

7750 9th Street SW, Vero Beach, FL 32968 USA Toll Free: (800) 850-8535 • Tel: (772) 567-3423 • Fax: (772) 567-3432 Email: programs@itstowers.com • www.itstowers.com An ISO 9001:2015 Quality Certified Company

## **REPRESENTATIVE PRODUCT CATALOG**

Integrated Tower Systems-*ITS* is a global leader in the *manufacture, sales and rental* of an extensive and affordable line of rapid-deployment Mobile Tower & Mast Systems; *Tower & Mast Integrated Trailers, Trucks, Communication-Site-on-Wheels (COWs), Mast-, Satellite- and Tower-Integrated Mobile Command Centers, and Tilt-integrated Tower and Mast Systems.*. 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, Communications Infrastructure 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.

As an OEM and owner of North America's largest sales inventory and rental fleet, *ITS* is pleased to present a few of our most popular Commercial-off-the Shelf (COTS) and Custom Model Configurations. For additional information, please visit our website at <u>www.itstowers.com</u> or contact an *ITS* Representative Toll Free at 1 (800) 850-8535.



- » Equipment: *ITS* <u>SR Series</u> ~ Mobile Tower Trailer ~ Self-Support & Guyed Heights: <u>+55</u>', 72', 89' & 106'; Custom Alternative Elevations » Trailer GVWR & Dims: 15,000lb Capacity GVWR; to 4,500lbs of Trailer Payload; +30'L x 8'W x 10'6"H
- » Tower Capacity: Payloads to ±650lbs (295kg); 120-220VAC/60-50Hz Configurations
- Common Use: Surveillance, Site Security, Remote Communications, Meteorological Testing, Lighting, Disaster Recovery, Temporary Cell Site (Site Development and Restoration), Site Surveys, Oil & Gas Exploration/Production Sites



- » Equipment: /TS TMT Series ~Truck-Mounted Tower System ~ Self-Support & Guyed Heights: ±55', 72', 89' & 106'; Custom to ±130' AGL
- » GVWR & Dims: 19,500lb to 33,000lb Capacity GVWR; ±3,000lbs-6,000lbs of Truck-bed Equipment Payload; ±30'-36'L x 8'W x 10'6"-12'6"H
- » Tower Capacity: Payloads to +650lbs (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Sensor Applications, Communications & Surveillance, Disaster Recovery, Emergency Response, Remote Communications



- » Equipment: /TS NC/SR Series ~ Comm-Site-on-Wheels-(COW) ~ Self-Support & Guyed Heights: ±55', 72', 89' & 106'; Custom to ±130' AGL
- » GVWR & Shelters: 20,000lb to 36,000lb Capacity GVWR; from 5,000lbs to 9,000lbs of Payload; Typical Shelter Sizes: 8' 16'L x 8'W x 8'H
- » Tower Capacity: Payloads to +650lbs (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Temporary Cell Site, Surveillance, Incident Command, Emergency Response, Site Security, Systems Testing





- » Equipment: ITS IT & IT-G Series ~ Mobile Tower Trailer ~ Self-Support & Guyed Heights: <u>+55</u>', 72', 89' & 106'; Custom Alternative Elevations » GVWR & Dims: 18,000lb Capacity GVWR; to 6,000lbs of Trailer Payload; +31'-33'L x 8'W x 11'6"H
- » Tower Capacity: Payloads to ±650lbs (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Temporary Cell Site Development & Restoration, Surveillance, Testing, Lighting, AM Radio, Site Security



- » Equipment: *ITS* <u>SRS Series</u> ~ Mobile Tower Trailer (C-130 Aircraft & Flat-bed Trailer Transport) ~ Heights: <u>+</u>55', 72', 89', 106' & Custom Heights » GVWR & Dims: 15,000lb Capacity GVWR; to 4,500lbs of Trailer Payload; <u>+</u>30'L x 8'W x 8'3"H
- » Tower Capacity: Payloads to +650lbs (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Sensor Applications, Communications & Surveillance, Site/Border Security, Disaster Recovery and Remote Communications



- » Equipment: /TS SC Series ~ Comm-Site-on-Wheels (COW) ~ Self-Support & Guyed Heights: ±55', 72', 89' & 106'; Custom to ±130' AGL » GVWR & Shelters: 24,000lb to 60,000lb Capacity GVWR; 5,000lbs to 30,000lbs of Payload; Typical Shelter Sizes: 8' – 20'L x 8'W x 9'6"H
- » Tower Capacity: Payloads to +650lbs (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Temporary Cell Site, Surveillance, Incident Command, Emergency Response, Site Security, Systems Testing



- » Equipment: /TS SRS-C Series ~ Tower Trailer (C-130 Transport) ~ Self-Support & Guyed Heights: ±55', 72', 89', 106'; Custom ±120' & ±125' AGL
- » GVWR & Dims: 20,000-26,000lb Capacity GVWR; to 7,500lbs of Trailer Payload Capacity; +33'-38'L x 7'8"- 8'W x 8'4"H
- » Tower Capacity: Payloads to +650lb (295kg); 120-220VAC/60-50Hz Configurations
- » Common Use: Sensor Applications, Communications & Surveillance, Site/Border Security, Disaster Recovery and Remote Communications



- » Equipment: *ITS* <u>CLT Series</u> ~ Comms-on-Light-Truck-(COLT) ~ Standard Height to <u>+60</u>'; Payloads to 1,200lbs (544kg); Single or Tandem Masts » GVWR & Shelters: 25,999lb-36,000lb Capacity GVWR; to 15,000lbs of Payload; Shelter Sizes: 8'-20'L x 8'W x 9'6"H
- » Mast Capacity: Payloads to 1,200lbs (544kg)
- » Common Use: Telecommunications, Media Broadcasting, Disaster Recovery/Emergency Response Mobile Command

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- » Equipment: ITS MT Series ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to +63' AGL
- » Trailer GVWR & Dims: 7,000lb-8,000lbs Capacity GVWR; to 5,000lbs of Payload; Transport Dims: ±18'L x 7'W x 7'3H; Deployed Dims: ±18'L x 13'W
  » Mast Capacity: Payload to 450lbs; Electric or Hydraulic Tilt w/ Electric Mast Extension; Optional Mast Top Access Ladder w/ OSHA-compliant Fall Arrest
  » Common Use: Telecommunications, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing









- » Equipment: /TS RD-S Series ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to <u>+</u>63' AGL
- » Trailer GVWR & Dims: 6,000lb Capacity GVWR; to 1,800lbs of Payload; Transport Dims: <u>+</u>13'3"<sup>i</sup>L x 7'1"W x 7'8H; Deployed Dims: <u>1</u>3'3"<sup>i</sup>L x 14'W
  » Mast Capacity: Payload to 200lbs; Electric or Manual Tilt w/ Electric Mast Extension; Optional Mast Top Access Ladder w/ OSHA-compliant Fall Arrestor
- » Common Use: Border Security, Surveillance, Disaster Recovery/Emergency Response, Site Surveys, Energy Production/Mining, Site Security



- » Equipment: /TS RD-T Series ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to ±78' AGL
- » Trailer GVWR & Dims: 12,000lbs Capacity GVWR; to 4,500lbs of Payload; Transport Dims: ±16<sup>°</sup>L x 7<sup>'</sup>1<sup>"</sup>W x 7<sup>'</sup>8H; Deployed Dims: ±16<sup>°</sup>L x 14<sup>'</sup>W
  » Mast Capacity: Payload to 450lbs@ 60<sup>°</sup> AGL; Electric or Hydraulic Tilt w/ Electric Mast Extension; Optional Mast Top Access Ladder w/ Fall Arrest
  » Common Use: Border Security, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing
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- » Equipment: ITS LC Series ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to ±63' (19m) AGL
- » Trailer GVWR & Dims: 3,000lb Capacity GVWR; to 500lbs of Payload; Transport Dims: ±13'0"L x 6'0"W x 6'7H; Deployed Dims: 13'0"L x W » Mast Capacity: Payload to 200lbs; Electric or Manual Tilt & Mast Extension; Yoke Snagger for Mast Lock Engagement
- » Common Use: Border Security, Surveillance, Disaster Recovery/Emergency Response, Site Surveys, Energy Production/Mining, Site Security



- » Equipment: ITS COW Series ~ Trailer-Mounted Shelter & Mast System ~ Self-Support Pneumatic Mast Height to ±63' AGL
- » GVWR & Dims: 15,000lb 20,000lb Capacity GVWR; to 6,000lbs of Payload; From 22'L x 8'W x 12'6"H, Typical Shelter Sizes: 8'-12'L x 8'W x 8'H » Mast Capacity: Payloads to 450 lbs; Electric Mast Extension with Optional Mast Top Access Platform
- » Common Use: Telecommunications, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing





» Equipment: ITS <u>SRS-M Series</u> ~ Trailer-Mounted Mast System ~ Self-Supporting and Guy Capable Pneumatic Mast Height to <u>+</u>100' (30m) AGL
 » Trailer GVWR & Dims: 15,000lb Capacity GVWR; to 6,000lbs of Payload; Transport Dims: <u>+</u>24'-30'L x 8'W x 8'3H; Deployed Dims: <u>+</u>32'L x 22'W
 » Mast Capacity: Payload to 1,200lbs; Electric or Hydraulic Tilt w/ Electric Mast Extension; Optional Access Ladder w/ OSHA-compliant Fall Arrest

» Common Use: Telecommunications, Surveillance, Broadcasting, Disaster Recovery, Site Surveys, Energy Production, Site Security, Systems Testing



- » Equipment: /TS SRS-MS Series ~ Trailer-Mounted Shelter & Mast System ~ Self-Supporting/Guy Capable Pneumatic Mast Height to ±100' (30m)
- » GVWR & Dims: to 18,000lb-28,000lb Capacity GVWR; to 12,000lbs of Payload; Dims: +33'-41'L x 8'W x 12'6H; Shelters: 8'-16'L x 8'W x 8'-9'6"H
- » Mast Capacity: Payload to 1,200lbs; Electric or Hydraulic Tilt w/ Electric Mast Extension; Optional Access Ladder w/ OSHA-compliant Fall Arrest
- » Common Use: Telecommunications, Surveillance, Mobile Command, Disaster Recovery, Site Surveys, Energy Production, Site Security



- » Equipment: ITS SKD Series ~ Fixed Foundation-Mounted Mast System ~ Self-Supporting/Guy Capable Pneumatic Mast Height to +100' (30m)
- » Mast Capacity: Payload to 1,200lbs; Electric or Hydraulic Tilt w/ Electric Mast Extension; Optional Access Ladder w/ OSHA-compliant Fall Arrest » Common Use: Surveillance, Site Security, Special Events, Lighting Systems





### ITS Rental and Flexi-Fleet Configurations ~ Mobile Tower Systems



- » Primarily ±106' (33m) & ±120'/125' Self-Supporting & Guy Capable Tower Elevations
- » Fully Automated, Direct Drive Tower Operating System; No Belts, No Chains, No Guy Wires Required
- » +550 lb (250kg) Standard Tower Load Capacity; 120-220VAC/60Hz Primary Configuration
- » Greatest Self-Supporting and Guyed Wind/Payload Capacity of Any Comparable Tower System
- » Multi-Terrain, Custom Drawbar Trailer; <u>+</u>9'0"-15'0"L x 8'0"W x 4'6"-6'6"H Equipment Payload Area
- » Standard 15,000 lb (6,803kg) to 20.000lb (9,070kg) GVWR; to +3,800lb (1,723kg) to 6,000lb (2,721kg) Equipment Payload Capacity

*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) or 25'0" (7.6m) each, lattice steel telescopic structure is designed to transport horizontally over the trailer's equipment platform and automatically tilt by means of a single or tandem heavy-duty chrome plated hydraulic cylinder(s). 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 Mobile 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 Mobile and Fixed-Foundation-Mounted Telescopic Tower Systems**



*ITS* telescopic lattice steel tower structures are fully automatic, have extended heights ranging from  $\pm 38'0''$  (12m) to  $\pm 130'0''$  (40m) above ground level (AGL), standard payloads with capacities to 550lbs (250kg) and 650lbs (295kg) depending upon model configuration and offer the greatest wind load capacities of any comparable tower system. Although all *ITS* telescopic structures may be utilized solely in the self-supporting configuration at their maximum extended elevation ~ no guy wires required up to a combination of payload, wind-load and wind velocity; like all such towers, the use of guy assemblies is generally always recommended for extended deployment periods at un-manned sites

*ITS* structures are custom manufactured for installation directly to a concrete foundation or for integration a top numerous *ITS* trailer, truck, skid or other similar platforms. A rigorous Finite Element Analysis Program, performed and certified by an industry recognized, unaffiliated Structural Engineering and Consulting Firm, may be utilized to perform stress analysis review to determine tower member design in conformance with *ANSI/TIA-EIA 222-G* Standard requirements for each client-specific load configuration. The lattice towers members are modeled using beam elements for the leg members, truss elements for the bracing and cable elements for the raising, lowering and support cables.

Each *ITS* tower is comprised of two (2) to six (6) 21'0"-25'0" (6.4m-7.6m) each heavy-duty, hot-dipped galvanized steel telescoping lattice sections mounted to a welded galvanized square tube base support structure used for mobile or fixed foundation applications. The tower is tilted to the vertical position by a single or tandem heavy-duty chrome-plated hydraulic cylinder(s) and automatically elevated by a minimum 1-2HP Totally Enclosed Fan Cooled (TEFC), Wash Down rated, direct drive stainless shaft winch motor and gearbox assembly. This tower section raising assembly utilizes a heavy-duty drum with a redundant cabling system comprised of a series of ¼" (0.64cm) and 5/16" (0.795cm) 7x19 galvanized steel aircraft quality cables to raise, lower and stabilize the erected tower sections. In addition, the redundancy of the tower cabling configuration and a positive pull down system provide for the securing/supporting of each individual interior tower section by a series of three (3) independent cables. The engaging of a mechanical tower lock mechanism further ensures the safety and stability of the erected tower. To help protect the tower from Operator attempts to lower while locked; potentially causing serious structural damage and/or personal injury, an electronic safety switch is installed to help mitigate this possible occurrence.

Each tower's tilt and telescoping function is automatically engaged and disengaged by the use of tower and base mounted electronic limit switches. Contained within a locking NEMA 4 enclosure, a proprietary control system utilizes a 120VAC/60Hz or 220VAC/60-50Hz single phase power supply to operate the tower. To protect the tower's electronics from exposure to the elements, control switches are accessible through a weather protecting outside panel. Illuminated (LED) low volt warning and tower functions lamps (*tilt and telescope*) as well as a key lock power engagement devise are several of the safety features incorporated into the tower's central control system.

With respect to the equipment specifications and stated standards of performance, *ITS* strives to meet or exceed applicable **ASTM**, **DOT**, **ANSI/TIA-EIA** and other related codes, guidelines and standards applicable to its unique line of equipment. A representative list of guides/standards utilized in *ITS* equipment design and manufacturing processes include, but are not necessarily limited, to the following: *MIL-STD-810F* (environmental engineering considerations), *MIL-STD-1472* (human engineering design), *MIL-STD-454* (electronic equipment), *ASTM-A-123* (zinc coatings/galvanization), *MIL-STD-1791* (designing for internal aerial delivery-fixed wing), *AWS D1.1* (steel welding), *AISC* (steel construction), *MIL-STD-810F/514.5* (shock/vibration profiles), *FED-STD-595* (standard colors), and *FAA-STD-019B* (lightning protection, grounding, bonding & shielding). *ITS* trailer configurations are manufactured in conformance with Federal Vehicle Safety standards and all materials and methodologies utilized in the manufacture of *ITS* telescopic towers may be certified as to their strict adherence to current *ANSI/TIA-EIA 222-G* standards for communication structures. Rev2-2016 © 2016 Integrated Tower Systems. All Rights Reserved Page 5