

OPERATIONAL RESERVE OR-Series Reserve Canopies

The Operational Reserve (OR) is an advanced 9-cell elliptical ram-air design that fully compliments the Military Silhouette (MS) main parachutes in size, glide performance and landing capability. The OR's operational weight limits are also higher than a comparable 7-cell reserve in the same size range.

The OR reserves were designed to meet the high demand for tactical 9-cell reserve canopies that support various airborne operations for solo jumpers outfitted with full combat equipment.

Following years of development and refinement, the Operational Reserve in its various sizes has passed the strength tests and cutaway standards according to TSO-C23d requirements.

OR-Series Operational Reserve

- Is rated to an all up weight (AUW) of 325-450 lb (148 - 204 kg)
- Is HAHO & HALO capable of 35,000 ft (10,500 m)
 MSL
- Has similar flight characteristics to MS 9-cell mains
- · Provides a powerful flare at landing

The OR-Reserves passed a series of proprietary evaluation tests for opening characteristics, flight stability, overall handling and landing performance. The result is a reserve canopy that exhibits performance parallel to the MS-Series main parachutes. Your mission will not be compromised in the event of a main parachute malfunction.



PRODUCT SPECIFICATIONS OR-SERIES RESERVE

9-Cell Reserve Parachutes

| Model / Size | OR-360 | OR-330 | OR-300 | OR-280 | OR-260 |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Aspect Ratio | 2.52:1 | 2.52:1 | 2.52:1 | 2.52:1 | 2.52:1 |
| Canopy Area | 360 sq ft | 330 sq ft | 300 sq ft | 280 sq ft | 260 sq ft |
| | (33.4 sq m) | (30.7 sq m) | (27.9 sq m) | (26.0 sq m) | (24.2 sq m) |
| Canopy Span | 30.1 ft | 28.8 ft | 27.5 ft | 26.5 ft | 25.6 ft |
| | (9.17 m) | (8.77 m) | (8.38 m) | (8.07 m) | (7.80 m) |
| Canopy Chord | 12.3 ft / 10.8 ft | 11.8 ft / 10.3 ft | 11.2 ft / 9.9 ft | 10.9 ft / 9.5 ft | 10.5 ft / 9.2 ft |
| (Center / Tip) | (3.74 m / 3.29 m) | (3.59 m / 3.13 m) | (3.41 m / 3.01 m) | (3.32 m / 2.89 m) | (3.20 m / 2.80 m) |
| Maximum Deployment | 450 lb | 415 lb | 375 lb | 350 lb | 325 lb |
| Weight | (204 kg) | (188 kg) | (170 kg) | (159 kg) | (148 kg) |
| Maximum Deployment | 35,000 ft |
| Altitude (MSL) | (10,500 m) |
| Minimum Deployment | 2000 ft | 2000 ft | 1500 ft | 1500 ft | 1500 ft |
| Altitude (AGL) | (610 m) | (610 m) | (457 m) | (457 m) | (457 m) |

Maximum Deployment Speed

150 KTS EAS @ Sea Level
SPP or UPT approved high speed reserve bag

Deployment Method
Canopy Material Type

0-3 cfm Ripstop Fabric

Canopy Construction

Chord-wise construction, full cell I-beam, with span-wise and chord-wise reinforcement

Line Type and Strength

Untreated Polyester 600, 900 and 1200 lb

L:D

Approximately 3.0:1

Stall

Resistant to stall

Turn Rate - 180° Turn

Approximately 2 seconds

Turn Rate - 360° Turn

Approximately 3-5 seconds

Testing Summary

Test Altitude Range

From 800 ft AGL to 25,000 ft MSL (243.8 m AGL to 7620 m MSL)

Test Airspeed Range, live jumps

From 60 KIAS at 3000 ft (914 m) to 130 KIAS at 25,000 ft (7620 m)

Maximum Weight Tested

675 lbs (306 kg) at 180 KIAS

Maximum Live Weight Tested at Altitude

490 lbs (222 kg) at 120 KIAS at 25,000 ft (7620 m)

Minimum Live Weight Tested at Altitude

250 lbs (113 kg) at 120 KIAS at 25,000 ft (7620 m)

Altitude Loss After a Breakaway

500 ft to 700 ft (152 m to 213 m)

Opening forces recorded during strength testing: On test drops with 675 lbs (306 kg) at 180 KIAS, the average force recorded was 2792 lb (1266.5 kg), measured with Brunell cells - this equates to 4.13 G average on these tests

