

#### WORLD CLASS PARACHUTE TECHNOLOGY

## PERSONNEL MILITARY SYSTEMS

## TP-2Z TROOP PARACHUTE SYSTEM

Consolidating the experience acquired with the years of close co-operation with military paratroops and special forces units, the CIMSA TP-2Z system makes up the latest development of a new generation of round parachutes to respond to the more specialized tendencies found in operational mission requirements (massive jumps, pin-point landings for special forces teams,...) of the parachute forces.



Taking into account the current logistics of the Armed Forces around the world, the design of the CIMSA TP-2Z does not modify, but improves, the operational procedures of packing and maintenance of standard troop parachutes although incorporates the most advanced techniques and materials in the design and construction of static line automatic opening parachutes available.

The CIMSA TP-2Z parachute system allows for the installation of different main canopy configurations and external pack to cover a large number of operational requirements from a parachute brigade to reduced Special Forces groups with maximum logistic and economical efficiency. Nowadays the CIMSATP-2Z is in use by all arms of the Spanish Armed Forces in all its different configurations.

The CIMSA TP-2Z parachute system allows to select from three different canopies of 34 ft, 35 ft and 38 ft. nominal diameter of low porosity fabric MIL-C-44378 Type I with different geometrical and structural characteristics that could be combined in the same harness container with the maximum efficiency and lower cost, depending on the mission.

The 38 ft and 34 ft TP-2Z main canopies are specifically designed to allow safer parachute jumps with higher loads assuring better landings than other static line troop personnel parachutes available nowadays (T-10, MC1-1B, etc...)

This high stability orientable canopies (34 ft, 38 ft) have been designed and tested with state-of-the-art technological resources which have driven to fast and consistent openings with progressive and comfortable shock openings. Thanks to its four symmetrical windows the oscillation is extremely reduced during opening and descent. This way softer landings are assured without any component of horizontal speed. Additionally, two control toggles allow the parachutist orientation of the canopy by turning on its vertical axis without any horizontal movement, which used to because of collisions in the air with other troop personnel parachutes in massive jumps.

The 35 ft steerable canopy incorporates 13 impulsion and control windows in the rear part of the canopy that are handled with control toggles from the risers. The design of this canopy corresponds to the well-known MC1-1C currently in use worldwide. This canopy configuration is ideal for reduced Special Forces group insertion when precise landing is required.



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The harness is manufactured completely with first quality webbing, fully adjustable to size, and available for each configuration, includes a three point release assembly with quick ejector snaps and comfort pads on the legs, saddle and chest straps as well as cargo rings in the front and in the back.

The CIMSA TP-2Z allows the final parachute user to select from two different external pack trays. One American type packing system with four flaps and closing cotton webbing, and a second option with vertical closing and Velcro fastener for much cleaner appearance.

The TP-2Z Deployment Bag includes an improved stowage and protection system for the suspension lines that provides several advantages in front of the traditional T-10 / MC1-1B/C D-Bags reducing packing time and physical effort substantially, not requiring special packing tools, reducing and facilitating maintenance operations, and providing better protection of the suspension lines.

The RTP-26Z chest reserve parachute is designed to be combined with the TP-2Z main parachute assemblies. It provides safer openings and higher stability, assuring a lower landing speed and, therefore, lowering the injury risk.

P/N TP-2Z Main Assembly	402908	402908-01	402908-02	402908-03	402908-04	402908-05
NSN TP-2Z Main Assembly	1670-33-005-3058	1670-33-005-3059	1670-33-005-3060	1670-33-005-3061	1670-33-005-3062	1670-33-005-3063
Shape	Polyconic	Polyconic	Polyconic	Polyconic	Parabolic	Parabolic
Canopy Diameter (ft)	38	38	34	34	35	35
Canopy Area (m <sup>2</sup> )	105.5	105.5	82.3	82.3	88.9	88.9
Nr. of Gores	24	24	24	24	30	30
Canopy Material	PIA-C-44378 Type IV					
Assembly Weight (kg)	14	14	13.5	13.5	13	13
Maximum Exit Weight (kg)	160	160	140	140	160	160
Maximum Exit Speed (KEAS)	150	150	150	150	150	150
Maximum Descent Speed (for maximum weight) (m/s)	5.5	5.5	6.0	6.0	6.0	6.0
Minimum Exit Altitude (m AGL)	125	125	125	125	125	125

P/N TP-2Z Complete Assembly	503900	503900-01	503900-02	503900-03	503900-04	503900-05
NSN TP-2Z Complete Assy.	1670-33-005-3052	1670-33-005-3053	1670-33-005-3054	1670-33-005-3055	1670-33-005-3056	1670-33-005-3057
P/N TP-2Z Main Assembly	402908	402908-01	402908-02	402908-03	402908-04	402908-05
P/N RTP-26Z Reserve Assembly	405106	405106	405106	405106	405106	405106

All TP-2Z complete equipment and its parts are Type Certified by the Spanish Ministry of Defense and holds NATO Stock Numbers (NSN).