WILL-BURT

MILITARY ELEVATION SOLUTIONS AND TACTICAL TRAILERS

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MIL - STD 810 CERTIFIED
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WILL-BURT

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.

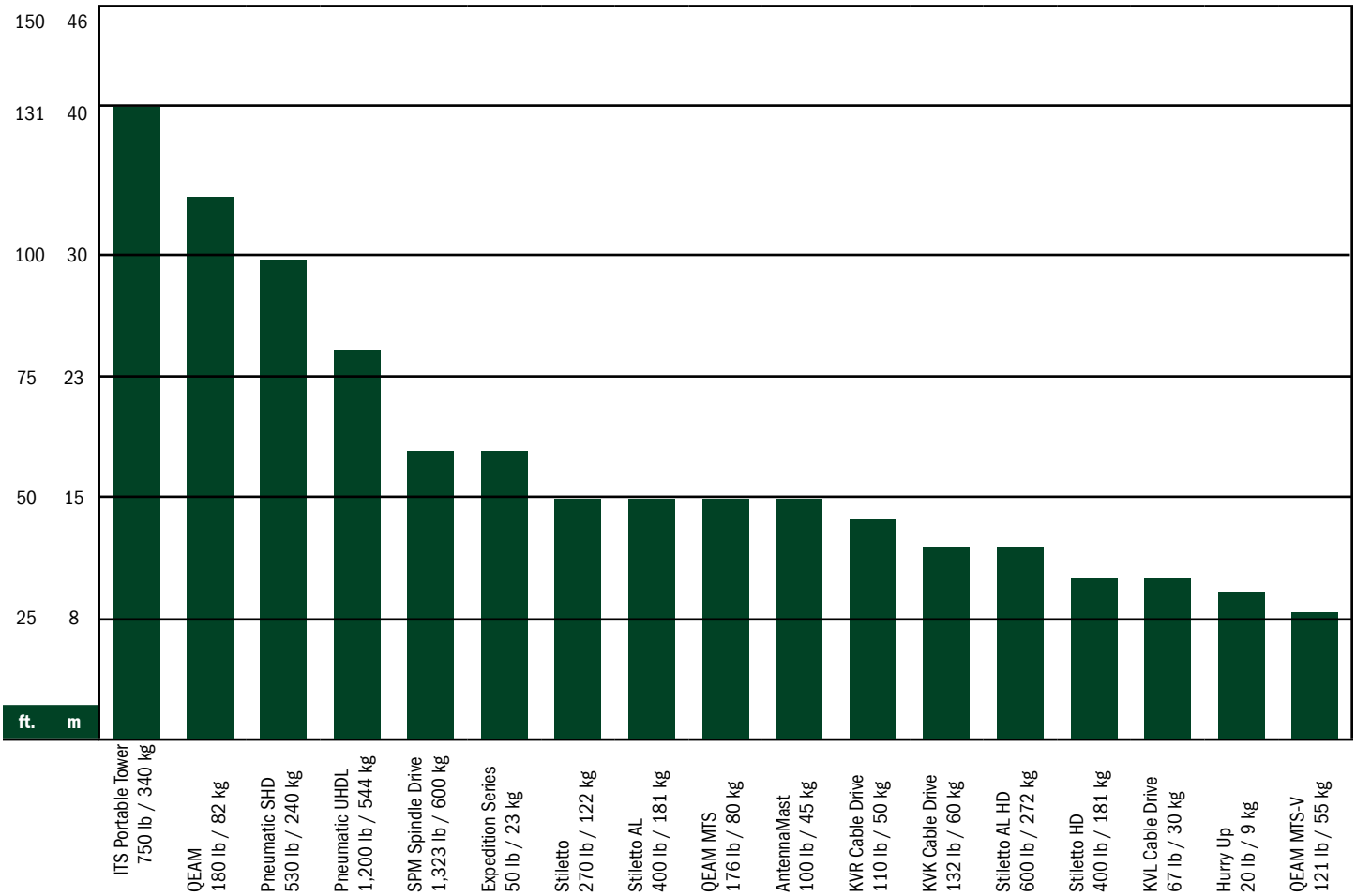
The ability of Will-Burt to deliver superior elevation solutions is attributed to its worldwide leadership in the industry for over 50 years. Teams of experienced research and development engineers, design engineers and ISO 9001:2015 quality systems certified manufacturing experts are backed by a sales 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**
- **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®

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™ HD

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

SURVEILLANCE / SECURITY / COUNTER UAS

SPECIFICATIONS

Stiletto®	3 meter	4 meter	6 meter	10 meter	15 meter
Extended Height (+4 in. / –0 in.) (ft. / m)	9.8 / 3.0	13.5 / 4.1	19 / 5.79	32.5 / 9.9	49.2 / 15
Nested Height (+1 in. / -0 in.) (ft. / m)	41 / 1.0	39 / 1.0	46 / 1.17	67 / 1.7	94.5 / 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 to 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	6 / .56 CD=1.5	4 / .37 CD=1.5

Stiletto® HD	4 meter	6 meter	8.6 meter	10 meter
Extended Height (+4 in. / –0 in.) (in. / m)	12.5 / 3.8	19.7 / 6	28.2 / 8.6	32.9 / 10
Nested Height (+1 in. / -0 in.) (in. / m)	43.3 / 1.1	58.2 / 1.5	76.8 / 1.95	79 / 2
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	34 / 55
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 / COMMUNICATIONS

STILETTO® AL

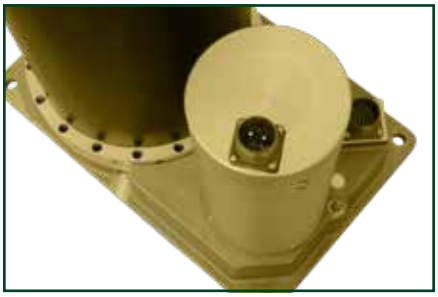
High accuracy electro-mechanical telescoping mast

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 mast
  - Integrated dirt / dust wipers and ice-breakers built into collars
- **High strength alloy construction**
- **Integrated PC control**
- **MIL-STD 810G certified**

Patented Quiet Locks and High Strength Alloy Construction Designed for Heavy Payloads



Quiet Sealed Direct-Drive System

Integrated Dust Wipers and Ice-Breakers

SPECIFICATIONS

Stiletto AL	4 meter	6 meter	8.5 meter	10 meter	15 meter
Extended Height (+4 in. / –0 in.) (ft. / m)	13.1 / 4	19.6 / 6	28 / 8.54	32.8 / 10	49.2 / 15
Nested Height (+1 in. / –0 in.) (ft. / m)	50.4 / 1.28	62.2 / 1.58	74.02 / 1.88	82.68 / 2.10	104.4 / 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.

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**
  - Less than 1°
- **Low-nested height**
  - Internal collars with built-in dust and ice scrapers
- **Precise positioning at any height**
  - Digitally controlled brushless DC motor
- **Minimal maintenanceRetraction**
  - 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 810G 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 meter	6 meter	8.54 meter	10 meter	12 meter
Extended Height (ft. / m) (-0 + .79 / -0 + 20 (in. / mm)	13.1 / 4	19.6 / 6	28 / 8.54	32.8 / 10	39.3 / 12
Nested Height (ft. / m) -0 in. + .79 / -0 + 20 (in. / mm)	4.2 / 1.28	5.18 / 1.58	6.54 / 2	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)	-	-	-	490 / 222	-
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 / .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

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.

ESSENTIAL FEATURES

- **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

SPECIFICATIONS

Heavy-Duty	7.5 meter	10 meter	12.5 meter	15 meter	17 meter
Extended Height (ft. / m)	25 / 7.6	32.8 / 10	41.2 / 12.5	48.6 / 14.8	56.17 / 17.1
Nested Height (ft. / m)	6 / 1.8	6.7 / 2	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 / 90	235 / 107	275 / 125	296 / 135
Tube Diameter (in. / mm)	6.75-3 / 171-76	9-3.75 / 229-95	9-3 / 229-76	9-3.75 / 229-95	9-3.75 / 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 meter	12 meter	72' Patriot
Extended Height (ft. / m)	32.8 / 10	39.4 / 12	72 / 22
Nested Height (ft. / m)	8 / 2.5	9.3 / 2.8	18 / 5.5
Payload Capacity (lb / kg)	980 / 445	680 / 308	700 / 318
Approximate Mast Weight (lb / kg)	375 / 170	430 / 195	1,500 / 680
Tube Diameter (in. / mm)	11.25-6.75 / 285-171	11.25-6 / 285-152	11.03-6.5 / 280-165
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

LONG-TERM DEPLOYMENT

PNEUMATIC HD AND SHD 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.

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 meter	12.5 meter	15 meter	18 meter
Extended Height (ft. / m)	32.8 / 10	41 / 12.5	49.2 / 15	59 / 18
Nested Height (ft. / m)	7.5 / 2.3	7.5 / 2.3	8 / 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 / 171-76	9-3" / 229-76	9-3" / 229-76	9-3.75" / 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 meter	18 meter	23 meter	30 meter
Extended Height (ft. / m)	49.2 / 15	59.1 / 18	76 / 23.2	98.4 / 30
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	550 / 227	550 / 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)

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.

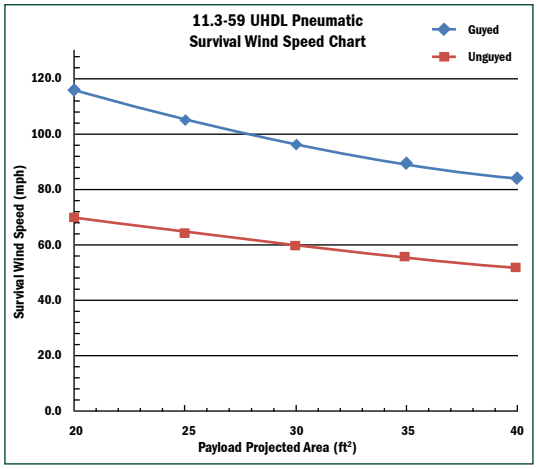
LONG-TERM DEPLOYMENT

PNEUMATIC ULTRA HEAVY-DUTY LOCKING MASTS

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**
  - No maintenance required
  - No hydraulic fluid concerns



SPECIFICATIONS

Ultra Heavy-Duty	12m	18m	20m	21.3m	24.3m
Extended Height (ft. / m)	39.3 / 12	59 / 18	65.6 / 20	70 / 21.3	80 / 24.3
Nested Height (ft. / m)	7.9 / 2.4	11.3 / 3.4	9.8 / 3	13 / 4	14.4 / 4.4
Payload Capacity* (lb / kg)	980 / 444	1200 / 544	530 / 240	1200 / 544	1200 / 544
Approximate Mast Weight (lb / kg)	607 / 275	814 / 369	852 / 387	920 / 417	1078 / 489
Number of Sections	8	7	10	7	7
Tube Diameter (in. / cm)	13.5 / 34.29 through 6.75 / 17.15	13.5 / 34.29 through 7.5 / 19.05	13.5 / 34.29 through 5.25 / 13.34	13.5 / 34.29 through 7.5 / 19.05	13.5 / 34.29 through 7.5 / 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.

REMOTE LOCKING SYSTEM FOR 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 80 ft. / 24m.

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

Locks and Controls Included

Unlocked Pneumatic Actuator

Control Box Included

Locked Pneumatic Actuator

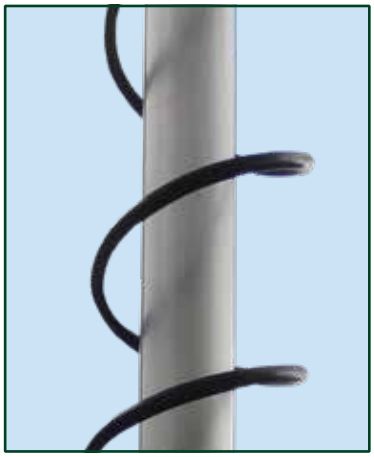
Optional Handheld Controller

MAST ACCESSORIES

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.

POWERED TILT SYSTEM

Will-Burt's Stiletto Tilt System is ideal for applications where nested height and rapid deployment are critical factors. The robust design enables rapid tilting and locking of the mast. The low height of the Stiletto Tilt 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.

ESSENTIAL FEATURES

- **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

KVR MANUAL TILT OPTIONS

Manual tilt system with winch and automatic brake

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.

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.

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 (°C / °F)	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)	55.2 / 25	55.2 / 25	62 / 28	62 / 28	45 / 20.4	55 / 24.95	45 / 20.4
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 (°C / °F)	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 | KVK

LIGHT / MEDIUM-DUTY TELESCOPIC CABLE-DRIVE MASTS

For payloads up to 132 lbs. (60 kg)

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. 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.

ESSENTIAL FEATURES

- Payloads up to 132 lbs. (60 kg)
- Heights up to 40 ft (12 m)
- 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

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

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	19.7 / 6	26.2 / 8	26.2 / 8	32.8 / 10
Nested Height (ft. / m)	3.5 / 1.1	4.3 / 1.3	5.1 / 1.5	6.4 / 2.0	5.75 / 1.75	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	19.7 / 6	26.2 / 8	32.8 / 10	39.3 / 12
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	99 / 45	132 / 60	99 / 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.

COMMUNICATIONS / SURVEILLANCE

GEROH KVR

HEAVY-DUTY TELESCOPIC CABLE-DRIVE MASTS

For payloads up to 110 lbs. (50 kg)
Will-Burt Germany's family of heavy-duty KVR Telescopic Masts are specially qualified for mobile use and heavy payloads. Heavy payloads in conjunction with heights up to 45 ft. (14 m) distinguish the GEROH KVR Heavy-Duty Telescopic Crank Mast. 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 -60° F (- 50° C) and wind speeds up to 80 mph (130 km/h)

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.

ESSENTIAL FEATURES

- Payloads up to 110 lbs. (50 kg)
- Heights up to 45 ft (14 m)
- 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 / 8	32 / 10	39 / 12	26 / 8	32 / 10	39 / 12	45 / 14	26 / 8	32 / 10	39 / 12	45 / 14
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)	110 / 50	99 / 45	88 / 40	110 / 50	110 / 50	99 / 45	88 / 40	110 / 50	99 / 45	88 / 40	88 / 40
Approximate Mast Weight (lb / kg)	148 / 67	163 / 74	176 / 80	181 / 82	201 / 91	220 / 100	240 / 109	176 / 80	194 / 88	212 / 96	229 / 104
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 / COUNTER UAS

GEROH SPM

SPM SPINDLE DRIVE MASTS

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.

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

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 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	19.7 / 6	26.2 / 8	32.8 / 10	39.4 / 12	49.2 / 15	59.1 / 18
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	551 / 250	551 / 250	551 / 250	551 / 250	551 / 250
Approximate Mast Weight (lb / kg)	163 / 74	212 / 96	309 / 140	573 / 260	639 / 290	672 / 305	1,323 / 600	1,488 / 675
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 / 1.20	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
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

Other heights and payload capacities available.

EXPEDITION SERIES

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 6 in. (150 mm) diameter payload adapter. 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). 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**

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.

See willburt.com for complete model range

ESSENTIAL FEATURES

- **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**

COMMUNICATIONS

ANTENNAMAST®

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.

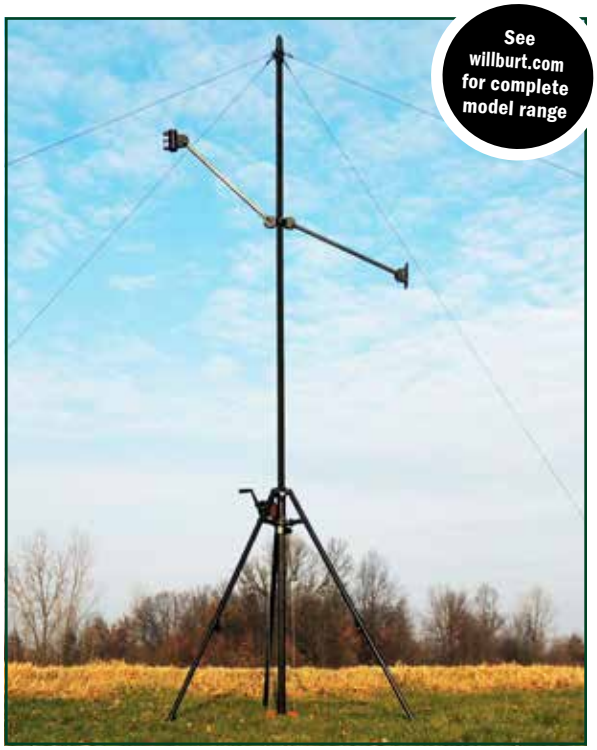
PAYLOAD DEPLOYMENT OPTIONS

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.

ESSENTIAL FEATURES

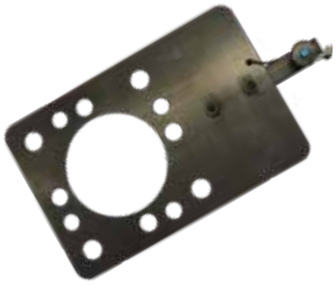
- **Rapid set-up**
  - Includes a tripod with two (2) built-in levels and large no-slip adjustment knobs that are easy to operate. Interlocking mast tubes allow for directional adjustment of the payload.
- **Flexible**
  - A variety of payload adaptors and accessories are available to accomplish diverse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

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



NATO PLATE

EZ-RAZE

DUAL, TRI & QUAD ARM COLLAR

BOLSTER PLATE

Q★E★A★M
QUICK ERECTING ANTENNA MAST

QUICK ERECTING ANTENNA MAST (QEAM)

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.

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

SCREW DRIVE 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**

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.

STRAP DRIVE 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. / m)	32.8 / 10	68.9 / 21	82 / 25	98.4 / 30	112 / 34
Nested Height (ft. / m)	8 / 2.4	14.6 / 4.45	14.8 / 4.5	19.3 / 5.9	19 / 5.8
Guying	2 level / 3 way	4 level / 4 way	5 level / 4 way	5 level / 4 way	5 level / 4 way
Number of Sections	5	6	7	6	7
Weight (Mast Only) (lb / kg)	42 / 19	197 / 90	220 / 100	250 / 114	265 / 121
Weight (Accessory Kit) (lb / kg)	52 / 24	245 / 111	275 / 125	275 / 125	275 / 125
Payload Capacity (lb / kg)	15 / 7	180 / 80	150 / 68	150 / 68	110 / 50
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	0.5 / 12	0.5 / 12	0.5 / 12	0.5 / 12
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	
Finish	CARC Green	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

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

COMMUNICATIONS

CARBON/GLASS FIBER STRAP DRIVE MODEL - FIELD DEPLOYED

Q★E★A★M
QUICK ERECTING ANTENNA MAST
MTS

The QEAM MTS Series from Will-Burt is a highly transportable field mast ideally suited for antennas and other payloads that require stable elevation from 3 to 15 meters. High pointing accuracy is assured with vertical keyways built into the carbon/glass fiber tubes. The MTS is elevated and retracted by strong straps that are driven manually with a manual crank system or an optional motorized system.

The QEAM MTS meets the environmental requirements of MIL-STD-810 and will exceed the requirements of the mission.

MIL - STD 810 CERTIFIED

ESSENTIAL FEATURES

- **Lightweight Telescopic Mast System**
  - Composite mast sections
- **Minimal payload twist**
  - Keyways improve pointing accuracy
- **Fast and safe deployment**
  - Hand-operated lift system
  - Optional electric lift system
- **Position payload at any height**
  - Winch locks mast in place
- **Complete Elevation System**
  - Includes all items needed to deploy
- **Meets MIL-STD-810 Environmental**
- **Voltage - 24 VDC**

Automatic Electric Motor

Manual Hand Crank

Accessory Kit

Optional Cable Management

SPECIFICATIONS

Automatic Electric Motor	3MTS-A3-1.3	4MTS-A4-1.45	6MTS-A5-1.75	8MTS-A6-2	10MTS-A7-2.2	12MTS-A7-2.45	15MTS-A7-2.9
Extended Height (ft. / m)	9.8 / 3	13.1 / 4	19.7 / 6	26.3 / 8	32.8 / 10	39.4 / 12	49.2 / 15
Nested Height (ft. / m)	4.3 / 1.3	4.8 / 1.45	5.7 / 1.75	6.6 / 2	7.4 / 2.2	8 / 2.45	9.5 / 2.9
Payload Capacity (lb / kg)	154 / 70	143 / 65	132 / 60	121 / 55	99 / 45	88 / 40	66 / 30
Number of Sections	3	4	5	6	7	7	7
Maximum Wind Area ($ft.^2$ / m^2)	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8
Maximum Survival Wind Speed (mph / km/h)	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160
Outer Section Diamter (in. / mm)	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126
Voltage (VDC)	24	24	24	24	24	24	24
Mast Only Weight (lb / kg)	42 / 19	53 / 24	64 / 29	75 / 34	86 / 39	95 / 43 kg	108 / 49
Accessories Weight with Motor (lb / kg)	75 / 34	75 / 34	75 / 34	75 / 34	95 / 43	95 / 43	95 / 43

Manual Hand Crank	3MTS-M3-1.3	4MTS-M4-1.45	6MTS-M5-1.75	8MTS-M6-2	10MTS-M7-2.2	12MTS-M7-2.45	15MTS-M7-2.9
Extended Height (ft. / m)	9.8 / 3	13.1 / 4	19.7 / 6	26.3 / 8	32.8 / 10	39.4 / 12	49.2 / 15
Nested Height (ft. / m)	4.3 / 1.3	4.8 / 1.45	5.7 / 1.75	6.6 / 2	7.4 / 2.2	8 / 2.45	9.5 / 2.9
Payload Capacity (lb / kg)	154 / 70	143 / 65	132 / 60	121 / 55	99 / 45	88 / 40	66 / 30
Number of Sections	3	4	5	6	7	7	7
Maximum Wind Area ($ft.^2$ / m^2)	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8	2.6 / 0.8
Maximum Survival Wind Speed (mph / km/h)	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160	99 / 160
Outer Section Diamter (in. / mm)	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126
Mast Only Weight (lb / kg)	42 / 19	53 / 24	64 / 29	75 / 34	86 / 39	95 / 43	108 / 49
Accessories Weight (Including Manual Assembly) (lb / kg)	71 / 32	71 / 32	71 / 32	71 / 32	90 / 41	90 / 41	90 / 41

COMMUNICATIONS

VEHICLE DEPLOYED

The QEAM MTS-Vehicle Series from Will-Burt is a highly transportable telescopic mast ideally suited for deploying antennas and other payloads directly from a vehicle or trailer platform. High pointing accuracy is assured with 4 vertical keyways built into the carbon/glass fiber tubes. The MTS-V is elevated and retracted by strong straps that are driven manually with a manual crank system or a motorized system. Added flexibility is available with optional field deployment kits.

The QEAM MTS-V meets the environmental requirements of MIL-STD-810 and will exceed the requirements of the mission.

Not to be used for On-The-Move Applications.

Q★E★A★M
QUICK ERECTING ANTENNA MAST
MTS-V

MIL - STD 810 CERTIFIED

ESSENTIAL FEATURES

- Designed for Vehicle / Trailer Installation
- The QEAM MTS-V Series assures high pointing accuracy with 4 vertical keyways built into the carbon/glass fiber tubes
- Composite mast sections
- Minimal payload twist
- Keyways improve pointing accuracy
- Fast and safe deployment
- Hand-operated lift system
- Optional electric lift system
- Position payload at any height
- Winch locks mast in place
- Includes all items needed to deploy
- Meets MIL-STD-810 Environmental
- Voltage – 28V (20-32V)

Automatic Electric Motor

Manual Hand Crank

Bubble Level & Adjustable Base Plate

Strong Straps

QEAM MTS-V Accessory Kit

Optional Cable Management

SPECIFICATIONS

Automatic Electric Motor	3MTSV-A6-1.1	4MTSV-A6-1.3	5MTSV-A7-1.45	6MTSV-A7-1.6	8MTSV-A7-1.8
Extended Height (ft. / m)	9.5 / 2.9	12.8 / 3.9	16 / 4.9	19 / 5.9	26 / 7.9
Nested Height (ft. / m)	3.6 / 1.1	4.3 / 1.3	4.8 / 1.45	5.2 / 1.6	5.9 / 1.8
Payload Capacity (lb / kg)	121 / 55	121 / 55	110 / 50	99 / 45	88 lb / 40
Number of Sections	6	6	7	7	7
Maximum Wind Area ($ft.^2$ / m^2)	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25
Maximum Survival Wind Speed (mph / km/h)	75 / 120	75 / 120	75 / 120	75 / 120	75 / 120
Outer Section Diamter (in. / mm)	ø5 / 126	ø5 / 126	ø5 in. / 126mm	ø5 / 126	ø5 / 126
Voltage (V)	28 (20-32)	28 (20-32)	28 (20-32)	28 (20-32)	28 (20-32)
Mast Only Weight (lb / kg)	64 / 29	75 / 34	84 / 38	95 / 43	108 / 49
Accessories Weight with Motor (lb / kg)	20 / 9	20 / 9	20 / 9	20 / 9	20 / 9

Manual Hand Crank	3MTSV-M6-1.1	4MTSV-M6-1.3	5MTSV-M7-1.45	6MTSV-M7-1.6	8MTSV-M7-1.8
Extended Height (ft. / m)	9.5 / 2.9	12.8 / 3.9	16 / 4.9	19 / 5.9	26 / 7.9
Nested Height (ft. / m)	3.6 / 1.1	4.3 / 1.3	4.8 / 1.45	5.2 / 1.6	5.9 / 1.8
Payload Capacity (lb / kg)	121 / 55	121 / 55	110 / 50	99 / 45	88 lb / 40
Number of Sections	6	6	7	7	7
Maximum Wind Area ($ft.^2$ / m^2)	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25	0.8 / 0.25
Maximum Survival Wind Speed (mph / km/h)	75 / 120	75 / 120	75 / 120	75 / 120	75 / 120
Outer Section Diamter (in. / mm)	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126	ø5 / 126
Mast Only Weight (lb / kg)	60 / 27	71 / 32	79 / 36	88 / 40	101 / 46
Accessories Weight (lb / kg)	13 / 6	13 / 6	13 / 6	13 / 6	13 / 6

POSITIONERS / CONTROLLERS

POSITIONIT®

Introducing the new PositionIt range of positioners with improved, next-generation control electronics and software while retaining the rugged reliability of the original PositionIt range. The new PositionIt series is dimensionally and electrically identical to the first generation with fully backwards compatible electronics and software. Improved motor control is assured with higher resolution speed control, slower minimum speeds, and user adjustable minimum speeds and speed ramps. The new GUI for configuring and commissioning allows users to set and adjust many features that were originally factory set only. It also boasts many new features such as the ability to receive positional feedback, set home position and limit stops and fault diagnostics.

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
- **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
- **Regenerative Braking**
  - On motor shaft
- **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**
  - 2-year warranty
- **Backwards compatible**

SPECIFICATIONS

Model	PI-150	PI-75	PI-35
Payload Capacity* (ft lb / Nm)	150 / 202	75 ft / 101	35 / 47
Height (in. / mm)	11.32 / 287.7	11.32 / 287.7	9.7 / 246
Width (in. / mm)	12.4 / 314	9.21 / 234	10.8 / 273
Depth (in. / mm)	6.8 / 171	6.8 / 171	5.7 / 144
Weight (lb / kg)	37 / 16.8	35 / 16	19.5 / 8.9
Operating Temperature	-40°C to 60°C / -40°F to 140°F		
IP Rating	IP68 - Waterproof (immersion) and Dustproof		
Pan Axis	400° (± 200°)		
Pan Speed (proportional)	0.02 to 6.5° / second		1° to 12° / second
Tilt Axis	180° (± 90°)		
Tilt Speed (proportional)	0.02 to 5.5° / second		1° to 12° / second
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 CONTROLLERS

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

The Pelco-D compatible handheld controller with LCD screen has all of the features necessary to optimize the performance of the PositionIt positioner. Precision joystick controller flawlessly controls the pan and tilt functions. Includes LCD 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.

SURVEILLANCE / COMMUNICATIONS

INTEGRATED TOWER SYSTEMS

Integrated Tower Systems-ITS, a Will-Burt Company, is a global leader in the manufacture, sales and rental of an extensive and affordable line of rapid-deployment Mobile Tower & Mast Systems; Tower & Mast Integrated Trailers, Trucks, Communication-Site-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 ITS clientele representing the following industries:

ITS™
A WILL-BURT COMPANY

- Telecommunications, Infrastructure Development/Restoration; Tower Owners/Operators Multi-media, Broadcasting
- First Responder, Public Safety and Emergency Management; Law Enforcement, Incident Command, Search & Rescue
- Homeland Defense/National Security, Domestic and Foreign Military Initiatives; Tactical and Support Functions
- Immigration and Customs Enforcement, Border Security; 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

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 or contact an ITS Representative Toll Free at 1-(800)-850-8535.**

SPECIFICATIONS

	Mobile Tower Solutions	Mobile Mast Solutions
Self-Support & Guyed Heights (ft. / m)	±38, 55, 72, 89, 106, 120 & 130 (11.6, 16.8, 21.9, 27.1, 32.3, 36.6 & 39.6)	30 - 120 / 9 - 36
Tower Capacity (lb / kg)	**Standard Payloads:** Up to: ±550 / 250 | **Upgraded Payloads:** Up to: ±625 / 284	Payloads Up To: 1,200 / 544
Power	120-220 VAC / 60-50 Hz Configurations	
Common Use	Border Security • Broadcasting • Disaster Recovery / Emergency Response • Lighting • Remote Communications Site Security • Surveillance • Energy Exploration / Production Sites • Sensor Applications • Systems Testing • Telecommunications • Temporary Cell Site	

SURVEILLANCE / COMMUNICATIONS

ULTRA MAST – INTEGRATED SURVEILLANCE SYSTEM




SRS-C SERIES – PORTABLE TOWER TRAILER



MT SERIES – TRAILER MOUNTED MAST



SKD SERIES – SKID MOUNTED


RD-S SERIES – TRAILER MOUNTED MAST



RD-T SERIES – TRAILER MOUNTED MAST




TACTICAL MILITARY TRAILERS

Will-Burt Germany's Family of 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 Will-Burt Germany development department is able to fulfil the special requirements of military customers and deliver 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 Will-Burt Germany Tactical Trailers.

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

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

SURVEILLANCE

MOBILE ELEVATION SYSTEMS

Will-Burt's mobile elevation systems are specifically designed for the complex missions facing today's defense organizations. Our elevation products, platforms, and systems are designed to Maintain the Advantage in Strategic Competition. All Will-Burt products are MIL-STD 810 certified and capable of overcoming the environmental challenges that exist today and new ones that will arise tomorrow.

The ability of Will-Burt to deliver superior elevation solutions is attributed to its worldwide leadership in the industry for over 75 years. Teams of experienced engineers design new products to fit today's requirements. We also offer custom designed solutions to meet program specifications. Our vertically integrated manufacturing systems are backed by an ISO 9001:2015 quality management system. Finally, all of this is backed by a worldwide sales, marketing, and service support structure focused on delivering the correct customer solution on time, every time.

Flexibility and superior performance are two keys for mission success. Will-Burt's Compact Elevation Systems (CES) for pickup trucks and small trailers and the Rapid Deployment Elevation System (RDES) for large trailers deliver fast and precise elevation for a variety of sensors. These systems are designed for easy operation with little training and most importantly can have a sensor deployed in as little as 30 seconds. Available heights range from 13.1 ft. / 4m to 120 ft. / 36.5 m. Will-Burt's powerful telescopic masts with automatic locks can lift the payloads into place – no need for an auxiliary crane to place the payload on top like some systems. Payload capabilities range from 400 lb. / 181 kg to 1,200 lb. / 544 kg.

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

COMPACT ELEVATION SYSTEM^{TRK}

COMPACT ELEVATION SYSTEM^{TLR}

RAPID DEPLOYMENT ELEVATION SYSTEM

MOBILE ELEVATION SYSTEMS

Compact Elevation System*TRK*

Will-Burt's truck based Compact Elevation System with integrated CAN-bus controls and cable management is a rugged and precise mobile elevation platform that provides rapid deployment of a wide variety of sensors from a compact position in a standard 2.4m pickup truck bed. The compact design provides up to .7 m^3 for the sensor payload with the tailgate in the closed position. Available with an electro-mechanical or pneumatic elevation system at 4- or 6-meter heights with a payload capacity of 241 kg, payload stability is assured with section keys and keyways that minimize rotational movement.

Compact Elevation System*TLR*

Will-Burt's medium trailer based Compact Elevation System with integrated CAN-bus controls and cable management is a rugged and precise mobile elevation platform that provides rapid deployment of sensors in as little as 30 seconds. The compact design allows significant room for the sensor payload and auxiliary equipment. Available with an electro-mechanical or pneumatic elevation system at 4-to-8.5-meter heights with a payload capacity of 241 kg, payload stability is assured with section keys and keyways that minimize rotational movement. This trailer-based system is customizable and can accommodate a variety of power systems as specified by the customer.

Rapid Deployment Elevation System

Will-Burt's Rapid Deployment Elevation System (RDES) with fully integrated CAN-bus controls is designed for expeditious deployment when significant heights are required for sensors and antennas. The RDES includes a mast tilt system that delivers a compact transport envelope. The system is available in heights of 24m or 36m. The powerful telescopic mast can elevate a 544kg payload - no need for crane assistance. An automatic lock system maintains a consistent height for extended periods of deployment – even with the loss of power. Payload stability and pointing accuracy is assured with section keys and keyways that minimize rotational movement. Full deployment of the 24m system can be achieved in 8 minutes.

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

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

WILL-BURT
TÜRKİYE
Ahi Evran OSB Mahallesi,
Nahcivan Caddesi, No: 8/2, Sincan, Ankara 06935
Telephone: +90 535 662 9060 / Fax: +90 312 502 6970
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 and a joint venture in Turkey. 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.

ISO 9001:2015