



protips

10/10/2021

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Infinity
Supercritical LLC

Botanical Extraction Pro Tips and Professional Consulting

Structured Data

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Professional tips for extraction of botanical oil including consulting from current machine owners of the Infinity Supercritical LLC extraction system in the hemp industry. Updated April 14, 2021.

PDF Version of the webpage

This webpage QR code

<https://infinitysupercritical.com/protips.html>

Pro Tips From Jon Cook at Resonance Farms and Octo Consulting

Jonathan Cook (see email link below)

Resonance Farms Hemp: Owns (2) 10L Systems | Specializes in hemp and hemp extract products | Consulting Services: Start-up, training, optimization, CO2 pump | (Pacific Northwest and global coverage via email, and online support)

Pro Tips from Jonathan:

Cat 310 Pumps: Regarding our experience with the Cat pump and seals, they are pretty finicky for sure. Through the thousands of hours that we have run our machines, we have learned a lot about how to have successful runs.

We have helped a good number of folks with the Infinity 10L machines overcome their issues of pump failures and unsuccessful runs.

Here are some of the most common issues we have encountered.

Machine not building pressure: This is typically result of having material in the pump. We have found that even a tiny speck of plant material in the pump can cause the pumps to not build pressure. This can be remedied by taking the pump apart and thoroughly cleaning with ethanol. We clean all the seals and valve parts as well as flushing the pump body with ethanol. If any seals appear damaged at this point they get replaced.

The seals we replace the most are the tiny ones that are around the valves. We have had a lot of success reusing the high and low pressure seals and feel like these are pretty durable parts.

The main thing here is to be able to execute a run without getting traces of plant material in the pump. There are a few techniques that seem to help achieve this.

Always use the extraction baskets (we have talked with some owners who seem to think it's ok to just fill the extraction chamber with plant material.) The extraction baskets are the first filter for traces of plant material. This is super important. Also, we have had most success with using pretty much whole flower (biomass) and not grinding it down. Having the material with some structural integrity seems to keep it in the basket.

When moving pressure through the machine (especially into the extraction chamber and equalizing the extraction chamber with the pump) this must happen very slowly. Like turning the valve until you just barely hear it. If this step is done too quickly, plant material seems to be moved along with the gas and can get into the pump and lines. Also, pressurizing the pump too fast can cause the valves to lock, so this process of very slowly moving the pressure through the

10/10/2024 is key



Pro Tips and Consulting Services From Current Hemp Processors Using Infinity Supercritical 10L Machines

Fee based support is available from these groups who own Infinity Supercritical extraction systems and use them on a weekly basis to produce product that they sell for a profit.

Jonathan Cook (see email link below)

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Brook Bartels (see email link below)

Green County Hemp: Owns (2) 10L Systems | Specializes in hemp and hemp extract products | Consulting Services: Start-up, training, optimization, marketing, on-site available, post-processing, CO2 pump | (Wisconsin, Midwest, online support).

Pro Tips from Brook (updated on April 14, 2021):

Brook says that pump cooling is not required if the chiller is run closer to 40F, and the liquid CO2 reservoir is at a higher pressure (near 700 psi). Also said that matching the Collection Vessel (CC) closer to reservoir pressure resulted in beautiful quality honey looking oil extract. Brook runs for 2-3 hours and says running longer than that does not extract any appreciable amount of extract (i.e. waste of time for hemp).

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Pro Tips and Consulting Services From Brook at Green County Hemp

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Cat Pumps and Seals:

Cat 310 Plunger Pump Low and High Pressure Seals | Please purchase low and high pressure seals from Cat Pumps directly. We have canvassed successful operators of the Cat 310 pump and they claim that the Cat Pump seals work fine with CO2 as of August 20, 2020. Proper machine operation is attributed to longevity of seals (more than a month per set).

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Parts and Consumables:

We have a complete list of parts, suppliers, and online order links available for a one-time fee of \$1,500. This allows you to order supplier-direct (no mark-up fee).

We have found this to be more cost effective for machine owners. If you were to order parts separately from us (instead of supplier direct), you would greatly exceed this cost within a year.

Please use the convenient online order link below to pay by credit card on PayPal.

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