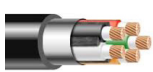


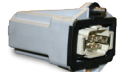
# BARNES - GRINDER UPGRADE CORES FAQ

1. **How do I select the right pump?** Barnes upgrade cores are only available in our two-stage centrifugal hydraulic. This hydraulic is uniquely suited for a wide range of operating conditions, with a shut off head of 200' and a maximum flow of 28 GPM and is designed to replace centrifugal or progressive cavity grinder pumps.

Barnes offers each upgrade core with three cord type options to seamlessly integrate into any existing station. Our standard option is bare leads, providing flexibility to wire directly to most existing control panels. We also offer two EQD options for E/One® 2000 Series and E/One® Extreme series, providing simple plug-and-play installation. All cords are available with lengths of either 15' or 30'.



Bare Leads



E/One® 2000 Series



E/One® Extreme Series

E/One® is a registered trademark of Environment One Corporation and is not affiliated with Barnes Pumps.

2. **What is the difference between fixed discharge and flex hose discharge?** A fixed discharge or "pod-style" pump is designed to replace a combination wet well/drywell unit and includes a stainless steel discharge pipe. A flex hose discharge unit – also known as a universal upgrade core – is designed to replace a wide range of open wet well stations.



Fixed Discharge Upgrade Core



Universal Upgrade Core

3. **Will I cause any issues if I combine centrifugal and progressive cavity grinders in the same system?** No! Grinder pumps by nature are designed to be non-overloading across their curve due to the fluctuating pressure conditions in the force main. As long as your pump has a high enough head capability, it will have no issues coexisting in a system with centrifugal or progressive cavity grinder pumps.
4. **Can I use the existing control panel? Breakers?** Barnes Upgrade Cores are designed to utilize the existing panel, as the majority of the start components are located within the pump itself. In most cases, the existing breakers are sufficient and will not need to be changed.

5. **What is the difference between an open wet well and a dry well basin?** An open wet well basin is one in which the entirety of the basin is accessible and able to be utilized as storage. A dry well basin contains a sealed off "dry pit" section that is not suitable for wastewater.

6. **What is the difference between the level control options offered?** Our Environmentally Sealed Pressure Switch (ESPS) is an oil filled dual pressure switch control that measures both on/off and alarm levels without needing to vent to atmosphere. It is very resistant to grease and easy to change. The ESPS is compatible with both upgrade core configurations.

Our SensaPRO level control is closer to a traditional float switch. The SensaPRO is only compatible with the fixed discharge upgrade core. Our AUF floats consist of two traditional mechanical floats, one ON/OFF float and one high water float, which utilize a single cord entry directly in the top of the pump. The AUF floats are only compatible with the universal upgrade core. Both options are designed for reliability and ease of service.



ESPS



SensaPRO



AUF Float

7. **Can I use push to run features? How do I manually run the Razor pump?** The Barnes upgrade core cannot utilize the push to run feature on an existing control panel. In order to manually run the pump, simply remove the level control device from the basin and manually press on the bottom of the lower diaphragm (for ESPS) or lift up the float (for SensaPRO).
8. **What are the advantages of using a Barnes Upgrade Core?** The Barnes Upgrade Core does not contain any constantly wearing parts, such as a rubber stator. As such, it is not only easier to service, but will give you a longer mean time between service calls. Further, the additional flow the upgrade core provides increases the velocity in the force main, improving the overall health of the system and preventing the wastewater from turning septic.

Still have more questions? Our Application Engineers are happy to assist you!

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