

▲ HAZARDOUS MATERIAL HANDLING & NUCLEAR DECOMMISSIONING

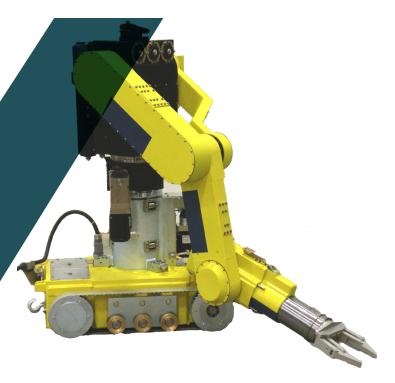
Designing and manufacturing remote handling systems for hazardous environments has been PAR Systems' specialty since 1961. We have engineered hundreds of intelligent solutions for radioactive or caustic environments, decommissioning applications, explosive particulate and gases, underwater applications, elevated temperature, and chemical and conventional munitions demilitarization. Not only are PAR robotic systems critical components of the US chemical and conventional munitions demilitarization programs, our telerobotic and power manipulator systems enable national laboratory and decommissioning sites worldwide to meet the unique challenges associated with operations in hazardous environments.

THE BENEFITS OF PAR'S HAZARDOUS MATERIAL HANDLING SOLUTIONS

- Remote handling and hoisting equipment designed for hazardous environments
- Factory facilities specific to crane and remote handling equipment needs

- Shop crane hook height of 17m,
 40T combined capacity
- Floodable sub-floor test pit with additional 11m depth
- Total below hook of 29m for testing









INDUSTRIES SERVED



General Industrial, Structures and Bridges



Transportation



Aerospace



Automotive



Nuclear



Space

TECHNICAL INFORMATION

Features - Cranes and TensileTrussTM Deployment Platform

- TensileTruss deployment platform is naturally seismically fused and can have over 40m of vertical reach
- Cranes designed for remote operation (manual or automated) in hazardous environments
- Cranes are single failure proof, radiation-tolerant, and have redundant recovery features (both travel and hoisting)

Features - Manipulator and Remote Handling Systems

- End effectors and remotely operated tooling from parallel jaw hands to customized powered hand tools
- Equipment operating schemes to meet needs
 - Supporting remote operations using line of sight and manual joint control to video monitoring and full automation
- Multiple types of manipulator deployment (pedestal, wall-mounted, ceiling, telescoping mast and mobile base) with payload limits from 150 to 300 pounds
- Bridge and gantry mounted manipulator systems deploy trolley/mast combinations as well as main and auxiliary hoists
- Video monitoring and lighting equipment incorporated into manipulator and other remotely operated systems
- · Wireless control as well as wireless CCTV systems
- Design features that address hazardous environments and conditions including radiation, explosive atmosphere and seismic events

Supporting Technologies

- EXPERTOPERATOR™, CRANEVISION™,
 SAFEMOVE™, and AUTOMOVE™ crane controls
- Remote-controlled implementations of cutting, trimming, and more



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