

Supplement 19 – Other Manufacturers Equipment

19.1 INTRODUCTION

Ultramagic envelopes are approved for use with other manufacturers equipment as listed in section 19.3 of this Supplement. There is a uniformity of interface between the Ultramagic envelope ranges and the load frames, basket, burners and cylinders listed which allows this use. Ultramagic allow this use based on a number of requirements having been met.

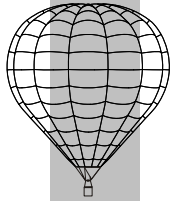
19.2 REQUIREMENTS

To establish compatibility of another basket, burner, and tanks manufacturers with an Ultramagic envelope, the following conditions must have been met:

- 1) The equipment must be identifiable as a FAA, BCAR, LBA or other authority accepted by the DGAC from Spain, type certified vehicle with the applicable Type Certificate Data Sheet.
- 2) Other manufacturer's equipment must accomplish all requirements and limitations expressed in their own flight and maintenance manual.
- 3) Other manufacturer's equipment must be on the lists of 19.3
- 4) Weight limitations on the complete balloon are based on the ULTRAMAGIC envelope and also on the basket used, if detailed by the manufacturer, and will be limited by the highest restriction.
- 5) Basket size (length x width = area) must fall within minimum and maximum limits as specified by the manufacturer.
- 6) Burner Type (Single, Double, Triple or Quadruple) must be accomplished as defined by the manufacturer.
- 7) All burner frames with 4 rigging points must be attached with 4 karabiners up to size 180, and 8 or 12 karabiners on bigger envelopes (with the exception of some Balloon Works and Lindstrand equipment –see 19.3-).

19.3 OTHER EQUIPMENT

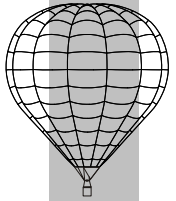
CAMERON
BASKETS BURNERS and CYLINDERS



Basket Size (cm)	Type	Empty Weight (Kg)	UM Envelope size range
112 x 112	Open	45	31-65
112 x 124	Open	60	56-77
112 x 147	Open	65	56-105
122 x 157	Open	70	90-145
122 x 189	Open	95	120-160
122 x 208	ST	100	120-160
135 x 195	P	100	120-180
144 x 230	ST	165	160-210
170 x 236	ST	180	160-250
170 x 282	ST	185	210-250
170 x 266	DT	195	180-250
155 x 326	DT	220	250-355
170 x 305	DT	225	210-425
170 x 347	DT	245	250-425
165 x 410	DT	310	300-425

Burner Type	Empty Weight (Kg)	UM Envelope size range
Mk4 Single	17	42-90
Mk4 Double	24	42-160
Mk4 Super Double	24	42-160
Mk4 Super Triple	44	120-250
Mk4 Super Quad	55	180-425
Mk3 Double	23	56-160
Mk4 Single Shadow	17	31-42
Mk4 Super Shadow Double	24	42-210
Mk4 Super Shadow Triple	44	120-300
Mk4 Super Shadow Quad	55	180-425
Stealth Double	24	42-180
Stealth Triple	45	120-250
Stealth Quad	56	180-425
Sirocco Double	24	56-160
Sirocco Triple	46	105-250
Sirocco Quad	55	250-425

Cylinder Type	Empty Weight (Kg)	Fuel Capacity (Kg)	Basket range
Worthington	14	20	All
CB 497	16	20	All
CB 599	17	22	All
CB 426	22	28	All
CB 959	25	36	All
CB 2380S	13	29	All
CB 2383S	14	37	All
CB 2385S	10	23	All
CB 2387S	13	27	All
CB 2088	22	28	All
CB 2900	21	23	All
CB 2901	23	30	All
CB 2902	24	27	All
CB 2903	27	36	All



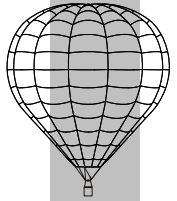
THUNDER & COLT
BASKETS , BURNERS and CYLINDERS

Basket Size (inches)	Type	Empty Weight (Kg)	UM Envelope size range
40 x 40	Open	48	31-77
40 x 48	Open	57	56-90
40 x 54	Open	67	65-145
40 x 60	Open	69	77-145
48 x 68	Open	105	105-160
48 x 85	P	132	120-180
60 x 87	ST	160	160-210
60 x 90	ST	170	180-210
60 x 102	ST	206	180-250
60 x 98	DT	252	180-250
60 x 118	DT	284	180-425
60 x 126	DT	415	180-425

Burner Type	Empty Weight (Kg)	UM Envelope size range
C2 Double	17	42-160
C2 Triple	25	120-210
C2 Triple + CLF	26	180-300
C2 Quad	28	180-425
Magnum/Stratus Double	22	56-210
Magnum/Stratus Double + CLF	23	90-210
Magnum/Stratus Triple	28	105-250
Magnum/Stratus Triple +CLF	31	150-300
Magnum/Stratus Quad	37	180-425

Cylinder Type	Empty Weight (Kg)	Fuel Capacity (Kg)	Basket range
Worthington	14	20	All
V 20	14	20	All
V 30	18	30	All
V 40	20	40	All

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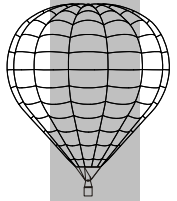
LINDSTRAND BASKETS , BURNERS and CYLINDERS

BASKET No.	Basket Size (cm)	Type	Empty Weight (Kg)	UM Envelope size range
01	110 x 115	Open	43	42-90
02	110 x 130	Open	57	56-105
03	110 x 155	Open	65	65-120
10	122 x 125	Open	67	105-120
11	122 x 165	Open	88	90-160
12	122 x 185	ST	117	90-160
13	122 x 205	ST	130	120-180
14	122 x 220	ST	138	120-180
15	122 x 260	DT	152	120-210
20	152 x 205	ST	150	150-210
21	152 x 240	ST	175	180-250
22	152 x 270	ST	200	180-300
23	152 x 260	DT	230	180-250
24	152 x 300	DT	255	180-425
25	152 x 350	DT	302	180-425
26	152 x 390	DT	320	250-425
27	152 x 430	DT	430	355-425
29	152 x 325	DT	279	180-425
30	152 x 280	DT	285	180-300
31	140 x 270	DT	210	160-300
32	140 x 300	DT	230	180-425
33	140 x 390	DT	295	180-425
34	140 x 240	DT	186	120-250
35	140 x 240	ST	172	120-250
36	140 x 270	ST	196	100-425
37	140 x 340	DT	257	180-425

BURNER No.	Burner Type	Empty Weight (Kg)	UM Envelope size range
1	Jetstream Single	16	42-90
2	Jetstream Double	22	42-210
3	Jetstream Double + CLF	25	120-250
4	Jetstream Triple	31	120-250
5	Jetstream Triple + CLF	35	160-425
6	Jetstream Quad	42	180-425

Cylinder Type	Empty Weight (Kg)	Fuel Capacity (Kg)	Basket range
Worthington	14	20	All
V20	14	20	All
V30	18	30	All
V40	20	40	All
T30	10	30	All

- A single 5 Ton Lindstrand Karabiner (and the corresponding tether ring) may be used on UM envelopes of size 210 and over, when fitted with the appropriate flying wires and all Lindstrand Flight Manual limitations are met.



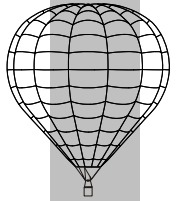
BALLOON WORKS BASKETS , BURNERS and CYLINDERS

Nº	Basket Size (inches)	Type	Empty Weight (Kg)	UM Envelope size range
3100	49 x 53.5	* Tri	136	56 - 77
3101	45 x 61	* Trap	136	56 - 77
3102	56 x 61	* Tri	146	56 - 90
3103	60 x 61	* Trap	171	56 - 90
3104	59 x 65	* Hex	186	77 - 240
3105	65 x 73	* Hex	201	105 - 240
3106	75 x 80	* Hex	240	105 - 240
3107	77 x 85	* Hex	245	105 - 240
3108	48 x 40	Rect	145	56 - 77
3109	48 x 60	Rect	171	77 - 105
3110	72 x 60	Rect	420	105 - 210
3111	96 x 60	Rect	544	180 - 240
3112	120 x 60	Rect	660	210 - 300

Burner Type	Empty Weight (Kg)	UM Envelope size range
T-3		56 - 120
Mirage		56 - 120
Mirage Double		105 - 240

Cylinder Type	Empty Weight (Kg)	Fuel Capacity (Kg)	Basket range
Worthington	14	20	All

- All UM envelopes to join with a non-rectangular basket (*), must carry special wires to attach to 3 points according to TN010. In that case for balloons of size 160 and over will carry 2 karabiners each corner.
- Special Wires just can be fitted by Ultramagic or a qualified organization authorized by Ultramagic.



SKY
BASKETS BURNERS and CYLINDERS

Basket Size (cm)	Type	Empty Weight (Kg)	UM Envelope size range
107 x 129	Simple	60	56-90
119 x 155	Simple	80	77-130
129 x 180	Simple,ST	100	105-145
157 x 207	ST	160	140-180
157 x 247	ST,DT	180	160-250
157 x 287	ST,DT	230	200-425
157 x 307	DT	260	180-300
157 x 327	DT	280	200-425
157 x 355	DT	300	200-425
157 x 407	DT	350	200-425
157 x 420	DT	400	300-425

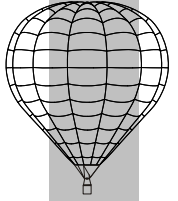
Burner Type	Empty Weight (Kg)	UM Envelope size range
Mistral double	22	56-210
Mistral triple	35	180-300
Mistral quad	44	250-425

Cylinder Type	Empty Weight (Kg)	Fuel Capacity (Kg)	Basket range
V-30	18	30	All
V-40	20	40	All

- See General Notes below

Notes :

- Dimensions of the basket are external in the base.
- ST means Single Partition and DT Double Partition.
- UM envelope sizes are given in thousands of cubic feet, so 65 mean 65000 ft³.



19.4 OTHER MANUFACTURERS EQUIPMENT. **ONE PERSON NON-BASKET BALLOONS**

The following table gives a list of one person non - basket bottom half systems which may be used with Ultramagic envelopes.

Manufacturer	Type	Empty Weight without cylinder (Kg)	UM Envelope size range	Rotation vents required Yes or No
Cameron	Skyhopper	15 kg	31 - 42	No
Cameron	Skyhopper Millenium	15 kg	31 - 42	No
Cameron	Duo Airchair	24 kg	56	Yes
Lindstrand	Cloudhopper	15 kg	31 - 42	Yes / No depending on specification*
Thunder & Colt	Cloudhopper	15 kg	31	No
Thunder & Colt	Duo Skychariot	24 kg	31 - 56	Yes

* Refer to the approved Flight Manual of the manufacturer