It's the Zeus Power Podcast, episode 4!

Today, we'll be asking some questions about Pure Lead battery technology. Let's get started.

Q: Why would one consider using Pure Lead vs. Traditional Sealed Lead Acid (SLA)?
A: The key reasons to consider the Pure Lead & Pure Lead+Carbon versus regular SLA battery:

1. Charging time is cut to around one hour versus 8-16 hours on regular SLA battery
2. The Pure Lead batteries can last in a cyclic application up to 5x longer than regular SLA battery
3. The Pure Lead batteries have very long shelf life of 24 months versus 6- 9 months on regular SLA battery
4. The Pure Lead batteries can be left partially discharged for long periods of time, whereas regular SLA battery needs to be quickly charged after every use and will be damaged when left in partial state of charge

Q: What are the physical size comparisons of traditional SLA vs. car battery vs. Pure Lead Battery?

A: A Standard 12 volt 7 amphour SLA battery has a footprint of 4" x 6"

Whereas a Deep-cycle 12V 145 amphour battery footprint is closer to 11" x 13"

and a Pure Lead 12V 150 amphour SLA battery's footprint is roughly 11" x 22"

Q: What is the cost comparison of Pure Lead vs. traditional Sealed Lead Acid?
A: The Pure Lead cost is roughly 1.4x higher than comparable Sealed Lead Acid

Q: Can these batteries be connected together in series or parallel?
A: Yes, they can be connected in series up to 4 max. There is no limit on the number connected in parallel except large banks of batteries may need to have equalization management in place

Q: Is the Pure Lead lineup intended to compete against SLA or Lithium Iron Phosphate (LFP) batteries?

A: Both! This technology competes and invades both SLA and LFP applications.

For Sealed Lead, Pure Lead is better because: Standby Life is about 2x longer than regular SLA, the cycle life is up to 5x longer than regular SLA, charging is 10x or higher faster than regular SLA. Pure Lead can be left in PSoC (Partial State of Charge) for long period of time and regular SLA cannot without incurring a permanent damage, shelf life of Pure Lead without top charging is 24 months versus 6-9 months on regular SLA.

For Lithium Iron Phosphate, Pure Lead is better because: Pure Lead cost is about 2x lower than comparable Lithium Iron Phosphate. Pure Lead is simpler to use as it does not require BMS (Battery Management System). Shipping Pure Lead is less costly than Lithium Iron Phosphate since it does not have the lithium shipping regulations. Pure Lead can be charged at below freezing temperatures. Pure Lead outperforms Lithium Iron Phosphate in applications where very high peak current is required.

Q: Do these Pure Lead and Pure Lead + Carbon batteries have a Battery Management System (BMS) or other safety circuits integrated?

A: No battery management system (BMS) is required for these Pure Lead and Pure Lead + carbon. For safety, Pure Lead contains pressure valves releasing gas pressure during heavy overload and or during overcharging.

Q: Do these Pure Lead and Pure Lead + Carbon batteries have a stop / start function or Cold Cranking Amps (CCA)?

A: Pure Lead and Pure Lead + Carbon will work phenomenally in Stop / Start functionality and will generally outperform their flooded / SLA counterparts in CCA performance.

Q: What are the size ranges we offer with Pure Lead?

A: The minimum AH are 90 up to 210 AH and the voltage is 12V. It can be connected up to 4 in series, as stated before, for a total of 48V.

Thank you for tuning in to our Q & A session on Pure Lead battery technology. Please visit us at zeusbatteryproducts.com for more information and to catch up on more episodes of the Zeus Power Podcast!