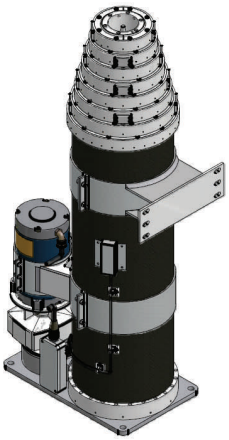
WILL-BURT

Electro-Mechanical Masts

Stiletto™



The Stiletto electro-mechanical mast (28VDC) is a revolutionary screw-drive telescoping mast that offers fully automated elevation solutions without the need for guy wires. Designed for communications, reconnaissance, and surveillance applications, the Stiletto allows for one person operation and offers a computer control option. The Stiletto is lightweight and mobile and allows internal or external mountings for MRAP or shelter installations. Built with durable, high strength carbon fiber composite tube sections, the Stiletto is designed and tested to meet MIL-STD-810 environmental standards for operations in extreme conditions (see back page for details).

The Stiletto has been utilized in the following programs:

- CEREBRUS
- GBOSS
- MSC
- LRSS Vehicle Upgrade Programs
- DHS Surveillance Mission
- International Border Security

Features:

Non-rotatable self-locking sections

- Allows Stiletto to lock at any height without power for increased safety for personnel and payload
- Provides tight antenna pointing accuracy

Does not require guy wires

- Allows for quick and easy setup and fast deployment

Enhanced controls

- Provides height read-out
- Computer interface and operation option

Electric drive for extension and retraction

- Provides positive retraction against ice

Easy maintainability

- Five minute in-field routine maintenance
- Easy disassembly and reassembly for depot maintenance

Standard finish is polyurethane green enamel #34094

- CARC and other polyurethane colors available

Optional hand-held remote control (wired)

Specifications	4 meter	6 meter	10 meter	15 meter
Nested height (+0 in./-1.0 in.)	40 in./1.02 m	47 in./1.2 m	68 in./1.73 m	95.5 in./2.43 m
Extended height (+4 in./-0 in.)	13.5 ft./4.1 m	19 ft./5.79 m	32.83 ft./10 m	49.17 ft./15 m
Rated Payload Capacity	200 lb./91 kg	200 lb./91 kg	175 lb./79 kg	125 lb./57 kg
Maximum Payload Capacity	250 lb./113 kg	250 lb./113 kg	250 lb./113 kg	200 lb./91 kg
Erection time with power	1 min.	1.5 min.	2.7 min.	4 min.
Typical payload sail area	8 sq. ft./.74 sq. m CD=1.5	8 sq. ft./.74 sq. m CD=1.5	6 sq. ft./.56 sq. m CD=1.5	4 sq. ft./.37 sq. m CD=1.5
Deployment wind speed	50 mph/80 km/hr	40 mph/60 km/hr	34 mph/55 km/hr	33 mph/50 km/hr
Survival wind speed	110 mph/165 km/hr	100 mph/150 km/hr	80 mph/120 km/hr	65 mph/105 km/hr
Voltage (MIL-Std 1275)	28 VDC	28 VDC	28 VDC	28 VDC
Weight including control box & cables	196 lb./89 kg	209 lb./95 kg	267 lb./121 kg	320 lb./145 kg
Rotation accuracy (twist)	+/-1°	+/-1°	+/-1°	+/-1°
Footprint	17.56 in. x 11.19 in./ .45 m x .28 m	17.56 in. x 11.19 in./ .45 m x .28 m	17.56 in. x 11.19 in./ .45 m x .28 m	17.56 in. x 11.19 in./ .45 m x .28 m

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Stiletto™ HD

The Stiletto HD offers increased stability, decreased deflection and increased rigidity over the original Stiletto electro-mechanical mast. The Stiletto HD can support up to 400 pounds (181 kg) and includes all the features of the Stiletto.

Additional Features of Stiletto HD vs. Stiletto:

Heavier-duty design

Larger diameter and higher strength carbon fiber tube sections

- Greater strength and rigidity for larger payloads

Heavier-duty collars and triple locks

- Greater capacity and strength

Heavier-duty drive assembly

- Greater payload capacity and faster extension

Greater section lap

- Decreased deflection

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Photo courtesy of DARPA and NREC

Specifications	4 meter	6 meter	10 meter
Nested height (+1 in./-0 in.)	43.5 in/1.0 m	58.0 in./1.5 m	79 in./2 m
Extended height (+4 in./-0 in.)	12.5 ft./3.8 m	19.67 ft./6 m	32.9 ft./10 m
Payload Capacity	350 lb./159 kg	400 lb./180 kg	400 lb./180 kg
Erection time with power	15 sec.	35 sec.	60 sec.
Typical payload sail area	11 sq. ft./1.0 sq. m CD=1.5	11 sq. ft./1.0 sq. m CD=1.5	8 sq. ft./.74 sq. m CD=1.5
Deployment wind speed	40 mph/60 km/hr	40 mph/60 km/hr	34 mph/51 km/hr
Survival wind speed	100 mph/150 km/hr	100 mph/150 km/hr	80 mph/120 km/hr
Voltage (MIL-Std 1275)	28 VDC	28 VDC	28 VDC
Weight including control box & cables	265 lb./120 kg	340 lb./154 kg	395 lb./ 180 kg
Rotation accuracy (twist)	+/-1°	+/-1°	+/-1°

The Stiletto HD has been utilized in the following programs:

- CEREBRUS
- GBOSS
- MSC
- LRSS Vehicle Upgrade Programs
- DHS Surveillance Mission
- International Border Security

Stiletto & Stiletto HD — MIL-STD 810F Qualifications

Altitude / Sea level to 15,000 feet per MIL-STD-810F, Method 500.4
Transportation / Altitude / Sea level to 15,000 feet (unpressurized) MIL-STD-810F, Method 500.4
Storage Temperature Ranges / -44°C to +70°C MIL-STD-810F, Method 501.4 and 500.4
Operating Temperature Ranges / -44°C to +55°C MIL-STD-810F, Method 501.4 and 502.4
Solar Radiation / Per MIL-STD-810F, Method 505.4
Rain / Per MIL-STD-810F, Method 506.4
Humidity / Per MIL-STD-810F, Method 507.4
Fungus / Per MIL-STD-810F, Method 508.5
Salt Fog / Per MIL-STD-810F, Method 509.4
Sand and Dust / Per MIL-STD-810F, Method 510.4
Ice and Freezing Rain / Per MIL-STD-810F, Method 521.2
Vibration and Shock / Per MIL-STD-810F, Method 514.5 and 516.5 (nested position with payload locked down)
Electro-Magnetic Compliance (EMC) / Per MIL-STD-461F,(except CE102) is standard on Stiletto HD only (optional EMI filter to meet CE102 is available).