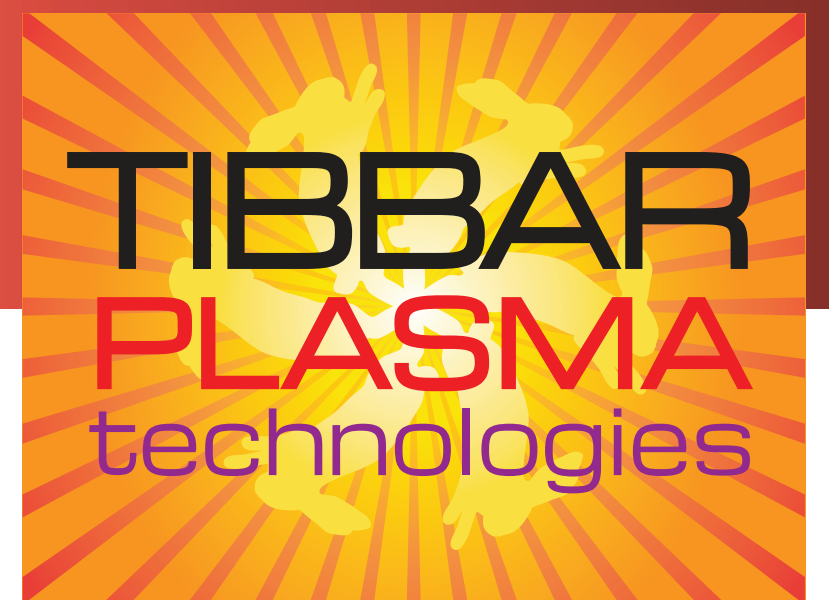


Shiner: Pulsed Power 480V 3-Phase AC to DC



Development sponsored by a grant from ARPA-E

Want to Know More?

Call us at 505-662-0867 or visit:

Tibbar Plasma Technologies, Inc.

274 DP Rd

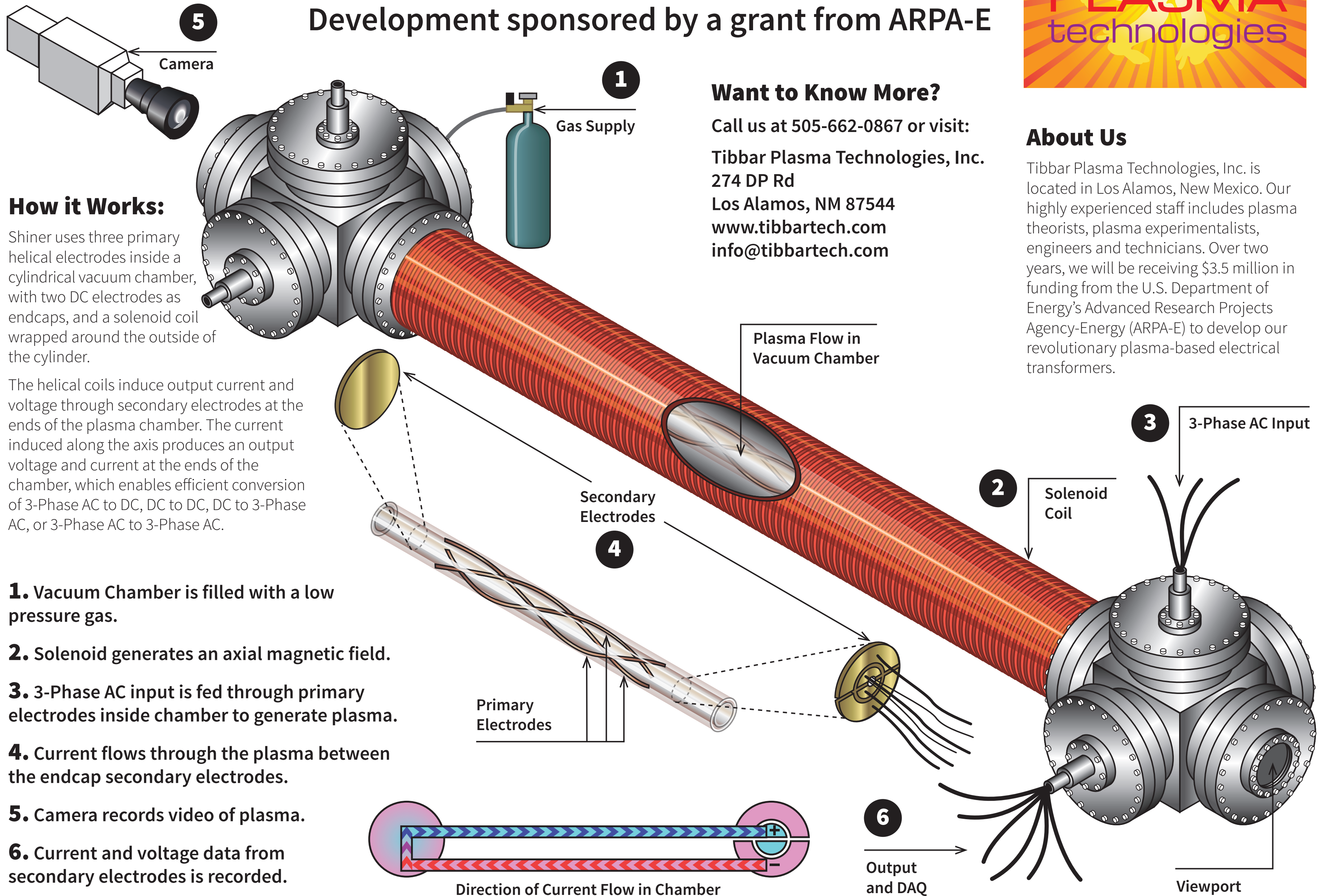
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About Us

Tibbar Plasma Technologies, Inc. is located in Los Alamos, New Mexico. Our highly experienced staff includes plasma theorists, plasma experimentalists, engineers and technicians. Over two years, we will be receiving \$3.5 million in funding from the U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) to develop our revolutionary plasma-based electrical transformers.



How it Works:

Shiner uses three primary helical electrodes inside a cylindrical vacuum chamber, with two DC electrodes as endcaps, and a solenoid coil wrapped around the outside of the cylinder.

The helical coils induce output current and voltage through secondary electrodes at the ends of the plasma chamber. The current induced along the axis produces an output voltage and current at the ends of the chamber, which enables efficient conversion of 3-Phase AC to DC, DC to DC, DC to 3-Phase AC, or 3-Phase AC to 3-Phase AC.

- 1. Vacuum Chamber is filled with a low pressure gas.**
- 2. Solenoid generates an axial magnetic field.**
- 3. 3-Phase AC input is fed through primary electrodes inside chamber to generate plasma.**
- 4. Current flows through the plasma between the endcap secondary electrodes.**
- 5. Camera records video of plasma.**
- 6. Current and voltage data from secondary electrodes is recorded.**