

Americus Oxides, LLC
12500 Broad River Road
Little Mountain, SC 29075
312 952 7100

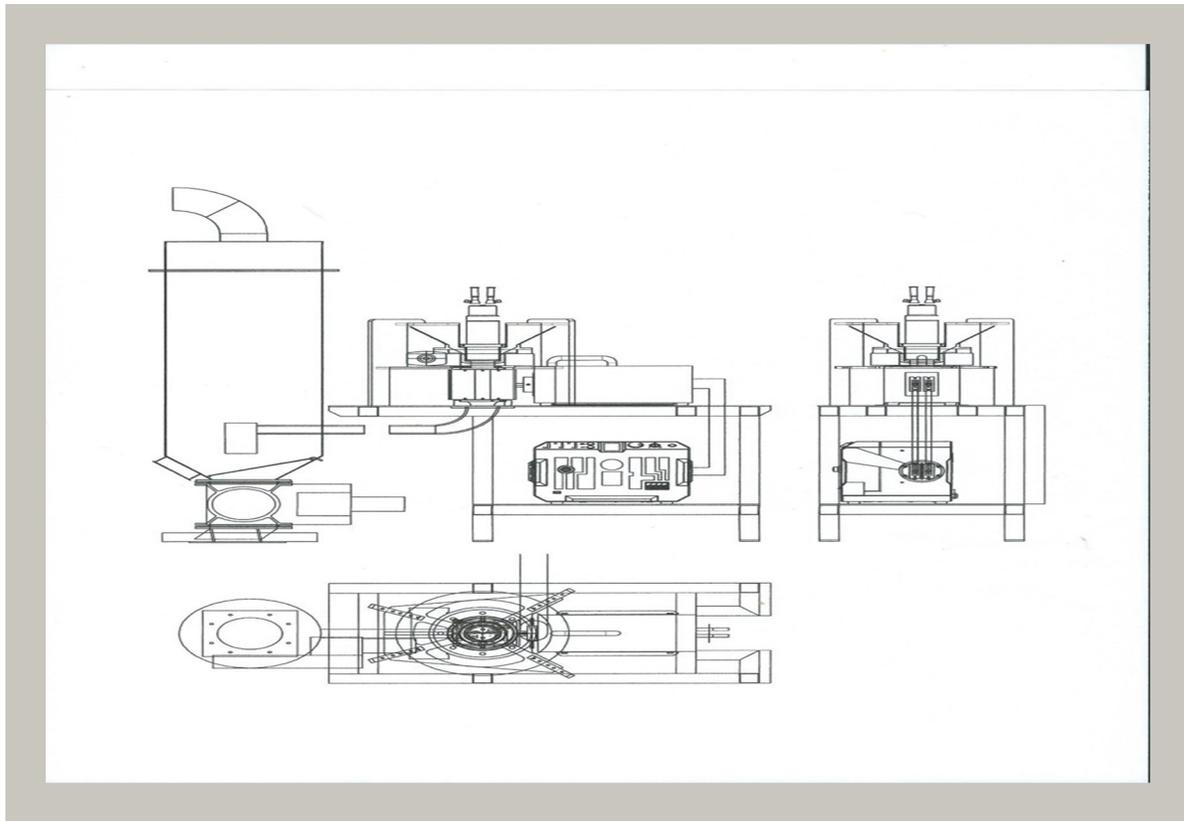
UPDATE 4-28-2020

Hello Royalty Partners,

I hope everyone is successfully managing the COVID-19 virus situation and that you and your families are staying safe and healthy. AO has been fortunate so far as to not to have had any health issues with our employees or family members. We remain vigilant in our safety practices here in South Carolina and look forward to getting through this unfortunate event.

It has been 54 days since my last update and although it is my intention to put out updates every 30 days, I needed the extra time to get all the components to South Carolina, assembled and test run to evaluate where we are truly at in order to provide an accurate update. In my last update, my expectation was the new Coil would be completed by end of March but was completed April 8 and I was able to deliver it to South Carolina Friday April 10.

As a reminder, the new Liberator System (System) is a completely new build. There are many components involved in the System (see drawing and photos – HIGHLY CONFIDENTIAL). The System has 4 electrically powered components, 3 water cooled components, 2 pneumatically driven components and 1 hydraulically driven component. The 3 primary components are the Spiral Rotating Feeder System (Feeder), Frequency Coil System (Coil), and Plasma Torch System (Torch).





A hydraulic drive will replace the drill. The hydraulic system is in position on the left hand side of the table



Our first test with material was run through the System late evening Wednesday April 22. Over the next few days, several more batch tests were run and into the weekend. The initial results looked promising and we are in the process of confirming them.

THINGS WE HAVE LEARNED AND FIXES THAT ARE BEING IMPLEMENTED:

FEEDER

1. **Positive:** The custom designed and machined Feeder works amazingly well. It provides a perfect 3.5 inch cylindrical curtain of material flowing at a consistent rate of speed into the plasma chamber, exactly where we believe it should have the greatest effect from both the Torch and Coil.
2. **Negative:** There is a serious overheating problem with the Feeder, as it is getting extremely hot from the combination of the Torch and Coil.
3. **Fix:** Tim re-design the existing base plate for the Feeder to make it water cooled (the Torch and Coil are already water cooled through the Chilled De-Ionized Water System...access to water is relatively simple). The re-design drawings and existing base plate were delivered to the machine shop on Monday the 27th. The expectation is to have the new re-machined water-cooled base plate back by Thursday.

COIL

1. **Positive:** The custom designed and engineered Coil appears to run very consistently which is key.
2. **Negative:** The Frequency has changed with the addition of the torch and material flow through the chamber (which could not have been modeled at the manufacturer) and we developed a serious leak of cooling water from within the Coil's power supply.
3. **Fix:** We have consulted with Coil manufacture to determine the appropriate capacitor(s) to add/subtract/change and received approval to enter the power supply and fix the water leaks without voiding the warranty. We have ordered most of the capacitors from the capacitor manufacturer (different from Coil manufacturer), some are in stock and some will be delivered when available. The capacitors are an easy fix and the System can be run without new capacitors...just not at peak performance. The water leak will/should be corrected this week.

TORCH

1. **Positive:** The Torch System runs very well for the power that it is. When the Torch System and power supply arrived from Russia, Tim was suspect of its capabilities by looking at it. We were pro-active (on his hunch) and had the transformer (the major component of the power supply) reversed engineered by one of his long time power supply manufacturers.
2. **Negative:** After dialing in the process capabilities of the new Torch in late January/early February, Tim confirmed his belief that the Torch and Russian Power Supply was not robust enough to do the proper job for our application. This also resulted in changing the chamber size from a 5" to 4 1/4" diameter (which also caused the trickledown effect for the Feeder dimensions and Coil dimensions which added time to the re-design and manufacturing processes).
3. **Fix:** In February, Tim began the engineering of a new transformer with his domestic power supply manufacturer. The engineering was extensive and complex...the new transformer has been ordered and paid for and will be completed the week of May 14th – 21st. We will run the Feeder at a slower rate and still get into production with the existing Torch and Russian Power Supply. We were running tests to confirm through-put until we had the water leak from the Coil.

We should have everything re-assembled and working by early next week for Torch #1. We will determine the through-put rate once we are back up and running. Our intention is to process as much material as the System will allow until the new transformer arrives. Now that the engineering has been completed on the Coil and Torch Systems, the lead time for new components will be dramatically compressed (I do know the new lead-time for Coil Systems are now only 2 weeks).

As stated in the last report we had ramped to 6 people and actually added a 7th since then but are back to the core 4 (not including myself, Tim and Rick) as the other 3 did not work out for various reasons. Additionally, our plans to use Tradesman International, an exceptionally large out-sourced skilled labor group, could potentially be slower to ramp up to the 24/7 schedule by the COVID-19 situation. Hopefully, South Carolina and Tradesman International will be good to go by the time we are ready for the ramp up.

I am fully aware of the slipping of timelines and projections and will look to provide new guidance shortly after we are up and running.

I appreciate the patience and support from everyone I have spoken with....and those I haven't.

All in all, things are pretty good, and we continue to push forward every day.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lee Wiskowski', with a stylized flourish at the end.

Lee Wiskowski
Manager