

DAIRCRAFT LAVATORY COUPLING

SAFETY, OPERATION, INSPECTION & MAINTENANCE MANUAL

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Manufacturer: RAMPTECH]

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1. INTRODUCTION

This manual provides instructions for the safe operation, inspection, maintenance, cleaning, storage, and disposal of Aircraft Lavatory Couplings.

Failure to comply with this manual may result in:

- Personal injury
- Exposure to biological contaminants
- Aircraft damage
- Equipment damage
- Environmental contamination
- Regulatory violations

This manual shall be readily available to all operators and maintenance personnel.

2. INTENDED USE

The Aircraft Lavatory Coupling is designed solely for connecting aircraft lavatory service ports to approved lavatory servicing equipment.

The coupling shall NOT be:

- Modified
- Used as a lifting device
- Used for potable water service
- Used with incompatible aircraft fittings
- Operated outside manufacturer specifications

3. APPLICABLE STANDARDS

This product is designed to support compliance with applicable industry standards including:

- ISO 17775 – Aircraft Ground-Service Connections
 - ISO 10842 – Aircraft Ground Service Connections
 - EN 12312-13 – Aircraft Ground Support Equipment – Lavatory Service Equipment
 - EN 1915 Series – Ground Support Equipment Safety Requirements
 - OSHA 29 CFR 1910.1030 – Bloodborne Pathogens
 - MIL-A-8625 – Anodic Coatings for Aluminum Alloys (where applicable)
 - Applicable airport environmental and spill-control regulations
-

4. SAFETY INFORMATION

DANGER – BIOLOGICAL HAZARD

Aircraft lavatory waste may contain:

- Human waste
- Bloodborne pathogens
- Viruses
- Bacteria
- Fungi

Always wear approved PPE.

Avoid contact with eyes, mouth, nose, and open wounds.

Wash thoroughly after servicing operations.

Seek immediate medical evaluation following exposure.

WARNING – PRESSURIZED WASTE RELEASE

Residual pressure may remain within hoses, tanks, and service lines.

Before disconnecting:

1. Stop waste flow.

2. Close valves.
3. Relieve pressure.
4. Verify pressure release.

Failure to follow these procedures may result in sudden waste discharge and biological contamination.

WARNING – CHEMICAL EXPOSURE

Aircraft lavatory systems may contain:

- Disinfectants
- Deodorizing agents
- Cleaning chemicals

Follow applicable Safety Data Sheets (SDS).

Avoid prolonged skin exposure.

CAUTION – AIRCRAFT DAMAGE

Never force a coupling onto an aircraft fitting.

If excessive resistance is encountered:

- Stop immediately.
- Verify compatibility.
- Inspect seals.
- Check alignment.

Forcing the coupling may damage aircraft fittings and create costly aircraft downtime.

CAUTION – FOREIGN OBJECT DEBRIS (FOD)

Before leaving the service area verify:

- Dust caps installed
- Hardware accounted for
- Pins secured
- Tools removed

Loose hardware may create a FOD hazard.

5. PERSONAL PROTECTIVE EQUIPMENT

Minimum PPE Requirements:

- Chemical-resistant gloves
- Safety glasses
- Face shield during connection/disconnection
- High-visibility vest
- Safety footwear
- Long-sleeve garments

Additional PPE may be required by local regulations.

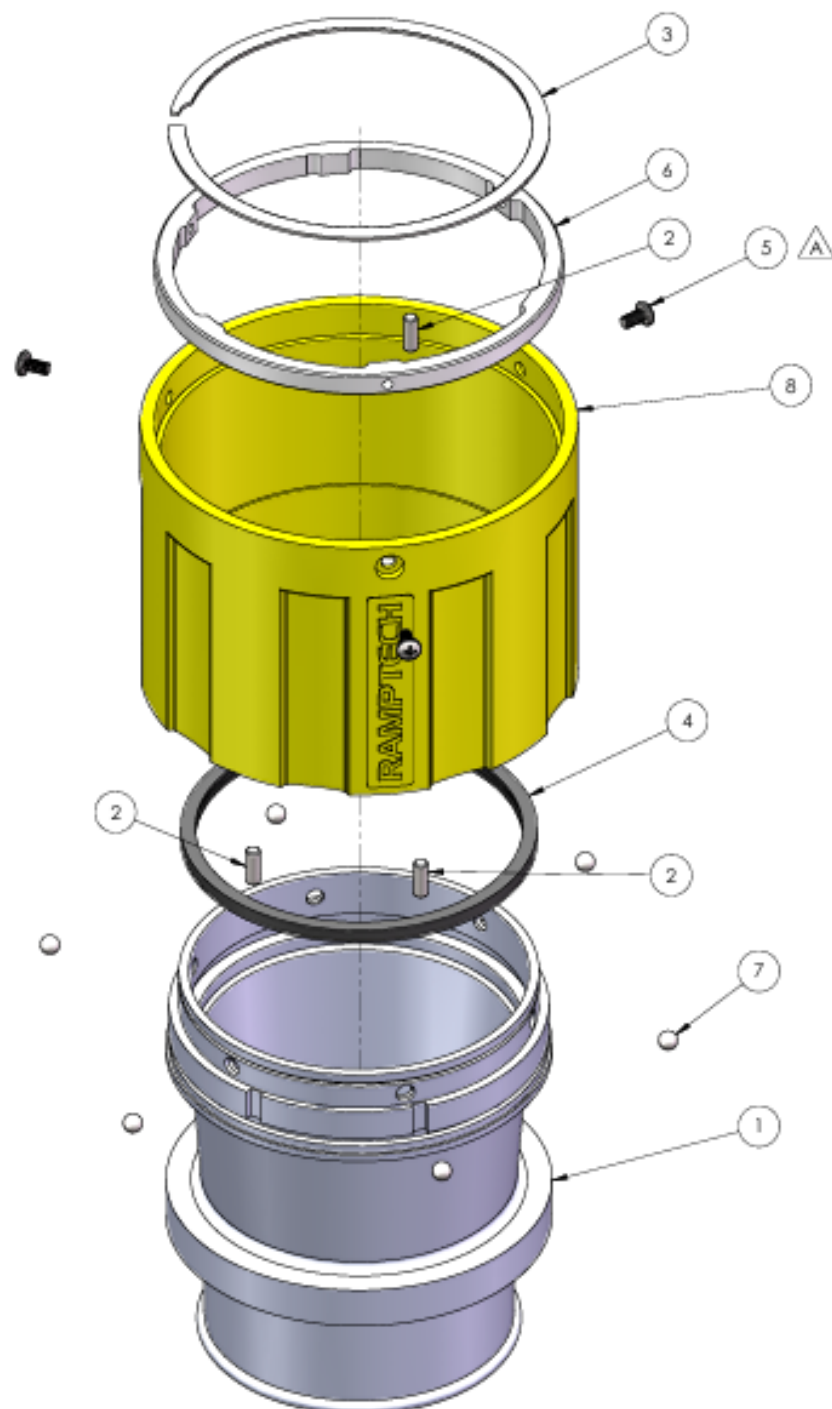
6. PRODUCT DESCRIPTION

The Aircraft Lavatory Coupling provides a sealed interface between aircraft lavatory drain systems and servicing equipment.

Major components include:

- Coupling body
- Locking mechanism
- Sealing gasket
- O-rings
- Hose attachment interface
- Retention hardware
- Protective dust cap

ITEM NO.	PartNo	DESCRIPTION	
1	383038_01	4.0 INNER SLEEVE	1
2	383038_02	DOWEL PIN (Ø 3/16 X 1/2L, SS (AS 002942)	3
3	383025_RING	RETAINING RING	1
4	383025SEAL	SEAL, SQUARE RING	1
5	383038_5	SCREW, 8-32 X 5/16" PAN HEAD SS 18-8 (MCM 91772A191 OR EQUIVALENT)	3
6	383020_CAM	CAM, 4" LAV DRAIN COUPLING	1
7	383038_07	LOCKING BALL, SS, GR 100, .25IN DIA (AS 001807)	6
8	383038_09	LAV COUPLING OUTER RING RT	1



7. TECHNICAL SPECIFICATIONS

Parameter	Specification
Service Type	Aircraft Lavatory Waste
Connection Standard	ISO 17775 Compatible
Construction	Aluminum Alloy / Stainless Steel
Finish	Anodized per MIL-A-8625 (if applicable)
Operating Temperature	-40°F to +140°F
Weight	Refer to Product Specification
Part Number	Refer to Product Label

8. DAILY PRE-USE INSPECTION

Inspect before each use:

Coupling Body

Verify:

- No cracks
- No deformation
- No impact damage

Seals and O-Rings

Verify:

- No cuts
- No cracking
- No hardening
- No deformation

Locking Mechanism

Verify:

- Smooth operation
- Positive engagement
- Full retention

Cleanliness

Remove:

- Waste residue
 - Dirt
 - Foreign material
-

9. WEEKLY INSPECTION

Inspect:

- Corrosion
- Fasteners
- Retention hardware
- Wear surfaces
- Hose interface

Perform:

- Functional lock test
- Leak test

Document inspection results.

10. SAFE OPERATING PROCEDURES

Connection Procedure

1. Wear required PPE.
2. Inspect coupling.
3. Inspect aircraft fitting.
4. Align coupling.
5. Engage locking mechanism.
6. Verify positive lock.
7. Verify leak-free connection.

Disconnection Procedure

1. Stop waste flow.
 2. Close all valves.
 3. Relieve residual pressure.
 4. Disconnect carefully.
 5. Install dust caps.
 6. Inspect area for leakage.
-

11. CLEANING AND DISINFECTION

After each use:

1. Flush residual waste.
2. Wash coupling surfaces.
3. Apply approved disinfectant.
4. Allow proper dwell time.
5. Rinse if required.
6. Dry before storage.

Weekly:

- Deep clean all components.
 - Inspect hidden surfaces.
-

12. SPILL RESPONSE

Minor Spill

- Stop operation.
- Contain spill.
- Apply absorbent.
- Disinfect area.
- Dispose of waste properly.

Major Spill

- Stop operation immediately.
 - Isolate area.
 - Notify supervision.
 - Follow airport emergency procedures.
 - Complete incident report.
-

13. STORAGE REQUIREMENTS

Store coupling:

- Clean
- Dry
- Protected from sunlight
- Protected from chemicals
- Protected from impact damage

Install dust caps before storage.

14. PREVENTIVE MAINTENANCE

Every 3 Months

- Inspect seals
- Inspect hardware
- Lubricate moving parts if approved

Every 12 Months

Replace:

- O-rings
- Seals
- Worn hardware

Document all maintenance actions.

Return-to-Service Inspection

After storage exceeding 30 days:

Inspect:

- Seals
- O-rings
- Locking mechanism
- Fasteners

Conduct leak testing prior to use.

15. REMOVAL FROM SERVICE CRITERIA

Remove immediately if any of the following are observed:

- Cracks
- Structural damage
- Leaks
- Bent components
- Missing hardware
- Corrosion affecting operation

- Failed lock mechanism
- Failed leak test
- Damaged sealing surfaces

Do not return to service until repaired and inspected.

16. TRAINING REQUIREMENTS

Operators shall receive training on:

- Safe operation
- PPE requirements
- Bloodborne pathogen awareness
- Spill response
- Inspection procedures
- Maintenance procedures
- FOD prevention

Training records shall be maintained.

17. RECORDKEEPING

Maintain records of:

- Daily inspections
- Weekly inspections
- Maintenance activities
- Repairs
- Training
- Incident investigations

Recommended retention period: Minimum three years.

18. WARRANTY AND LIABILITY DISCLAIMER

This product is warranted against defects in material and workmanship under normal use.

The warranty does not cover:

- Abuse
- Misuse
- Unauthorized modification
- Improper maintenance
- Use outside intended purpose

The manufacturer shall not be liable for damages resulting from failure to follow this manual.

19. TECHNICAL SUPPORT

Manufacturer: _____

Address: _____

Phone: _____

Email: _____

Website: _____

20. APPENDICES

Appendix A – Daily Inspection Checklist

- ☐ Body free of cracks
 - ☐ Locking mechanism functional
 - ☐ Seals serviceable
 - ☐ Dust cap installed
 - ☐ No visible leakage
 - ☐ No excessive corrosion
-

Appendix B – Weekly Inspection Checklist

- ☐ Leak test completed
 - ☐ Corrosion inspection completed
 - ☐ Hardware inspection completed
 - ☐ Lock test completed
-

Appendix C – Maintenance Log

Date | Technician | Work Performed | Parts Replaced | Return to Service

Appendix D – Spill Incident Report

Date:

Location:

Description:

Corrective Action:

Supervisor Review:

Appendix E – Training Record

Employee Name:

Training Date:

Training Type:

Instructor:

Employee Signature:

Supervisor Signature: