

Declaration of Design and Performance (Acceptable Means of Compliance)

DDP No 64.001.023a
Issue No 01

1 Name and address of manufacturer.

Aerodyne Systems
29 Duiker Road, Canelands
4340 Verulam, Natal
South Africa

2 Description and identification of article including:

a) "Vision" Main Canopy for 1 Person, Type No P-1495, sizes 117 sq ft to 168 sq ft

Description of Canopy: Vision 9-cell main canopy

Type of canopy	Main ram-air canopy, elliptical planform
Cells	9
Construction	I-beam chordwise
Connector links	Aerodyne soft links
Canopy Material	Zero-porosity nylon ripstop fabric for top and bottom skins, F-111 for ribs
Lines	Spectra 725 lbs

Parts List of Vision canopy:

Canopy size	Assembly	Canopy	Slider	Softlinks
117	P-1495-00	P-1495-01	P-1495-02	P-1487
124	P-1495-10	P-1495-11	P-1495-12	P-1487
132	P-1495-20	P-1495-21	P-1495-12	P-1487
140	P-1495-30	P-1495-31	P-1495-32	P-1487
150	P-1495-40	P-1495-41	P-1495-32	P-1487
168	P-1495-50	P-1495-51	P-1495-32	P-1487

b) Modification Standard Current revision shown on warning label

c) Master drawing record: P-1495

d) Weight and overall dimensions:

Size sq.ft.	Span in ft	Chord ctr in ft	Chord tip	Canopy Weight in kg	Slider size in mm
117	17,94	6,92	5,30	2,41	665x475mm
124	18,17	7,02	5,38	2,48	684x489mm
132	19,05	7,35	5,63	2,56	684x489mm
140	19,62	7,57	5,80	2,63	728x519mm
150	20,31	7,83	6,00	2,73	728x519mm
168	21,50	8,29	6,35	2,88	728x519mm

Note: Slider dimensions are for cutting templates with a margin of +0 to -30 mm.

Control System measured with brake locking loop held to the same point as the connector link. Aerodyne soft link is assumed. All measurements in centimeters.

Size	Suspension lines	A lines	B lines	C lines	D lines	Lower steering lines		Upper steering lines	
124	lines 3 to 8	2706	2741	2891	3081	toggle to brake	390	line 1	860
	lines 2 & 9	2705	2737	2877	3055	brake to cascade	2105	line 3	890
	lines 1 & 10	2705	2730	2851	3001			line 4	940
								line 5	1090
132	lines 3 to 8	2838	2875	3032	3231	toggle to brake	409	line 1	902
	lines 2 & 9	2837	2871	3017	3204	brake to cascade	2208	line 3	933
	lines 1 & 10	2837	2863	2990	3147			line 4	986
								line 5	1143
140	lines 3 to 8	2923	2961	3123	3328	toggle to brake	421	line 1	929
	lines 2 & 9	2922	2956	3108	3300	brake to cascade	2274	line 3	961
	lines 1 & 10	2922	2949	3079	3241			line 4	1015
								line 5	1177
150	lines 3 to 8	3025	3065	3232	3445	toggle to brake	426	line 1	962
	lines 2 & 9	3024	3060	3217	3416	brake to cascade	2353	line 3	995
	lines 1 & 10	3024	3052	3188	3355			line 4	1051
								line 5	1219
168	lines 3 to 8	3221	3262	3441	3667	toggle to brake	444	line 1	1024
	lines 2 & 9	3220	3258	3424	3636	brake to cascade	2505	line 3	1059
	lines 1 & 10	3220	3249	3393	3572			line 4	1119
								line 5	1297
188	lines 3 to 8	3405	3449	3638	3877	toggle to brake	462	line 1	1082
	lines 2 & 9	3404	3444	3620	3844	brake to cascade	2649	line 3	1120
	lines 1 & 10	3404	3435	3587	3776			line 4	1183
								line 5	1372

Size	Suspension lines	A lines	B lines	C lines	D lines	Lower steering lines		Upper steering lines	
210	lines 3 to 8	3580	3626	3824	4076	toggle to brake	481	line 1	1138
	lines 2 & 9	3578	3621	3806	4041	brake to cascade	2785	line 3	1177
	lines 1 & 10	3578	3611	3772	3970			line 4	1244
								line 5	1442

3 Specification reference, i.e., JAR-TSO No. and Manufacturer's design specification.

This product is designed for use as a main parachute for 1 Person during intentional jumping with a single harness-container system.

4 The rated performance of the article directly or by reference to other documents.

Max. Suspended weight:	See 9.A) Load
Max. Opening speed:	130 KT
Max. Sink speed/Rate of descent	<7m/sec
Max. Repack Cycle:	One year

5 Particulars of approvals held for the equipment:

No approvals other than that of the manufacturer.

6 Reference to qualification test report.

Extensive factory testing has been performed by the manufacturer on all models of the Vision canopy. These tests consisted mainly of life jumps from various altitudes and with different persons and suspended weights. All test jumps have been recorded in writing and most on video as well. All Vision canopies have passed the factory testing with satisfactory results.

7 Service and Instruction Manual reference number.

Aerodyne Main Canopies Manual, edition of January 2003, attached as Annex, or a following current revision (available for download via www.aerodyne-int.com).

8 Statement of compliance with appropriate JAR-TSO and any deviations therefrom.

None.

9 (a) Statement of the level of compliance with the JAR-TSO in respect of the ability of the article to withstand various ambient conditions or to exhibit various properties.

Parachute canopy is built with commonly used materials and will withstand normal use in typical civilian environment.

(a) Working and ultimate pressure or loads.

Canopy Size	Minimum Exit Weight	Maximum Exit Weight (lbs.)					
		Student	Novice	Int.	Adv.	Expert	Max
117	47	N/S	N/S	N/S	187	211	211
124	50	N/S	N/S	N/S	198	223	223

132	53	N/S	N/S	N/S	211	238	238
140	56	N/S	N/S	N/S	224	252	252
150	60	N/S	N/S	N/S	240	270	270
168	67	169	169	N/S	269	302	302

N/S = Not Suggested

Minimum exit weights are calculated on a 0,4 lbs/sq ft wing loading.

(b) Limitations of voltage and frequency. Not applicable

(c) Time rating (e.g. continuous, intermittent) or duty cycle.

The service/operational life is not regulated

(d) Limits of accuracy of measuring instruments.

No measurements needed

(e) Whether the equipment is "flameproof" (explosion-proof).

The equipment is not flameproof

(f) Whether the equipment is "fire-resistant".

The equipment is not fire resistant

(g) The compass safe distance. N/A (not applicable)

(h) Level of radio interference. N/A (not applicable)

(j) Radio and audio frequency susceptibility. N/A (not applicable)

(k) Degree of vibration which the equipment will withstand. N/A (not applicable)

(l) Degree of acceleration and shock which the equipment will withstand. N/A (not applicable)

(m) Degree of waterproofing or sealing of equipment.

The equipment is not waterproof or sealed.

(n) Ability to withstand sand and dust.

The equipment is not sensitive to sand and/or dust

(o) Ability to resist salt spray and aircraft fluids.

The equipment should not be exposed to Solenspray and/or aircraft fluids of any type. Should it be necessary to remove such soil, information as to the appropriate procedures is provided in the operations manual.

(p) Fungus resistance.

The equipment is manufacturer exclusively from synthetic materials and consequently resistant to fungus

(q) Temperature and altitude category.

The related materials and consequently the equipment can be used in a temperature range from -40° to +200°F

(r) Humidity category.

(s) Any other known limitations which may limit the application in the aircraft e.g. restrictions in mounting attitude.

(NOTE: The “categories” referred to are those listed in the current issue of EUROCAE ED-14/ RTCA document DO-160).

10 A statement of criticality of software.

No software in parachute.

11. The declaration in this document is made under the authority of Aerodyne. Aerodyne cannot accept responsibility for equipment used outside the limiting conditions stated above without their agreement.

Date: August 14th, 2003

Signed:

Aerodyne Technologies S.A.

Arnold Collenteur
Sales Director