



# RIGGING ADVISORY CIRCULAR

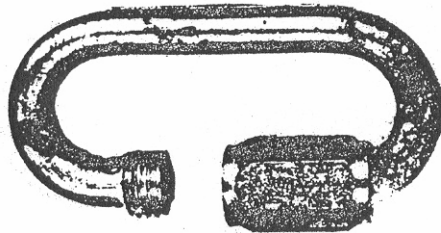
Issue Date: 01 November 1985

RAC No. 802 Rev. A

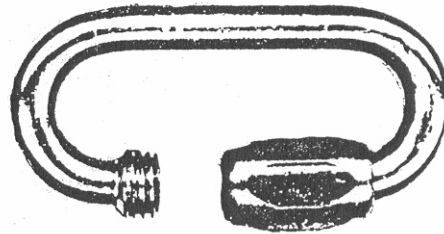
SUBJECT APF Policy for use of 'Rapide Links' on personal parachutes

STATUS Mandatory

IDENTIFICATION Malion Rapide No 4 SWL 180kg  
Malion Rapide No 5 SWL 280kg  
Malion Rapide No 6 SWL 400kg  
Unmarked other brands



OTHER BRAND



GENUINE MALION RAPIDE

BACKGROUND In recent years a number of parachute manufacturers have offered their parachute canopies on 'Rapide Links' as an alternative to the 'Separable' and 'Speed Links' in widespread use.

The most common type used is the Malion Rapide Link manufactured in France. These are identifiable by the manufacturers name, the link size and the safe working load (SWL) stamped into the link along its side..



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There are other brands available and these must be considered suspect unless a manufacturers name and SWL markings are present. An inferior unmarked link is available which is easily identified as the barrel has sharp corners which may cause damage to rigging lines and slider grommets during parachute deployment.

The SWL is a term which is not generally used in parachute rigging.

SWL is generally defined as 20% of the ultimate strength.

The proof load used in parachute rigging is generally defined as the load which when applied causes no permanent deformation of the part. The proof load is generally agreed to be 50 % of the ultimate strength.

It is reasonable then to rate Rapide Links by proof load.

First establish their ultimate load (ie multiply SWL x 5). Then divide the resulting value by 2 (ie 50%) to arrive at a proof load value.

## APF POLICY

Rapide Links may be substituted for separable links or speed links as directed by the canopy manufacturer. Where no direction has been made by the manufacturer Rapid Links may be substituted for separable links or speed links by using a link of equivalent proof load value.

NOTE: It may be necessary to substitute 4 Rapide Links for two connector links to achieve the equivalent proof load value.

The equivalent proof load value for Malion Rapide Links would be:

Malion No 4  $180\text{kg} \times 5 / 2 = 450\text{kg}$  (990 lbs)  
Malion No 5  $280\text{kg} \times 5 / 2 = 700\text{kg}$  (1540 lbs)  
Malion No 6  $400\text{kg} \times 5 / 2 = 1000\text{kg}$  (2200 lbs)



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A Rapide Link can only accommodate 5 or 6 rigging lines because of its narrow width.

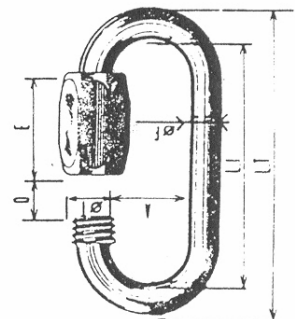
In some instances it will be necessary to use a larger link than necessary for strength purposes to accommodate the number of rigging lines.

The Rapide Link must only be used with the load applied along its length. The link is not rated for a side load. Do not use a Rapide Link if a cross connector is used.

EFFECTIVE DATE Immediately.

AUTHORITY Director (Rigging), Australian Parachute Federation.

DISTRIBUTION All APF Parachute Packers  
All APF Parachute Riggers  
APF Packing Manual Holders



**METAL ROD**  
Mild steel Martin E-24-2  
AFNOR standard 35-501 & 36-01 01  
U.S. standard A 283 GRC

**NUT**  
Sulphur steel S-300  
AFNOR standard 35-561  
U.S. standard 1214

Carbon : 0.22  
Phosphorous : 0.062  
Sulphur : 0.050  
Nitrogen : 0.009

**CHEMICAL COMPOSITION (%)**

Carbon : 0.15  
Manganese : 1/1.60  
Silicon : 0.09  
Phosphorous : 0.110  
Sulphur : 0.3/0.4

## STANDARD SERIES "N"

Trade Size	Réf.	DIMENSIONS in mm							Mild Steel Martin A 37 (E-24-2)		
		Ø F	L T	L I	A	O	E	T SI	W	SWL	BL
7/64" = 3.0	<b>3,0 N</b>	3.0	31.0	25.0	8.5	4.0	9.0	4 × 60	0.515	50	250
1/8" = 3.5	<b>3,5 N</b>	3.5	36.0	29.0	10.0	5.0	11.0	5 × 90	0.790	100	500
5/32" = 4.0	<b>4,0 N</b>	4.0	39.5	31.5	11.5	5.5	12.5	6 × 100	1.170	180	900
3/16" = 5.0	<b>5,0 N</b>	5.0	48.5	33.5	13.0	6.5	16.0	7 × 100	2.050	280	1 400
1/4" = 6.0	<b>6,0 N</b>	6.0	57.0	45.0	14.5	7.5	19.0	9 × 125	3.450	400	2 000
9/32" = 7.0	<b>7,0 N</b>	7.0	66.0	52.0	16.0	8.5	21.5	10 × 125	5.100	550	2 750
5/16" = 8.0	<b>8,0 N</b>	8.0	74.0	58.0	17.5	11.0	24.0	11 × 125	7.700	700	3 500
3/8" = 9.0	<b>9,0 N</b>	9.0	80.0	62.0	19.0	11.0	26.0	12 × 125	10 250	900	4 500
7/16" = 10.0	<b>10,0 N</b>	10.0	89.0	69.0	20.5	12.0	29.0	13 × 125	13.700	1 100	5 500
1/2" = 12.0	<b>12,0 N</b>	12.0	104.5	80.5	23.5	15.0	33.0	15 × 150	23.200	1 500	7 500
9/16" = 14.0	<b>14,0 N</b>	14.0	121.0	93.0	26.5	17.0	38.5	17 × 150	36.500	2 200	11 000
5/8" = 16.0	<b>16,0 N</b>	16.0	140.0	108.0	29.5	19.0	45.0	19 × 150	56.200	2 900	14 500
11/16" = 18.0	<b>18,0 N</b>	18.0	157.0	121.0	32.5	23.0	52.0	22 × 150	79.320	3 500	17 500
25/32" = 20.0	<b>20,0 N</b>	20.0	177.5	137.5	35.5	26.0	60.0	24 × 200	110.000	4 000	20 000