REMOVAL OF WATER CONDENSATE APPLICATION NOTE

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Preface

This Application Note describes a water trap design to remove, retain and discharge water from sampling pipes. Xtralis recommends the use of water traps in hot and humid environments or when regular wash-down activities are performed in the protected area.

Related Products

The use of water trap is recommended for all VESDA detectors except VEA.

Contents

1 Introduction

Water inside pipes must not allow to enter detectors. The presence of water in pipes can be due to:

- Water vapour condensing from the sampled airstream.
- Water entering the pipe from wash down activities.

2 Water Trap

An effective method to remove / retain / discharge water in pipes is through a water trap. The water trap design consists of a 0.5m (1.6ft) vertical clear pipe with a 2-way valve at one end that connects to the sampling pipe via a Tee junction (Figure 1). Water trap installation requirements are:

- Close as practicable upstream the detector and in-line filters.
- Lowest point(s) in the sampling pipe.
- The upstream pipe should have a small inclination towards the water trap to assist water flow.

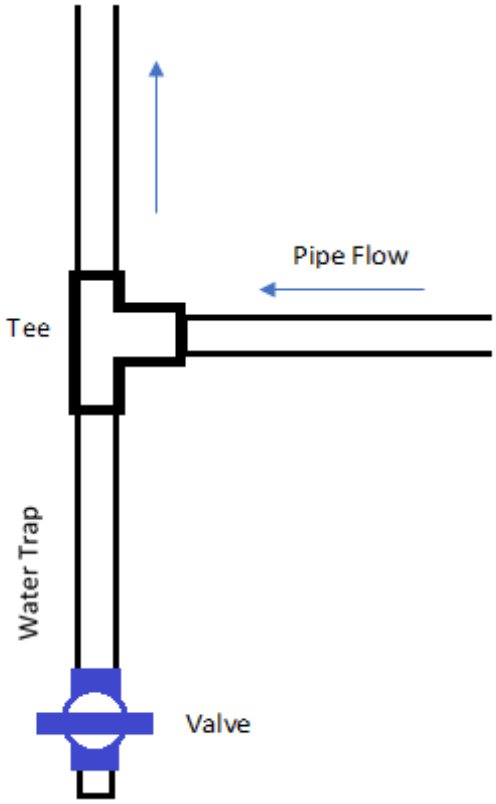

Figure 1: Water Trap

Water can be discharged manually through the 2-way valve. Frequency will depend on the sampled airstream humidity levels. After installation, weekly inspections should assess the water level in the clear pipe to determine the suitable discharge frequency. Water should not allow to overflow in the sampling pipe.

Note!

Remember to shut the valve after each water discharge; an open valve will issue a detector high flow fault condition.

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3 Further Support

Contact an Xtralis office or distributor for further information.