

Introduction

ALCATRAZ[®]
I N T E R L O C K S

SAFETY BY DESIGN

Alcatraz Manufacturing Facilities

Founded in 1993, Alcatraz Interlocks has developed into an international company, with representations worldwide.

Alcatraz Specializes in producing a wide range of Process Safety Applications.

Such as Mechanical Interlocking, Atex Control Cabinets, PILOT IoT, Valve Positioning, Keyless Locking, Remote & Pneumatic Drive Systems.

Together with a qualified field service team to meet the highest quality requirements.

Alcatraz HQ located in Rijen, The Netherlands

APAC Commercial / Technical office, located in Ahmedabad India.

Since 2012 Alcatraz Interlocks are a part of [Indutrade AB](#).

www.alcatrazinterlocks.com





- Swedish Technical Holding Company, consisting of more than 230+ Subsidiaries
- Listed on the Stockholm Stock Exchange
- Sales more than € 2.6 Billion

www.indutradebenelux.com

www.indutrade.se

Five Business Areas

Industrial & Engineering



Infrastructure & Construction



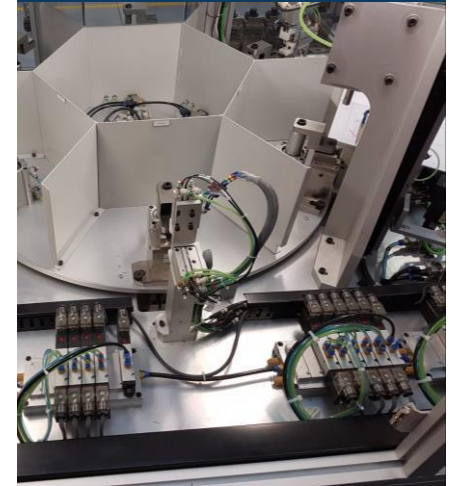
Life Science



Process, Energy & Water



Technology & Systems Solutions



Each Business Area is sector focused addressing a distinct set of customer segments and technology/product areas

Business Segments and companies in PEW

Segments	Process, Energy & Water						
	HP	Process & Energy	Wastewater & CleanTech	Water & Chemical Systems	Process Industry Scandinavia	Process Industry Finland	Process Industry Europe
Companies		 CORONA CONTROL Fagerberg   	     Färber & Schmid Chemie · Technik 	  OPTIMIZING YOUR P-VALUE   KIN POMPENTECHNIK BV  	     THE VALVE SPECIALISTS OF SCANDINAVIA  PALMSTIERNAS SVENSKA AB    Slanger & kuplinger 	    INDUTRADE GROUP  	   the corrosion expert   PROCESSTECHNIK GMBH  



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Where Are We?



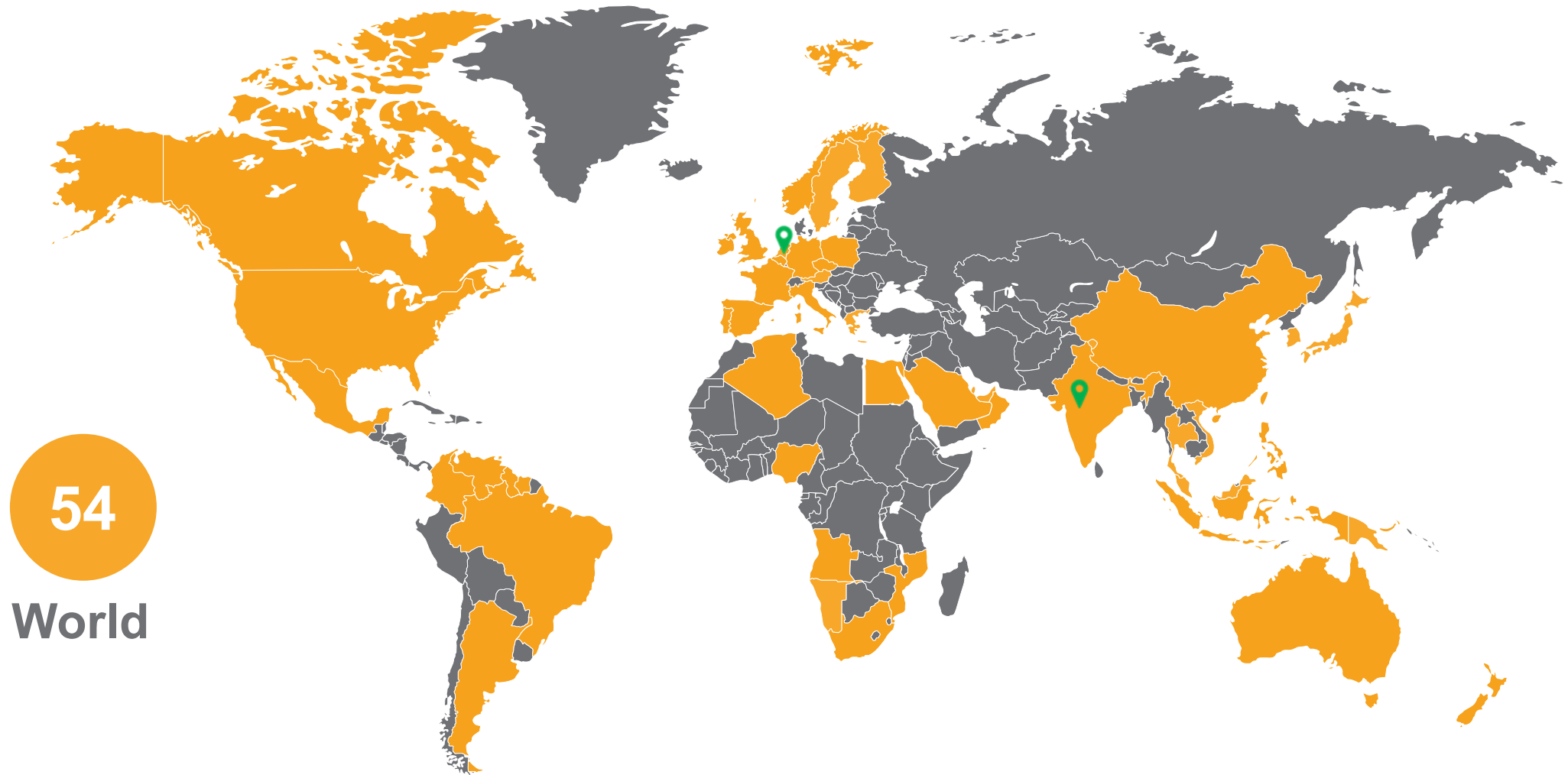
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Where Are We?



We're Globally Local

Alcatraz Interlocks is represented worldwide by various companies as an agent or partner.



ALCATRAZ[®]

I N T E R L O C K S

MISSION

Safety By Design

Preventing Potentially Hazardous Situations

- **Add** layers of Process Safety.
- **Guide** & Support Maintenance & Operations.
- **Protect** Human, Environment & Facility Infrastructure.
- **Simplify** Complex Written Text Procedures, into simple Mechanical / Electromechanical logic.



ALCATRAZ ADVANTAGES

In Brief - Product Advantages

- Complete Product Range
- Compact & User Friendly
- Products to suit Mechanical, Electro-Mechanical, Pneumatic, Hydraulic & Special Applications.
- Sequences & Logic for all Process Applications.
- Add-On, **No** Hot Work required.
- Our products can be intergraded into all industrial requirements, from Switches, Control Panels, Valves, Doors, hatches, Actuators, reactors, furnaces, pumps.



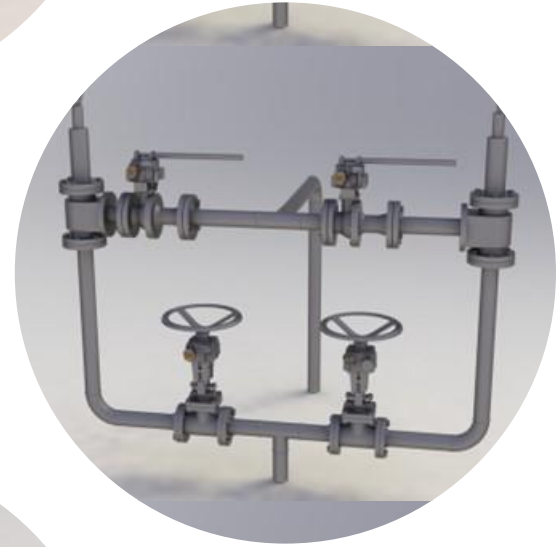
ALCATRAZ ADVANTAGES

In Brief - Technical Details

- Products are manufactured in 316L
- Products are standardly Electropolished Surface Finished ASTM B912-02 ISBN 978-2-87997-310-4
- Products are Fire Test Certified ANSI / API 607
- Product Certification 2.1, 2.2 & 3.1
- All Process Locking Items shall be 100% in Compliance to the Machine Directive ISO 14119-2024 EN
- Hand wheel to Lock body have intergraded parallel splined connection
- Levers are sliding
- Key Positions are sealed from Ingress

COMMON APPLICATIONS

- PSV safety relief systems
- Pig traps
- Storage tanks
- Inert gas systems
- Deluge systems
- Ethylene cracking furnaces
- Critical Isolation valves
- Pump Protection
- Actuator control
- Machine / turbine Protection

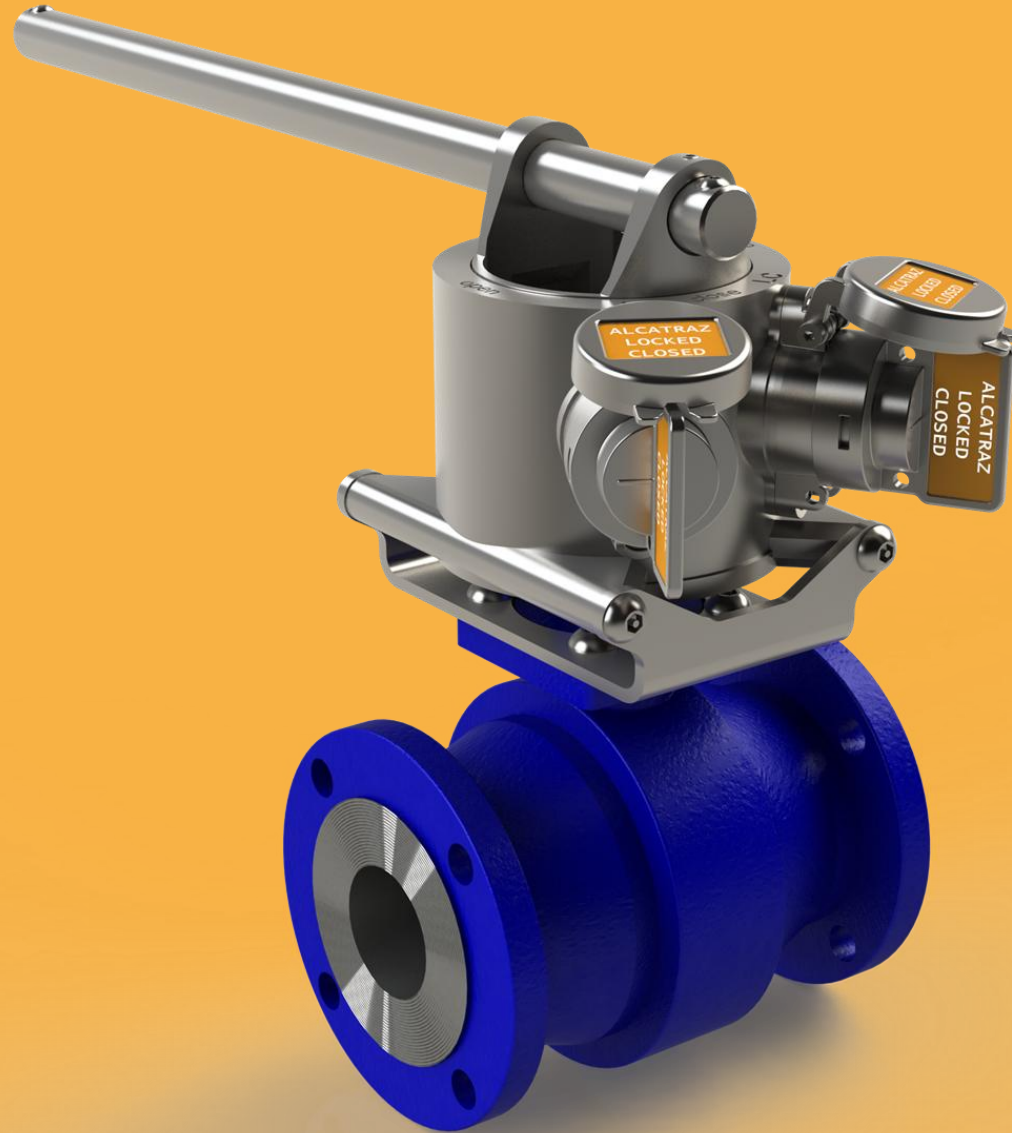


ALCATRAZ INTERLOCKS

Mechanical Solutions & Applications



Quarter Turn
Interlock



QL-RANGE

- Quarter turn lock
- For quarter turn valves from 1/4" up to 8">
- Available in LO, LC and LO/LC configuration
- ISO Mounting Footprint
- Sliding lever



Multi Turn
Interlock

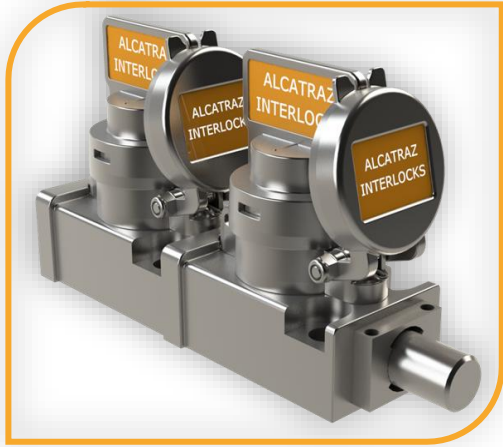


DML-RANGE

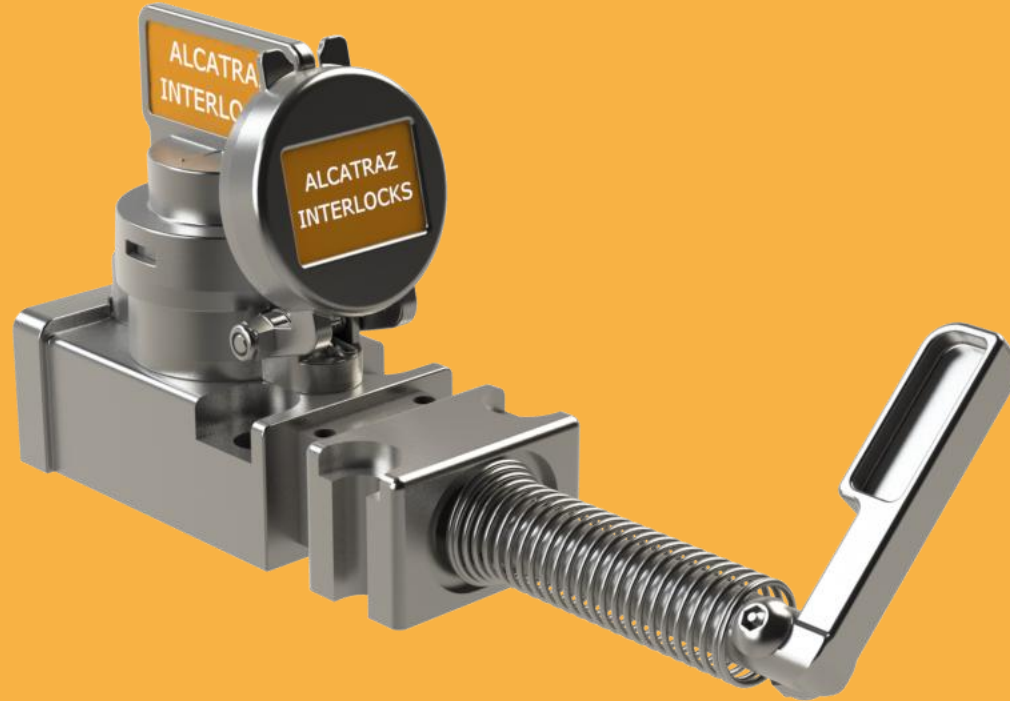
- Multi turn lock
- A Solution for all multi turn valves
- Available in LO, LC and LO/LC configuration
- With hand wheel adapter or CS hand wheel, optional SS handwheel available

ALCATRAZ MACHINE GUARDING

Intergrading Process & Machines



Machine Guarding



Door & Bolt Locks

A DL lock can be used on various industrial applications.

It has a compact ergonomic modular design suitable for isolating industrial mechanical / electrical switchgear, industrial switches, mechanical doors, gates, handles, hatches and various other process applications.

For bespoke mounting solutions. Alcatraz would design the needed solution to suit your application needs.

ALCATRAZ INTERLOCKS

Key Storage & Control

Standard Key Storage Cabinets



CAB

Alcatraz Operational key cabinet

- Available in different sizes, Materials & are wall mounted by standard.
- Pedestals in various sizes can be supplied as an option.
- Stores operating keys of interlocked systems
- Dedicated, uniquely coded key positions
- Tag plates in cabinet indicate system status when key is absent
- Tag plates of inserted keys indicate system status
- Lockable, see-through door
- Spare and Master key cabinet also available

Key Exchange Panel Control

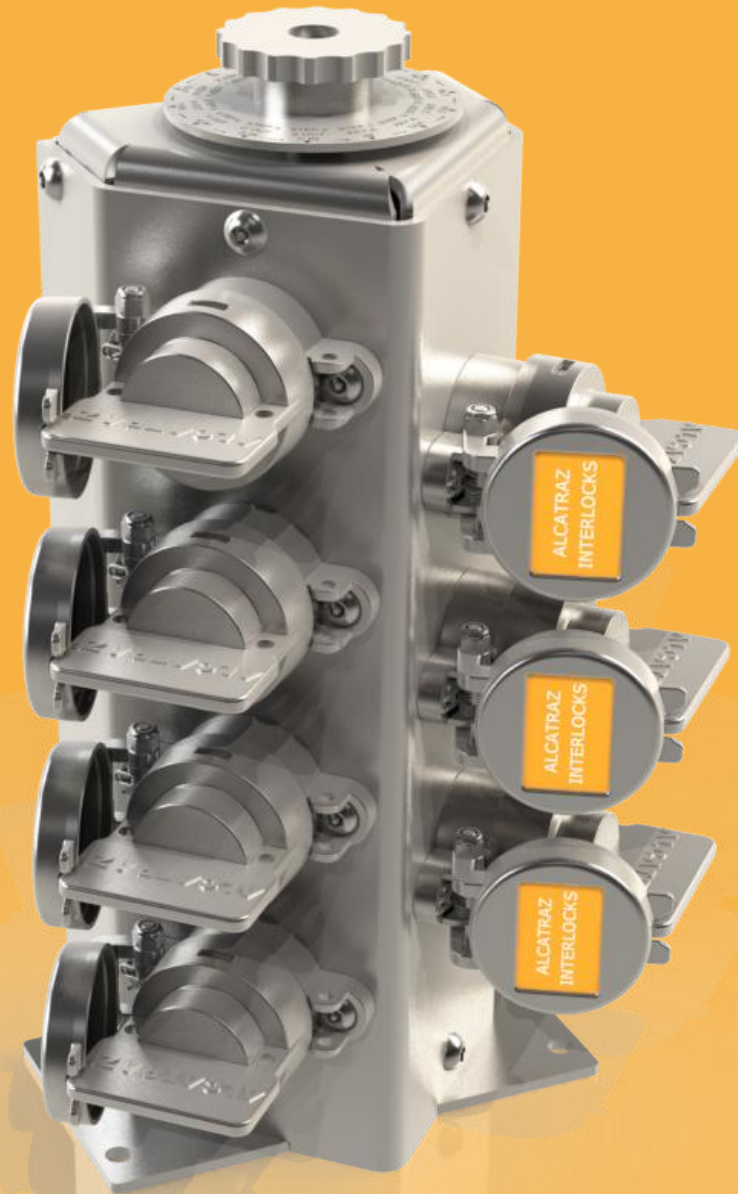


KEB

Key Exchange Box

- Key exchange boxes in diverse combinations are available.
- Providing a greater flexibility to interlink the control of multiple equipment.
- Such as Process valves, industrial switches mechanical doors & loading stations etc.
- Ensures all critical steps & requirements of the interlocking process are completed, prior to the next step can be taken
- Can be installed in the field or be incorporated within an operational key cabinet

Non Linear Process Key Control



SCU

Sequence Control Unit

Mechanically-programmed valve interlock key exchange unit, controls complicated non- linear procedures like pig launching and receiving.

- Reverse operation of valves in order of initial operation
- Repeated use of a valve within a sequence
- Valve opened and directly closed before proceeding to the next step

ALCATRAZ PILOT

Process Interlocking Oversight Technology

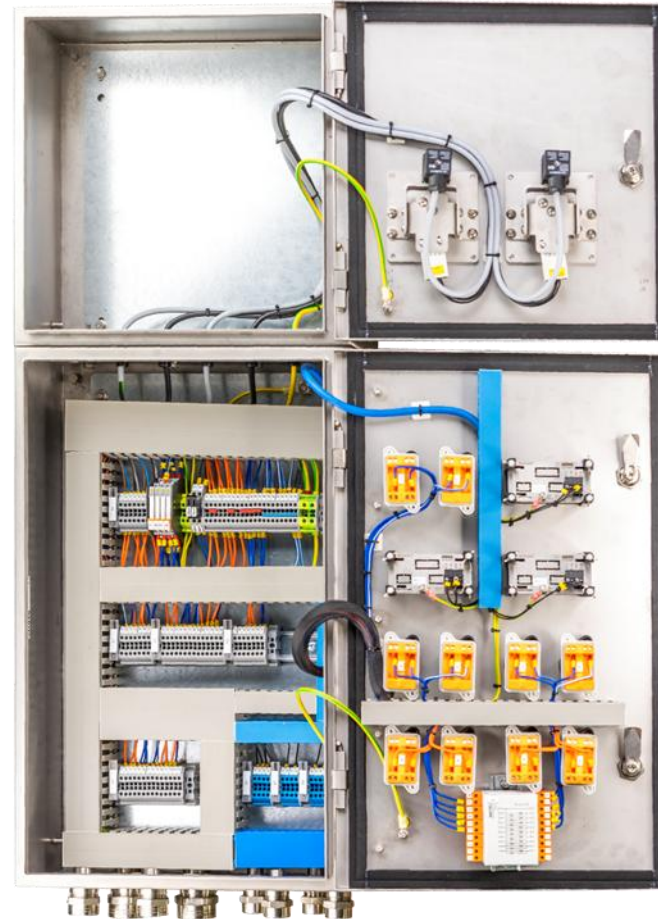
The Building Blocks of the Future

Digital: Time Delay Unit



Process Control Cabinets

Explosion Proof: Digital Detection



EX-I, EX-D & EX-E
ATEX Certified
Electronic Key Cabinet

Key Management

CCR
Control Room
Battery Room



Applications:
Key Authorization,
Operator Guidance,
Digital Signal

Electro-Mechanical

Silos
Loading Arms
Loading bays,
Train Sidings Applications

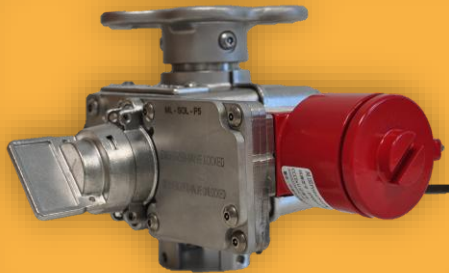


Applications:
Train sidings, Rolling stock,
Loading Arms & Various
loading bays.



Digital Locking

Solenoid Interlocked
Valve Oversight
DCS Control



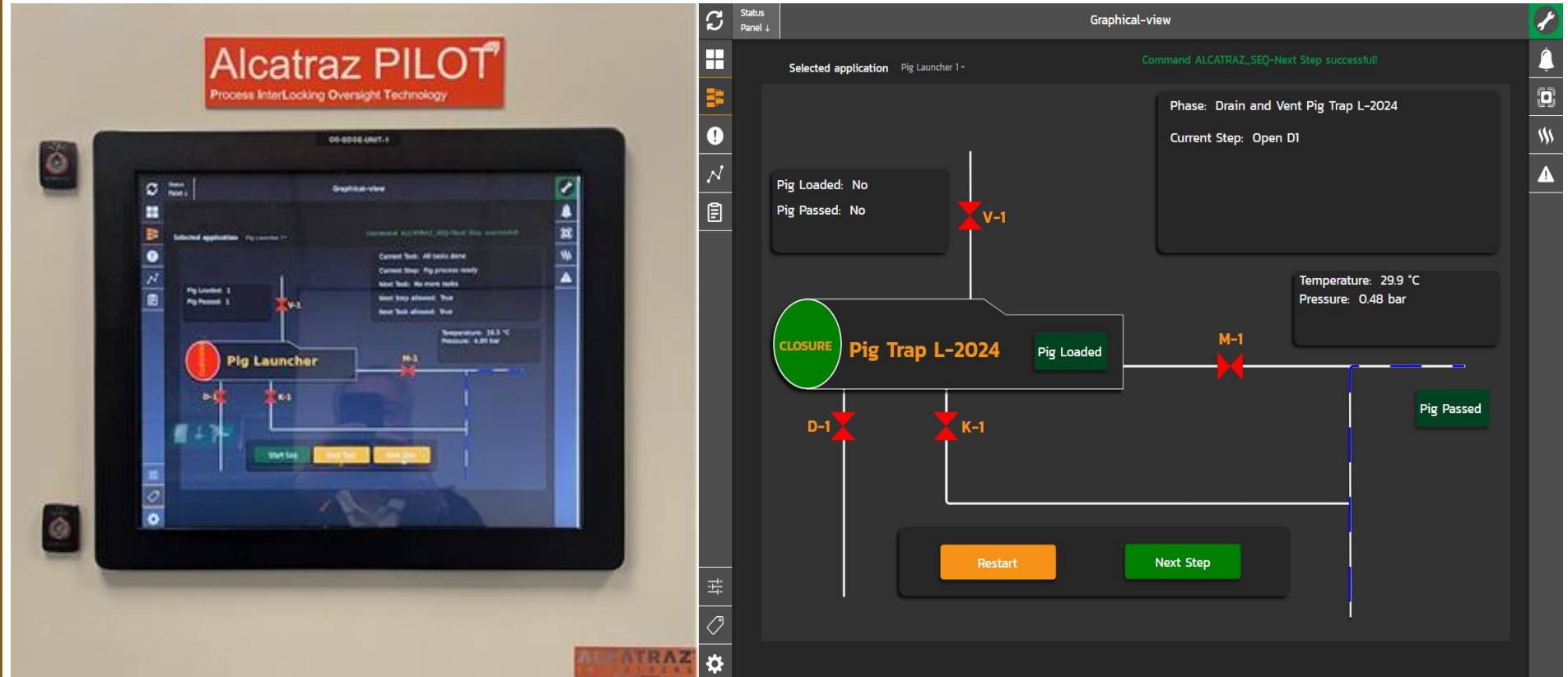
VLO:
Valve Locking
Oversight,
Keyless Locking

Process Oversight



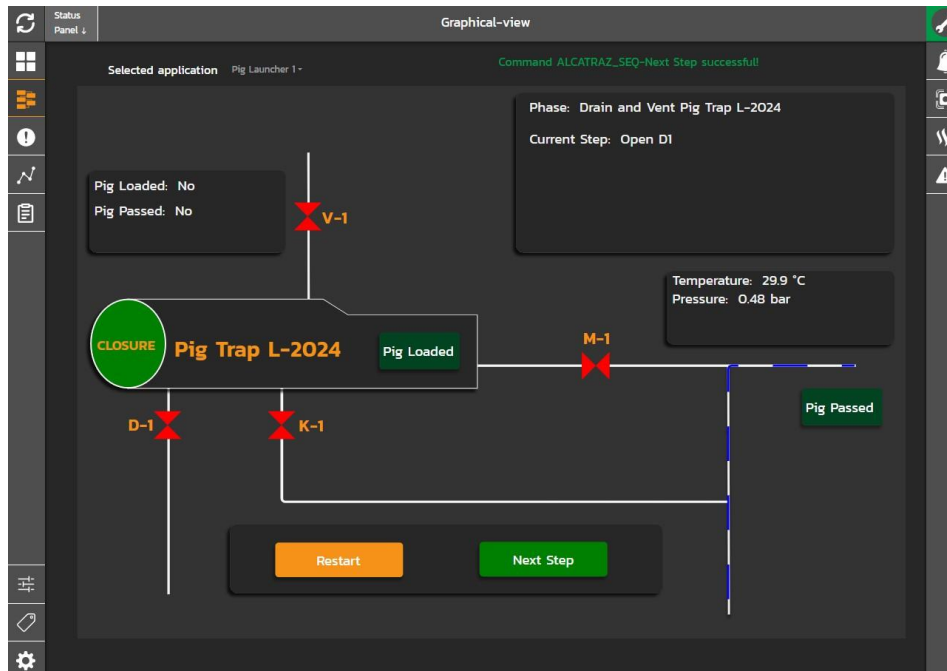
ALCATRAZ PILOT

Process Interlocking Oversight Technology



POC:
Process Oversight Cabinet

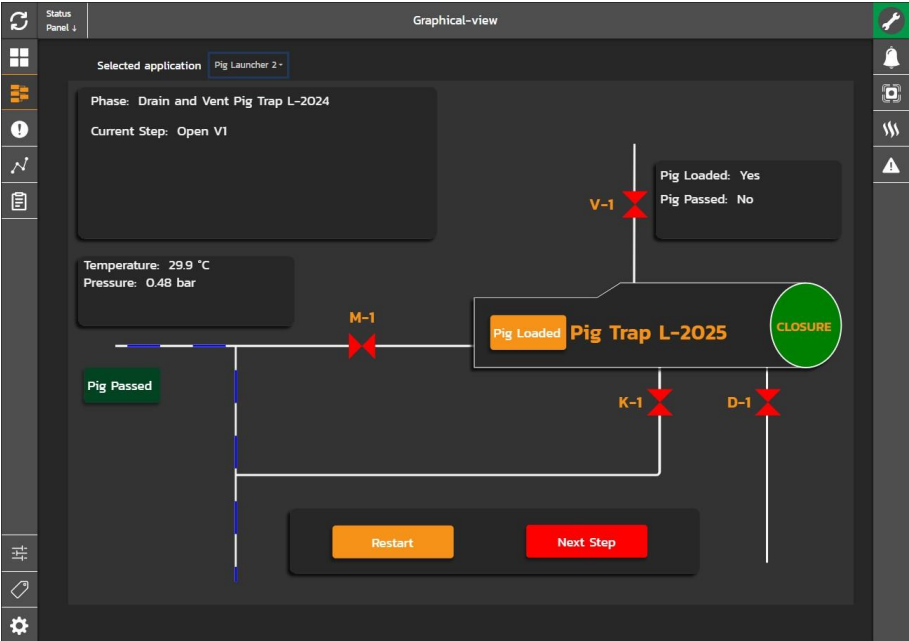
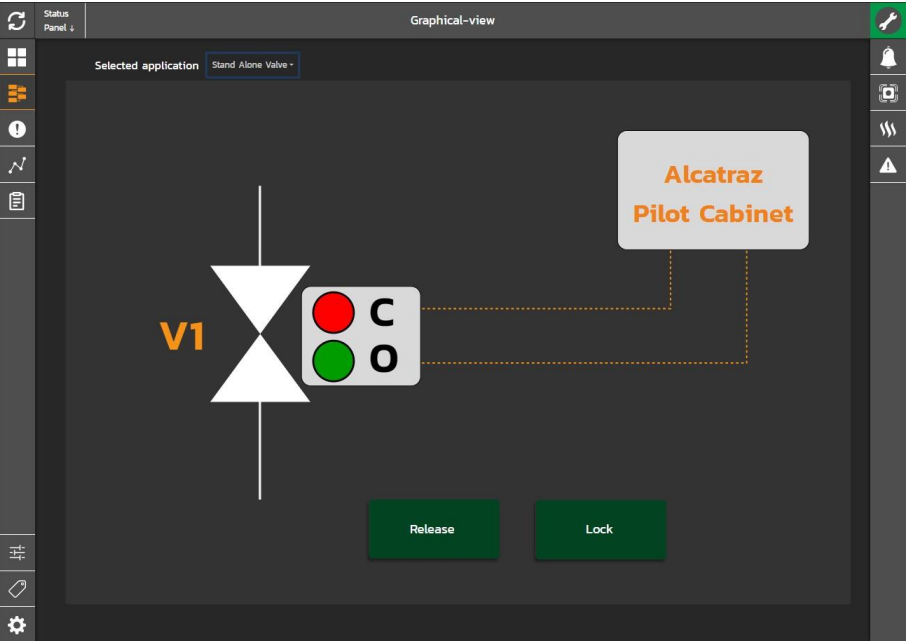
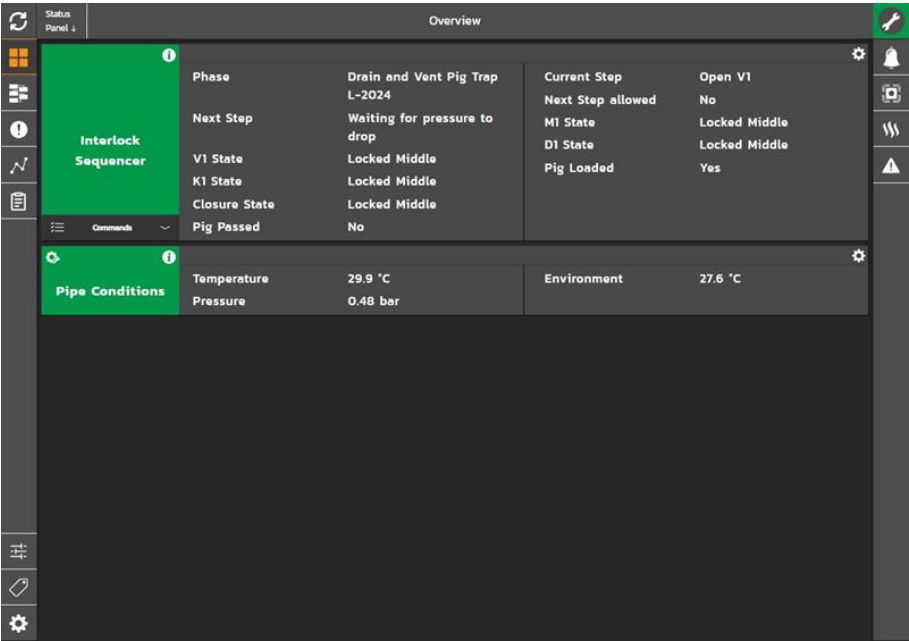
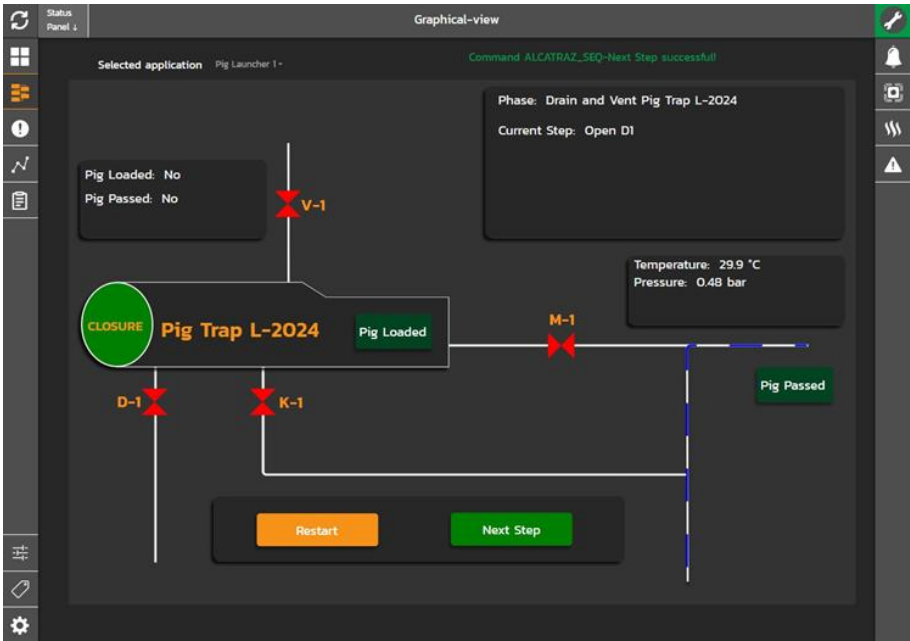
Process Oversight IIOT Interlocking



Features:

- Program any Process logic Sequence
- Cabinet communicates to keyless Interlocks
- Pressure, Pig Signals & Toxicity levels can all be monitored
- Process flow paths highlighted
- Live screen of process within CCR
- Live screen possible upon handheld Atex tablet
- Keyless interlocks hard wired or via IoT

Process Oversight Interface Graphics

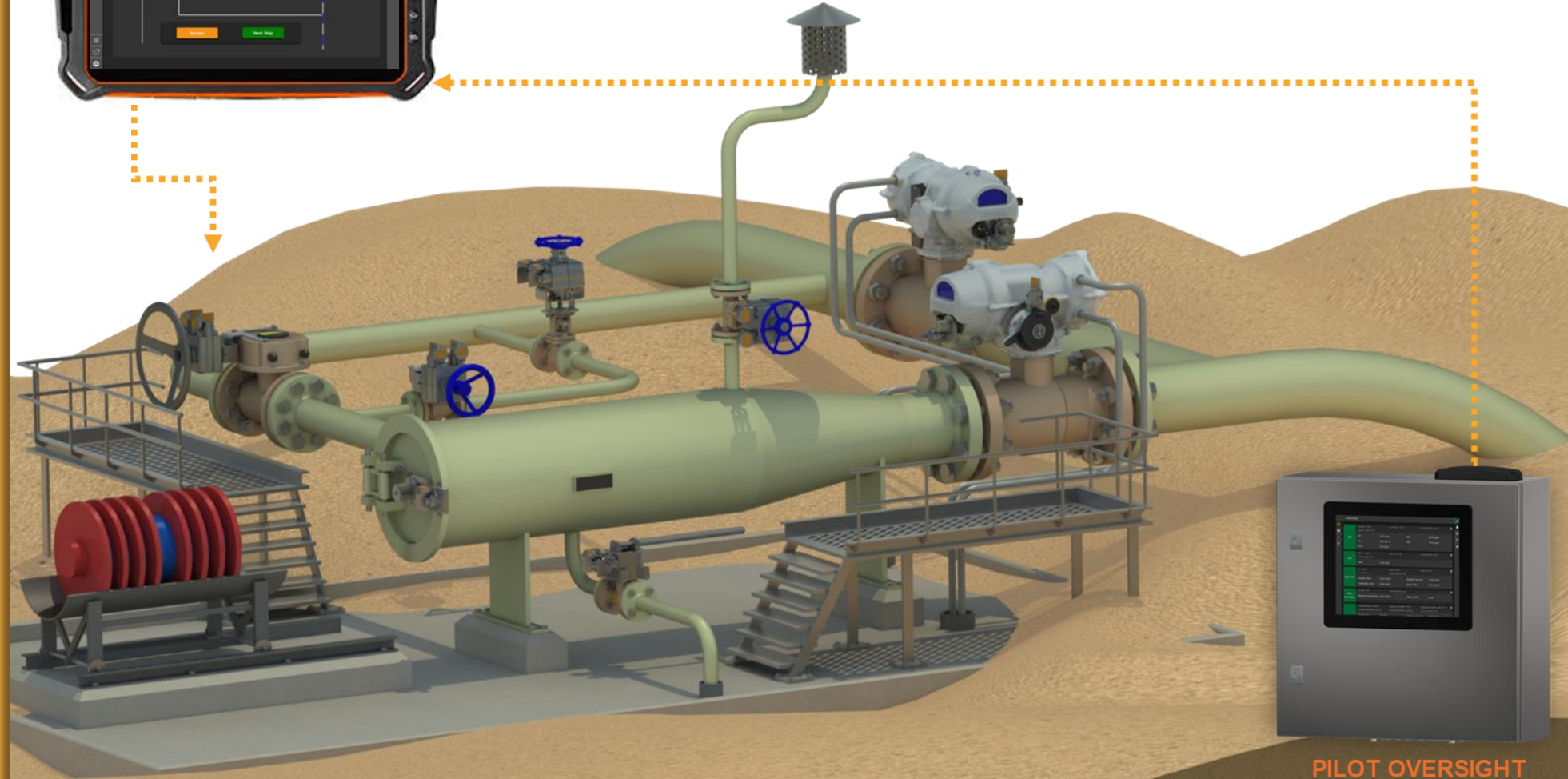


Process Oversight



PILOT Ex-Tablet

Communicates to the DKI's and PILOT panel.
Operator walks around host equipment and
controls / follows the sequence.
Operating the manual valves.



PILOT OVERSIGHT

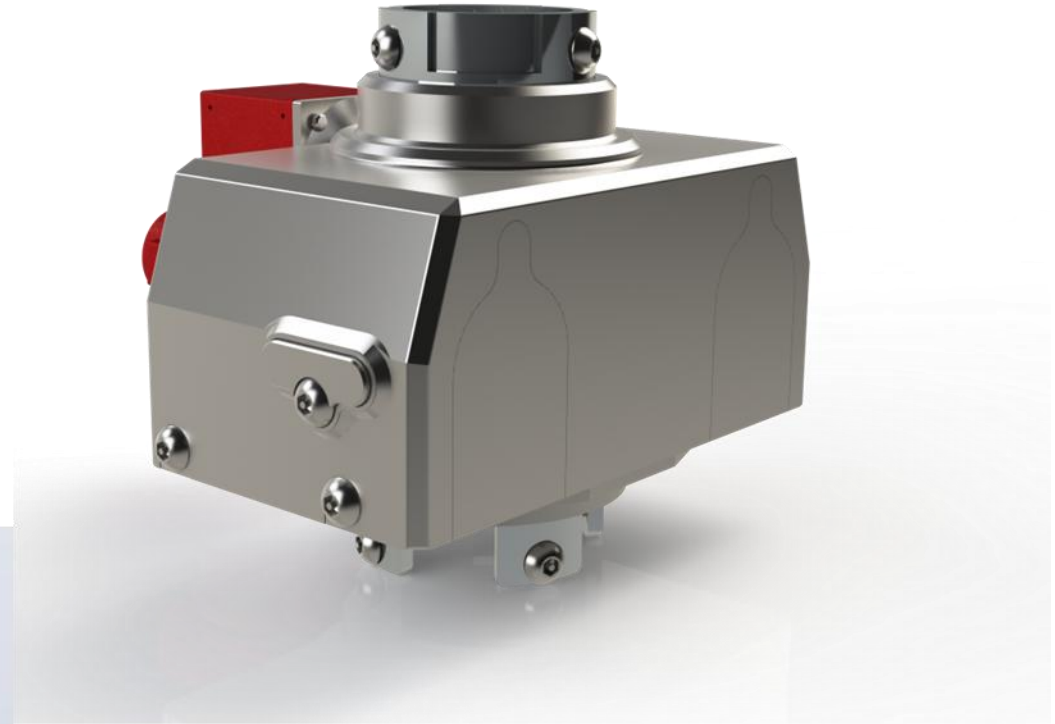
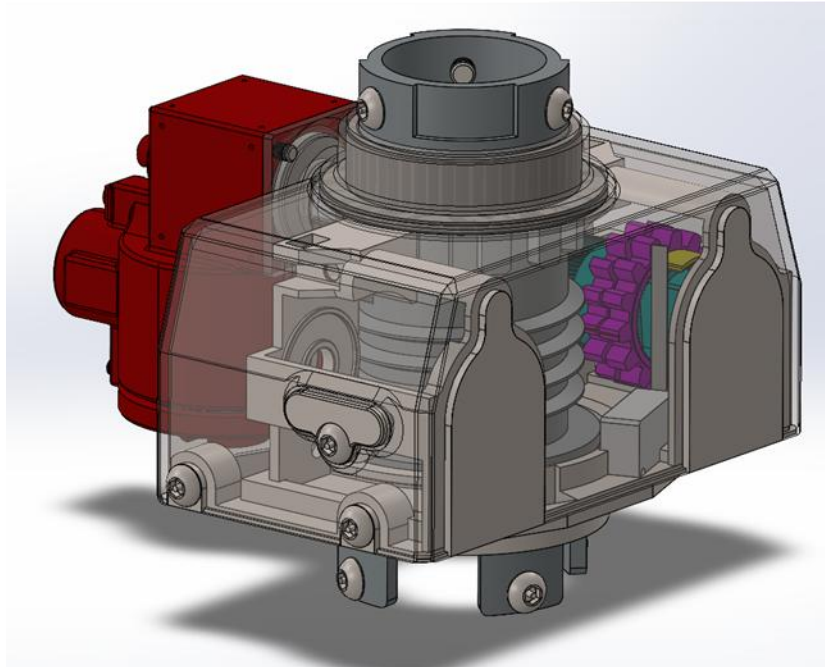
Control panel can be located
within the CCR, Battery room etc

Oversight Communicates to the
Pilot Ex Tablet & DKI Interlocks

Process Oversight

Keyless
Interlocking

PILOT:
Keyless Interlocks



ALCATRAZ VALVE CONTROL

Solutions

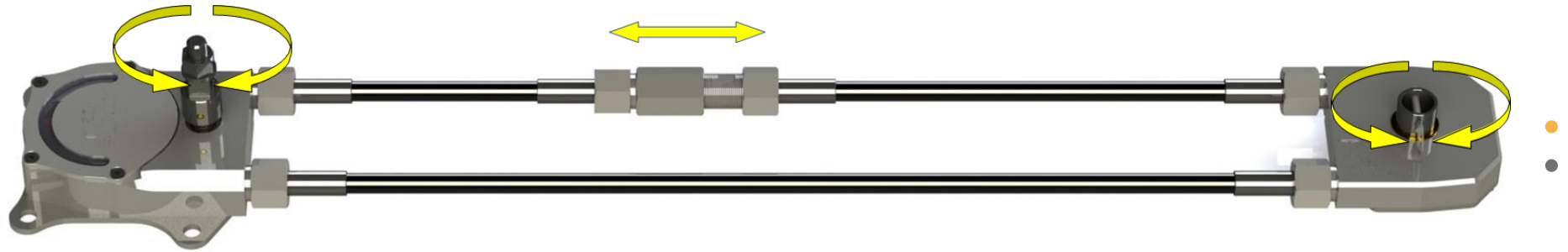
Remote Manual
Valve Control
+
Interlocking



Remote Manual
Valve Control
+
Interlocking

Basic Operation

Alcatraz systems operate hard to reach valves located in inaccessible or hazardous environments, applications including; naval, nuclear, chemical and petrochemical or wherever remote operation is required.



Rotary input is applied to the input shaft of the operator station. The torque is transmitted through a cable drive gear which drives the helix cable in linear motion, which in turn rotates the output shaft at the valve station actuator.

The ends of the helix cable are connected with a connector.

Partial Stroke ESD Testing

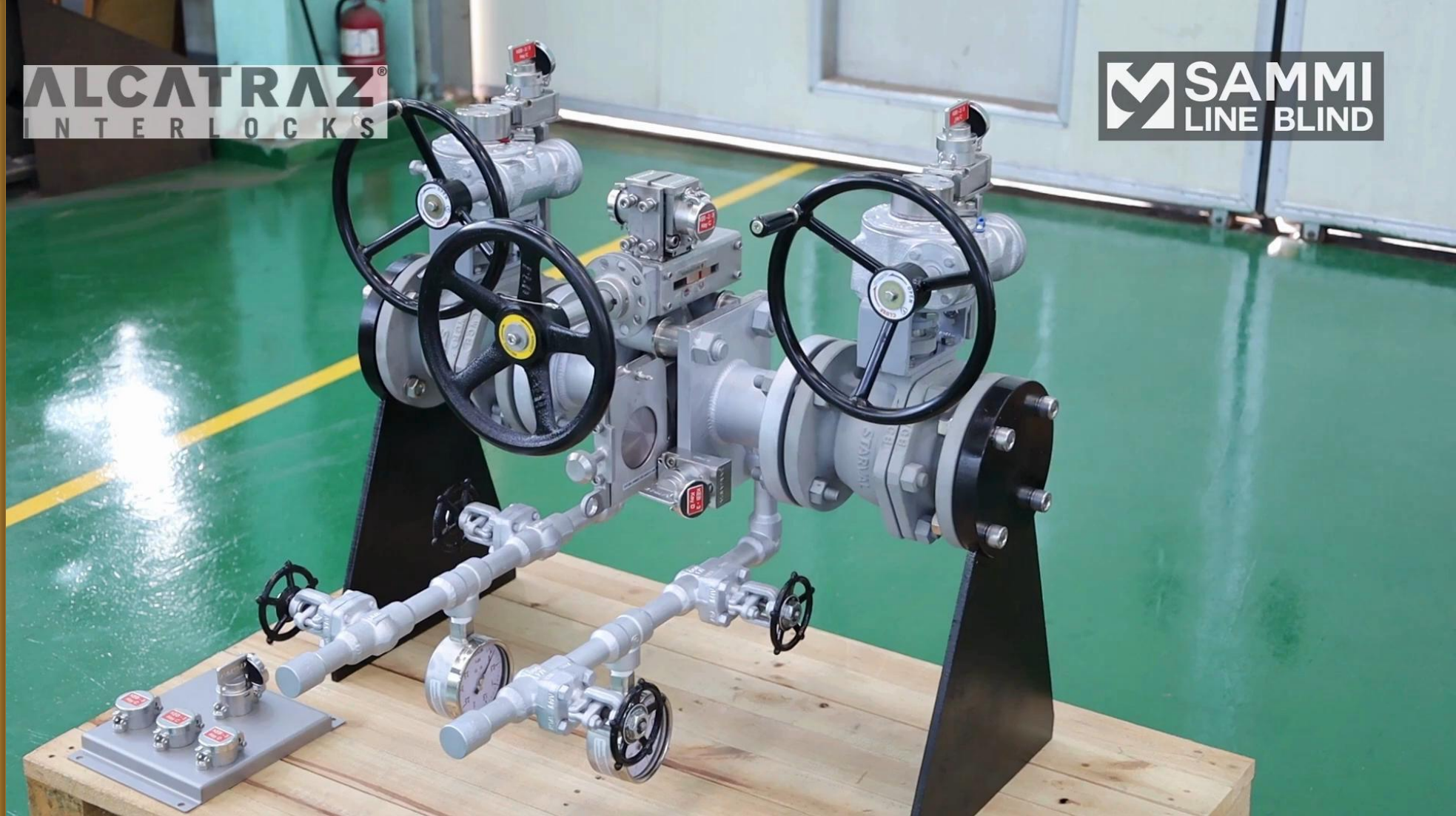


George: Guarding Emergency Operational Reliability, Guaranteed ESD's

Line Blinds Operations

ALCATRAZ
INTERLOCKS

SAMMI
LINE BLIND



Line Blinds:

Safeguarding the Operational of Process Line Blinds

ALCATRAZ VALVE DRIVE

Eco Drive & Eco Lock

Valve Operations

ECO-DRIVE

Handheld Control

Fixed
Storage

Pneumatic or Electric
Valve Operations

ECO-DRIVE
Handheld Control

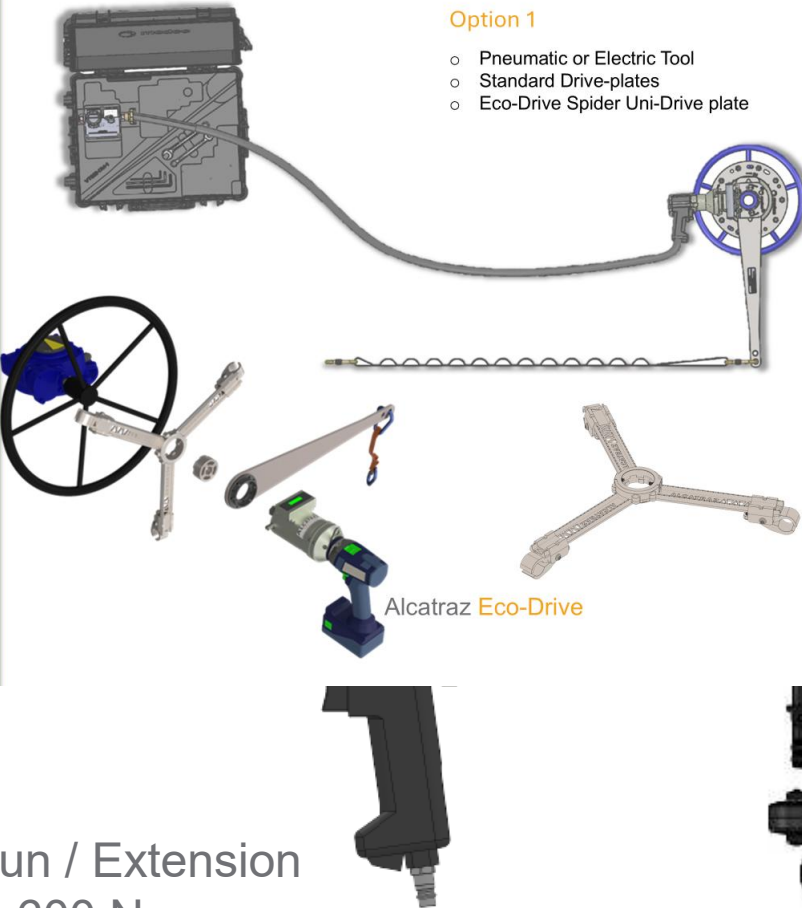
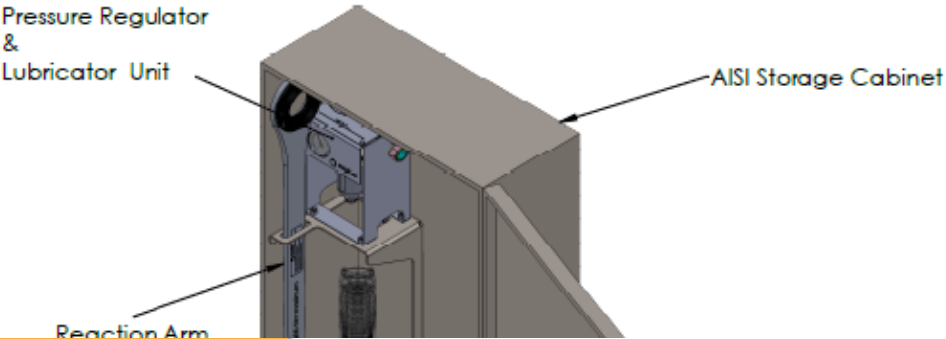
Compact / easy to use kit.

Mount & leave drive plate on
host gearbox handwheel

Control your pressure while on
the move, with our Air Filter
Lubricator.

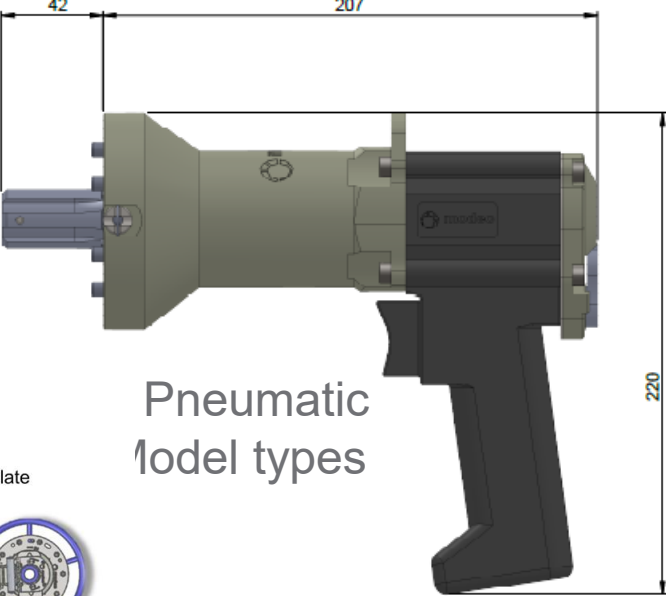
Connect the reaction arm and
operate by hand hard to
operate valves.

Handheld Pneumatic Gun / Extension
& Torque Multiplier Max 600 Nm.
Heavy Duty Gun upto 952 Nm.

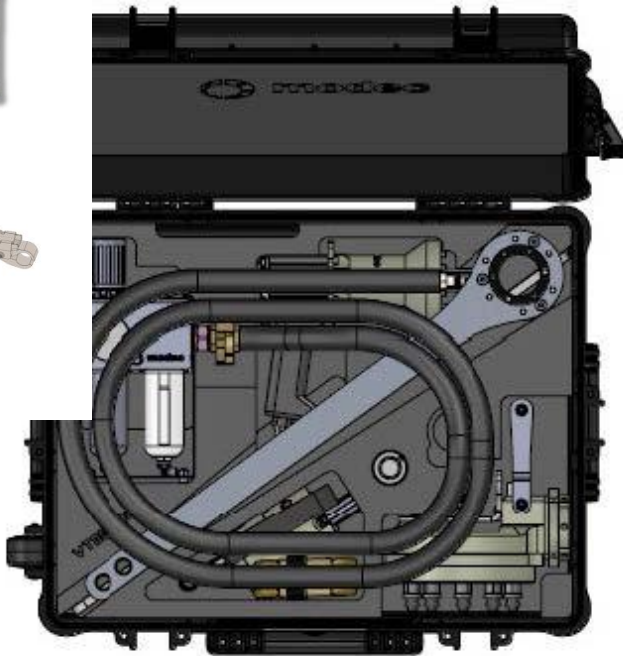


- Option 1
- Pneumatic or Electric Tool
 - Standard Drive-plates
 - Eco-Drive Spider Uni-Drive plate

Alcatraz Eco-Drive



Pneumatic
Model types



Compact Travel Cabinet

Pneumatic or Electric Valve Operations

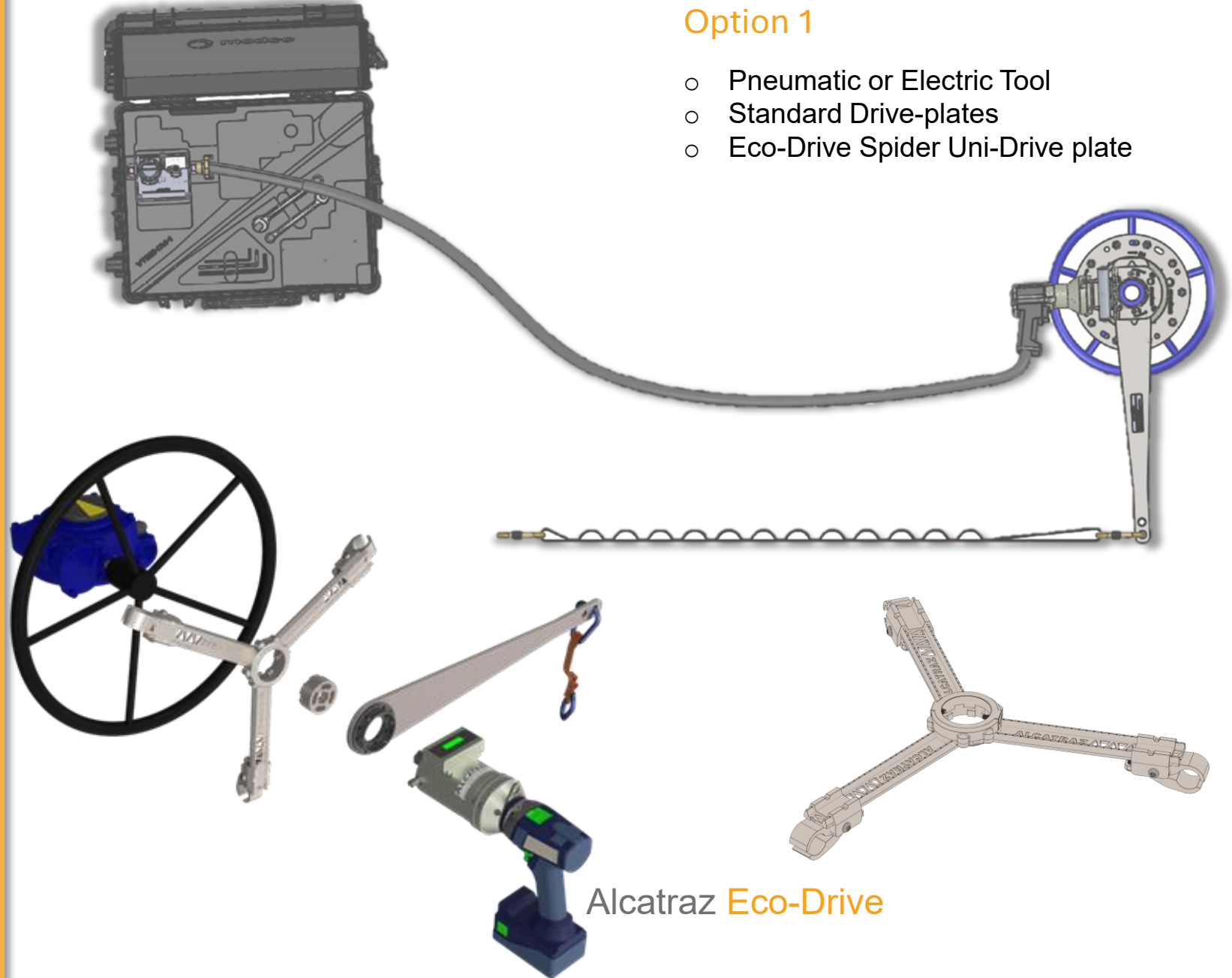
ECO-DRIVE Handheld Control

Compact / easy to use kit.

Mount & leave drive plate on
host gearbox handwheel

Control your pressure while on
the move, with our Air Filter
Lubricator.

Connect the reaction arm and
operate by hand hard to
operate valves.



Option 1

- Pneumatic or Electric Tool
- Standard Drive-plates
- Eco-Drive Spider Uni-Drive plate

Alcatraz Eco-Drive

Pneumatic & Electric Valve Operations

Eco - Drive & Eco - Lock

Is taking the human strain out of daily Operations concerning high rotational valves and gearboxes, which are not automated.

Processes which are defined by an interlocking sequence will be operated smoothly and efficiently.

Direct Drive & Universal Handwheel Mounted Solutions



Universal Eco-Drive

Option 2

- Universal Mounting Eco-Drive Unit
- Bespoke Mounting Eco-Drive Unit
- Pneumatic or Electric Valve Drives



Pneumatic & Electric Valve Operations

Universal Eco – Lock

Need to add more Safety & Security?

Then lock out your valve by adding our Locking function to the Eco-Drive. Ensuring high rotation valves are added into your process sequential logic.

How? by simply adding our Keyed Eco-Locking unit.

Processes which are defined by an interlocking sequence will be operated smoothly and efficiently.

Universal & Custom mounting
Solutions

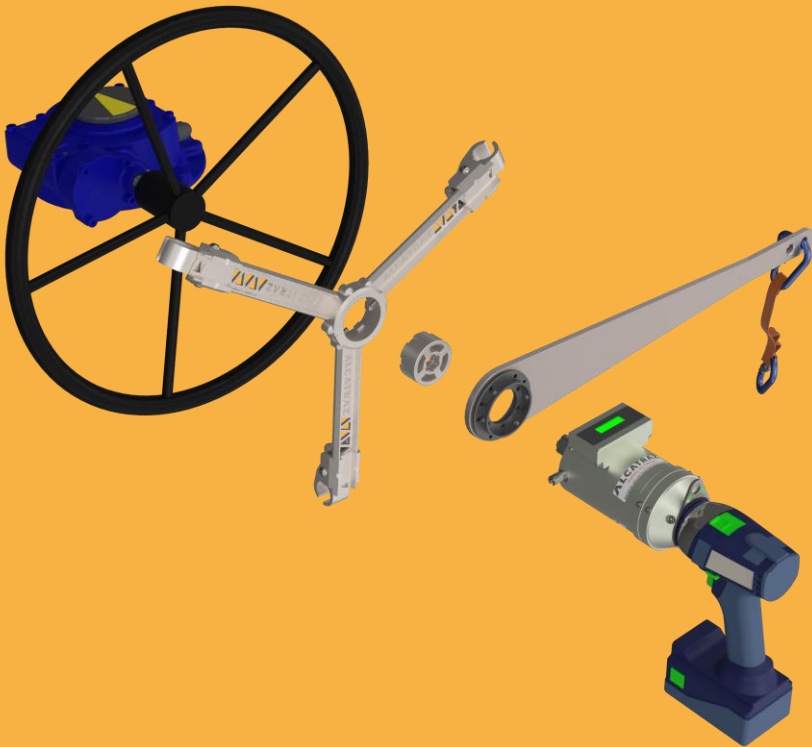


Option 3

- Universal Mounting Eco-Lock
- Bespoke Mounting Eco-Lock
- Pneumatic or Electric Valve Drives

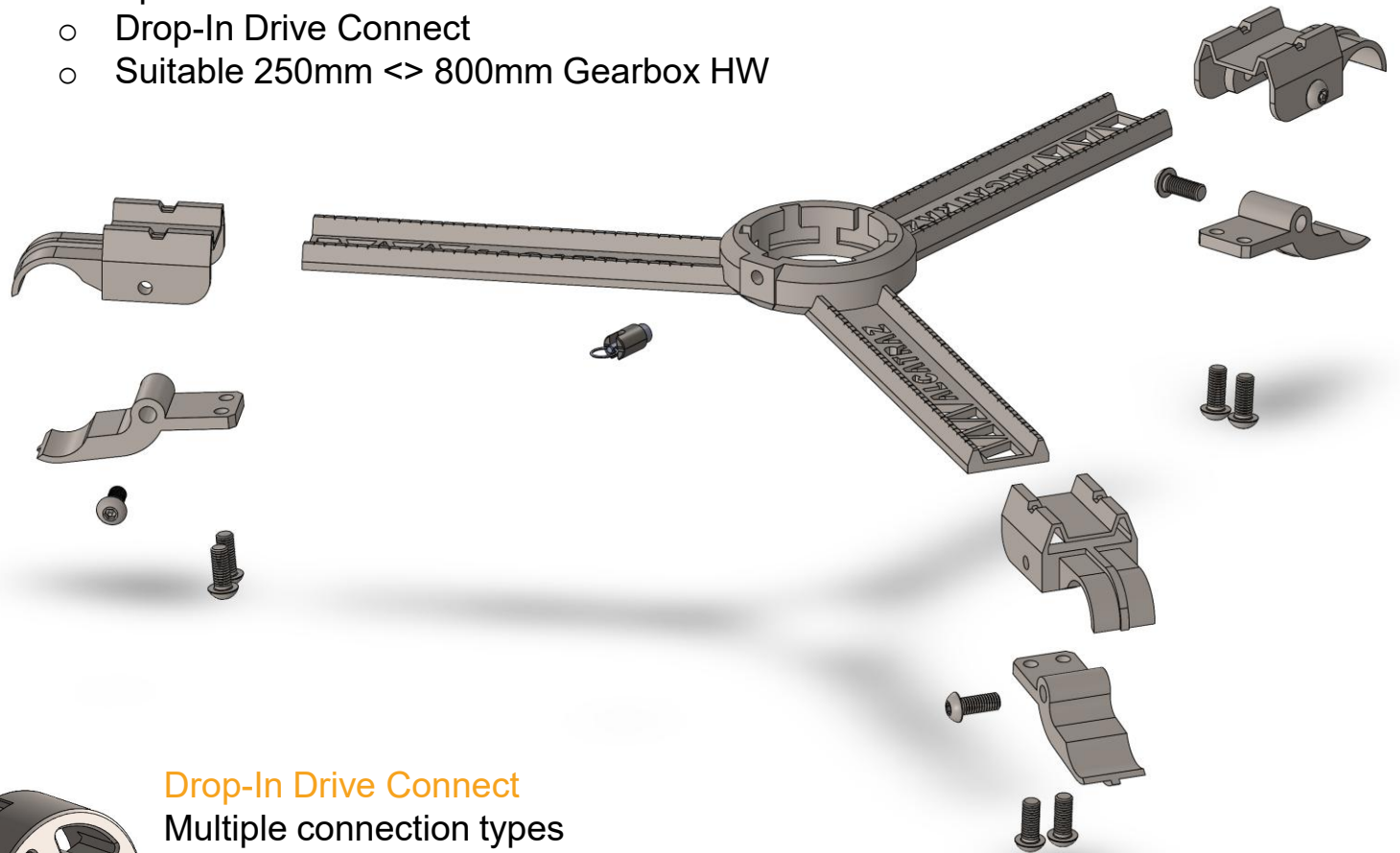
Universal Eco-Lock

Simple & Efficient Gear Operations



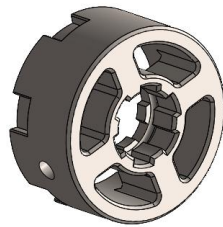
Option 4

- Spider Drive Plate
- Drop-In Drive Connect
- Suitable 250mm <=> 800mm Gearbox HW



Drop-In Drive Connect

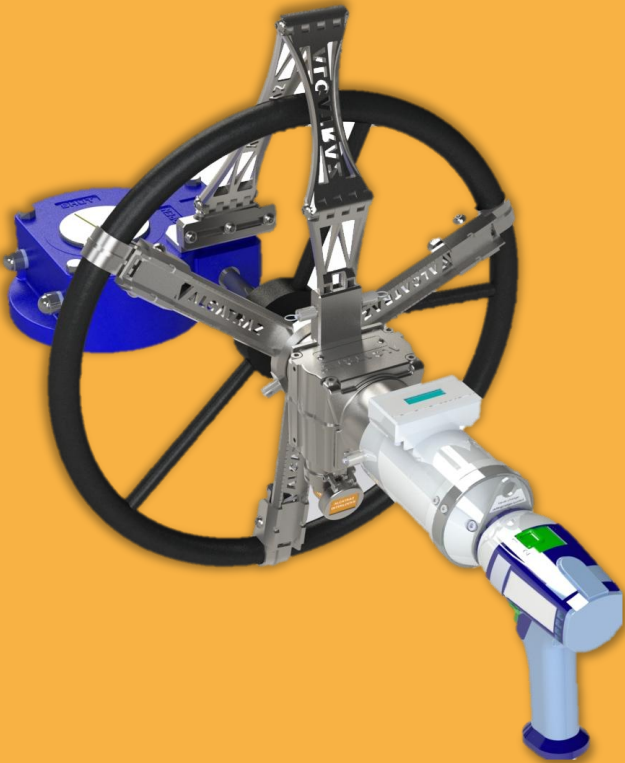
Multiple connection types



- Splined
- 3/4"
- 1/2"

Eco Drive Spider Drive Plate

Simple & Efficient Valve Operations



Eco Drive Lock Uni

ALCATRAZ[®]

I N T E R L O C K S

SAFETY BY DESIGN

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