WILL-BURT

# DEFENSE ELEVATION AND INTEGRATION SOLUTIONS


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MIL - STD 810 CERTIFIED

*AMERICAS*

*INNOVATION ELEVATED®*

The Will-Burt Company offers a broad selection of mobile telescopic masts, lattice towers, pan and tilt positioners 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.

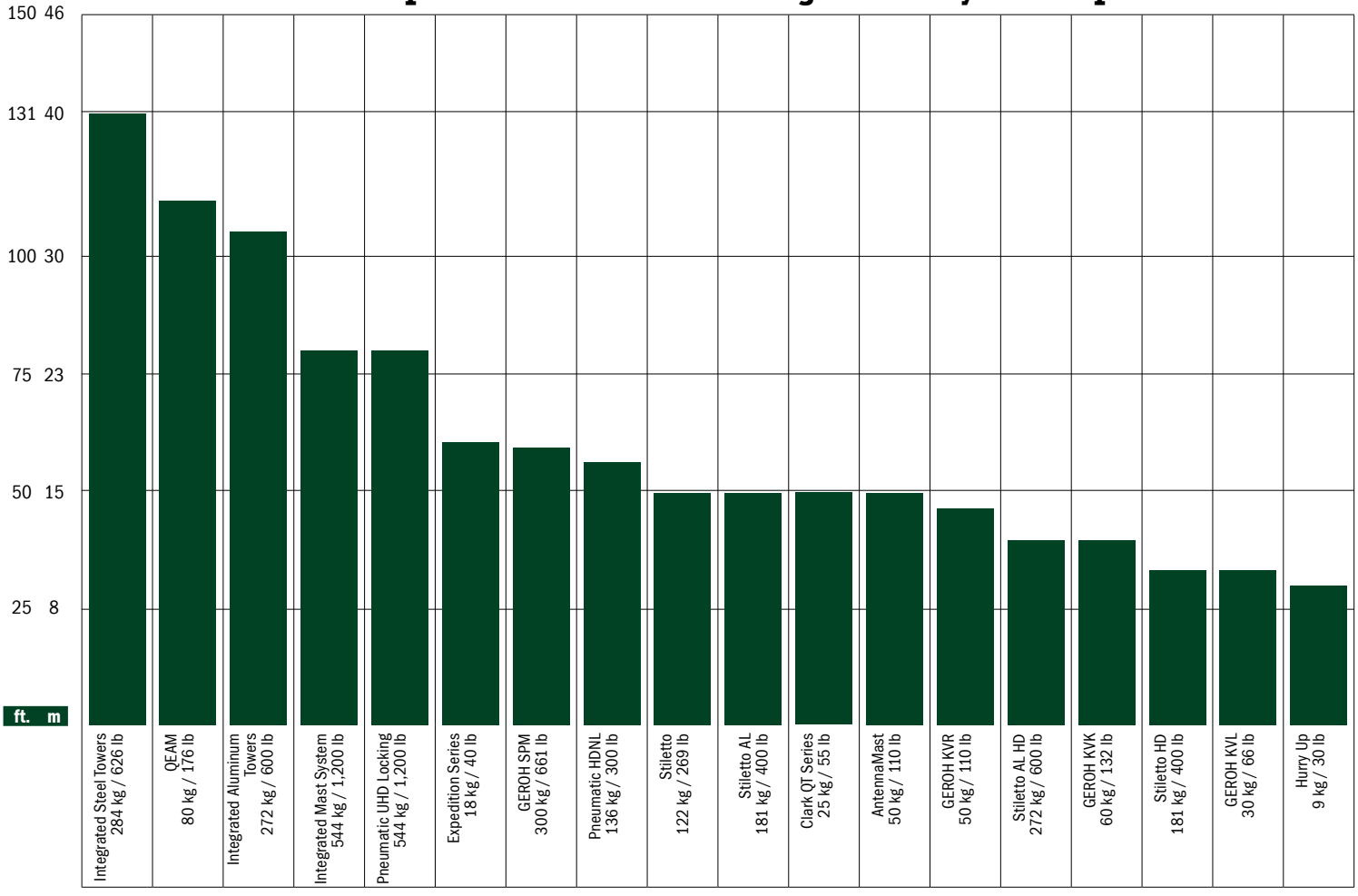
The ability of Will-Burt to deliver superior elevation solutions is attributed to its worldwide leadership in the industry for over 70 years. Teams of experienced research and development engineers, design engineers and ISO 9001:2015 quality systems certified manufacturing experts are backed by a sales 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 since 1946
- Wide array of elevation products designed for specific missions
- MIL-STD 810 Certified Products
- ISO 9001:2015 quality certified manufacturing
- Innovative custom solutions designed by experienced engineers
- Superior customer support

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



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## SURVEILLANCE / SECURITY / COUNTER UAS

# STILETTO ELECTRO-MECHANICAL MASTS

**Extended Heights up to 49.2 ft. / Payload Capacity up to 270 lb**

**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.

### ESSENTIAL FEATURES

- High pointing accuracy and low wind deflection
  - Internal keys and rigid design maintain azimuth and eliminate the need for guylines
- High weight lifting capacity
  - 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®


# STILETTO HD ELECTRO-MECHANICAL MASTS

**Extended Heights up to 32.9 ft. / Payload Capacity up to 40 lb.**

**High performance composite telescoping mast**

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

### ESSENTIAL FEATURES

- 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™HD

## SPECIFICATIONS

## SURVEILLANCE / SECURITY / COUNTER UAS

| Stiletto® | 3.0m | 4.0m | 6.0m | 10.0m | 15.0m |
|---|---|---|---|---|---|
| Extended Height (+4 in. / –0 in.) (ft. / m) | 9.8 / 3.0 | 13.5 / 4.1 | 19.0 / 5.79 | 32.5 / 9.9 | 49.2 / 15.0 |
| Nested Height (+1 in. / -0 in.) (ft. / m) | 3.3 / 1.0 | 3.3 / 1.0 | 3.8 / 1.17 | 5.6 / 1.7 | 7.9 / 2.4 |
| Payload Capacity (lb / kg) | 270 / 122 | 250 / 113 | 250 / 113 | 250 / 113 | 200 / 91 |
| Weight (Including Control Box and Cables) (lb / kg) | 176 / 80 | 196 / 89 | 209 / 95 | 267 / 121 | 320 / 145 |
| Number of Sections | 5 | 9 | 9 | 9 | 9 |
| Tube Diameter (in. / cm) | 10.3 to 7.3 / 26.2 to 8.5 | 10.31 to 4.31 / 26.2 to 11 | 10.31 to 4.31 / 26.2 to 11 | 10.31 to 4.31 / 26.2 to 11 | 10.31 to 4.31 / 26.2 to 11 |
| Survival Wind Speed (mph / km/h) | - | 110 / 177 | 100 / 160 | 80 / 129 | 65 / 105 |
| Deployment Wind Speed (mph / km/h) | - | 50 / 80 | 40 / 60 | 34 / 55 | 33 / 53 |
| Erection Time with Power (seconds) | 45 | 60 | 90 | 162 | 240 |
| Rotation Accuracy (Twist) | +/–1° | +/–1° | +/–1° | +/–1° | +/–1° |
| Voltage (MIL-STD 1275) (VDC) | 28 | 28 | 28 | 28 | 28 |
| Footprint (in. / cm) | 11.25 x 17.63 / 28.6 x 44.8 | | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 |
| **Typical Payload Sail Area ($ft.^2$ / $m^2$) | 8 / .74 CD=1.5 | 8 / .74 CD=1.5 | 8 / .74 CD=1.5 | 8 / .74 CD=1.5 | 8 / .74 CD=1.5 |

| Stiletto® HD | 4.0m | 6.0m | 8.6m | 10.0m |
|---|---|---|---|---|
| Extended Height (+4 in. / –0 in.) (ft. / m) | 12.5 / 3.8 | 19.7 / 6.0 | 28.2 / 8.6 | 32.9 / 10.0 |
| Nested Height (+1 in. / -0 in.) (ft. / m) | 3.3 / 1.1 | 4.9 / 1.5 | 6.4 / 1.95 | 6.6 / 2.0 |
| Payload Capacity (lb / kg) | 350 / 158 | 400 / 181 | 400 / 181 | 400 / 181 |
| *On-The-Move Capability | | x | | |
| Weight (Including Control Box and Cables) (lb / kg) | 265 / 120 | 340 / 154 | 384 / 175 | 395 / 180 |
| Number of Sections | 7 | 9 | 8 | 9 |
| Tube Diameter (in. / cm) | 9.56 to 5.06 / 24.3 to 12.9 | 11.06 to 5.06 / 28.1 to 12.9 | 11.06 to 5.81 / 28.1 to 14.8 | 11.06 to 5.06 / 28.1 to 12.9 |
| Survival Wind Speed (mph / km/h) | 100 / 160 | 100 / 160 | 90 / 144 | 80 / 129 |
| Deployment Wind Speed (mph / km/h) | 40 / 64 | 40 / 64 | 40 / 64 | 40 / 64 |
| Erection Time with Power (seconds) | 20 | 35 | 50 | 60 |
| Rotation Accuracy (Twist) | +/–1° | +/–1° | +/–1° | +/–1° |
| Voltage (MIL-STD 1275) (VDC) | 28 | 28 | 28 | 28 |
| Footprint (in. / cm) | 15.59 x 9.71 / 39.6 x 24.7 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 |
| **Typical Payload Sail Area ($ft.^2$ / $m^2$) | 11 / 1 CD=1.5 | 11 / 1 CD=1.5 | 8 / .74 CD=1.5 | 8 / .74 CD=1.5 |

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

| 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 | -40°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4 |
| Storage Temperature Ranges | -40°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 |
| Icing / 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 | 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 | 40°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4 |
| Storage Temperature Ranges | -40°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 |
| Icing / Freezing Rain | Per MIL-STD-810F, Method 521.2 |
| MIL-STD-461E | 461E, CS101, CS114, CS115, CS116, RS103, (CE102, RE102, RS101 with optional equipment) |

*The Stiletto HD design was qualified by similarity to the standard Stiletto design

## SURVEILLANCE / SECURITY / COUNTER UAS

# STILETTO AL ELECTRO-MECHANICAL MASTS

**Extended Heights up to 49.2 ft. / Payload Capacity up to 400 lb**

STILETTO® 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 patented 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.

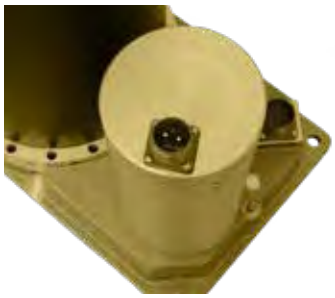
## ESSENTIAL FEATURES

- 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
  - Patented Quiet Locks designed for heavy payloads
- Reduced maintenance
  - Clean air filter system prevents dirt from entering the mast
  - Integrated dirt / dust wipers and ice-breakers built into collars
- High strength alloy construction
- Integrated PC control
- MIL-STD 810G certified

High Strength Alloy Construction

Patented Quiet Locks and Designed for Heavy Payloads

Quiet Sealed Direct-Drive System



Integrated Dust Wipers and Ice-Breakers

## SPECIFICATIONS

| Stiletto AL | 4.0m | 6.0m | 8.5m | 10.0m | 15.0m |
|---|---|---|---|---|---|
| Extended Height (+4 in. / –0 in.) (ft. / m) | 13.1 / 4.0 | 19.6 / 6.0 | 28.0 / 8.54 | 32.8 / 10.0 | 49.2 / 15.0 |
| Nested Height (+1 in. / –0 in.) (ft. / m) | 4.2 / 1.28 | 5.2 / 1.58 | 6.2 / 1.88 | 6.9 / 2.10 | 8.7 / 2.65 |
| Payload Capacity (lb / kg) | 400 / 181 | 400 / 181 | 400 / 181 | 400 / 181 | 350 / 158 |
| Weight (Including Control Box and Cables) (lb / kg) | 265 / 120 | 314 / 143 | 364 / 165 | 395 / 179 | 350 / 158 |
| Number of Sections | 5 | 6 | 7 | 7 | 8 |
| Tube Diameter (in. / cm) | 9.85 to 6.7 / 25 to 17 | 9.85 to 5.91 / 25 to 15 | 9.85 to 5.12 / 25 to 13 | 9.85 to 5.12 / 25 to 13 | 9.85 to 4.33 / 25 to 11 |
| Survival Wind Speed (mph / km/h) | 130 / 209 | 115 / 185 | 80 / 129 | 80 / 129 | 62 / 100 |
| Deployment Wind Speed (mph / km/h) | 40 / 64 | 40 / 64 | 35 / 56 | 35 / 56 | 30 / 48 |
| Erection Time with Power (seconds) | Less than 35 | Less than 60 | Less than 100 | Less than 100 | Less than 150 |
| Rotation Accuracy (Twist) | +/–1° | +/–1° | +/–1° | +/–1° | +/–1° |
| Voltage (MIL-STD 1275) (VDC) | 28 | 28 | 28 | 28 | 28 |
| Footprint (in. / cm) | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 | 17.56 x 11.19 / 44.6 x 28.5 |
| **Typical Payload Sail Area ($ft.^2$ / $m^2$) | 17 / 1.58 CD=1.5 | 12 / 1.11 CD=1.5 | 11 / 1.02 CD=1.5 | 11 / 1.02 CD=1.5 | 8 / 0.74 CD=1.5 |

Paint option only available for base tube, all other tubes will be black anodize. **Consult factory for larger sail area as payload and wind capacities may be reduced.

SURVEILLANCE / SECURITY / COUNTER UAS

# STILETTO AL HD ELECTRO-MECHANICAL MASTS

**Extended Heights up to 39.3 ft. / Payload Capacity up to 600 lb**

STILETTO® AL HEAVY DUTY

The Stiletto® AL HD is designed to successfully manage the forces that today's sophisticated radar and video systems can exert on a mobile elevation system and deliver the required stability and accuracy needed for optimized data delivery. The Stiletto AL HD's multi-spindle design and internal key minimizes mast twist.

Stiletto AL HD is designed to meet the most demanding program requirements.

## ESSENTIAL FEATURES

- Powerful lifting capacity
  - Up to 600 pounds / 272 kg
- Automatic locking at any height
  - Secure and safe
- Maximum strength deployment and retraction
  - All mast sections extend and retract in unison
- Minimal mast twist – optimized for radars
  - ±0.7°
- Low-nested height
  - Internal collars with built-in dust and ice scrapers
- Precise positioning at any height
  - Digitally controlled brushless DC motor
- Minimal maintenance
  - No belts or chains - Direct drive power
  - Ultra long-life - Multi-spindle system
  - Full tube seals prevent water intrusion
- High strength alloy construction
- No guy wires required
- Digital control with LED display
  - Accurate height readout even with loss of power
- MIL-STD 810H design

Internal Collars with Built-in Dust and Ice Scrapers

Digital Control with LED Display

Multi-Spindle Design

Direct Drive Power

## SPECIFICATIONS

| Stiletto AL HD | 4.0m | 6.0m | 8.54m | 10.0m | 12.0m |
|---|---|---|---|---|---|
| Extended Height ±50 mm / ±1.97 in. (ft. / m) | 13.7 / 4.1 | 19.6 / 6.0 | 28.0 / 8.54 | 32.8 / 10.0 | 39.3 / 12.0 |
| Nested Height ±0.6 mm / ±0.236 in. (ft. / m) | 4.02 / 1.28 | 5.18 / 1.58 | 6.54 / 2.0 | 7.33 / 2.24 | 8.43 / 2.57 |
| Payload Capacity (lb / kg) | 600 / 272 | 600 / 272 | 600 / 272 | 600 / 272 | 600 / 272 |
| Mast Weight (lb / kg) | 335 / 152 | 391 / 178 | 464 / 210 | 490 / 222 | 573 / 260 |
| Number of Sections | 6 | 6 | 6 | 6 | 6 |
| Tube Diameter Range: Base Tube - Top Tube (in. / mm) | 9.85 - 5.9 / 250 - 150 | 9.85 - 5.9 / 250 - 150 | 9.85 - 5.9 / 250 - 150 | 9.85 - 5.9 / 250 - 150 | 9.85 - 5.9 / 250 - 150 |
| *Survival Wind Speed (mph / km/h) | 130 / 209 | 115 / 185 | 95 / 153 | 80 / 129 | 62 / 100 |
| Deployment Wind Speed (mph / km/h) | 40 / 64 | 40 / 64 | 40 / 64 | 40 / 64 | 40 / 64 |
| Approximate Extension Time with Power (seconds) | <45 | <65 | <90 | <105 | <130 |
| Rotation Accuracy (Twist) | ±0.7° | ±0.7° | ±0.7° | ±0.7° | ±0.7° |
| Input Voltage | 28 VDC | 28 VDC | 28 VDC | 28 VDC | 28 VDC |
| Running Current (Max) | 40 Amps | 40 Amps | 40 Amps | 40 Amps | 40 Amps |
| Base Footprint (in. / cm) | 17.56 x 11.22 / 44.6 x 28.5 | 17.56 x 11.22 / 44.6 x 28.5 | 17.56 x 11.22 / 44.6 x 28.5 | 17.56 x 11.22 / 44.6 x 28.5 | 17.56 x 11.22 / 44.6 x 28.5 |
| Max Deployment Angle | 10° | 10° | 10° | 10° | 5° |
| *Typical Payload Sail Area ($ft.^2$ / $m^2$) | 17 / 1.58 | 12 / 1.11 | 11 / 1.02 | 11 / 1.02 | 8 / 0.74 |

* All survival wind load payloads assume a payload center of pressure position 1 meter above the top of the mast and payload drag coefficient (CD) of 1.5.

## SURVEILLANCE / COMMUNICATIONS / COUNTER UAS

# GEROH SPM SUPER HEAVY-DUTY TELESCOPIC SPINDLE DRIVE MASTS

**Extended Heights up to 59.1 ft. / Payload Capacity up to 661 lb**


Will-Burt Germany's Family of 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.

The GEROH 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.

The GEROH SPM Spindle Mast is developed for the highest requirements in precision and extending the heaviest of payloads. Made of high strength aluminum, the Spindle mast maintains very close tolerances and endurance from environmental extremes making it our best telescopic mast for counter-UAS, communication, surveillance, reconnaissance and target detection.

**GEROH SPM**

### ESSENTIAL FEATURES

- Best rotational accuracy (twist) of all Will-Burt masts
- 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 certified

### SPECIFICATIONS

| Standard SPM | 180–2 SPM 2 | 230–3 SPM 5 | 230–6 SPM 5 | 260–8 SPM 6 | 260–10 SPM 6 | 260–12 SPM 6 | 300–15 SPM 6 | 360–18 SPM 6 |
|---|---|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 6.9 / 2.1 | 9.9 / 3.0 | 19.7 / 6.0 | 26.2 / 8.0 | 32.8 / 10.0 | 39.4 / 12.0 | 49.2 / 15.0 | 59.1 / 18.0 |
| Nested Height (ft. / m) | 4.0 / 1.2 | 3.5 / 1.1 | 5.5 / 1.7 | 5.9 / 1.8 | 7.1 / 2.2 | 8.1 / 2.5 | 11.2 / 3.4 | 12.8 / 3.9 |
| Payload Capacity (lb / kg) | 220 / 100 | 661 / 300 | 551 / 250 | 55 / 250 | 551 / 250 | 551 / 250 | 551 / 250 | 551 / 250 |
| Rotation Accuracy (Twist) | +/- 0.1° | +/- 0.4° | +/- 0.4° | +/- 0.5° | +/- 0.5° | +/- 0.5° | +/- 0.5° | +/- 0.5° |
| Approximate Mast Weight (lb / kg) | 163 / 74 | 212 / 96 | 309 / 140 | 573 / 260 | 639 / 290 | 672 / 305 | 1,323 / 600 | 1,488 / 675 |
| Base Tube Diameter (in. / cm) | 7.1 / 18 | 9.1 / 23 | 9.1 / 23 | 10.2 / 26 | 10.2 / 26 | 10.2 / 26 | 14.2 / 36 | 14.2 / 36 |
| Number of Sections | 2 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |

| Low Profile SPM | 280-2.5 SPM 7 | 280-3 SPM 7 | 280-4 SPM 7 | 280-6 SPM 7 | 280-8 SPM 7 | 280-10 SPM 7 |
|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 8.2 / 2.5 | 9.8 / 3.0 | 13.1 / 4.0 | 19.7 / 6.0 | 26.2 / 8.0 | 32.8 / 10.0 |
| Nested Height (ft. / m) | 2.3 / 0.70 | 2.5 / 0.78 | 3.0 / 0.92 | 3.9 / 1.2 | 4.9 / 1.49 | 5.8 / 1.78 |
| Payload Capacity (lb / kg) | 309 / 140 | 287 / 130 | 265 / 120 | 220 / 100 | 176 / 80 | 132 / 60 |
| Approximate Mast Weight (lb / kg) | 265 / 120 | 353 / 160 | 419 / 190 | 485 / 220 | 540 / 245 | 639 / 290 |
| Rotation Accuracy (Twist) | +/- 0.6° | +/- 0.6° | +/- 0.6° | +/- 0.6° | +/- 0.6° | +/- 0.6° |
| Base Tube Diameter (in. / cm) | 11.0 / 28 | 11.0 / 28 | 11.0 / 28 | 11.0 / 28 | 11.0 / 28 | 11.0 / 28 |
| Number of Sections | 7 | 7 | 7 | 7 | 7 | 7 |

Additional heights and payload capacities available.

# PNEUMATIC HD AND SHD NON-LOCKING MASTS

**Extended Heights up to 56.1 ft. / Payload Capacity up to 300 lb**

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.

## ESSENTIAL FEATURES

- 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 for 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

## SPECIFICATIONS

| Heavy-Duty | 7.5m | 10.0m | 12.5m | 15.0m | 17.0m |
|---|---|---|---|---|---|
| Extended Height (ft. / m) | 25.0 / 7.6 | 32.8 / 10.0 | 41.2 / 12.5 | 48.6 / 14.8 | 56.1 / 17.1 |
| Nested Height (ft. / m) | 6.0 / 1.8 | 6.7 / 2.0 | 7.3 / 2.1 | 8.7 / 2.7 | 9.6 / 2.9 |
| Payload Capacity (lb / kg) | 200 / 91 | 300 / 136 | 200 / 91 | 300 / 136 | 300 / 136 |
| Approximate Mast Weight (lb / kg) | 110 / 50 | 200 / 91 | 235 / 107 | 275 / 125 | 296 / 135 |
| Tube Diameter (in. / mm) | 6.75 - 3.00 / 171 - 76 | 9.00 - 3.75 / 229 - 95 | 9.00 - 3.00 / 229 - 76 | 9.00 - 3.75 / 229 - 95 | 9.00 - 3.75 / 229 - 95 |
| 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 | 10.0m | 12.0m |
|---|---|---|
| Extended Height (ft. / m) | 32.8 / 10.0 | 39.4 / 12.0 |
| Nested Height (ft. / m) | 8.0 / 2.5 | 9.3 / 2.8 |
| Payload Capacity (lb / kg) | 980 / 445 | 680 / 308 |
| Approximate Mast Weight (lb / kg) | 375 / 170 | 430 / 195 |
| Tube Diameter (in. / mm) | 11.25 - 6.75 / 285 - 171 | 11.25 - 6.00 / 285 - 152 |
| Maximum Operating Pressure | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) |

## SURVEILLANCE / COMMUNICATIONS

# PNEUMATIC HD AND SHD LOCKING MASTS

**Extended Heights up to 98.4 ft. / Payload Capacity up to 530 lb**

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 ft. / 18.0 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.

## ESSENTIAL FEATURES

- 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 for 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

## SPECIFICATIONS

| Heavy-Duty | 10.0m | 12.5m | 15.0m | 18.0m |
|---|---|---|---|---|
| Extended Height (ft. / m) | 32.8 / 10.0 | 41.0 / 12.5 | 49.2 / 15.0 | 59.1 / 18.0 |
| Nested Height (ft. / m) | 7.5 / 2.3 | 7.5 / 2.3 | 8.0 / 2.5 | 10.4 / 3.2 |
| Payload Capacity (lb / kg) | 200 / 91 | 200 / 91 | 200 / 91 | 300 / 136 |
| Approximate Mast Weight (lb / kg) | 125 / 57 | 235 / 107 | 240 / 109 | 330 / 150 |
| Tube Diameter (in. / cm) | 6.75-3.00 / 171-76 | 9.00-3.00 / 229-76 | 9.00-3.00 / 229-76 | 9.00-3.75 / 229-95 |
| Maximum Operating Pressure | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) |

| Super Heavy-Duty | 15.0m | 18.0m | 23.0m | 30.0m |
|---|---|---|---|---|
| Extended Height (ft. / m) | 49.2 / 15.0 | 59.1 / 18.0 | 76.0 / 23.2 | 98.4 / 30.0 |
| Nested Height (ft. / m) | 9.2 / 2.8 | 10.5 / 3.2 | 11.1 / 3.4 | 15.4 / 4.7 |
| Payload Capacity (lb / kg) | 530 / 240 | 530 / 240 | 300 / 136 | 530 / 240 |
| Approximate Mast Weight (lb / kg) | 450 / 205 | 500 / 227 | 549 / 249 | 790 / 361 |
| Tube Diameter (in. / cm) | 11.25-5.25 / 288-135 | 11.25-5.25 / 288-135 | 11.25-3.75 / 288-96 | 11.25 - 5.25 / 288-135 |
| Maximum Operating Pressure | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) | 35 PSIG (2.4 bar) |

*Capacity will be affected by wind sail area. Consult factory.

## QUALIFICATIONS

| Pneumatic HD Locking Mast | |
|---|---|
| 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. | |

# ULTRA HEAVY-DUTY PNEUMATIC LOCKING TELESCOPING MASTS

**Extended Heights up to 79.7 ft. / Payload Capacity up to 1,200 lb**

**Higher payload capacity with shorter nested height.**

The Ultra Heavy-Duty Pneumatic Mast with Locking Collars delivers an unparalleled combination of strength and rigidity in a design that delivers the performance of a hydraulic mast at less weight and without the need for environmentally dangerous fluids.

The Ultra Heavy-Duty mast was specifically designed for mobile communications providing better unguyed performance at lower nested heights – eliminating the need for an expensive tilt system.

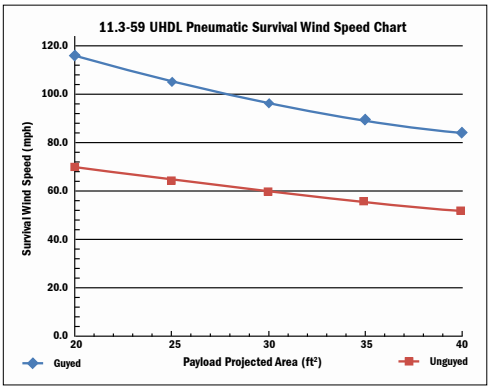

## ESSENTIAL FEATURES

- Strong
  - Elevates heavier loads with greater wind sail area
  - Greater unguyed performance
- Fast & Efficient
  - Lower nested height eliminates the need for costly and complicated tilt systems
  - Easier to deploy in urban areas
  - Safe long-term deployment with easy to operate positive locking pins
- Reliable
  - 5 year manufacturer warranty
  - No maintenance required
  - No hydraulic fluid concerns

## SPECIFICATIONS

| Ultra Heavy-Duty Locking | 8-39 | 11.3-59 | 9.8-65.6 | 13-70 | 14.4-80 |
|---|---|---|---|---|---|
| Extended Height (m / ft.) | 39.3 / 12.0 | 59.1 / 18.0 | 65.6 / 20.0 | 69.9 / 21.3 | 79.7 / 24.3 |
| Nested Height (m / ft.) | 7.8 / 2.4 | 11.1 / 3.4 | 9.8 / 3.0 | 13.1 / 4.0 | 14.4 / 4.4 |
| *Payload Capacity (kg / lb.) | 980 / 444 | 1,200 / 544 | 530 / 240 | 1,200 / 544 | 1,200 / 544 |
| Approximate Weight (kg / lb) | 607 / 275 | 814 / 369 | 852 / 387 | 920 / 417 | 1,078 / 489 |
| Number of Sections | 8 | 7 | 10 | 7 | 7 |
| Tube Diameter (cm / in.) | 13.50-6.75 / 34.29-17.15 | 13.50-7.50 / 34.29-19.05 | 13.50-5.25 / 34.29-13.34 | 13.50-7.50 / 34.29-19.05 | 13.50-7.50 / 34.29-19.05 |
| Collar Type | Locking with Super Pins | Locking with Super Pins | Locking with Super Pins | Locking with Super Pins | Locking with Super Pins |
| 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) |

Dimensions provided are for reference only and are not intended for vehicle design purposes.
*Capacity will be affected by wind sail area. Consult factory.



## MAST ACCESSORIES

# REMOTE LOCKING SYSTEM FOR LOCKING PNEUMATIC MASTS


Will-Burt's patent pending Remote Locking System for pneumatic masts allows an operator to lock and unlock the mast from an assured distance. No manual interaction is required to raise or lower the mast. Operation of the system is intuitive, requiring less training and reducing the risk of operator error. The Remote Locking System is available on any Heavy-Duty pneumatic mast system or larger up to 24m / 80 ft.

### FEATURES AND SPECIFICATIONS

- Ability to stand clear from payload during deployment and retraction
- Easy to understand and operate control
- Super pins for longer lock life and increased wind survival speed in guyed applications
- Close azimuth design and two full-length keys on every mast section reduces mast movement and twist
- No routine maintenance required
- Pneumatic operation requires no fluids
- Control Box included
- Optional Handheld Controller

# 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 from0.5 in. / 1.27 cm to 1.25 in. / 3.2 cm in diameter with lengths available up to 100 ft. / 30m

# PNEUMATIC SYSTEMS

Will-Burt offers a variety of low-maintenance pneumatic systems and hand pumps, all specifically designed for optimal performance for use with Will-Burt Telescoping Masts.

Each system is shipped completely assembled, tested and factory preset.

## SPECIFICATIONS

| Part Number | 5766701 | 5857701 | 5802201 / 5766301 | 5802301 | 902404 | 903193 | 912361 |
|---|---|---|---|---|---|---|---|
| **AC Models** | **WB135** | **WB135** | **WB280** | **WB280** | | | |
| Mast Application | Standard Duty | Standard Duty | Heavy / Super / Ultra Duty | Heavy / Super / Ultra Duty | Heavy / Super / Ultra Duty | Heavy / Super / Ultra Duty | Heavy / Super / Ultra Duty |
| Voltage | 110VAC 60Hz | 220VAC 50Hz | 110VAC 60Hz | 220VAC 50Hz | 110VAC / 60Hz | 220VAC 50Hz | 220VAC 60Hz |
| CFM | 4.7 | 4.7 | 9.8 | 9.8 | 4.4 | 2.01 | 4.4 |
| Ltr / Min | 135 | 135 | 280 | 280 | 125 | 57 | 101 |
| Operating Temperature (°F / °C) | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 | 50 to 104 / 10 to 40 | -4 to 131 / -20 to 55 | 50 to 104 / 10 to 40 |
| Optional HandHeld Remote | | | | | | | |
| Protective Enclosure | x | x | x | x | | | |
| Cooling Fan | | | | | x | x | x |
| Air Hose with Fittings | x | x | x | x | x | x | x |
| Pressure Gauge | x | x | x | x | x | x | x |
| Pressure Switch | 20 ±2 psi | 20 ±2 psi | 35 ±2 psi | 35 ±2 psi | 32 ±2 psi | 32 ±2 psi | 32 ±2 psi |
| Current Draw | 7 amps | 3.5 amps | 14 amps | 7 amps | 10.6 amps | 4.1 amps | 5.3 amps |
| Weight (lb / kg) | 55 / 25 | 55 / 25 | 62 / 28 | 62 / 28 | 45 / 20 | 55 / 25 | 45 / 20 |
| Dimensions (L x W x H) (in. / mm) | 15.2 x 10.1 x 15 / 385 x 255 x 380 | 15.2 x 10.1 x 15 / 385 x 255 x 380 | 16.6 x 11.7 x 15.1 / 420 x 295 x 380 | 16.6 x 11.7 x 15.1 / 420 x 295 x 380 | 18.33 x 11.61 x 8.91 / 466 x 295 x 227 | 16.4 x 12.6 x 9.0 / 417 x 320 x 229 | 18.33 x 11.61 x 8.91 / 466 x 295 x 227 |

| Part Number | 5857801 | 5857901 | 5766801 | 5766901 |
|---|---|---|---|---|
| **DC Models** | **WB135** | **WB135** | **WB135** | **WB135** |
| Mast Application | Standard Duty | Standard Duty | Heavy / Super / Ultra Duty | Heavy / Super / Ultra Duty |
| Voltage (VDC) | 12 | 24 | 12 | 24 |
| CFM | 4.7 | 4.7 | 4.7 | 4.7 |
| Ltr / Min | 135 | 135 | 135 | 135 |
| Operating Temperature (°F / °C) | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 | 14 to 131 / -10 to 55 |
| Optional HandHeld Remote | | | | |
| Protective Enclosure | x | x | x | x |
| Cooling Fan | | | | |
| Air Hose with Fittings | x | x | x | x |
| Pressure Gauge | x | x | x | x |
| Check Valve | 20 ±2 psi | 20 ±2 psi | 35 ±2 psi | 35 ±2 psi |
| Current Draw | 65 amps | 32 amps | 65 amps | 32 amps |
| Weight (lb / kg) | 55 / 25 | 55 / 25 | 55 / 25 | 55 / 25 |
| Dimensions (L x W x H) (in. / mm) | 15.2 x 10.1 x 15.2 / 385 x 255 x 385 | 15.2 x 10.1 x 15.2 / 385 x 255 x 385 | 15.2 x 10.1 x 15.2 / 385 x 255 x 385 | 15.2 x 10.1 x 15.2 / 385 x 255 x 385 |

## COMMUNICATIONS / SURVEILLANCE

# GEROH KVL AND KVK LIGHT / MEDIUM-DUTY TELESCOPIC CABLE-DRIVE MASTS

**Extended Heights up to 39.3 ft. / Payload Capacity up to 132 lb**


GEROH KVL | KVK

Will-Burt Germany's Family of light and medium-duty Telescopic KVL and KVK Masts are characterized by their lightweight construction in addition to superior stability, reliability, and long life. Both mast systems are available with manual crank deployment or motorized operation. The GEROH KVL and KVK mast systems are in use in military and commercial applications such as communications, surveillance, and lighting. The masts are designed for vehicle, trailer, shelter, or field deployment. The mast sections consist of precision mast profiles which ensure exact adjustment. Safe deployment and retraction is assured, even with ice or in heavy wind conditions. such as communications, surveillance, and lighting.

### ESSENTIAL FEATURES

- Available as a manual crank mast or with optional motor drive and controller
- Optimal for light surveillance systems, radio monitoring, and mobile light measuring stations
- Designed for vehicle, trailer, shelter, or field deployment
- MIL-STD 810-G

### SPECIFICATIONS

| KVL | 120 - 2.5 KVL 3 | 120 - 4 KVL 4 | 120 - 6 KVL 5 | 120 - 8 KVL 5 | 145 - 8 KVL 6 | 145 - 10 KVL 6 |
|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 8.2 / 2.5 | 13.1 / 4.0 | 19.7 / 6.0 | 26.2 / 8.0 | 26.2 / 8.0 | 32.8 / 10.0 |
| Nested Height (ft. / m) | 3.5 / 1.1 | 4.3 / 1.3 | 5.1 / 1.5 | 6.4 / 2.0 | 5.75 / 17.5 | 6.9 / 2.1 |
| Payload Capacity (lb / kg) | 67 / 30 | 67 / 30 | 55 / 25 | 44 / 20 | 44 / 20 | 33 / 15 |
| Approximate Mast Weight (lb / kg) | 62 / 28 | 71 / 32 | 82 / 37 | 95 / 43 | 106 / 48 | 122/ 55 |
| Number of Sections | 3 | 4 | 5 | 5 | 6 | 6 |

| KVK | 120 - 2.5 KVK 3 | 120 - 4 KVK 4 | 145 - 6 KVK 4 | 145 - 8 KVK 5 | 170 - 10 KVK 5 | 170 - 12 KVK 6 |
|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 8.2 / 2.5 | 13.1 / 4.0 | 19.7 / 6.0 | 26.2 / 8.0 | 32.8 / 10.0 | 39.3 / 12.0 |
| Nested Height (ft. / m) | 3.5 / 1.14 | 4.3 / 1.34 | 6.3 / 1.9 | 6.9 / 2.1 | 8.2 / 2.5 | 8.2 / 2.5 |
| Payload Capacity (lb / kg) | 132 / 60 | 100 / 45 | 132 / 60 | 100 / 45 | 110 / 50 | 88 / 40 |
| Approximate Mast Weight (lb / kg) | 62 / 28 | 78 / 35 | 122 / 55 | 139 / 63 | 183 / 83 | 194 / 88 |
| Number of Sections | 3 | 4 | 4 | 5 | 5 | 6 |

Additional sizes available. Specifications are for reference only and are subject to change. Please contact Will-Burt for current and exact specifications. In addition to its masts, Will-Burt Germany also engineers and manufactures its own line of specialty single and double-axle military trailers, designed for maximum mobility with high payload capability and low curb weight.

### QUALIFICATIONS

| KVL / KVK / KVR MIL-STD TESTS | |
|---|---|
| High Temperature Operation (+44° C) | MIL-STD-810G, Method 501.5, Procedure II |
| Low Temperature Operation (-32° C) | MIL-STD-810G, Method 502.5, Procedure II |
| High Temperature Storage (+63° C) | MIL-STD-810G, Method 501.5, Procedure I |
| Low Temperature Storage (-51° C) | 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 I |
| 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 |

| MIL-STD TESTS *(cont.)* | |
|---|---|
| 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, Procedure II |
| Sand/Dust | MIL-STD-810G Method 510.5, Procedure I & II |
| Icing | MIL-STD-810G, Method 521.3, Procedure I (Ice thickness: 13mm) |
| EMI | MIL-STD 461F: CS101, CS114, CS115, CS116, RS103 |
| Hazardous Chemicals | MIL STD 810 F Method 504.1 |
| Salt Fog | MIL-STD 810F Method 509.4 |

# GEROH KVR HEAVY-DUTY TELESCOPIC CABLE-DRIVE MASTS

**Extended Heights up to 45.0 ft. / Payload Capacity up to 110 lb**

The Heavy-Duty GEROH KVR Telescopic Masts are specifically engineered and manufactured for mobile use with robust payloads. With extended heights up to 14m / 45 ft. and a payload capacity of 50 kg / 110 lbs., the KVR telescopic crank mast is ideal for heavy communication and surveillance systems.

The GEROH KVR mast systems are available with manual crank deployment or motorized operation. The automatic locking system between the mast sections ensures failure-free operation and allows the mast to be guyed for added stability allowing it to perform under extreme environmental conditions at -50°C /- 60°F) and wind speeds up to 130 km/h / 80 mph)

In addition, special guidance systems guarantee exact adjustment – despite heavy payloads. The KVR Heavy-Duty model range is in use for military and commercial applications. The range of applications is various: complex communication systems, surveillance, position location and target acquisition systems. The masts are qualified for vehicle, trailer, shelter, or field deployment.


**GEROH KVR**

## ESSENTIAL FEATURES

- Available as a manual crank mast or with optional motor drive and controller
- Suited for heavy communication systems, monitoring solutions and position location
- Designed for vehicle, trailer, shelter, or field deployment
- MIL-STD 810-G

## SPECIFICATIONS

| KVR | 145 - 8 KVR 5 | 145 - 10 KVR 5 | 145 - 12 KVR 5 | 170 - 8 KVR 5 | 170 - 10 KVR 5 | 170 - 12 KVR 5 | 170 - 14 KVR 5 | 170 - 8 KVR 6 | 170 - 10 KVR 6 | 170 - 12 KVR 6 | 170 - 14 KVR 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 26.2 / 8.0 | 32.8 / 10.0 | 39.3 / 12.0 | 26.2 / 8.0 | 32.8 / 10.0 | 32.8 / 10.0 | 46.0 / 14.0 | 26.2 / 8.0 | 32.8 / 10.0 | 39.3 / 12.0 | 46.0 / 14.0 |
| Nested Height (ft. / m) | 7.2 / 2.2 | 8.5 / 2.6 | 9.9 / 3.0 | 7.2 / 2.2 | 8.5 / 2.6 | 9.9 / 3.0 | 11.2 / 3.4 | 6.6 / 2.0 | 7.6 / 2.3 | 8.9 / 2.7 | 9.9 / 3.0 |
| Payload Capacity (lb / kg) | 50 / 110 | 45 / 99 | 40 / 88 | 50 / 110 | 50 / 110 | 45 / 99 | 40 / 88 | 50 / 110 | 45 / 99 | 40 / 88 | 40 / 88 |
| Approximate Mast Weight (lb / kg) | 67 / 148 | 74 / 163 | 80 / 176 | 82 / 181 | 91 / 201 | 100 / 220 | 109 / 240 | 80 / 176 | 88 / 194 | 96 / 212 | 104 / 229 |
| Number of Sections | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |

Additional sizes available. Specifications are for reference only and are subject to change. Please contact Will-Burt Germany Engineering for current and exact specifications.
In addition to its masts, Will-Burt Germany also engineers and manufactures its own line of specialty single and double-axle military trailers, designed for maximum mobility with high payload capability and low curb weight.

## COMMUNICATIONS / SURVEILLANCE

# POSITIONIT PAN AND TILT POSITIONERS
## for mobile applications

The PositionIt range of pan and tilt positioners are now available with **Continuous Rotation** panning operation. All PositionIt models include improved, next-generation control electronics and software while retaining the rugged reliability of the original PositionIt range. The updated PositionIt series is fully backwards compatible regarding connection points, electronics, and software with the previous generation. Improved motor control is assured with higher resolution speed control, slower minimum speeds, and user adjustable minimum speeds and speed ramps. The GUI for configuring and commissioning allows users to set and adjust many features that were originally factory set only. It also boasts many features such as the ability to receive positional feedback, set home position and limit stops and fault diagnostics.


### POSITIONIT ESSENTIAL FEATURES

- Designed, Manufactured, and Tested to excel in Mobile Applications
  - Hardened metal gears
  - MIL-STD 810 certified by independent laboratory
- Strong, lightweight construction
  - Die-cast aluminum housing
  - Stainless steel fasteners
- Regenerative Braking
  - On motor shaft
- New Graphical User Interface (GUI)
  - Greater level of control with user set features
  - Faster set-up
  - Positional feedback
- More precise than ever
  - Higher level of motor control
  - Greater positional accuracy
- Flexible Connection
  - Bottom or side
- Universal mounting plate
  - Suitable for most common payloads
- Pelco-D over RS-485 Communications
- Weather-proof
  - IP 68 Rated
- Long Operational Life
- Backwards compatible

### POSITIONIT CONTINUOUS ROTATION SPECIFICATIONS

| Model | PI-35 CR | PI-75 CR | PI-150 CR |
|---|---|---|---|
| Payload Capacity* (ft lb / Nm) | 35 / 47.45 | 75 / 101.68 | 150 / 203.37 |
| Overall Height (in. / mm) | 13.4 / 341 | 15.1 / 383.1 | 15.2 / 385.1 |
| Overall Width (in. / mm) | 10.7 / 273 | 11.3 / 287.02 | 14.6 / 370.84 |
| Overall Depth (in. / mm) | 6.1 / 154.9 | 7.19 / 182.67 | 7.19 / 182.67 |
| Weight (lb. / kg) | 25.57 / 11.6 | 41.45 / 18.8 | 46.52 / 21.1 |
| Operating Temperature (°F / °C) | -40 to 140 / -40 to 60 | | |
| Pan Degrees of Rotation | 0° to 360° (Continuous Rotation) | | |
| Tilt Degrees of Rotation | +90° / -90° | | |
| Pan Speed (Proportional) | 12° / second | 6.5° / second | 6.5° / second |
| Tilt Speed (Proportional) | 12° / second | 5.5° / second | 5.5° / second |
| Backlash | ≤ 0.15° | | |
| Repeatability | ≤ 0.3° | | |
| Maximum Continuous Power | 44 W | | |
| Maximum Continuous Current (amps) | 1.85 | | |
| Input Voltage | 24 VDC | | |
| Protocol | Pelco D used (Pelco P available) | | |
| Ingress Protection Rating | IP68 | | |
| Baud Rate | 2,400 bps (Other Baud Rates Available) | | |

| PI CR Wire Identification/ Color | Assignment | Maximum Current |
|---|---|---|
| Red | + ve | 3 A |
| Black | - ve | 3 A |
| Green | Ground | 1 A (24 AWG) |
| White / Brown | Aux Data | 1 A (24 AWG) |
| Brown | Aux Data | 1 A (24 AWG) |
| White / Yellow | Data B | N/A |
| Yellow | Data A | N/A |
| White / Blue | Aux Data | 1 A (24 AWG) |
| Coax (RG179) | Coax (RG179-75Ohm) | N/A |
| Blue | Aux Data | 1 A (24 AWG) |

## POSITIONIT SPECIFICATIONS

| Model | PI-35 | PI-75 | PI-150 |
|---|---|---|---|
| Payload Capacity* (ft lb / Nm) | 35 / 47 | 75 / 101 | 150 / 202 |
| Overall Height (in. / mm) | 9.7 / 246 | 11.32 / 287.7 | 11.32 / 287.7 |
| Overall Width (in. / mm) | 10.8 / 273 | 9.21 / 234 | 12.4 / 314 |
| Overall Depth (in. / mm) | 5.7 / 144 | 6.8 / 171 | 6.8 / 171 |
| Weight (lb. / kg) | 20 / 9 | 35 / 16 | 37 / 17 |
| Operating Temperature (°F / °C) | -40 to 140 / -40 to 60 | | |
| IP Rating | IP68 - Waterproof (immersion) and Dustproof | | |
| Pan Axis | 400° (± 200°) | | |
| Pan Speed (proportional) | 1° to 12° seconds | 0.02° to 6.5° seconds | |
| Tilt Axis | 180° (± 90°) | | |
| Tilt Speed (proportional) | 1° to 12° seconds | 0.02 to 5.5° seconds | |
| Backlash | ≤ 0.15° | | |
| Repeatability | ≤ 0.3° | | |
| Maximum Continuous Power | 44 W | | |
| Maximum Running Current | 1.85 amps | | |
| Input Voltage | 24 VDC - Converters available for 12 VDC and AC power sources | | |

*Capacity measured at 12 inches or less from the tilt axis. | Dimensions and weights are for reference only and are subject to change. Contact Will-Burt for current engineering specifications.

## POSITIONER RACK MOUNT CONTROLLER

### Works with Will-Burt Mobile and Static Positioners

The 19-inch (2U) Rack Mount Positioner Controller from Will-Burt is loaded with new features. You will always know the status of the positioner with real-time positional, speed, and status feedback. Control multiple positioners and third-party equipment with a single controller. This controller is optimized for positioners with stow and deploy buttons located on the front panel.

The latest Positioner Controller from Will-Burt will simplify deployment and operation of communications and video equipment.

### ESSENTIAL FEATURES

- LCD Home Screen displays real-time positioner information
- LCD Selector Menu provides additional control functionality
- Control third-party equipment through (7) digital discrete outputs with USB and RS-485 inputs
- Control multiple positioners in single system through address selection
- Positioner control with front panel directional push buttons and configurable 'Stow' and 'Unstow' presets
- Pelco-D over RS-485 half-duplex output to positioner
- 100-240VAC input voltage with 24VDC output voltage to positioner

### SPECIFICATIONS

| | |
|---|---|
| Input Voltage | 100-240VAC |
| Output Voltage | 24VDC |
| Communication Interface | Pelco-D over RS-485 half-duplex at 2400 bps |
| Operating Temperature (°F / °C | 32 to 122 / 0 to 50 |
| Dimensions (in. / cm) | 19 x 3.5 x 11.7 / 48.26 x 8.81 x 29 |
| Weight (lb. / kg) | 6.6 / 3 |

## POSITIONER HANDHELD CONTROLLER

The Pelco-D compatible handheld controller with LED screen has all of the features necessary to optimize the performance of the PositionIt positioner. The precision 4D joystick controller flawlessly controls the pan and tilt functions. Includes LED screen, keyboard and programmable presets that simplify operation. The positioner handheld controller can also be optionally used in conjunction with the pan and tilt positioner controller.

### SPECIFICATIONS

| | |
|---|---|
| Input Voltage | 12V DC |
| Communication Interface | RS485 |
| Operating Temperature (°F / °C) | 15 - 131 / 0 - 55 |
| Dimensions (L x W x H) (in. / mm) | 6.2 x 5.9 x 4.2 / 458 x 150 x 107 |

## COMMUNICATIONS

# QUICK ERECTING ANTENNA MAST (QEAM)

**Extended Heights up to 112.0 ft. / Payload Capacity up to 180 lb**

Designed for manual or motorized operation, Will-Burt's QEAM (Quick Erecting Antenna Mast) Family of lightweight composite or aluminum masts elevate light payloads for ground-mounted or vehicle, trailer and shelter deployment.


## SCREW DRIVE

Will-Burt's Screw Drive QEAM is a lightweight, high strength telescopic mast that offers a rigid, stable platform for elevating critical payloads.

### ESSENTIAL FEATURES

- Easy manual crank up
  - Reliable deployment without power
- Automatic locking collars
  - Locks at any desired height
  - Patented latch mechanism
- Standard ground mounting kits with guylines and transport bag included
- Optional vehicle and shelter mounting kits available

## STRAP DRIVE

The Strap Driven 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.

Q★E★A★M
QUICK ERECTING ANTENNA MAST

### ESSENTIAL FEATURES

- 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 with 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

### SPECIFICATIONS

| QEAM | TM 10 (Aluminum) | TM 21 | TM 25 | TM 30 | TM 34 |
|---|---|---|---|---|---|
| Extended Height (ft. / mm) | 32.8 / 10.0 | 68.9 / 21.0 | 82.0 / 25.0 | 98.4 / 30.0 | 111.5 / 34.0 |
| Nested Height (ft. / mm) | 7.9 / 2.4 | 14.6 / 4.45 | 14.8 / 4.5 | 19.3 / 5.9 | 19.0 / 5.8 |
| Payload Capacity (lb / kg) | 15 / 7 | 180 / 80 | 150 / 68 | 150 / 68 | 110 / 50 |
| Weight (Mast Only) (lb / kg) | 19 / 42 | 197 / 90 | 220 / 100 | 250 / 114 | 265 / 121 |
| Weight (Accessory Kit) (lb / kg) | 52 / 24 | 245 / 111 | 275 / 125 | 275 / 125 | 275 / 125 |
| Number of Sections | 5 | 6 | 7 | 6 | 7 |
| Guying | 2 level / 3 way | 4 level / 4 way | 5 level / 4 way | 5 level / 4 way | 5 level / 4 way |
| Maximum Sail Area ($ft.^2$ / $m^2$) | 6 / 0.6 CD=1.5 | 6 / 0.6 CD=1.5 | 6 / 0.6 CD=1.5 | 6 / 0.6 CD=1.5 | 6 / 0.6 CD=1.5 |
| Ice load (in. / mm) | 0.5 / 12.7 | 0.5 / 12.7 | 0.5 / 12.7 | 0.5 / 12.7 | 0.5 / 12.7 |
| *Maximum Erection Wind (mph / km/h) | 25 / 40 | 25 / 40 | 25 / 40 | 25 / 40 | 25 / 40 |
| Operational Wind (mph / km/h) | 60 / 97 | 60 / 97 | 60 / 97 | 60 / 97 | 60 / 97 |
| Survival Wind (mph / km/h) | 80 / 128 | 80 / 128 | 80 / 128 | 80 / 128 | 80 / 128 |
| Surface Mounting | ±15° slope | ±15° slope | ±15° slope | ±15° slope | ±15° slope |
| Deployment Time | 2 persons, 7.5 min | 3 persons, 25 min | 3 persons, 30 min | 3 persons, 30 min | 3 persons, 30 min |
| Drive System | Screw Drive | Strap Drive | Strap Drive | Strap Drive | Strap Drive |
| Finish | CARC Green | MIL-A-8625 Type II, CL 2 Black | | | |

Specifications are for reference only and subject to change. Please contact Will-Burt Engineering for current and exact specifications. *Must be guyed for wind speeds over 25 mph / 40km/h

# CLARK QT SERIES PNEUMATIC MASTS

**Extended Heights up to 49.2 ft. / Payload Capacity up to 44 lb**

The QT Range of lightweight telescopic pneumatic masts are designed to be portable and erected quickly where they are required. Available in a wide range of heights from 3m to 15m and in a range of sizes to suit varying headloads. It is a highly versatile system capable of being field mounted using a folding tripod stand or field guy set. Equally at home when mounted to a vehicle or shelter, the QT Range is designed to be versatile. Made from high strength 16 swg aluminium tube to save weight, the QT Range is non keyed and each section is fitted with a locking collar. Payloads are quickly attached using the quick clamp 24mm socket.

## ESSENTIAL FEATURES

- Lightweight and portable
- Field, vehicle or shelter mounted
- Integral handpump
- Locking collars
- ⅝ in. / 24mm quick clamp top socket

## SPECIFICATIONS

| Clark QT Series | CQTX4-6/HP | CQTX6-6/HP | CQTX8-6/HP | CQTX10-6/HP | CQTX12-6/HP | CQTX15-7/HP |
|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 13.1 / 4.0 | 20.0 / 6.10 | 26.1 / 7.95 | 33.3 / 10.15 | 40.0 / 12.20 | 49.2 / 15.0 |
| Nested Height (ft. / m) | 3.5 / 1.05 | 4.9 / 1.50 | 5.9 / 1.80 | 7.2 / 2.20 | 8.7 / 2.65 | 9.2 / 2.80 |
| Payload Capacity (lb. / kg) | 44 / 20 | 44 / 20 | 44 / 20 | 40 / 18 | 33 / 15 | 22 / 10 |
| Approximate Mast Weight (lb. / kg) | 18.8 / 8.5 | 23.9 / 10.8 | 29.2 / 13.2 | 33.1 / 15.0 | 39.7 / 18.0 | 46.3 / 21.0 |
| Number of Sections | 6 | 6 | 6 | 6 | 6 | 6 |
| Tube Diameter (in. / mm) | 3.5 / 88.9 | 3.5 / 88.9 | 3.5 / 88.9 | 3.5 / 88.9 | 3.5 / 88.9 | 3.5 / 88.9 |
| Collar Type | Non-Rotatable | Non-Rotatable | Non-Rotatable | Non-Rotatable | Non-Rotatable | Non-Rotatable |
| Time to Extend (seconds) | 15 | 30 | 40 | 50 | 60 | 70 |
| Time to Retract (seconds) | 10 | 20 | 30 | 40 | 45 | 60 |
| Finish | Natural Anodized | Natural Anodized | Natural Anodized | Natural Anodized | Natural Anodized | Natural Anodized |

# QT SERIES MK VI TRIPOD

All MK VI tripods can either be stored vertically or horizontally and suitable for non-rotatable masts up to 15 meters. Additionally, a tripod mounting bracket is available for all QT models, allowing the mast to be fixed onto a wall, vehicle, or shelter. A ground, vehicle, or shelter tripod is equipped with a locking block which enables the user to attach this tripod to the tripod mounting bracket for compact vertical storage, with or without the mast.

## SPECIFICATIONS

| Clark MK VI Tripod | CM-36585 | CM-36586 | CM-36587 | CM-36588 | CM-36589 | CM-36590 |
|---|---|---|---|---|---|---|
| Extended Height (ft. / m) | 13.1 / 4.0 | 20.0 / 6.1 | 26.0 / 7.9 | 33.3 / 10.1 | 40.0 / 12.2 | 49.2 / 15.0 |
| Weight (lb / kg) | 25.2 / 11.4 | 28.0 / 12.7 | 30.9 / 14.0 | 34.0 / 15.4 | 36.9 / 16.7 | 40.0 / 18.0 |

Mast Wall Mounting Bracket

Top Adaptor

Large Universal Antenna Adaptor

2” Hitch Mount Assembly

QT Mounting Post

Camera Adaptor

## COMMUNICATIONS

# HURRY-UP PORTABLE PUSH UP TELESCOPING MAST

**Extended Heights up to 30.0 ft. / Payload Capacity up to 20 lb**

The Hurry-Up manual push-up mast, can be extended to a full height of 30 ft. / 9 m in one minute or less. The Hurry-Up mast features quick lock/release collars. Extend the mast manually by pushing up the sections and fixing them in position. This mast is ideal for fast deployment of light-weight antennas and instruments.

### ESSENTIAL FEATURES

- Rigid Azimuth Locking Collars
  - Quick direction adjustments
- Black anodized finish
  - Corrosion resistant
- Simple design and operation
  - Manual push-up deployment, retraction, and locking of mast
  - Positional feedback

### ACCESSORIES

(MOUNTING OPTION REQUIRED):

- Drive-on plate mounting
  - No guylines required
- Removable payload extension stub
  - Easy payload mounting
- External support brackets
  - Permanent vehicle mounting
- Hitch Mount
  - 2” Hitch – Removable

### SPECIFICATIONS

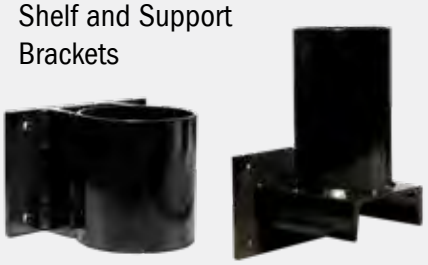
| Hurry-Up Models | 719900790 | 719901610 | 903614 | 710103010 |
|---|---|---|---|---|
| Extended Height (ft. / m) | 6.8 / 2.1 | 17.3 / 5.3 | 24.9 / 7.6 | 29.5 / 9.0 |
| Nested Height (ft. / m) | 3.2 / 1.0 | 5.3 / 1.6 | 5.9 / 1.8 | 6.6 / 2.0 |
| Payload Capacity (lb / kg) | 20 / 9 | 20 / 9 | 20 / 9 | 20 / 9 |
| Approximate Weight (lb / kg) | 15 / 7 | 19 / 9 | 29 / 13 | 36 / 16 |
| Number of Sections | 3 | 4 | 6 | 6 |
| Tube Diameter (in. / mm) | 3.50-2.625 / 89-67 | 3.50-2.25 / 89-57 | 3.50-1.50 / 89-38 | 3.50-1.50 / 89-38 |
| Collar Type | Friction Locking | Friction Locking | Friction Locking | Friction Locking |
| Finish | Black Anodize, MIL-A-8625, Type II, Class 2 | Black Anodize, MIL-A-8625, Type II, Class 2 | Black Anodize, MIL-A-8625, Type II, Class 2 | Black Anodize, MIL-A-8625, Type II, Class 2 |

### DEPLOYMENT OPTIONS

**Hitch Mount**
2” Removable Hitch

**Drive-On Plate**
No Guylines Required

**External Mount**
Shelf and Support Brackets



# ANTENNAMAST MODEL AM2

**Extended Heights up to 49.2 ft. / Payload Capacity up to 99 lb**

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

- 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.
- The mast tube lift winch provides a mechanical assist for the lifting of the mast tubes for heavier payloads.
- The user is also able to elevate the mast tubes and payload by breach loading the tubes through the tripod center collar.

## ESSENTIAL FEATURES

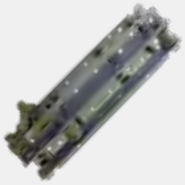
- Rapid set-up
  - Includes a tripod with two (2) built-in levels and large no-slip adjustment knobs that are easy to operate. Interlocking mast tubes allow for directional adjustment of the payload.
- Flexible
  - A variety of payload adaptors and accessories are available to accomplish diverse missions.
- 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.

**AM2 with EZ Raze Payload Elevation System**

Easily elevate and lower multiple antennas and sensors

**AM2 with Mast Tube Lift Winch**

Nato Plate



EZ-Raze

Dual, Tri & Quad Arm Collar

Bolster Plate

Half Clamp

A full range of accessories and payload adaptors are available for the AntennaMast

## COMMUNICATIONS

# EXPEDITION SERIES

**Extended Heights up to 60.0 ft. / Payload Capacity up to 40 lb**

**The lightest, most stable, single-man portable field mast in the world.**

The Will-Burt Expedition Series offers a variety of added features for increased performance and convenience. The system includes a 150mm diameter payload adapter. The Ranger™ Mast has a large tripod base, making the mast very stable. It is erected with 4.0 ft. / 1.2m tube sections to heights from 8.0 ft. / 2.5m to 60 ft. / 18.3m. A custom payload interface can be designed to fit specific needs. The Expedition Series tripod and mast are constructed of carbon composite material.

### ESSENTIAL FEATURES

- 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
- Large, adjustable tripod
- Friction Locks for height adjustment
- Ergonomic Tube Lifter
- Two Highly Visible Bubble Levels

EZ-Raze

Rigid Guy Collar

Swivel 4-point Guy Collar

Cup Holder

Multi-Use Adapter Plate

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

**SURVEILLANCE / COMMUNICATIONS / COUNTER UAS**

# WILL-BURT INTEGRATION & ELEVATION SYSTEMS

The Will-Burt Company, with the acquisition of Aluma Tower and Integrated Tower Systems (ITS) now offers integrated Telescoping Steel and Aluminum Tower Systems AND Telescoping Mast Systems – an elevation solution for every need! Will-Burt is a global leader in the design, manufacture, sales and rental of an extensive and affordable line of rapid-deployment Mobile Tower & Mast Systems; Tower & Mast Integrated Trailers, Trucks, Cell-on-Wheels (COWs), and Mast-, Satellite- and Tower-Integrated Mobile Command and Communication Centers. This state-of-the-art equipment is designed specifically to support a global contingent of clientele representing the following industries:

- Telecommunications, Infrastructure Development / Restoration; Tower Owners/Operators Multi-media, Broadcasting
- First Responder, Public Safety and Emergency Management; Law Enforcement, Incident Command, Search & Rescue
- National Security / Homeland Defense, Domestic & Foreign Military Initiatives; Tactical, Support Functions, and Counter UAS
- Border Security, Immigration and Customs Enforcement; Disaster Preparedness/Emergency Response
- Geophysical, Oil & Gas and Alternative Energy; Meteorological, Frequency and Weapon Systems Testing
- Transportation, Aviation, Aerospace and Construction; Entertainment, Logistics, Engineering, Municipal & Corporate Programs
- Global Support of Special Events; Political, Commercial, Industrial, Sporting, Civic and Numerous other Industries

Will-Burt's innovative rapid response systems are manufactured to both civilian and defense specifications and built to withstand many of the world's most demanding environments. Will-Burt controls every aspect of manufacture and assembly through an ISO 9001:2015 certified quality management system in all manufacturing locations. Will-Burt's engineering expertise and vertical integration capabilities allow for efficient COTS products and unique custom designs for the seamless installation of common or client-specific technologies, or pre-integrated with a Will-Burt or client-furnished Communications, Surveillance, or Counter UAS Solution. Will-Burt's rapidly deployed systems are proven key components in establishing the flow of vital information from remote and urban areas of need.

**Flexi-Fleet rental tower and mast systems are ready for deployment in case of emergencies.**

Steel Telescoping Tower
Integrated Trailer System

Telescoping Pneumatic Mast
Integrated Trailer System

Aluminum Telescoping Tower
Integrated Trailer System

## COMMON APPLICATIONS

- Border Security
- Counter UAS
- Disaster Recovery / Emergency Response
- Lighting
- Surveillance
- Remote Communications Site Security
- Sensor Applications
- Systems Testing
- Energy Exploration / Production Sites
- Telecommunications
- Temporary Cell Site
- Lightning Protection
- Broadcast

## SURVEILLANCE / COMMUNICATIONS / COUNTER UAS

# INTEGRATED TELESCOPING STEEL TOWER SYSTEMS

**Unguyed & Guyed Extended Heights up to 130 ft. / Standard Payloads up to 550 lb | Upgraded Payloads up to 625 lb**

| Unguyed & Guyed Heights (ft. / m) | | | | | | |
|---|---|---|---|---|---|---|
| 38 / 11.6 | 55 / 16.8 | 72 / 21.9 | 89 / 27.1 | 106 / 32.3 | 120 / 36.6 | 130 / 39.6 |
| **Tower Payload Capacity (lb / kg)** | | | | | | |
| Standard Payloads: Up to: 550 / 250 | | | | Upgraded Payloads: Up to: 625 / 284 | | |
| **Representative Sample – Contact Will-Burt for Additional Options** | | | | | | |

### SRS-C SERIES – PORTABLE TOWER TRAILER



### SR SERIES – MOBILE TOWER TRAILER

(Multiterrain Configuration)


### IT SERIES – MOBILE TOWER TRAILER

(Urban Configuration)

### NC/SR SERIES – CELL-ON-WHEELS (COW) TOWER TRAILER

### TMT SERIES – TRUCK MOUNTED TOWER SYSTEM


### SKD SERIES – SKID MOUNTED


**Flexi-Fleet rental tower and mast systems are ready for deployment in case of emergencies.**

SURVEILLANCE / COMMUNICATIONS / COUNTER UAS

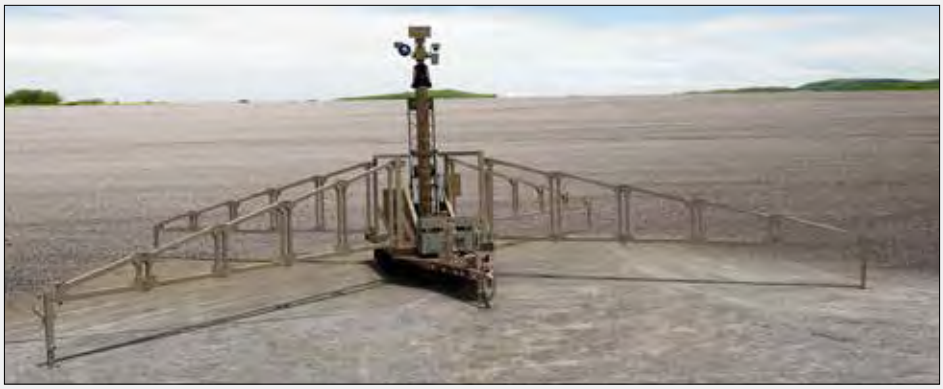
# INTEGRATED TELESCOPING MAST SYSTEMS

**Unguyed & Guyed Extended Heights up to 120 ft. / Tower Payload Capacity up to 1,200 lb**

| Unguyed & Guyed Heights (ft. / m) | Tower Payload Capacity (lb / kg) |
|---|---|
| Ranges: 30 / 9 to 120 / 36 | Up to: 1,200 / 544 |

**Representative Sample – Contact Will-Burt for Additional Options**

## RAPID DEPLOYMENT ELEVATION SYSTEM (RD-ES)



For additional details, download our Mobile Elevation Systems brochure or visit willburt.com

## COW SERIES – TRAILER MOUNTED MAST

(Vertical Mast Installation)

## ULTRA MAST - INTEGRATED SURVEILLANCE SYSTEM

## RD-S SERIES & RD-T SERIES – TRAILER MOUNTED MAST (Multiterrain Configuration)

RD-S Series - Single Axle

RD-T Series - Tandem Axle

## LC SERIES & MT SERIES – TRAILER MOUNTED MAST (Urban Configuration)

LC Series - Single Axle

MT Series - Tandem Axle

**Flexi-Fleet rental tower and mast systems are ready for deployment in case of emergencies.**

## SURVEILLANCE / COMMUNICATIONS / COUNTER UAS

# INTEGRATED TELESCOPING ALUMINUM TOWER SYSTEMS

**Unguyed Extended Heights up to 106 ft. | Guyed Extended Heights up to 92 ft.**
**Unguyed Tower Payloads up to 600 lb | Guyed Tower Payloads up to 275 lb**

| Unguyed Heights (ft. / m) | Guyed Heights (ft. / m) |
|---|---|
| Ranges: 39 / 11.8 to 106 / 32 | Ranges: 39 / 11.8 to 92 / 28 |
| **Unguyed Tower Payload Capacity (lb / kg)** | **Guyed Tower Payload Capacity (lb / kg)** |
| Ranges: 350 / 158 to 600 / 272 | Ranges: 50 / 22 to 275 / 124 |
| **Representative Sample – Contact Will-Burt for Additional Options** | |

**Patented Radial Pressure Slide Bar System**
Increases tower stability by reducing tower section movement when deployed.

### TM53-70 SUPER SCORPION

### TM55-90

**Self-Monitoring Systems available with SMARTTOWER® technology**
Automatically retracts tower or sends SMS message in severe weather allowing you to make the final decision.

### S812 WITH SHELTER

### TM12

### CUSTOM SOLUTIONS

### SKID SYSTEM

**Flexi-Fleet rental tower and mast systems are ready for deployment in case of emergencies.**

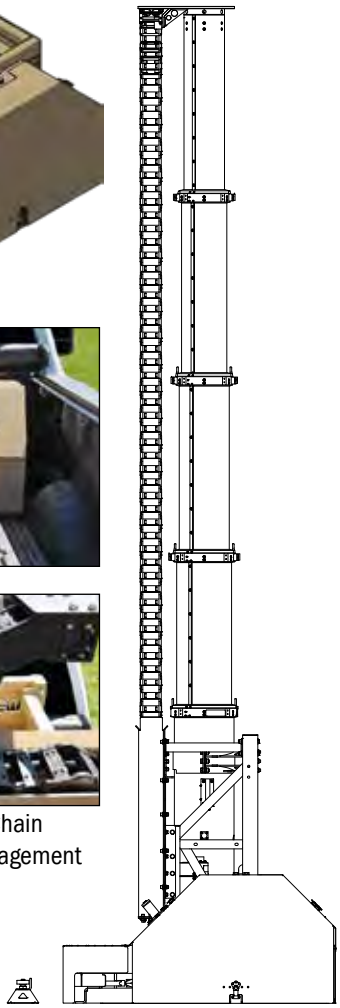
# MAST AND TILT SYSTEMS

## for Trailers, Trucks, and Shelters

**Heights up to 28 ft. / Payload Capacity up to 600 lb**

## COMPACT ELEVATION SYSTEM (CES)

Zig Zag e-Chain
Cable Management



### ESSENTIAL FEATURES

- Compact
  - Elevation system and payload fits within 8 ft. / 2.4m full-size pickup bed envelope with 4m and 6m masts
    - Up to 24.7 $ft^3$ / 0.7$m^3$ available space for the sensor payload
  - Designed for transport while in horizontal or vertical positions (with mast stowed)
  - 30 second tilt time
- Minimized mast twist
  - Full-length mast section keys and keyways
- Strong and Robust
  - No need for guying with field-proven rugged telescoping mast design
- Flexible Installation
  - Skid design allows for installation on a variety of platforms (truck, trailer, shelter)
  - Available with a variety of Will-Burt mechanical telescoping masts
  - Optional Zig Zag e-Chain cable management system is compact and consumes no payload space
- Integrated Controls
  - Fully integrated control system
  - PC control capable
  - CAN-bus J1939 / RS485 Serial

### SPECIFICATIONS

| CES Models | 4.0m Stiletto AL | 6.0m Stiletto AL | 8.54m Stiletto AL | 4.0m Stiletto AL HD | 6.0m Stiletto AL HD |
|---|---|---|---|---|---|
| Stowed Dimensions (Lx W x H) (in. / mm) | 54.0 x 53.1 x 21.8 / 1372 x 1349 x 555 | 65.8 x 53.1 x 21.8 / 1672 x 1349 x 555 | 77.7 x 53.1 x 21.8 / 1973 x 1349 x 555 | 54.0 x 53.1 x 21.8 / 1372 x 1349 x 555 | 65.8 x 53.1 x 21.8 / 1672 x 1349 x 555 |
| Extended Height (ft. / m) | 13.7 / 4.1 | 20.2 / 6.1 | 28.6 / 8.7 | 13.7 / 4.1 | 20.2 / 6.1 |
| Payload Capacity (lb / kg) | 400 / 181 | 400 / 181 | 390 / 176 | 600 / 272 | 550 / 249 |
| Telescopic Mast Type | Aluminum Mechanical Screw-Drive with Patented Automatic Locks | | | Aluminum Mechanical Screw-Drive with Patented Automatic Locks | |
| Survival Wind Speed (mph / km/h) | 81 / 130 | 81 / 130 | 72 / 116 | 81 / 130 | 81 / 130 |
| Deployment Wind Speed (mph / km/h) | 40 / 65 | 40 / 65 | 36 / 58 | 40 / 65 | 40 / 65 |
| Tilt Up / Mast Deploy / Mast Retract / Tilt Down / Total Cycle Time / Approximate - Payload Dependent | 50 / 35 / 35 / 45 / 165 seconds | 50 / 60 / 60 / 45 / 215 seconds | 50 / 100 / 100 / 45 / 295 seconds | 50 / 45 / 45 / 45 / 185 seconds | 50 / 65 / 65 / 45 / 225 seconds |
| Rotation Accuracy (Twist) | +/-1° | +/-1° | +/-1° | +/-0.7° | +/-0.7° |
| Voltage (MIL-STD 1275) | 28 VDC | 28 VDC | 28 VDC | 28 VDC | 28 VDC |
| *Typical Payload Sail Area ($ft^2$ / $m^2$) | 17 / 1.58 CD=1.5 | 12 / 1.11 CD=1.5 | 11 / 1.02 CD=1.5 | 17 / 1.58 CD=1.5 | 12 / 1.11 CD=1.5 |
| CES + Mast Weight (lb / kg) | 1,040 / 472 | 1,089 / 494 | 1,139 / 517 | 1,110 / 504 | 1,175 / 533 |
| Integrated System Control | CAN-bus J1939, RS485 Serial, PC Control Capable | | | CAN-bus J1939, RS485 Serial, PC Control Capable | |
| MIL-STD 810 Design | Yes | Yes | Yes | Yes | Yes |
| Optional Cable Management Available | Yes | Yes | Yes | Yes | Yes |

*Consult factory for larger sail area as payload and wind capacities may be reduced. Specifications subject to change.

**SURVEILLANCE / COMMUNICATIONS / COUNTER UAS**

## MAST AND TILT SYSTEMS

for Trailers, Trucks, and Shelters

**Heights up to 49.2 ft. / Payload Capacity up to 600 lb**

# Automatic Mast Tilt System (AMTS)

### ESSENTIAL FEATURES

- Strong and Robust
  - Designed for transport while in horizontal or vertical positions (with mast stowed)
  - No need for guying with field-proven rugged telescoping mast design
  - 45 second tilt time
- Minimized mast twist
  - Full-length mast section keys and keyways
- Strong and Robust
  - No need for guying with field-proven rugged telescoping mast design
- Flexible Installation
  - Skid design allows for installation on a variety of platforms (truck, trailer, shelter)
  - Available with a variety of Will-Burt mechanical telescoping masts
  - Optional Zig Zag e-Chain or Nycoil cable management systems
- Integrated Controls
  - Fully integrated control system
  - PC control capable
  - CAN-bus J1939 / RS485 Serial

**Integrated Control System**

**Nycoil Cable Management**

SURVEILLANCE / COMMUNICATIONS / COUNTER UAS

**MAST AND TILT SYSTEMS**
for Trailers, Trucks, and Shelters

# Automatic Mast Tilt System (AMTS)

## SPECIFICATIONS

| AMTS with Stiletto AL | 4.0m Stiletto AL | 6.0m Stiletto AL | 8.5m Stiletto AL | 10.0m Stiletto AL | 15.0m Stiletto AL |
|---|---|---|---|---|---|
| Stowed Dimensions (Lx W x H) (in. / mm) | 69.25 x 36.25 x 36.76 / 1758.9 x 920.7 x 933.8 | 69.25 x 36.25 x 36.76 / 1758.9 x 920.7 x 933.8 | 80.02 x 36.25 x 36.76 / 2032.5 x 920.7 x 933.8 | 88.68 x 36.25 x 36.76 / 2252.5 x 920.7 x 933.8 | 109.37 x 36.25 x 36.76 / 2777.4 x 920.7 x 933.8 |
| Extended Height (ft. / m) | 13.7 / 4.1 | 20.2 / 6.1 | 28.5 / 8.7 | 33.3 / 10.1 | 49.7 / 15.1 |
| Payload Capacity (lb / kg) | 400 / 181 | 400 / 181 | 400 / 181 | 400 / 181 | 350 / 158 |
| Telescopic Mast Type | Electro-Mechanical | | | | |
| Survival Wind Speed (mph / km/h) | 130 / 209 | 115 / 185 | 80 / 129 | 80 / 129 | 62 / 100 |
| Deployment Wind Speed (mph / km/h) | 40 / 64 | 40 / 64 | 35 / 56 | 35 / 56 | 30 / 48 |
| Tilt Up / Mast Deploy / Mast Retract / Tilt Down / Total Cycle Time / Approximate - Payload Dependent | 45 / 35 / 35 / 45 / 160 Seconds | 45 / 60 / 60 / 45 / 210 Seconds | 45 / 100 / 100 / 45 / 290 Seconds | 45 / 100 / 100 / 45 / 290 Seconds | 45 / 150 / 150 / 45 / 390 |
| Rotation Accuracy (Twist) | +/–1° | +/–1° | +/–1° | +/–1° | +/–1° |
| Voltage (MIL-STD 1275) | 28 VDC | 28 VDC | 28 VDC | 28 VDC | 28 VDC |
| *Typical Payload Sail Area ($ft.^2$ / $m^2$) | 17 / 1.58 CD=1.5 | 12 / 1.11 CD=1.5 | 11 / 1.02 CD=1.5 | 11 / 1.02 CD=1.5 | 8 / .74 CD=1.5 |
| AMTS + Mast Weight (lb / kg) | 1075 / 489 | 1124 / 511 | 1174 / 534 | 1205 / 548 | 1315 / 598 |
| Integrated System Control | CAN-bus J1939, RS485 Serial, PC Control Capable | | | | |
| MIL-STD 810 Design | Yes | Yes | Yes | Yes | Yes |
| Optional Cable Management Available | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil |

| AMTS with Stiletto AL HD | 4.0m Stiletto AL HD | 6.0m Stiletto AL HD | 8.5m Stiletto AL HD | 10.0m Stiletto AL HD | 12.0m Stiletto AL HD |
|---|---|---|---|---|---|
| Stowed Dimensions (Lx W x H) (in. / mm) | 69.25 x 36.25 x 36.76 / 1758.9 x 920.7 x 933.8 | 69.25 x 36.25 x 36.76 / 1758.9 x 920.7 x 933.8 | 80.02 x 36.25 x 36.76 / 2032.5 x 920.7 x 933.8 | 88.68 x 36.25 x 36.76 / 2252.5 x 920.7 x 933.8 | 108.16 x 36.25 x 36.76 / 2747.3 x 920.7 x 933.8 |
| Extended Height (ft. / m) | 13.7 / 4.1 | 20.2 / 6.1 | 28.5 / 8.7 | 33.3 / 10.1 | 12.1 / 39.9 |
| Payload Capacity (lb / kg) | 600 / 272 | 600 / 272 | 600 / 272 | 600 / 272 | 600 / 272 |
| Telescopic Mast Type | Electro-Mechanical | | | | |
| Survival Wind Speed (mph / km/h) | 130 / 209 | 115 / 185 | 95 / 153 | 80 / 129 | 62 / 100 |
| Deployment Wind Speed (mph / km/h) | 40 / 64 | 40 / 64 | 40 / 64 | 40 / 64 | 40 / 64 |
| Tilt Up / Mast Deploy / Mast Retract / Tilt Down / Total Cycle Time / Approximate - Payload Dependent | 45 / 45 / 45 / 45 / 180 Seconds | 45 / 65 / 65 / 45 / 220 Seconds | 45 / 90 / 90 / 45 / 270 Seconds | 45 / 105 / 105 / 45 / 300 Seconds | 45 / 130 / 130 / 45 / 350 Seconds |
| Rotation Accuracy (Twist) | +/–7° | +/–7° | +/–7° | +/–7° | +/–7° |
| Voltage (MIL-STD 1275) | 28 VDC | 28 VDC | 28 VDC | 28 VDC | 28 VDC |
| *Typical Payload Sail Area ($ft.^2$ / $m^2$) | 17 / 1.58 CD=1.5 | 12 / 1.11 CD=1.5 | 11 / 1.02 CD=1.5 | 11 / 1.02 CD=1.5 | 8 / .74 CD=1.5 |
| AMTS + Mast Weight (lb / kg) | 1145 / 520 | 1210 / 550 | 1274 / 579 | 1300 / 591 | 1382 / 628 |
| Integrated System Control | CAN-bus J1939, RS485 Serial, PC Control Capable | | | | |
| MIL-STD 810 Design | Yes | Yes | Yes | Yes | Yes |
| Optional Cable Management Available | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil | Zig Zag e-Chain or Nycoil |

*Consult factory for larger sail area as payload and wind capacities may be reduced. Specifications subject to change.

## SURVEILLANCE

# INTEGRATED TRAILER, MAST AND TILT SYSTEMS

Will-Burt's Integration and Elevation Systems division has been constructing integrated mobile elevation platforms for over 50 years. Will-Burt's engineering and manufacturing capabilities, guided by ISO 9001:2015 standards, produce the best and most consistent performing products in the industry.

### ESSENTIAL FEATURES

- Maximizes sensor performance with powerful and precise mechanical telescopic masts
- Heights up to 49 ft. / 15m
- Payloads up to 600 lb / 272 kg
- Fast and easy deployment with integrated controls
- Optional Cable Management, Power Management, Cabinets, and other accessories available
- No need for guy systems – all options are self-supporting
- Will-Burt offers full integration of customer payloads and sensors or delivery of the elevation platform for customer payload installation

## RD-S: SINGLE AXLE

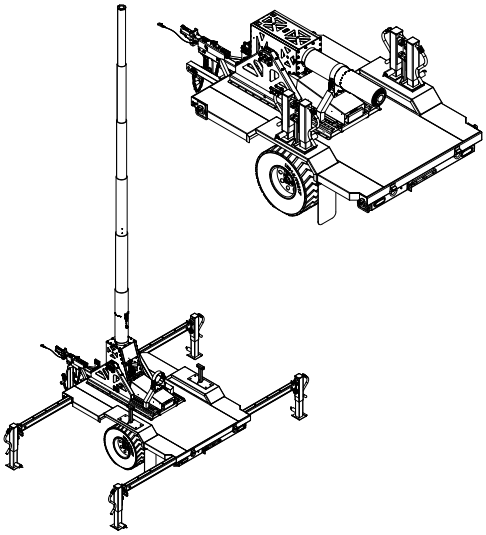
(AMTS / CES / Upright)

**Deck Dimensions L x W x H (in. / mm)**

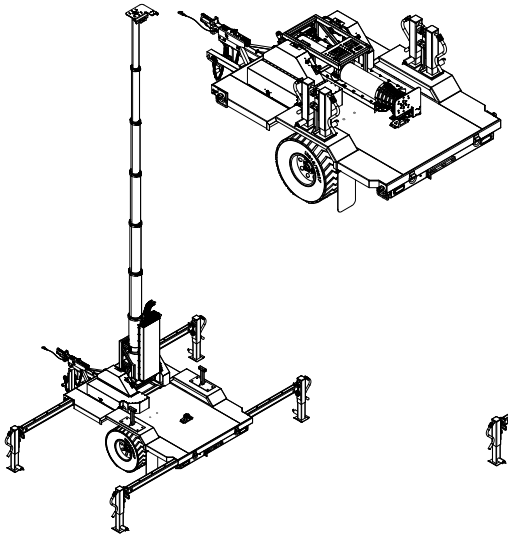
**Trailer: 166 x 85 x 34 / 4216 x 2159 x 864 | Outriggers Extended: 166 x 203 x 34 / 4216 x 5157 x 864**

**Trailer Weight ( lb / kg)**

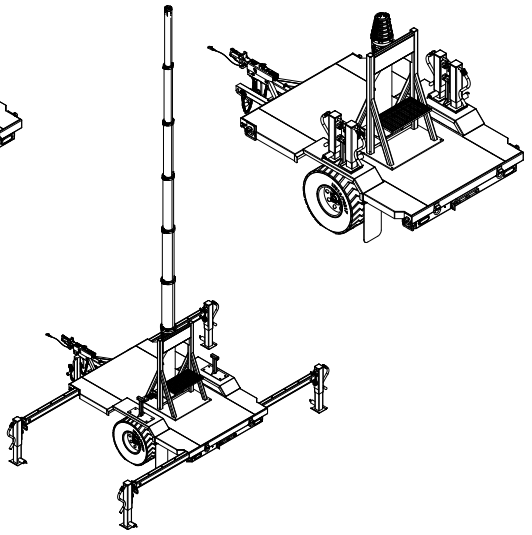
**Trailer: 2,675 / 1214 | Trailer GVWR: 6,000 / 2722**



**RD-S Trailer (AMTS)**
8.54m Stiletto AL HD



**RD-S Trailer (CES)**
8.54m Stiletto AL



**RD-S Trailer (Upright)**
8.54m Stiletto AL

# INTEGRATED TRAILER, MAST AND TILT SYSTEMS

## RD-T: TANDEM AXLE

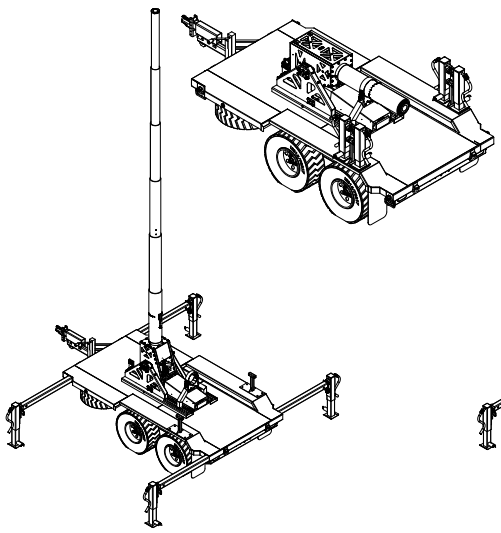
(AMTS / CES / Upright)

**Dimensions L x W x H (in. / mm)**

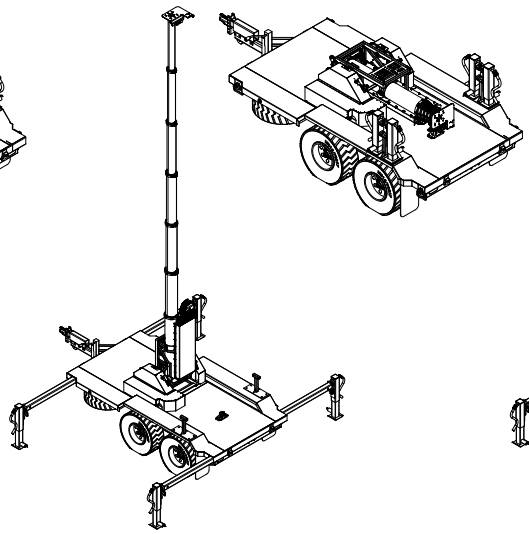
**Trailer Deck: 203 x 85 x 33 / 5157 x 2159 x 839 | Outriggers Extended: 203 x 201 x 33 / 5157 x 2159 x 839**

**Weight ( lb / kg) -**

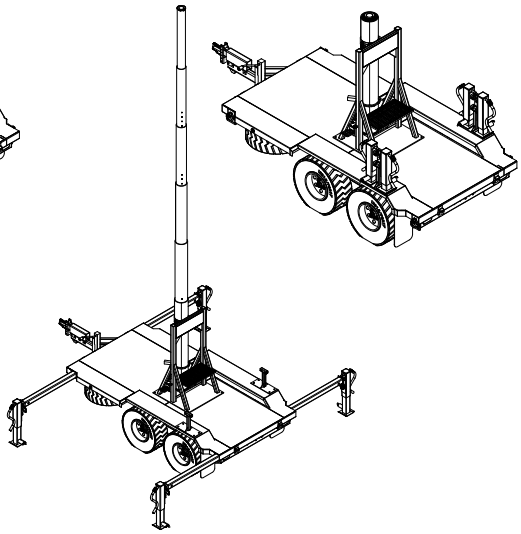
**Trailer: 3,505 / 1590 | Trailer GVWR: 12,000 / 5443**



**RD-T Trailer (AMTS)**
8.54m Stiletto AL HD



**RD-T Trailer (CES)**
8.54m Stiletto AL



**RD-T (Upright)**
8.54m Stiletto AL HD

## RD-T XL: TANDEM AXLE with EXTENDED DECK

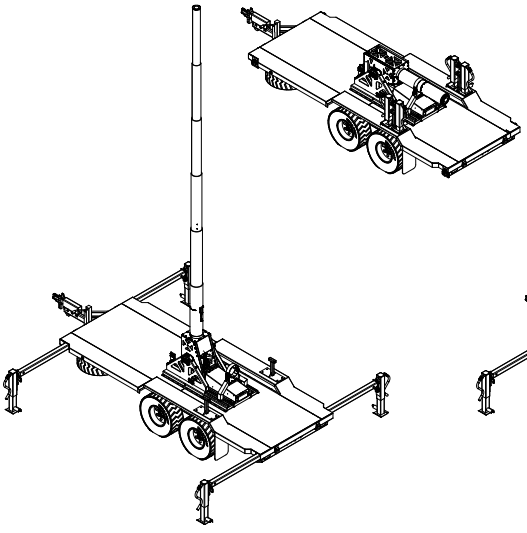
(Upright / CES / AMTS)

**Dimensions L x W x H (in. / mm)**

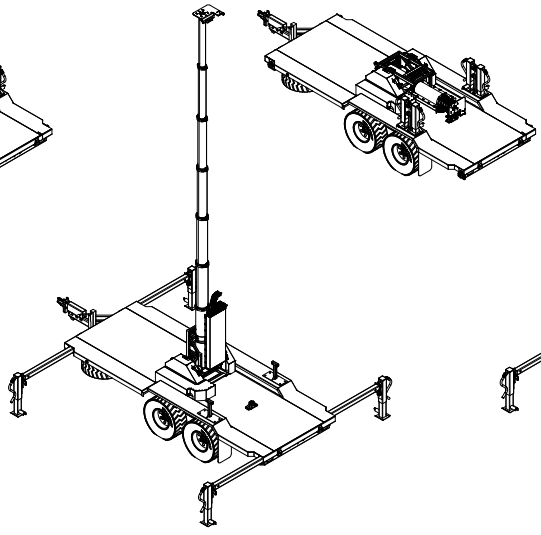
**Trailer Deck: 262 x 85 x 33 / 6655 x 5106 x 839 | Outriggers Extended: 262 x 201 x 33 / 6655 x 5106 x 839**

**Weight ( lb / kg)**

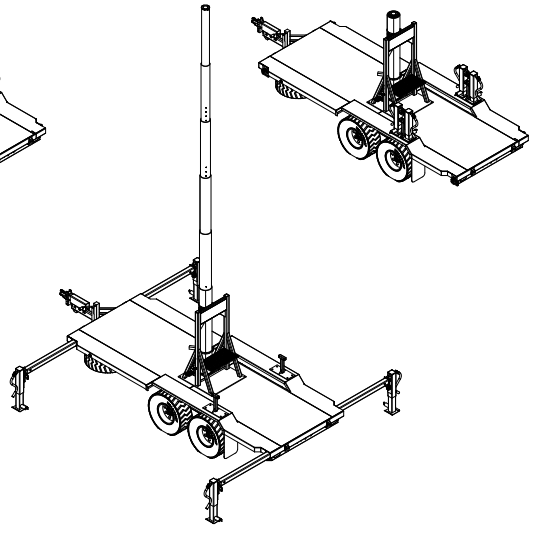
**Trailer: 3,613 / 1639 | Trailer GVWR: 12,000 / 5443**



**RD-T XL Trailer (AMTS)**
8.54m Stiletto AL HD



**RD-T XL Trailer (CES)**
8.54m Stiletto AL



**RD-T XL (Upright)**
8.54m Stiletto AL HD

# CONTACT YOUR SALES REPRESENTATIVE TODAY

**Contact Us**
Complete a Contact Form


**WILL-BURT NORTH AMERICA**
**WORLD HEADQUARTERS**
401 Collins Boulevard, Orrville, OH USA 44667
Telephone: +1 330 682 7015
Mast Customer Service: +1 330 684 4000
Fax: +1 330 684 1190
Email: info@willburt.com

**INTEGRATED TOWER SYSTEMS**
**A WILL-BURT COMPANY**
2703 Dawson Road
Tulsa, OK 74110
Telephone: +1 800 850 8535
Fax: +1 918 749 8537
Email: programs@itstowers.com

**ALUMA TOWER**
**A WILL-BURT COMPANY**
1639 Old Dixie Highway
Vero Beach, Florida 32960
Telephone: +1 772 567 3423
Fax: +1 772 567 3432
Email: info@alumatower.com

**WILL-BURT**
**GERMANY**
Fischergasse 25
D-91344 Waischenfeld, Germany
Telephone: +49 9202 180
Fax: +49 9202 1811
Email: info@willburt.com

**WILL-BURT**
**UNITED KINGDOM**
Unit 5b, Station Approach
Four Marks, Alton Hampshire, GU34 5HN, United Kingdom
Telephone: +44 (0) 1403 265532
Fax: +44 (0) 1403 259072 / Email: info@willburt.com

**WILL-BURT ASIA**
**SINGAPORE SALES OFFICE**
1 Fullerton Road, #02-01 One Fullerton,
Singapore 049213
Telephone: +65 6832 5689
Fax: +65 6722 0664 / Email: info@willburt.com

**CLARK MASTS**
**A WILL-BURT COMPANY**
18-20 Ringwood Road, Binstead, Isle of Wight, PO33 3PA, England
Telephone: +44 (0) 1983 563691/567090
Fax: +44 (0) 1983 566643/811157
E-mail: sales@clarkmasts.com


The Will-Burt Company, headquartered in Orrville, Ohio, USA, is the world's premier manufacturer of mobile telescoping masts, towers and pan and tilt positioners. We offer virtually every mobile payload elevation and integration solution for defense, government, first responders, cellular and mobile, broadcast, energy production and other markets. Will-Burt also offers contract manufacturing, metal fabrication, powder-coating, and rapid prototyping services. Will-Burt is an international company with offices and manufacturing in the USA, England, and Germany along with offices in Singapore. All Will-Burt Company manufacturing locations are backed by a certified ISO 9001:2015 Quality Management System. Incorporated in 1918, Will-Burt is 100% employee-owned and is classified as a small business.

***Disclaimer:*** *Dimensions and weights are for reference only and are subject to change. Please contact Will-Burt for current engineering specifications.*


**ISO 9001:2015**
***INNOVATION ELEVATED®***