ShoreStation[®] Why DC?



Customer: "I already have A/C power"

Answer:

Great! You already have an A/C circuit on the dock that meets National Electric Code 210.8 (GFCI on the shoreline). The FlexPower system reliably works with existing AC circuits – no fear of having sufficient power (down to 90V AC). The battery in the system will work as a buffer to protect the AC circuit from heavy amp loads and dramatically reduce nuisance tripping of the GFCI.

Supporting Facts:

- Lift motor systems are a long way from the breaker panel on most lakefronts. Much longer than from your panel to your dishwasher. This dramatically increases the voltage drop in the circuit. This condition is called 'brown out'. Brown out conditions are very hard on AC motors. The replacement cost of most motors is much higher than the battery cost.
- Fast motors draw a lot of power. This equates to a high amp draw. The FlexPower system will draw the power from the battery. The only amp draw on the AC circuit is from the 5A battery tender system. High amp draws will cause nuisance GFCI tripping.
- Boat lifts are in wet marine environments. High humidity increases condensation on power cords increasing the likelihood of GFCI tripping. The FlexPower lift will operate even if the GFCI has been tripped while out boating.

Customer: "I hate batteries"

Answer:

Most of us hate batteries because of experience with dead batteries. Cell phone, car, and boat battery experiences definitely create a negative about dead batteries. The FlexPower system is constantly connected to a charging source (AC or Solar). This would be like never unplugging your cell phone.

Supporting Facts:

- Deep discharge of batteries is usually the cause of battery failure. The FlexPower system ensures the battery is not damaged which extends the life of the battery. A good battery can deliver 10-13 lifts in one day without 'over discharging' the battery.
- The Battery Tender and the Solar Panel protect the battery for damage caused by overcharging.
- Batteries that are constantly charged are OK to store outdoors during winter months (think about your car battery). A lot of marine dealers store boat batteries and assume the lift battery needs storage. If the tender or the solar panel is charging the system during the winter, no indoor storage is needed.
- If an AC motor is run in Brown-Out conditions, the motor will likely need to be replaced before the DC battery on a FlexPower. This cost is much higher.
- The lift battery can act as a source for jumping a dead boat battery. Often a stereo switch is left on or a bilge pump runs and causes your boat battery to be dead. The lift battery can be used with jumper cables to jump start your boat...

Customer: "My existing competitor lift runs fine on AC"

Answer:

Some A/C system run well in our environment. In our experience, most of these are slow systems, so the power requirement is low. Our FlexPower hydraulic system is very fast at 12V and our electric system is comparable at 12V and faster at 24V than most existing AC systems. The speed comes from our ability to draw a lot of power out of the battery without overloading the AC circuit.

Water pipe analogy...

- How often has the consumer had the lift dead because of a GFCI trip?
- How much does it cost him/her to have the AC circuit installed on the dock?
- Have they had to replace the AC motor?
- Why are they shopping for a new lift? If it is to get a bigger lift for a new boat: Smaller lifts require less power (lifting less) and have less power requirement. If a customer is moving from a 2000 lbs lift to a 6000 lbs lift. The power requirement is very different and there is no guarantee that the AC circuit will be sufficient. The rework cost (electrician) of the AC circuit for a new lift will be very high.
- ShoreStation is the leader on the DC move, not a follower. SunStream, Floe, etc. have moved there product to DC only also.

Customer: "The competitor's steel lift is heavy and will not blow away"

Answer:

In most 'blow your lift over' storms, steel and aluminum lifts are generally affected equally. Most steel lifts out there are welded together. What happens when your neighbor's cheap dock washes out and into your lift? Damage to a welded steel lift is difficult and almost impossible to fix. ShoreStation unique structure allows key structural components to be replaced in this unlikely event.

Supporting Facts:

- ShoreStation lifts are all aluminum with stainless cables and hardware. Take a look at the steel lifts over time...
- Resale of ShoreStation lifts is great...check Craig's List...Not a lot of old steel competitors lifts because they do not last that long.

Customer: "What about cables?"

Electric Answer:

A lot of competitor lift designs are cantilever. Cantilever by design requires a lot more cable to get the equivalent lift height (lifting over an arc, not vertically). More cable winching causes 'bunching' of cable in the winch and will dramatically reduce the cable life. ShoreStation vertical lifts are designed to have no bunching or over winding. This results in a huge increase lift cable life. FlexPower Hydraulic lifts never winch cables, only pull on them.

Hydraulic Answer:

Our hydraulic competitors with cantilever hydraulic system love to criticize cables. The truth is that cantilever hydraulic systems put the hydraulic cylinders under water and often use multiple cylinders to perform the lift. Think about the 'state' a lift is in most of the time – the boat is usually up in 'storage mode' on the lift. The cantilever systems in storage mode have the cylinders extended exposing the seal surface on the cylinder rod to the underwater environment (sand, rocks, zebra mussels, etc). The seal surface must be manufactured with strict surface smoothness tolerances. Exposing this underwater will result in hydraulic leaking. This is a disaster waiting to happen.

ShoreStation FlexPower Hydraulic systems utilize the 'cable pull' technique. By design, the lift cylinder retracts to lift the boat. This means the surface of the cylinder rod is protected and contained inside the hydraulic fluid inside the cylinder. The hydraulics are also totally out of the water and rarely is there any leaking. Cables are good!

• Ask the customer if he/she has had to change cables on the competitors lift.

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