

Finding the Best Packaging Solution

How a Coffee Roaster Increased Production Efficiency

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The coffee industry is evolving rapidly, whether you are a co-packer or roaster. There are new demands involving customer expectations of flavor and freshness, aesthetics in packaging, residual oxygen levels, and flexibility and formats. Coffee roasters who have traditional equipment have a hard time meeting these demands. They may struggle with operational efficiencies, fill accuracy, packaging speed, and oxygen levels. Reunion Island Coffee, a well-known and highly regarded roaster, is an example of a company who faced challenges with their current equipment and took action.

Reunion Island Coffee and the VFFS decision

Based out of Oakville, Ontario, Reunion Island Coffee is a leading figure in the coffee industry as indicated by their Macro Roaster of the Year award in 2015. They have a passion for their product as well as a focus on maintaining a high level of support, quality, and personal relationships with their suppliers as they continue to grow. The value and pride they place in each other transfers into every aspect of their business. As Greg Rusciollelli describes, Reunion Island Coffee has "... a great cohesive team. Credit for success of the business is shared among every employee."

An opportunity for product improvement and development arose when Reunion Island Coffee discerned that they would need new packaging equipment for their product. They began to see increased growth and demand combined with aging equipment that could not handle the workload. There was unplanned downtime, inconsistency in bag formation, inaccuracy in fill, and reduced operational efficiency. This triggered an active search for a business partner that could provide them with the equipment they would need for whole bean and roasted grounds packaging.

Finding the Right Vendor and Right Machine

They approached this process with an open mindset toward the vendors who were presenting VFFS packaging solutions. Rusciollelli, Vice President of Operations, researched options and then attended packaging trade shows as an opportunity to meet with various vendors. This enabled him to narrow down the field to three manufacturers, all of whom would make a site visit to the Reunion Island Coffee facility.

When looking at components of the machine, they were interested in the following – what is the quality of the finished product, what is the quality of the machine, what is the run rate, and what is the price? For the vendor, they were looking for someone they felt comfortable with and whose machine's unique features would make a difference on their current application. Ultimately, Reunion Island Coffee decided to partner with Rovema for their VFFS solution.

The company they chose started to differentiate itself from its competitors at a trade show by introducing Rusciollelli to a variety of experts who were able to engage and answer any questions. They also introduced him to current customers who provided personal testimonials. Also, at the site visit they were the only company to bring in someone other than the sales manager. These actions allowed them to feel comfortable with the machine and the people who were going to be providing it.

The VFFS machine types purchased were the BVK and BVC. The BVK was utilized for the production of frac packs. The gusseted, larger bags required the BVC machine for the incorporation of the degassing valve. Both machines



demonstrated significant performance boosts over the aged equipment and have helped Reunion Island Coffee achieve and exceed the desired solution.

With the decision made, they were on their way to implementing a solution that covered their issues of business growth and demand, aging equipment, and reliability.

Benefits/ Outcome

Quality enhancement is an important feature for Reunion Island Coffee. With the new machine line, they were able to accomplish this by increasing the output, decreasing overall cost of ownership and reducing labor and unscheduled downtime due to maintenance. At the same time, they were able to improve the quality of their bags. With nitrogen generated on site, Reunion Island Coffee has always been able to have low residual oxygen levels. However, with the new VFFS machines in play, they were able to bring the oxygen levels down even further, well below their former targets. There was also more consistency in the forming of the bags and stricter controls when it came to accuracy, weights, and rejects.

Immediate gain achievement for each machine are:

BVK 260 with auger:

- Capacity increase by a factor of >2 (based on run rate)
- 30% OEE increase
- Decrease in residual oxygen levels to maintain 2%

BVC 260 with scale:

- Capacity increase by a factor of 3 (based on run rate)
- 20% OEE increase
- Consistent and improved forming capabilities have enhanced aesthetics of the gusseted stand up pouch
- Scale measurement accuracy eliminated the need for a manual QC process
- Decrease in residual oxygen levels by approximately 2%

In addition to current immediate gains, both machines are expected to see additional increases in OEE gains of 15% or more. This is because the equipment helped identify and improve areas in their process related to material availability, inline quality controls, and changeover logistics. The reliability of the machines has also enabled a more accurate production forecast. From an operator standpoint, Rusciollelli states that "the machine operators are highly engaged and enthusiastic with the changes."

The goal and desire to see a high-quality product packaged in a high-quality bag was a success. Reunion Island Coffee recognized a need to replace their traditional equipment and improved efficiency, performance, downtime, and quality. They are an example of what a coffee roaster can do to further enhance their product by finding the right solution to fit their needs.

John is a packaging industry veteran with over 30 years of experience. He started his career in machinery sales with an engineering degree and moved into management after earning his MBA. He is known for his success in growing businesses with an unwavering focus on the customer.

