

TACTICAL PARACHUTE DELIVERY SYSTEMS, INC.



HEAVY LOAD TACTICAL

HLT BROCHURE 2025

TACTICAL PARACHUTE DELIVERY SYSTEMS, INC.

4035 Correia Drive Zephyrhills, FL 33542 U.S.A.

Web: www.tpdsairborne.com - Email: info@tpdsairborne.com

Phone: +1(813)782-7482 - Fax: +1(813)788-2799



HEAVY LOAD TACTICAL

Airborne Harness/Container System

The **Heavy Load Tactical** is a complete assembly of military equipment manufactured to the highest standards using the best **Military Specification** materials available in today's market. The **HLT** is manufactured in the United States in a facility that is Federal Aviation Administration (**FAA**) certified for manufacturing parachute equipment.

The **Heavy Load Tactical** is designed for HALO-HAHO operations and training with a single operator carrying full combat equipment and bundles or two individuals with or without the use of a drogue pilot chute.

The **Heavy Load Tactical** consists of a **Main Container** with a choice of Zero Porosity main parachutes and a **Reserve Container** with a choice of F-111 reserve parachutes.

The **Heavy Load Tactical** may be set up for **Static Line** or **Freefall** with or without a drogue pilot chute.

Main Container Capabilities and Features:

Physical Specifications:

Materials:

Container-

1000 Denier Nylon Cordura

Deployment Bag-

1000 Denier Nylon Cordura

Webbing:

Main Lift Webbing-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength **6000 lbs. / 2721 kg.**

Main Risers-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength **6000 lbs. / 2721 kg.**

Reserve Risers-

1 23/32" (4.3 cm.) wide Type 13 Mil-W-4088

Tensile Strength **7000 lbs. / 3175 kg.**

Leg Straps-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength **6000 lbs. / 2721 kg.**

Chest Strap-

1 23/32" (4.3 cm.) wide Type 8 Mil-W-4088

Tensile Strength **4000 lbs. / 1814 kg.**

Laterals-

1 23/32" (4.3 cm.) wide Type 8 Mil-W-4088

Tensile Strength **4000 lbs. / 1814 kg.**

Materials cond.:

Hardware:

Main Canopy Release System-

3-Ring Release System

Tensile Strength **5000 lbs. / 2270 kg.**

Main Lift Webbing Adjusters-

Quick Fit Ring w/Friction Lock #555-2

Tensile Strength **2500 lbs. / 1130 kg.**

Lateral Adjusters-

Locking Adapter PS 70124-1

Tensile Strength **2500 lbs. / 1130 kg.**

Chest Strap Hardware-

B-12 PS 22044-1 / PS 22017 Quick Ejector or
PS22040 with "V" Ring Quick Fit Bar PS 27765

Tensile Strength **2500 lbs. / 1130 kg.**

Leg Strap Hardware-

B-12 PS 22044-1 / PS 22017 Quick Ejector or
PS22040 with "V" Ring Quick Fit Bar PS 27765

Tensile Strength **2500 lbs. / 1130 kg.**

Tensile Strength **2500 lbs. / 1130 kg.**

Tensile Strength **2500 lbs. / 1130 kg.**

Top Connector Point-

"D" Ring PS 22046-1

Tensile Strength **5000 lbs. / 2270 kg.**

Lower Connector Point-

No. 8 Harness Ring

Tensile Strength **2500 lbs. / 1130 kg.**

Static Line Snap Hook

Grommets

#0 Stainless Steel

Tensile Strength **1750 lbs. / 800 kg.**

Size:

Container -

24" high x 16" wide x 11" deep

61 cm. x 41 cm. x 28 cm.

Weight:

Container (without canopies) -

20 lbs. (9 kg.)

Fabric Colors:

Black, Smoke, Desert Camouflage, Woodland Camouflage, Multi-Camouflage, Olive
Drab Green and others upon request.

Harness Colors:

Black, Smoke, Silver, Olive Drab Green and others upon request.

Product Information

Special Features

- Reserve Container and all pertaining parts are tested under **TSO C23d**.
- Bridle and Riser cover protection - Zero exposed riser or main drogue bridle exposure ensures proper function in any manner of orientation or use.
- Reserve Static Line (**RSL**) - A lanyard connecting the left main riser and reserve ripcord cable which allows minimum altitude loss on the reserve opening during the event of a main canopy cutaway.
- **“Reserve Boost”** - Main Assisted Reserve Deployment (**M.A.R.D.**) System. The fastest system available.
- Adjustable Harness - the **TPDS (HLT)** main container lift webbing and laterals are available with adjusting hardware.
- Cut-in Laterals for added comfort and fit.
- Type-13 Reserve Risers for added safety.
- Comfortable Yoke and Leg Padding for long wear and heavy payloads .
- Dual Loop Main Steering Toggles for assisted canopy flight training.
- Left and Right Hacky Drogue Release Handles for better grip and familiarity.

Field Replaceable Parts for Easy Maintenance

- Anti-Line Twist Main Deployment Bag.
- Drogue Kill Line, 2000 lbs. HMA.
- Type 8 Drogue Riser w/ Mini 3-Ring System.
- Magnets in Riser Covers and Drogue Handle.
- Leg Pads with Reinforced Ballistic Cloth.
- Main Closing Pin.
- RSL Clasp and Lanyard.
- Drogue Release Lanyards.
- Drogue Release Pin and Elastic.
- Drogue Release Hacky Handles.

Product Information

Container Options

- Adjustable Main Lift Webbing.
- Adjustable Laterals.
- Pillow or Loop Style Main Canopy Release Handle.
- Bent Metal Style Reserve Handle, Loop or Pillow Style Handle.
- Custom 1000 Denier colors.

Deployment Options

All-In-One

The **TPDS-HLT** Heavy Load Tactical Airborne Harness/Container is a versatile combat/training Parachute Assembly with the ability to be converted to any one of several Deployment Methods quickly and easily.

- Drogue Freefall with two (2) release handles.
- Static Line Drogue.
- Throw-out Pilot Chute.
- Static Line with Throw-out Pilot Chute Assist.
- Direct Bag Static Line.
- Spring-Loaded Ripcord.
- Spring-loaded Pilot Chute Static Line Assist.

Main Container





Main Container



TPDS Heavy Load Tactical (HLT) Loop Cutaway and Reserve Handles



TPDS Heavy Load Tactical (HLT) Pillow Cutaway and Metal Reserve Handles

Passenger Harness





TPDS Heavy Load Tactical (HLT)
Freefall Drogue Deployment



TPDS Heavy Load Tactical (HLT)
Static Line Drogue Deployment



TPDS Heavy Load Tactical (HLT)

Throw-out Pilot Chute Deployment



TPDS Heavy Load Tactical (HLT)

Spring-loaded Pilot Chute Deployment



TPDS Heavy Load Tactical (HLT)
with Replaceable 3-Ring Droque Riser.



TPDS Heavy Load Tactical (HLT)
Magnetic Riser Covers with Replaceable Magnets.

Heavy Load Tactical Specifications

Main Container Harness Specs:

- Harness is tested under **TSO C23d**.
- Main Lift Webbing, Type 7 Mil-W-4088 Tensile Strength, 6000 lbs.
- Leg Straps and Laterals, Type 7 Mil-W-4088 Tensile Strength, 6000 lbs.
- Chest Strap, Doubled Type 8 Mil-W-4088 Tensile Strength, 4000 lbs.
- Reserve Risers, Type 13 Mil-W-4088 Tensile Strength, 7000 lbs.
- Main Harness Riser Ring, No.10 Proof Load , 5000 lbs.
- Upper Passenger Harness Attachment Ring, Angled "D" Ring, Proof Load, 5000 lbs.
- Adjustable Hip Ring, 555-2 Ring.
- Leg Strap Hardware, PS 22040-1 Tensile Strength, 2500 lbs.
- Chest Strap Hardware, PS 70101-1
- Lower Passenger Attachment Ring, RW 8
- Large Ring Main Risers, Type 7 Mil-W-4088, Proof Load, 6000 lbs.

Main Container Assembly Specs:

- Reserve Container and all pertaining parts are tested under **TSO C23d**.
- Automatic Activation Device (AAD) with the Control Unit in the Reserve Top Cover Flap.
- 1000 Denier Cordura lined w/ 1/4" Para-pack nylon backed black foam.
- Outboard Reserve and Cutaway Handles.
- 0# Stainless Steel Grommets.
- All Stainless Steel Housings
- .040 Nylon Stiffeners
- .062 Aluminum Reserve Floor Plate
- 1000 Denier Cordura Anti-Line Twist Main Deployment Bag.
- 600 lbs. Dacron Locking Loop for Main and Reserve Control Toggles.
- 1" Tubular Nylon Main Steering Toggles, Tensile Strength, 4000 lbs.
- 1" Type 17 Nylon Reserve Toggles, Mil-W-4088 Tensile Strength, 2500 lbs.
- Stainless Steel Reserve Ripcord Handle.
- Left Riser Reserve Static Line (RSL).

Passenger Harness Specs:

- Passenger Harness is **TSO C23d**
- Main Lift Webbing, Type 7 Mil-W-4088 Tensile Strength, 6000 lbs.
- Leg Straps , Type 7 Mil-W-4088 Tensile Strength, 6000 lbs.
- Lower Attachment Straps, Type 8 Mil-W-4088 Tensile Strength, 4000 lbs.
- Diagonals, Chest Strap, Belly Band, Back Strap and Butt Strap, Doubled Type 8 Mil-W-4088, Tensile Strength, 4000 lbs.
- Upper Attachment Butterfly Snaps, PS 22042-1 Proof Load, 5000 lbs.
- MLW Adjustable Slider, PS 70114-1 Proof Load, 2500 lbs.
- Large Articulating Hip Junction Ring, C5010.
- Adjustable Leg Strap, Chest Strap and Belly Band Hardware, PS 70101-1
- Adjustable Diagonal, Back Strap, and Butt Strap Hardware, PS 70114-1 Proof Load 2500 lbs.
- Lower Attachment - Adjustable Quick Ejector Snaps, PS 22018 Proof Load, 2500 lbs.
- Back Pad and Leg Pads 1000 Denier Cordura w/ 1/4" white foam.

- 3/4" Binding Tape, Mil-T-5038 Tensile Strength 400 lbs.
- 1" Type 4 Support Tape, Mil-T-5038 Tensile Strength 1000 lbs.
- 5 cord Nylon Harness Thread, Tensile Strength 40 lbs.
- "E" Nylon Thread, No.69 Tensile Strength 8.5 lbs.

The **TPDS, Inc. Heavy Load Tactical (HLT)** is built under the **TSO C23d**.

The Maximum Combined Operating Weight (the total gross weight of the personnel and equipment including the parachute assembly) shall be **550 lbs. (249.5 kg.)** at **195 KEAS** (361.1 km/h).

NOTE: The Actual Maximum Combined Weight shall not exceed the Maximum Weight limit of the Reserve Parachute.

The **TPDS Heavy Load Tactical (HLT)** weighs 45-60 lbs. fully packed.

CANOPY FABRIC SPECIFICATIONS

TEST METHODS

TEST NAME

COMMERCIAL

FEDERAL STANDARD 191

MATERIAL	■ 30 Denier, High Tenacity, Bright Nylon, Heat and Light Inhibitors	■ AATCC 20	Method 1530
TWIST	■ Producers Warp and Fill	■ ASTM-D-1423	Method 4050
MELTING POINT	■ 489°F + or - 10°F	■ AATCC-20	Method 1534
WEAVE PATTERN	■ Rip Stop 7.5 Minimum Repeats Per Inch	■ Visual	(Visual)
WEIGHT (max.)	■ 1.17 OSY	■ ASTM-2376 Opt. C	Method 5041
THICKNESS (max.)	■ .0030 Inches	■ ASTM-D-1777	Method 5030
STRENGTH (min.) 1"strip	■ 47 x 47 Pounds	■ ASTM-D-50351 R	Method 5104
ELONGATION (min.)	■ 25%	■ ASTM-D-50351 R	Method 5104
TEAR STRENGTH (min.)	■ 5 x 5 Pounds	■ ASTM	Method D 2261 or 2262 (1983)
AIR PERMEABILITY	■ .5-3.0 CFM	■ ASTM-D737	Method 5450
CONSTRUCTION (min.)	■ 130 x 132	■ ASTM-D-3775	Method 5050
pH	■ 5.5-9.0	■ AATCC-81	Method 2811
COLOR FASTNESS	■ Good (Regular colors)	■ AATCC-61	Method 5614 - Laundering
		■ AATCC-107	Method 5630 - Cold Water
		■ AATCC-16 A	Method 5660 - Light (20 hrs.)
		■ AATCC-8	Method 5651 - Crocking (3.4 or better)
WIDTH (min.)	■ 48 Inches or 65 Inches	■ FED STD 191A	Method 5020
HEAT/LIGHT RESISTANCE	■ Max. 25% Change	■ MIL C 44378	Para. 4.5.3.1 Light Para. 4.5.3.2. Heat
BIAS/BOW (max.)	■ 2 Inches on 48": ■ 2 ^{1/2} Inches on 65"	■ ASTM-D-3882	Method 5060

Specification	Yarn	Construction	Weave	Widths**	Weight	Thickness	Air Perm	Tear W/F	Break W/F	pH
PIA C 44378	<i>denier</i>	<i>count/inch</i>	<i>pattern</i>	<i>inches</i>	<i>oz/sq yd</i>	<i>inches</i>	<i>Cfm</i>	<i>lbs</i>	<i>lbs</i>	
Type 1	30d	114 X 132	Ripstop	48"/65"	1.17	0.003	0-5	5/5	45/45	5.5-9.0
Type 2	30d	126 X 132	Ripstop	36"/48"/72"	1.11	0.003	30-50	5/5	42/42	5.5-9.0
Type 3	30d	114 X 132	Ripstop	48"/65"	1.17	0.003	30-50	5/5	45/45	5.5-9.0
Type 4	30d	126 X 132	Ripstop	36"/48"/65"	1.20	0.003	0.5-3.0	5/5	45/45	5.5-9.0

HEAVY LOAD TACTICAL

9 Cells Elliptical - Main Parachute (TPDS-HLT-M)



The TPDS-HLT-M is a nine-cell elliptical ram-air canopy designed for tactical heavy load operations, supporting dual personnel and large equipment payloads. Optimized for High Altitude High Opening (HAHO) and High Altitude Low Opening (HALO) profiles, it features a medium-high aspect ratio and moderate taper to provide an ideal balance between glide performance, stability, and responsive handling. Available in sizes from 300 to 460 square feet, the canopy ensures flexibility across a wide operational load range.

Constructed with a hybrid material configuration combining 1.1 oz ripstop nylon with zero-porosity (ZP) fabric or entirely from ZP fabric for maximum longevity, the TPDS-HLT-M maintains low porosity throughout its service life. Suspension lines are made from Vectran to guarantee high strength, low stretch, and resistance to environmental stresses. Engineered for reduced toggle pressure and enhanced flare response, the canopy provides

TPDS-HLT-M

Size & Technical Specifications

Material: Z-P or Hybrid | **Lines:** Vectran

MODEL - P/N	SPAN	CHORD	ASPECT	Min. Sup.	Max. Sup.
TPDS-HLT-M- 300	30.6 ft	10.2 ft	3.0 : 1	124 lb (56 kg)	388 lb (176 kg)
TPDS-HLT-M- 330	32.0 ft	10.7 ft	3.0 : 1	136 lb (62 kg)	425 lb (193 kg)
TPDS-HLT-M- 350	32.9 ft	10.9 ft	3.0 : 1	144 lb (65 kg)	450 lb (204 kg)
TPDS-HLT-M- 370	33.9 ft	11.3 ft	3.0 : 1	152 lb (69 kg)	475 lb (215 kg)
TPDS-HLT-M- 390	34.8 ft	11.5 ft	3.0 : 1	160 lb (73 kg)	500 lb (227 kg)
TPDS-HLT-M- 410	35.8 ft	11.8 ft	3.0 : 1	168 lb (76 kg)	525 lb (238 kg)
TPDS-HLT-M- 430	36.4 ft	12.1 ft	3.0 : 1	176 lb (80 kg)	550 lb (249 kg)
TPDS-HLT-M- 460	37.7 ft	12.5 ft	3.0 : 1	188 lb (85 kg)	588 lb (266 kg)

HEAVY LOAD TACTICAL

9 Cells Square - Reserve Parachute (TPDS-HLT-R-SQ)



The TPDS-HLT-R-SQ is a nine-cell square ram-air reserve canopy purpose-built for tactical heavy load missions, ensuring reliable deployment and stable flight behavior during emergency scenarios. Sized between 300 and 460 square feet, it is matched to the main canopy's operational envelope, supporting both dual personnel and heavy equipment profiles without compromising performance.

Constructed entirely from PIA-C-44378 Type IV low-porosity (0.5–3.0 cfm) ripstop nylon, the reserve canopy offers durable, consistent inflation dynamics and structural integrity across multiple repacks. Its suspension lines, made from Vectran or Spectra, provide high tensile strength and low elongation, ensuring immediate canopy response. The TPDS-HLT-R-SQ is engineered for rapid, smooth inflation and predictable descent, providing critical safety and control when immediate recovery is essential.

TPDS-HLT-R-SQ

Size & Technical Specifications

Material: PIA-C-44378 Type 4 0.5-3.0 | **Lines:** Vectran or Spectra

MODEL - P/N	SPAN	CHORD	ASPECT	Min. Sup.	Max. Sup.
TPDS-HLT-R-SQ- 300	29.1 ft	10.7 ft	2.7 : 1	155 lb (70 kg)	434 lb (197 kg)
TPDS-HLT-R-SQ- 330	30.4 ft	11.2 ft	2.7 : 1	170 lb (77 kg)	476 lb (216 kg)
TPDS-HLT-R-SQ- 350	31.3 ft	11.5 ft	2.7 : 1	180 lb (82 kg)	504 lb (229 kg)
TPDS-HLT-R-SQ- 370	32.2 ft	11.8 ft	2.7 : 1	190 lb (86 kg)	532 lb (241 kg)
TPDS-HLT-R-SQ- 390	33.1 ft	12.1 ft	2.7 : 1	200 lb (91 kg)	560 lb (254 kg)
TPDS-HLT-R-SQ- 410	33.8 ft	12.4 ft	2.7 : 1	210 lb (95 kg)	588 lb (267 kg)
TPDS-HLT-R-SQ- 430	34.7 ft	12.7 ft	2.7 : 1	220 lb (100 kg)	616 lb (279 kg)
TPDS-HLT-R-SQ- 460	35.8 ft	13.1 ft	2.7 : 1	235 lb (107 kg)	658 lb (298 kg)

TPDS HLT Canopy Specifications

• Max Deployment Speed	150 knots thru airspeed
• Max Deployment Altitude Static Line	18,000 ft. MSL
• Min Deployment Altitude Static Line	1500 ft. AGL
• Min Deployment Altitude Free-fall	2000 ft. AGL
• Max Deployment Speed Static Line	130 knots thru airspeed
• Min Deployment Speed Static Line	60 knots
• Max Exit Weight	316 kg./ 697 lbs. (Depends on size of canopy and weight of jumper)
• Min Exit Weight	135 lbs./ 60 kg.
• HALO Altitude	35,000 ft. MSL
• HAHO Altitude	35,000 ft. MSL (Drogue assist Main Deployment)
• Glide Ratio	6 to 1
• Aspect Ratio	2.82 : 1
• Average Opening Force	4.2 G's
• Rate of Descent- Speed Full Flight	10-15 ft/sec. (depends on size of canopy and weight of jumper)
• Rate of Descent- 50% Brakes	5 ft/sec. (depends on size of canopy and weight of jumper)
• Forward Speed	40-50 mph. (depends on size of canopy and weight of jumper)
• Pack Volume	500 - 600 cu. in.

• Weight of Canopy	46 lbs./ 21 kg. and less
• Hardware	Mil. Spec Forged Cadmium Plated Steel or equivalent
• Canopy Fabric	PIA C 44378 Type-4 Ripstop 0.5-3.0 and/ or Z-P combination
• Container Fabric	1000 denier Cordura
• Webbing	Mil. Spec. W-4088 or equivalent



TACTICAL PARACHUTE DELIVERY SYSTEMS, Inc.

4035 Correia Drive Zephyrhills, FL 33542 U.S.A.

Web: www.tpdsairborne.com - **Email:** info@tpdsairborne.com

Phone: +1(813)782-7482 - **Fax:** +1(813)788-2799

TPDS

