

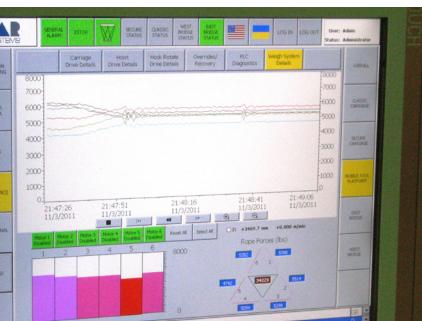


▲ TENSILETRUSS TECHNOLOGY

PAR has developed TensileTruss™ Technology to provide an advanced method of equipment deployment and lifting capabilities for the robotics and industrial industries.

WHAT IS TENSILETRUSS?

The TensileTruss is a multi-axis equipment delivery platform that resembles an inverted Stewart platform but uses cables instead of struts. It offers the ability to work in very large workspaces while providing high stiffness and 6 degrees of freedom for the lower platform that typical cranes or robots cannot offer. The TensileTruss employs six independent wire rope hoists for deployments of equipment that a crane or a mast would not be capable of handling. It is typically attached to a bridge-mounted trolley and is used as a platform for robotic manipulators and other remotely operated tools.



INDUSTRIES SERVED



General Industrial,
Structures and Bridges



Transportation



Aerospace



Automotive



Space

BENEFITS OF TENSILETRUSS TECHNOLOGY

- High side load capability
- High overturning moment resistance
- High rotational moment resistance
- Anti-sway due to high side load capability
- High lifting capacity
- Self-fused during seismic events
- Long vertical reach (engineered)
- Compatible with multiple tools for one system
- Operability in air or submerged
- Proven up to 75 m (250 ft) extension
- Capable of being radiation hardened to 10E8 rad lifetime for extremely high radiation resistance
- Easy decontamination since all surfaces accessible
- Remotely operable through wired or wireless controls
- Less weight than equivalent-sized mast

TECHNICAL INFORMATION

Safety Features

- Will not be damaged by a side load beyond the rated load since the wire ropes will go slack once the maximum point is reached. Therefore, the platform can only transfer a engineered maximum side load to the trolley and bridge and will not damage itself
- Single failure proof because of the multiple hoist design; system is safely operable with as little as three of the six hoists in operation
- Anti-sway and Anti-swing due to side load capability allows for movement of large loads without the risk of a swinging load hurting personnel in the area or damaging equipment

Optional Features

- Lifting capacity specific to the application need
- Remotely exchangeable lower platforms, allowing for the deployment of any equipment at any time
- Located services, such as air or hydraulic supply, on the lower platform to limit cable runs
- Variable upper platform to have differing strength capacities
- "Flying" mode which can be used to finely position and orientate the load without moving the crane



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