

PARACHUTE TYPES

AIRBORNE PARACHUTES FOR MILITARY USE

In 1919 Leslie Irvin made the first ever free fall parachute descent. What became known as the Irvin parachute gained rapid acceptance, and by the early 1930's was in service with some 40 air forces around the world. Then as now, the Irvin name set the standard for innovation, reliability and quality. Today, Irvin designs and manufactures an unrivaled range of parachutes from personnel to aerial delivery, recovery systems to brake parachutes and much, much more.

PERSONNEL PARACHUTES

Irvin manufactures the world's largest range of personnel parachutes and related equipment for both paratroopers and specialized airborne forces including:



- Non-steerable assemblies for massed, tactical assault such as the T-10, CT-1, LLP to mention only a few
- Steerable assemblies for specialist airborne teams jumping onto small or restricted drop zones. These include MC1-1B, MC1-1C, CT-2, CT-3 and CT-6.
- Reserve parachutes for emergency use.
- Steerable assemblies for para-rescue specialists, disaster relief teams, para-medics, smoke jumpers, etc.
- Emergency parachutes for cargo dispatchers and jumpmasters
- Single action release personal load carrying equipment



EMERGENCY ESCAPE PARACHUTES



Ejection seat canopies must operate efficiently over as wide a speed range as possible. They must be technically matched to the ejection envelope and give the lowest possible opening shock at any speed. Irvin's advances in fabric technology and construction techniques, along with the application of advanced concepts such as AIM (Automatic Inflation Modulation) give the escaping crew a much greater chance of survival - even during dangerous low altitude, high speed ejection. The advanced materials cushion the initial shock as the parachute deploys, to prevent damage and minimize the chance of injuries.

Irvin also makes systems for unassisted escape from helicopters, light aircraft and gliders. Thin-profiled streamlined packs, integrated with the seat and personal survival pack, allow free movement in the aircraft and easy escape in an emergency. Their low mass and low bulk meet rate of descent requirements, while quick release mechanisms add to safety in the case of water entry.

IRVIN products have been developed and tested for over 75 years to demanding specifications. They are in use worldwide and are endorsed by many nations as products of reliability and quality.

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PARACHUTE TYPES

AERIAL DELIVERY SYSTEMS

The ability to deploy equipment quickly and accurately by air is of crucial and growing importance. Irvin has built an unrivaled knowledge of the strategic and tactical needs of these operations. A range of aerial delivery systems has been developed for use by aircraft and helicopters. The cargo which can be deployed is limited only by the capability of the aircraft. Irvin can supply all the products, services and technical support to train, qualify and equip its customers in every aspect of aerial cargo delivery. An Irvin package can include all aerial delivery equipment such as parachutes, containers, platforms, pallets and consumables, together with all the hardware necessary for reconfiguring aircraft to different roles.

- Air transport of palletized cargo using cargo nets and restraint systems.
- The Low Altitude Parachute Extraction System (LAPES) - which extracts platform loads of heavy equipment weighing up to 36,000 LBS (16,300 KG) at drop altitudes of 5 FT (1.5 M). Aircraft not configured for LAPES operation can be retrofitted.
- High altitude, high speed container airdrop gravity-assisted deployment of cargo containers weighing up to 2,200 LBS (1,000 KG) from drop altitudes of 600 FT (180 M) and above.



- High altitude platform airdrop parachutes-assisted extraction of platform loads of heavy equipment (supplies, vehicles, weapons, etc) of 30,000 LBS (13,600 KG) or more from drop altitudes of 800 FT (250 M).
- High altitude non platform airdrop manual ejection of bundles such as ammunition, fuel, water, rations, etc., weighing 500 2,500 LBS (230 1,130 KG) from drop altitudes of 300 FT (90 M) and above.

RECOVERY SYSTEMS AND BRAKE PARACHUTES



Irvin is the world leader in missile, PV and UAV recovery. Our expertise is also used in designing and manufacturing parachutes for use in space exploration. Irvin systems can recover vehicles of all sizes and weights from all altitudes and speeds. With the aid of computer simulation, the Company has gained a thorough understanding of the problems associated with this field and has designed innovative recovery systems to meet the demanding specifications.

Irvin works closely with the prime contractor to solve recovery problems and has developed techniques to minimize impact damage. These techniques include, mid-air retrieval, guidance to a pre-determined landing area, airbags and automatic canopy releases to prevent damage by dragging. Complete product support, including training in packing and repair, logistics and documentation is always available.

Irvin deceleration parachutes are used by both aircraft and specialized land vehicles. The design challenge is to meet the contrasting requirements for rapid deployment, the ability to survive exposure to the jet exhaust and operation in clean air. The use of advanced materials has enabled higher landing speeds to be achieved together with greater strength and resistance to searing and abrasion. Life cycle costs have been reduced, while braking efficiency, packability and service life have all been extended.

