

Pneumatic Mast with Remote Locking System



# TELESCOPIC MAST AND TOWER ELEVATION SOLUTIONS

**WB**<sup>®</sup>  
**WILL-BURT**  
[WWW.WILLBURT.COM](http://WWW.WILLBURT.COM)



Will-Burt offers a wide variety of Portable Cellular, Broadcast and Mobile Elevation Solutions offering both short-term and long-term deployment options. Will-Burt and GEROH masts and ITS towers assure optimal performance of transmission equipment by delivering elevation solutions with unsurpassed rigidity and stability.

Will-Burt's extensive line of pneumatic and mechanical telescoping masts and lattice towers offer the ability to accommodate your unique requirements; whether it is a heavy payload, extremely harsh environment, off-road travel, remote location or an extended deployment period. A commercial-off-the-shelf (COTS) or custom solution will be available to meet your specifications. We offer field, trailer and truck solutions; portable tower systems, COWS and COLTS, to fulfill your long-term and temporary communication requirements.

All of our masts and tower elevation solutions are designed and manufactured to meet or exceed rigorous safety and operational requirements. You can be assured that a Will-Burt, ITS and GEROH elevation solution will successfully meet your specifications and provide reliable and flawless service for years.

## WILL-BURT ELEVATION SOLUTION ADVANTAGES

Will-Burt's portable telescopic masts and lattice towers enable your transmission equipment to perform at their highest capability and feature:

- **Greater stability and rigidity**
- **Fast deployment and retraction time**
- **Easy one person deployment**
- **Large payload capacity**
- **Long-term deployment capability**

## INNOVATIVE CUSTOM SOLUTIONS

Will-Burt's specialized engineers can develop an elevation solution to meet your unique requirements.



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## PNEUMATIC NON-LOCKING LOW-PROFILE TELESCOPING MASTS



### Internal collars deliver lower nested height.

Today's ENG vehicles such as the Ford Transit and Nissan NV, require a high performance telescopic mast with a lower nested height in order to meet highway height restrictions.

Will-Burt's Low-Profile mast with innovative internal collar design optimizes the nested to extended height ratio for a shorter retracted mast. Each collar is stored inside the next rather than stacking the collars one on top of the other - minimizing the stowed mast height.

An integrated locking payload top plate stabilizes the payload when stowed and in transit. Lastly, Will-Burt's mast design reduces extended mast twist for the best possible video feed.



## ESSENTIAL FEATURES

- **Low-Nested Height**
  - Internal collar design minimizes height of stowed mast
  - Design optimized for new, smaller ENG vehicles
- **Precise and Stable**
  - Design minimizes mast twist when extended
  - Integrated locking payload top plate stabilizes the payload when in transit
- **No Maintenance Required**
  - No routine maintenance required under normal operating conditions
  - 5 year manufacturer warranty

## LOW-PROFILE NON-LOCKING MASTS SPECIFICATIONS

Model*	7-27	6-29	5.3-32	7-42	6-42	7.3-50
Payload Capacity	300 lb. / 136 kg	200 lb. / 91 kg	200 lb. / 91 kg	300 lb. / 136 kg	200 lb. / 91 kg	200 lb. / 91 kg
Extended Height	26.7' / 8.2 m	28.4' / 8.7 m	32' / 9.75 m	41.2' / 12.5 m	41.2' / 12.5 m	50' / 15.3 m
Nested Height	6.5' / 2 m	6' / 1.8 m	5.3' / 1.7 m	6.8' / 2.1 m	6.3' / 1.9 m	7.3' / 2.3 m
Approximate Mast Weight	118 lb. / 53 kg	119 lb. / 54 kg	197 lb. / 90 kg	230 lb. / 104 kg	223 lb. / 101 kg	257 lb. / 117 kg
Sections	5	6	8	8	9	9
Tube Diameter	6.75-3.75" / 17.15-9.53 cm	6.75-3" / 17.15-7.62 cm	9-3" / 22.86-7.62 cm	9-3.75" / 22.86-9.53 cm	9-3" / 22.86-7.62 cm	9-3" / 22.86-7.62 cm
Collars	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking
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)	35 PSIG (2.4 bar)

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

## PNEUMATIC NON-LOCKING TELESCOPING 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. 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
- **Reliable Operation**
  - Anodized aluminum with synthetic bearings
- **No maintenance required**
  - No routine maintenance required under normal operating conditions
  - 5 year manufacturer warranty



### SUPER HEAVY-DUTY NON-LOCKING MASTS SPECIFICATIONS

Super Heavy Duty Models	10-38	12-48
Payload Capacity*	1,200 lb. / 544 kg	1,200 lb. / 544 kg
Extended Height	38' / 11.6 m	48' / 14.6 m
Nested Height	10' / 3 m	12' / 3.6 m
Approximate Mast Weight	400 lb. / 181 kg	475 lb. / 215 kg
Number of Sections	5	5
Tube Diameter	11.25-7.5" / 286-191 mm	11.25-7.5" / 286-191 mm
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

### HEAVY-DUTY NON-LOCKING MASTS SPECIFICATIONS

Model	6-25	7-30	7-42	8.5-48	8.5-52	9.5-56	9-58
Payload Capacity*	200 lb. / 91 kg	200 lb. / 91 kg	200 lb. / 91 kg	300 lb. / 136 kg	200 lb. / 91 kg	300 lb. / 136 kg	200 lb. / 91 kg
Extended Height	25' / 7.6 m	29' / 8.9 m	41.2' / 12.5 m	48' / 14.6 m	52' / 15.8 m	56.2' / 17 m	58' / 17.7 m
Nested Height	5.8' / 1.8 m	6.7' / 2 m	7' / 2.1 m	8.5' / 2.6 m	8.3' / 2.5 m	9.5' / 2.9 m	9' / 2.7 m
Approximate Mast Weight	110 lb. / 50 kg	125 lb. / 57 kg	235 lb. / 107 kg	275 lb. / 125 kg	266 lb. / 121 kg	296 lb. / 135 kg	290 lb. / 132 kg
Number of Sections	6	6	9	8	9	8	9
Tube Diameter	6.75-3" / 171-76 mm	6.75-3" / 171-76 mm	9-3" / 229-76 mm	9-3.75" / 229-95 mm	9-3" / 229-76 mm	9-3.75" / 229-95 mm	9-3" / 229-76 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)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

### STANDARD DUTY NON-LOCKING MASTS SPECIFICATIONS \*Internally wired versions available

Model	5-20	6-27	7-34	8-30
Payload Capacity*	70 lb. / 32 kg	40 lb. / 18 kg	40 lb. / 18 kg	100 lb. / 45 kg
Extended Height	20' / 6.1 m	27' / 8.2 m	33.8' / 10.3 m	29.8' / 9.1 m
Nested Height	5.3' / 1.6 m	6' / 1.8 m	7' / 2.1 m	8' / 2.4 m
Approximate Mast Weight	45 lb. / 21 kg	54 lb. / 25 kg	67 lb. / 31 kg	64 lb. / 29 kg
Number of Sections	6	7	7	5
Tube Diameter	5-2.5" / 127-64 mm	5-2" / 127-51 mm	5-2" / 127-51 mm	5-3" / 127-76 mm
Maximum Operating Pressure	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)

\*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. Contact The Will-Burt Company for heights above 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**



**Locked Pneumatic Actuator**



Front

Bottom

**Control Box Included**



**Optional Handheld Controller**

## PNEUMATIC LOCKING HD & SHD TELESCOPING MASTS



### Designed for extended deployment periods.

Available in both Heavy Duty and Super Heavy Duty models, these masts offer a light weight elevation solution with a high payload capacity. These vehicle or trailer mounted telescoping masts feature locking collars that allow the mast to remain extended indefinitely without air pressure. Full-length keyways maintain directional azimuth and provide precise pointing accuracy.

- **Maintains Height Indefinitely**
  - Locking collars are easy to operate
- **Maintains Azimuth – Minimal Twist Deflection**
  - Full-length external keyways
- **No Maintenance Required**
  - No routine maintenance required under normal operating conditions
  - 5 year manufacturer warranty



## HEAVY DUTY LOCKING MASTS SPECIFICATIONS

Model	6-25	7-30	7-32	7-42	10-60	14.5-80
Payload Capacity*	200 lb. / 90.7 kg	200 lb. / 91 kg	400 lb. / 181.4 kg	200 lb. / 91 kg	300 lb. / 136 kg	400 lb. / 181 kg
Extended Height	25' 1" / 7.62 m	29' 1" / 8.9 m	31' 6" / 9.45 m	41' 3" / 12.6 m	59' 9" / 18.3 m	79' 9" / 24.3 m
Nested Height	6' 1" / 1.9 m	7' / 2.1 m	7' 2" / 2.18 m	7' 9" / 2.3 m	10' 1" / 3m	14' 3" / 4.3 m
Approximate Mast Weight	119 lb. / 54 kg	125 lb. / 57 kg	235 lb. / 106.6 kg	235 lb. / 107 kg	330 lb. / 150 kg	416 lb. / 189 kg
Number of Sections	5	6	7	9	8	7
Tube Diameter	3-6.75" / 76-171 mm	6.75-3" / 171-76 mm	4.5-9" / 114-229 mm	9-3" / 229-76 mm	9-3.75" / 229-95 mm	9-4.5" / 229-114 mm
Collar Type	Locking T-Handles	Locking T-Handles	Locking T-Handles	Locking T-Handles	Locking T-Handles	Locking Trip Lines
Guying Required	Optional	Optional	Optional	Optional	Optional	4 way / 4 level
Max. Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

## SUPER HEAVY DUTY LOCKING MASTS SPECIFICATIONS

Model	10-44.5	9-50	10.3-60	10.8-76	11.5-76	15.7-100	18-120	23.5-164
Payload Capacity*	980 lb. / 444 kg	530 lb. / 240 kg	530 lb. / 240 kg	300 lb. / 136 kg	400 lb. / 181 kg	530 lb. / 240 kg	530 lb. / 240 kg	300 lb. / 136 kg
Extended Height	44' 7" / 13.6 m	50' 5" / 15.3 m	60' 6" / 18.4 m	76' 2" / 23 m	76' 1" / 23.17 m	100' 5" / 30.3 m	120' / 36.5 m	164' / 50 m
Nested Height	10' / 3.05 m	9' 2" / 2.8 m	10' 5" / 3.18 m	10' 9" / 3.3 m	11' 6" / 3.5 m	15' 8" / 4.8 m	18' 2" / 5.6 m	23' 6" / 7.2 m
Approximate Mast Weight	313 lb. / 142 kg	500 lb. / 227 kg	500 lb. / 227 kg	536 lb. / 245 kg	613 lb. / 278 kg	790 lb. / 361 kg	920 lb. / 417 kg	1,200 lb. / 545 kg
Number of Sections	6	8	8	10	9	8	8	10
Tube Diameter	11.25-6.75" / 286-172 mm	11.25-5.25" / 288-135 mm	11.25-5.25" / 288-135 mm	11.25-3.75" / 288-96 mm	11.25-4.5" / 286-108 mm	11.25-5.25" / 288-135 mm	11.25-5.25" / 288-135 mm	11.25-3.75" / 286-96 mm
Collar Type	Locking T-Handles	Locking T-Handles	Locking T-Handles	Locking T-Handles and Trip Lines	Locking Trip Lines	Locking Trip Lines	Locking Trip Lines	Locking Trip Lines
Guying Required	Optional	Optional	Optional	Yes - 4 Way / 4 Level	Yes	Yes - 4 Way / 4 Level	Yes	Yes
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)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

\*Dimensions provided in catalog or on willburt.com are for reference only and are not intended for vehicle design purposes. Specifications are for reference only and are subject to change. Please contact Will-Burt Engineering for current and exact specifications.

## PNEUMATIC LOCKING ULTRA HEAVY-DUTY TELESCOPING MASTS

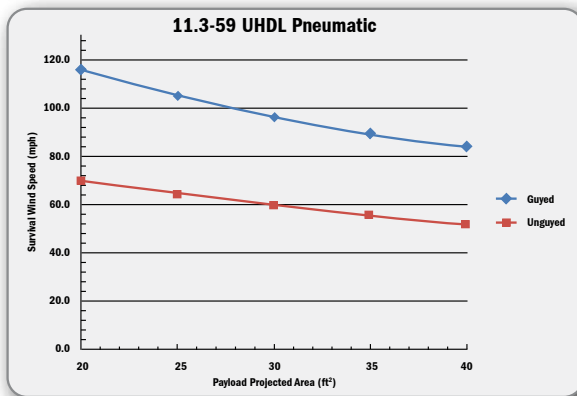


### Higher payload capacity with shorter nested height.

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.

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



## PNEUMATIC LOCKING ULTRA HEAVY-DUTY SPECIFICATIONS

Ultra Heavy-Duty Mast	8-39	11.3-59	9.8-65.6	13-70	14.4-80
Payload Capacity*	980 lb. / 444 kg	1200 lb. / 544 kg	530 lb. / 240 kg	1200 lb. / 544 kg	1200 lb. / 544 kg
Extended Height	39.3' / 12 m	59' / 18 m	65.6' / 20 m	70' / 21.3 m	80' / 24.3 m
Nested Height	7.9' / 2.4 m	11.3' / 3.4 m	9.8' / 3 m	13' / 4 m	14.4' / 4.4 m
Approximate Weight	607 lb. / 275 kg	814 lb. / 369 kg	852 lb. / 387 kg	920 lb. / 417 kg	1078 lb. / 489 kg
Number of Sections	8	7	10	7	7
Tube Diameter	13.5-6.75" / 34.29-17.15 cm	13.5-7.5" / 34.29-19.05 cm	13.5-5.25" / 34.29-13.34 cm	13.5-7.5" / 34.29-19.05 cm	13.5-7.5" / 34.29-19.05 cm
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)

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



## PNEUMATIC SYSTEMS by Will-Burt

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



AC Models	5255802	5255801	902404	903193	912361
Mast Application	All	All	All	Standard	All
Voltage	110VAC / 50Hz & 60Hz	230VAC / 50Hz & 60Hz	110VAC / 60Hz	220VAC / 50Hz	220VAC / 60Hz
CFM	6.5	6.5	4.4	2.01	4.4
Ltr / Min	185	185	125	57	101
Operating Temperature	-4°F to 122°F / -20°C to 50°C	-4°F to 122°F / -20°C to 50°C	50°F to 104°F / 10°C to 40°C	4°F to 131°F / -20°C to 55°C	50°F to 104°F / 10°C to 40°C
HandHeld Remote Control	x	x	Optional	Optional	Optional
Protective Enclosure	x	x			
Cooling Fan	x	x	x	x	x
Air hose w/Fittings	x	x	x	x	x
Pressure Gauge	x	x	x	x	x
Pressure Switch	x -cut out 32 ±2 psi	x -cut out 32 ±2 psi	x -cut out 32 ±2 psi	x -cut out 32 ±2 psi	x -cut out 32 ±2 psi
Current Draw	10 amp	5.1 amp	10.6 amp	4.1 amp	5.3 amp
Weight	25.4 lb / 11.5 kg	36.4 lb / 16.5 kg	45 lb / 20.4 kg	55 lb / 24.95 kg	45 lb / 20.4 kg
Dimensions	8" W x 11.6" H x 11.9" D / 203mm W x 295mm H x 302mm D	8" W x 11.6" H x 11.9" D / 203mm W x 295mm H x 302mm D	15" W x 8.91" H x 11.61" D / 381mm W x 227mm H x 295mm D	12.6" W x 9.0" H x 16.8" D / 320mm W x 229mm H x 427mm D	15" W x 8.91" H x 11.61" D / 381mm W x 227mm H x 295mm D



DC Models	5059901	5059902	5058501	5058502
Mast Application	Standard	Standard	All	All
Voltage	12VDC	24VDC	12VDC	24VDC
CFM	1.4	1.4	6.1	6.7
Ltr / Min	40	40	173	191
Operating Temperature	-4°F to 122°F / -20°C to 50°C	-4°F to 122°F / -20°C to 50°C	-4°F to 122°F / -20°C to 50°C	-4°F to 122°F / -20°C to 50°C
HandHeld Remote Control	x	x	x	x
Protective Enclosure	x	x	x	x
Cooling Fan			x	x
Air hose w/Fittings	x	x	x	x
Pressure Gauge	x	x	x	x
Check Valve	x -cut out 15 ±2 psi	x -cut out 15 ±2 psi	x -cut out 32 ±2 psi	x -cut out 32 ±2 psi
Current Draw	12 amp	8 amp	55 amp	30 amp
Weight	17.6 lbs. / 8 kg	17.6 lbs. / 8 kg	29.8 lbs. / 13.5 kg	29.8 lbs. / 13.5 kg
Dimensions	5.2" W x 10.6" H x 9.2" D / 131mm W x 267mm H x 233mm D	5.2" W x 10.6" H x 9.2" D / 131mm W x 267mm H x 233mm D	8" W x 11.6" H x 11.7" D / 203mm W x 295mm H x 298mm D	8" W x 11.6" H x 11.7" D / 203mm W x 295mm H x 298mm D

**MAST ACCESSORIES** .....



**D-TEC®** **D-TEC® SAFETY SYSTEM**

The D-TEC® safety system provides overhead power line detection and above-the-mast illumination. The built-in high voltage, electromagnetic and electrostatic field detection system automatically stops mast extension, providing added protection for the operator and equipment. The D-TEC® safety system is available on vertical telescoping masts.



**D-TEC® SAFETY FEATURES:**

- **Dual threshold AC alert, E-Field (current) and H-Field (magnetic)**
  - AC voltage detection range starting at 110VAC/60Hz
- **Senses both AC current and AC voltage**
- **3-axis field detection**
- **LED Look-Up Light**
- **Audible alerts**
- **Alphanumeric LED display**
- **Built-in Emergency Bypass**
- **Expanded self-testing features**
- **Factory pre-set siren and verbal warning in English and Spanish**

**SPECIFICATIONS**

Detection	AC voltage, electromagnetic & electrostatic field detection
Look-up Light	LED Look-up Light
Power Requirements	12 VDC 10 Amps / 24 VDC 5 Amps
Interconnecting Cable	2 twisted pair shielded (sensor to control unit)
Environmental Conditions	Sensor IP67, Control IP65
Display Options	3.5" × 4.5" × 8.5" case or single height rack mount
Sensor Housing	4.9" H x 5" W x 3.7" D



**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" / 1.27 cm to 1.25" / 3.2 cm in diameter with lengths available up to 100 ft. / 30 m.



**PNEUMATIC MAST FINISHES**

Will-Burt's Lukon 24 Mast finish is a patented process of hard anodizing aluminum surfaces and applying a permanent Teflon® lubricant. This provides improved service in all weather conditions and increases life expectancy. Field proven worldwide under all environmental conditions including military.

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

## KVL & KVR TELESCOPIC CRANK MAST

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**
- **MIL-STD 810-G qualified**
- **Field Deployment Kit Optional**



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

KVR Specifications	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' / 2.5 m	13.1' / 4 m	19.6' / 6 m	26.2' / 8 m	32.8' / 10 m	39.2' / 12 m	45.9' / 14 m	59.1' / 18 m
Nested Height	3.9' / 1.2 m	5.5' / 1.7 m	5.5' / 1.7 m	6.9' / 2.1 m	7.5' / 2.3 m	8.5' / 2.6 m	10.8' / 3.3 m	11.9' / 3.6 m
Payload Capacity*	154 lb. / 70 kg	143 lb. / 65 kg	154 lb. / 70 kg	154 lb. / 70 kg	110 lb. / 50 kg	110 lb. / 50 kg	88 lb. / 40 kg	80 lb. / 40 kg
Approximate Mast Weight	66 lb. / 30 kg	77 lb. / 35 kg	110 lb. / 50 kg	134 lb. / 61 kg	187 lb. / 85 kg	205 lb. / 93 kg	187 lb. / 85 kg	271 lb. / 123 kg
Number of Sections	3	3	5	5	6	6	5	6

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

# INFLEXION™

## INFLEXION™ ROOF-MOUNTED TELESCOPING MAST



The Will-Burt Company has partnered with the industry leaders in broadcast vehicle integration for over 30 years. This has allowed Will-Burt to identify advances and changes in broadcast technology early and design elevation solutions to optimize that technology.

Inflexion™ was designed to meet the elevation requirements of smaller, advanced broadcast devices. The roof-mounted, self-contained Inflexion™ can easily be integrated onto nearly any vehicle, from traditional broadcast vans to small, front-wheel drive vehicles. This allows you to take full advantage of fuel and vehicle cost savings.



### STANDARD FEATURES

- **Compact, roof-mount design**
  - No interior space needed
- **Self-contained elevation system**
  - No compressor or generator required
- **Years of reliable service**
  - Field proven design with over 25 years of service - 2 year manufacturer warranty
- **High payload capacity and height options**
  - From 5 ft. / 1.5 m to 25 ft. / 7.5 m
- **Accommodates a variety of payloads**
  - Antennas, satellite dish, radar, lighting and cameras
- **12 VDC operation**
- **Color**
  - White
- **Analog Handheld controller**
  - Includes mast up/down function

### OPTIONAL FEATURES

- **Positionit**
  - Integrated pan and tilt positioner
- **InflexionPlus**
  - Accommodates full function handheld controller (sold separately)
- **Color**
  - Black
- **Internal wiring or Nycoil**
  - Consult factory for specific application
- **24 VDC operation**

## INFLEXION™ SPECIFICATIONS

Model	1.0	1.5	1.8	2.3	3.0	4.5	6.0	7.5
Extended Height	39" / 99 cm	59" / 150 cm	60" / 152 cm	79" / 200 cm	108" / 274 cm	168" / 427 cm	228" / 579 cm	287" / 729 cm
Maximum Payload Capacity*	60 lb. / 27 kg	60 lb. / 27 kg	60 lb. / 27 kg	60 lb. / 27 kg	100 lb. / 45 kg	100 lb. / 45 kg	70 lb. / 31 kg	57 lb. / 25 kg
Stowed Dimensions (Approximate) (L x W x H in. / cm)	41.5" x 15" x 10" / 104 x 38 x 25	66" x 12" x 12" / 165 x 30 x 29	37" x 15" x 10" / 94 x 38 x 25	43" x 16" x 11" / 110 x 38 x 23	51" x 16" x 12" / 130 x 41 x 31	63" x 16" x 12" / 159 x 40 x 29	80" x 16" x 11" / 202 x 40 x 28	91" x 16" x 11" / 223 x 40 x 28
Approximate System Weight	60 lb. / 27 kg	52 lb. / 24 kg	63 lb. / 29 kg	66 lb. / 30 kg	105 lb. / 48 kg	110 lb. / 50 kg	123 lb. / 56 kg	134 lb. / 61 kg
Operating Temperature Range	-22°F to +149°F / -30°C to +65°C							

\*The added weight of a positioner or D-TEC II will reduce maximum payload capacity. Capacity will be affected by wind sail area. Consult factory.

## THE ADVANTAGES OF 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 Portable Tower & Mast Systems; Tower & Mast Integrated Trailers, Trucks, Communication-Site-on-Wheels (COWs), and Mast-, Satellite- and Tower-Integrated Mobile Command and Communication Centers. This state-of-the-art equipment is designed specifically to support a global contingent of ITS clientele representing the following industries:

- Telecommunications, Infrastructure Development/Restoration; Tower Owners/Operators Multi-media, Broadcasting
- First Responder, Public Safety and Emergency Management; Law Enforcement, Incident Command, Search & Rescue
- 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 and Corporate Programs
- Global Support of Special Events; Political, Commercial, Industrial, Sporting, Civic and Numerous other Markets/Industries Served

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

	MOBILE TOWER SOLUTIONS	MOBILE MAST SOLUTIONS
<b>Self-Support &amp; Guyed Heights</b>	±38', 55', 72', 89', 106' & 130' / 11.6m, 16.8m, 21.9m, 27.1m, 32.3m & 40m	30' - 100' / 9m - 30m
<b>Tower Capacity</b>	<b>Standard Payloads:</b> Up to: ±550 lb / 250 kg <b>Upgraded Payloads:</b> Up to: ±750 lb / 340 kg	Payloads Up To: 1,200 lb / 544 kg
<b>Power</b>	120-220 VAC / 60-50 Hz Configurations	
<b>Common Use</b>	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	

## MOBILE TOWER SOLUTIONS



### SC SERIES – COMMUNICATION-SITE-ON-WHEELS (COW)



### TMT SERIES – TRUCK MOUNTED TOWER SYSTEM



## MOBILE MAST SOLUTIONS

### COW SERIES – TRAILER MOUNTED MAST (Vertical Mast Installation)



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



## ITS RENTAL AND FLEXI-FLEET CONFIGURATIONS – PORTABLE TOWER SYSTEMS



ITS Rental Programs offer a wide variety of innovative, efficient and flexible options to meet customer's temporary, long-term, and emergency communications needs. Whether originating from ITS manufacturing headquarters or a Domestic or International Fleet Depot, we offer customers both in-house and field services including; training, equipment integration, deployment and decommissioning coordination, customs and transportation logistics, and other necessary services to assist with temporary use requirements.

As designed, each trailer's skeletal frame is engineered with a minimum factor of safety of 2:1, with 4:1 in critical load areas. A multi-section ~ 21'0" / 6.4m each, lattice steel telescopic structure is designed to transport horizontally over the trailer's equipment platform and automatically tilt by means of a heavy-duty, chrome plated hydraulic cylinder. The tower system is raised to its full extension utilizing a direct drive, minimum 1HP, totally enclosed fan cooled (TEFC), wash-down rated electric winch motor and gearbox assembly. Each Portable Tower System model is capable of being deployed, elevated to its full-extended height, and secured by a mechanical tower lock mechanism by one person in under 30 minutes. For added security and stability during poor weather conditions, excessive loading, long-term deployment, or to minimize structure deflection for critical applications, the tower may be further protected by the use of an included guy cable and ground anchor system.

### ITS Telescopic Tower Systems

- ±106' / 33m and ±125' / 38m Self-Supporting and Guy Capable Tower Elevations
- Fully Automated, Direct Drive Tower Operating System; No Belts, No Chains, No Guy Wires Required
- ±550 lb / 250 kg Standard Tower Load Capacity; 120-220VAC Electrical Configuration
- Greatest Self-Supporting and Guyed Wind / Payload Capacity of Any Comparable Tower System
- Multi-Terrain, Custom Drawbar Trailers with Outrigger Stabilization; Electric Brakes and LED Lighting
- 15,000 lb / 6,803 kg – 22,000 lb. / 9,977 kg Capacity GVWR; 4,000 lb / 1,814 kg to 6,000 lb / 2,721 kg Equipment Capacity



## POSITIONERS / CONTROLLERS

# POSITIONIT®

PositionIt by Will-Burt is a maintenance-free pan and tilt positioner designed to provide years of trouble-free service. An IP68 rating delivers dust and water protection. The gear box is designed to minimize backlash and provides higher gear ratios for lower speeds along with mechanical braking. Long-life potentiometers are standard with PositionIt.

## ESSENTIAL FEATURES

- **Replacement for MOOG QuickSet QPT Positioners**
  - Direct connection to existing QuickSet control/power cable
- **Pelco-D RS-485 Communications**
- **Strong lightweight construction**
  - Die-cast aluminum casing
- **Minimal backlash**
  - Precision turned and milled components with ball races on major axes
- **Built to last**
  - Stainless steel fasteners
- **Weatherproof**
  - IP 68 rating
- **Simple to install**
- **Universal mounting plate**
  - Suitable for most common payloads
- **Corrosion resistant finish**
  - Black
- **Regenerative braking**
  - On motor shaft
- **Long operational life**
  - 2 year warranty on Will-Burt PositionIt™ Positioners
  - 3 year mechanical and 2 year electrical warranty on Static Positioners
- **Flexible connection**
  - Bottom or side
- **We also offer a complete range of positioners for fixed applications and camera enclosures.**



## POSITIONIT SPECIFICATIONS

Model	PI-150	PI-75	PI-35
Payload Capacity*	150 ft. lb. / 202 Nm	75 ft. lb. / 101 Nm	35 ft. lb. / 47 Nm
Height	11.32" / 287.7 mm	11.32" / 287.7 mm	9.7" / 246 mm
Width	12.4" / 314 mm	9.21" / 234 mm	10.8" / 273 mm
Depth	6.8" / 171 mm	6.8" / 171 mm	5.7" / 144 mm
Weight	37 lb. / 16.8 kg	35 lb. / 16 kg	19.5 lb. / 8.9 kg
Operating Temperature	-20°C to 50°C / -4°F to 122°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.

## POSITIONIT CONTROLLERS

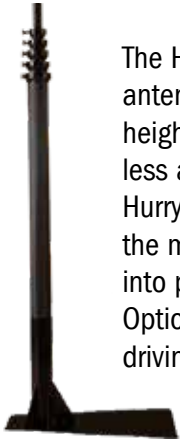
The handheld and 2U rack mount controllers are Pelco-D compatible with programmable home and stow positions. The AC powered rack mount controller provides power and pan and tilt commands to the positioner and is adaptable to contact closure switches for I/O panels. The handheld controller has a keyboard for programming and an LCD screen and can be optionally used in conjunction with the rack mount controller.





## PORTABLE MASTS

### HURRY-UP MAST



The Hurry-Up mast is ideal for fast deployment of lightweight antennas and equipment. This mast is available in four extended heights from 7 ft. / 3.5 m to 30 ft. / 9 m in one minute or less and easily manages payloads up to 20 lb / 9 kg. The Hurry-Up mast features quick lock/release collars to extend the mast manually by pushing up the sections and fixing them into position. The Hurry-Up mast is well suited for field testing. Optional Drive-On plate allows the mast to be secured by simply driving a vehicle onto the plate.



### ESSENTIAL FEATURES

- **Rigid Azimuth Locking Collars**
  - Quick direction adjustments
- **Easy to Set Up**
  - Less than one minute
- **Corrosion Resistant**
  - Black anodized finish
- **Drive-on Plate Mounting**
  - No guylines required
- **External Support Brackets**
  - Permanent vehicle mounting
- **Hitch Mount**
  - 2" Hitch - Removable



### SPECIFICATIONS

Hurry-Up Mast	710103010	903614	719901610	719900790
Payload Capacity	20 lb. / 9.1 kg	20 lb. / 9.1 kg	20 lb. / 9.1 kg	20 lb. / 9.1 kg
Extended Height	30' / 9 m	24.3' / 7.6 m	16.4' / 5.3 m	7' / 2.1 m
Nested Height	6' 9" / 2 m	5' 9" / 1.8 m	5' 4" / 1.6 m	3' 5" / .9 m
Approximate Weight	36 lb. / 16 kg	29 lb. / 13 kg	19 lb. / 9 kg	15 lb. / 7 kg
Number of Sections	6	6	4	3
Tube Diameter	3.5-1.5" / 89-38 mm	3.5-1.5" / 89-38 mm	3.5-2.25" / 89-57 mm	3.5-2.625" / 89-67 mm
Collar Type	Friction Locking	Friction Locking	Friction Locking	Friction Locking
Finish	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2

## PORTABLE MASTS



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 from 2 to 15 meters.

### 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 Mast Tube Lift Winch

PORTABLE MASTS



**AM2 with EZ Raze  
Payload Elevation System**

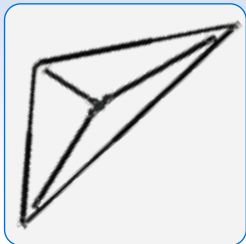
Easily elevate and lower multiple antennas and sensors

**AM2 with Lift Winch  
Payload Elevation System**

Manually elevate and lower multiple antennas and sensors

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

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



**STAKE FREE  
TRIPOD KIT**



**MANUAL LIFTER**



**LIGHTNING  
GROUNDING KIT**



**ADJUSTABLE  
CUP HOLDER**



**DUAL, TRI &  
QUAD ARM COLLAR**



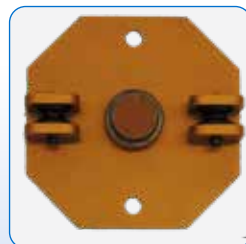
**BOLSTER PLATE**



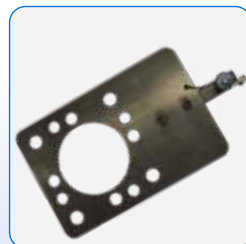
**HALF CLAMP**



**LIFT WINCH**



**WINCH LIFT PLATE**



**NATO PLATE**

# CONTACT YOUR SALES REPRESENTATIVE TODAY

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 payload elevation and integration solution from the top brands; Will-Burt, GEROH, Integrated Tower Systems (ITS) and MAD – for defense, government, first responders, cellular, broadcast, energy production and other markets. Will-Burt also offers contract manufacturing, metal fabrication, powder-coating, and rapid prototyping services. 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.



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