The Airborne Systems Family of Brands
GQ Parachutes / Irvin Aerospace / Para-Flite / Aircraft Materials (AML)

# INTRUDER

## INTRUDER HALO / HAHO

The INTRUDER is intended to be used for both HALO and HAHO missions and has been specifically designed for heavily loaded parachutists jumping into rough, unfamiliar drop zones at night. These conditions demand a canopy which not only provides superior glide performance for maximized offset but which also has performance characteristics docile enough to minimize the potential for injury on landing.

The INTRUDER canopy is based on an Airborne System developed Reflexed Airfoil. This Reflexed Airfoil provides an increase in attached airflow which improves velocity and glide.

Intruder Canopy

**Performance**:

A major contributor to the INTRUDER's performance capabilities is the Pressurized Stabilizer. The stabilizers begin working during deployment, helping spread the bottom surface in a smooth and consistent manner. They reduce wingtip vortices during flight and increase the glide performance of the INTRUDER. The pressurized stabilizers also improve the INTRUDER's performance in deep brakes when preparing to land by forcing the canopy to track directly forward with no lateral slip or slide. In short, the pressurized stabilizers add to the performance capabilities of the INTRUDER throughout the entire flight profile.

The toggle pressure on the INTRUDER is relatively light and the control stroke is relatively long. This makes deep brake maneuvers smooth and easy to hold, even when steep approaches demand deep brakes for extended periods. Recovery from deep braking is also smooth and easy.

The INTRUDER main canopy also comes in different sizes to meet varying mission requirements. Four sizes from 230ft$^2$ to 360ft$^2$ are capable of supporting all up weights from 280 lb to 450 lb.

The INTRUDER is intended to be used with the Raider harness container. The Intruder Reserve canopy has been tested with the Raider harness container to TSO C23d standards. The rated weight for the INTRUDER Reserve with the Raider Harness container is 555 lb and TSO certification is pending. The INTRUDER is also capable of being configured with Airborne System's new MicroFly Equipment Delivery System.

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Dedicated To Preserving The Safety Of The Mission And Its People



*This data sheet is for information only and shall not form part of a contract*



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# INTRUDER

## Airborne Systems INTRUDER (360 Main) Parachute Specifications

The INTRUDER has been designed within the framework of requirements submitted by a wide variety of international military users. The result is a canopy that allows jumpers to fly further, carry more, and land softly. Designed for military use from its inception, the INTRUDER is suited for a novice in need of docile performance or for an experienced pilot who demands performance extremes for mission success.

| Part Number: | 825200 (Main Canopy) |
|---|---|
| Parachute Type: | Semi Elliptical 9 Cell Ram Air, Pressurized Stablizers |
| Suspended Weight: | 450 lbs (204 kg) |
| Canopy Area: | 360 ft² (33.4 m2) |
| Canopy Span: | 31.7 ft (9.7 m) |
| Canopy Chord Middle: | 12 ft (3.7 m) |
| Canopy Chord Tips: | 9.7 ft (3 m) |
| Canopy Aspect Ratio: | 2.79 (b2/Sw) |
| Canopy Construction: | Chordwise: Half Cell Top, Full Cell Lower Surface<br>Top Surface: Zero Porosity Nylon Ripstop<br>Bottom Surface: 0-3 CFM Nylon Ripstop |
| Line Strength /Type: | Spectra 1000 lb (454 kg) |
| Deployment Method: | Free Fall, Static Line |
| Deployment Altitude Maximum: | 25,000 ft. MSL (9100 m) |
| Lift/Drag Ratio, Full Glide: | 4:1 |
| Stall: | Resistant to stall |
| Turn Rate, 180° Turn:<br>Turn Rate, 360° Turn: | 1.5 – 2.0 seconds<br>2.0 – 4.0 seconds |

| Forward Speed | @ 250 lbs | @ 360 lbs | @ 425 lbs |
|---|---|---|---|
| Full Glide | 26.3 mph | 33.0 mph | 35.0 mph |
| ¼ Brake | 23.0 mph | 28.5 mph | 31.5 mph |
| ½ Brake | 20.5 mph | 26.0 mph | 27.5 mph |
| ¾ Brake | 18.2 mph | 24.0 mph | 25.0 mph |
| Full Brakes | 16.5 mph | 20.9 mph | 21.0 mph |

| Rate of Descent | @ 250 lbs | @ 360 lbs | @ 425 lbs |
|---|---|---|---|
| Full Glide | 9.4 fps | 11.5 fps | 12.5 fps |
| ¼ Brake | 8.5 fps | 10.4 fps | 11.8 fps |
| ½ Brake | 8.2 fps | 10.0 fps | 10.7 fps |
| ¾ Brake | 7.9 fps | 9.4 fps | 9.9 fps |
| Full Brakes | 7.8 fps | 9.4 fps | 9.9 fps |

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# INTRUDER

## Airborne Systems INTRUDER (360 Reserve) Parachute Specifications

The INTRUDER Reserve canopy design remains virtually the same as the INTRUDER Main canopy with two exceptions. The INTRUDER Reserve does not have the static line components of the INTRUDER Main and the INTRUDER Reserve is constructed of 0-3 CFM Nylon Ripstop, rather than the hybrid construction of the INTRUDER Main. The 0-3 CFM Nylon Ripstop has similar performance to zero porosity nylon when new which results in no loss of flight performance. The elimination of zero porosity nylon in the INTRUDER Reserve greatly improves the ease of packing.

The INTRUDER Reserve and Raider Harness Container has successfully met all requirements for TSO C23d certification and TSO certification is pending. A complete test data package can be made available upon request.

| Part Number: | 825300 (Reserve Canopy) |
|---|---|
| Parachute Type: | Semi Elliptical 9 Ram Cell Ram Air, Pres-surized Stabilizers |
| Suspend Weight: | 555lb (Tested to TSO C23d with Raider Harness) |
| Canopy Area | 360 ft$^2$ (33.4 m2) |
| Canopy Span: | 31.7 ft (9.7 m) |
| Canopy Chord: | |
| Middle | 12 ft (3.7 m) |
| Tips | 9.7 ft (3 m) |
| Canopy Aspect Ratio: | 2.79 (b2/Sw) |
| Canopy Construc-tion: | Chordwise; Half Cell Top, Full Cell Lower Surface |
| Canopy Fabric: | 0-3 CFM Nylon Ripstop |
| Suspension Lines: | Continuous A & B; Cascaded C/D; 30 lines at links |
| Line Strength and Type: | Spectra 1000 lb (454 kg) |
| Max Deployment Altitude: | 25,000 ft. MLS (9100 m) |
| Lift/Drag Ratio; Full Glide: | 4:1 |

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