Installation and Testing Instructions for: RIS-STOP-3P (Pressure or Gravity Fill) THREADED FITMENT OVERFILL PREVENTION VALVE



PLEASE READ CAREFULLY BEFORE INSTALLATION



www.risbridger.com

Quality Engineering Solutions

Introduction

The RIS-STOP-3P Overfill Prevention valve is a Normally Closed, Failsafe and Testable mechanical tank overfill prevention device, suitable for pressure fill deliveries to above and below ground fuel storage tanks. The valves are designed and manufactured for use with Petroleum Spirit and Diesel.

<u>NB</u>: If use with alternative fuels outside this spectrum is required please refer to Risbridger Ltd.

The RIS-STOP-3P valve is opened with the flow of product being delivered into the tank, and is closed against the delivery flow when the float lifts at the preset maximum tank capacity (Normally 95% of Tank Capacity. For details of Installing Float Assembly to correct level please see Installation Instructions.) Should the float become dislodged or damaged the valve will fail to open to receive fuel into the tank, this indicates a problem with the valve as this is the valves FAILSAFE mode.

Maintenance is recommended to be carried out on a 12 month period. Testing of the Valve's correct functioning is part of this Maintenance Procedure and is carried out during a delivery, when tank is at least 80% full. Further Testing Operations can be carried out to the owners' or operators' required schedules.

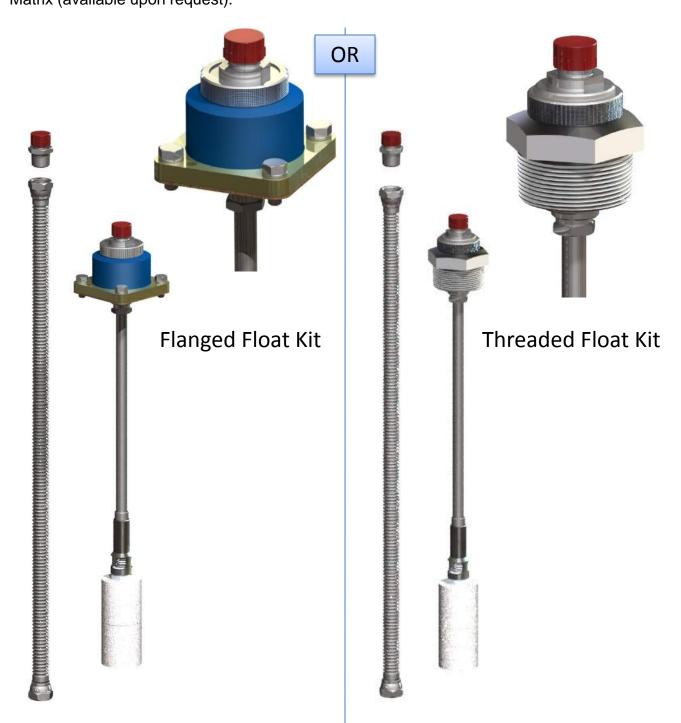
Should the RIS-STOP-3P Valves need servicing or replacement parts please refer to Risbridger Ltd for more information.

Before starting a Maintenance or Testing Operation Please make sure you observe the correct Health & Safety Precautions and carry out work with due adherence to Site Specific Regulations.



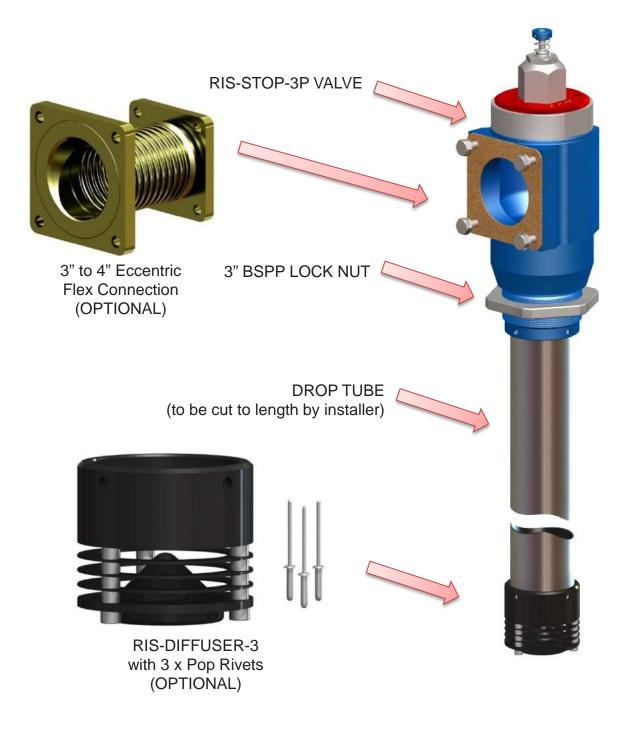
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FOR THE RIS-STOP-3P TO OPERATE, A FLOAT KIT AND DROP TUBE **MUST** BE FITTED. There are two models of float kit, specifying this is part of the Part Number Matrix (available upon request).





Note: These Vapour Saving drop tube accessories are optional and will be included in the build only if specified using the part number Matrix





PREPARATION

The tank lid top surface (either threaded socket or flange joint type) should be thoroughly cleaned prior to installation of RIS-STOP-3P components.

Threaded sockets should be tested with a suitable male thread fitting to ensure there is no binding. Tight threads should be cleared with a thread tap of correct specification:

2in	BSPP Female	(ISO 228-G2)
3in	BSPP Female	(ISO 228-G3)
4in	BSPP Female	(ISO 228-G4)

Likewise with flange style tank lids, the blind bolthole tapping's should be individually and thoroughly cleaned (compressed air if available), using a dummy bolt to check for full thread engagement without binding.

If required, tight threads should be cleared with a suitable thread tap, refer bolt table.

Bolt Thread	Recommended	Socket/Spanner Size
(Male Tap Size)	Torque Setting	
M8 x 1.25	20 Nm (15 lbf/ft)	13mm AF
M10 x 1.50	40 Nm (30lbf/ft)	17mm AF
M12 x 1.75	60 Nm (60lbf/ft)	19mm AF

Warning - Do not over tighten bolts especially into alloy body components.

Before starting work ensure you have the following: -



RECOMMENDED INSTALLATION TOOLS REQUIRED FOR RIS-STOP-3P

- 65mm capacity smooth jaw wrench
- 120mm capacity smooth jaw wrench OR RIS-STOP3 Tool (Stock code 4913)
- Spanners 17mm, 19mm, 1.5inch AF, 1.25inch AF (or adjustable up to 1.5 inch)
- Metric sockets 17mm, 19mm
- Torque wrench
- Thread / O-ring Grease
- Test Tool 4921 Available from Risbridger Ltd / PFS Ltd
- Tape measure
- Hacksaw, Electric tape OR Jubilee Clip (to guide drop tube saw cut)
 OR Pipe Cutter with 80mm capacity
- Pop rivet gun for 3.2mm size
- Pistol drill (small)
- 3.2mm (1/8in) drill bits
- Soft Set Thread Sealant



RIS-STOP-3P VALVE AND DROP TUBE INSTALLATION.

- 1. Cut one end of the drop tube to suit the dimensions of the tank. To do this measure from the top face of the tank lid to the bottom of the tank.
- FOR PLAIN DROP TUBES: This dimension LESS 100mm is the cut length
- FOR DROP TUBES WITH A DIFFUSER: This dimension LESS 160mm is the cut length (refer to RIS-DIFFUSER-3 INSTRUCTIONS for diffuser fitment) (this dimension allows 70mm gap at the bottom of the tank)

2. Ensure the o-ring is in place as shown and apply o-ring grease to aid fitment. 3. Insert the UNCUT END of the drop tube carefully past the 'o' ring to the shoulder step. X 1 4. Drill one hole, using the main body as the template using a 3.2mm drill.





5. Fit one Pop Rivet (as supplied), to locate the tube in place.

 Drill the other 3 x holes using a 3.2mm drill bit



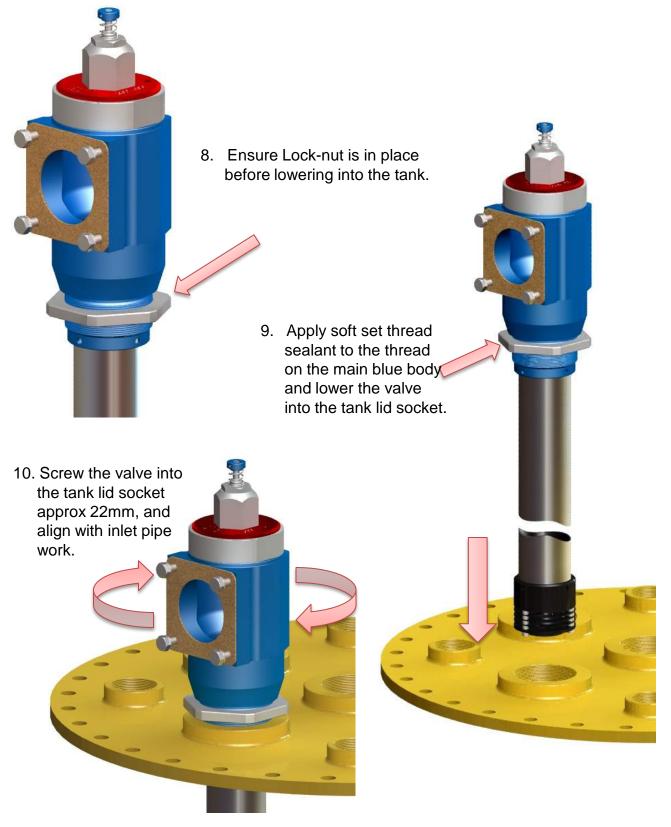


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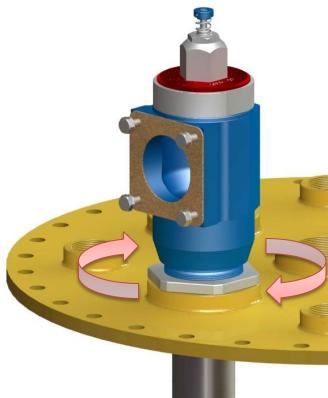
7. Fit the remaining 3 Pop Rivets

(as supplied)

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11. Tighten the lock-nut down to secure the valve in the correct position using the RIS-STOP3 TOOL (Product Code 4913) or large nonspark adjustable spanner.

- Fit flex connector (optional) to the RIS-STOP-3P valve body, using gasket and M10 bolts as supplied.
- 13. Fit the swivel end of the flex connector to inlet pipe work

THE RIS-STOP-FLOAT KIT ASSEMBLY MUST BE FITTED PRIOR TO ANY FUEL DELIVERY. SEE RIS-STOP-FLOAT KIT INSTRUCTIONS.



RIS-STOP VALVES MUST ALWAYS BE TESTED FOR CORRECT OPERATION BEFORE THE SITE INSTALLATION IS SIGNED OFF

FITTING THE TEST TOOL.

RIS-STOP-3P overfill prevention devices can be tested to ensure the valve operates correctly and in controlled cases, can be manually overridden to drain the lines.

The test tool 4921 is designed specifically to be fitted to the top of the RIS-STOP-3P valve for testing.

Please contact Risbridger Ltd or PFS Ltd to order.

1. Remove the top hexagonal plug as shown using a non-spark $1\frac{1}{4}$ inch and a $1\frac{1}{2}$ inch spanner (or non-spark adjustables).

This 1½ inch hexagonal vapour adaptor should rotate freely in the top cap.





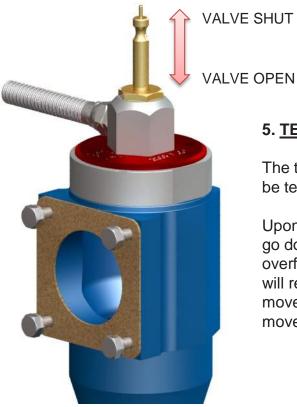
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2. Insert the pointed end of the test tool into the top of the small white valve poppet. Remove the poppet. Remove the poppet from the test tool and retain.

3. Fit the test tool as shown. Thread the spindle of the test tool onto the top of the internal valve for safety – hand tight only.

4. Tighten the test tool hexagon onto the large aluminium hexagon with non-spark spanners (1¼ and 1½ inch AF). Do not over-tighten.



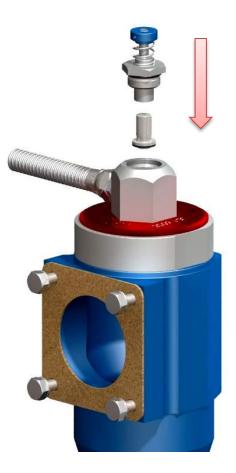


5. TESTING THE VALVE OPERATION.

The test tool is now ready for the valve to be tested.

Upon fuel delivery, the brass spindle will go down. Then on overfill (or simulated overfill as explained earlier), the spindle will return to the up position. These movements of the spindle indicate correct movement of the internal valve.

6. Replace the white poppet and hexagonal cap with non-spark spanners ($1\frac{1}{4}$ and $1\frac{1}{2}$ inch AF).

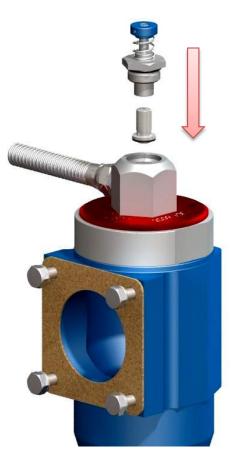


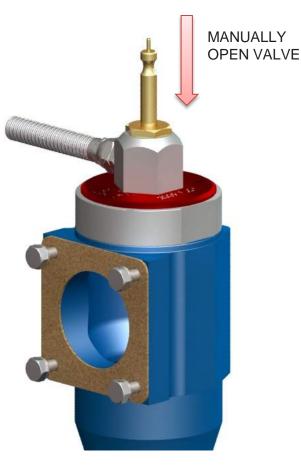


MANUALLY OPENING THE VALVE TO DRAIN THE LINES.

Push the brass spindle down to manually open the valve.

CAUTION: ENSURE TANKER DELIVERY VALVE IS CLOSED BEFORE OPERATING THE TEST TOOL MANUALLY, TO PREVENT OVERFILL.





Replace the white poppet and hexagonal cap with non-spark spanners (1¹/₄ and 1¹/₂ inch AF).



FOR REFERENCE.

Risbridger Ltd offer a range of tools specifically designed for Risbridger products. For further details please contact Risbridger or alternatively, order direct from our website: <u>www.risbridger.com</u>

For installation details of the products supplied with a RIS-STOP-3P and maintenance instructions, please see the following documents enclosed with the products or view on our website:

- RIS-STOP-FLOAT KIT INSTRUCTIONS
- RIS-DIFFUSER 3" INSTRUCTIONS (OPTIONAL)
- RIS-STOP-3P MAINTENANCE INSTRUCTIONS

WARRANTY.

All RISBRIDGER Ltd products are guaranteed against defects in material and workmanship for a period of 12 months from the date of purchase subject to normal use and service. The sole obligation under this warranty is limited to repair or replacement, at the option of RISBRIDGER Ltd any product found to be defective upon examination provided that such product will be returned for inspection carriage paid, within three months of installation. Liability is strictly limited to replacement of defective parts manufactured by RISBRIDGER Ltd and no liability can be accepted for any loss or consequential damages arising from the installation or use of any products supplied by RISBRIDGER Ltd whatsoever the cause. This warranty shall not apply to any product subject to abuse, negligence, accident, misapplication or any alteration by others.



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