

AUTUMN 2016



STILETTO<sup>AL</sup>



# MILITARY ELEVATION SOLUTIONS AND TACTICAL TRAILERS





The Will-Burt Company, along with its subsidiaries GEROH and ITS, offer a broad selection of mobile telescopic masts, lattice towers and accessories to elevate a variety of mission critical payloads. Each family of elevation solutions is designed and manufactured with a unique set of characteristics tuned to optimize payload performance and meet the most stringent performance criteria. High performance tactical trailers round out the military offerings of The Will-Burt Company.

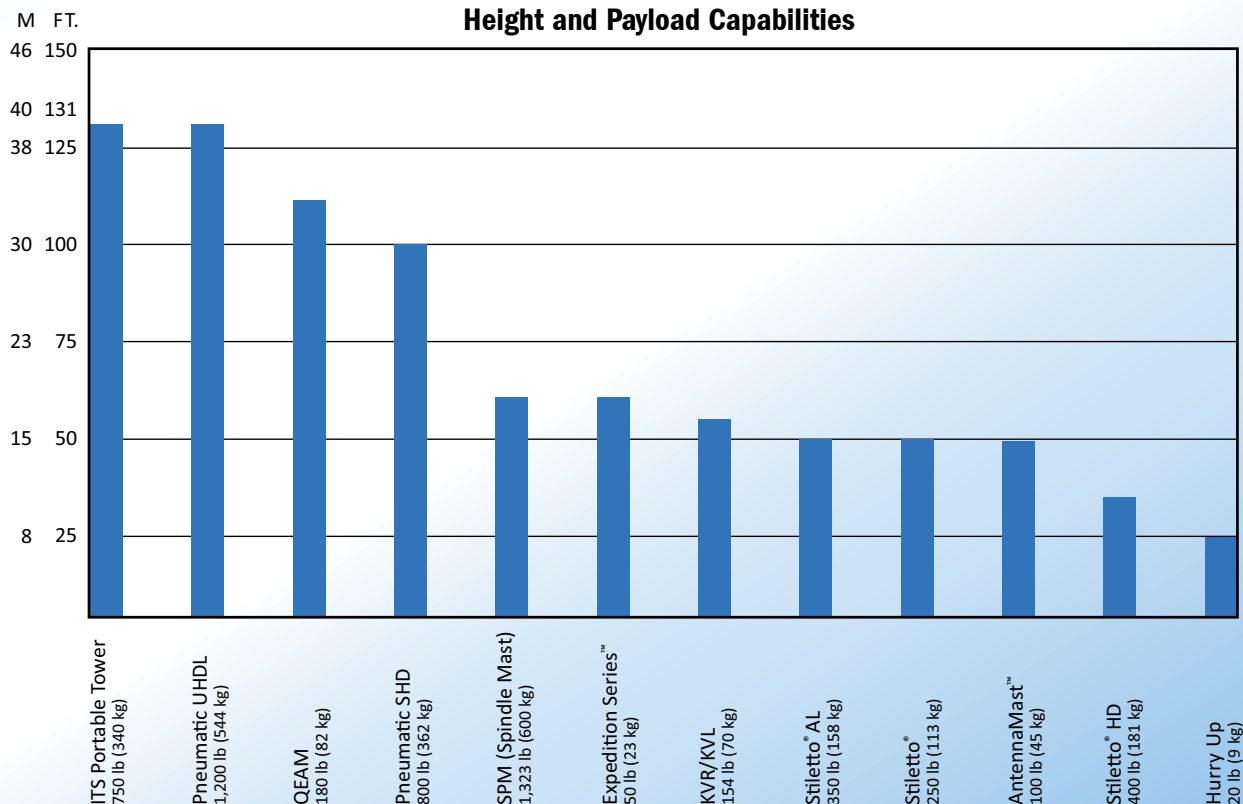
The ability of Will-Burt to deliver superior elevation solutions is attributed to its worldwide leadership in the industry for over 30 years. Teams of experienced research and development engineers, design engineers and ISO 9001:2008 quality systems certified manufacturing experts are backed by a sales and marketing support structure focused on delivering the correct customer solution on time, every time.

Whether your program requires a commercial off-the-shelf solution or a highly engineered customized product, The Will-Burt Company has the experience, design know-how and manufacturing capabilities to meet your unique requirements.

## THE ADVANTAGES OF THE WILL-BURT COMPANY

- Worldwide elevation leader for over 30 years
- Wide array of elevation products designed for specific missions
- ISO 9001:2008 quality & ISO 14001:2004 environmental systems certified manufacturing
- Innovative custom solutions designed by experienced engineers
- Superior customer support

**Portable Telescopic Masts and Towers  
Height and Payload Capabilities**



Models and specifications may change without notice. Please contact Will-Burt for the most accurate data.

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## SURVEILLANCE / SECURITY / ON-THE-MOVE

## STILETTO®

**High performance composite telescoping mast**

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**  
Internal keys and rigid design maintain azimuth and eliminate the need for guylines
- **High weight lifting capacity**  
for greater safety and payload accommodations
- **Higher strength for lighter weight**  
Lightweight carbon fiber construction driven by stainless steel electro-mechanical drive screw
- **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

STILETTO<sup>TM</sup> HD

**The Will-Burt Stiletto® HD offers additional benefits over the standard Stiletto® design**

- **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
- **On-The-Move\*\***  
Persistent surveillance



# STILETTO®

Stiletto® Specifications	4 meter	6 meter	10 meter	15 meter
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
Nested Height (+1 in. / -0 in.)	39 in. / 1.0 m	46 in. / 1.17 m	67 in. / 1.7 m	94.5 in. / 2.4 m
Maximum Payload Capacity	250 lb / 113 kg	250 lb / 113 kg	250 lb / 113 kg	200 lb / 91 kg
Rated Payload Capacity	200 lb / 91 kg	200 lb / 91 kg	175 lb / 80 kg	125 lb / 57 kg
Weight (Including Control Box and Cables)	196 lb / 89 kg	209 lb / 95 kg	267 lb / 121 kg	320 lb / 145 kg
Number of Sections	9	9	9	9
Tube Diameter	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm
Survival Wind Speed	110 mph / 177 km/h	100 mph / 160 km/h	80 mph / 129 km/h	65 mph / 105 km/h
Deployment Wind Speed	50 mph / 80 km/h	40 mph / 60 km/h	34 mph / 55 km/h	33 mph / 53 km/h
Erection Time with Power	1 min.	1.5 min.	2.7 min.	4 min.
Rotation Accuracy (Twist)	+/-1°	+/-1°	+/-1°	+/-1°
Voltage (MIL-STD 1275)	28 VDC	28 VDC	28 VDC	28 VDC
Footprint	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm
*Typical Payload Sail Area	8 sqft / .74 sqm CD=1.5	8 sqft / .74 sqm CD=1.5	6 sqft / .56 sqm CD=1.5	4 sqft / .37 sqm CD=1.5

# STILETTO®<sub>HD</sub>

Stiletto® HD Specifications	4 meter	6 meter	8.6 meter	10 meter
Extended Height (+4 in. / -0 in.)	12.5 ft. / 3.8 m	19.7 ft. / 6 m	28.2 ft. / 8.6 m	32.9 ft. / 10 m
Nested Height (+1 in. / -0 in.)	43.3 in. / 1.1 m	58.2 in. / 1.48 m	76.8 in. / 1.95 m	79 in. / 2 m
Rated Payload Capacity	350 lb / 159 kg	400 lb / 180 kg	400 lb / 180 kg	400 lb / 180 kg
On-The-Move Capability**		x		
Weight (Including Control Box and Cables)	265 lb / 120 kg	340 lb / 154 kg	384 lb / 175 kg	395 lb / 180 kg
Number of Sections	7	9	8	9
Tube Diameter	9.56 in. to 5.06 in. / 24.3 cm to 12.9 cm	11.06 in. to 5.06 in. / 28.1 cm to 12.9 cm	11.06 in. to 5.06 in. / 28.1 cm to 12.9 cm	11.06 in. to 5.06 in. / 28.1 cm to 12.9 cm
Survival Wind Speed	100 mph / 160 km/h	100 mph / 160 km/h	90 mph / 144 km/h	80 mph / 129 km/h
Deployment Wind Speed	40 mph / 64 km/h	40 mph / 64 km/h	40 mph / 64 km/h	34 mph / 55 km/h
Erection Time with Power	20 sec.	35 sec.	50 sec.	60 sec.
Rotation Accuracy (Twist)	+/-1°	+/-1°	+/-1°	+/-1°
Voltage (MIL-STD 1275)	28 VDC	28 VDC	28 VDC	28 VDC
Footprint	15.59 in. x 9.71 in. / 39.6 cm x 24.7 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm
*Typical Payload Sail Area	11 sqft / 1 sq m CD=1.5	11 sqft / 1 sqm CD=1.5	8 sqft / .74 sqm CD=1.5	8 sqft / .74 sqm CD=1.5

\*Consult factory for larger sail area as payload and wind capacities may be reduced. \*\*Consult factory for OTM payload capacity – 6 m HD model only.

Stiletto® 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
Operating Temperature Ranges: -44°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4
Storage Temperature Ranges: -44°C to +70°C, MIL-STD-810F, Method 501.4 and 500.4
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 508.4
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)
MIL-STD-461E Qualifications: CS101, CS114, CS115, CS116, RS103

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
Operating Temperature Ranges: -51°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4
Storage Temperature Ranges: -51°C to +71°C, MIL-STD-810F, Method 501.4 and 500.4
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 508.4
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
*The Stiletto HD design was qualified by similarity to the standard Stiletto design
MIL-STD-461E Qualifications: 461E, CS101, CS114, CS115, CS116, RS103
MIL-STD-461E Qualifications: CE102, RE102, RS101 with optional equipment

# STILETTO<sup>®</sup> AL

**High accuracy electro-mechanical telescoping mast**

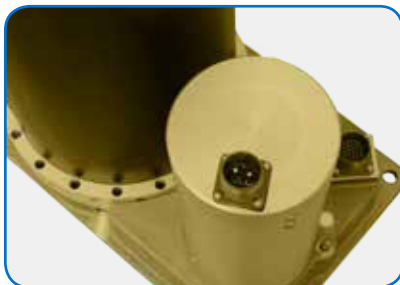
The Stiletto AL delivers an extremely stable and compact elevation platform for sensors and antennas that require a high degree of pointing accuracy. This high strength alloy electro-mechanical telescoping mast with patent pending automatic locks does not require guying and safely deploys payloads at any height. The Stiletto AL is a cost-effective elevation platform designed to meet today's stringent program requirements.

## High Strength Alloy Construction



## Patent Pending Quiet Locks Designed for Heavy Payloads

## Quiet Sealed Direct-Drive System



## Integrated Dust Wipers and Ice-Breakers



# STILETTO<sup>®</sup> AL SPECIFICATIONS

Specifications	4 meter	6 meter	10 meter	12 meter
Extended Height (+4 in. / -0 in.)	13.1 ft. / 4 m	19.6 ft. / 6 m	32.8 ft. / 10 m	49.2 ft. / 15 m
Nested Height (+1 in. / -0 in.)	51.6 in. / 1.31 m	65.28 in. / 1.66 m	84.24 in. / 2.14 m	104.4 in. / 2.65 m
Rated Payload Capacity	350 lb / 158 kg	350 lb / 158 kg	350 lb / 158 kg	350 lb / 158 kg
Weight (Including Control Box and Cables)	260 lb / 118 kg	315 lb / 143 kg	390 lb / 177 kg	490 lb / 222 kg
Number of Sections	5	6	7	8
Tube Diameter	9.85 in. to 6.7 in. / 25 cm to 17 cm	9.85 in. to 5.91 in. / 25 cm to 15 cm	9.85 in. to 5.12 in. / 25 cm to 13 cm	9.85 in. to 4.33 in. / 25 cm to 11 cm
Survival Wind Speed	140 mph / 225 km/h	100 mph / 160 km/h	80 mph / 128 km/h	52 mph / 83 km/h
Deployment Wind Speed	40 mph / 64 km/h	40 mph / 64 km/h	35 mph / 56 km/h	30 mph / 48 km/h
Erection Time with Power	Less than 60 seconds	Less than 60 seconds	Less than 90 seconds	Less than 150 seconds
Rotation Accuracy (Twist)	+/-1°	+/-1°	+/-1°	+/-1°
Voltage (MIL-STD 1275)	28 VDC	28 VDC	28 VDC	28 VDC
Footprint	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm
*Typical Payload Sail Area	12 sqft / 1.11 sqm CD=1.5	12 sqft / 1.11 sqm CD=1.5	4.3 sqft / 0.4 sqm CD=1.5	4 sqft / 0.37 sqm CD=1.5

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

## ESSENTIAL FEATURES

- **No guying required, self-supporting mast**
- **Minimal mast twist**  
Energized keyway guides in accessory-ready collars
- **Low wind deflection**  
Mast sections are held tight by constricting wear bands
- **Quiet Operation**  
Direct-drive system powered by environmentally sealed 600 watt DC motor with manual over ride.  
Patent Pending Quiet Locks designed for heavy payloads
- **Reduced maintenance**  
Clean air filter system prevents dirt from entering mast  
Integrated dirt / dust wipers and ice-breakers built into collars
- **High strength alloy construction**
- **Integrated PC control**
- **MIL-STD 810 compliant**





## SURVEILLANCE / COMMUNICATIONS

## PNEUMATIC HD AND SHD NON-LOCKING MASTS

The Will-Burt Pneumatic Heavy-Duty Non-Locking (HDNL) and Super Heavy-Duty Non-Locking (SHDNL) Masts offer a light-weight solution with a high payload lifting capacity. Our Pneumatic Non-Locking Masts also feature high pointing accuracy and long mast life for high performance and dependability. The pneumatic heavy-duty design makes it inherently safe – the payload sits on a “cushion of air” enabling it to better absorb shocks for on-the-move applications\*. What's more, the Pneumatic Non-Locking Masts have controlled exhausting of air for smooth and safe retraction. Locking models are available for extended deployments.

- **Maintains azimuth - minimal twist deflection**  
Reliable full-length external keyways
- **Operates in extreme environments**  
External wipers protect against sand and dust
- **Low maintenance and life-cycle costs**  
Easy to operate and maintain low friction synthetic bearings
- **Long life**  
Black hardcoat protects against salt fog corrosion



## HEAVY-DUTY SPECIFICATIONS

Specifications	7.5 meter	10 meter	12.5 meter	15 meter	17 meter
Extended Height	25 ft. / 7.6 m	32.8 ft. / 10 m	41.2 ft. / 12.5 m	48.6 ft. / 14.8 m	56.17 ft. / 17.1 m
Nested Height	6 ft. / 1.8 m	6.7 ft. / 2 m	7.3 ft. / 2.1 m	8.7 ft. / 2.7 m	9.6 ft. / 2.9 m
Payload Capacity	200 lb / 91 kg	300 lb / 136 kg	200 lb / 91 kg	300 lb / 136 kg	300 lb / 136 kg
Approximate Mast Weight	110 lb / 50 kg	200 lb / 90 kg	235 lb / 107 kg	275 lb / 125 kg	296 lb / 135 kg
Tube Diameter	6.75-3 in. / 171-76 mm	9-3.75 in. / 229-95 mm	9-3 in. / 229-76 mm	9-3.75 in. / 229-95 mm	9-3.75 in. / 229-95 mm
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

## SUPER HEAVY-DUTY SPECIFICATIONS

Specifications	10 meter	12 meter	72' Patriot
Extended Height	32.8 ft. / 10 m	39.4 ft. / 12 m	72 ft. / 22 m
Nested Height	8 ft. / 2.5 m	9.3 ft. / 2.8 m	18 ft. / 5.5 m
Payload Capacity	980 lb / 445 kg	680 lb / 308 kg	700 lb / 318 kg
Approximate Mast Weight	375 lb / 170 kg	430 lb / 195 kg	1,500 lb / 680 kg
Tube Diameter	11.25-6.75 in. / 285-171 mm	11.25-6 in. / 285-152 mm	11.03-6.5 in. / 280-165 mm
Max. Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

\*Consult factory for on-the-move specifications



## PNEUMATIC HD, SHD & UHD LOCKING MASTS

Will Burt's locking pneumatic masts are ideal for military communications, elevated testing and mobile radar applications. When a mast deployment is needed for extended periods, locking collars allow the mast to remain extended indefinitely without air pressure. Guying is optional on Vehicle-mounted heavy-duty locking (HDL) models up to 60 feet (18 meters). Commercial-off-the-shelf (COTS) heavy-duty models are available. Super heavy-duty locking (SHDL) and ultra heavy-duty locking (UHDL) models feature greater unguyed heights and larger payload capacities. Standard models are shown below. Custom height and payload capacities are available upon request.

## HEAVY-DUTY SPECIFICATIONS

Specifications	10m	12.5m	18m	30m
Extended Height	32.8 ft. / 10 m	41 ft. / 12.5 m	59 ft. / 18 m	98.5 ft. / 30 m
Nested Height	7.5 ft. / 2.3 m	7.5 ft. / 2.3 m	10.4 ft. / 3.2 m	16.8 ft. / 5.1 m
Payload Capacity	200 lb / 91 kg	200 lb / 91 kg	300 lb / 136 kg	400 lb / 181 kg
Approximate Mast Weight	125 lb / 57 kg	235 lb / 107 kg	330 lb / 150 kg	480 lb / 218 kg
Tube Diameter	6.75-3" / 171-76 mm	9-3" / 229-76 mm	9-3.75" / 229-95 mm	9-4.5" / 114 mm
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

- **Two full-length external keys on mast sections with matching machined keyways on collars** - Maintains directional azimuth
- **Low friction synthetic bearings** - Protects mast sections and collars or smooth operation and long life
- **Mechanical Locking Collars** - Supports high guying forces
- **Black Hardcoat and sealed aluminum surfaces** - Meets MIL-A-8625 Type III, Class II & Extends life of mast and protects against salt fog corrosion
- **External Wipers** - Protects against sand and dust
- **Ruggedized Options** - Optional finishes and features for military applications

### Pneumatic HD Locking Mast MIL-STD-810F Qualifications

Solar Radiation: Per MIL-STD-810E, Method 505.3

Rain: Per MIL-STD-810E, Method 506.3

Humidity: Per MIL-STD-810E, Method 507.3

Salt Fog: Per MIL-STD-810E, Method 509.3

Sand and Dust: Per MIL-STD-810E, Method 510.3

The Pneumatic SHD and Pneumatic Non-Locking HD and SHD masts are qualified by similarity to the Pneumatic HD locking mast design.

## SUPER HEAVY-DUTY & ULTRA HEAVY-DUTY SPECIFICATIONS

Specifications	SHDL 15m	SHDL 18m	UHDL 18m	UHDL 20m	SHDL 23m	SHDL 30m
Extended Height	49.2 ft. / 15 m	59.1 ft. / 18 m	59 ft. / 18 m	65.6 ft. / 20 m	76 ft. / 23.2 m	98.4 ft. / 30 m
Nested Height	9.2 ft. / 2.8 m	10.5 ft. / 3.2 m	11.3 ft. / 3.4 m	9.8 ft. / 3 m	11.1 ft. / 3.4 m	15.4 ft. / 4.7 m
Payload Capacity	530 lb / 240 kg	530 lb / 240 kg	1200 lb / 544 kg	530 lb / 240 kg	300 lb / 136 kg	530 lb / 240 kg
Approximate Mast Weight	450 lb / 205 kg	550 lb / 227 kg	880 lb / 399 kg	852 lb / 387 kg	550 lb / 249 kg	790 lb / 361 kg
Tube Diameter	11.25-5.25" / 288-135 mm	11.25-5.25" / 288-135 mm	13.5-7.5" / 343-191 mm	13.5-5.25" / 343-135 mm	11.25-3.75" / 288-96 mm	11.25-5.25" / 288-135 mm
Max Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 psig (2.4 bar)	35 psig (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

For additional sail area and wind speed capacities visit [www.willburt.com](http://www.willburt.com)





## MAST ACCESSORIES

### PNEUMATIC SYSTEMS

Will-Burt offers a variety of low maintenance oil-less air compressor systems, all specifically designed for optimal performance for use with Will-Burt Telescoping Masts. These pneumatic systems include only the highest quality components available to ensure the system provides years of trouble-free service.

#### AC COMPRESSORS

##### ESSENTIAL FEATURES

- Mast pressure gauge
- Pressure regulator
- Hand-held remote control with mast up/down switch
- Protective enclosure
- Up to 185 liters/minute (4.4 cfm)
- 110VAC (50Hz & 60Hz) and 230VAC (50Hz & 60Hz) models
- Operating Temperature: -20°C to 50°C (-4°F to 122°F)
- Oil-less to reduce maintenance
- Check valve prevents leakage
- 3/8" air hose



#### DC COMPRESSORS

##### ESSENTIAL FEATURES

- Mast pressure gauge
- Adjustable pressure switch
- Hand-held remote control with mast up/down switch
- Protective enclosure
- 12 VDC model - up to 173 liters/minute (6.1 cfm)
- 24 VDC model - up to 191 liters/minute (6.7 cfm)
- Operating Temperature: -20°C to 50°C (-4°F to 122°F)
- Oil-less to reduce maintenance
- Check valve prevents leakage
- 3/8" air hose

### EXTERNAL CABLE MANAGEMENT

NYCOIL® is a coiled conduit used to house wiring, antenna coax and positioner cable that is too large to fit inside the mast. NYCOIL® easily fits around the mast and extends neatly and compactly retracts when the mast is nested.

A variety of sizes is available from 0.5 in. / 1.27 cm to 1.25 in. / 3.2 cm in diameter with lengths available up to 100 ft. / 30 m.



**WILL-BURT ALSO OFFERS STANDARD OFF THE SHELF AND CUSTOM MOUNTING AND INTEGRATION HARDWARE AND DESIGN SOLUTIONS.**

## KVL AND KVR TELESCOPIC CABLE-DRIVE MASTS



The Family of light duty GEROH Telescopic Crank Masts is characterized by lightweight construction in addition to superior stability, reliability and long life. The KVL and KVR mast systems are in use in military and commercial applications such as communications testing, surveillance and lighting and are designed for vehicle, trailer, shelter or field deployment. The mast sections consist of close tolerance precision mast profiles which ensure precise pointing accuracy. Safe deployment and retraction is assured, even with ice or heavy wind conditions.

### KVL SPECIFICATIONS

Specifications	2.5 KVL 3	4 KVL 4	6 KVL 5	8 KVL 5	10 KVL 6	12 KVL 6
Extended Height	8.2 ft. / 2.5 m	13.1 ft. / 4 m	19.6 ft. / 6 m	26.2 ft. / 8 m	32.8 ft. / 10 m	39.2 ft. / 12 m
Nested Height	3.5 ft. / 1.1 m	4.2 ft. / 1.3 m	5 ft. / 1.5 m	6.2 ft. / 1.9 m	6.9 ft. / 2.1 m	7.9 ft. / 2.4 m
Payload Capacity	55 lb / 25 kg	55 lb / 25 kg	55 lb / 25 kg	44 lb / 20 kg	33 lb / 15 kg	33 lb / 15 kg
Approximate Mast Weight	35 lb / 16 kg	45 lb / 20.5 kg	53 lb / 24 kg	68 lb / 31 kg	88 lb / 40 kg	99 lb / 45 kg
Number of Sections	3	4	5	5	6	6

### KVR SPECIFICATIONS

Specifications	2.5 KVR 3	4 KVR 3	6 KVR 5	8 KVR 5	10 KVR 6	12 KVR 6	14 KVR 5	18 KVR 6
Extended Height	8.2 ft. / 2.5 m	13.1 ft. / 4 m	19.6 ft. / 6 m	26.2 ft. / 8 m	32.8 ft. / 10 m	39.2 ft. / 12 m	45.9 ft. / 14 m	59.1 ft. / 18 m
Nested Height	3.9 ft. / 1.2 m	5.5 ft. / 1.7 m	5.5 ft. / 1.7 m	6.9 ft. / 2.1 m	7.5 ft. / 2.3 m	8.5 ft. / 2.6 m	10.8 ft. / 3.3 m	11.9 ft. / 3.6 m
Payload Capacity	154 lb / 70 kg	143 lb / 65 kg	154 lb / 70 kg	154 lb / 70 kg	110 lb / 50 kg	110 lb / 50 kg	88 lb / 40 kg	88 lb / 40 kg
Approximate Mast Weight	66 lb / 30 kg	77 lb / 35 kg	110 lb / 50 kg	134 lb / 61 kg	187 lb / 85 kg	205 lb / 93 kg	187 lb / 85 kg	271 lb / 123 kg
Number of Sections	3	3	5	5	6	6	5	6

### KVL / KVR MIL STD TESTS

High Temperature Operation (+44C)	MIL-STD-810G, Method 501.5, Procedure II
Low Temperature Operation (-32C)	MIL-STD-810G, Method 502.5, Procedure II
High Temperature Storage (+63C)	MIL-STD-810G, Method 501.5, Procedure I
Low Temperature Storage (-51C)	MIL-STD-810G, Method 502.5, Procedure II
Humidity	MIL-STD-810G, Method 507.5, Procedure II (Aggravated cycle Figure 507.5-7, %95 uncondensed humidity)
Rain	MIL-STD-810G, Method 506.5, Procedure II
Vibration	MIL-STD-810G, Method 514.6, Procedure I, Category 20, Table 514.6C-VI, Figure 514.6C-3 (composite wheeled vehicle)
	MIL-STD-810G, Method 514.6, Procedure I, Category 11 (Rail Road-Train), Figure 514.6C-10
	MIL-STD-810G, Method 514.6, Procedure I, Category 8 (Aircraft-Propeller), Figure 514.6C-7
Shock	MIL-STD-810G, Method 516.6, Procedure I - Functional Shock, according to Table 516.6-II, 20g 11ms sawtooth (terminal)
Low Pressure	MIL-STD-810G, Method 500.5, Procedure II (3000m, -4.5° and 4572 m), Rapid decompression Procedure III
Solar Radiation	MIL-STD-810G, Method 505.5
Sand/Dust	MIL-STD-810G Method 510.5, Procedure I
Icing	MIL-STD-810G, Method 521.3, Procedure I (Ice thickness: 13mm)
EMI	MIL-STD 461F: CE102, RE102, CS101, CS114, CS115, CS116, RS103
Hazardous Chemicals	MIL STD 810 F Method 504.1
Salt Fog	MIL-STD 810F Method 509.4

## COMMUNICATIONS / SURVEILLANCE

### ESSENTIAL FEATURES

- **Automatic locking system (KVR)**  
Deploy at any height
- **Precision tube fit**  
Maintains azimuth
- **Powerful cable drive system**  
Deploy and retract in extreme weather conditions
- **Optional motor drive system**
- **Designed for trailer, shelter, vehicle or field mounting**
- **MIL-STD 810-F qualified**
- **MIL-STD 810-G qualified**
- **Field Deployment Kit Optional**



## SPM SPINDLE DRIVE MAST

The Family of GEROH Telescopic Spindle Masts is used by the German Army and other international forces to enhance capabilities like communication, security, surveillance, reconnaissance and detection of targets throughout the battlefield.

Our Spindle Mast Systems are developed for the highest requirements in precision and heavy payloads. The spindle drive system guarantees environmental independent operation – also in extreme inclines.

High precision with very close tolerances is guaranteed by our specially machined aluminium mast sections. For this reason the SPM masts are optimized for optical / electronic intelligence, monitoring and target recognition as well as electronic warfare systems.

## SPM SPECIFICATIONS

Specifications	180 – 2 SPM 2	230 – 3 SPM 5	230 – 6 SPM 5	300 – 9 SPM 6	360 – 12 SPM 4	300 – 15 SPM 7	360 – 18 SPM 6
Extended Height	6.5 ft. / 2 m	9.8 ft. / 3 m	19.7 ft. / 6 m	29.5 ft. / 9 m	39.4 ft. / 12 m	49.2 ft. / 15 m	59 ft. / 18 m
Nested Height	3.3 ft. / 1 m	3.6 ft. / 1.1 m	5.5 ft. / 1.7 m	6.5 ft. / 2 m	12 ft. / 3.7 m	9.6 ft. / 2.9 m	12.8 ft. / 3.9 m
Payload Capacity	198 lb / 90 kg	287 lb / 130 kg	551 lb / 250 kg	551 lb / 250 kg	1,323 lb / 600 kg	551 lb / 250 kg	661 lb / 300 kg
Approximate Mast Weight	121 lb / 55 kg	211 lb / 96 kg	309 lb / 140 kg	618 lb / 280 kg	838 lb / 380 kg	1,103 lb / 500 kg	1,488 lb / 675 kg
Tube Diameter	7.1 in. / 18 cm	9.1 in. / 23 cm	9.1 in. / 23 cm	11.8 in. / 30 cm	14.2 in. / 36 cm	11.8 in. / 30 cm	14.2 in. / 36 cm
Number of Sections	2	5	5	6	4	7	6

Other heights and payload capacities available.

## COMMUNICATIONS / SURVEILLANCE

### ESSENTIAL FEATURES

- Designed for heavy payloads with large windsail areas
- Precision tolerances maintain azimuth and minimize deflection.
- Precise pointing accuracy excellently suited for optical electronic intelligence, monitoring, and target recognition.
- Designed for inside and outside vehicle installation.
- Electronic and Manual Operation
- MIL-STD 810-F qualified





## POWERED TILT SYSTEM FOR STILETTO AND PNEUMATIC MASTS

low height of the Stiletto Tilt meets C-130 transportability requirements and 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.



- **Provides additional stability and structure**  
Designed for Stiletto's from 4m to 10m and Pneumatics up to 15m
- **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 finish**  
Offers a more durable finish and prevents salt fog corrosion

## MANUAL TILT OPTIONS FOR STILETTO, PNEUMATIC AND KVR

Manual tilt system with winch and automatic brake

### MAST TILT

Mast Tilt is ideal for securing payloads onto a vehicle-mounted pneumatic mast. The mast tilt system lowers the top of the mast to a reachable height so that a payload can be mounted in place. The mast is then tilted back to a vertical position and can then be extended.



# EXPEDITION SERIES

The Expedition Series tripod and mast are constructed of carbon composite material, making the system:

- Lighter weight than aluminum - easier to transport and deploy
- Stronger - more durable - won't bend or break
- Stiffer - more stable for payloads
- Quicker, easier set-up and retraction - faster deployment
- Easier transportability - two compact transport pack options allow you to select the best one to fit your deployment needs

## EXPEDITION SERIES RANGER



The Ranger™ Mast has a large tripod base, making the mast very stable. It is erected with 4 ft. (1.2m) tube sections to heights from 8 to 60 ft. (2.5 to 18.3 m).

- Easily transportable by 1-2 people
- Elevates up to 60 ft. (18.3 meters)



## EXPEDITION SERIES RANGER PACK



Incorporating the same stable tripod as the Ranger Mast, the Ranger Pack is designed to fit into a custom designed backpack. The total system weighs 65 lb (30 kg) and can be quickly deployed by extending 3 ft. (1 m) tube sections to heights from 8 to 24 ft. (2.5 to 7.3 m).

- Easily transportable by 1 person
- Elevates up to 24 ft. (7.3 m)
- Lifts up to 50 lb (23 kg) payload

See  
[www.willburt.com](http://www.willburt.com)  
for complete  
model range

## Hurry-Up Mast

The Hurry-Up mast is ideal for fast deployment of lightweight antennas and equipment. This mast can be extended to a full height of 30 feet (9 meters) in one minute or less. The Hurry-Up mast features quick lock/release collars to extend the mast manually by pushing up the sections and fixing them in position.



- **Portable & Lightweight**  
Allows for easy transportation
- **Payload Capacity**  
Allows for payloads up to 20 lb (9 kg)
- **Rigid azimuth locking collar**  
Quick direction adjustments
- **Black anodized finish**  
Corrosion resistant
- **Optional Features**
  - Drive-on plate mounting
    - No guylines required
  - Removable payload extension stub
    - Easy payload mounting
  - External support brackets
    - Vehicle mounting



The AntennaMast model AM2 is a rugged, lightweight, man-portable, aluminum tripod mast designed for rapid payload deployment. The AM2 is extremely flexible and reliable and is capable of elevating multiple devices on a single mast.

### Payload deployment options:

1. The EZ Raze™ system with cable winching device and safety brake enables the user to lift and lower heavier payloads in a safe and controlled manner without disassembling the mast system.
2. The mast tube lift winch provides a mechanical assist for the lifting of the mast tubes for heavier payloads.
3. The user is also able to elevate the mast tubes and payload by breach loading the tubes through the tripod center collar.



**AM2 with Mast Tube Lift Winch**



**AM2 with EZ Raze  
Payload Elevation System**

**Easily elevate and lower multiple  
antennas and sensors**

See  
[www.antennamast.com](http://www.antennamast.com)  
for complete  
model range

### ESSENTIAL FEATURES

- **Rapid set-up** – Includes a tripod with two (2) built-in levels and large no-slip adjustment knobs that are easy to operate. Interlocking mast tubes allow for directional adjustment of the payload.
- **Flexible** – A variety of payload adaptors and accessories are available to accomplish diverse missions.
- **Simple** – No tools or special training are needed for deployment.
- **Rugged** – Designed to meet MIL-STD-810 for use in a variety of harsh environments.
- **Durable** – Components are constructed of aluminum and stainless steel and are covered by a two (2) year warranty.
- **Complete system** – AM2 system includes all components needed to safely deploy rated payload at selected height.
- **Transportable** – Every mast system comes with a rugged wheeled transport bag designed for easy unloading and loading.

**A full range of  
interchangeable accessories  
and payload adaptors are  
available for the Expedition  
Series and AntennaMast**



**EZ-RAZE**

**DUAL, TRI &  
QUAD ARM  
COLLAR**



**BOLSTER  
PLATE**

**NATO PLATE**





# Q★E★A★M

## QUICK ERECTING ANTENNA MAST

### SCREW DRIVE MODELS

- **Maintains azimuth - minimal twist deflection**  
Reliable full-length external keyways
- **Positions payload at any height**  
Automatic locking collars - patented latch system
- **Manual mechanical drive**  
Reliable deployment without power
- **Automatic locking collars**  
Locks at any desired height  
Patented latch mechanism
- **Mechanical stops**  
Prevents over-extension
- **Full length keys on sections**  
Prevents twist
- **Maintenance free**  
Polymer drive nuts require no greasing
- **Built in cable management**  
Cable loops added at collars
- **Corrosion resistant**  
All parts are anodized aluminum & stainless steel  
Drive crank is a completely sealed mechanism

### CARBON FIBER COMPOSITE

Will-Burt's Quick Erecting Antenna Mast (QEAM) is a lightweight, high strength mast that offers a rigid, stable platform for elevating critical payloads. The QEAM may be field, vehicle, or shelter mounted.

Model	HDTM 10C (Carbon Fiber tubes)*	TM 15C (Carbon Fiber tubes)*
Extended Height	32.8 ft. / 10 m	50 ft. / 15 m
Nested Height	8 ft. / 2.4 m	8 ft. / 2.4 m
Payload Capacity	75 lb / 34 kg	75 lb / 34 kg
Weight (mast only)	55 lb / 25 kg	95 lb / 43.1 kg
Weight (accessory kit)	2 @ 42 lb / 19 kg each	2 @ 42 lb / 19 kg each
Number of Sections	5	8
Deployment Time	2 persons, 8 min.	3 persons, 10 min.
Survival Wind Speed	80 mph / 128 km/h	80 mph / 128 km/h
Deployment Wind Speed*	25 mph / 40 km/h	25 mph / 40 km/h
Operational Wind Speed	60 mph / 97km/h	60 mph / 97 km/h
Ice load	0.5 in. / 12 mm	0.5 in. / 12 mm
Guying	2 level / 4 way	3 level / 4 way
Surface mounting	±15° slope	±15° slope
Drive system	Screw Drive	Screw Drive
Finish	Standard Black	Standard Black
Typical Payload Sail Area*	6 sqft / 0.6 msq CD=1.5	6 sqft / 0.6 msq CD =1.5

\*Must be guyed for wind speeds over 25mph / 40km/h

**Accessory kits include: base tube guylines, top guylines, measuring rope, heat-treated steel guy stakes, sledge hammer, base plate, ground spikes, support stand, hand crank, transport bags & instruction manual**



# Q★E★A★M

QUICK ERECTING ANTENNA MAST

## ALUMINUM STRAP DRIVE MODEL

**Will-Burt's Strap Drive Quick Erecting Antenna Mast (QEAM) uses an internal strap wound between tube sections for mast elevation. Designed for manual operation, The Strap Drive QEAM has heavier payload weight-lifting capability, and is available in 21, 25, 30 and 34 meter heights.**

### STRAP DRIVE MODELS

- **Easy manual crank up**  
No power supply needed
- **Automatic locking collars**  
Locks at any desired height  
Patented latch mechanism
- **Manual mechanical drive**  
Reliable deployment without power  
Standard ground mounting kits with guylines and transport bag included
- **Optional vehicle and shelter mounting kits available**



Aluminum Strap Drive Model	TM 21	TM 25	TM 30	TM 34
Extended Height	68.9 ft. / 21 m	82 ft. / 25 m	98.4 ft. / 30 m	112 ft. / 34 m
Nested Height	14.6 ft. / 4.45 m	14.8 ft. / 4.5 m	19.3 ft. / 5.9 m	19 ft. / 5.8 m
Payload Capacity	180 lb / 80 kg	150 lb / 68 kg	150 lb / 68 kg	110 lb / 50 kg
Weight (mast only)	197 lb / 90 kg	220 lb / 100 kg	250 lb / 114 kg	250 lb / 113 kg
Weight (accessory kit)	245 lb / 111 kg	275 lb / 125 kg	275 lb / 125 kg	275 lb / 125kg
Number of Sections	6	7	6	7
Deployment Time	3 persons, 25 min	3 persons, 30 min	3 persons, 30 min	3 persons, 30 min
Survival Wind Speed	80 mph / 128 km/h	80 mph / 128 km/h	80 mph / 128 km/h	80 mph / 128 km/h
Deployment Wind Speed*	25 mph / 40 km/h	25 mph / 40 km/h	25 mph / 40 km/h	25 mph / 40 km/h
Operational Wind Speed	60 mph / 97 km/h	60 mph / 97 km/h	60 mph / 97 km/h	60 mph / 97 km/h
Ice load	0.5 in. / 12 mm	0.5 in. / 12 mm	0.5 in. / 12 mm	0.5 in. / 12 mm
Guying	4 level / 4 way	5 level / 4 way	5 level / 4 way	5 level / 4 way
Surface Mounting	±15° slope	±15° slope	±15° slope	±15° slope
Drive system	Strap Drive	Strap Drive	Strap Drive	Strap Drive
Finish	MIL-A-8625 Type II, CL 2 Black	MIL-A-8625 Type II, CL 2 Black	MIL-A-8625 Type II, CL 2 Black	MIL-A-8625 Type II, CL 2 Black
Typical Payload Sail Area*	6 sqft / 0.6 msq CD=1.5	6 sqft / 0.6 msq CD=1.5	6 sqft / 0.6 msq CD=1.5	6 sqft / 0.6 msq CD=1.5

\*Must be guyed for wind speeds over 25mph / 40km/h



## INTEGRATED TOWER SYSTEMS

Integrated Tower Systems-ITS, a Will-Burt Company, is a global leader in the manufacture and sales of an extensive line of rapid-deployment Portable Tower & Mast Systems; Tower & Mast Integrated Trailers, Trucks, Communication-Site-on-Wheels (COWs), and Mast-, Satellite- and Tower-Integrated Mobile Command and Communication Centers.

In an ongoing effort to support National Security, Public Safety, Emergency Response and Military Initiatives world-wide, ITS' affordable and innovative rapid response systems are manufactured to both civilian and military specifications and built to withstand many of the world's most demanding environments. Whether designed for the seamless installation of common or client-specific technologies, or pre-integrated with an ITS or client-furnished Communications or Surveillance Solution, ITS' rapidly deployed equipment are proven key components in establishing the flow of vital information from remote and urban areas of need. **For additional information, please visit our website at [www.itstowers.com](http://www.itstowers.com) or contact an ITS Representative Toll Free at 1-(800)-850-8535.**

	MOBILE TOWER SOLUTIONS	MOBILE MAST SOLUTIONS
<b>Self-Support &amp; Guyed Heights</b>	±38', 55', 72', 89', 106' & 130' / 11.6m, 16.8m, 21.9m, 27.1m, 32.3m & 40m	30' - 100' / 9m - 30m
<b>Tower Capacity</b>	<b>Standard Payloads:</b> Up to: ±550 lb. / 250 kg <b>Upgraded Payloads:</b> Up to: ±750 lb. / 340 kg	Payloads Up To: 1,200 lb. / 544 kg

### SRS SERIES – PORTABLE TOWER TRAILER



### SRS-C SERIES – PORTABLE TOWER TRAILER



### RD-S / RD-T SERIES – TRAILER MOUNTED MAST





# MOBILE SENTRY™

## VIDEO SURVEILLANCE TRAILER

The Mobile Sentry Video Surveillance Trailer is a ruggedized military-grade system designed for short and long-term surveillance missions. Will-Burt's Stiletto mast provides highly accurate elevation for sensors. The mast and sensors are powered by the automated Power Core that manages a generator and batteries ensuring power is available when needed. The entire system is integrated onto a military trailer which is equipped with a mast tilt system which minimizes space claim and optimizes transport. The Mobile Sentry Video Surveillance Trailer delivers mobility, elevation and flexible power management for critical missions.

### ESSENTIAL FEATURES

- **Stiletto HD Mast - Highest Strength & Accuracy**

MIL-STD Qualified Composite Mechanical Mast

32.8 ft. / 10 M Extended Height

High strength automatic locks

Automatic tilt system  
for easier transport

- **Power Core**

Automatic, Remote or  
Manual power management

Generator and batteries  
supply continuous power



### SURVEILLANCE

## VIDEO SURVEILLANCE PLATFORM

The Mobile Sentry Video Surveillance Platform includes a self-supported, compact and lightweight composite telescopic mast with power sub-system designed to deliver 8 hours of power for video surveillance. The platform can be quickly installed and removed from a half-ton pickup truck equipped with a gooseneck trailer connector. The Mobile Sentry Video Surveillance Platform assures that your observation system will detect targets accurately for the duration of the mission.

### ESSENTIAL FEATURES

- **Stiletto Mast - High Strength and Accurate**

MIL-STD Qualified Composite Mechanical Mast

27.8 ft. / 8.5 M Extended Height

Automatic locks and low wind deflection

- **Integrated Support Structure**

Supports unguyed mast, cables and payload

Wind / Brush Screen protects payload

Integrated fork pockets

Vehicle motion simulator tested

- **Power Management System**

Provides up to 8 hours of  
continuous system operation

Lightweight Li-Ion batteries with  
battery management system

- **Lightweight - less than 800 lbs. / 363 kg**

- **Compact - 46" / 117 cm width x 57" / 145 cm depth x 103.5" / 263 cm height**



## TACTICAL MILITARY TRAILERS

The Family of GEROH Light and Medium-Weight Tactical Trailers is used by the German Army and other international forces to enhance mobility and logistics capabilities throughout the battlefield. These trailer systems are especially designed for missions involving extraordinary burdens in extreme and arduous terrain.

The GEROH development department is able to fulfil the special requirements of military customers. GEROH delivers high-capacity standard solutions as well as special customized trailer systems.

Years of experience in producing trailer systems as well as close cooperation with international forces and procurement agencies makes it possible to offer the best possible trailer solutions. High payloads by low basic weights, maximum cross-country mobility, long life-expectancy and low maintenance requirements are the characteristics of all GEROH Tactical Trailers.

Specifications	1.0 MT 2-wheeled	1.7 MT 2-wheeled	5 MT 4-wheeled
Transport Platform	8.9 ft. x 4.9 ft. / 2.7 m x 1.5 m	7.2 ft. x 6.2 ft. / 2.2 m x 1.9 m	x
Weight	2,976 lb / 1,350 kg	3,747 lb / 1,700 kg	13,228 lb / 6,000 kg
Air Transport	CH-53 / C-160	CH-53 / C-160	x

### ESSENTIAL FEATURES

- Maximum mobility – developed for the most difficult off-road terrain
- Maximum payloads
- Maximum mechanical load capacities
- “Off-the-shelf” solutions as well as special customized trailer solutions
- Designed for Power Generators, Water Preparation Systems, Communication Systems, Mast Systems, NBC-equipment, ATV's, Command Post Equipment
- Long life expectancy and minimal maintenance costs
- Scenario optimized and mission tested by German Army and other forces



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*The Will-Burt Company ([www.willburt.com](http://www.willburt.com)), located in Orrville, Ohio, is the world's premier manufacturer of telescoping mast and tower elevation solutions – the world's one stop shop offering virtually every payload elevation solution from one source – for military, fire, cellular, broadcast, entertainment and other applications. Will-Burt also designs and manufactures military and other shelters made of all-composite materials that deliver higher performance at lower life cycle cost than metal or partial composite shelters. Will-Burt's LINX security solutions provide integrated access control and intrusion detection certified to protect critical assets. Will-Burt also offers a variety of manufacturing services backed by an ISO 9001:2008 certified quality system and a 14001:2004 environmental management system. Incorporated in 1918, Will-Burt is 100% employee-owned and is classified as a small business.*



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