

# LIFE JUMP AIR PACK 70 A

**REFIREX®**

## DATA SHEET

COSTRUITO PER SALTI DA 21 MT / MADE TO JUMP FROM 70 FEET  
NON UTILIZZARE QUANDO PIOVE / DO NOT USE WHEN IT RAINS

*Jump tool to gather people in free fall in the least risky way*



Picture type (for example only)

Jump tools are divided into:

- Jump tools used only by services team;
- Jump tools that need an intervention team to use them at their operational efficiency;

“**LIFE JUMP AIR PACK 70A**” has been studied and produced in cooperation with market leaders in the fields of ventilation and plastics using certified raw materials and quality control systems. Produced in self-extinguishing, waterproof, anti-acid, highly tear and abrasion resistant material, guarantees an excellent level of reliability and strength (PVC coated polyester). Working at low pressure the cushion can stand small tears or breakages without its properties as a rescue device being compromised.

**“LIFE JUMP AIR PACK 70 A”** consists of three basic elements: n. 2 fans and n. 1 inflatable cushion.

It is easy to use, the inflation itself needs just the two fans turned; it is about 2,40 meters high and has a surface area of 27m<sup>2</sup>.

The cushion is composed of a lower chamber, an upper chamber where there is a safety valve for overpressure, and two delivery hoses. The elements part of the cushion are sewn and welded in advance in order to allow an easy and fast use of the equipment.

Three operators are enough to prepare the cushion in about 5 minutes.

The jumping cushion can be assembled at sites that pose access problems, courtyards of buildings, narrow streets, stairs or even on the roofs of parked cars.

The two helical electric fans provided are perfectly suited for use with the cushion; they have IP 55 motors, are supplied with 15 m self-extinguishing connecting cables, plugs according to the CE IP 67 norm and can be powered either from the mains or by the generators normally supplied on vehicles in use in National Fire Brigades. The fans can even be used in rainy conditions.

LIFE JUMP AIR PACK acts as energy dissipator of falling bodies. The vents on the side of the cushion release air at impact on its surface, absorbing without rebounds a falling body on it. LIFE JUMP AIR PACK absorbing capacity is expressed in 1/6 of a second, so the air path and the vents openings have to work freely. LIFE JUMP AIR PACK is composed of two compartments (chambers) separated by a panel. The upper chamber has n. 4 vents, which dissipate in an optimal way the falling energy of a body, completely eliminating trampoline effect. Special ropes regulate the outlet flow according to the falling height and the supposed weight of the person to save.

The lower chamber absorbs the excess of energy of the falling body avoiding it reaches the ground. Such chamber acts as a safety compartment and it has an absorbing capacity twice greater than the upper chamber. The base of the lower chamber is made of more resistant to wear and rubbing material.

#### INFLATION TIME

UPPER CHAMBER (WHITE)	FAN TYPE QC 634 M	TIME ≈ 36 s
LOWER CHAMBER (RED)	FAN TYPE QC 504 M	TIME ≈ 75 s

TOTAL ≈ 111 s

#### WEIGHT

CUSHION WITHOUT FANS	APPROX. Kg 150
FAN TYPE QC 504 M	APPROX. Kg 30
FAN TYPE QC 634 M	APPROX. Kg 42



**“LIFE JUMP AIR PACK 70 A” is the result of the development and improvement of a project carried out in 1974 by an American company.**

**“LIFE JUMP AIR PACK 70 A” is a tool suited for jumps of people from great heights for emergency rescues as last chance of salvation and it can not be used as training system for Fire Brigades.**

**“LIFE JUMP AIR PACK 70A” has to be used within the limits for which it has been studied and manufactured, that is for jumps from a height of 21 m with an averaged weight of approx. 80 kg.**

**The seller is not responsible for any injuries that may occur during the use of the cushion, because the manufacturer can not control the method used to land on the cushion, or the preparation before each jump. It is used in the recommended way and the person lands in the tested and recommended way, the cushion will absorb the shock of the falling from the height for which it has been tested. The buyer will assume the responsibility for the use and the operations carried out with the equipment.**

The manufacturer is deemed, for all purposes, not responsible, directly or indirectly, in case of:

- ✓ misuse of REFIREX LIFE JUMP AIR PACK 70A;
- ✓ use of the group by not trained personnel;
- ✓ non-compliance with any applicable national regulations;
- ✓ serious deficiencies in maintenance;
- ✓ interventions or modifies not allowed;
- ✓ non original or non specific spare parts use;
- ✓ not compliance, totally or partly, with the instructions in the Use and Maintenance manual;
- ✓ exceptional occurrences;

	DATA SHEET	VALUE
<b>FAN TYPE QC 634 M UPPER CHAMBER</b>	DIMENSIONS	800 × 800 × 330 [mm]
	WEIGHT	42 [kg]
	CAPACITY	8910 [m³/h]
	TOTAL PRESSURE	164 [Pa]
	INTERNAL FLOW RESISTANCE	47 [Pa]
	STATIC PRESSURE	117 [Pa] (T=15°C)
	ACTIVE POWER	1,10 [kW] (4 poles 230 V - 50 Hz)
	RPM	1380 [g/m']
	ELECTRICAL INPUT	2,8 [A]
	BLADES	9 plastic resin elements Al hub
	HEAT RESISTANCE	+ 50° C
	FRAME TYPE	Sheet zinc.
	BLADES PROTECTION	Steel wire net (UNI 9219 DIN 31001)
	ACOUSTIC PRESSURE	65 [dB] ISO 3744
<b>FAN TYPE QC 504 M LOWER CHAMBER</b>	DIMENSIONS	650 × 650 × 280 [mm]
	WEIGHT	30 [kg]
	CAPACITY	3150 [m³/h]
	TOTAL PRESSURE	130 [Pa]
	INTERNAL FLOW RESISTANCE	21 [Pa]
	STATIC PRESSURE	149 [Pa] (T=15°C)
	ACTIVE POWER	0,55 [kW] (4 poles 230 V - 50 Hz)
	RPM	1370 [g/m']
	ELECTRICAL INPUT	1,6 [A]
	BLADES	8 plastic resin elements Al hub
	HEAT RESISTANCE	+ 50° C
	FRAME TYPE	Sheet zinc.
	BLADES PROTECTION	Steel wire net (UNI 9219 DIN 31001)
	ACOUSTIC PRESSURE	68 [dB] ISO 3744
<b>JUMP CUSHION</b>	INFLATED CUSHION DIMENSIONS	4500× 6000 ×2420(H) [mm]
	USEFUL SURFACE	27 [m²]
	VOLUME CUSHION DEFLATED	1 [m³] (fans excluded)
	WEIGHT	150 kg
	MATERIAL	PVC coated polyester
	MATERIAL COATING (FIRE RETARDANT)	CL. 2 R.F. 1/75 e 3/77 DIN 4102-B1 and BS 5438/89 UNI 4818-19 and UNI 4817-27
	TENSILE STRENGTH OF UPPER CHAMBER	280 daN / 5 cm (DIN 53354 and UNI 4818-6)
	TENSILE STRENGTH OF LOWER CHAMBER	280 daN / 5 cm (DIN 53354 and UNI 4818-6)
	TENSILE STRENGTH DIAPHRAGM	250 daN / 5 cm (DIN 53354 and UNI 4818-6)
	TEAR RESISTANCE OF UPPER CHAMBER	30 daN / 5 cm (DIN 53363 and UNI 4818-9)
	TEAR RESISTANCE OF LOWER CHAMBER	30 daN / 5 cm (DIN 53363 and UNI 4818-9)
	TEAR RESISTANCE DIAPHRAGM	25 daN / 5 cm (DIN 53363 and UNI 4818-9)
	TENSILE JUNCTION STRENGHT BETWEEN WALL AND ROOF	250/280 daN / 5 cm (DIN 53354 and UNI 4818-6)
	TENSILE JUNCTION STRENGHT BETWEEN WALL AND DIAPHRAGM	DIN 53354 and UNI 4818-6
	HORIZONTAL LOADING	220/250 daN / 5 cm
	VERTICAL LOADING UP	220/250 daN / 5 cm
	VERTICAL LOADING DOWN	220/250 daN / 5 cm
	TENSILE JUNCTION STRENGHT BETWEEN WALL AND BOTTOM	250/280 daN / 5 cm
	ULTIMATE TENSILE STRESS	=0,90 gr per 1000 cycles (ISO 5470)
	ADHESION (PEELING TEST)	1,6/1,8 kg/cm (ISO 2411)
	PICK (DECOUPLING INITIAL VALUE)	5 daN/cm (ISO 2411)
	THERMAL RANGE	-20°C ÷ +70°C (ASTM D 751)
	LIGHT RESISTANCE	DIN 53388 Livello 7/8
All the seams on REFIREX LIFE JUMP AIR PACK are made with 100% polyester filament. Tensile strength $\sigma=10,850$ g lengthening $\Delta p/p=25,5\%$ strength 44,5 g/TEX. ULTRASONIC WELDING 12 KW		
BOTH FANS ARE PROVIDED WITH POWER CABLE - LENGTH 15 m		

- ❖ DATA SHEET CAN BE REPLACED WITHOUT NOTICE
- ❖ DATA SHEET CAN CHANGE OF  $\pm 5\%$ .