



MILITARY ELEVATION SOLUTIONS AND TACTICAL TRAILERS





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

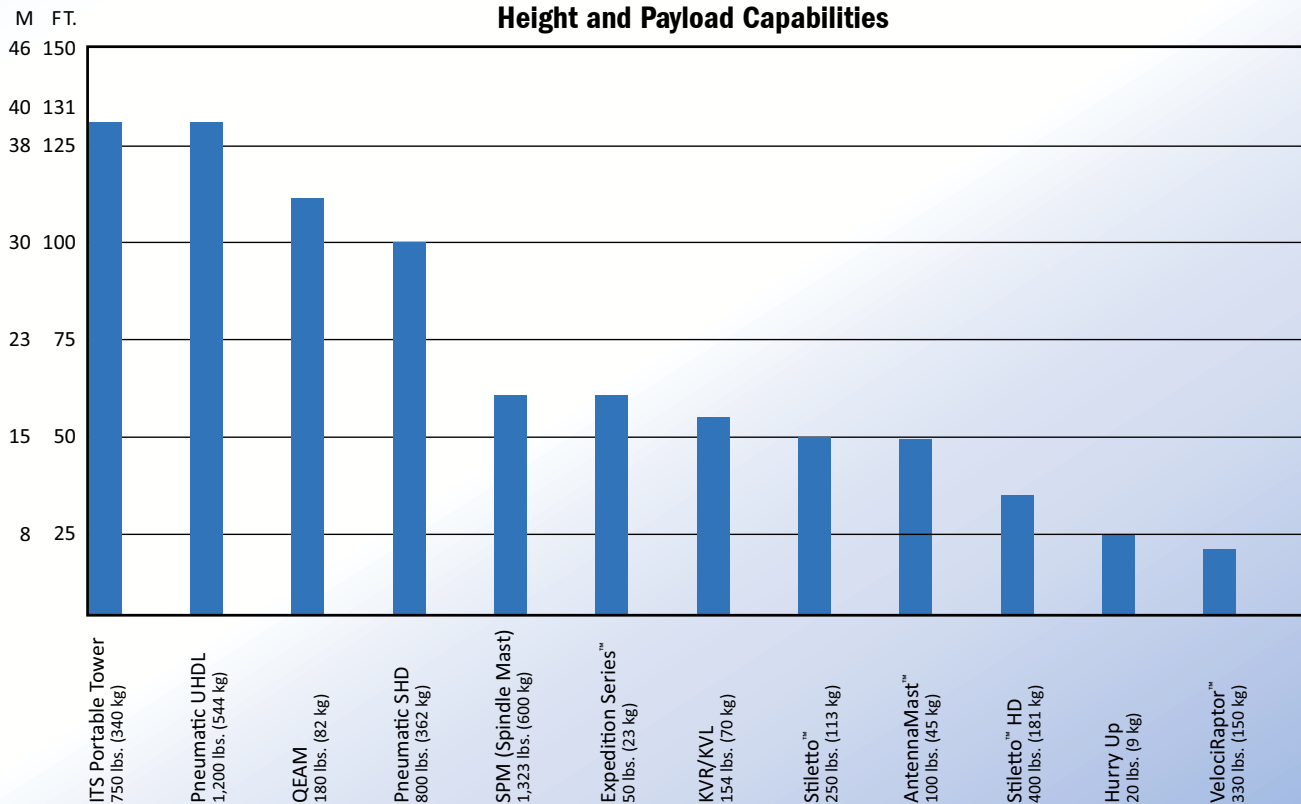
The ability of Will-Burt to deliver superior elevation solutions is attributed to its worldwide leadership in the industry for over 30 years. Teams of experienced research and development engineers, design engineers and ISO 9001:2008 quality systems certified manufacturing experts are backed by a sales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

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

THE ADVANTAGES OF THE WILL-BURT COMPANY

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

Portable Telescopic Masts and Towers
Height and Payload Capabilities



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

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SURVEILLANCE / SECURITY / ON-THE-MOVE

STILETTO™

High performance composite telescoping mast

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

- **High pointing accuracy and low wind deflection**
Internal keys and rigid design maintain azimuth and eliminate the need for guylines
- **High weight lifting capacity**
for greater safety and payload accommodations
- **Higher strength for lighter weight**
Lightweight carbon fiber construction driven by stainless steel electro-mechanical drive screw
- **Advanced safety**
Automatic sectional locking assures personnel and payload safety
- **Low maintenance costs**
Easy, routine field and depot maintenance
- **Use in harsh environments including ice and high wind**
Positive retraction

STILETTO™ HD

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

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



SURVEILLANCE / SECURITY / ON-THE-MOVE



Stiletto® Specifications	4 meter	6 meter	10 meter	15 meter
Extended Height (+4 in. / -0 in.)	13.5 ft. / 4.1 m	19 ft. / 5.79 m	32.8 ft. / 10 m	49.2 ft. / 15 m
Nested Height (+1 in. / -0 in.)	39 in. / 1.0 m	46 in. / 1.17 m	67 in. / 1.7 m	94.5 in. / 2.4 m
Maximum Payload Capacity	250 lbs. / 113 kg	250 lbs. / 113 kg	250 lbs. / 113 kg	200 lbs. / 91 kg
Rated Payload Capacity	200 lbs. / 91 kg	200 lbs. / 91 kg	175 lbs. / 80 kg	125 lbs. / 57 kg
Weight (Including Control Box and Cables)	196 lbs. / 89 kg	209 lbs. / 95 kg	267 lbs. / 121 kg	320 lbs. / 145 kg
Number of Sections	9	9	9	9
Tube Diameter	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm	10.31 in. to 4.31 in. / 26.2 cm to 11 cm
Survival Wind Speed	110 mph / 177 km/hr	100 mph / 160 km/hr	80 mph / 129 km/hr	65 mph / 105 km/hr
Deployment Wind Speed	50 mph / 80 km/hr	40 mph / 60 km/hr	34 mph / 55 km/hr	33 mph / 53 km/hr
Erection Time with Power	1 min.	1.5 min.	2.7 min.	4 min.
Rotation Accuracy (Twist)	+/-1°	+/-1°	+/-1°	+/-1°
Voltage (MIL-STD 1275)	28 VDC	28 VDC	28 VDC	28 VDC
Footprint	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm	17.56 in. x 11.19 in. / 44.6 cm x 28.5 cm
*Typical Payload Sail Area	8 sqft / .74 sqm CD=1.5	8 sqft / .74 sqm CD=1.5	6 sqft / .56 sqm CD=1.5	4 sqft / .37 sqm CD=1.5



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

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

Stiletto® MIL-STD-810F Qualifications
Altitude: Sea level to 15,000 feet per MIL-STD-810F, Method 500.4
Transportation Altitude: Sea level to 15,000 feet (unpressurized) MIL-STD-810F, Method 500.4
Operating Temperature Ranges: -44°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4
Storage Temperature Ranges: -44°C to +70°C, MIL-STD-810F, Method 501.4 and 500.4
Solar Radiation: Per MIL-STD-810F, Method 505.4
Rain: Per MIL-STD-810F, Method 506.4
Humidity: Per MIL-STD-810F, Method 507.4
Fungus: Per MIL-STD-810F, Method 508.4
Salt Fog: Per MIL-STD-810F, Method 509.4
Sand and Dust: Per MIL-STD-810F, Method 510.4
Ice and Freezing Rain: Per MIL-STD-810F, Method 521.2
Vibration and Shock: Per MIL-STD-810F, Method 514.5 and 516.5 (nested position)
MIL-STD-461E Qualifications: CS101, CS114, CS115, CS116, RS103

Stiletto® HD MIL-STD-810F Qualifications
Altitude*: Sea level to 15,000 feet per MIL-STD-810F, Method 500.4
Transportation Altitude*: Sea level to 15,000 feet (unpressurized) MIL-STD-810F, Method 500.4
Operating Temperature Ranges: -51°C to +55°C, MIL-STD-810F, Method 501.4 and 502.4
Storage Temperature Ranges: -51°C to +71°C, MIL-STD-810F, Method 501.4 and 500.4
Solar Radiation*: Per MIL-STD-810F, Method 505.4
Rain*: Per MIL-STD-810F, Method 506.4
Humidity*: Per MIL-STD-810F, Method 507.4
Fungus: Per MIL-STD-810F, Method 508.4
Salt Fog*: Per MIL-STD-810F, Method 509.4
Sand and Dust*: Per MIL-STD-810F, Method 510.4
Ice and Freezing Rain: Per MIL-STD-810F, Method 521.2
*The Stiletto HD design was qualified by similarity to the standard Stiletto design
MIL-STD-461E Qualifications: 461E, CS101, CS114, CS115, CS116, RS103
MIL-STD-461E Qualifications: CE102, RE102, RS101 with optional equipment

PNEUMATIC HD AND SHD NON-LOCKING MASTS

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

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

HEAVY-DUTY SPECIFICATIONS

Specifications	7.5 meter	10 meter	12.5 meter	15 meter	17 meter
Extended Height	25 ft. / 7.6 m	32.8 ft. / 10 m	41.2 ft. / 12.5 m	48.6 ft. / 14.8 m	56.17 ft. / 17.1 m
Nested Height	6 ft. / 1.8 m	6.7 ft. / 2 m	7.3 ft. / 2.1 m	8.7 ft. / 2.7 m	9.6 ft. / 2.9 m
Payload Capacity	150 lbs. / 68 kg	200 lbs. / 90 kg	150 lbs. / 68 kg	200 lbs. / 90 kg	200 lbs. / 90 kg
Approximate Mast Weight	110 lbs. / 50 kg	200 lbs. / 90 kg	235 lbs. / 107 kg	275 lbs. / 125 kg	296 lbs. / 135 kg
Tube Diameter	6.75-3 in. / 171-76 mm	9-3.75 in. / 229-95 mm	9-3 in. / 229-76 mm	9-3.75 in. / 229-95 mm	9-3.75 in. / 229-95 mm
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

SUPER HEAVY-DUTY SPECIFICATIONS

Specifications	10 meter	12 meter	72' Patriot
Extended Height	32.8 ft. / 10 m	39.4 ft. / 12 m	72 ft. / 22 m
Nested Height	8 ft. / 2.5 m	9.3 ft. / 2.8 m	18 ft. / 5.5 m
Payload Capacity	800 lbs. / 363 kg	660 lbs. / 300 kg	700 lbs. / 318 kg
Approximate Mast Weight	375 lbs. / 170 kg	430 lbs. / 195 kg	1,500 lbs. / 680 kg
Tube Diameter	11.25-6.75 in. / 285-171 mm	11.25-6 in. / 285-152 mm	11.03-6.5 in. / 280-165 mm
Max. Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

*Consult factory for on-the-move specifications



MAST ACCESSORIES

PNEUMATIC SYSTEMS

Will-Burt offers a variety of low maintenance oil-less AC and DC voltage air compressor systems, all specifically designed for optimal performance for use with Will-Burt Telescoping Masts.

DC COMPRESSOR SYSTEMS

- Mast pressure gauge
- Adjustable pressure switch
- Hand-held remote control with mast up/down switch
- Protective enclosure
- 12 VDC model - 173 liters/minute flow at 15 psi (6.1 cfm)
- 24 VDC model - 191 liters/minute flow at 15 psi (6.7 cfm)
- Operating Temperature: -20°C to +50°C (-4°F to +122°F)
- 3/8" air hose with NPT fittings
- Oil-less to reduce maintenance
- Check valve prevents leakage

AC COMPRESSOR SYSTEMS

- Mast pressure gauge
- Pressure regulator
- Hand-held remote control with mast up/down switch
- Protective enclosure
- 110 liters/minute flow at 20 psi (3.88 cfm)
- Operating Temperature: -15°C to +40°C (5°F to +104°F)
- 110 VAC (60 Hz) and 220 VAC (50 Hz) models
- Oil-less to reduce maintenance
- Check valve prevents leakage
- 3/8" air hose with NPT fittings



COMMUNICATIONS / SURVEILLANCE

PNEUMATIC HD, SHD AND UHD LOCKING MASTS

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

- **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

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.	

HEAVY-DUTY SPECIFICATIONS

Specifications	10m	12.5m	18m	30m
Extended Height	32.8 ft. / 10 m	41 ft. / 12.5 m	59 ft. / 18 m	98.5 ft. / 30 m
Nested Height	7.5 ft. / 2.3 m	7.5 ft. / 2.3 m	10.4 ft. / 3.2 m	16.8 ft. / 5.1 m
Payload Capacity	150 lb. / 68 kg	150 lb. / 68 kg	200 lb. / 90 kg	200 lb. / 90 kg
Approximate Mast Weight	125 lb. / 57 kg	235 lb. / 107 kg	330 lb. / 150 kg	480 lb. / 218 kg
Tube Diameter	6.75-3" / 171-76 mm	9-3" / 229-76 mm	9-3.75" / 229-95 mm	9-4.5" / 114 mm
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

SUPER HEAVY-DUTY & ULTRA HEAVY-DUTY SPECIFICATIONS

Specifications	SHDL 15m	SHDL 18m	UHDL 18m	SHDL 23m	SHDL 30m
Extended Height	49.2 ft. / 15 m	59.1 ft. / 18 m	59 ft. / 18 m	76 ft. / 23.2 m	98.4 ft. / 30 m
Nested Height	9.2 ft. / 2.8 m	10.5 ft. / 3.2 m	11.3 ft. / 3.4 m	11.1 ft. / 3.4 m	15.4 ft. / 4.7 m
Payload Capacity	450 lb. / 205 kg	450 lb. / 205 kg	1200 lbs. / 544 kg	200 lb. / 91 kg	450 lb. / 205 kg
Approximate Mast Weight	450 lb. / 205 kg	550 lb. / 227 kg	880 lbs. / 399 kg	550 lb. / 249 kg	790 lb. / 361 kg
Tube Diameter	11.25-5.25" / 288-135 mm	11.25-5.25" / 288-135 mm	13.5-7.5" / 34.29-19.05 cm	11.25-3.75" / 288-96 mm	11.25-5.25" / 288-135 mm
Max. Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 psig (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

For additional sail area and wind speed capacities visit www.willburt.com





VelociRaptor[™]

Will-Burt introduces ground-breaking mast technology which enables elevated surveillance and targeting on-the-move and accurate elevated line-of-sight fire by remote weapons on-the-halt.



The VelociRaptor mast delivers a unique combination of strength, stiffness, extension/retraction speed, payload lifting capacity, and mast size and weight. These unique features allow:

- **Persistent On-The-Move Surveillance and Targeting**
Fully extended to 6 m (20 ft.), 100 kg (220 lbs.) payload at speeds up to 88 kmph (55 mph) on improved roads and 24 kmph (15 mph) on off-road terrain.
- **Stable On-The-Halt Weapon Station**
Accurate remote weapon station fire at 500 m; less than 16 cm (6 inch) deflection under a 3,300 lb side force.

RUGGED

Travel with the mast fully extended at up to 88 kmph (55 mph) on improved roads, 56 kmph (35 mph) on unimproved roads, 24 kmph (15 mph) on off-road terrain.

FAST

Enables rapid mission execution

- Extends and retracts in less than 15 seconds (On-The-Move / On-The-Halt).
- Enables persistent surveillance and targeting without slowing or stopping forward motion.
- Enables rapid egress from hostile situations.

RIGID

High pointing accuracy for superior surveillance and targeting at long distance - less than 16 cm (6 inch) tip deflection at full extension 6 m (20 ft.) when subjected to a 3,300 lb side force.

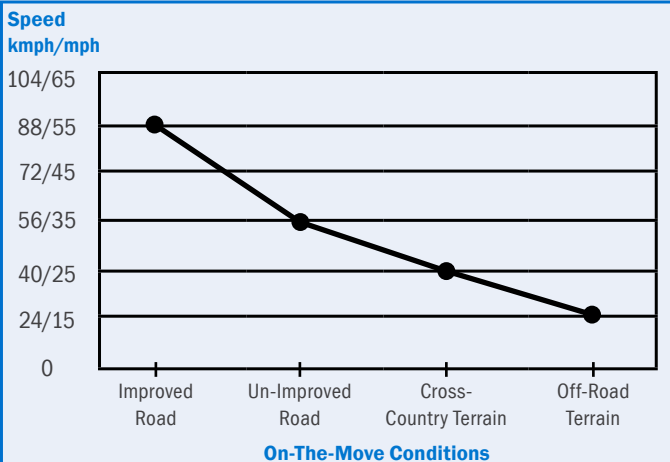
STRONG

Broad payload weight capability - elevates payloads up to 150 kg (330 lbs.).

SMALL ENVELOPE

Small footprint and an internal drive simplify exterior or interior installation on wheeled and tracked vehicles.

VELOCIRAPTOR MAST OPERATING ENVELOPE
EXTENSION: 6 M (20 FT.) PAYLOAD: 100 KG (220 LBS.)



KVL AND KVR TELESCOPIC CABLE-DRIVE MASTS

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

ESSENTIAL FEATURES

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



KVL SPECIFICATIONS

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

KVR SPECIFICATIONS

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



SPM SPINDLE DRIVE MAST

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

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

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

SPM SPECIFICATIONS

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

Other heights and payload capacities available.



COMMUNICATIONS / SURVEILLANCE

ESSENTIAL FEATURES

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

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.

- **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

MAST TILT

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



POWERED TILT SYSTEM FOR STILETTO AND PNEUMATIC MASTS



MANUAL TILT OPTIONS FOR STILETTO, PNEUMATIC AND KVR

Manual tilt system with winch and automatic brake



The Will-Burt Company's newest payload elevation solution

Snap Dragon™

Quick and Silent On-The-Move / On-The-Halt elevation and lowering of sensors enabling Rapid Relocation and Stealth Surveillance Targeting Missions

- **Low nested height allows payload to be hidden**
- **Engineered to perform in harsh environments**
- **Fast, powered extension and retraction for quick mission execution**
- **Scalable design accommodates unique requirements**
- **Two power options**
 - Electro-Mechanical
 - Compressed air



COMPACT

- Low nested height of only 12 in. (305 mm) and footprint of 12.75 in. x 30.5 in. (324 mm x 775 mm) allows for interior or exterior installation that provides for optimal payload concealment.

FAST

- Powered deployment and retraction that is as fast as 2 seconds for quick and stealthy mission execution.

FLEXIBLE

- Install and operate lift at any angle. Can be inverted to lower payloads into containers and caverns, can be mounted horizontally for inspecting undersides of bridges or large vehicles.
- Two power source options. Compressed air for silent and extremely fast operation. Electro-mechanical (28 VDC) for precise positioning.

ON-THE-MOVE

- Strong structure allows wheeled vehicle OTM execution in off-road conditions at up to 15 mph (24 kmph).



Other designs available

SNAP DRAGON SPECIFICATIONS

Extended Height	60 in. / 1,525 mm
Nested Height	12 in. / 305 mm
Payload Capacity	50 lb. / 22.7 kg
System Weight	65 lb. / 29.5 kg
Deployment Speed - Compressed Air (Vehicle/Commercial Cylinder Air)	2 seconds
Retraction Speed - Compressed Air (Vehicle/Commercial Cylinder Air)	2 seconds
Deployment Speed - Electro-Mechanical (28VDC)	15 seconds
Retraction Speed - Electro-Mechanical (28VDC)	15 seconds
Survival Wind Speed Capabilities (0.5 m ² Sail Area)	50 mph / 80 kmph
Deployment Wind Speed Capabilities (0.5 m ² Sail Area)	30 mph / 48 kmph
On-The-Move Speed: Off Road, Wheeled Vehicle	15 mph / 24 kmph
Footprint	12.75 in. x 30.5 in. / 324 mm x 775 mm



EXPEDITION SERIES

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

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

EXPEDITION SERIES RANGER



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

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



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

SPECIAL FEATURES

The Will-Burt Expedition Series offers a variety of added features for increased performance and convenience. The system can be deployed guyed or un-guyed depending on mission profile. It includes a 6 in (150 mm) diameter payload adapter. A custom payload interface can be designed to fit specific needs. Other key features include:

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

EXPEDITION SERIES RANGER PACK



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

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

See www.willburt.com for complete model range



Hurry-Up mast

The Hurry-Up mast is ideal for fast deployment of lightweight antennas and equipment. This mast can be extended to a full height of 25 feet (7.6 meters) in one minute or less. The Hurry-Up mast features quick lock/release collars to extend the mast manually by pushing up the sections and fixing them in position.



- **Portable & Lightweight**
Allows for easy transportation
Weights equal to 29 lbs (13 kg)
Nested height 6 ft. (1.8 m)
- **Payload Capacity**
Allows for payloads up to 20 lbs (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
 - Permanent vehicle mounting

ANTENNA MAST™

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

Payload deployment options:

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



**AM2 with EZ Raze
Payload Elevation System**

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



AM2 with Mast Tube Lift Winch



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.



Q★E★A★M

QUICK ERECTING ANTENNA MAST

SCREW DRIVE MODELS

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

CARBON FIBER COMPOSITE

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

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

*Must be guyed for wind speeds over 25mph / 40kmph

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



Q★E★A★M

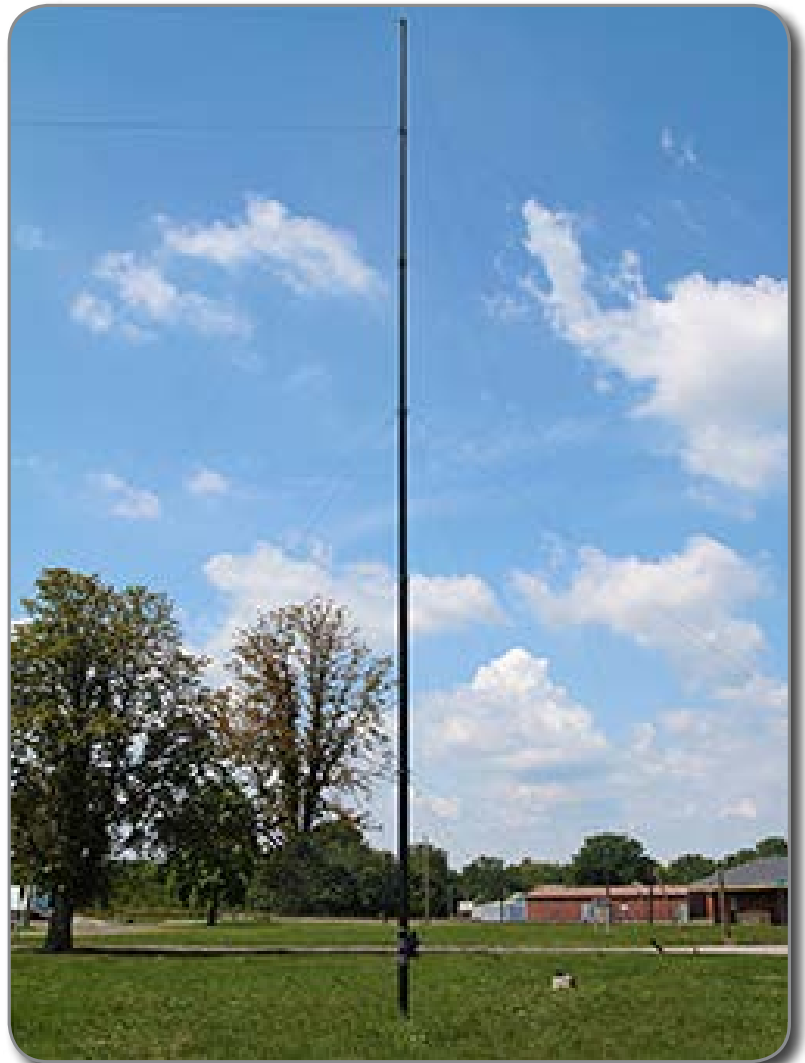
QUICK ERECTING ANTENNA MAST

ALUMINUM STRAP DRIVE MODEL

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

STRAP DRIVE MODELS

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



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

*Must be guyed for wind speeds over 25mph / 40kmph

INTEGRATED TOWER SYSTEMS

COMMUNICATIONS / RADAR

ITS lattice towers have the greatest self-supporting and guy capable survivability of any comparable lattice steel telescopic structure. The ITS tower system is fully automated and includes the following design features:

- **Extreme environment, direct-drive tower operating systems**
Aircraft quality tower cables, stainless pulleys, solid-state circuitry
- **Redundant safety mechanisms**
Extended tower and transport lock mechanisms, redundant cabling, LED warning lamps
- **Certified compliance with the ANSI TIA/EIA 222-G Standard**
Tower Legs: seamless, mechanical tubing – HSS - ASTM DOM 1026 alloy / A513 to 95Ksi yield strength – solid rod bracing - ASTM A36, 100% hot-dipped galvanized per ASTM A123

SRS SERIES - PORTABLE TOWER TRAILER

The heavy-duty SRS Series Portable Tower Trailer is Mil-Std designed with multi-terrain capabilities and easily transported by various military modes of transportation.

The SRS Series incorporates a 15,000 lb. / 6,804 kg capacity GVWR heavy-duty, multi-terrain custom drawbar trailer with the industry's strongest, most reliable and capable telescopic tower system. The system is designed to be transported by road, C-130 or larger aircraft, rail or flatbed trailer and support at site a payload of up to 4,500 lbs. / 2,042 kg of additional equipment, enclosures, generators, fuel tanks, etc. The SRS Series has Mil-Std designed aircraft tie-down lugs and lifting provisions along with Arctic/Desert lights with wiring package.



Unmatched Tower Capabilities in Multi-terrain Environment

- **All-terrain transport and deployment alternatives**
Features varying tower heights with substantial operational and survival wind-load characteristics.
- **Designed for Military Transport Mil - Std**
Designed aircraft tie-down lugs and lifting provisions
- **Multi-terrain Capable**
Heavy-duty drawbar trailer with a minimum factor of safety of 2:1 and 4:1 in critical load areas
- **Ease of Operation**
User-friendly and reliable hydraulic tilt and electric direct drive operating systems
Integrated safety and redundant cabling features

Payload Capacity	550 lbs. standard to 750 lbs. / 249 kg to 340 kg customized
Trailer GVWR Capacity	15,000 lbs. / 6,804 kg
Tower Height	from 55 ft. to 106 ft. / 16.8 m to 32.3 m - 130 ft. / 39.6 m customized

SR SERIES – PORTABLE TOWER TRAILER (Multiterrain Configuration)

The heavy-duty SR Series Portable Tower Trailer is ideal for use in multiple environments and terrains for ultimate deployment flexibility.

The most affordable and popular of all ITS configurations, the SR Series incorporates a 15,000 lb. capacity GVWR heavy-duty, multiterrain drawbar trailer with the industry's strongest, most reliable and capable telescopic tower system. The SR Series trailer uses tandem 7,000 lb. each capacity axles, 16" multiterrain tires, all-wheel electric brakes, a trailer breakaway device, LED lighting, outrigger stabilization, and an impact and weather-resistant coating over a diamond plate steel operating platform. The SR Series is designed to transport and support at site a trailer payload from 3,800 – 4,500 lbs. of ITS and/or customer-installed equipment.

The ITS lattice steel tower is designed to transport horizontally over the trailer's forward deck, automatically tilt by means of a single hydraulic cylinder and elevate using a custom direct drive electric motor/gearbox assembly. The SR Series is capable of being deployed, elevated to its full-extended height and secured by a mechanical tower lock mechanism by one person under 30 minutes.



Payload Capacity	550 lbs. standard, greater capacities available
Trailer GVWR Capacity	15,000 lbs. / 6,804 kg
Tower Height	from 55 ft. to 106 ft. / 16.8 m to 32.3 m

- **Multienvironment Use and Unmatched Tower Capabilities**
All-terrain transport and deployment alternatives; features varying tower heights with substantial operational and survival wind-load characteristics
- **Ease of Operation**
User-friendly and reliable hydraulic tilt and electric direct drive operating systems, integrated safety and redundant cabling features
- **Model Characteristics and Product Availability**
Inventories of our most popular and affordable configuration are maintained at all times. Military standards are used as guides in equipment design and manufacturing processes

INTEGRATED TOWER SYSTEMS

COMMUNICATIONS / SURVEILLANCE

RD SERIES - MOBILE MAST SYSTEM (INTEGRATED TILT CAPABILITIES)

The ITS RD Series is ideal for military missions. A heavy-duty, multi-terrain trailer ensures successful deployment in a variety of harsh climates and terrain. The RD Series Mobile Mast System features a self-supporting or guyed, locking or non-locking Will-Burt pneumatic mast with an innovative tilt capability. The RD Series features an enclosed compressor for mast tilt, extension and retraction with additional space available for optional power generation and equipment enclosure. A heavy-duty multi-terrain steel constructed trailer comes with either single (RD-S model) or tandem axles (RD-T model), 16 in. / 40 cm mud terrain tires, DOT compliant hydraulic braking system, outrigger stabilization and LED lighting. The galvanized steel tilt support structure and pneumatic mast exoskeleton incorporates a safety climb system for secure and easy accesses to the mast's optional locking mechanisms and/or secondary mast control panel. Primary mast controls are secured in a trailer-level NEMA enclosure. With the use of integrated lifting provisions and/or fork pockets, the entire mast support structure may be easily removed from its trailer for integration atop an appropriate foundation, truck bed or skid.



- **Rugged and versatile design**

- Allows for integration to a variety of mobile and stationary platforms
- Convenient shipping
- Transport and deployment alternatives
- Outriggers for stability

- **Ease of operation**

- Allows single person setup
- User-friendly and reliable pneumatic operating system
- Integrated safety features

RD Series - Mobile Mast System	RD-S	RD-T
Elevation Capability*	to 60 ft. / 18.3 m AGL	to 80 ft. / 24.4 m AGL
Elevated Payload Capability*	to 200 lbs. / 91 kg	200 lbs. / 91 kg
Payload Capacity (Trailer)	3,000 lbs. / 1,360 kg	4,500 lbs. / 2,042 kg
GVWR Capacity	6,000 lbs. / 2,721 kg	12,000 lbs. / 5,442 kg
Transport Dimensions	±13'7"L x 7'1"W x 7'8"H / 4 m x 2.2 m x 2.4 m	±16'2"L x 7'1"W x 7'8"H / 5 m x 2.2 m x 2.4 m
Deployed Dimensions	±13'7"L x 14'3"W / 4.1 m x 4.4 m	±16'2"L x 14'3"W / 5 m x 4.4 m
Axle	Single Torflex, 6,000 lb. capacity each / 2,721 kg	Tandem Torflex, 6,000 lb. capacity / 2,721 kg
Tires	315 / 75 R16 Mud terrain	315 / 75 R16 Mud terrain
LED Lights	Yes	Yes

* Other mast heights and payload capabilities available



TACTICAL MILITARY TRAILERS

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

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

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

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

ESSENTIAL FEATURES

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



CONTACT YOUR SALES REPRESENTATIVE TODAY

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



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