

# MTR-HD | motorized telerobotic system for heavy duty telemanipulators

MTR-HD is here to improve operator ergonomics by providing a motor-driven alternative to manual telemanipulator operations. MTR-HD doesn't sacrifice the ability to use the telemanipulator manually as its installation and removal require the same effort as changing out the telemanipulator control arm. Telemanipulators are critical to hazardous material management and handling, and PAR Systems' latest offering will upgrade your telemanipulator to be electrically-driven while maintaining the load capabilities, improving range to allow for fully inverted operation, and improving operator ergonomics.

#### **BENEFITS OF MTR-HD**

- Improved ergonomics for operators; eliminates heavy, muscle-reliant tasks which addresses operator fatigue and potential repetitive motion injuries
- Increased range of motion with ability to invert the manipulator (reach straight up) with rated load
- Compact joystick control system is heightadjustable for a variety of operators and is

- wheel-mounted, allowing flexibility in location when it is and is not in use
- Intuitive controls: all follower arm motions are driven through two joysticks; the heaviest load at the most awkward angle requires no more physical effort than the most delicate move
- Simple speed controls are built in to allow for any range of speed – from maximum to creep





## IMPROVED X RANGE OF MOTION: +/- 270°





### **INDUSTRIES SERVED**



Research, prototyping & development



Radioactive pharmaceuticals



**Radioactive material** handling

#### **BENEFITS OF MTR-HD, CONTINUED**

- No telemanipulator modifications or in-cell work are required for the upgrade
- Power center can be located up to 75 feet from hot cell work station
- · Can be co-located with a manual telemanipulator at a window due to compact size of MTR-HD unit
- · Can be reverted to manual telemanipulator operations as in cell needs change - it is as easy as returning the telemanipulator to the home position (an automated function) and removing and re-installing the control arm as per normal procedure
- Hard stops are replaced with software stops to limit potential damage to telemanipulator
- Motor torque is software-limited to prevent over-stressing telemanipulator mechanical components and reduce repair frequency

#### **WORKING ENVELOPE & DIMENSIONS**

- Lifting Capacity: No change from telemanipulator capacity limits
- Motor mounting assembly is 34 in. in diameter and extends 48 in. out from seal tube flange
- Requires addition of power center electrical cabinet (6 ft high x 6 ft wide x 2 ft deep)

#### **ELECTRICAL**

• Voltage	200-240VAC
<ul> <li>Frequency</li> </ul>	60 Hz
• Phases	3
Full-load current	30A

#### SUPPORTED TELEMANIPULATOR MODELS

CRL Versa



#### **PAR Systems, LLC**

707 County Road E West St. Paul, Minnesota 55126-7007 USA Toll Free: 1.800.464.1320 T: 1.651.484.7261 | F: 1.651.483.2689

W: www.par.com/contact

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