER UNIT 1 OFF	X 1 X.X X.XX
G.A. No.	RGD	DRAWING No. W/BL/144	



145	TITLE CONNECTOR PLATE		DISC REF.
MATERIAL	6082 AL ALLOY	SCALE 1:2	TOLERANCES ±
FINISH	BLK. ANODISE	No. REQD. PER UNIT 1 OFF	X 0.3 X.X X.XX
G.A. No.	RGD	DRAWING No. W/BL/145	

								Tolerance (Unless otherwise stated)		Material				Dimns,In m,m.		Scale		THIRD ANGLE PROJECTION				GA No.	
				2		MAY.93		AJW		X +/-		Finish				ROYAL GREENWICH OBSERVATORY MADINGLEY ROAD CAMBRIDGE CB3 0EZ		Title DETAILS – FIBRE OPTIC CONNECTOR BRACKET 4.2m TOP END RING				Drawing No. W/BL/144-5	
				1		APR.93		AJW		X.X +/-													
										X.XX +/-													
										ANG. +/-													
Issue		Mod.No		Date		Drawn by		Issue		Mod.No		Date		Drawn by									

DO NOT SCALE

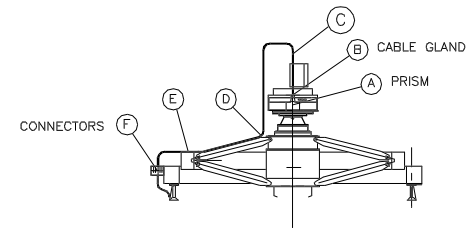


LENGTH	DISTANCE (MM)	NOTES
A-B	1154	DIM FROM FIBRE.DWG (DU)
B-C	800	
C-D	3050	
D-E	1800	
E-F	1600	
TOTAL LENGTH A-F = 8404		
F-G	3200	
G-H	5200	
H-I	2600	
I-J	2000	FIBRE RUNNING THRU. CABLE CHAIN
J-K	SEE BELOW	
TOTAL LENGTH F-K = SEE BELOW		
TOTAL LENGTH OF FIBRE = SEE BELOW		

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

OVERALL LENGTH OF FIBRE A-K = 23604
OVERALL LENGTH OF FIBRE A-K_A = 25104

— USE THIS LENGTH FOR
INITIAL PRODUCTION



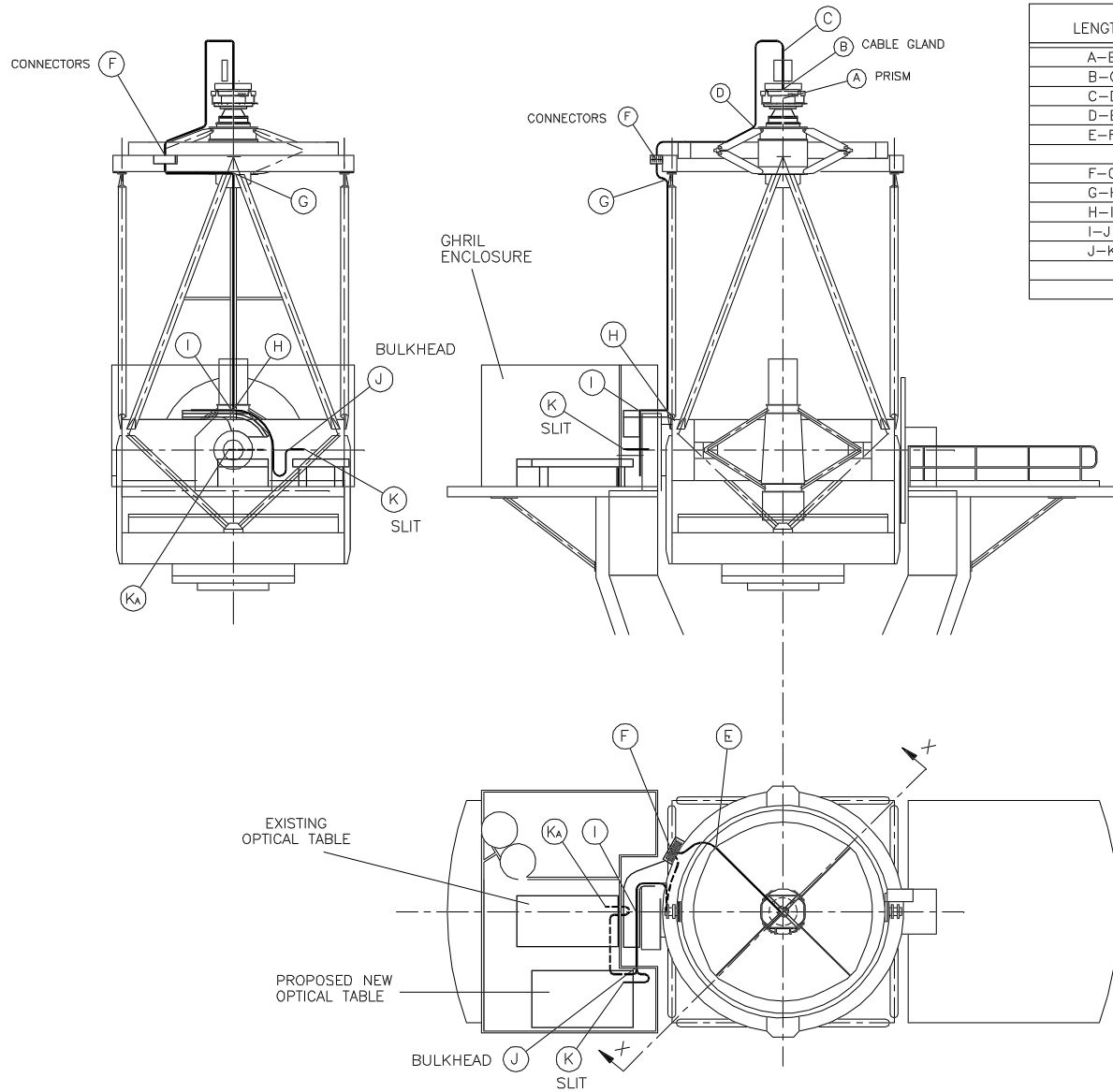
SECTION X-X

PLAN VIEW

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

										Tolerance (Unless otherwise stated)	Material			Dimns. in m.m.	Scale 1:60	THIRD ANGLE PROJECTION		GA No.
										X +/-	Finish			ROYAL GREENWICH OBSERVATORY MADINGLEY ROAD CAMBRIDGE CB3 0EZ	Title	4.2m WHT – FIBRE OPTIC ROUTING	W/BL/141	Drawing No.
									X.X +/-									
									X.XX +/-									
									ANG. +/-									
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by					Drg.No.	No. Req.					
				1		OCT.92	AJW											

DO NOT SCALE

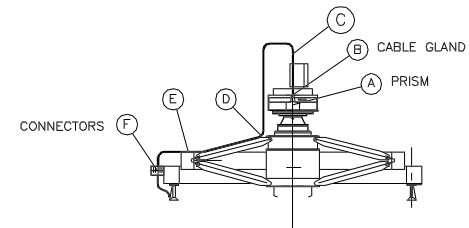


LENGTH	DISTANCE (MM)	NOTES
A-B	1154	DIM FROM FIBRE.DWG (DU)
B-C	800	
C-D	3050	
D-E	1800	
E-F	1600	
TOTAL LENGTH A-F = 8404		
F-G	3200	
G-H	5200	
H-I	2600	
I-J	2000	FIBRE RUNNING THRU. CABLE CHAIN
J-K	SEE BELOW	
TOTAL LENGTH F-K = SEE BELOW		
TOTAL LENGTH OF FIBRE = SEE BELOW		

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

OVERALL LENGTH OF FIBRE A-K = 23604
OVERALL LENGTH OF FIBRE A-K_A = 25104

— USE THIS LENGTH FOR
INITIAL PRODUCTION



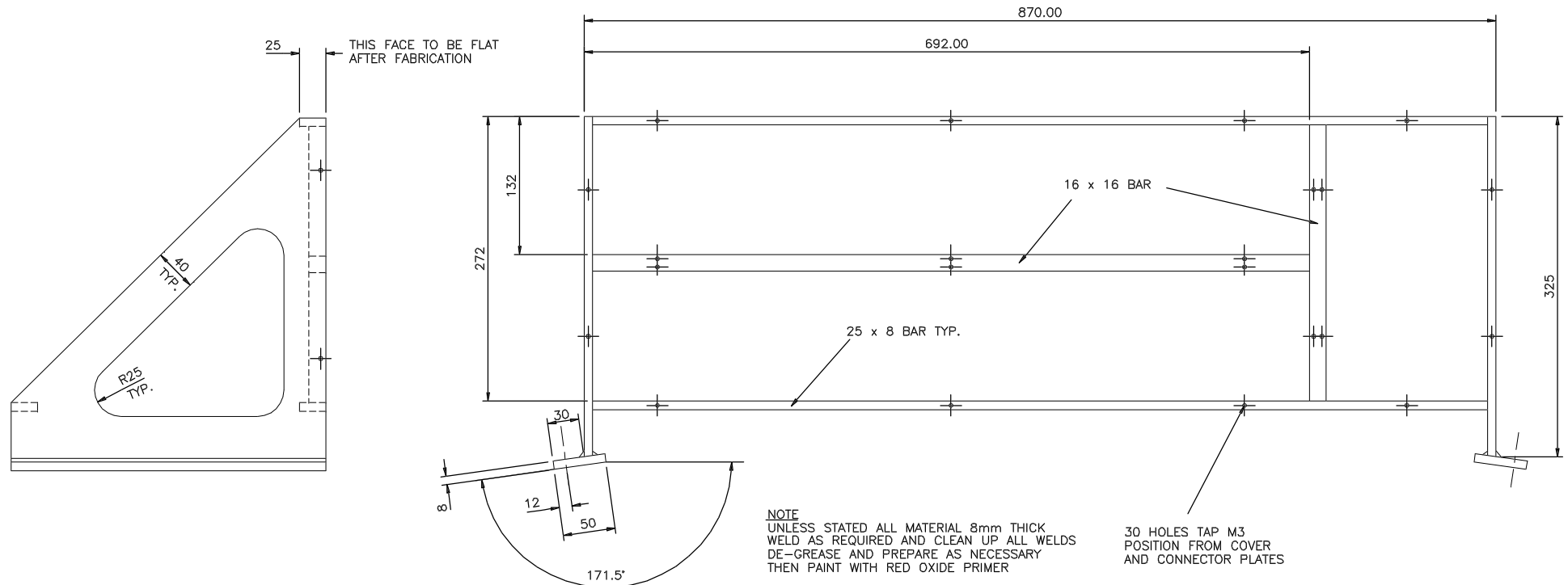
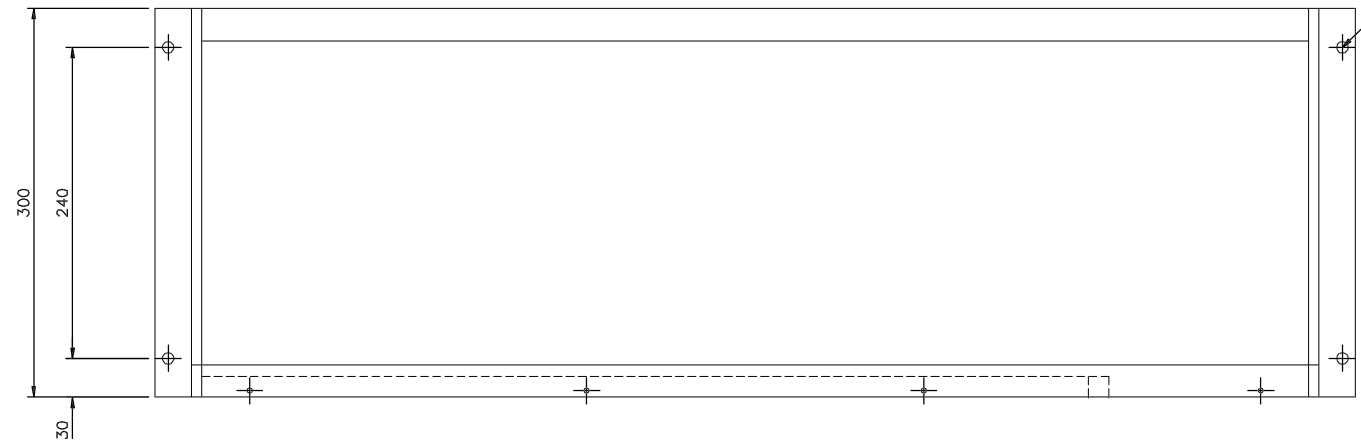
SECTION X-X

PLAN VIEW

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

										Tolerance (Unless otherwise stated)	Material			Dimns. in m.m.	Scale 1:60	THIRD ANGLE PROJECTION		GA No.
										X +/-	Finish			ROYAL GREENWICH OBSERVATORY MADINGLEY ROAD CAMBRIDGE CB3 0EZ	Title	4.2m WHT – FIBRE OPTIC ROUTING	W/BL/141	Drawing No.
									X.X +/-									
									X.XX +/-									
									ANG. +/-									
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by					Drg.No.	No. Req.					
				1		OCT.92	AJW											

4 HOLES $\phi 9.0$



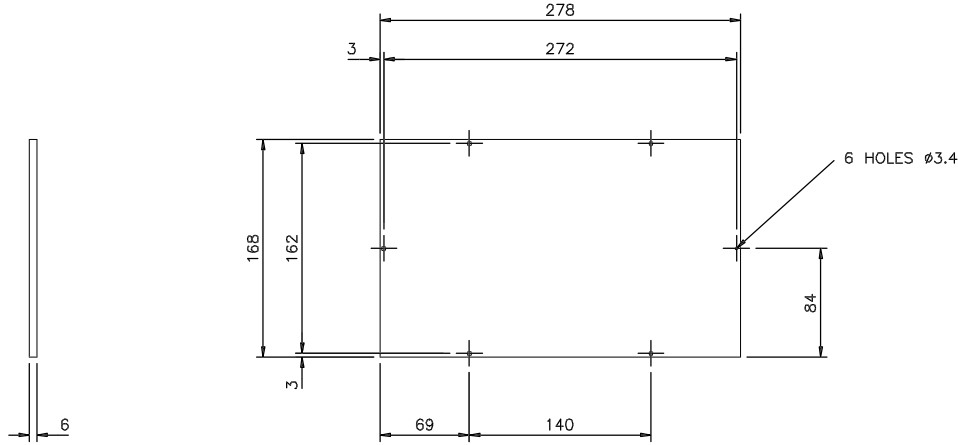
NOTE
UNLESS STATED ALL MATERIAL 8mm THICK
WELD AS REQUIRED AND CLEAN UP ALL WELDS
DE-GREASE AND PREPARE AS NECESSARY
THEN PAINT WITH RED OXIDE PRIMER

30 HOLES TAP M3
POSITION FROM COVER
AND CONNECTOR PLATES

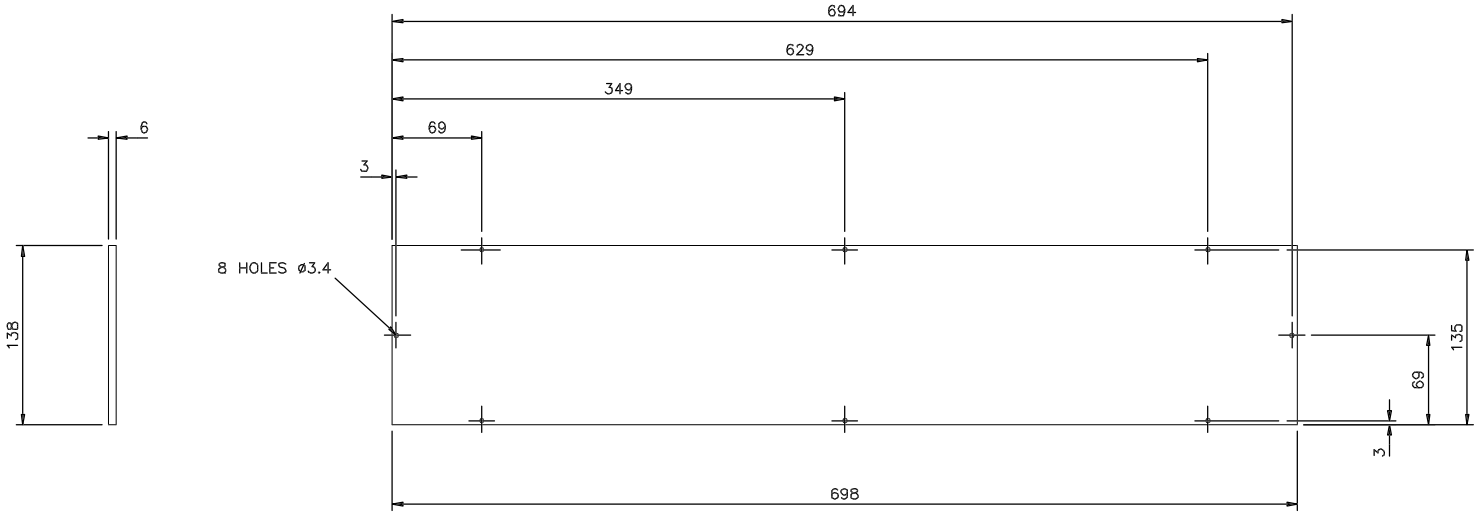
								Tolerance (Unless otherwise stated)	Material			Dimns.in m.m.	Scale 1:2	THIRD ANGLE PROJECTION		GA No.
				2		MAY 93	AJW	X X.X +/- X.XX +/- ANG. +/-	MS FABRICATION	1 OFF		ROYAL GREENWICH OBSERVATORY		Title FIBRE OPTIC CONNECTOR BRACKET		Drawing No.
				1		APR 93	AJW		Finish	Drg.No.	No.Req.	MADINGLEY ROAD		4.2m TOP END RING		W/BL/143
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by		SEE NOTE	Used on		CAMBRIDGE CB3 0EZ				

	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	1	121	MANDREL – FIBRE END	TBA	CZ121 BRASS				
	/ / 122		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	1	126	BOBBIN	1	CZ121 BRASS				
	/ / 127		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	1	130	DOWEL – CENTRE LOCATION	1	303 ST.STL.				
	/ / 131		131	DOWEL – RADIAL LOCATION	1	303 ST.STL.				
	/ / 132		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		136	SLEEVE ADAPTOR	1	6082 AL.ALLOY				
	/ / 137		137	COUPLING SLEEVE	1	6082 AL.ALLOY				
	/ / 138		138	CAP SPRING	1	MUSIC WIRE PLATED – RGO SPECIAL ORDER				
	/ / 139		139	SPRING	1	LEE SPRING LC-063H-3				
	/ / 140		140	CAP CHAIN	2	FC LANE ELECTRONICS PART No. LMA-1-80095-005 100 LONG				
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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									

REMOVE ALL SHARP EDGES

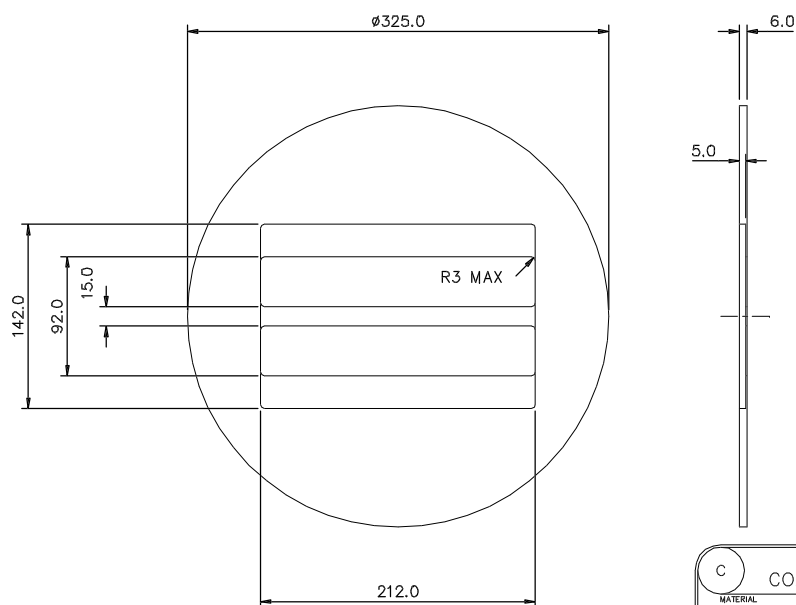
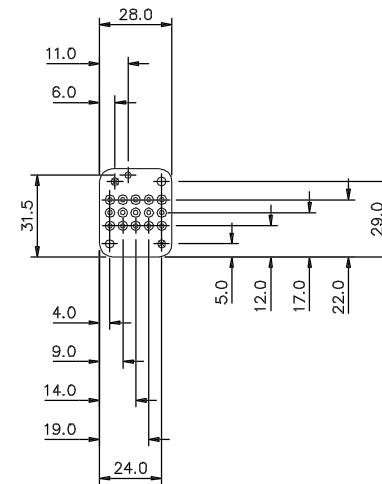
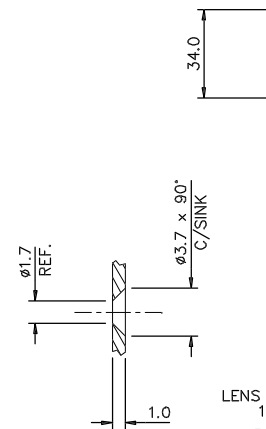
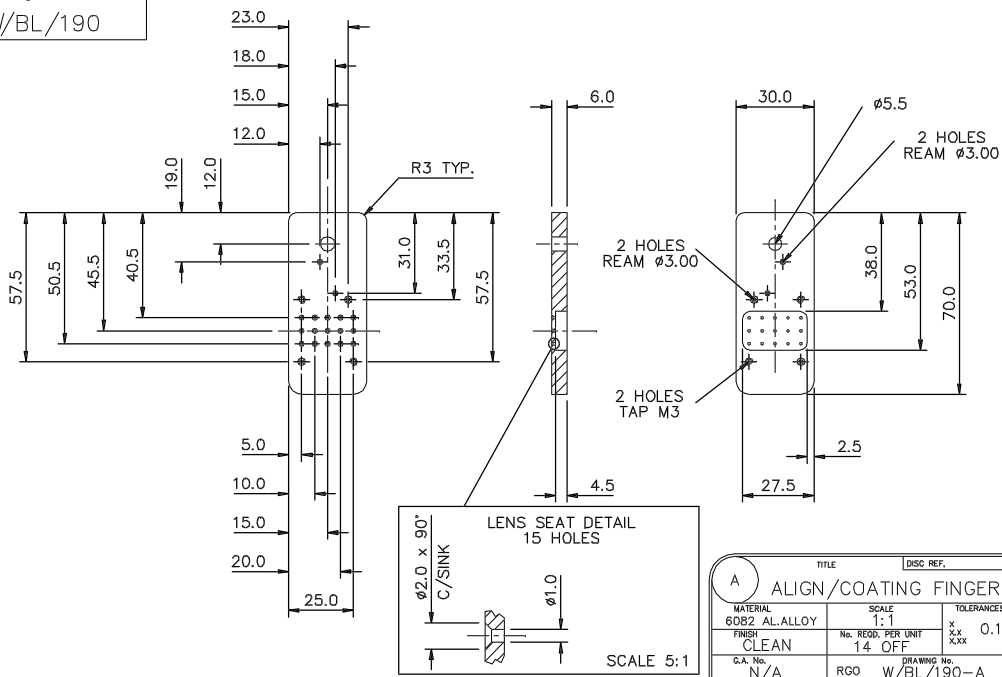


TITLE		DISC REF.
146 CONNECTOR PLATE BLANK		
MATERIAL 6062 AL ALLOY	SCALE 1:2	TOLERANCES ±
FINISH BLK. ANODISE	No. REQD. PER UNIT 1 OFF	x x.x x.xx
G.A. No.	DRAWING No. RGD W/BL/146	1



TITLE		DISC REF.
147 CONNECTOR PLATE BLANK		
MATERIAL 6062 AL ALLOY	SCALE 1:2	TOLERANCES ±
FINISH BLK. ANODISE	No. REQD. PER UNIT 1 OFF	x x.x x.xx
G.A. No.	DRAWING No. RGD W/BL/147	0.3 0.1

Tolerance (Unless otherwise stated)				Material		Dimns. in m.m.		Scale		THIRD ANGLE PROJECTION		GA No.	
X +/-				Material		Drg.No.		No.Req.		Title		Drawing No.	
X.X +/-				Finish		Used on				DETAILS - FIBRE OPTIC CONNECTOR BRACKET		W/BL/146-7	
X.XX +/-										4.2m TOP END RING			
ANG. +/-													
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by						
				1		MAY.93	AJW						



Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by	Tolerance (Unless otherwise stated)	Material	Dimns.in m.m.	Scale	THIRD ANGLE PROJECTION	GA No.
								X +/-					
								X.X +/-					
								X.XX +/-					
								ANG. +/-					
									Finish	Drg.No.	No.Req.	ROYAL GREENWICH OBSERVATORY MADINGLEY ROAD CAMBRIDGE CB3 0EZ	Drawing No. W/BL/190
									Used on			4.2m WYFFOS - FIBRE OPTIC FEED MICROLENS COATING TOOLING	

W/BL/191

Technical drawing of a push fit on a spigot of a spectrophotometer. The drawing shows a cross-section of a cylindrical component with a central hole. The hole has a diameter of 22.0 mm. The component has a total height of 18.0 mm. The central hole has a depth of 12.0 mm. The component is made of a material with a yield strength of 18.73. The hole is a push fit on a spigot of a spectrophotometer. The spigot has a diameter of 18.74 mm. The component has a fillet radius of 0.5 mm x 45 degrees typical. The component is a ream 3.00 mm. The component is a tap M3. The component is a push fit on a spigot of a spectrophotometer.

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

[illegible]

B	TITLE		DISC REF.
	FIBRE HOLDER		
MATERIAL	SCALE	TOLERANCES	
BRASS	1:1	X X X 0.1 XXX	
FINISH	No. REQD. PER UNIT		
BLK.NICKEL PL	1 OFF		
C.A. No.	DRAWING No.		
W/BL/191	RG0	W/BL/191-B	

	TITLE		DISC REF.	
	CENTRING RING			
	MATERIAL BRASS	SCALE 1:1	TOLERANCES	
FINISH BLK.NICKEL PL	No. RECD. PER UNIT 1 OFF	x .x x .xx x .xxx 0.1		
G.A. No. W/BL/191	RG0	DRAWING No. W/BL/191-C		

TITLE		DISC REF.	
LENIS HOLDER			
MATERIAL	SCALE	TOLERANCES	
BRASS	1:1	x .01 xx .01 xxx .01	
FINISH	No. RECD. PER UNIT		
BLK.NICKEL PL	1 OFF		
G.A. No.	DRAWING No.		
W/BL/191	RGO W/BL/191-D		

Technical drawing of a support bracket. The drawing includes a front view, a side view, and a detail view of the mounting hole.

Front View Dimensions:

- Overall width: 150.0
- Overall height: 150.0
- Distance from top edge to center of mounting hole: 19.0
- Distance from right edge to center of mounting hole: 19.0
- Spot thru. from spectrophotometer (indicated by a dashed line).

Side View Dimensions:

- Overall height: 12.0
- Distance from top edge to center of mounting hole: 16.0
- Spot thru. from spectrophotometer (indicated by a dashed line).

Detail View Dimensions:

- Overall diameter: $\phi 19.00$
- Distance from top edge to center of mounting hole: 18.97
- Spot thru. from spectrophotometer (indicated by a dashed line).
- Distance from center of mounting hole to edge of detail: 50
- Distance from center of mounting hole to edge of detail: 300
- Angle: $2 \times 45^\circ$

Labels:

- SPOT THRU. FROM SPECTROPHOTOMETER
- MAINTAIN TOLERANCE OVER FIRST 50mm
- DISC RE
- SUPPORT BRACKET

E	TITLE		DISC REF.
	SUPPORT BRACKET		
	MATERIAL	SCALE	TOLERANCES
	MILD STEEL	1:1	x 0.1 x x,XX
FINISH	No. REQD. PER UNIT		
CLEAN	1 OFF		
G.A. No.	DRAWING No.		
W/I /191	RGD	W/I /191-F	

INPUT SIDE OF
SPECTROPHOTOMETER

— FIBRE OPTIC

DETECTOR SIDE OF
SPECTROPHOTOMETER
SUPPORTED ON BRACKET

TITLE		DISC REF.	
ASSEMBLY			
MATERIAL	SCALE 1:1	TOLERANCES 0.1	
FINISH	NO. REQD. PER UNIT 1 OFF	X.X X.XX	
G.A. No.	RGO	DRAWING No.	

										Tolerance (Unless otherwise stated)		Material		Dimns. in m.m.		Scale		THIRD ANGLE PROJECTION		GA No.	
										X +/-		Finish		Drg.No. No.Req.		ROYAL GREENWICH OBSERVATORY MADRING ROAD CAMBRIDGE CB3 0EZ		Title 4.2m WYFFOS - FIBRE FEED MICROLENS COATING CALIBRATION		Drawing No. W/BL/191	
										X.X +/-											
										X.XX +/-											
1										ANG. +/-											
Issue	Mod.No	Date	Drawn by	Issue	Mod.No	Date	Drawn by	APRIL 92 AJW													