STANDARD RECOMBINATION PLUG

RecPlug 1

Standard recombination plug RecPlug 1 reduced the frequency of water refilling and requirements of ventilation.

BATER's solution is characterized by a simple, reliable construction. Placement of the recombination device directly within the gas-containing portion of the battery in such a way as to enable a flow of gasses through the catalytic and absorptive deposits effectively eliminates the flow of gasses from the battery into the atmosphere. Such construction significantly improves safety associated with battery use, preventing, under normal conditions, the flow of gas into the immediate surroundings, thus eliminating the risk of ignition and the need for water refilling. BATER recombination plug is covered by patent number P362719. The device is economical from both an installation and a maintenance perspective.

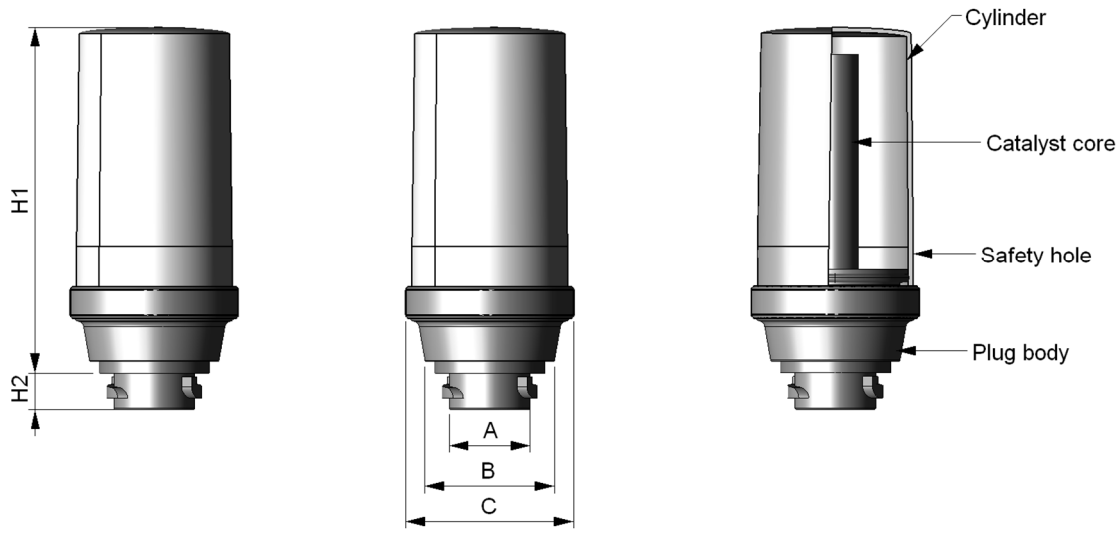
MAIN FEATURES

- **LIFETIME** - more than 20 years. Classic batteries with recombination plug have much longer life than VRLA batteries, in which it is not possible to refill water.
- **SAFETY**- increased safety of operation of cells with fluid electrolyte (electrolyte fumes and poisonous gases do not leak from the battery into the immediate surroundings). None of the gases capable of causing explosions are released into the surrounding area, designed to prevent external flames from penetrating the device.
- **ECONOMY**- significantly reduced the frequency of water refilling (**12-15 years topping-up interval)**, recombination plugs are optimized to work in full lifetime of the battery.
- **FLEXIBLE** - the ability to match amount of plugs to specific capacity of batteries.

PRINCIPLE OF OPERATION

When using lead acid battery as a result of electrolysis of an aqueous electrolyte solution are separated hydrogen and oxygen. These gases in air may form explosive mixtures. Additionally the electrolysis reduces the amount of water in the electrolyte, which must be relatively frequently replenish in the battery. The conversion of hydrogen and oxygen in steam is an exothermic process. The heat emitted during the recombination process inside the sealed battery significantly accelerates the degradation of the lead electrodes immersed in an electrolyte. Therefore, the process is preferably carried away from the recombination with the electrodes, thus increasing the life of the entire battery. Water vapor then condenses on the walls of plug. After cooling, as the water flows back into the battery. Recombination plug reduces maintenance the frequency of replenishing the electrolyte level in the battery and increases the safety of the battery in areas with limited ventilation.

CONSTRUCTION AND TECHNICAL DATA



Application	Type	Cell capacity	Max. Charging voltage	Dimensions				
				Diameter			Height	
				A	B	C	H1	H2
		Ah	[V/cell]	mm				
OPzS	RecPlug 1-500	up to 500	2.4 ±1%	24	40	53	80	11
OPzS	RecPlug 1-1000	above 501 up to 800	2.4 ±1%	24	40	53	110	11
OPzS / SOPzS	RecPlug 1-1500	all	2.4 ±1%	24	40	53	110	11

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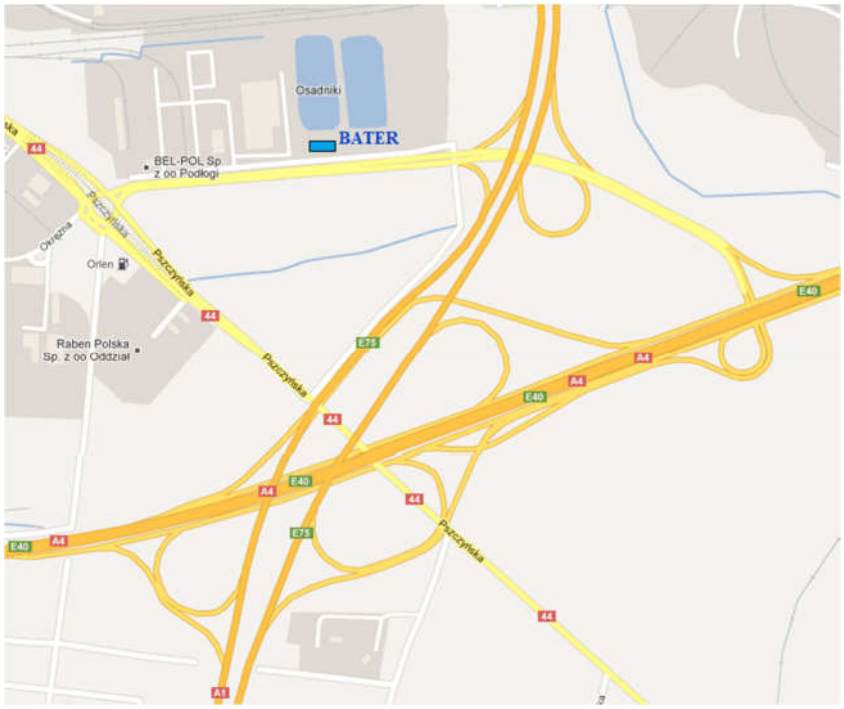

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