Don't add complexity with plasma.

Some hydrogen peroxide sterilizers use plasma in their sterilization process.
V-PRO™ sterilizers do not use plasma, and the reason is simple: it is not needed.

What is plasma?

Plasma is the fourth state of matter in addition to solids, liquids and gases. It is a collection of charged particles that contain positive ions and electrons that are conductors of electricity. Lightning is a common example of plasma. In sterilization, plasma is used to aid in removal of hydrogen peroxide residues.

Is sterilization effective without plasma?

Yes; hydrogen peroxide sterilization is effective with or without plasma. As defined by the sterilization process, hydrogen peroxide sterilizers work by exposure to hydrogen peroxide gas under a vacuum; this is then diffused into the load. In all cases, the load is exposed to the gas, which can be introduced over multiple 'pulses' of gas introduction, exposure and removal.

In some sterilization processes, after the sterilant exposure phase and sterilant has been evacuated from the chamber, plasma is used as a heat source to remove hydrogen peroxide residues from devices.

In V-PRO sterilizers, a pump and deep vacuum remove residual hydrogen peroxide. This proven process effectively and efficiently removes residual hydrogen peroxide after each sterilization pulse.

Free of plasma; full of benefits

Aside from adding complexity with plasma, being plasma free has these benefits:

- **More room for your devices.**
  There is no need for a plasma coil inside the sterilizer chamber which means there's more room for your devices – almost 50% more usuable room[1] and minimizing aborted cycles[2].
- **Gentler on your devices.**
  Plasma may generate secondary reactions that can be detrimental to top layers of sterilized devices[3].
- **Less heat.**
  Loads in some plasma sterilizers can go up to 55°C due to heat generated by the plasma[2]. V-PRO sterilizer loads won't go higher than 50°C.

[1]As of November 2, 2012, STERRAD 100NX sterilizer has 93L usuable volume in the chamber and NX sterilizer has 30L usuable volume in the chamber. V-PRO maX sterilizer has 136L usable volume in the chamber.
[2]Plasma-free process eliminates the need for a coil that can contribute to aborted cycles.
[3]ASP Sterrad 100NX Technical Information AD-54083-001 Rev B. Sterrad NX Technical Information AD-52972 Rev. A
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