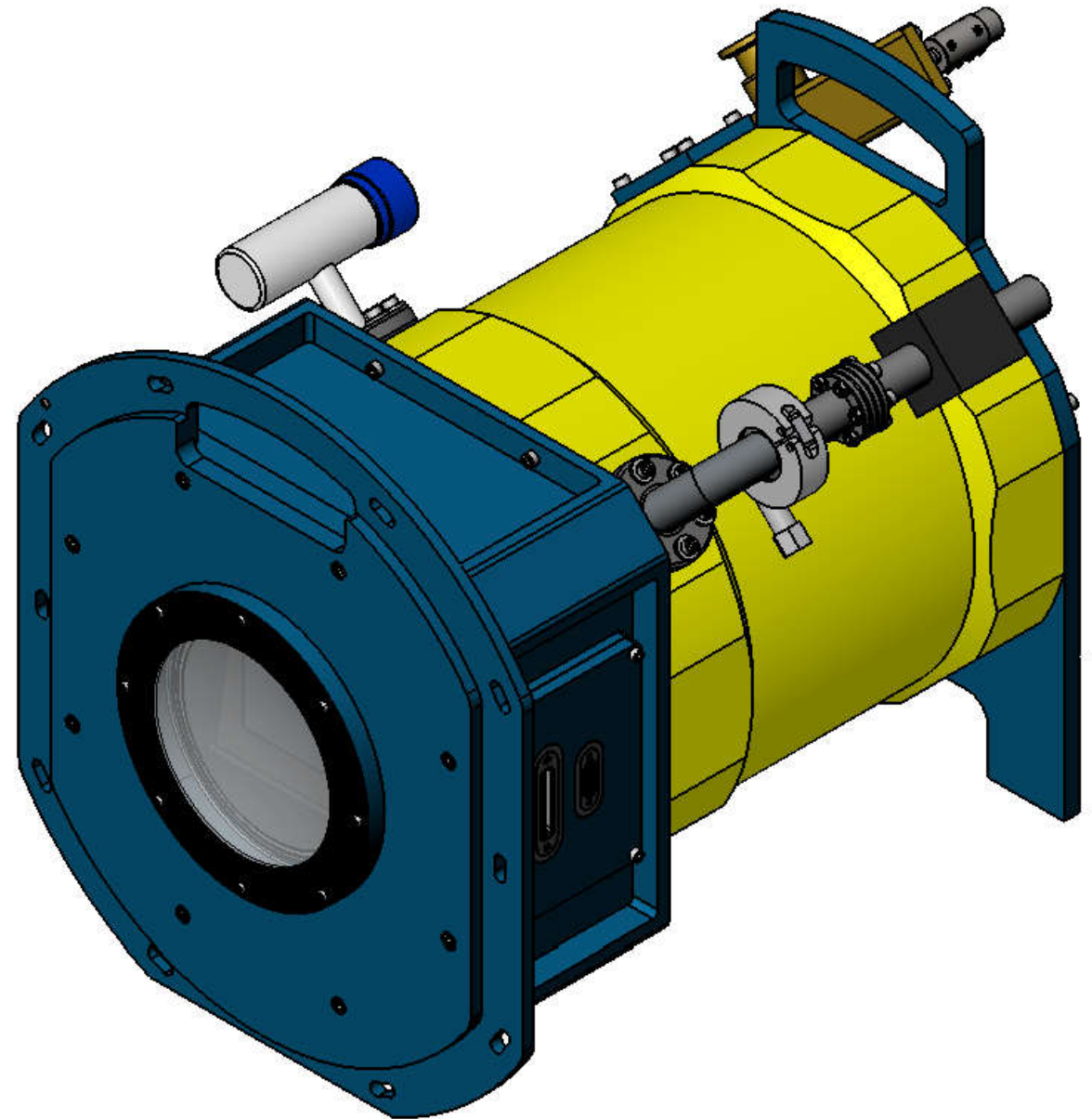
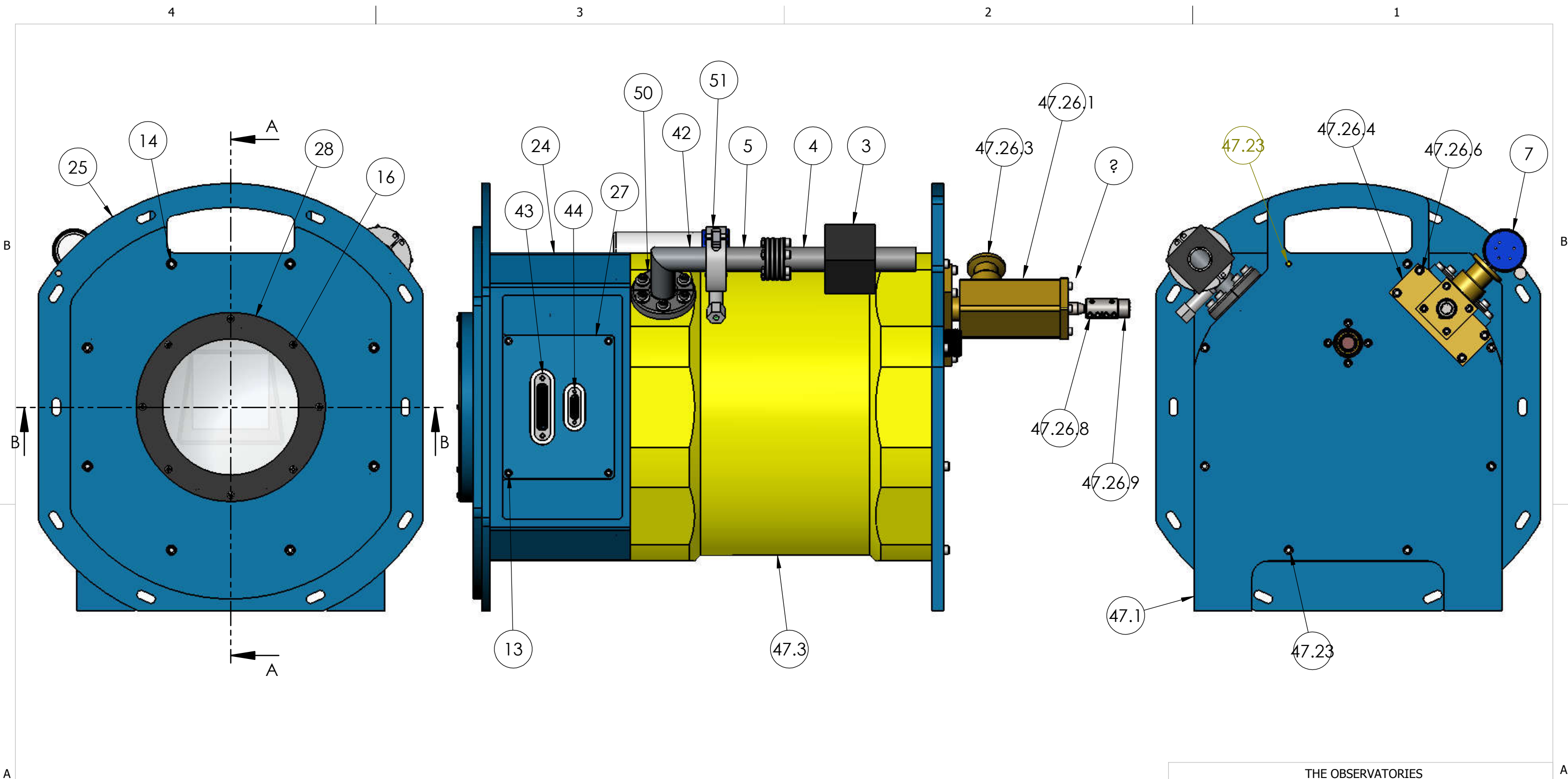


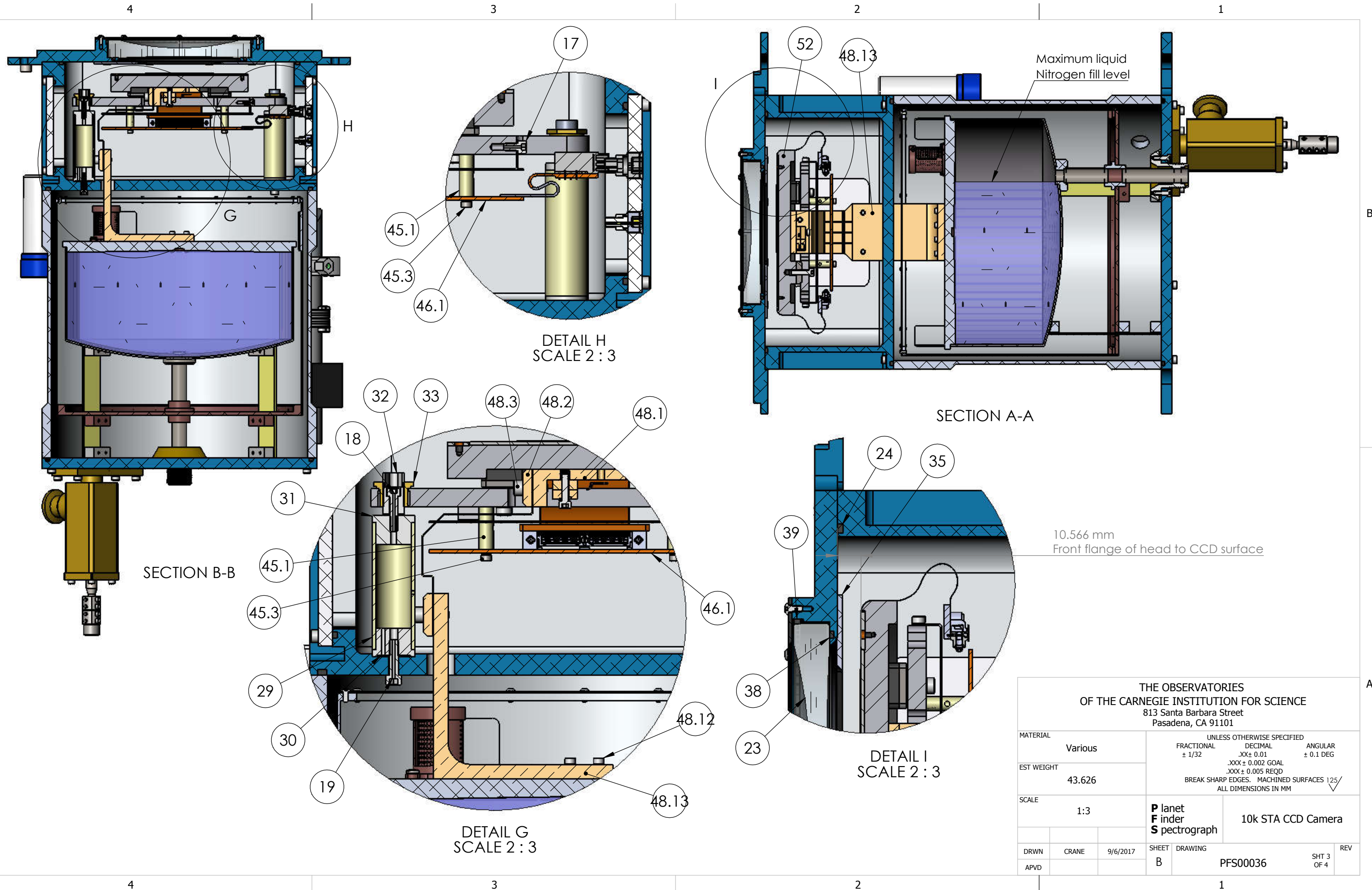
4				3			
ITEM	PART NUMBER	DESCRIPTION	QTY.	ITEM	PART NUMBER	DESCRIPTION	QTY.
3	9190038	Varian pole piece assembly	1	47.26.4	PFS15124	Vacuum valve offset base	1
4	9190520	Varian ion pump (Agilent)	1	47.26.5	Parker 2-118	Vacuum Port Seal	1
5	F0133XQF16	Lesker SS 1-1/3" CF to KF16 adapter	1	47.26.6	McM 92196A193	SHCS 8-32 x 7/16	4
6	GA-0133	Lesker 1-1/3 OFHC Copper Gasket	1	47.26.7	McM 92196A147	SHCS 6-32 x 7/16	4
7	GP-275203	Convectron vacuum gauge	1	47.26.8	PFS15126	Vacuum valve coupling	1
8	McM 8511A12	Press-Fit Fixture Support	1	47.26.9	PFS15125	Vacuum valve interface	1
9	McM 90259A129	Modified Threaded Insert	12	47.26.10	McM 94355A182	8-32 x 3/16 Set screw	3
10	McM 90550A220	FHCS 4-40x5/16 vented	8	47.26.11	McM 92785A192	Set Screw 8-32x3/8 cone point	1
11	McM 90730A009	Hex Nut 8-32	6	47.27	PFS15123	Vacuum valve port cap	1
12	McM 90946A725	Washer #8	12	47.28	Parker 2-118	Vacuum Port Seal	1
13	McM 92196A148	SHCS 6-32x1/2	8	47.29	McM 92196A193	SHCS 8-32 x 7/16	4
14	McM 92196A196	SHCS 8-32x5/8	24	47.30	PFS15121	Cold Plate Radiation Shield	1
15	McM 92196A197	SHCS 8-32x3/4	6	48.1	PFS15116	Thermal control block	1
16	McM 92949A106	BHCS 4-40 x 1/4	8	48.2	PFS15117	Thermal control block clamp	1
17	McM 93235A144	SHCS 6-32 x 1/4 vented	3	48.3	McM 92196A193	SHCS 8-32 x 7/16	4
18	McM 93235A150	Vented 6-32x5/8 SHCS	3	48.4	McM 93235A314	SHCS M3 x 12 vented	5
19	McM 93235A196	SHCS 8-32x5/8	3	48.5	Microtherm	Thermal cut-off	1
20	McM 93235A325	SHCS M4x16 vented	3	48.6		Heating resistor TO220 package	1
21	McM 93904A400	Thread insert 8-32 int 1/4-28 ext	4	48.7	McM 93235A311	SHCS M3 x 6 vented	1
22	McM 96659A103	Washer #8	12	48.8	PFS15115	Cold Strap	1
23	PFS01007	PFS6B lens	1	48.9	McM 93914A077	M3x4.5 Helical insert Nitronic 60	2
24	PFS15102	CCD Head	1	48.10	McM 96246A130	8-32x0.246 Helicoil Nitronic 60	4
25	PFS15103	CCD Face Plate	1	48.11	PFS15118	Cold plate interface clamp	1
26	PFS15104	CCD Blank Side Plate	1	48.12	McM 93235A112	SHCS 4-40 x 5/8 vented	8
27	PFS15105	CCD STA Connector Plate	1	48.13	PFS15114	Cold Plate Interface	1
28	PFS15106	Flattener Retaining Ring	1	48.14			2
29	PFS15107	CCD Insulating Standoff	3	48.15	PFS15144	TCO clip	1
30	PFS15108	CCD Insulating Standoff Bottom Cap	3	48.16	McM 91111A118	Split Lock Washer for M3	1
31	PFS15109	CCD Insulating Standoff Top Cap	3	49	QF16-075-ARB	Lesker Al KF16 centering ring	3
32	PFS15110	CCD Adjustment Post	3	50	QF16-075-BC	Lesker Al KF16 bulkhead clamp	2
33	PFS15111	CCD Adjustment Post Receiver	3	51	QF16-075-C	Lesker Al KF16 Clamp	1
34	PFS15112	STA1600 Mount Plate	1	52	STA1600LN	10Kx10K CCD	1
35	PFS15113	CCD Warm Mask	1				
36	PFS15119	Detector radiation shield	1				
37	Parker 2-156	Side Plate Vacuum Seal	2				
38	Parker 2-157	Window Vacuum Seal	1				
39	Parker 2-159	Window Centering Ring	1				
40	Parker 2-270	Large Dewar Vacuum Seal	1				
41	Parker 2-274	Face Plate Vacuum Seal	1				
42	QF16-075-EAL	Lesker Al KF16 90 degree miter elbow	1				
43	SRIMD5004-100	SRI Hermetics Micro-D connector	1				
44	SRIMD5004-25	SRI Hermetics Micro-D connector	1				
45.1	PFS15120	PCB Standoff	1				
45.2	McM 91732A701	Helical Insert 4-40 x 0.224	2				
45.3	McM 92196A106	SHCS 4-40 x 1/4	2				
46		STA1600 pre-amplifier assembly	1				
47	ND-8	Customized IR Labs dewar	1				
47.1	PFS15122	Dewar rear plate	1				
47.3	PFS15101	ND-8 Dewar Shell Modification	1				
47.26	PFS15127	Vacuum valve assembly	1				
47.26.1	BA-75	Key High Vacuum Valve	1				
47.26.2	DB-75	Key High Vacuum Bellow Assembly	1				
47.26.3	KSF-0816-2	Key High Vacuum NW16 Stub FLange	1				



THE OBSERVATORIES OF THE CARNEGIE INSTITUTION FOR SCIENCE					
813 Santa Barbara Street Pasadena, CA 91101					
MATERIAL	Various		UNLESS OTHERWISE SPECIFIED FRACTIONAL DECIMAL ANGULAR ± 1/32 .XX ± 0.01 ± 0.1 DEG		
EST WEIGHT	43.626		.XXX ± 0.002 GOAL .XXX ± 0.005 REQD BREAK SHARP EDGES. MACHINED SURFACES 125/		
SCALE	1:3		10k STA CCD Camera		
DRWN	CRANE	9/6/2017	SHEET	DRAWING	REV
APVD			B	PFS00036	SHT 1 OF 4



THE OBSERVATORIES OF THE CARNEGIE INSTITUTION FOR SCIENCE 813 Santa Barbara Street Pasadena, CA 91101					
MATERIAL	Various		UNLESS OTHERWISE SPECIFIED FRACTIONAL DECIMAL ANGULAR ± 1/32 .XX ± 0.01 ± 0.1 DEG		
EST WEIGHT	43.626		.XXX ± 0.002 GOAL .XXX ± 0.005 REQD BREAK SHARP EDGES. MACHINED SURFACES 125/ ALL DIMENSIONS IN MM		
SCALE	1:3		Planet Finder Spectrograph		10k STA CCD Camera
DRWN	CRANE	9/6/2017	SHEET	DRAWING	REV
APVD			B	PFS00036	SHT 2 OF 4



SECTION B-B

SECTION A-A

DETAIL G  
SCALE 2 : 3

DETAIL H  
SCALE 2 : 3

DETAIL I  
SCALE 2 : 3

Maximum liquid Nitrogen fill level

10.566 mm  
Front flange of head to CCD surface

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813 Santa Barbara Street  
Pasadena, CA 91101

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EST WEIGHT	43.626	.XXX ± 0.002 GOAL .XXX ± 0.005 REQD BREAK SHARP EDGES. MACHINED SURFACES 125/ ALL DIMENSIONS IN MM		
SCALE	1:3	Planet Finder Spectrograph	10k STA CCD Camera	
DRWN	CRANE		SHEET	DRAWING
APVD	9/6/2017	B	PFS00036	SHT 3 OF 4

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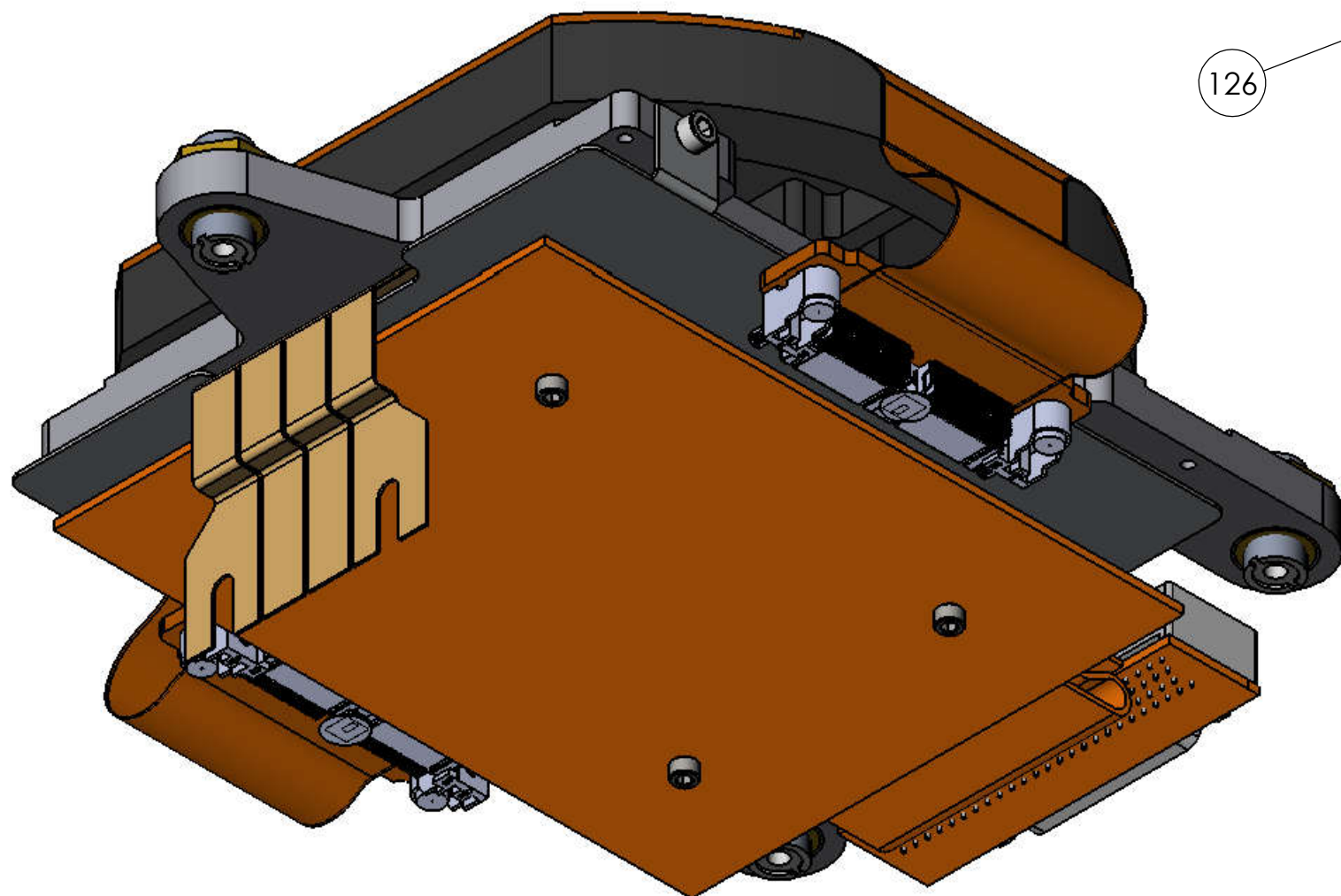
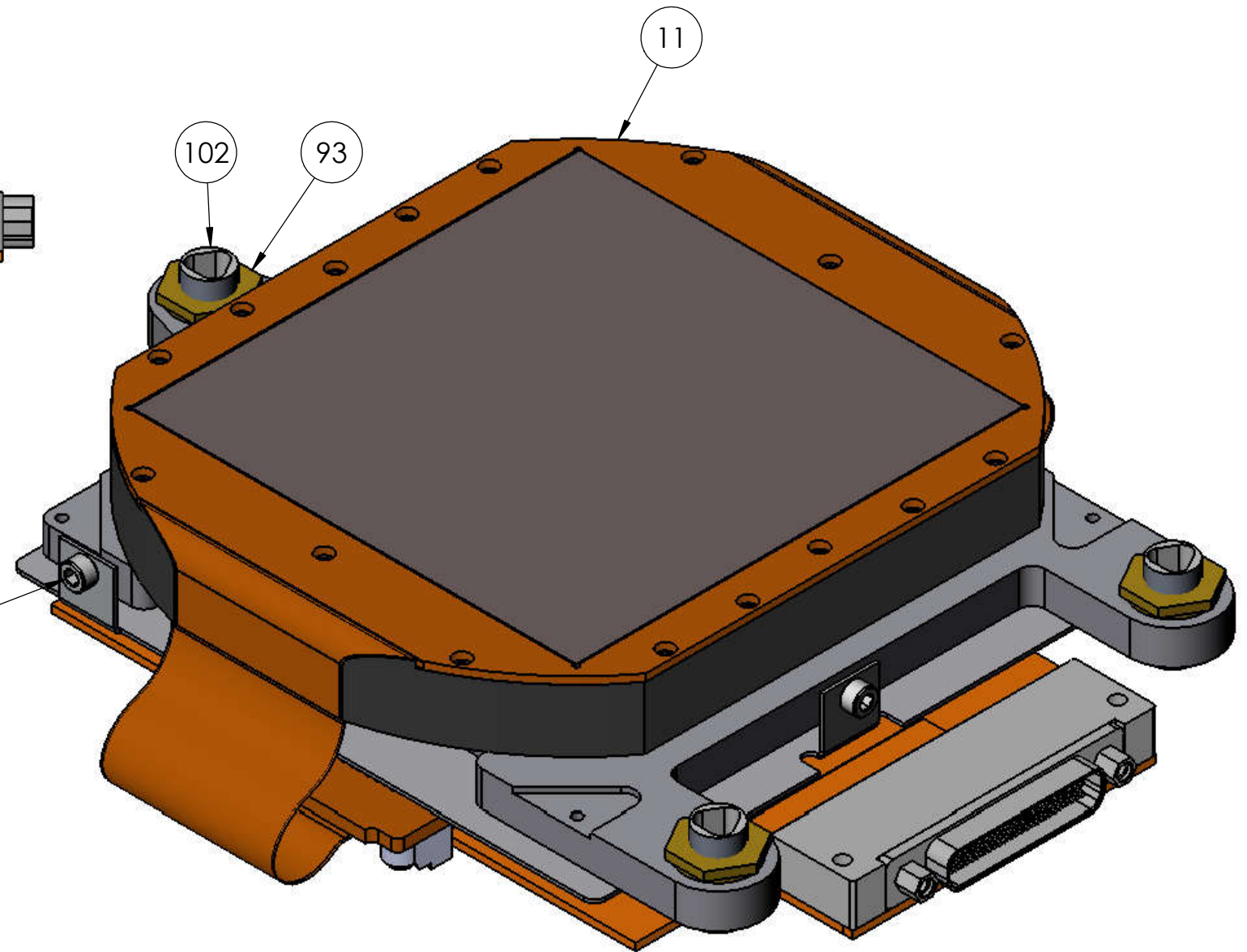
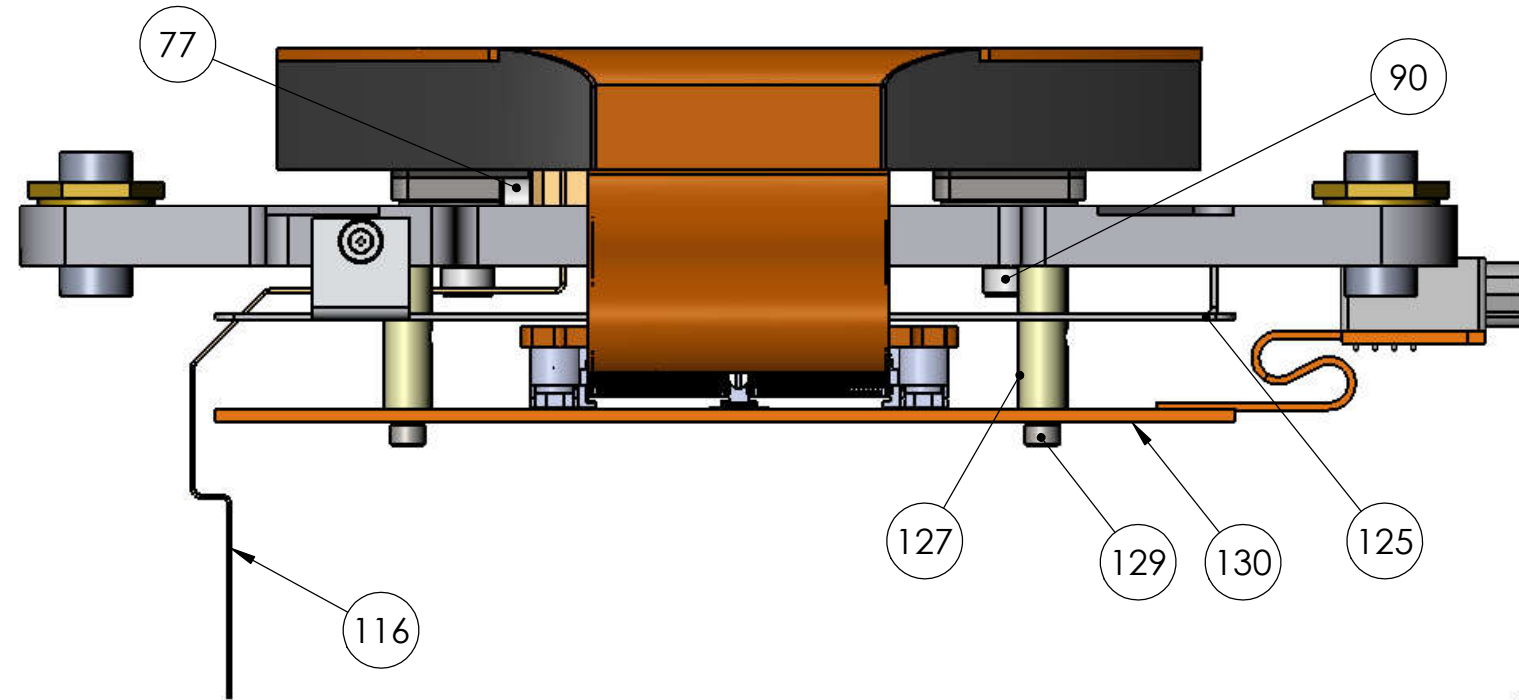
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1

Assemble components shown prior to insertion into main head.



THE OBSERVATORIES  
 OF THE CARNEGIE INSTITUTION FOR SCIENCE  
 813 Santa Barbara Street  
 Pasadena, CA 91101

MATERIAL	Various	UNLESS OTHERWISE SPECIFIED FRACTIONAL DECIMAL ANGULAR $\pm 1/32$ .XX $\pm 0.01$ $\pm 0.1$ DEG		
EST WEIGHT	43.626	.XXX $\pm 0.002$ GOAL .XXX $\pm 0.005$ REQD BREAK SHARP EDGES. MACHINED SURFACES 125/ ALL DIMENSIONS IN MM		
SCALE	1:1	Planet Finder Spectrograph	10k STA CCD Camera	
DRWN	CRANE		SHEET	DRAWING
APVD	9/6/2017	B	PFS00036	SHT 4 OF 4

4

3

2

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