



# MOBILE SURVEILLANCE SOLUTIONS



MISSION CRITICAL SOLUTIONS



ASSURE · ASCEND · ACCELERATE



[WWW.WILLBURT.COM](http://WWW.WILLBURT.COM)

COBRA™ • INTEGRATED TOWER SYSTEMS • KVL • KVR • PNEUMATIC NONLOCKING MASTS • SPM • STILETTO™ • VELOCIRAPTOR™

# STILETTO™

The revolutionary Will-Burt Stiletto carbon fiber composite, electro-mechanical mast features the best combination of high strength, low weight and great stability in the industry. With its low nested height and small space claim, Stiletto is the lightweight mobile solution for applications requiring rapid, automatic deployment, maximum reliability and high directional pointing accuracy.

- **High pointing accuracy and low wind deflection**  
without the need for guylines
- **High weight lifting capacity**  
for greater safety and payload accommodations
- **Higher strength for lighter weight**  
lightweight carbon fiber construction
- **Advanced safety**  
automatic sectional locking assures personnel and payload safety
- **Low maintenance costs**  
easy, routine field and depot maintenance
- **Use in harsh environments including ice and high wind**  
positive retraction

Optional PC operation with height readout and programmable heights are also available. For low profile installations, automated and manual tilt systems are available. See page 8 for more details.



## STILETTO™

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	32.8 ft. / 10 m	49.2 ft. / 15 m
Maximum Payload Capacity	250 lbs. / 113 kg	250 lbs. / 113 kg	250 lbs. / 113 kg	200 lbs. / 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 and Cables)	196 lbs. / 89 kg	209 lbs. / 95 kg	267 lbs. / 121 kg	320 lbs. / 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

\*Consult factory for larger sail area as payload and wind capacities may be reduced.

# STILETTO™ HD

The Will-Burt Stiletto HD mast offers the same innovative features and benefits as the original Stiletto, yet with a more heavy-duty design.

**COMPARED TO THE STANDARD STILETTO:**

- **On-The-Move\*\***  
Persistent surveillance
- **Greater pointing accuracy**  
Greater strength and rigidity, lower wind deflection
- **48% lower linear deflection**
- **Greater lifting capacity**  
Higher load drive system capacity for heavier payloads
- **Increased stability**  
Due to additional tube overlap
- **Increased safety**  
Three locks on heavy-duty collars



**THE STILETTO AND STILETTO HD HAVE BEEN USED IN THE FOLLOWING PROGRAMS:**

- CERBERUS
- G-BOSS
- DHS Surveillance Mission
- International Border Security

**STILETTO™ HD**

Specifications	4 meter	6 meter	10 meter
Nested Height (+0 in. / -1.0 in.)	43.5 in. / 1.0 m	58 in. / 1.5 m	79 in. / 2 m
Extended Height (+4 in. / -0 in.)	12.5 ft. / 3.8 m	19.7 ft. / 6 m	32.9 ft. / 10 m
Maximum Payload Capacity	350 lbs. / 159 kg	400 lbs. / 180 kg	400 lbs. / 180 kg
Erection Time with Power	20 sec.	35 sec.	60 sec.
*Typical Payload Sail Area	11 sq. ft. / 1 sq. m CD=1.5	11 sq. ft. / 1 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 and Cables)	265 lbs. / 120 kg	340 lbs. / 154 kg	395 lbs. / 180 kg
Rotation Accuracy (Twist)	+/-1°	+/-1°	+/-1°
On-The-Move Capability**		X	

\*Consult factory for larger sail area as payload and wind capacities may be reduced.

\*\*Consult factory for OTM payload capacity – 6 m model only.



## ***ANNOUNCING: a new addition to the high-performance Stiletto mast family***

# STILETTO<sup>TM</sup> HD

LOW DEFLECTION

The Will-Burt Stiletto HD Low Deflection is the newest addition to the Stiletto mast group. For situations requiring the greatest pointing accuracy, the Stiletto HD Low Deflection delivers superior mast rigidity, with reduced linear and twist deflection than even the high performance Stiletto HD. Stiletto HD Low Deflection will assure the maximum performance of long range surveillance sensor systems. And it delivers all the weight-lifting capacity, on-the-move capabilities and increased lock safety as the Stiletto HD.

#### **COMPARED TO STILETTO HD:**

- **Greatest pointing accuracy**  
superior strength and rigidity, minimum wind deflection
- **32% lower linear deflection**
- **21% lower twist deflection**



# STILETTO<sup>TM</sup> TILT



STILETTO TILT SYSTEM SHOWN WITH 4 METER STILETTO HD

Will-Burt's Stiletto Tilt System is ideal for applications where nested height and rapid deployment are critical factors. The robust design enables rapid tilting and locking of the mast. The low height of the Stiletto Tilt makes it the ideal solution to overcome fixed and rotary aircraft interior height limitations (e.g. C-130), or in situations requiring a low center of gravity or concealment of the mast payload.

The palletized configuration also makes the system suitable for installation on various mission configured vehicle platforms such as trailers, pick-up trucks and flat bed transports including the FMTV.

- **Pallet allows for easy installation**  
using standard D-ring on a flat bed cargo or can be customized to fit any platform
- **Manual backup operation**  
allows for deployment or retraction in the event of a power loss
- **Exclusive black hard coat**  
offers a more durable finish and prevents salt fog corrosion

## STILETTO<sup>TM</sup> TILT

### Specifications

Height of Tilt System	31 in. / 0.80 m
Length of Pallet	69 in. / 1.74 m
Width of Pallet	37 in. / .93 m
Weight (Tilt System Only)	660 lbs. / 300 kg
Operating Voltage Range	20–28 VDC
Steady State Operation (at 24 VDC)	8.5 amps
Cycle Time to Tilt and Lock	50 sec.
Tilting Moment (Maximum)	24,300 in.-lbs.
Tipping Moment Capacity	150,000 in.-lbs.

## PNEUMATIC MAST TILT SYSTEM

The Stiletto Tilt System also accommodates Will-Burt's line of Pneumatic Telescoping Masts.

# STILETTO<sup>TM</sup> TILT

MANUAL

The Stiletto Manual Tilt System features a manual winch with automatic brake that allows for safe raising and lowering. The tilt system locks at both horizontal and vertical positions. The electronic option allows for remote operation of the tilt system and mast.

