

# Recombination System for STT Batteries

*Recombination Vent Caps for Stationary Flooded Batteries*

**Significantly reduces/eliminates watering intervals and increases safety in poorly-ventilated areas**

## Principle of Operation

Operation of lead acid batteries results in the electrolysis of water. Hydrogen and oxygen are naturally created as part of this process and these gases can accumulate and become explosive. Electrolysis also reduces the amount of water in the electrolyte, which in turn requires the battery to be watered more frequently, increasing maintenance requirements.

The SBS recombination vent caps help to prevent the gases generated through electrolysis from escaping. Inside the cap is a catalyst (rare earth element) which reacts with hydrogen and oxygen and converts the gases into steam. This is an exothermic process and heat is generated during this recombination process.

As the battery stops gassing and the cap cools, water vapor condenses on the walls of the plug and will flow back into the battery, thus 98% of the hydrogen/oxygen gas mixture generated during charging will be recombined and converted back to water. This process effectively eliminates the flow of gases from the battery into the atmosphere.

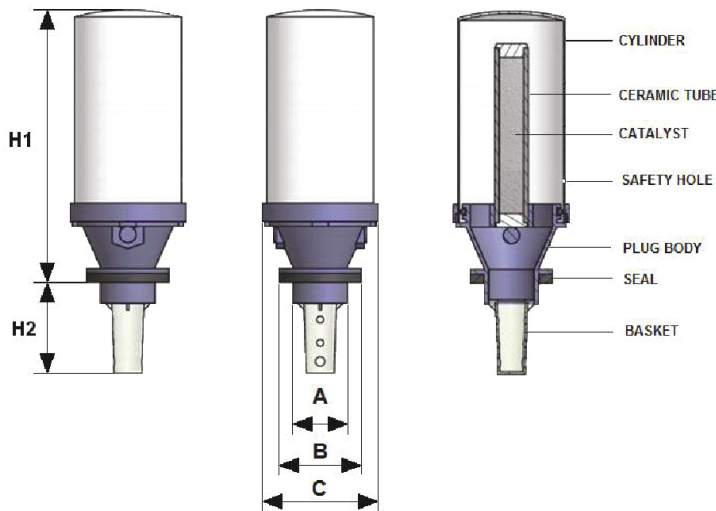
SBS recombination vent caps significantly improve safety, preventing (under normal conditions) the flow of gas into the immediate surroundings and eliminating the risk of ignition as well as reducing the need for water refilling.

The system is economical from both an installation and maintenance perspective.

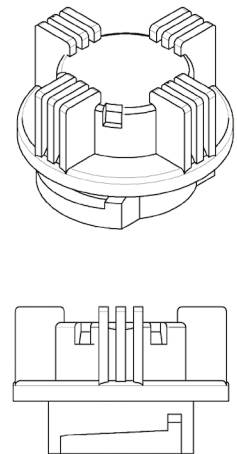
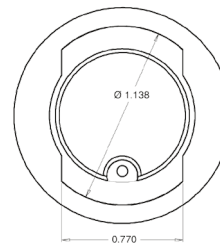


## Features

- Reduces/eliminates watering batteries (10–20 years topping-up interval)
- Reduction of maintenance and service costs
- Increases safety since explosive gases are not released from the cell under normal operation
- Protects against flashback
- 20 year life
- Works with either Lead Acid or NiCd batteries



Replaces any standard quarter-turn, bayonet style vent cap



## Construction and Technical Data

Part No.	Cell Capacity (Ah)	Max Charging Voltage (V/cell)	Dimensions				
			Diameter (mm)			Height (mm)	
			A	B	C	H1	H2
RECOM1-500AH	up to 500*	2.4 ± 1%	23	35	52	85	31
RECOM501+AH	above 501	2.4 ± 1%	23	35	52	105	31

\*Will not fit on STT12V50 or STT12V100 batteries