

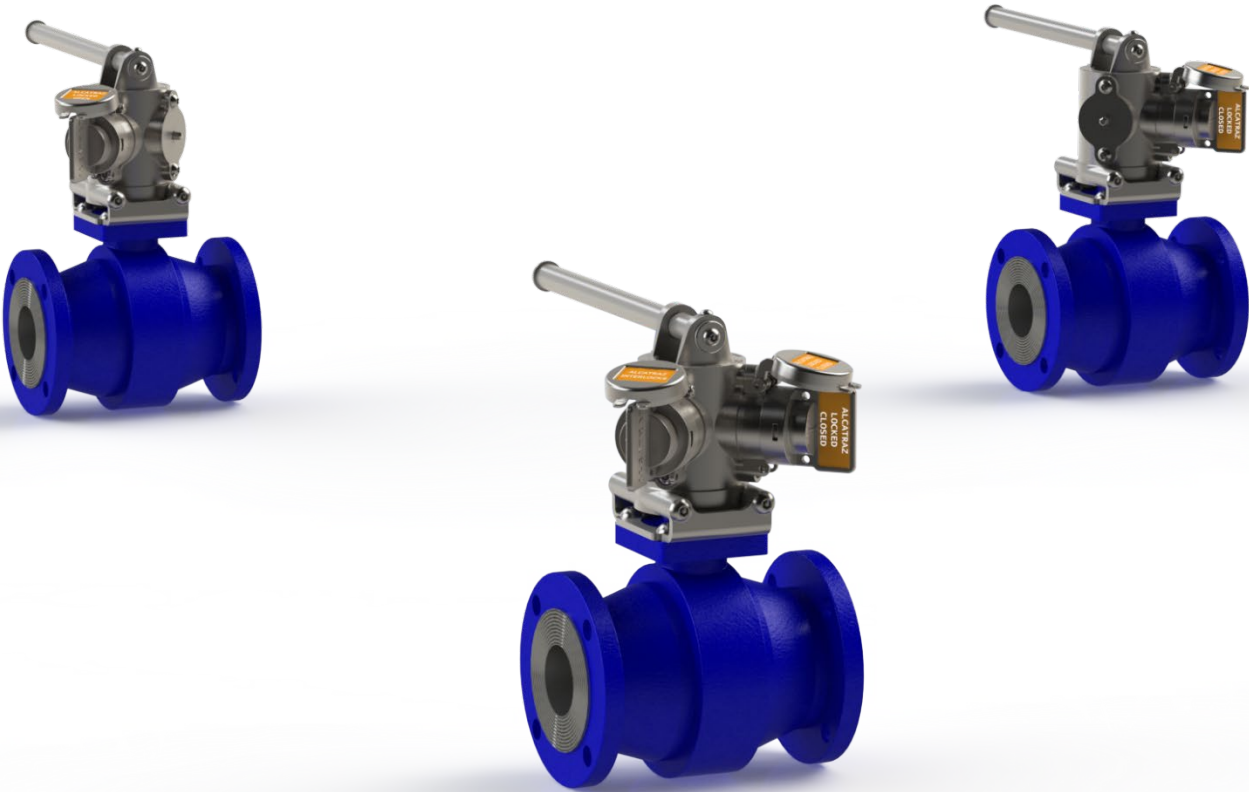
Product Data Sheet Quarter-Turn Medium		
	Alcatraz Doc. No.: ALC-PDS-QLM-FR04	
	Rev.: 1	Status: Final
	Date: 15-04-2024	

Vendor Document Nr.: ALC-PDS-QLM-FR04

Product Data Sheet

Integral Interlocks

ALL <> Quarter-Turn Variations: **Medium**



1	15-04-2024	CY	DK	HB	Final
Rev	Date	Originator	Reviewed	Approved	Description
		Alcatraz	Alcatraz	Alcatraz	

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Product Data Sheet

Quarter-Turn

Medium

ALCATRAZ[®]
I N T E R L O C K S

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1. PRODUCT STANDARD FEATURES

Features

- ✓ Intergraded 90-degree end stops
- ✓ Adjustable ergonomic lever
- ✓ Mechanically programmed key codes
- ✓ Encapsulated lock portion preventing ingress & contamination
- ✓ Bespoke nameplate / tagging
- ✓ Compact design
- ✓ Tamperproof mounted solutions
- ✓ Interlocked open / closed position
- ✓ Alcatraz 5 step safety integrity design

Operational Keys

- ✓ Mechanically programmed keys
- ✓ Unique coding assigned
- ✓ Bespoke nameplate / tagging
- ✓ ASTM E208 25 metre drop test approved
- ✓ Encapsulated key housing

Installation

- ✓ Cold work permit for installation
- ✓ No modification to host equipment
- ✓ Bespoke mounting bracket to suit host application
- ✓ Bespoke drive bush adaptor to suit host application
- ✓ Tamperproof fixings used throughout

A **Quarter-Turn Medium** interlock can be mounted onto all host valves with a valve stem flat to flat dimension <20mm

Above these sizes a bespoke solution would be designed by Alcatraz to suit applications needs.

Key Options

- ✓ Alcatraz can supply the following key options;
- ✓ **Replacement** key kit
- ✓ **Spare** key
- ✓ **Group** key
- ✓ **Master** key
- ✓ **Commissioning** key
- ✓ All the above are suitable for our complete product range.

A **Group** key would be used within a dedicated zone, system or process.

A **Master** Key allows an end client to operator regardless to product type, process logic situation all the Alcatraz products.

A **Commissioning** Key is used during the construction / commissioning phase of a project.

Ensuring the programmed sequence logic does not interfere with steam blowing, flushing or leak testing activities.

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2. DATA SHEET DQLM (DOUBLE KEYED)

Dimensions DQLM

Material Grades

Dimension				Material Grades	
Length	(mm)	Including lock Portions	163	Interlock housing	SS 316
Width	(mm)	Including lock Portions	122	Internal components	SS 316
Height	(mm)		100	Bracket	SS 316
Mass of Interlock	(kg)*		2,82	Adaptor	SS 316
Lever sizes		200 / 300mm		Lever *	SS 316
Bespoke Options					
Max. valve stem width	(mm)		20,00	Operational Key	SS 316
Bespoke solutions possible					
Max. valve stem length	(mm)		35,00	Tag plates	RESOPAL®
Bespoke solutions possible					
* Not including bracket, adaptor & lever				* AISI 304 levers available upon request	

Certificate & Standards

Certificate & Standards	
Product	2.1
Material Cert.*	
Electro	ASTM B912-02
Polishing	ISBN 978-2-87997-310-4
Fire Test	ANSI / API 607
ISO	ISO 9001 2015
Atex	EU 2014/34/EU Atex
Declaration of Conformity	

* 3.1 material certificate available upon request

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3. EXPLODED VIEW DQLM (DOUBLE KEYED)

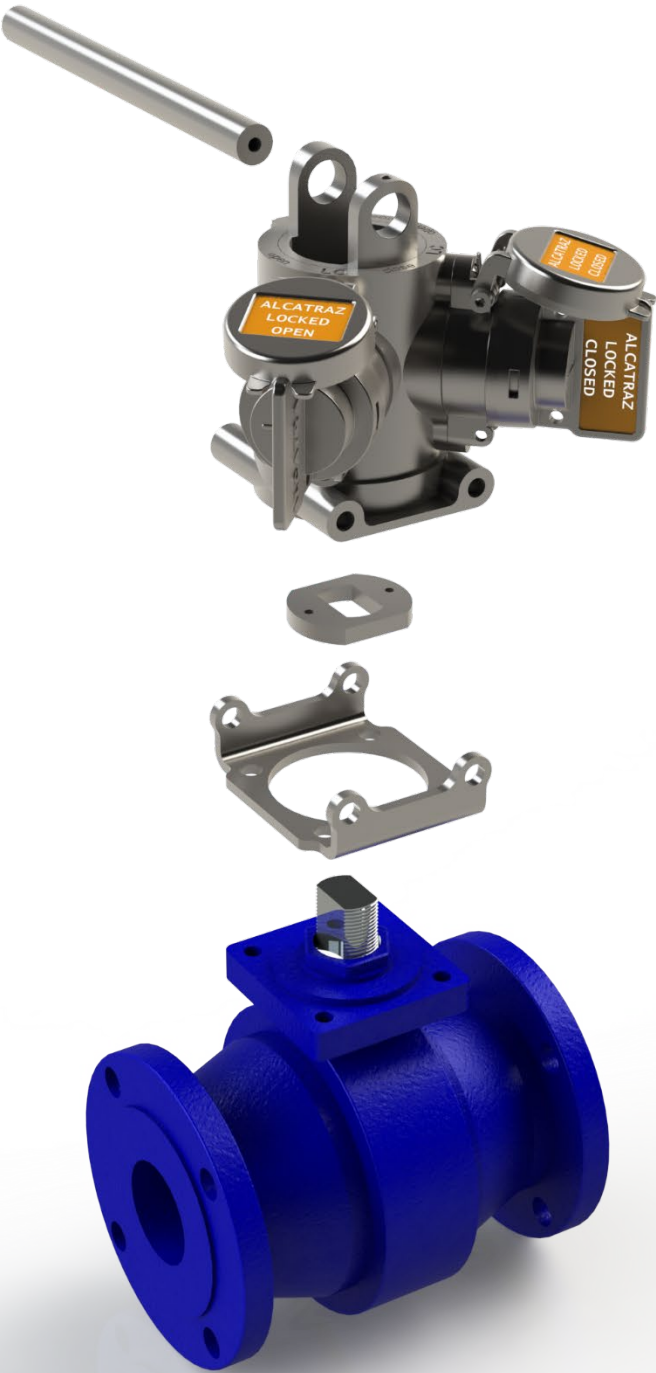
Lever

Interlock & Lock Portions

Bespoke Adaptor

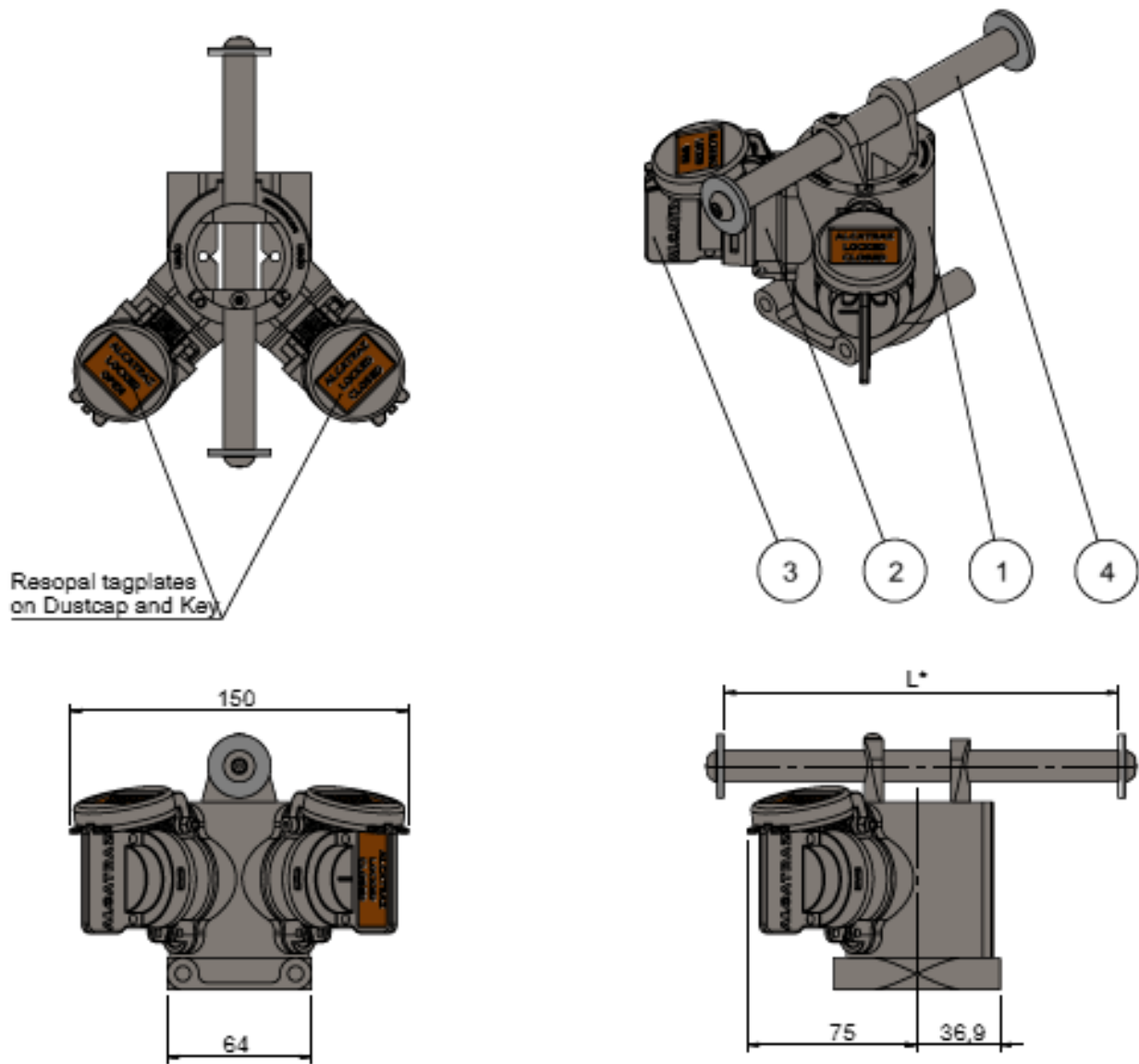
Bespoke Bracket

Host Valve



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4. GAD DQLM (DOUBLE KEYED)



Bill Of Materials		
Pos	Description	Material
1	Multi-turn main unit	SS 316 – Electro Polished
2	Lock portion including dust cap	SS 316 – Electro Polished
3	Key	SS 316 – Electro Polished
4	Lever	SS 316
*	Lever lengths L standardly supplied 200 / 300 & Bespoke	

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5. DATA SHEET SQLM (SINGLE KEY OPEN)

Dimensions SQLM

Material Grades

Dimension				Material Grades	
Length	(mm)	Including lock Portions	163	Interlock housing	SS 316
Width	(mm)	Including lock Portions	122	Internal components	SS 316
Height	(mm)		100	Bracket	SS 316
Mass of Interlock	(kg)*		1,97	Adaptor	SS 316
Lever sizes		200 / 300mm		Lever *	SS 316
Bespoke Options					
Max. valve stem width	(mm)		20,00	Operational Key	SS 316
Bespoke solutions possible					
Max. valve stem length	(mm)		35,00	Tag plates	RESOPAL®
Bespoke solutions possible					

* Not including bracket, adaptor & lever

* AISI 304 levers available upon request

Certificate & Standards

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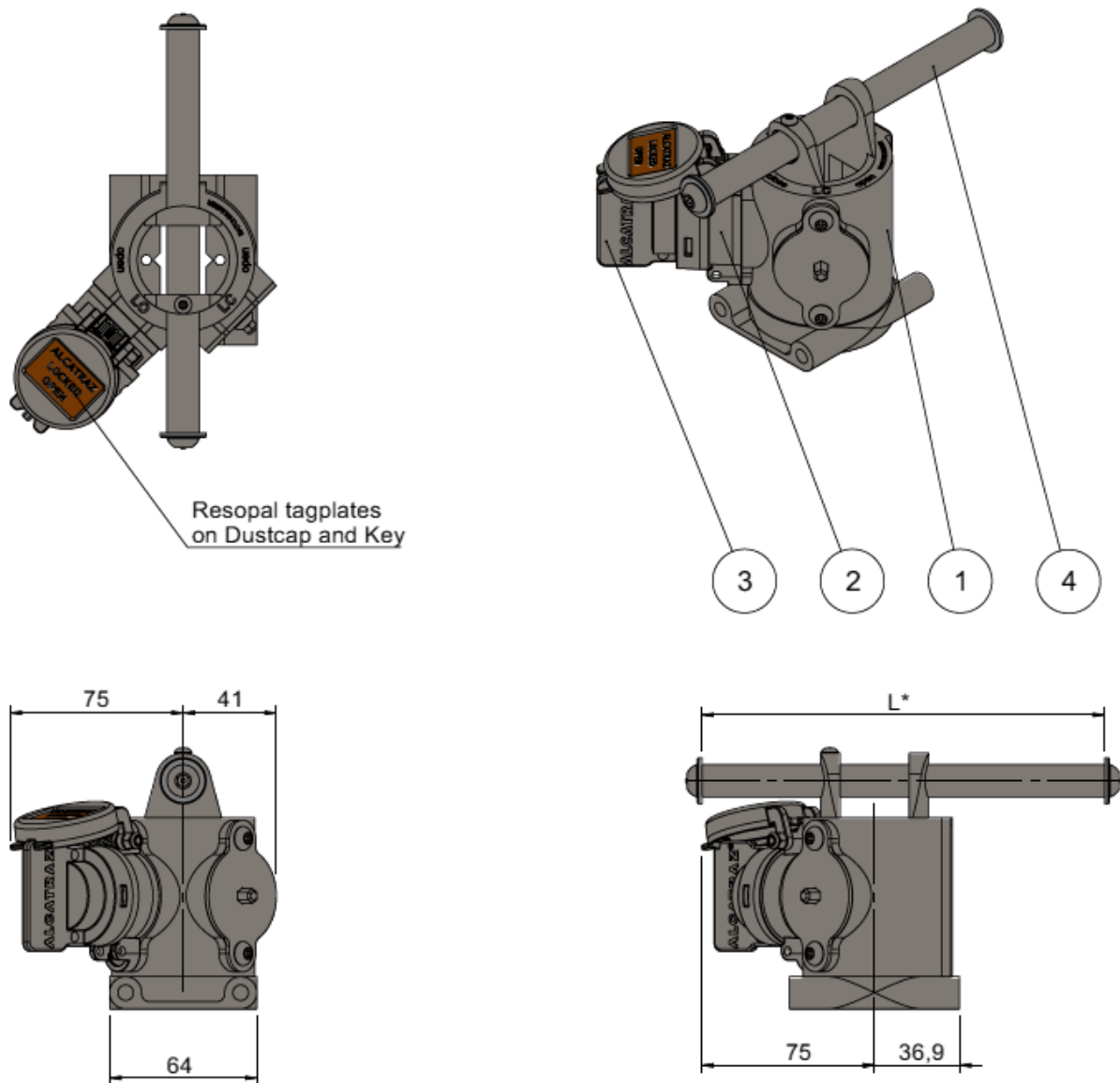
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6. EXPLODED VIEW SQLM (SINGLE KEY OPEN)



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7. GAD SQLM (SINGLE KEY OPEN)



Bill Of Materials		
Pos	Description	Material
1	Multi-turn main unit	SS 316 – Electro Polished
2	Lock portion including dust cap	SS 316 – Electro Polished
3	Key	SS 316 – Electro Polished
4	Lever	SS 316
*	Lever lengths L standardly supplied 200 / 300 & Bespoke	

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8. DATA SHEET SQLM (SINGLE KEY CLOSED)

Dimensions SQLM

Material Grades

Dimension				Material Grades	
Length	(mm)	Including lock Portions	163	Interlock housing	SS 316
Width	(mm)	Including lock Portions	122	Internal components	SS 316
Height	(mm)		100	Bracket	SS 316
Mass of Interlock (kg)*			1,97	Adaptor	SS 316
Lever sizes		200 / 300mm		Lever *	SS 316
Bespoke Options					
Max. valve stem width (mm)		20,00		Operational Key	SS 316
Bespoke solutions possible					
Max. valve stem length (mm)		35,00		Tag plates	RESOPAL®
Bespoke solutions possible					

* Not including bracket, adaptor & lever

* AISI 304 levers available upon request

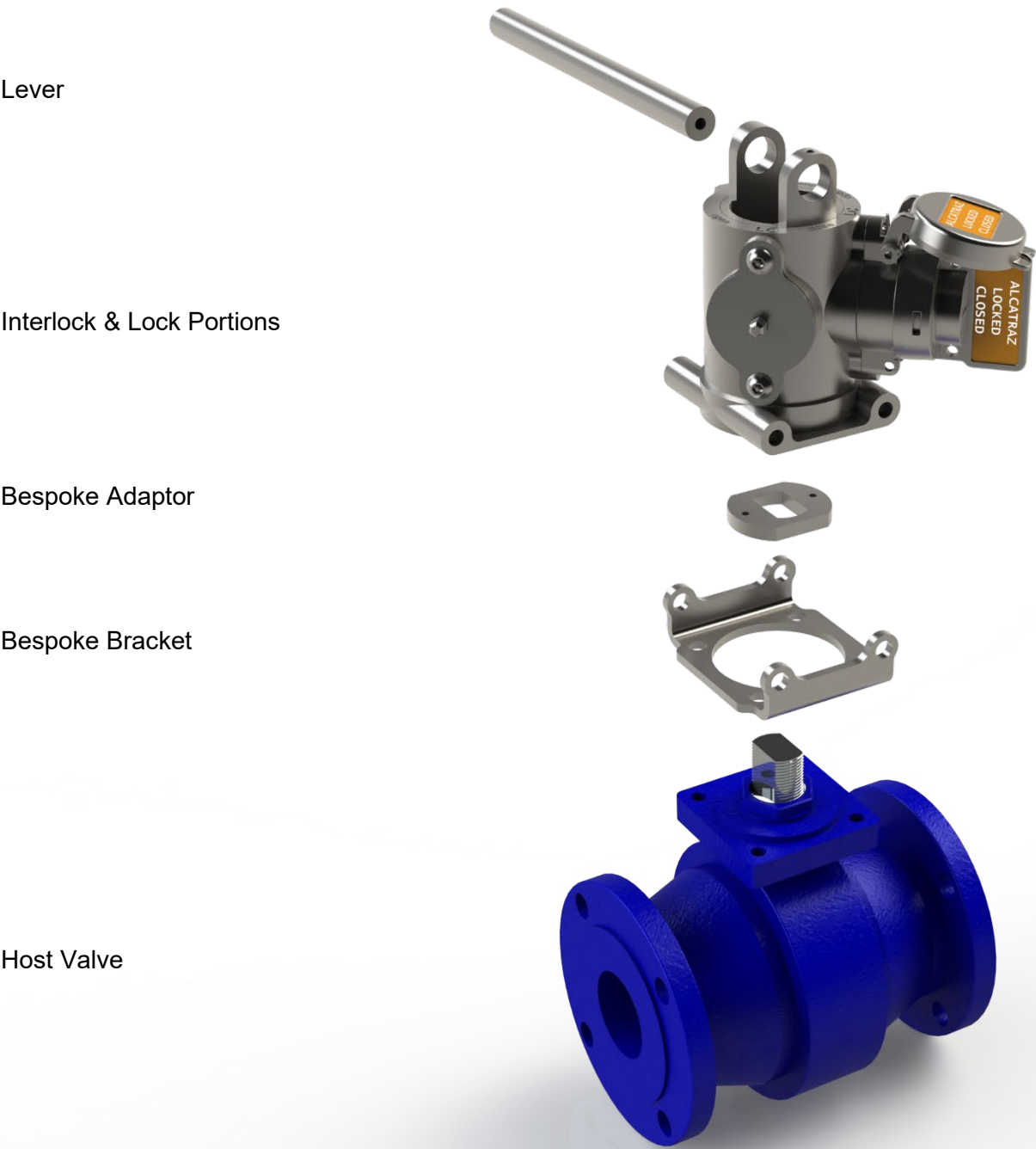
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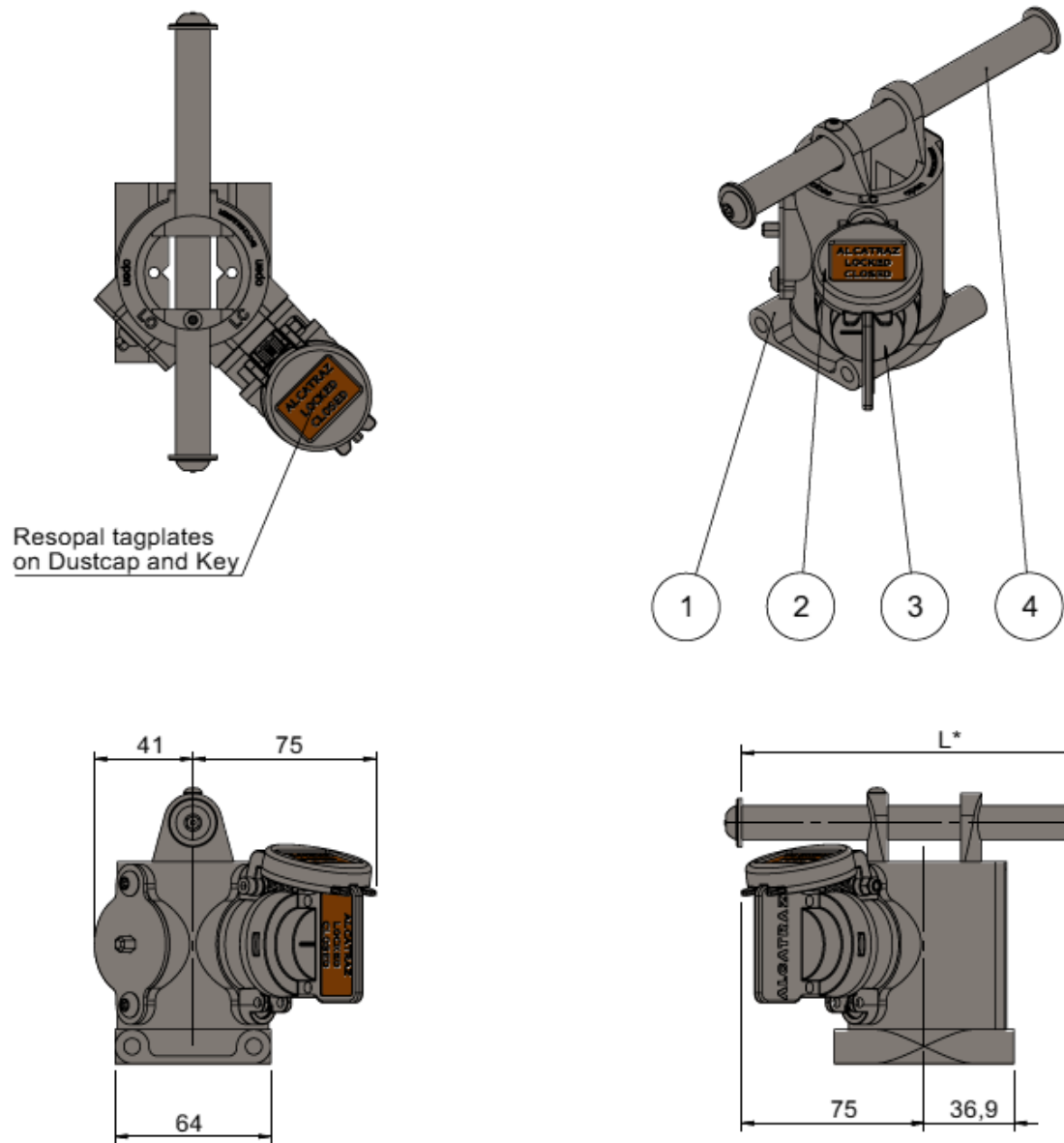
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9. EXPLODED VIEW SQLM (SINGLE KEY CLOSED)



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10. GAD SQLM (SINGLE KEY CLOSED)



Bill Of Materials		
Pos	Description	Material
1	Multi-turn main unit	SS 316 – Electro Polished
2	Lock portion including dust cap	SS 316 – Electro Polished
3	Key	SS 316 – Electro Polished
4	Lever	SS 316
*	Lever lengths L standardly supplied 200 / 300 & Bespoke	

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11. SUMMARY OF OUR SAFETY INTEGRITY STEPS

Alcatraz Integrity Step	Action	Purpose
Step 1	Insert operational key into key lock portion (LP) in a linear action	First stage linear action, to confirm the Mechanically Programmed Key Codes
Step 2	Rotation of engaged operational key within lock portion (LP)	Second stage action, to engage or disengage the internal interlock input driveshaft & lock finger
Step 3	Operational key encapsulates Lock Portion (LP) housing	Ensuring zero ingress or contamination into the Lock Portion coding (LP)
Step 4	Key Lock Portion (LP) separates & seals lock body from any external ingress and product tampering	An extra level of defence & separation between lock portion and interlock housing internal workings. No access / zero possibility to override internal lock workings or have exposure to ingress / contamination
Step 5	Two moving parts. Intergraded 90 degree end stops ISO footprint connection possibilities between Interlock & its mated valve	Minimization of moving parts Valve protection with intergraded ninety degree end stops built within actual lock housing. Tamperproof mounting solution including fixation screws.
Alcatraz Mechanical Coded Key Interlock devices are in accordance to EN ISO 14119:2013 Type-2 B.2		