



ENGINEERING
MANUFACTURING
SYSTEM DESIGN
AEROSPACE
MILITARY
DEFENSE

LINEAR MOTION SOLUTIONS

FOR THE DEFENSE INDUSTRY

2025 EDITION

SERAPID

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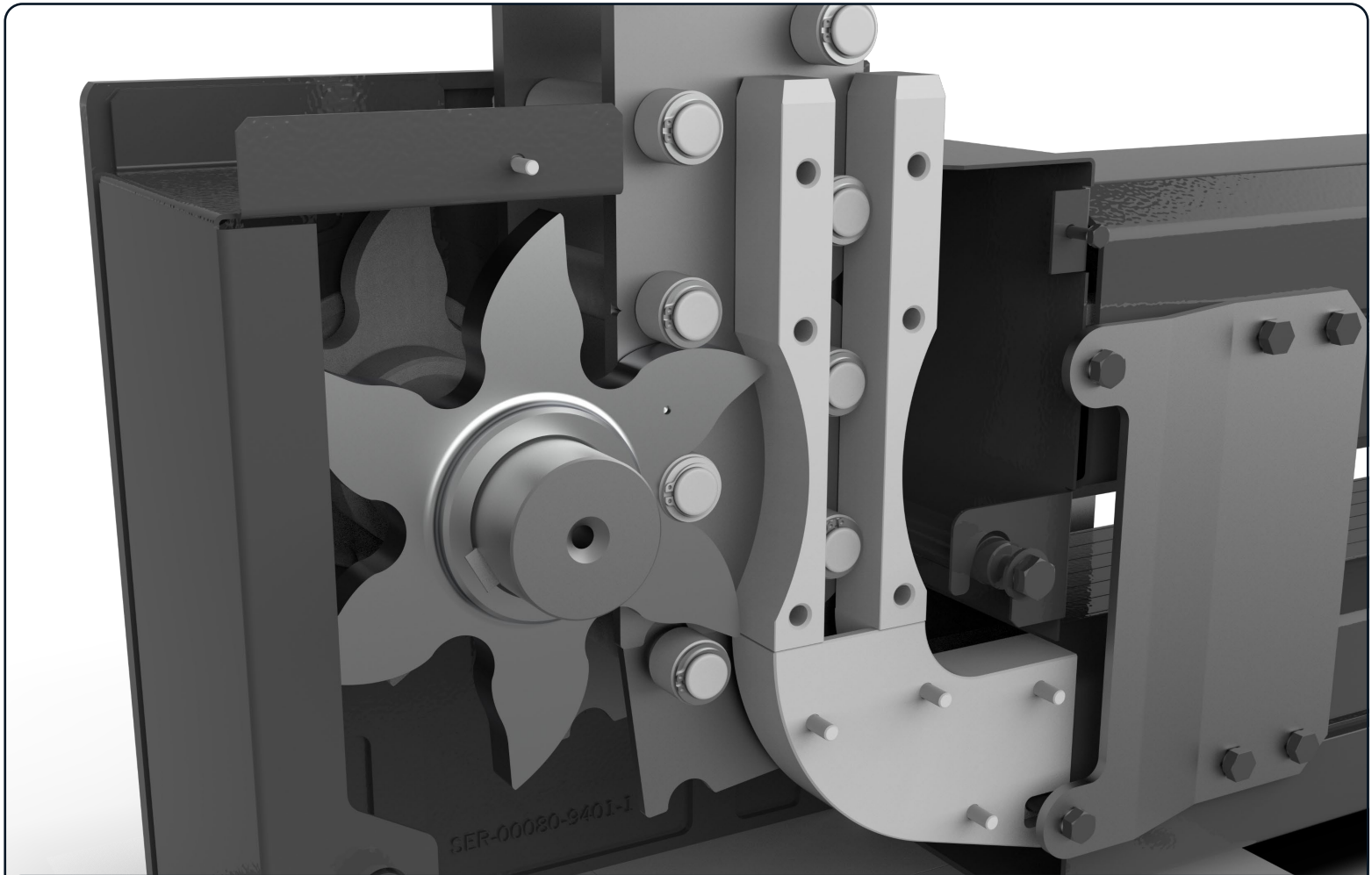


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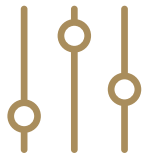
SERAPID

LEVERAGING EXCELLENCE



COMPACT

Shallow Pit
Compatible



PRECISE

Accurate & Repeatable
Positioning



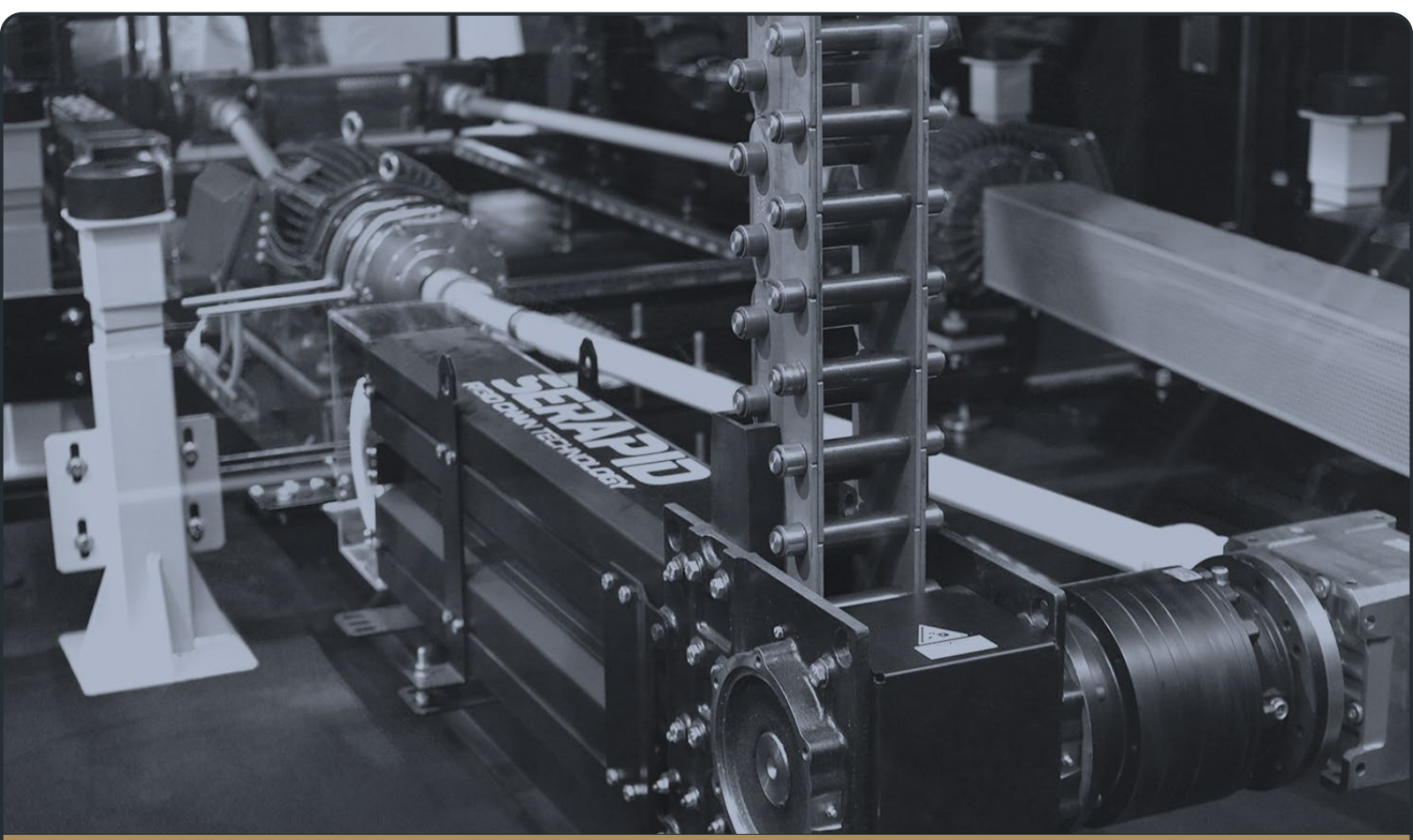
ROBUST

High Reliability &
Low Maintenance



GREEN

High Energy Efficiency



OVERVIEW

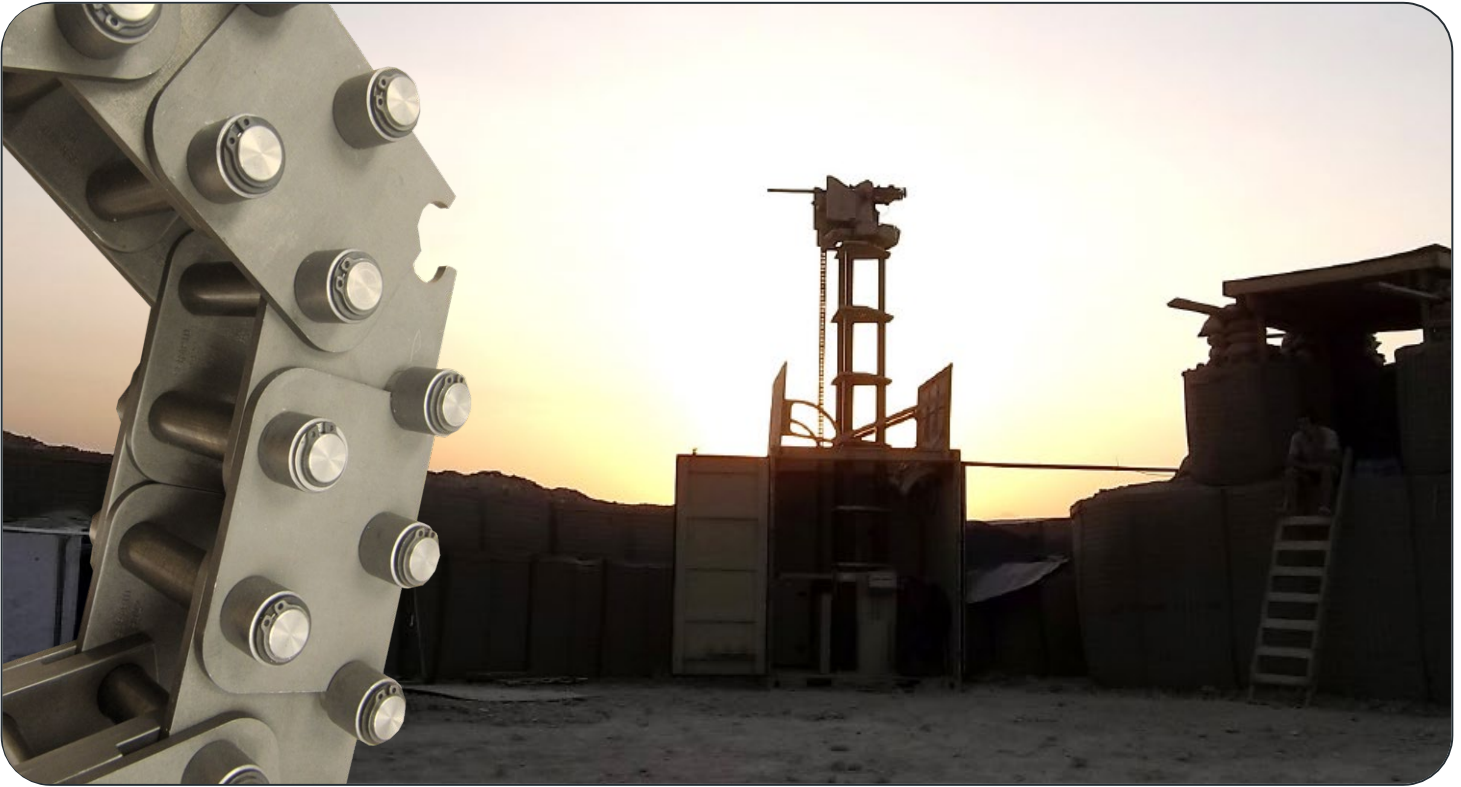
LINEAR MOTION SOLUTIONS

RIGID CHAIN TECHNOLOGY

ELECTRO-MECHANICAL ACTUATORS

CONTAINERIZED WEAPON SYSTEMS

LINEAR MOTION SOLUTIONS



SERAPID Rigid Chain Technology: tried and true linear motion solutions for the defense sector.

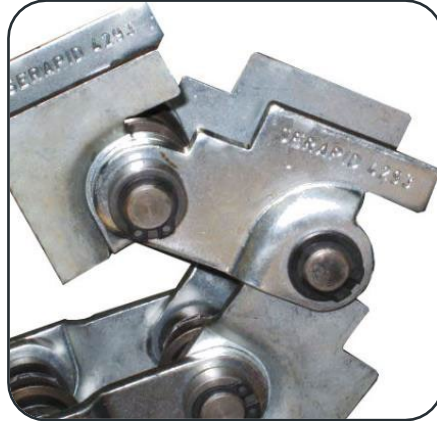
SERAPID linear movement and lift systems excel in dynamic environments such as defense, military, and aerospace applications. Our patented Rigid Chain Technology seamlessly integrates into tight, complex spaces, offering an ideal solution for heavy equipment handling, precise positioning systems, and modular platform design.

SERAPID push-pull chains provide smooth and powerful movement of large and heavy components, such as missile systems, radar assemblies, armored platforms, and aircraft maintenance structures.

For over 50 years, SERAPID has been a trusted name in linear motion and lifting solutions, consistently and reliably engineering rapid machine deployment, modular infrastructure adjustments, and aerospace maintenance automation.

SERAPID has carved a niche in the defense and aerospace sectors by providing innovative electro-mechanical actuators powered by Rigid Chain Technology, the optimal choice for accurate timing, safety, precision positioning, and equipment deployment in mission-critical environments

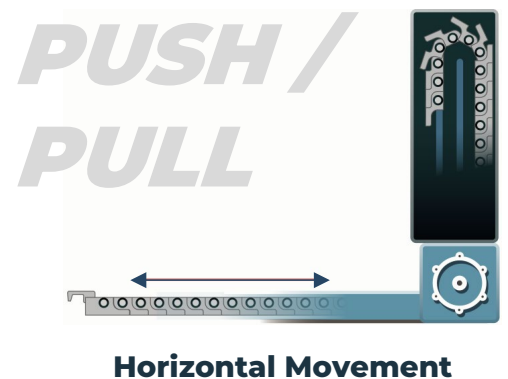
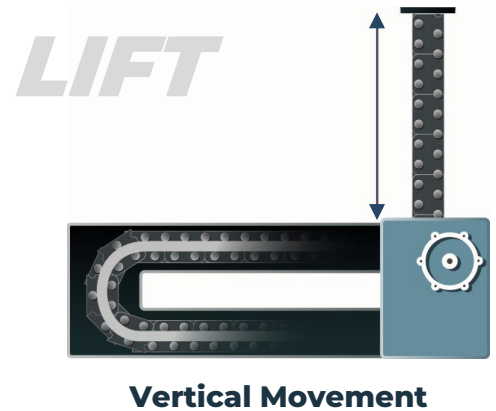
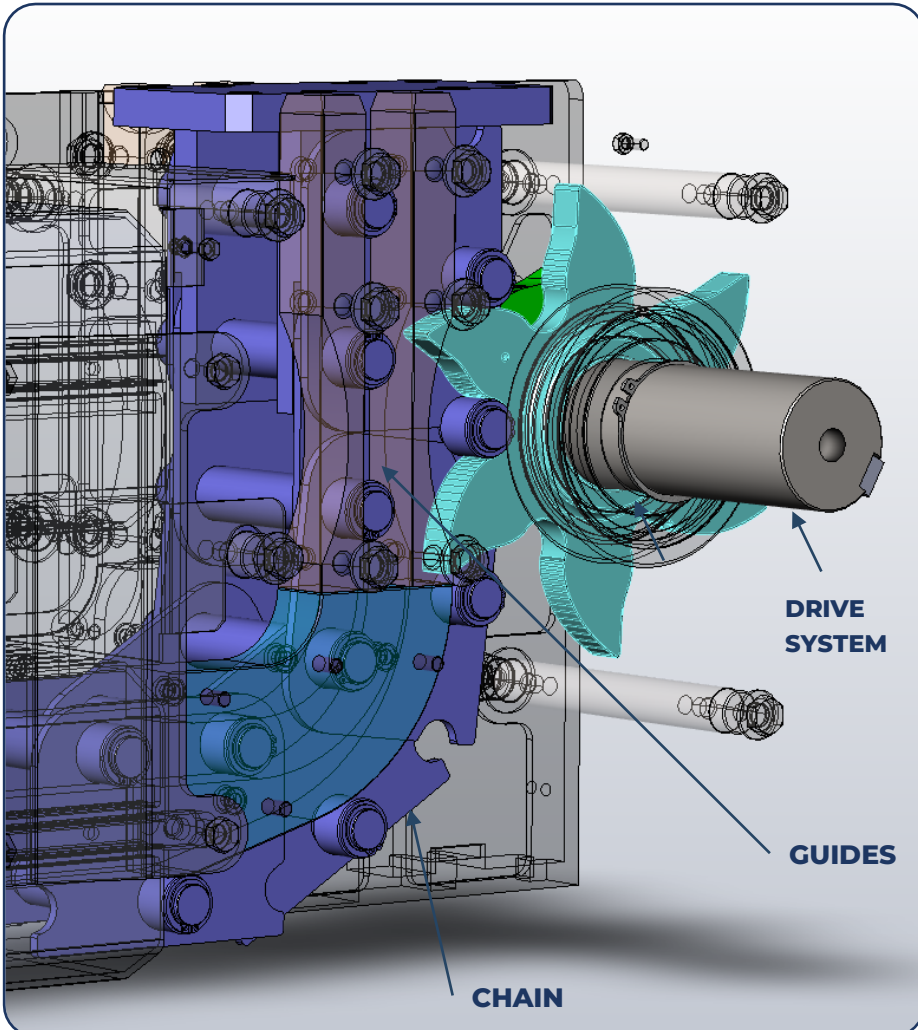
RIGID CHAIN TECHNOLOGY



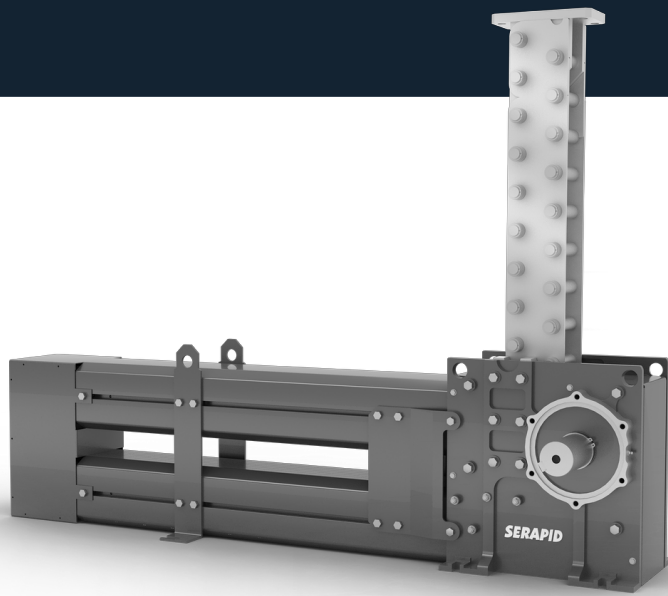
WHAT IS RIGID CHAIN?

SERAPID's proprietary technology, the rigid chain, is comprised of specially engineered chain links, offering steel beam-like rigidity in as well as retractable flexibility.

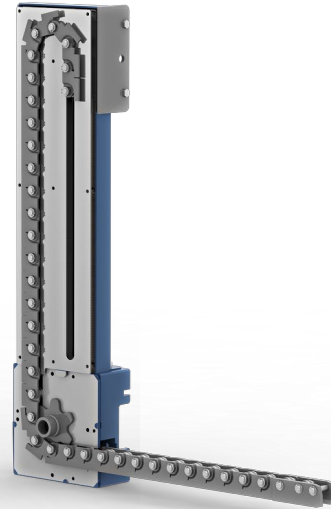
When extended, the chain can push, pull, and lift extremely heavy loads over extensive distances. When retracted, the chain is stored in a compact magazine. This cutting-edge design performs where others fail.



ELECTRO-MECHANICAL ACTUATORS



SERAPID LinkLift



SERAPID RollBeam



SERAPID LinearBeam



SERAPID ChainMast

SERAPID products offer compact storage and telescopic action for horizontal & vertical loads.

SERAPID offers a complete range of products utilizing rigid chain technology for a wide array of applications. Whether your requirements involve vertical or horizontal movement, long stroke or extremely heavy loads, our products are engineered to meet your project's specific needs with precision and reliability.

SERAPID's electro-mechanical actuators have become a linchpin in defense sector operations. The **LinkLift**, **ChainMast** and **Telemast** systems offer lifting, while the **RollBeam** and **LinearBeam** provide horizontal movement.

LinkLift: Reliable lifting up to 15 tons per unit with 8m standard lift. Multiple units and modifications can lift hundreds of tons up to 20m.

ChainMast: Telescopic Column holds loads at programmable height for extended periods. Dual-mast, Tri-mast, and Quad-mast systems available.

RollBeam: Horizontal push/pull chain system with multiple configuration options.

LinearBeam: Horizontal track system with chain storage underneath the movement path. Stroke is virtually unlimited for push/pull movement.

CONTAINERIZED WEAPONS SYSTEMS (CWS)

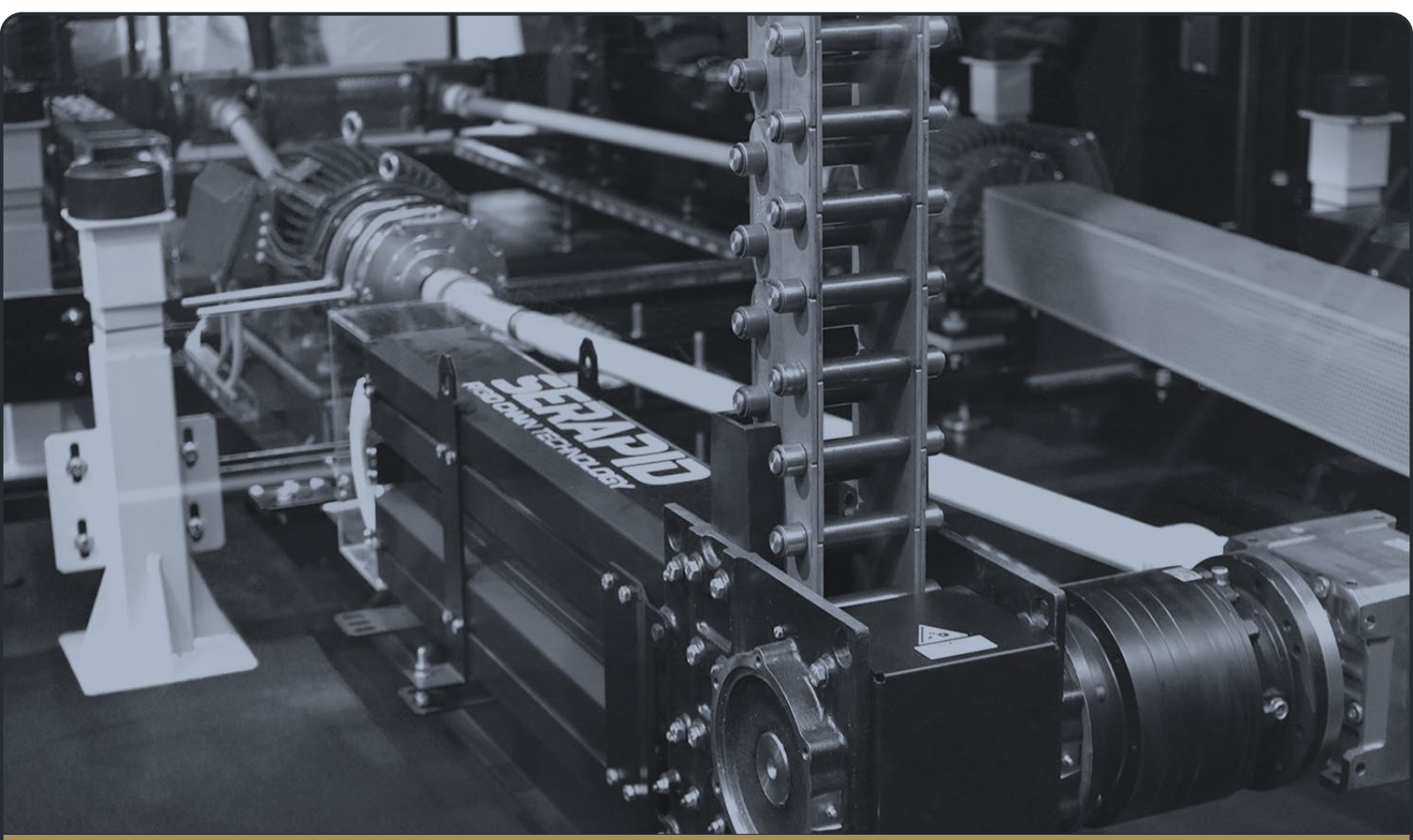


The Tricon CWS: Precision remote-controlled positioning of artillery.

The supreme stability of the Rigid Chain lift allows rapid direct fire-power support for combat outposts, patrol bases, forward operating bases, ports, and shipboard-defense applications.

The CWS has full remote operational control of the container, lift and weapons station. The lift extends up to 5m and can hold its position indefinitely. This system provides mobile security for expeditionary base camps, especially for missions in harsh environments.





PROJECT REFERENCES

REMOTE SURVEILLANCE

TORPEDO LOADING SYSTEM

LIFTING PLATFORM

TELESCOPIC ROBOT ARM



SERAPID

PROJECT REFERENCES

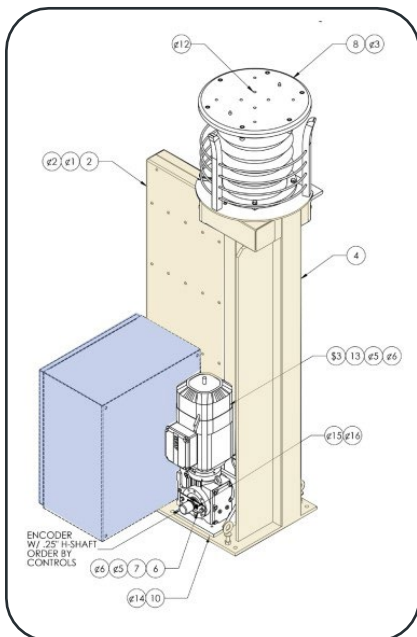


PRODUCT: SERAPID ChainMast

Military Outpost Technology

REMOTE SURVEILLANCE

Single mast systems utilizing the SERAPID ChainMast can be implemented easily into tight spaces or containerized formats. Small footprint and minimal maintenance allow for placement in remote locations. Masts can be customized to mount any variety of military technology. Day and night (thermal) video, audio jammers, loudspeakers, laser dazzler/bright light, flashbang grenades, microwave deterrent, networked ethernet hub for integration and external cueing, augments existing security assets and personnel.



DATA:

Static Load: 345 kg

Dynamic Load: 345 kg

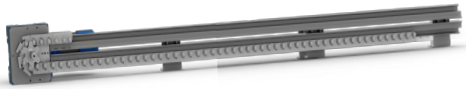
Speed: 100 mm/s

Stroke: 4,300 mm

PROJECT REFERENCES

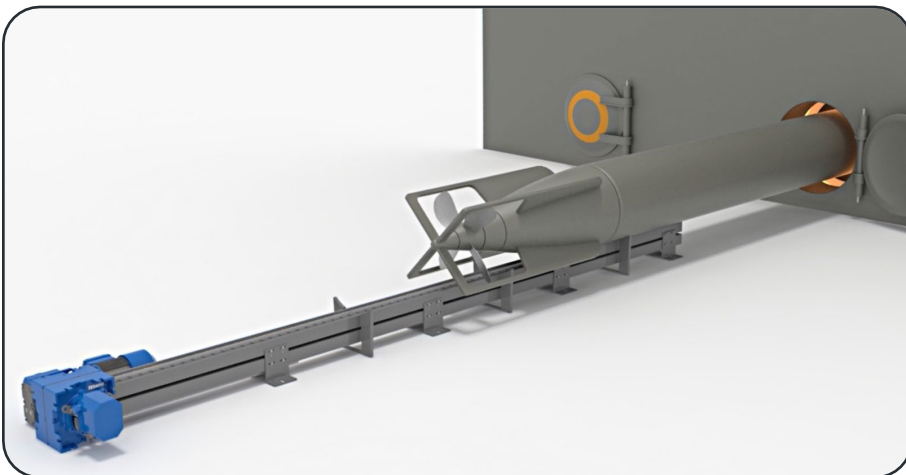
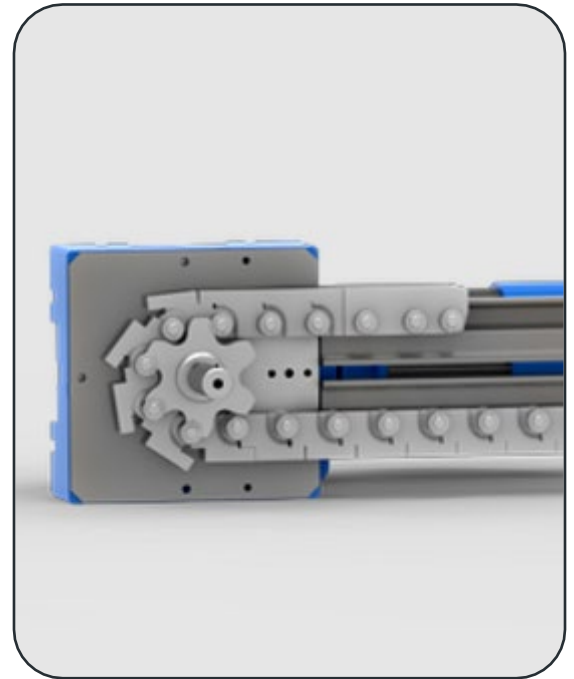
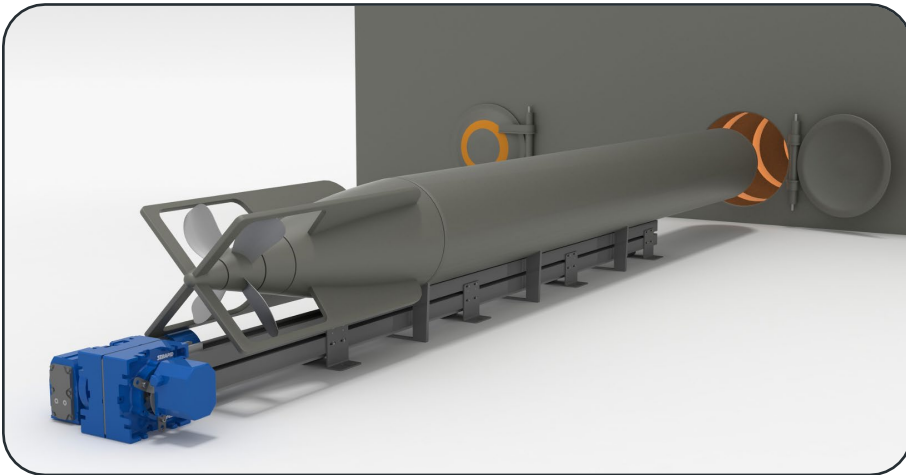
Weapons / Defense Sector

TORPEDO LOADING SYSTEM



PRODUCT: LinearBeam 60PSG

The SERAPID LinearBeam was utilized for this missile loading system, allowing for the safe and efficient handling of explosives in confined spaces. SERAPID Rigid Chain Technology is the perfect choice for loading hazardous and potentially dangerous loads with substantial weight limits. A custom front hook was designed to be mounted on the end of the chain, easily moving the payload into the tube. When retracted, the chain is stored underneath the path of movement.

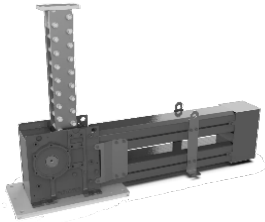


** For Illustration Only – Not Representative of In-service Solution*

DATA:

- Payload:** 1 ton
- Speed:** 30 mm/s
- Stroke:** 10 mm

PROJECT REFERENCES

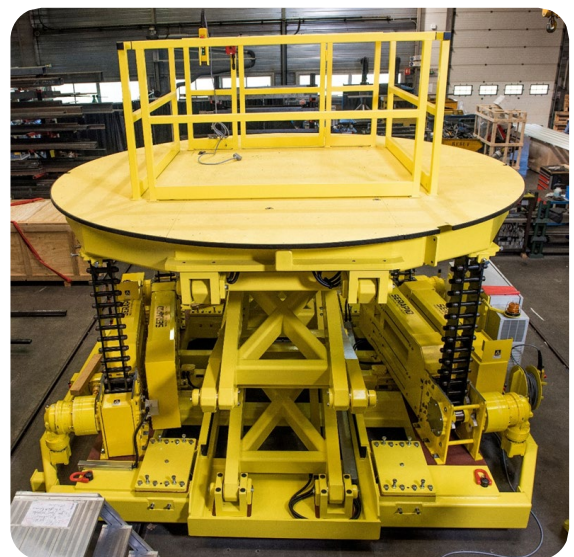


PRODUCT: 4 LinkLift 100 units

Operational Facilities

LIFTING PLATFORM

SERAPID Rigid Chain Technology is an optimal solution for lifting platforms, especially when high weight limits are required. This platform used 4 LinkLift units to lift over 12 tons safely and efficiently. Platforms of almost any size or weight limit can be lifted to impressive heights, up to 20 meters.



DATA:

Static Load: 12.50 tons

Dynamic Load: 12.50 tons

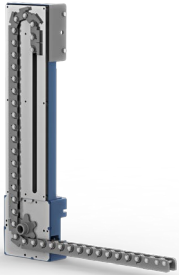
Speed: 30 mm/s

Stroke: 7,000 mm

MATERIALS:

Carbon steel with custom paint

PROJECT REFERENCES

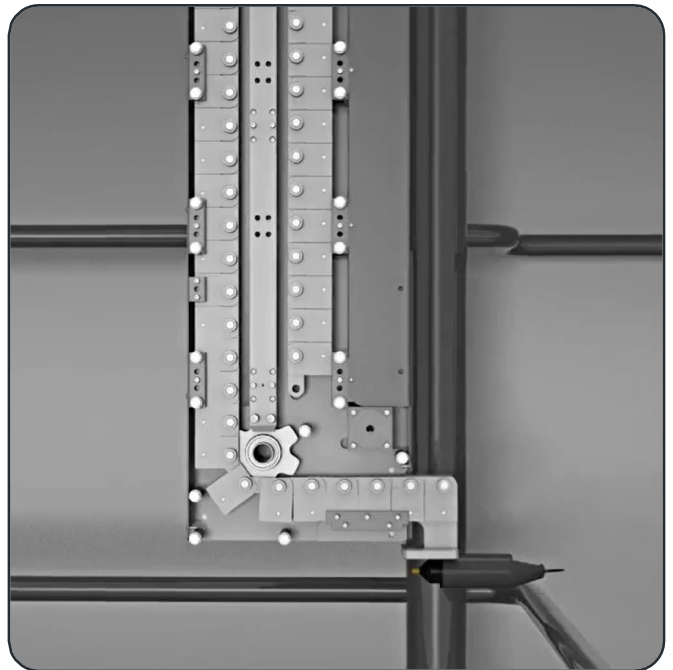
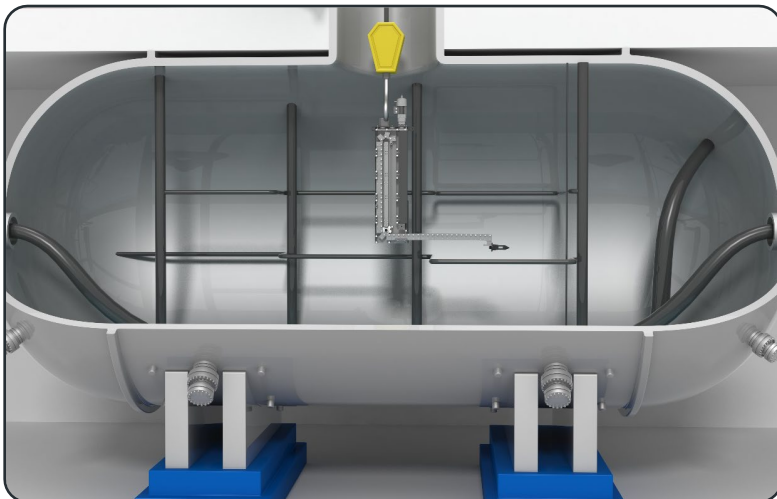
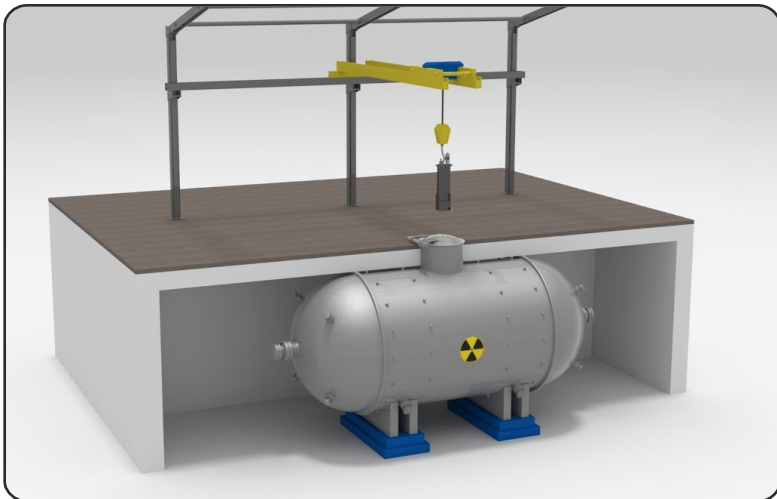


PRODUCT: RollBeam 60

Machinery for Hazardous Environments

TELESCOPIC ROBOT ARM

This specialized machine was developed by SERAPID to be lowered into hazardous materials tanks. Once lowered, the arm has 360 degrees of rotation, combined with arm extension and retraction. The jib can be changed from camera to welder to cutting tool, allowing for inspection, contamination monitoring, weld repair and decommissioning / disassembly.



DATA:

Load : 45 Kg

Speed : 30 mm/s

Stroke : 5 meters

Deflection: 500 mm with 10 kg at 5 m



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