

Tentative Procurement Plan : 2024-25

Sl. No	Item Description	Quantity
1	Battery	75Px12S
2	Motor and Controller - 10 Km LRU version	4Nos
3	Motor and Controller - 20 Km LRU version	4Nos
4	Actuators	12Nos
5	LEDs	6Nos
6	Pitot / 5 hole	2Nos
7	Regulator	10Nos
8	Veronte Expander	2-4 Nos
9	Amplifiers	
10	LIDAR	3
11	Tail Cameras	
12	Softwares	
13	PCs	
14	Propellor Related Fabrication	
15	Aircraft Related Fabrication	
16	Certified Nose Wheel Steering LRUS	
17	Supply Pneumatic Deicing System for Saras Mk II Aircraft	
18	Supply of flexible push pull cable for turboprop engine control system and design cum analysis of the routing of the engine control cables in aircraft	
19	Supply of Bleed Air Leak Detection System (BALD) for SARAS MkII Aircraft	
20	Jigs, Fixtures : Wing, Flap & Aileron	
21	Jigs, Fixtures : HT, VT & Empenage	
22	Jigs, Fixtures : Fuselage	
23	Flap Actuator	
24	Metallic Raw Material (except mentioned as individual indents)	
25	Composite Raw Material	
26	FAR 23 Qualified passenger seats	
27	Intake vane actuator	
28	Hydraulic power pack	
29	Flexible push pull cable for engine control	
30	Sealing solution (engine firewall, nacelle door seal)	
31	Air cooled oil cooler, ACOC	
32	Brake manifold	
33	Procurement of JET A1 fuel for conducting Engine Runs for obtaining Design Data for Saras MK2 Project	
34	CRES FLAT(AMS 5659)	
35	CRES ROD(AMS 5659)	
36	Alluminum Alloy sheets	
37	Alluminum Alloy Bulkhead rings	
38	Alluminum Alloy billet	
39	Supply of FAR-23 certified Pilot and Co-Pilot seats with upholstery for SARAS MK-II Aircraft	
40	LDRA Suite & OCV	

41	ANSYS Scade Test	
42	IBM Rational Tools	
43	FAR 23 Qualified PATIENT SUPPORT SYSTEM (PSS), QTY.2	
44	Supply FAR 23 qualified of Case-Vac Stretcher, 2 Units	
45	Supply of FAR 23/RTCA160G qualified Cargo nets, Qty.2	
46	Supply of Cargo fittings	
47	Supply of 21 flush FAR23 qualified lavatory, 2 units (Clean and Flush Toilet, Model 9060 with service unit)	
48	Supply of FAR 23/RTCA160G qualified Cargo nets	
49	Supply of Cargo fittings	
50	Supply FAR23 qualifed 28V DC powered Galley Inserts, Water dispenser, Coffee Maker, Cup Holder, Oven	
51	Design and Development of Galley	
52	Design and development of FAR23 compliant FTI racks, Qty.2	
53	Design and development of FAR23 compliant FTI Console Qty.2	
54	Supply of airworthy Paint, thinner, hardener, sealant, adhesive, grease, oils of various types for use towards aircraft equipment and test rigs	
55	Supply of airworthy fasteners of various types for assembling aircraft parts	
56	Interface Boards and Coputational Boards	
57	Drone Components for integration	
58	Workstations and Software	
59	Conference Room Video Conference Setup	
60	Touch Screen Display System	
61	Fanuc CNC controller Simulator	
62	CC TV Camera Setup	
63	Machine tool Accessories	
64	Objective Lens VNIR - 23mm , data acquisition system- for Hyper Spectral imager	
65	Drone Components Variable rate mechanism computing platform spryer system components	
66	Variable rate mechanism	
67	EFD 1000 Pro Primary Flight Display 920 -00003-016	8
68	i) EFD 1000 Pro PFD Display 910 -00001-001	8
69	ii) Remote Sensor Module 910 -00003-001	8
70	iii) Configuration Module System 920-00004-002	8
71	GTR 225 A (Secondary COM Unit) 011-02807-00	4
72	Engine Management Unit (EMU) , Rotax 912Is with GPS Antenna EMU 912 is	4
73	IFD440 (Avidyne NAV/COM/GPS) 850-00179-000	4
74	AXP340 Transponder (Avidyne) 850-00219-000	4
75	AMX240 Audio Panel (Avidyne Audio Management Unit) 850-00218-001	4
76	ELT System (Antenna, Battery & Installation Tray) E-04 ELT 406	4
77	Pilot Headset & MIC H10- 21/40074G-03	8
78	Stick Grip (with PTT Switch) G101	8
79	VHF2 Antenna CI-292-2	4

80	ANT, VOR, LOC, GS (NAV Antenna) CI-158C	4
81	Diplexer Antenna, VOR/Glide Slope (Diplexer Module) CI-507	4
82	Antenna Transponder CI-105	4
83	MB Antenna (optional integration) CI-102	4
84	Comant COM/GPS Antenna CI-2580-200	4
85	Battery 13.2V, 15.6Ah with thermal box, fault LED Indicator and vent tube ETX900-TSO	8
86	Filament type Anti- Collision Light- Red 01-0770509-00	4
87	LED Position Light-Green (LED Navigation Wing Tip Light- Green) 01-0771105-01	4
88	LED Position Light-Red (LED Navigation Wing Tip Light- Red) 01-0771105-02	4
89	Tail Position Light Vertical (LED Navigation Tail Light- White) 01-0771554-12	4
90	Landing Light (Filament type) 01-0770346-02	8
91	Light Assy/Flood Light Assy (Cockpit Dome Light) 01-0770339-03	4
92	Cockpit Utility Light (Cockpit Panel Reading / Wander Light) S-1210BACBA	8
93	Warning Lights / Press to Test Indicator MS 25041-2(Red)	12
94	Voltammeter 12-2004-1	4
95	Trim Systems W/Needle Indicator (Elevator Trim System & Indicator) MAC 8A	4
96	Fuel Level Gauge 2A7V	4
97	Shunt 12-902-3	4
98	Quartz Chronograph (Clock) DC20.14.1.AA	4
99	Dimmer RHS 15R / 0146	4
100	Switch, Ignition & Starter ASM (Ignition Key Switch) 10-357200-1	4
101	Compass (Magnetic Compass) C2300L4	4
102	DC – DC Converter RH28	4
103	Flap Actuator along with Limit Switch and Rod end fitting Actuator P/N: CARR22X50X1/D24B Limit Switch P/N: CAXE 22X50	4
104	Capacitance Fuel Sensor (Fuel Level Sender) 395-5S-1-5	4
105	Rotax Engine 912 iSc3 Sport 359120533	4
106	Alternator Set (External Alternator/ External Generator) 887254	4
107	Engine Suspension Frame 886561	4
108	Engine Shock Mount Set 860695	4
109	Exhaust System with Muffler 973387	4
110	MTV Propeller MTV-21-A/175-05	4
111	Spinner Assembly P-439-1-A	4
112	Governor P-850-12	4
113	Oil Radiator Set 886034	4
114	Cooling Air Baffle /Cooling Air Duct 975795	4
115	Radiator (Coolant Radiator) 995697 /997084 new part no	4
116	Air Filter ASSY BA 4106	10

117	Black Button Lock A700 B	4
118	Heat sink set 481490	4
119	Fuel Shut-offValve FV-107702	8
120	Strainer (Fuel Strainer) G199-105-5D	4
121	Fuel Pump Assembly 889697/889698 New / old	4
122	Non-return Valve Flapper SM3336	4
123	Pressure Sensor 10 (Fuel Pressure Transducer) 664365	4
124	Finger Strainer FS-375	4
125	Drain Valve CCA-4900	4
126	Drain Valve CCA-4850	4
127	Fuel Filter (Fine Filter) 874060	10
128	Check Valve (NRV for fine filter) CK375M-14- BRP	6
129	Pilot Jet 35 (Orifice) 963820	4
130	Main Wheel Assy 40-113X	8
131	Brake Assy 30-75X	8
132	MLG Tyre 6.00X6-4TT.AT / AA1E2 / 06-	8
133	MLG Tube 6.00X6 / XA1AD / 06-08700	8
134	NLG Tyre 5.00X5-4TT.AT/ AA1D2/ 06-08210	4
135	NLG Tube 5.00X5 / XA1AC / 06-08300	4
136	Parking Brake Valve C165007-0201 (or) 60-10	4
137	Nose Wheel Assy 40-87C	4
138	Brake Master Cylinder with Reservoir 10-35	8
139	Brake Master Cylinder without Reservoir 10-54	8
140	Fire Extinguisher BCF-HALON 1211 BA21741GSR-2 NEW BA21741SR-5	4
141	Crash Axe Commercial	4
142	Shoulder & Lap Straps H-601-100 [Kit Contains: H-702-200, 90-91 R60]	8
143	Gas Springs 16-2-203-164-AM7-BM7-150N	8
144	2X6PINS HIC-A MATING CONNECTOR 19419-0017	20
145	2X8PINS HIC-B MATING CONNECTOR 19419-0020	20
146	ADAPTER 840700	8
147	ADAPTOR 956577	8
148	ADAPTOR - TUBE TO PIPE 0700-158	8
149	AIR VENT 05-00779	10
150	ANCHOR NUT AN366F-832	100
151	ANCHOR NUT F5000-3/MS21059L3	100
152	ANCHOR NUT MFM5001-040	100
153	ANCHOR NUT MFM5001-050	100
154	ANCHOR NUT MFM5600-04	50
155	ANCHOR NUT MS21047-06	100
156	ANCHOR NUT MS21047-3	4000
157	ANCHOR NUT MS21047-4	60
158	ANCHOR NUT MS210711-3	50
159	ANCHOR NUT MS21071-3	500
160	ANGULAR TUBE 924585	8
161	ANTI SKID TAPE (125MM x 160MM) 3M-MAKE	20
162	BACKSHELL M85049/52-1-10W	20
163	BACKSHELL M85049/52-1-12W	20
164	BACKSHELL M85049/52-1-14W	40

165	BACKSHELL M85049/52-1-16W	50
166	BACKSHELL M85049/52-1-18W	10
167	BELL CRANK BEARING BC4 W10 (AN218-4)	50
168	BENT SOCKET ASSY 956580	40
169	BNC CONNECTOR RIGHT ANGLE R141-183-000	50
170	BNC CONNECTOR STRAIGHT PLUG R141-083-000	50
171	BOLT AN173-12A	50
172	BOLT AN173-16A	50
173	BOLT AN173-26A	50
174	BOLT AN174-10	50
175	BOLT AN174-11	100
176	BOLT AN174-12	150
177	BOLT AN174-13	100
178	BOLT AN174-14	50
179	BOLT AN174-15	50
180	BOLT AN174-16	50
181	BOLT AN174-17	25
182	BOLT AN174-23A	25
183	BOLT AN174-25	25
184	BOLT AN174-5	150
185	BOLT AN174-7	100
186	BOLT AN176-13A	200
187	BOLT AN3-10	20
188	BOLT AN3-10A	400
189	BOLT AN3-11	100
190	BOLT AN3-11A	50
191	BOLT AN3-12A	200
192	BOLT AN3-13	100
193	BOLT AN3-13A	100
194	BOLT AN3-14A	30
195	BOLT AN3-15A	100
196	BOLT AN3-17A	100
197	BOLT AN3-20A	50
198	BOLT AN3-21A	20
199	BOLT AN3-23A	100
200	BOLT AN3-27A	100
201	BOLT AN3-3	20
202	BOLT AN3-30A	30
203	BOLT AN3-32A	30
204	BOLT AN3-3A	100
205	BOLT AN3-4A	800
206	BOLT AN3-5	50
207	BOLT AN3-5A	1000
208	BOLT AN3-6	100
209	BOLT AN3-6A	2000
210	BOLT AN3-7	100
211	BOLT AN3-7A	2000
212	BOLT AN4-10A	20
213	BOLT AN4-12	50
214	BOLT AN4-15A	20

215	BOLT AN4-17A	100
216	BOLT AN4-21	30
217	BOLT AN4-22A	50
218	BOLT AN4-26A	30
219	BOLT AN4-4A	50
220	BOLT AN4-5A	50
221	BOLT AN4-6A	100
222	BOLT AN4-7	30
223	BOLT AN4-7A	50
224	BOLT AN5-21A	50
225	BOLT AN5-64	20
226	BOLT AN6-22A	50
227	BOLT DIN65320-03-005E	50
228	BOLT DIN65339-06-044B	100
229	BOLT DIN65339-K-10020B	20
230	BOLT LN9038-06-015	50
231	BOLT NA1206C 04x12	30
232	BOLT NA1206C 05X07	20
233	BOLT NA1206C 05X12	10
234	BOLT NA1206C 05X18	20
235	BOLT NA1206C 05X21	5
236	BOLT NA1206C 05X25	10
237	BOLT NA1206C 05X34	10
238	BOLT NA1206C 06X26S	5
239	BOLT NA1206C 08X25S	10
240	BOLT NA1206C 10x26S	5
241	BOLT NA1210C 03X05	50
242	BOWDEN CABLE HOUSING 05-15500	30
243	BULKHEAD ELBOW 90° AN833-6	20
244	BUTT SPLICE (BLUE) BSV14X-MY	50
245	BUTT SPLICE BSV18X-M	150
246	BUTT SPLICE (RED) BSV18X-MY	150
247	BUTTON LOCK CONTROL - BLACK A700 B (96 inch length)	6
248	BUTTON LOCK CONTROL - RED A700 R (96 inch length)	6
249	CABIN VENTILATOR CC-3251	12
250	CABLE - 18 AWG UNSHIELDED M22759-86-18/75986A-18	MOQ
251	CABLE - 20 AWG UNSHIELDED M22759-86-20/75986A-20	MOQ
252	CABLE - 22 AWG SINGLE CORE SHIELDED M27500 22WJ1S24	MOQ
253	CABLE - 22 AWG THREE CORE SHIELDED M27500 22WJ3S24	MOQ
254	CABLE - 22 AWG TWO CORE SHIELDED M27500 22WJ2S24	MOQ
255	CABLE - 22 AWG UNSHIELDED M22759-86-22	MOQ
256	CABLE - 24 AWG UNSHIELDED M22759-86-24/75986A-24	MOQ
257	CABLE - RG 400 RG-400/F400	MOQ
258	CABLE BUSHING AN111-C3	50
259	CABLE FLEXIBLE MIL-W-83420 1/16" Dia 7x7 GV	50
260	CABLE FLEXIBLE MIL-W-83420 1/8" Dia 7x19 GV	12
261	CAP AN929-4D	20
262	CAPACITOR 966590	4
263	CHAIN ASSY C156 001 0104	10
264	CIRCUIT BREAKER 84400001	10

265	CIRCUIT BREAKER 84400002	15
266	CIRCUIT BREAKER 84400003	20
267	CIRCUIT BREAKER 84400005	25
268	CIRCUIT BREAKER 84400007	15
269	CIRCUIT BREAKER 84400010	15
270	CIRCUIT BREAKER 482-G121-K1M1-A1S0-30	10
271	CIRCUIT BREAKER 482-G121-K1M1-A1S0-40	6
272	CIRCUIT BREAKER 482-G121-K1M1-A1S0-50	6
273	CLAMP 851410	50
274	CLAMP 10781-4-22CR	50
275	CLAMP AN737TW-38	50
276	CLAMP AN737-TW-46	100
277	CLAMP AN737TW-82	20
278	CLAMP AN742-D4	50
279	CLAMP - BREEZE MINIA CLAMP 6504	30
280	CLAMP - BREEZE MINIA CLAMP 6506	100
281	CLAMP - CUSHION CLAMP MS21919DG10	50
282	CLAMP - CUSHION CLAMP MS21919DG11	50
283	CLAMP - CUSHION CLAMP MS21919DG12	50
284	CLAMP - CUSHION CLAMP MS21919DG16	100
285	CLAMP - CUSHION CLAMP MS21919DG4	200
286	CLAMP - CUSHION CLAMP MS21919DG6	100
287	CLAMP - EXHAUST CLAMP ASSY 951550	20
288	CLEVIS PIN AN392-1C11	10
289	CONNECTOR MS3476W-10-6P	4
290	CONNECTOR MS3476W-16-26SN	4
291	CONNECTOR MS3476W-16-8S	8
292	CONNECTOR 1-640509-0	28
293	CONNECTOR M2000/2-1F	8
294	CONNECTOR MS3456W-16-10S	4
295	CONNECTOR MS3470W-14-5P	8
296	CONNECTOR MS3470W-16-8P	8
297	CONNECTOR MS3472W-10-6S	4
298	CONNECTOR MS3472W-12-10P	4
299	CONNECTOR MS3472W-12-10S	4
300	CONNECTOR MS3472W-12-6S	4
301	CONNECTOR MS3472W-14-12P	4
302	CONNECTOR MS3472W-14-12S	4
303	CONNECTOR MS3476W-14-12P	4
304	CONNECTOR MS3474W-16-26P	8
305	CONNECTOR MS3474W-18-32P	4
306	CONNECTOR MS3476W-14-5S	8
307	CONNECTOR MS3476W-16-26S	4
308	CONNECTOR MS3476W-18-32SN	4
309	CONNECTOR PINS 640545-2	116
310	COPPER BRAID ALPHA1229 (or) EQUIVALENT	MOQ
311	COPPER BRAID ALPHA1231 (or) EQUIVALENT	MOQ
312	COPPER BRAID ALPHA1233/2 (or) EQUIVALENT	MOQ
313	COPPER BRAID ALPHA 1235 (or) EQUIVALENT	MOQ
314	COTTER PIN AN380-2-2 (or) MS24665-132	1000

315	COTTER PIN AN380-2-3 (or) MS24665-134	100
316	COTTER PIN AN380-2-4 (or) MS24665-136	50
317	COTTER PIN AN380-2-7 (or) MS24665-142	30
318	COTTER PIN AN380-3-3 (or) MS24665-283	100
319	COTTER PIN AN380-3-4 (or) MS24665-285	30
320	COTTER PIN AN380-4-4 (or) MS24665-353	30
321	COTTER PIN AN380-4-5 (or) MS24665-355	30
322	COTTER PIN AN380-4-8 (or) MS24665-360	30
323	COTTER PIN LN-94-20-020	20
324	COUPLING AN910-1D	20
325	CRIMP CONTACTS 001104 100 02	100
326	CRIMP CONTACTS 001104 200 02	100
327	DNF CONNECTOR DNF18-250 FIM-C	112
328	DNF CONNECTOR DNF18-250 FIB-C	116
329	DNF CONNECTOR DNF18-110FIB-C	32
330	DZUS FASTENER AJW5-50	4
331	ELBOW 270N-04	10
332	ELBOW 45 AN823-6D	50
333	ELBOW 45° AN823-4D	40
334	ELBOW 90° AN822-6D	10
335	ELBOW 90° AN822-6-6D	50
336	ELBOW 90° AN822-4D	100
337	ELBOW 90° AN821-6D	10
338	EXHAUST ELBOW 973390	4
339	EXHAUST SPRING 938795	4
340	EYE END MS20668-4	8
341	FEMALE HOUSING 1-64019-0	4
342	FIRE PROOF SLEEVE 2650-14	MOQ
343	FIRE PROOF SLEEVE 2650-22	MOQ
344	FIRE PROOF SLEEVE 2650-8	MOQ
345	FLUSH SLOTTED HEAD STUD 4002-3 / 4002-5 / 4002-7 / 4002-8 / 4002-9 / 4002-10 / 4002-11	250
346	FLUTCH LATCH H-5000-2	20
347	FORK END MS20667-4	10
348	FUEL PUMP CONNECTOR SET 881304	8
349	GREASE FITTING MS15001-1	10
350	GROMMET MS35489-22	10
351	GROMMET SNAP RING R4G	250
352	GROUND MODULE 001758-501-02	8
353	GROUND MODULE 001758-202-02	12
354	HEAD PHONE JACK JJ-034	16
355	HEAT SHRINKABLE SLEEVES (1.6MM) RNF-100-1/16-4	MOQ
356	HEAT SHRINKABLE SLEEVES (19MM) RNF-100-3/4-4	MOQ
357	HEAT SHRINKABLE SLEEVES (2.4MM) RNF-100-3/32-4	MOQ
358	HEAT SHRINKABLE SLEEVES (25.4MM) RNF-100-1-0	MOQ
359	HEAT SHRINKABLE SLEEVES (38MM) RNF-100-1 1/4-4	MOQ
360	HEAT SHRINKABLE SLEEVES (6.4MM) RNF-100-1/4-4	MOQ
361	HINGE MS20257-P2	50
362	HINGE MS20001P3	6
363	HINGE MS20001P5	24

364	HINGE MS20001P6	10
365	HOSE MIL-H-8794-6/AE303-6H	50
366	HOSE AE-303-4H	60
367	HOSE MIL-H-6000-1	25
368	HOSE MIL-H-6000-3/8	12
369	HOSE MIL-H-6000-1/4	30
370	HOSE MIL-H-6000-1/2	50
371	HOSE END FITTING MS24587-4	100
372	HOSE END FITTING MS24587-6	150
373	HOSE END FITTING - 90° MS27224-6	20
374	JUNCTION MODULE 001755 102 02	8
375	JUNCTION MODULE 001755 103 02	8
376	KNOB C156 003 0101	4
377	LAMPS GE330	15
378	LED INDICATORS 5MM 12-12V	10
379	LOCKING WIRE TYPE HT 37553 0.8mm Dia SS304	MOQ
380	LOCKING WIRE TYPE HT 37553 0.6mm Dia SS304	MOQ
381	MAINTENANCE DB SUB CONNECTORS SEMA09S FCI	8
382	MALE BRANCH TEE 264P-04	40
383	MALE CRIMP TERMINAL PINS 19417-0048	150
384	MALE ELBOW 269P-04	30
385	MIC SOCKET JJ-033	16
386	NIPPLE AN816-6D	10
387	NIPPLE AN816-4D	10
388	NIPPLE AN816-6-6D	50
389	NIPPLE AN816-4-4D	30
390	NIPPLE AN816-6-2D	10
391	NUT AN310-4	50
392	NUT AN310-6	50
393	NUT AN316-3	30
394	NUT AN316-6	50
395	NUT AN362-1032A	50
396	NUT AN363-632	150
397	NUT AN364-1032A	500
398	NUT AN365-1032 / AN365-1032A / MS20365-1032A	3000 / MOQ
399	NUT AN365-428 / AN365-428A / MS20365-428A	300 / MOQ
400	NUT AN365-524A	50 / MOQ
401	NUT AN365-624A	200 / MOQ
402	NUT AN818-4D	200 / MOQ
403	NUT AN818-6D	500 / MOQ
404	NUT DIN65508-03D	200
405	NUT DIN65508-04D	30
406	NUT DIN65508-05D	50
407	NUT DIN65508-06D	100
408	NUT DIN65508-08D	30
409	NUT LN9345-06	10
410	NUT LN9345-10 (or) LN65407-10	10
411	NUT LN9348-14	30
412	NUT M3 DIN 934	50
413	NUT MS17825-3	50

414	NUT MS17825-4	1000 / MOQ
415	NUT MS20365-832A	50
416	NUT MS21025-24	30
417	NUT MS21042-08	50
418	NUT MS21042-3	150
419	NUT MS21042-6	50
420	NUT MS21044 B08	100
421	NUT MS21044N06	300
422	NUT MS-21921-6D	30
423	NUT MS33737-16-C	50
424	NUT MS35649-286B	50
425	NUT NAS 1291X7	100
426	NUT - CASTLE AN310-12	30
427	NUT - CASTLE AN310-3	200
428	NUT - CASTLE AN310-5	20
429	NUT - CASTLE AN310-8	50
430	NUT - CASTLE DIN65270-10D	20
431	NUT - CHECK NUT AN315-3	500
432	NUT - CHECK NUT AN924-4	30
433	NUT - CHECK NUT DIN65281-05D	50
434	NUT - HEX NUT 242873	50
435	NUT - LOCK NUT AN316-4	500
436	NUT - LOCK NUT MS20364-1032	150
437	NUT - NYLON NUT 261N-04	100
438	NUT - STOP NUT AN363-1032	50
439	NUT - STOP NUT AN363-428	150
440	NUT - STOP NUT AN363-624	100
441	NUT - STOP NUT AN365-632A	150
442	NUT BULKHEAD AN924-6	50
443	NYLON INSERT 259N-04	100
444	PFD BRACKET 403-00002-001	8
445	PFD - PITOT QUICK CONNECTOR 275-00001-002	8
446	PFD - STATIC QUICK CONNECTOR 275-00001-001	8
447	PLATE (ADAPTOR) 0426011-4	4
448	PLUS FLUSH GROMMETS 4002N	250
449	PUSH & PULL CONTROL CABLE A-920-84	50
450	QUICK RELEASE CONNECTOR 1-64009-0	4
451	QUICK RELEASE CONNECTOR 1-640519-0	20
452	QUICK RELEASE CONNECTOR SOCKETS 641300-2	96
453	RAIL 001751-103-00	8
454	RECEPTACLES 214-16N	250
455	RELAY ES205B2MD	4
456	RELAY FCA-325-AY2	8
457	RELAY 317203DP28V	8
458	RELAY - OVER VOLTAGE 635-62448/OVR-12A	4
459	RELAY - STARTER RELAY 992818	4
460	RELAY / CONTACTOR 6041H105	8
461	RELAY / CONTACTOR 6041H149	4
462	RESISTOR 2K2 1W	8
463	RING TERMINAL P4-10R/PV4-10R	100

464	RING TERMINAL P4-38R/PV4-38R	50
465	RING TERMINAL PN10-10R	100
466	RING TERMINAL PN10-10R-L	30
467	RING TERMINAL PN10-14R	100
468	RING TERMINAL PN10-38R	20
469	RING TERMINAL PN10-8R	150
470	RING TERMINAL PN14-6R	100
471	RING TERMINAL PN18-10R	1000
472	RING TERMINAL PN18-38R	10
473	RING TERMINAL PN18-6R	500
474	RING TERMINAL PN18-6R-M	100
475	RING TERMINAL PN18-8R	250
476	RING TERMINAL PN18-8R-M	100
477	RING TERMINAL PV10-10R	500
478	RING TERMINAL PV10-14R	10
479	RING TERMINAL PV4-14R	100
480	RIVET 24-06EF DIN65539	MOQ
481	RIVET AN426AD3-14	MOQ
482	RIVET AN426AD3-2	MOQ
483	RIVET AN426AD3-3	MOQ
484	RIVET AN426AD3-4	MOQ
485	RIVET AN426AD4-12	MOQ
486	RIVET AN426AD4-3	MOQ
487	RIVET AN426AD4-4	MOQ
488	RIVET AN426AD4-5	MOQ
489	RIVET AN426AD4-6	MOQ
490	RIVET AN426AD4-7	MOQ
491	RIVET AN470AD3-4	MOQ
492	RIVET AN470AD3-5	MOQ
493	RIVET AN470AD4-12	MOQ
494	RIVET AN470AD4-14	MOQ
495	RIVET AN470AD4-16	MOQ
496	RIVET AN470AD4-3	MOQ
497	RIVET AN470AD4-4	MOQ
498	RIVET AN470AD4-5	MOQ
499	RIVET AN470AD4-6	MOQ
500	RIVET AN470AD4-7	MOQ
501	RIVET AN470AD4-9	MOQ
502	RIVET AN470AD5-10	MOQ
503	RIVET - CHERRY RIVET CCR 274SS-4-06	MOQ
504	RIVET - CHERRY RIVET MSC-32 (or) CCR 244CS-3-03	MOQ
505	RIVET - CHERRY RIVET MSC-42 (or) CR 3522-4-03	MOQ
506	RIVET - CHERRY RIVET MSC-46 or CR 3522-4.06	MOQ
507	RIVET - CHERRY RIVET MSP-32 (or) CCR 274CS-3-03	MOQ
508	RIVET - CHERRY RIVET MSP-42 (or) CR 3523-4-02	MOQ
509	RIVET - CHERRY RIVET MSP-43 (or) CR 3523-4-03	MOQ
510	RIVET - CHERRY RIVET MSP-44	MOQ
511	RIVET - CHERRY RIVET MSP-45	MOQ
512	ROD END HM4 / MM4	250
513	ROD END BEARINGS MW-3	10

514	SCAT DUCT SCAT-4	50
515	SCAT DUCT SCAT-10	10
516	SCREW A43-C32	MOQ
517	SCREW AN525-1032-R10	MOQ
518	SCREW AN525-1032-R12	MOQ
519	SCREW AN525-1032-R14	MOQ
520	SCREW AN525-1032-R24	MOQ
521	SCREW AN525-1032-R6	MOQ
522	SCREW AN525-1032-R7	MOQ
523	SCREW AN525-1032-R8	MOQ
524	SCREW AN525-832-R6	MOQ
525	SCREW AN526-1032-R10	MOQ
526	SCREW AN526-1032-R12	MOQ
527	SCREW AN526-1032-R14	MOQ
528	SCREW AN526-1032-R16	MOQ
529	SCREW AN526-1032-R24	MOQ
530	SCREW AN526-1032-R6	MOQ
531	SCREW AN526-1032-R8	MOQ
532	SCREW AN526-632-R16	MOQ
533	SCREW AN526-632-R6	MOQ
534	SCREW AN526-632-R8	MOQ
535	SCREW AN526C-1032-R7	MOQ
536	SCREW DIN84A M3x12	MOQ
537	SCREW DIN84A M3x14	MOQ
538	SCREW DIN84A M4x14	MOQ
539	SCREW DIN84A M4X18	MOQ
540	SCREW DIN84A M4X22	MOQ
541	SCREW MS24693-S273	MOQ
542	SCREW MS24693-S274	MOQ
543	SCREW MS24693-S276	MOQ
544	SCREW MS24693-S28	MOQ
545	SCREW MS24693-S46	MOQ
546	SCREW MS24693-S52	MOQ
547	SCREW MS24693-S54	MOQ
548	SCREW MS24694-S48	MOQ
549	SCREW MS24694-S50	MOQ
550	SCREW MS24694-S51	MOQ
551	SCREW MS24694-S52	MOQ
552	SCREW MS26493-S54	MOQ
553	SCREW MS27039-1-16	MOQ
554	SCREW MS27039C-1-14	MOQ
555	SCREW MS35207-263	MOQ
556	SCREW MS35214-25	MOQ
557	SCREW MS35214-27	MOQ
558	SCREW MS35214-29	MOQ
559	SCREW MS35214-31	MOQ
560	SCREW MS35214-44	MOQ
561	SCREW MS35214-47	MOQ
562	SCREW MS35265-30	MOQ
563	SLEEVE AN819-4D (or) MS20819-4D	150

564	SLEEVE AN819-6D	250
565	SLEEVE FLEXIBLE CLT-100N-C630	40
566	SLEEVE MS-21922-6C	10
567	SOCKET SE205-A010101	4
568	SOCKET S328E01A06-110	8
569	SOCKET S316E01A06110	8
570	SOLDER SLEEVE SHIELD TERMINATORS B 150-03	40
571	SOLDER SLEEVE SHIELD TERMINATORS B 150-05	240
572	SPHERICAL BEARING FRL10R/XRL10R	10
573	SPHERICAL BEARING GL6	10
574	SPHERICAL BEARING RL10R	10
575	SPHERICAL BEARING RL8R	40
576	SPRING S5-200	10
577	STRAIGHT SOCKET 956 610	4
578	SWITCH 8801K22	68
579	SWITCH - ELEVATOR TRIM 8834K5	6
580	SWITCH - FLAP 8810K15	6
581	TEE AN917-2D	10
582	TEE AN824-6D	50
583	TEE AN-917-3D	50
584	TEE UNION AN824-4D	25
585	TEE - FITTING 264N-04	25
586	TNC CONNECTOR (GPS) R143182000W	4
587	TNC CONNECTOR STRAIGHT PLUG R161 083 000	4
588	TYRAP PLT 21M	MOQ
589	TYRAP TY-523M (or) TY-52317	MOQ
590	TYRAP PAD ABMS-4 (or) ABMS-A	MOQ
591	UNION AN815-4D	100
592	UNION AN815-6D	100
593	UNION AN832-4	20
594	VELCRO V-7212-1B	100
595	VELCRO V-7212-2B	100
596	WARNING LIGHTS LI-ION BATTERY SKU5MM-12	8
597	WASHER A-1020	MOQ
598	WASHER AN935-616	MOQ
599	WASHER AN960-10	MOQ
600	WASHER AN960-10L	MOQ
601	WASHER AN960-1216	MOQ
602	WASHER AN960-416	MOQ
603	WASHER AN960-416L	MOQ
604	WASHER AN960-4L	MOQ
605	WASHER AN960-516	MOQ
606	WASHER AN960-516L	MOQ
607	WASHER AN960-6	MOQ
608	WASHER AN960-616	MOQ
609	WASHER AN960-616L	MOQ
610	WASHER AN960-6L	MOQ
611	WASHER AN960-716	MOQ
612	WASHER AN960-8	MOQ
613	WASHER AN960-816	MOQ

614	WASHER AN960-816L	MOQ
615	WASHER AN960-B8/NAS1149B0832H	MOQ
616	WASHER AN960C-10L	MOQ
617	WASHER AN960C-6L	MOQ
618	WASHER AN970-3	MOQ
619	WASHER AN970-6	MOQ
620	WASHER LN9025-03-10L	MOQ
621	WASHER LN9025-10-10L	MOQ
622	WASHER NA1302-03-10L	MOQ
623	WASHER NA1302-03-15L	MOQ
624	WASHER NA1302-04-10L	MOQ
625	WASHER NA1302-05-10	MOQ
626	WASHER NA1302-05-10L	MOQ
627	WASHER NA1302-06-10L	MOQ
628	WASHER NA1302-06-15L	MOQ
629	WASHER NA1302-08-10L	MOQ
630	WASHER NA1302-10-10L	MOQ
631	WASHER NA1302-14-10L	MOQ
632	WASHER NAS1149FN632P	MOQ
633	WASHER - LOCK WASHER AN935-10 (or) MS35338-43	MOQ
634	WASHER - LOCK WASHER AN936-A416	MOQ
635	WASHER - LOCK WASHER MS35333-39	MOQ
636	WASHER - LOCK WASHER MS35333-40	MOQ
637	WASHER - LOCK WASHER MS35338-43	MOQ
638	WASHER - SPRING WASHER M3 DIN 127	MOQ
639	WASHER - SPRING WASHER M4 DIN 127	MOQ
640	WASHER - TINNERMAN C'SK WASHER A 3235-028-24A	MOQ
641	WIRE ROPE NICO PRESS OVAL SLEEVE 18-1-C	MOQ
642	CABLE 4 -AWG	MOQ
643	CABLE - 10 AWG 75986A-10	MOQ
644	CABLE - 12 AWG 75986A-12	MOQ
645	CABLE - 16 AWG 1140T-16-2 / 75986A-16	MOQ
646	CABLE - 18 AWG 75986A-18	MOQ
647	CABLE - 20 AWG 75986A-20 / M22759/86-20	MOQ
648	CABLE - 3 CORE SHIELDED 75986A-22-3U	MOQ
649	COPPER BRAID TYPE-12/5/0.0048 Inch	MOQ
650	COPPER FOIL 1181 HD 7140 04	MOQ
651	IDENTIFICATION SLEEVE 3.2 mm	MOQ
652	IDENTIFICATION SLEEVE 6.4 mm	MOQ
653	IDENTIFICATION SLEEVE 12.7 mm	MOQ
654	ALUMINUM ALLOY SHEET 2024-T3	
655	CM STEEL SHEET MIL-S-18729C COND 'ANNEALED'	
656	ALUMINUM ALLOY ROD 2024-T351	
657	CM STEEL ROD MIL-S-6758 COND D4	
658	ALUMINUM ALLOY TUBES 2024-T3	
659	CM STEEL TUBE MILL-T-6736 COND N	
660	ALUMINUM ALLOY TUBES 5052-0 ANNEALED	
661	CM STEEL FLAT MIL-S-6758 COND D4	
662	ALUMINUM ALLOY EXTRUSIONS 2024-T351	
663	STREAMLINE TUBING MIL-T-6736 4130	

664	ALUMINUM ALLOY FLAT 2024-T351	
665	STAINLESS STEEL SHEET AMS 5510 TYPE 321 AN	
666	SPRING STEEL PLATE AMS 6359/SAE 4340 COND ANNELED	
667	NITRILE RUBBER SHEET A/C QUALITY	
668	STAINLESS STEEL ROD T-304	
669	PHENOLIC SHEET BS 2572 F2	
670	NEOPRENE RUBBER SHEET A/C QUALITY	
671	PHOSPHOR BRONZE ROD BS 2874 PB 102	
672	COPPER SHEET BS 2870 PB 102	
673	SEAMLESS STAINLESS STEEL TUBES 304	
674	PHOSPHOR BRONZE ROD BS 1400 PBI	
675	ACRYLIC SHEET DTD 5592 A	
676	MUSIC WIRE AN-W-17/DRQQ-W-470	
677	Glass Fabric - 4 MIL	
678	Carbon fabric 165 gsm	
679	Resin Iy 5052	
680	Hardner CH 5052	
681	Adhesive AV 138	
682	Hardener HV998	
683	PVC foam 48 kg/m3 - 5 mm	
684	PVC foam 48 kg/m3 -15 mm	
685	PVC foam 60 kg/m3 - 8 mm	
686	Plywood	
687	Brominated Vinyl Ester Resin	
688	Cotton Flox slurry	
689	Micron Baloon slurry	
690	Spruce wood	
691	Canopy- 1 no.	
692	Plexiglas window panel	
693	Vacuum Accessories	
694	Aerodur Barrier Primer 37045 White	
695	S 66/22 R Hardener	
696	C 25/90S Thinner	
697	Pyroflex 7D 713 Black	
698	0651 Hardener	
699	Aerodur ADR 3001 Base coat white Kit (consisting of base material, CS6031 Curing Solution & A9005 Activator)	
700	Aerodur 3002 Top clear coat Kit (consisting of base material, CS6003 Curing Solution & A9053 Activator)	
701	Roller Probe NDE Equipment	1 set
702	Hypersizer Software	1 set
703	Working Table for Composite work shop	5 Nos
704	Storage Racks	1 set
705	Labview Software	1 set
706	SHM DAQ Module	1 No
707	Labwave Generation Systems	1 set
708	Specimen Cutting machine	1 No
709	Ultrasonic C-scan system	1 No
710	Prepreg Slitting machine	1 No
711	Prepreg Cutting machine	1 No

712	Roller probe inspection system	1 No
713	Workstations & Model based design (MBD)	27 Nos
714	Manual ultrasonic system	1 No
715	AHU system for clean room	3 set
716	Cold chest prepreg storage	3 set
717	Zero degree store rework	1 set
718	CTARA - Clean room for AFP and machine erection platform	1 set
719	Tools and accessories for assembly	1 set
720	Furnitures (general budget item)	
721	Conference toom interactive display with audio video system (general budget item)	
722	High Resolution Optical or Light Microscope	1 No
723	Carbon UD Prepreg- Hexply 914/34%/UD 160/AS4-12K/300 mm	1000 SQM
724	Carbon BD Prepreg - Hexply 914/40%/285H5/AS4C- 3K/1170 mm (with various width, i.e. 1170 /1200 /1500 mm)	750 SQM
725	Film Adhesive - HexBond 319A – 400 GSM	120 SQM
726	Film Adhesive - HexBond 319A – 240 GSM	120 SQM
727	Copper Mesh - Hexply 914–Copper Mesh- 40 %	240 SQM
728	Glass BD Prepreg - Hexply 914G-120--45 %	360 SQM
729	Glass BD Prepreg - Hexply 914G-7781--37 %	360 SQM
730	Impregnated Peel Ply- Hexply 914/45%/9842/1300 mm	300 SQM
731	IM7-Carbon UD Prepreg - Hexply 8552/33%/134/IM7 (12K)/1200 mm	3750 SQM
732	IM7-Glass BD Prepreg -Hexply 8552/37%/7781	750 SQM
733	IM7-Copper Mesh - Hexply Epoxy Matrix/ 8552/40%/72/Cu	300 SQM
734	Aramid Fiber / Phenolic Hexagonal Core - HexWeb HRH-10 Hex core	10 SHEETS
735	Aramid Fiber / Phenolic Hexagonal Core -HexWeb HRH-10 Flex core	10 SHEETS
736	BMI-Carbon UD Prepreg - CYCOM 5250-4 IM7-G-145/32	300 SQM
737	Tooling Prepreg LTM 217 – 100T -LTM 217-T-3KHS-4X4T-283-1250 mm	100 SQM
738	Tooling Prepreg LTM 217 – 700T -LTM 217-T-12KHS-2X2T-660-1250 mm	500 SQM
739	Expanded Copper Foil (ECF) -4 Cu (110)12-125FA (356 GSM)	100 SQM
740	Tooling Resin - RENLAM LY 5210 - Tooling / Laminating Resin – HIGH HEAT RESISTANT EPOXY SYSTEM	500 Kgs
741	Tooling Hardener - ARADUR 2954 / REN HY 2954 Tooling / Laminating Hardener – HIGH HEAT RESISTANT EPOXY SYSTEM	300 Kgs
742	Tooling Gel coat Resin - REN GEL SW 5200 Tooling / laminating Gel coat Resin – HIGH HEAT RESISTANT EPOXY SYSTEM	50 Kgs
743	Structural Adhesive - Aerospace Adhesives Araldite 403 A/B - Two component epoxy paste adhesive (A/B)	12 Kits
744	Structural Assembly Sealant (Various varjants)	285 Kits
745	Seal Cap (Various variants)	12750 Nos
746	Epoxy Filler Adhesive - Hysol EA934NA	10 Kits
747	Gore Tape (Various varieties)	15 rolls
748	Uncured Non-Silicone Tooling Rubber - AIRPAD	200 SQM
749	Uncured Fibre Glass Reinforced Rubber - AIRPAD HTS 5553	200 SQM
750	Peel Ply - 60 BR ORANGE	1000 SQM

751	Peel Ply - PES 90 / 1650	1000 SQM
752	Araldite AV 138 and Hardener HV 998	10 Kits
753	Tooling prepreg Surface Ply – LTC400B- 3-C(t)200-1250mm wide	5 Kits
754	Tooling prepreg Bulk Ply - LTC216-3-C(t)650-1250 mm wide	500 SQM
755	Surface Flim (50 microns) - ToolWright 3	800 SQM
756		5 Rolls
757	Surface Flim (120 microns)	25 SQM
758	Carbon BD Fabric 3K	5000 SQM
759	Carbon UD MTM®44-1-32%-12KM40JB-100-600	1500 SQM
760	Carbon BD MTM®44-1-42%-1KT300-P-120-1000	500 SQM
761	Glass BD MTM®44-1-40%-EGLASS-4H-105-1270	350 SQM
762	Carbon UD MTM44-1-32%-6KM55JB-100-300	300 SQM
763	Gurit Foam	50 sheets
764	Rohacell Foam/ Balsa Wood	10 sheets
765	Aircraft Standard Fasteners (Various Types of Rivets, Anchor Nuts, Bolts, Nuts, washers, etc)	1 Set
766	NRPE/T650-35-3K-8HS Desized, 370 GSM 39% RC, 50" Qty 100SQM	100 SQM
767	High temperature sealant (Dapco 2100, PR1930)	10 kits
768	Epoxy Filler Adhesive - Hysol EA9394NA	30 Kits
769	Structural Assembly Sealant PR1770 B2	10 Kits
770	Epoxy Primer BS 2X33	15 Kgs
771	PAEK / C Prepreg (for Thermoplastic Composites)	1 Set
772	Metallic MS Blocks(for Thermoplastic Composites)	1 Set
773	Multi-Purpose General Sealant Tape with high tack	1200 Rolls
774	RELEASE FILM – POROUS (PERFORATED)	1500 SQM
775	RELEASE FILM – NON POROUS (PLAIN)	1000 SQM
776	RELEASE FILM - Bondable One Side (BOS) – NON POROUS (PLAIN)	300 SQM
777	BAGGING FILM - Nylon Vacuum bagging film with elongation	2400 SQM
778	BREATHER - Heavy Weight Non-woven polyester Breather / Bleeder	2000 SQM
779	Tooltec / Toolkote / Pressure Sensitive Tape (0.005 inch / 125 microns)	500 SQM
780	Tooltec / Toolkote / Pressure Sensitive Tape (0.007 inch / 175 microns)	100 SQM
781	Tooltec / Toolkote / Pressure Sensitive Tape (0.012 inch / 300 microns)	300 SQM
782	Release Solution	10 Gal
783	Flash Breaker Tape	50 ROLLS
784	Repair Paste Adhesive	24 KITS
785	Double Sided Cotton Cloth Adhesive Tape	500 Rolls
786	Double Sided Polyester Adhesive Tape	500 Rolls
787	Masking Tapte	100 Rolls
788	Resin Infusion Kit	3 Kits
789	Fasteners and accessories (Commercial Grade) (with various sizes)	1 set
790	Vacuum bag sealant tape	80 Rolls
791	Autoclave Consumables for Thermoplastic Composites	1 Set
792	Kulite unsteady pressure transducers	20 Nos
793	PC	
794	Abaqus- Software for Co-Simulation with STAR-CCM (15 Tokens)	
795	Altair Hyperworks – 44 Tokens (for Pre/Post Processing)	

796	Nastran – 1 License (for Solver)	
797	Femap – 1 License (for Post Processing)	
798	Upgradation of HPC (3 Compu Nodes)	
799	Workstations – 4 no's	
800	Altair Hyperworks – 22 Tokens (for Pre/Post Processing)	
801	Transient dynamics explicit simulation software (Shock/Blast studies: 35 Token)	
802	GVT and Noise system upgradation	
803	Aeroelastic/ Static testing DAQ system upgradation	
804	Hand held damage detection system	
805	Workstations – 4 no's	
806	Upgradation of HPC (2 nos- Compu Nodes for Explicit Simulation)	
807	M4 Structures Studio – 1 License for physics-based structural modelling tool (for aircraft structural weight prediction, aeroelastic analysis and FEM)	
808	Mobile Workstation for Experimental WTTtesting	
809	Laboratory deep freezer for temp. -20 C to -40 C for Hail and Bird Impact Projectile	
810	Battery operated high rise working platform up to 10 Meter access	1
811	5 Ton EOT Crane cross travel & hoise unit	1
812	Acoustic Power Amplifiers	3
813	Acoustic sensor - Pressure field microphones	5
814	Vibration sensor - Accelerometers	10
815	Accelerometer Calibrator unit	1
816	Personal computers & Accessories	3
817	AMC of Mechanical & electrical systems	4
818	Structural hardware & consumables	10 tons
819	Raw Materials (Maraging Steel, 17-4 pH etc)	4000 Kg
820	Critical Spares for CAF	80 Nos
821	Hydraulic Jacks	36 Nos
822	Cooper compressors and Heat Exchangers	2 Nos.
823	Computer Servers and Tape library etc	02 Nos
824	UPS.Xerox machine,Plotter	01 each
825	Jack Actuators	04 Nos
826	Control Flap drive/Gear box	04 Nos
827	Hand held Pressure source	01 Nos
828	Pressure sensors	06 Nos
829	TMC drive	04 Nos
830	Workstations/Desktop PC's	10 Nos
831	Solidworks/Hyperworks licenses	04 Nos
832	Refurbishment of SOV	01 Nos
833	NI Hardware and Software	02 set
834	Quick Shut-Off Valve	01 Nos
835	Silica Gel Sorbead-R (BASF)- 15 Ton	15,000 Kg
836	Manufacturing of P197 model configurations	1 set
837	Manufacturing of NASM-MR model configurations	1 set
838	Manufacturing of DHVANI model configurations	1 set
839	Manufacturing of BrahMos-NG model configurations	1 set

840	Manufacturing of GEV model configurations	1 set
841	Accumulators	04 Nos
842	11 kV VCB Breaker for NCAF HT Motor	01 Nos
843	Reactivation heater for DECS/TURBO	01 Nos
844	Seiwing machine	01 Nos
845	Hyd. & Pneumatic Fittings and accessories*	100 Nos
846	Data Acquisition System	
847	Controlled loading mechanism	
848	Hot & cold bearing enclosure	
849	Oscillatory Bearing test rig	
850	Test rig components	
851	MatLab	
852	Solid works Renewal (3 Yrs)	
853	Sensors	
854	Actuators	
855	Valves & Pneumatic drive system	
856	Drive system	
857	Controller	
858	DSP based Controller	
859	Electrical consumables	
860	Power amplifiers	
861	Flywheel test rig	
862	DC power system for AMB	
863	Hydraulic Fork Lift	
864	Power Tools	
865	Mechanical hardware	
866	Fasteners & hardware	
867	Full Scale Nozzle	
868	Pre-Heater - 1 and 2	
869	Heater-Nozzle Inlet Interface Duct	
870	Mach 2.2 and 2.5 Nozzle, Sub scale	
871	NI DAQ Controller/ Card	
872	Fuel Pumps	
873	EP/On-off Valve	
874	Interface Duct	
875	Ejector to afterburner transition duct	
876	Pre-heater with settling chamber	
877	EP On/OFF valves -Oxygen Service (2 nos)	
878	Control Valve - Oxygen (1 no)	
879	Manual Valve - Oxygen Service (2 no)	
880	Monel Pipes, Flanges, Jet A1 fuel	
881	Conditioned Orifice Flow Meter 10 Inch	
882	6 Inch Globe Valve	
883	AMC Dynamometer	
884	Concepts NREC Software AMC	
885	NUMECA / CADENCE Software AMC	
886	ANSYS Mechanical AMC -3 Years	
887	SS/MS Pipes 6 Inch, 10 Inch, 12 Inch Schedule 40	
888	Fasteners for Test Rig - Aerospace Grade	
889	Gearbox Lube Oil	

890	Bearings ACBB & CRB	
891	Fabrication of Turbine Test Section Components	
892	Fabrication of Inlet & Exhaust Section Adapters, Instrumentation Rings, Probes	
893	Gas Path Instrumentation for Turbine Test Section	
894	Fabrication of Gear Coupling	
895	Assembly Tools	
896	120 KW Air Heater	
897	30TR Chiller Unit, DM Water	
898	5TR EGW Chiller Unit	
899	Mass Flow Meters	
900	Data Acquisition System	
901	Pressure regulating valves	
902	Mass Flow Meters (Air and Oil Lines) -02 Nos.	
903	Pressure Sensors - 05 Nos.	
904	DAQ Cards: Analog Input and Output Cards, Digital I/O Module - 01 Set	
905	Pressure Regulating Valve - 01 No.	
906	Dynamometer	
907	Engine Friction Test Rig	
908	Starter Generator for Wankel engine	
909	Solidworks software AMC	
910	Workstations	
911	Engine Combustion Analyser Sensors	
912	30 hp Engine Spares/Peripherals	
913	55 hp Engine Spares/Peripherals	
914	CFD Studies	
915	Band saw Machine Double Column Automatic Horizontal Model	
916	Electromagnetic Table	
917	Laser Marking machine	
918	Electric Propulsion motor	
919	Electric motor controller	
920	Propeller system	
921	Torque Meter with accessories	
922	100kW Ground power supply unit	
923	Engine Thermal system components (Radiator, Hx, tank, valves, etc.)	
924	Voltage, Current sensors/probes, power supplies, meters and accessories	
925	pressure, temperature, Speed probes and handheld measuring instruments	
926	NI DAQ Hardware and Modules	
927	Design and Fabrication of Thrust stand, Test Rig Components and fabrication	
928	Battery pack	
929	Cowling fabrication and integration	
930	Metallography Hot Mounting Press	
931	Dual View Stereo binocular Microscope	
932	Micro Vickers Hardness Tester	

933	Optical Microscope	
934	Replacement of complete vacuum line of CVI reactor	
935	Piezoelectric transmission and receiving unit	
936	Turbo Molecular Pump	
937	RF Power Supply	
938	Metallography Sample Preparation Consumables	
939	Electrical, Mechanical Spares and thermal insulation for CVI reactor	
940	Platinum (Pt) Sputtering Target	
941	Gold (Au) Sputtering Target	
942	Certified aircraft grade ANGLE OF ATTACK VANE SENSOR	2 sets (2x2 numbers)

Annual Procurement Plan for Advanced Composites Division

**Table - 1
List of Raw materials for Composite Parts and Tools Fabrication**

Sl. No	Materials description	Total Quantity
1	Carbon UD Prepreg Hexply 914/34%/UD 160/AS4-12K/300 mm	3400 SQM
2	Carbon BD Prepreg Hexply 914/40%/285H5/AS4C- 3K/1170 mm (with various width, i.e. 1170 /1200 /1500 mm)	750 SQM
3	Film Adhesive HexBond 319A – 400 GSM	200 SQM
4	Film Adhesive HexBond 319A – 240 GSM	120 SQM
5	Copper Mesh Hexply 914–Copper Mesh- 40 %	240 SQM
6	Glass BD Prepreg Hexply 914G-120--45 %	750 SQM
7	Glass BD Prepreg Hexply 914G-7781--37 %	360 SQM
8	Impregnated Peel Ply Hexply 914/45%/9842/1300 mm	360 SQM
9	IM7-Carbon UD Prepreg Hexply 8552/33%/134/IM7 (12K)/1200 mm	5000 SQM
10	IM7-Glass BD Prepreg Hexply 8552/37%/7781	750 SQM
11	IM7-Copper Mesh Hexply Epoxy Matrix/ 8552/40%/72/Cu	450 SQM
10	Aramid Fiber / Phenolic Hexagonal Core HexWeb HRH-10 Hex core	10 SHEETS
11	Aramid Fiber / Phenolic Hexagonal Core HexWeb HRH-10 Flex core	10 SHEETS
12	BMI-Carbon UD Prepreg CYCOM 5250-4 IM7-G-145/32	500 SQM
13	Tooling Prepreg LTM 217 – 100T LTM 217-T-3KHS-4X4T-283-1250 mm	200 SQM
14	Tooling Prepreg LTM 217 – 700T LTM 217-T-12KHS-2X2T-660-1250 mm	1000 SQM
15	Expanded Copper Foil (ECF) 4 Cu (110)12-125FA (356 GSM)	200 SQM
16	Tooling Resin - RENLAM LY 5210 Tooling / Laminating Resin – HIGH HEAT RESISTANT EPOXY SYSTEM	1300 Kgs
17	Tooling Hardener - ARADUR 2954 / REN HY 2954 Tooling / Laminating Hardener – HIGH HEAT RESISTANT EPOXY SYSTEM	740 Kgs
18	Tooling Gel coat Resin - REN GEL SW 5200 Tooling / laminating Gel coat Resin – HIGH HEAT RESISTANT EPOXY SYSTEM	80 Kgs
19	Structural Adhesive - Aerospace Adhesives Araldite 403 A/B - Two component epoxy paste adhesive (A/B)	12 Kits
20	Structural Assembly Sealant (Various variants)	300 Kits
	PR 1422-A2	
	PR 1422-B2	

	PR 1782-A2	
	PR 1782-B2	
	PR 1782-C12	
	PR 1764-B2	
	Chobond-2465	
	PR 1005L	
	PR-812 firewall sealant	
21	Seal Cap (Various variants)	17750 No's
	PR1782B002AB006SCE Empty Seal cap	
	PR1782B002AB025SCE Empty Seal cap	
	PR1782B002AB012SCE Empty Seal cap	
	PR1782B002CA601 NSE Empty Seal cap for Anchor Nut	
	PR1782B002 Empty Seal cap (with various sizes)	
22	Epoxy Filler Adhesive - Hysol EA934NA	20 Kits
23	Gore Tape	
	GSC-21-96399-C027 Sheet Thickness - 0.6 mm	05 Sheets
	GSC-21-97009-027 Rev A - Roll Width 30 mm and 100 feet Length	05 Rolls
	GSC-21-97157-027 Rev B – Roll Width 30 mm and 100 feet Length	05 Rolls
24	Uncured Non-Silicone Tooling Rubber - AIRPAD	420 SQM
25	Uncured Fibre Glass Reinforced Rubber - AIRPAD HTS 5553	460 SQM
26	Peel Ply - 60 BR ORANGE	2200 SQM
27	Peel Ply - PES 90 / 1650	2100 SQM
28	Araldite AV 138 and Hardener HV 998	20 Kits
29	Tooling prepreg Surface Ply – LTC400B- 3-C(t)200-1250mm wide	500 SQM
30	Tooling prepreg Bulk Ply - LTC216-3-C(t)650-1250 mm wide	800 SQM
31	Surface Flim (50 microns) - ToolWright 3	5 Rolls
32	Surface Flim (120 microns)	25 SQM
33	Carbon BD Fabric 3K	7500 SQM
34	Carbon UD MTM®44-1-32%-12KM40JB-100-600	1500 SQM
35	Carbon BD MTM®44-1-42%-1KT300-P-120-1000	500 SQM
36	Glass BD MTM®44-1-40%-EGLASS-4H-105-1270	350 SQM
37	Carbon UD MTM44-1-32%-6KM55JB-100-300	300 SQM
38	Gurit Foam	50 sheets
39	Rohacell Foam/ Balsa Wood	10 sheets
40	Aircraft Standard Fasteners (Various Types of Rivets, Anchor Nuts, Bolts, Nuts, washers, etc)	2 Sets
41	NRPE/T650-35-3K-8HS Desized, 370 GSM 39% RC, 50" Qty 100SQM	100 SQM
42	High temperature sealant (Dapco 2100, PR1930)	10 Kits
43	Epoxy Filler Adhesive - Hysol EA9394NA	60 Kits
44	Structural Assembly Sealant PR1770 B2	10 Kits
45	Epoxy Primer BS 2X33	15 Kgs
46	PAEK / C Prepreg (for Thermoplastic Composites)	1 Set
47	Metallic MS Blocks(for Thermoplastic Composites)	1 Set

Table - 2**List of Autoclave Consumables for Composite Parts and Tools Fabrication**

Sl. No	Materials description	Total Quantity
1	<p>Multi-Purpose General Sealant Tape with high tack. Base material : Synthetic Rubber Size : 1 Roll = 1/8 inch thick X 1/2 inch width X 25 feet Length or as per the manufacturer's standard roll size. 3 mm thick x 12 mm width x 7.5 meter Length Packing : 40 Rolls per Box Shelf Life : Minimum 10 months Maximum Use Pressure : 100 PSI Maximum use Temperature : 204 Deg C Colour : Yellow Note : Suitable for Autoclave Curing and removes easily from metal or composite tools.</p> <p>Product Code : AT 200Y or Equivalent</p>	4400 Rolls
2	<p>RELEASE FILM – POROUS (PERFORATED) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : P3 Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer's standard roll size. Max. Use Temp : 260 Deg Centigrade (260°C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature. Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 – RP3 or Product Code : A5000 – RP3 Product Code : FIA5N25 or Equivalent</p>	6300 SQM
3	<p>RELEASE FILM – NON POROUS (PLAIN) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : No perforation - Plain Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer's standard roll size. Max. Use Temp : 260 Deg centigrade (260° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet</p>	5600 SQM

	<p>Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature. Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 r – or Product Code : A5000 – R Product Code : FIA5N25 or Equivalent</p>	
4	<p>One side Bondable Release film (Non porous) RELEASE FILM - Bondable One Side (BOS) – NON POROUS (PLAIN) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : No perforation - Plain Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer’s standard roll size. Max. Use Temp : 260 Deg centigrade (260° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 BOS – or Product Code : A5000 – ONE SIDE BONDABLE Product Code : FIA5N25 ONE SIDE BONDABLE or Equivalent</p>	500 SQM
5	<p>BAGGING FILM - Nylon Vacuum bagging film with elongation Material : Nylon / soft Nylon Vacuum bagging film Thickness : 50 Microns or 75 microns Elongation at break : Minimum 400 % Tensile strength : Minimum 48 MPa Roll size : 60 inch width x 1000 feet length or as per the manufacturer’s standard roll size. Max. Use Temperature: 212 Deg Centigrade (212° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Green / Pink Shelf life : Minimum 2 years / Unlimited when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing and to be Compatible with Epoxy resin systems</p> <p>Product Code : KM 1300 or Product Code : HK7400 or Product Code : FIPA205-20/155 or Equivalent</p>	8800 SQM
6	<p>BREATHER Heavy Weight Non-woven polyester Breather / Bleeder Fibre Type : Polyester Weight : 339 GSM (+/- 5 GSM)</p>	8500 SQM

	<p>Roll Size : 50 inch Width X 50 meters Length or as per the manufacturer's standard roll size. Max. Use Temperature: 204 Deg Centigrade (204° C) Max. Use Pressure : 100 PSI Colour : White Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing.</p> <p>Product Code : Airweave N10 Product Code : Resin Bleeder 3000-10 or Equivalent</p>	
7	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.005 inch / 125 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape Total Thickness (Film / Carrier + Adhesive) : 125 Microns (0.005 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification : Film / Carrier Thickness : 70 Microns to 80 Microns (0.003 Inch) Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 125 Microns (0.005 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size.</p> <p>Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : ToolTec A005 or Product Code : Toolkote 03S or Equivalent</p>	1600 SQM
8	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.007 inch / 175 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape Total Thickness (Film / Carrier + Adhesive) : 175 Microns (0.005 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification : Film / Carrier Thickness : 120 Microns to 130 Microns (0.005 Inch)</p>	100 SQM

	<p>Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 175 Microns (0.007 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size. Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : Tooltec A007 or Equivalent</p>	
9	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.012 inch / 300 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape Total Thickness (Film / Carrier + Adhesive) : 300 Microns (0.012 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification : Film / Carrier Thickness : 245 Microns to 255 Microns (0.010 Inch) Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 300 Microns (0.012 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size. Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : Tooltec A012 or Product Code : Toolkote 010S or Equivalent</p>	725 SQM
10	<p>Release Solution Release Solution - Water based PTFE release agent (water based PTFE release agent that contains no silicones or silanes, no CFC's and no VOC's) Maximum use temperature : 200 Deg C (200°C) Max use Pressure : 100 PSI / 7 bar Solvent : Water Flammability : No Package in container : 1 Gallon (3.8 liters) Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature</p>	32 Gal

	<p>Suitable for High Temperature Autoclave Curing. To be compatible for composite and metal tools and provides release from epoxies, phenolics, BMI's and urethane resin systems. To be capable of multiple release cycles with most resin systems.</p> <p>Product Code: RELEASE ALL - SAFELEASE 30 or Product Code: HENKEL FREKOTE 770 NC or Product Code: FREKOTE 700 NC or Equivalent</p>	
11	<p>Flash Breaker Tape - All-purpose pressure sensitive tape, High temperature/ high tensile strength polyester films coated with a pressure sensitive silicone adhesive Maximum use temperature : 204 Deg C (204°C) Maximum use Pressure : 100 PSI / 7 bar Carrier type : Polyester Adhesive type : Silicone Colour : Blue / Orange Total thickness : 55 microns (0,0022 inch) Film thickness 25 microns (0,001 inch) Adhesive thickness 30 microns (0,0012 inch) Elongation at break : 100 % Roll Size : 01 inch width X 72 yards Length or as per the manufacturer's standard roll size. Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing and tapes remove easily after cure.</p> <p>Product Code: Flash tape or Equivalent</p>	470 ROLLS
12	<p>Repair Paste Adhesive High temperature quick setting filler paste with Hardener Material type : Polyester Colour Black : White (A:B) Mix ratio by weight : 100 : 1 (A : B) Pot life : 7-15 minutes (100 g at 22 °C) Mix ratio by weight : 100 : 2 (A : B) Pot life : 2 5 minutes (100 g at 22 °C) Maximum use temperature : 232 Deg c (232 °C) Maximum use Pressure : 100 PSI / 7 bar Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Package : 1.62 kg (Part A) & 0.028 kg (Part B) or as per the manufacturer's standard pack.</p> <p>Product Code : Airfill 2 A/B / or Product Code : APF 7 A/B or Equivalent</p>	60 KITS
13	<p>Double Sided Cotton Cloth Adhesive Tape As per Spec No. IT/R/92 Rev. 3 or latest Rev Size : 25mm X 25 Mtrs or manufacturer's standard size</p> <p>Shelf Life : Minimum 10 months Maximum Use Pressure : 100 PSI</p>	1150 Rolls

	Note : Suitable for High temperature Autoclave Curing and removes easily from metal or composite tools.	
14	<p>Double Sided Polyester Adhesive Tape As per spec no. IT/R/81 Rev. 5 or Latest Rev Size : 25mm X 27 Mtrs or manufacturer's standard size</p> <p>Shelf Life : Minimum 10 months Maximum Use Pressure : 100 PSI Note : Suitable for High temperature Autoclave Curing and removes easily from metal or composite tools.</p>	1150 Rolls
15	Masking Tape	300 Rolls
16	Resin Infusion Kit	3 Kits
17	Fasteners and accessories (Commercial Grade) (with various sizes)	5 sets
18	<p>Vacuum bag sealant tape A800 3G green silicon tacky tape Base material: Silicone Dim: 3mm x 12mm x 7.5m Max Temp: 425°C Shelf life: 12 months at 22°C</p>	80 Rolls
19	Autoclave Consumables for Thermoplastic Composites (Release films, Bagging films, Breather, General Sealant, Tooltec, Uncured Rubber, Release solution, etc.)	1 Set

Annual Procurement Plan 2024-2025

Sl. No	Item Description	Quantity
1	High End Laptop/Workstation	
2	AMC for Matlab license 1094233 upto march 2025 with following toolboxes: 1. MATLAB 2. Computer vision toolbox 3. Image processing toolbox 4. Sensor Fusion & Tracking toolbox 5. Signal processing toolbox 6. DSP system toolbox 7. Deep learning toolbox 8. Phased array system toolbox 9. Radar toolbox 10. Statistics and Machine learning toolbox 11. Simulink	
3	High End Laptop/Workstation	
4	Upgradation of 2 Mathworks liscence	

Annual Procurement Plan for Composite Parts and Tools Fabrication of SARAS MK-II Program

Table – 1A

List of Raw materials for Composite Parts and Tools Fabrication

Sl. No	Materials description	Total Quantity for 3 sets
1	Carbon UD Prepreg Hexply 914/34%/UD 160/AS4-12K/300 mm	1800 SQM
2	Carbon BD Prepreg Hexply 914/40%/285H5/AS4C- 3K/1170 mm (with various width, i.e. 1170 /1200 /1500 mm)	1350 SQM
3	Film Adhesive HexBond 319A – 400 GSM	360 SQM
4	Film Adhesive HexBond 319A – 240 GSM	360 SQM
5	Copper Mesh Hexply 914–Copper Mesh- 40 %	720 SQM
6	Glass BD Prepreg Hexply 914G-120--45 %	1800 SQM
7	Glass BD Prepreg Hexply 914G-7781--37 %	1080 SQM
8	Impregnated Peel Ply Hexply 914/45%/9842/1300 mm	900 SQM
9	IM7-Carbon UD Prepreg Hexply 8552/33%/134/IM7 (12K)/1200 mm	15000 SQM
10	IM7-Glass BD Prepreg Hexply 8552/37%/7781	1800 SQM
11	IM7-Copper Mesh Hexply Epoxy Matrix/ 8552/40%/72/Cu	1350 SQM
12	Aramid Fiber / Phenolic Hexagonal Core HexWeb HRH-10 Hex core	30 SHEETS
13	Aramid Fiber / Phenolic Hexagonal Core HexWeb HRH-10 Flex core	30 SHEETS
14	BMI-Carbon UD Prepreg CYCOM 5250-4 IM7-G-145/32	1500 SQM
15	Tooling Prepreg LTM 217 – 100T LTM 217-T-3KHS-4X4T-283-1250 mm	300 SQM
16	Tooling Prepreg LTM 217 – 700T LTM 217-T-12KHS-2X2T-660-1250 mm	1500 SQM
17	Seal Cap	
	PR1782B002AB006SCE Empty Seal cap	1800 No's
	PR1782B002AB025SCE Empty Seal cap	21240 No's
	PR1782B002AB012SCE Empty Seal cap	1800 No's
	PR1782B002CA601 NSE Empty Seal cap for Anchor Nut	6120 No's

Table - 1B

Sl. No	Materials description	Total Quantity for 3 sets
1	Expanded Copper Foil (ECF) 4 Cu (110)12-125FA (356 GSM)	600 SQM

Table – 1C

Sl. No	Materials description	Total Quantity for 3 sets
1	Structural Adhesive Araldite 403 A/B	36 Kits
2	Tooling Resin Product Code : RENLAM LY 5210	1500 Kgs
3	Tooling Hardener Product Code : ARADUR 2954 / REN HY 2954	900 Kgs
4	Tooling Gel coat Resin Product Code : REN GEL SW 5200	150 Kgs
5	Structural Assembly Sealants	
	PR 1782-A2	60 Kits
	PR 1782-B2	150 Kits
	PR 1782-C12	90 Kits
	PR 1764-B2 / Chobond-2465	48 Kits
	388-P MIXER ASSEMBLY	03 Kits
	PR-812 firewall sealant	15 Kits
6	Epoxy Filler Adhesive Hysol EA934NA	30 Kits
7	Gore Tape	
	GSC-21-96399-C027 Sheet Thickness - 0.6 mm	60 sets
	GSC-21-97009-027 Rev A - Roll Width 30 mm and 100 feet Length	30 sets
	GSC-21-97157-027 Rev B - Roll Width 30 mm and 100 feet Length	1500 feet
8	Uncured Non-Silicone Tooling Rubber AIRPAD	600 SQM (30 Rolls)
9	Uncured Fibre Glass Reinforced Rubber AIRPAD HTS 5553	780 SQM (36 Rolls)
10	Peel Ply 60 BR ORANGE	3000 SQM (30 Rolls)
11	Peel Ply PES 90 / 1650	4500 SQM (45 Rolls)

Table - 2

List of Consumables materials to fabricate Composite Aircraft Parts, Composite Tools and its Accessories like Composite Sub Tools & Composite Curing Caul Plates

Sl. No	Materials description	Total Quantity for 3 sets
1	<p>Multi-Purpose General Sealant Tape with high tack. Base material : Synthetic Rubber Size : 1 Roll = 1/8 inch thick X 1/2 inch width X 25 feet Length or as per the manufacturer's standard roll size. 3 mm thick x 12 mm width x 7.5 meter Length Packing : 40 Rolls per Box Shelf Life : Minimum 10 months Maximum Use Pressure : 100 PSI Maximum use Temperature : 204 Deg C Colour : Yellow Note : Suitable for Autoclave Curing and removes easily from metal or composite tools.</p> <p>Product Code : AT 200Y or Equivalent</p>	4800 Rolls
2	<p>RELEASE FILM – POROUS (PERFORATED) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : P3 Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer's standard roll size. Max. Use Temp : 260 Deg Centigrade (260°C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature. Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 – RP3 or Product Code : A5000 – RP3 Product Code : FIA5N25 or Equivalent</p>	7200 SQM (36 Rolls)
3	<p>RELEASE FILM – NON POROUS (PLAIN) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : No perforation - Plain Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer's standard roll size. Max. Use Temp : 260 Deg centigrade (260° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature. Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 r – or Product Code : A5000 – R</p>	5400 SQM (27 Rolls)

	Product Code : FIA5N25 or Equivalent	
4	<p>One side Bondable Release film (Non porous) RELEASE FILM - Bondable One Side (BOS) – NON POROUS (PLAIN) High performance fluoropolymer release film Material Type : FEP (Fluoropolymer film) Thickness : 25 Microns Elongation at break : Minimum 300 % Tensile strength : Minimum 20 MPa Perforation details : Perforation style : No perforation - Plain Roll size : 1.2 Meter Width X 183 Meter Length or as per the manufacturer's standard roll size. Max. Use Temp : 260 Deg centigrade (260° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Red / Violet Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing and to be Compatible with most resin systems</p> <p>Product Code : A4000 BOS – or Product Code : A5000 – ONE SIDE BONDABLE Product Code : FIA5N25 ONE SIDE BONDABLE or Equivalent</p>	1200 SQM (6 Rolls)
5	<p>BAGGING FILM - Nylon Vacuum bagging film with elongation Material : Nylon / soft Nylon Vacuum bagging film Thickness : 50 Microns or 75 microns Elongation at break : Minimum 400 % Tensile strength : Minimum 48 MPa Roll size : 60 inch width x 1000 feet length or as per the manufacturer's standard roll size. Max. Use Temperature: 212 Deg Centigrade (212° C) Max. Use Pressure : 100 PSI / 7 Bar Colour : Green / Pink Shelf life : Minimum 2 years / Unlimited when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing and to be Compatible with Epoxy resin systems</p> <p>Product Code : KM 1300 or Product Code : HK7400 or Product Code : FIPA205-20/155 or Equivalent</p>	7200 SQM (24 Rolls)
6	<p>BREATHER Heavy Weight Non-woven polyester Breather / Bleeder Fibre Type : Polyester Weight : 339 GSM (+/- 5 GSM) Roll Size : 50 inch Width X 50 meters Length or as per the manufacturer's standard roll size. Max. Use Temperature: 204 Deg Centigrade (204° C) Max. Use Pressure : 100 PSI Colour : White Shelf life : Unlimited when stored in original packaging at 22°C / Room Temperature Suitable for High temperature Autoclave Curing.</p> <p>Product Code : Airweave N10 Product Code : Resin Bleeder 3000-10 or Equivalent</p>	11250 SQM (50 Roll)
7	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.005 inch / 125 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape</p>	2700 SQM (180 Rolls)

	<p>Total Thickness (Film / Carrier + Adhesive) : 125 Microns (0.005 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification : Film / Carrier Thickness : 70 Microns to 80 Microns (0.003 Inch) Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 125 Microns (0.005 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size.</p> <p>Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : ToolTec A005 or Product Code : Toolkote 03S or Equivalent</p>	
8	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.007 inch / 175 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape Total Thickness (Film / Carrier + Adhesive) : 175 Microns (0.005 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification : Film / Carrier Thickness : 120 Microns to 130 Microns (0.005 Inch) Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 175 Microns (0.007 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size. Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : Tooltec A007 or Equivalent</p>	300 SQM (20 Rolls)
9	<p>Tooltec / Toolkote / Pressure Sensitive Tape (0.012 inch / 300 microns thickness) Tooltec / Toolkote / Pressure Sensitive Tape Total Thickness (Film / Carrier + Adhesive) : 300 Microns (0.012 Inch) Reinforced PTFE coated fibreglass with silicone adhesive / Non Porous PTFE coated Glass fabric with silicon adhesive Semi permanent Tool Release Film and Tool surface reconditioning. Specification :</p>	900 SQM (45 Rolls)

	<p>Film / Carrier Thickness : 245 Microns to 255 Microns (0.010 Inch) Adhesive Thickness : 45 Microns to 55 Microns (0.002 Inch) Total Thickness (Film / Carrier + Adhesive) : 300 Microns (0.012 Inch) Carrier type : PTFE/ Glass Adhesive type : Silicone Roll Size : 36 inch width X 18 yards Length or as per the manufacturer's standard roll size. Max use Temperature : 260 Deg C (260° C) Max use Pressure : 100 PSI / 7 bar Colour : Brown Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing.</p> <p>Product Code : Tooltec A012 or Product Code : Toolkote 010S or Equivalent</p>	
10	<p>Release Solution Release Solution - Water based PTFE release agent (water based PTFE release agent that contains no silicones or silanes, no CFC's and no VOC's) Maximum use temperature : 200 Deg C (200°C) Max use Pressure : 100 PSI / 7 bar Solvent : Water Flammability : No Package in container : 1 Gallon (3.8 liters) Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing. To be compatible for composite and metal tools and provides release from epoxies, phenolics, BMI's and urethane resin systems. To be capable of multiple release cycles with most resin systems.</p> <p>Product Code: RELEASE ALL - SAFELEASE 30 or Product Code: HENKEL FREKOTE 770 NC or Product Code: FREKOTE 700 NC or Equivalent</p>	30 Gal
11	<p>Flash Breaker Tape - All-purpose pressure sensitive tape, High temperature/ high tensile strength polyester films coated with a pressure sensitive silicone adhesive Maximum use temperature : 204 Deg C (204°C) Maximum use Pressure : 100 PSI / 7 bar Carrier type : Polyester Adhesive type : Silicone Colour : Blue / Orange Total thickness : 55 microns (0,0022 inch) Film thickness 25 microns (0,001 inch) Adhesive thickness 30 microns (0,0012 inch) Elongation at break : 100 % Roll Size : 01 inch width X 72 yards Length or as per the manufacturer's standard roll size. Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature Suitable for High Temperature Autoclave Curing and tapes remove easily after cure.</p> <p>Product Code: Flash tape or Equivalent</p>	300 Rolls
12	<p>Repair Paste Adhesive High temperature quick setting filler paste with Hardener Material type : Polyester</p>	72 Kits

Colour Black : White (A:B)
Mix ratio by weight : 100 : 1 (A : B)
Pot life : 7-15 minutes (100 g at 22 °C)
Mix ratio by weight : 100 : 2 (A : B)
Pot life : 2 5 minutes (100 g at 22 °C)
Maximum use temperature : 232 Deg c (232 °C)
Maximum use Pressure : 100 PSI / 7 bar
Shelf life : Minimum 12 months when stored in original packaging at 22°C / Room Temperature
Package : 1.62 kg (Part A) & 0.028 kg (Part B) or as per the manufacturer's standard pack.

Product Code : Airfill 2 A/B / or
Product Code : APF 7 A/B or Equivalent

ACD ANNUAL PROCUREMENT PLAN for SARAS MK-II PROJECT

Sl.No.	Description	Qty.
1	Nose Assembly 99-2725	05
2	Nose Assembly 99-2731	05
3	Nose Assembly 99-2737	04
4	Hydraulic Rivet Gun No.: 208-625	01
5	Nose Assembly 99-1720DG	02
6	Nose Assembly 99-1756DG	01
7	Nose Assembly 99-2500	01
8	Nose Assembly 99-2502	01
9	Nose Assembly 99-2503	01
10	Nose Assembly 99-2506	01
11	Nose Assembly 99-2508	01
12	Nose Assembly 99-2511	01
13	Nose Assembly 99-2514	01
14	Nose Assembly 99-2746	04
15	Nose Assembly 99-2512	01
16	Nose Assembly 99-2517	01
17	Hydraulic Rivet Gun No.: 2480	01
18	Nose Assembly 99-3715	02
19	Nose Assembly 99-3715-1	01
20	Nose Assembly 99-3716	02
21	Nose Assembly 99-3716-1	01
22	Nose Assembly 99-3717	02
23	Nose Assembly 99-3717-1	02
24	Nose Assembly 99-3718	02
25	Nose Assembly 99-3718-1	01
26	Nose Assembly 99-3712	02
27	Nose Assembly 99-2704	01
28	Nose Assembly 99-2710	01
29	Hydraulic Rivet Gun No.: 2480	01
30	Nose Assembly 99-2725	02
31	Nose Assembly 99-2731	02
32	Nose Assembly 99-2500	02
33	Nose Assembly 99-2502	03
34	Nose Assembly 99-2506	02
35	Nose Assembly 99-2508	03
36	Nose Assembly 99-2512	02
37	Nose Assembly 99-2514	03
38	Hydraulic Power Rig HC315AF/T400-5 CH-AF Cable & Handle	02
39	Pneumatic Rivet Gun (Model No.244X)	02
40	Rivet Removal Kit – No. 105-24	02
41	Rivet Removal Kit – No. 105-25	02
42	Rivet Removal Kit – No. 105-26	04
43	Rivet Removal Kit – No. 105-28	04
44	Rivet Removal Kit – No. 105-50	02
45	Rivet Removal Kit – No. 105-60	02
46	Rivet Removal Kit – No. 105-80	02
47	Rivet Removal Kit – No. 105-100	02

Sl. No	General Specification	UOM	Quantity
1	Uncured silicone rubber Colour : Red Thickness : ~1 to 1.2 mm X Width : ~900mm X Length : ~20 mtrs Maximum use temperature : 232°C Elongation at break : min 600% 700% max 800% Self Life: 6-8 Months at 3-5 °C	Roll	20
2	Pressure Sensitive Tape Width : 25mm +/- 2mm Maximum use temperature : 180°C Adhesive type : Silicone Colour : Blue / Orange Film thickness 50 µm +/- 5 µm Elongation at break 100 % Shelf life 18 months at 22°C	Roll	100
3	Pressure Sensitive Tape (High Tack) Width : 1 Inch Maximum use temperature : 180°C Adhesive type : High tack rubber Colour : Red Film thickness 50 µm +/- 5 µm Elongation at break 100 % Shelf life 18 months at 22°C	Roll	100
4	Resin Infusion starter Kit The kit shall contain all necessary materials with small, required quantity to manufacture part of ~2 sqm,	Kit	5 Nos
5	Vacuum Hose for resin infusion with PE Spiral Wrap Maximum recommended use temperature : 121°C Dia : 1.27 cm	Meters	100 Mtrs
6	Vacuum breather pad with mesh for resin infusions Colour : Blue Maximum use temperature : 125°C Width : 100 mm	Meters	100 Mtrs
7	Epoxy Flim Adhesive - FM 309-1M	Meters	100
8	Surface Master 905M	Meters	100
9	Epoxy Flim Adhesive FM 300-2M	Meters	100

Table-C

Ref: STTD Division CSIR-NAL

Sl. No	Item Description	Quantity
1	"Flightworthy Structural Health Usage Monitoring System"	1 Unit

Annual Procurement Plan 2024-2025

Table D: Procurement Plan regard Projects in EAD

Sl. No	Item Description	Quantity
1	Supply of High-speed camera with power supply, ethernet cable and software with suitable tripod head for high-speed imaging of Unsteady PSP with higher spatial resolution (E-8-442)	2 No.
2	Procurement of an infrared thermal camera with accessories, software, and a tripod head (P50)	1 No.

Annual procurement plan 2024-2025

SL.NO	Item Description	Quantity
1	Lithium (LiFePo4) battery system(26.4V/60Ah, capacity) with its accessories	03 Sets
2	Lithium (LiFePo4) battery system(26.4V/40Ah, capacity) with its accessories	02 Sets
3	Battery charger for Lithium (LiFe Po4) Battery	02 Sets

ACD Procurement Plan

SI.No	Material Description	Quantity
1	Carbon UD Standard Modulus (T 700) Prepreg Cetex® TC1225 LM PAEK., T700GC/12K/91N/FAW145/ 34%/	250 Sq.m
2	Carbon UD Standard Modulus (T 700) Prepreg Tape Cetex® TC1225 LM PAEK., T700GC/12K/91N/FAW145/ 34%RC, 0.25”	200 Kgs
3	Carbon UD Standard Modulus (T 700) Prepreg Tape Cetex® TC1225 LM PAEK., T700GC/12K/91N/FAW145/ 34%RC, 0.5”	200 Kgs

EAD Procurement Plan (E-8-443)

SI.No	Material Description	Quantity
01	Supply of High Speed Camera and Accessories for flow visualization	01

AMSD Table1: List of Life Support Systems (LSS) components

SL.NO	DESCRIPTION OF ITEM	Quantity
1.	OXYGEN CYLINDER (1132L) AND REGULATOR ASSY WITH SUPPORTING BRACKET	6
2.	PORTABLE OXYGEN CYLINDER AND REGULATOR ASSY (300L) WITH SUPPORTING BRACKET	3
3.	PAX OXYGEN VALVE	3
4.	CREW OXYGEN MASK REGULATOR (QUICK DONNING MASK)	6
5.	STOWAGE BOX	6
6.	TWO MASKS STOWAGE BOX WITH PASSENGER MASK	42
7.	SMOKE GOGGLES	6
8.	FIRST-AID MASK	6
9.	PROTECTIVE BREATHING EQUIPMENT	3
10.	PRESSURE TRANSDUCER	6
11.	OVER BOARD DISCHARGE INDICATOR	3
12.	CHARGING VALVE	3
13.	PRESSURE GUAGE	3
14.	NON-RETURN VALVE (NRV)	6
15.	CALIBRATED ORIFICE ASSY	3
16.	ALTITUDE PRESSURE SWITCH (APS)	3

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FMCD

TENDER NO: NAL/PUR/FMCD/177/23

Sl. No	Item Description	Quantity
1	Aircraft stick pusher	2 Numbers
2	Aircraft stick shaker	4 Numbers

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P50 APPARATUS AND EQUIPMENT

Sl. No	Item Description	Quantity
01	Stylus Surface Profilometer (3D)	01

Annual procurement Plan 2024-2025

ACD-(AR & DB Project)

Sl. No	Item Description	Quantity
01	"Portable digitizer capable of acquiring geometry and texture of the surface(with hardware and software) with in-built storage and wireless connectivity	01

Annual procurement Plan 2024-2025

Hap project :

Sl.No	Item Description	Quantity
1	" High Specific Energy Lithium pouch Battery cells". Sl.No 943.	1000Nos

Annual Procurement Plan 2024-2025

Electric Hansa Aircraft:

Sl.No	Material Description	Quantity
1	Propeller for e-Hansa Aircraft	03 Set
2	Propeller (Part no: MTV-1-A- 170-51)	03 No
3	Spinner Assy (Part No. P-299-D) -	03 No
4	Control Unit 12 VDC Digital (Part No. P-120-U/2700/12/D)	03 No
5	Circuit Breaker 4 Amp (Part No. C-086)	03 No