



Pneumatic Masts & Accessories

Solutions

Broadcast & Cellular

The Will-Burt Company offers a broad array of telescoping masts, antenna positioners and accessories specifically for the broadcast & cellular industries. With pneumatic or manual deployment designs, our masts provide solutions to elevate antennas safely, quickly and to the desired heights.



transmission solutions

For many professionals, nothing matters more than effective communication. The ability to communicate reliably and quickly from anywhere increases work efficiency, safety and production. Today's demanding communications infrastructure requires durable and reliable masts that can safely elevate antennas.

The Will-Burt Company

Employee-owned and ISO 9001:2008 Certified, the Will-Burt Company, located in Orrville, Ohio, enjoys a remarkable 90+ year history of dedication to excellence. As the world leader in manufacture of pneumatic and mechanical masts for commercial and military applications, Will-Burt continues to be your single-stop resource for elevation solutions for surveillance, antenna and lighting.

For additional specifications, details, and interface drawings go to www.willburt.com.

Products

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Non-Locking Masts

Standard Duty



Will-Burt's Standard Duty Masts are pneumatic and used to support a variety of lightweight payloads up to 34 feet (10.3 meters). The mast is a series of graduated extruded aluminum tubes that nest inside one another. Suggested applications include Emergency Vehicle Communications, Radio Remote Broadcasting, Surveillance, Elevated Testing and Seismic Testing.

Features:

Free-standing unit

- No guylines needed

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

Exterior surfaces are anodized and sealed

- Extended life of the mast

Fasteners are stainless steel

- Corrosion resistant



Specifications	5-20	6-27	7-34	8-30
Nested height	5.3 ft./1.6 m	6.0 ft./1.8 m	7.0 ft./2.1 m	8.0 ft./2.4 m
Extended height	20 ft./6.1 m	27.0 ft./8.2 m	33.8 ft./10.3 m	29.8 ft./9.1 m
Payload Capacity	70 lb./32 kg	40 lb./18 kg	40 lb./18 kg	100 lb./45 kg
Approx. Mast Weight	45 lb./21 kg	54 lb./25 kg	67 lb./31 kg	64 lb./29 kg
Tube Diameter Range	5-2.5"/127-64 mm	5-2.5"/127-64 mm	5-2.5"/127-64 mm	5-3"/127-76 mm
No. of Sections	6	7	7	5
Max. Operating Pressure	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)

Optional Equipment

- Rotatable base plate and turning handles
- Mounting for external installation
- Top mountings: extension stub or custom interfaces
- Lukon 24 mast finish
- Black Anodized mast finish
- Canvas top cover

For a complete model and specification list please visit www.willburt.com

Non-Locking Masts

Heavy Duty Non-Locking



With extended deployment heights of up to 56 feet (17 meters), Will-Burt's Non-Locking Heavy Duty Mast is ideal for surveillance, electronic news gathering and elevated testing. The pneumatic mast is a series of graduated extended tubes, assembled to nest inside one another. It can be retracted to its compact height of less than 10 feet (3 meters) and quickly extended in minutes to its free-standing height. The mast is constructed of high-strength heat treated aluminum tubes and collars with low friction synthetic bearings for long, dependable life. Suggested applications include: ENG, Elevated Testing, Surveillance and Wireless Cable Testing.

Features:

Free-standing unit

- No guylines needed

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

Exterior surfaces are anodized and sealed

- Extended life of the mast

Fasteners are stainless steel

- Corrosion resistant

Custom models available

- Custom models can be designed for greater payloads or for other retracted and extended heights.

Specifications	6-25	7-30	7-42	8.5-48	9.5-56
Nested height	6.0 ft./1.8 m	7.0 ft./2 m	7.3 ft./2.1 m	8.7 ft./2.7 m	9.6 ft./2.9 m
Extended height	25 ft./7.6 m	30 ft./8.9 m	41.2 ft./12.5 m	48.6 ft./14.8 m	56 ft./17 m
Payload Capacity	150 lb./68 kg	150 lb./68 kg	150 lb./68 kg	200 lb./90 kg	200 lb./90 kg
Approx. Mast Weight	110 lb./50 kg	125 lb./57 kg	235 lb./107 kg	275 lb./125 kg	296 lb./135 kg
Tube Diameter Range	6.75-3"/171-76 mm	6.75-3"/171-76 mm	9-3"/229-76 mm	9-3.75"/229-95 mm	9-3.75"/229-95 mm
No. of Sections	6	6	9	8	8
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)

Optional Equipment

- Rotatable base plate and turning handles
- Mounting for external installation
- Top mountings: extension stub or custom interfaces
- Lukon 24 mast finish
- Black Anodized mast finish
- Canvas top cover
- Close azimuth design



For a complete model and specification list please visit www.willburt.com

Locking Masts

Heavy Duty Locking



When a mast deployment is needed for extended periods, turn to Will-Burt's Heavy Duty Locking mast. Available in six standard models up to 134 feet (40 meters), these vehicle or trailer mounted masts feature locking collars that allow the mast to remain extended indefinitely without air pressure. Models up to 60 feet (18 meters) can be vehicle mounted so guylines are optional - over 60 feet are field guyed and non-rotatable. Suggested applications include: Temporary Cell Sites, Cell Site Testing, Military Communications and Mobile Radar Systems.

Features:

Locking collars

- Allow mast to remain extended indefinitely without air pressure

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

Exterior surfaces are anodized and sealed

- Extended life of the mast

Fasteners are stainless steel

- Corrosion resistant

Custom models available

- Custom models can be designed for greater payloads or for other retracted and extended heights.



Optional Equipment

- Locking collars with T Handle assemblies
- Locking collars with color coded trip lines that lock defeat mechanism
- Top mountings: extension stub or custom interfaces
- Lukon 24 mast finish
- Black Anodized mast finish
- Close azimuth design

Specifications	7-30	7-42	10-60	14.5-80	17-100	20-134
Nested height	7.0 ft./2 m	7.6 ft./2.3 m	10.0 ft./3.0 m	14.1 ft./4.3 m	17.0 ft./5.2 m	20.0 ft./6.1 m
Extended height	30 ft./8.9 m	41.3 ft./12.6 m	60.5 ft./18.5 m	79.8 ft./24.3 m	100 ft./30.4 m	134 ft./40.8 m
Payload Capacity	150 lb./68 kg	150 lb./68 kg	200 lb./90 kg	225 lb./102 kg	200 lb./90 kg	150 lb./68 kg
Approx. Mast Weight	125 lb./57 kg	235 lb./107 kg	330 lb./150 kg	416 lb./189 kg	480 lb./218 kg	600 lb./273 kg
Tube Diameter Range	6.75-3"/171-76 mm	9-3"/229-76 mm	9-3.75"/229-95 mm	9-4.5"/229-114 mm	9-4.5"/229-114 mm	9-3.75"/229-95 mm
No. of Sections	6	9	8	7	7	8
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)
Collar Type	Locking T Handles	Locking T Handles	Locking T Handles	Locking T Handles	Locking Triplines	Locking Triplines
Guying Required	Not required	Not required	Not required	4 Way / 4 Level	4 Way / 4 Level	4 Way / 5 Level

Locking Masts

Super Heavy Duty Locking



**optional
Black Anodize
finish shown*

When heavy payloads and/or large sail areas are necessary, Will-Burt's Super Heavy Duty Locking mast is the answer. Available in four standard models up to 100 feet (30.3 meters), these vehicle or trailer mounted masts feature locking collars that allow the mast to remain extended indefinitely without air pressure. Guying is optional. Custom heights and payloads are available. Suggested applications include: Temporary Cell Sites, Wind Energy Generation, Military Communications and Mobile Radar Systems.

Features:

Locking collars

- Allow mast to remain extended indefinitely without air pressure

Large payload capacities available

- Allow mast to remain extended indefinitely without air pressure

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

Exterior surfaces are anodized and sealed

- Extended life of the mast

Fasteners are stainless steel

- Corrosion resistant

Custom models available

- Custom models can be designed for greater payloads or for other retracted and extended heights.



Optional Equipment

- Internal roof mounting hardware
- Custom top interfaces
- Lukon 24 mast finish
- Black Anodized mast finish
- Close azimuth design
- Guying

Specifications	9-50	10.3-60	10.8-76	15.7-100
Nested height	9.1 ft./2.8 m	10.1 ft./3.2 m	10.8 ft./3.3 m	15.7 ft./4.8 m
Extended height	50.4 ft./15.3 m	60.4 ft./18.3 m	76.2 ft./23.0 m	100 ft./30.3 m
Payload Capacity	450 lb./205 kg	450 lb./205 kg	200 lb./90 kg	450 lb./205 kg
Approx. Mast Weight	500 lb./227 kg	500 lb./227 kg	536 lb./235 kg	790 lb./361 kg
Tube Diameter Range	11.25-5.25"/288-135 mm	11.25-5.25"/288-135 mm	11.25-5.25"/288-135 mm	11.25-5.25"/288-135 mm
No. of Sections	8	8	10	8
Max. Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)
Collar Type	Locking T Handles	Locking T Handles	Locking T Handles	Locking Trip Lines

For a complete model and specification list please visit www.willburt.com

Portable Masts

Antenna Mast

Mobilemast, a highly portable, lightweight and economical mast, can support a variety of payloads including cameras and antennas. All Mobilemast models are easily transportable. The large tri-pod base allows a single person to assemble and extend 4 foot (1.2 meters) sections to heights from 8 feet (2.5 meters) to 64 feet (19.3 meters). Mobilemast is ideal for compact storage and fast deployment and is available in lightweight, high-strength carbon fiber tubes or economical steel tubes.

The EZ Raze™ System is a high capacity winch, pulley and payload carriage system. This optional system permits a single person to lift multiple antennas and equipment weighing up to 40 pounds in a safe and controlled manner.

Features:

Portable and lightweight

- Deployable by one person
- Mast and accessories fit conveniently in compartmentalized transport bag

Sturdy tripod base

- Provides deployment and operational stability

Models 24' and less do not require guylines

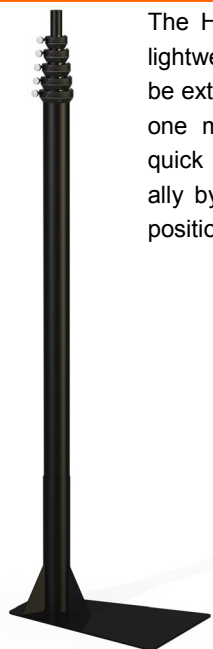
- Allows for quick and easy setup

Urban kit option

- Allows for deployment where stakes cannot be driven into the ground



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.

Features:

Portable & lightweight

- Allows for easy transportation
- Weighs less than 50 pounds (22.7 kilograms)
- Nested height 6 feet (1.8 meters)

Payload Capacity

- Allows for payloads up to 20 pounds (9 kilograms)

Rigid azimuth locking collars

- Allows for quick direction adjustments

Black anodized finish

- Increases resistance to corrosion

Drive-on plate mounting

- No guylines required

Removable payload extension stub

- Allows easy payload mounting

External support brackets option

- Allows for external vehicle or wall mounting

For a complete model and specification list please visit www.willburt.com

Antenna Positioners

AccuPoint® Positioners

AccuPoint positioners are designed to deliver maximum performance for top-of-the-mast payload positioning. This line features two models. The AP-100 is a 100 pound (45 kilograms) payload capacity positioner and the AP-25 is a 25 pound (11 kilograms) payload capacity positioner. Design highlights feature optimized gear and motor ratios for enhanced performance and easily accessible, adjustable-limit cams for easy service. The AP-100 features an easy to replace breakaway base with lanyard for added safety



AP-100 features:

- 100 lb (45 kg) payload capacity
- AC or DC operation
- 30 minute full load duty cycle
- Adjustable pan speed: 0.25° - 11° per second
- Adjustable tilt speed: 0.1° - 4° per second
- 180° tilt angular rotation
- 100 ft-lbs tilt torque
- 4 red LED's underneath unit for easy visibility and increased safety



AP-25 features:

- 25 lb (11 kg) payload capacity
- DC operation only
- Adjustable pan speed: 0.25° - 11° per second
- Adjustable tilt speed: 0.1° - 4° per second
- 180° tilt angular rotation
- 12.5 ft-lbs tilt torque

AccuPoint Controllers

Basic Control	Plus Control	Enhanced Control	Premium Control
Voltage: 24 AC, 24 DC, 115 DC or 115AC Features: On/off switch, High/low speed, 4 button Temperature Limits: 32°F-120°F/0°C -49°C/ Hand-held remote control interface Form: Rack-Mount-1 RU	All Basic control features Stow/Unstow	All Plus features RS-232 interface Operable via Microsoft Windows® interface software LCD shows relative heading of pan/tilt, retrieved name/target bearing, intended action/action underway Ability to store 10 names/relative headings, based on pots	All Enhanced features Automatically orients the antenna with extreme accuracy from platform LCD shows GPS accurate time Compensates and fine-tunes targeting when mast is raised at a skew Provides exact GPS location readout Provide exact distance to receive site, or any GPS coordinates Stores 40 receive site names/coordinates



APC-Enhanced shown

For a complete model and specification list please visit www.willburt.com

Live Power & Obstacle Detection

D-TEC II® Safety System



The D-TEC II safety unit provides overhead power line and obstacle detection and above-the-mast illumination. The built-in anti-collision system automatically stops mast extension, providing added protection from overhead hazards for the operator and equipment. The D-TEC II safety system is available on vertical telescoping masts.

D-TEC II Safety Features:

Look-up light

- Illuminates area directly above telescoping mast

High-voltage sensor

- Aids operator in detecting overhead power lines

Anti-collision sensor

- Automatically stops mast extension when overhead obstructions are detected

Factory pre-set sensitivity setting



Vertical telescoping mast with camera and D-TEC II Safety System

Detection	AC voltage, electromagnetic & electrostatic field detection
Look-up Light	LED Look-up Light
Anti-Collision Sensor	8 ft. proximity
Tilt Warning Sensor	Senses tilt of 10° or more from vertical
Power Requirements	12 VDC, 10 amp
Interconnecting Cable	2 twisted pair shielded (sensor to control unit)
Environmental Conditions	Sensor IP67, Control IP65

Accessories

NYCOIL[®] Cable Conduit



NYCOIL is coiled conduit to house wiring, antenna coax and positioner cable.

Features:

Easily fits around non-locking telescoping masts
Extends neatly with the mast
Compactly retracts when mast is nested
Sizes from 3/4 in. ID to 1 1/4 in. ID (12 mm to 32mm)
Lengths to 100 feet (30 m)
Available in gray or black

Determining Length:

NYCOIL length should be
two times the difference
between the mast extended
and nested height

Model	Length
5-20	30 ft (9 m)
6-27	40 ft (12 m)
7-30	80 ft (18 m)
7-34	50 ft (15 m)
8.5-48	80 ft (24 m)
9.5-56	100 ft (30 m)

Pneumatic Systems

Will-Burt offers a variety of low maintenance oil-less air compressor systems that are specifically designed for optimal performance with our masts. Compressors are available with 12 VDC, 28 VDC, 115/130 VAC, 220 VAC / 50 Hz.

	Tank	HP	Power	Weight	Dimensions	Max. Output Pressure
C-287	No	1/6	4 amps at 115 VAC	22 lb (10 kg)	12 x 9 x 8" (303 x 229 x 203 mm)	20 PSI (1.4 bar)
C-288	No	1/8	11.1 amps at 12 VDC	15 lb (7 kg)	12 x 9 x 8" (303 x 229 x 203 mm)	20 PSI (1.4 bar)
C-275	No	3/4	14.8 amps at 115 VAC or 7 amps at 230 VAC	55lb (25 kg)	16 x 8 x 15" (406 x 203 x 381 mm)	35 PSI (2.4 bar)
D-284	No	1/3	46 amps max at 12 VDC	27 lb (12 kg)	16 x 8 x 15" (406 x 203 x 381 mm)	35 PSI (2.4 bar)
C-2311	No	1/3	23 amps max at 24 VDC	27 lb (12 kg)	16 x 8 x 15" (406 x 203 x 381 mm)	35 PSI (2.4 bar)
C-289	No	1/2	6 amps at 220 VAC/50Hz	55lb (25 kg)	16 x 8 x 15" (406 x 203 x 381 mm)	35 PSI (2.4 bar)
C-267	12 gal	1/2	10.8 amps at 115 VAC or 5.4 amps at 230 VAC	76 lb (35 kg)	27 x 24 x 13" (686 x 610 x 330 mm)	35 PSI (2.4 bar)
C-271	12 gal	1/3	46 amps max at 12 VDC	65 lb (30 kg)	27 x 24 x 13" (686 x 610 x 330 mm)	35 PSI (2.4 bar)
C-2434	12 gal	1/2	23 amps max at 24 VDC	65 lb (30 kg)	27 x 24 x 13" (686 x 610 x 330 mm)	35 PSI (2.4 bar)
D-278	12 gal	1/3 1/2	46 amps at 12 VDC 10.8 amps at 115 VDC or 5.4 amps at 230 VAC	105 (48 kg)	30 x 26 x 14" (762 x 660 x 356 mm)	35 PSI (2.4 bar)
C-294	12 gal	1/2	5.4 amps at 220 VAC/50Hz	22 lb (10 kg)	27 x 24 x 13" (686 x 610 x 330 mm)	35 PSI (2.4 bar)



Tank-less pneumatic compressor assemblies include:

- 0-30 PSIG gauge
- Adjustable pressure switch
- Check valve
- Mast control valve with handle
- 6 ft. (1.8 m) of 3/8" air hose with NPT fittings



Pneumatic compressor assemblies with tanks include:

- Regulator with 0-30 PSIG gauge
- 0-160 PSI tank gauge
- Ball valve
- Pressure switch
- Check valve
- Mast control valve with handle
- 6 ft. (1.8 m) of 3/8" air hose with NPT fittings

Pneumatic System Accessories:

C-280 Hand Pump Assembly: Auxiliary manually operated air supply designed as a back-up source for power failure or for raising standard duty masts in remote locations. Includes check valve and 3/8" air hose with fittings.

A-9283 Pneumatic Kit: This air control valve assembly without compressor includes 0-160 PSIG air gauge, regulator, 0-30 PSIG air gauge, 10 ft (3 m) of 3/8" air hose and NPT fittings.

900634 Filter Lubricator: This in line air lubricator filters out condensed moisture in air system and adds lubricant to the mast air supply.

900484 Filter-Regulator Lubricator: Same features as the 900634 but also includes air regulator.



www.willburt.com

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