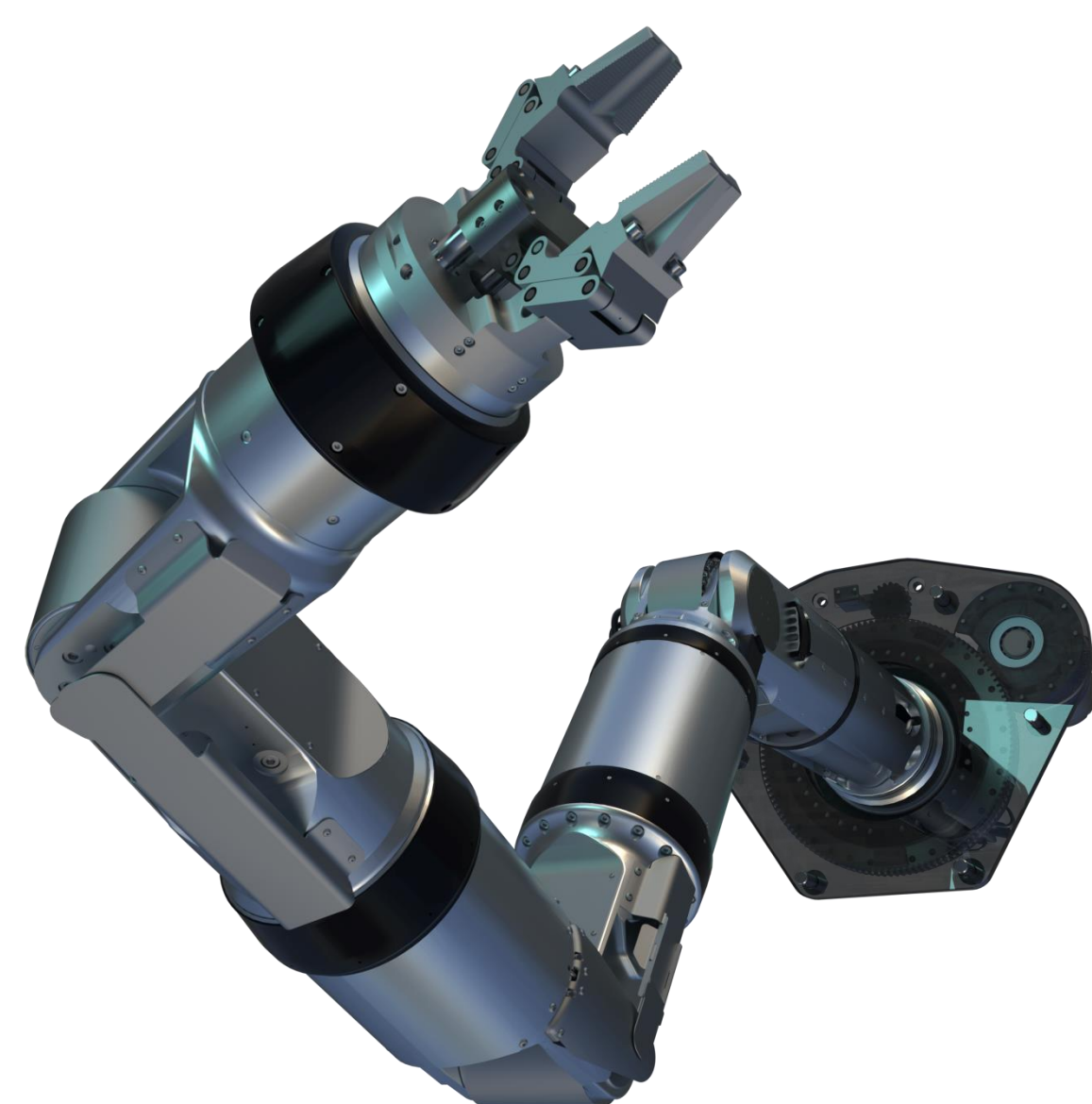


Guide To Specifying A Powered Manipulator For Operation In Hazardous Environments

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James Fisher
Technologies



ModuMan 100



ModuMan Long Reach

Where to Start

Define your needs, once needs are solidified a specification can be compiled to allow the system to be procured.

Environment:

- Temperature
- Pressure
- Contamination
- Moisture
- Chemical
- Radiation

Required Tasks:

- Types of material to be handled
- Large/bulky
- Sludge/liquids
- Range of motion
- Payload requirements
- Tools required

Access:

- New or existing facility
- New or existing penetration
- Size and location of access

Deployment:

- Crane
- Gantry
- Crawler
- Through wall
- Over wall

Select the Right Solution

Based on the requirements laid out in the specification determine the solution that best fits your challenge.

Some things to consider when selecting a solution.

- Manipulator power source
 - Hydraulic
 - Electromechanical
- Failure modes and recovery
 - Fail in place/limp
 - In cell access/out cell access
- Maintenance provisions
- Control system options
- Safety and administrative controls
- Modifications to site required

Selecting the right manipulator may not be a manipulator at all. Many tasks can be easily completed using a piece of remote equipment that is designed for the task required.



Fuel Channel Cropping Tool

Off the Shelf Advantage

Does an off the shelf solution exist?

Off the shelf solutions are often

- More reliable
- Faster to procure
- More cost effective

Many predesigned and tested systems can be modified to the unique challenges of an environment with minimal effort.

- Increasing/decreasing joint lengths
- Adding or removing joints
- Modifying mounting and installation
- Adapting design to operate with different fluid or chemicals
- Customizing tooling
- Custom end effectors
- Adapting to unique deployment challenges
- Adding custom control options

Partnering with a reputable equipment provider that acts in your best interest will further reduce your project risk, increase performance and enhance safety.

WALISCHMILLER HWM
Quality for Safety.



TELBOT



A1000