



Reda Anbari,
V-P, Operations,
Sundial Growers.

ROLLING WITH THE TIMES

Calgary cannabis producer using made-in-Canada technology to automate its pre-roll operations

By Andrew Snook

Photos by Aidan Campbell

Sundial Growers believes that quality of cannabis matters. The Calgary-based licensed cannabis producer offers a variety of carefully curated strains for its customers, featuring a diverse product line of dried flower, pre-rolls, vapes and oils.

“Sundial is focused on best-in-class brands with a focus on premium inhalables and a portfolio of high-quality investments,” says Reda Anbari, vice-president of operations for Sundial Growers.

“We are present in nine provinces across Canada. Our goal is to delight our consumers and meet their evolving preferences.”

Sundial Growers’ portfolio includes four cannabis brands:

- **Top Leaf**, the company’s premium brand;
- **Sundial**, marketed as a “modern, natural alternative” for casual consumers;
- **Palmetto**, a fun creative brand for people looking for quality and consistency in convenient forms, including pre-rolls or disposable vape pens;
- **Grasslands**, (simple, affordable option for cost-conscious consumers.

“We use state-of-the-art technology together with award-winning genetics, which sets us apart in the market,” Anbari says.

“Working with small indoor grow rooms instead of big greenhouses, we have the ability to control the environment ... it also sets us apart in the cannabis landscape.”

As Anbari relates, the fast-growing (li-



censed producer) LP is rolling along with a full head of steam thanks to some recent investments in its packaging lines.

When Sundial Growers was recently looking for ways to optimize its packaging operations and reduce labor costs for its pre-roll and flower bottling lines at the main production facility in Olds, Alta., it chose **Paxiom Group** for its solutions.

The relationship began two years ago when Sundial Growers was looking for ways to optimize its cannabis flower production, where buds are placed into jars that are then sealed and labeled.

The company solicited Paxiom for an automated packaging system based on the company's stellar industry reputation and exceptional service capabilities backed up by the company's global network of eight facilities.

Paxiom supplied the LP with an integrated solution from Montreal-based **WeighPack Systems**, operating at a state-of-the-art manufacturing plant in Montreal, consisting of **PrimoCombi** weigh scale, a **Pre-cheQ** inline weight analyzer; various jar filling, heat sealing, capping and labeling machinery; and a container filling conveyor.

"The original process was very manual and required many people," explains Paxiom service manager Mark Conforti.

"Our packaging machinery provided a solution to completely automate that process, which includes automatic container unscrambling, weigh filling capping and labeling.

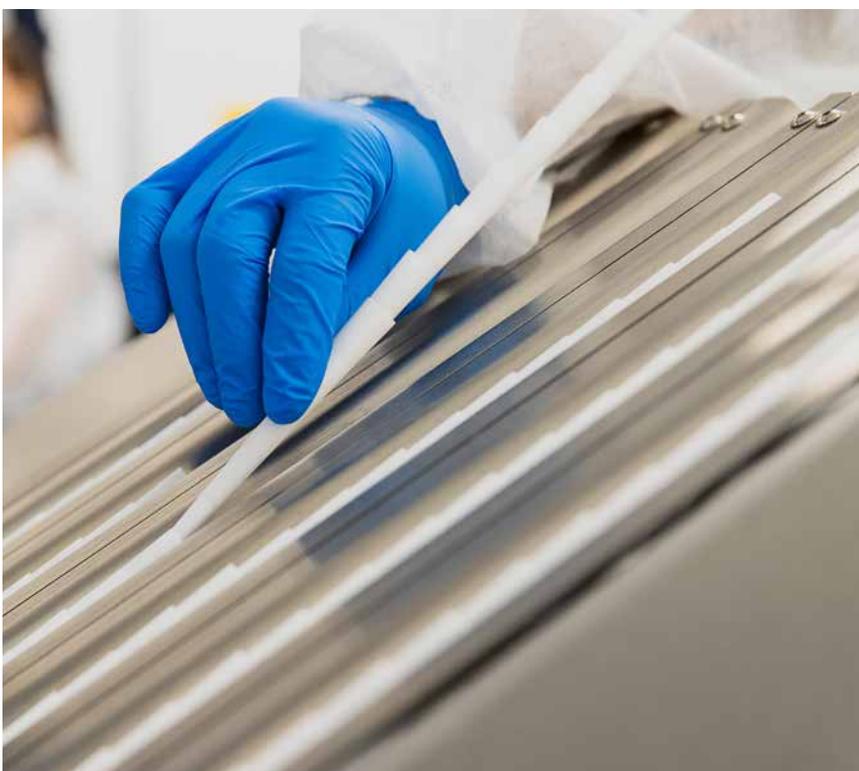
"The net effect was higher throughput, tighter accuracy tolerances and more output overall."

The **PrimoCombi** weigh filling system is used when applications require the highest accuracy and throughput, with features including an open-frame design for easy

Above
A sampling of perfectly rolled and filtered pre-rolled cones produced on the JuanaRoll automatic pre-rolling system manufactured by WeighPack.

Right
Cannabis dried flower buds being dispensed in precise desired quantities via the PrimoCombi weigh scale.





sanitation, a *Windows*-based operating system, and a digital camera for real-time online support and real-time production reporting.

For its part, the *Pre-cheQ* inline weight analyzer—claimed to be the industry's most advanced automatic check weighing station—helps to ensure the tightest quality control. With programmable ranges and weight cell technology sensitive to 0.01-gram, the *Pre-cheQ* Analyzer allows only for pre-selected weight ranges into the packages.

Likewise, the chuck-style capper is constructed with a stainless-steel frame, with a compact footprint and an integrated cap infeed conveyor.

The unit also features inlet and outlet conveyor belts with single motorization; adjustable guides fabricated in stainless steel; a star-wheel mechanism for container transport; a closing unit for pressure caps; two programmable speeds for approaching and closing in up/down movement; and easy-to-open inspection doors, complete with mechanical safety switches.

The line's automatic wraparound labeler features a compact design, stainless-steel

Clockwise from left High-quality cannabis buds being transferred into the 14-bucket PrimoCombi weigh scale below; Two PrimoCombi weigh scale systems working side by side; a machine operator loading pre-made cylindrical paper cones into the JuanaRoll automatic pre-roll machine.



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Also part of the Paxiom Group, Italian machinery supplier ValTara supplied all key equipment for Sundial's jar packaging line for dry flower products to provide optimal precision filling, induction foil lid sealing (bottom picture), capping and labeling.

Above

An intuitive touchscreen HIM (human-machine interface) terminal controls all the JuanaRoll machine's operations, along with displaying them in real time.

frame; a belt conveyor equipped with product guides; inlet and outlet conveyor belts with single motorization; a reel unwinder with reel holder roller; paper guide, paper automatic unwinding device and backing paper rewinder; and photocell start/stop for enhanced timing/accuracy.

The container filling conveyor automatically feeds, fills and indexes rigid containers. The unit features stainless steel construction, easy-to-use controls and is adjustable to accommodate varying container sizes.

"Our installation and commissioning were completed in July 2019," Conforti says, adding that the team at Sundial Growers embraced the new automation

very quickly, as confirmed by significant productivity gains.

"It can be overwhelming for any new business that invests in something new," says Conforti. "That's why we truly focus on working as partners to ensure that success is achieved together."

"We offer in-person service, free remote support, and our website features our do-it-yourself portal with frequently asked questions, manuals and videos to enable customers to be self-sufficient," Conforti says, adding the system has been running smoothly at Sundial over last two years.

Highly satisfied with its initial investment in Paxiom machinery, Sundial Growers reached out to them again for



“We offer in-person service, free remote support, and our website features our do-it-yourself portal with frequently asked questions, manuals and videos to enable customers to be self-sufficient.”

From Top
The JuanaRoll machine from WeighPack literally requires no human intervention except for the refilling of paper cones and filters; close-up the Val Tara jar capping machine in action.

assistance in automating its pre-rolls production line.

In response, Paxiom installed its six-channel *JuanaRoll* system, an acknowledged leader in automated pre-roll packaging that would completely automate Sundial’s pre-roll division by weighing, filling, twisting and trimming (optional) pre-rolled cones at high speeds.

Conforti says the biggest opportunities for cannabis producers to reduce operating costs are in the reduction of manual labor and increasing productivity, which is where the *JuanaRoll* pre-roll packaging

system can make an enormous difference.

“So many of these processes are completed manually,” he says. “With the performance of the JuanaRoll, you can re-purpose 20 to 30 hand packagers and let the JuanaRoll do the rest.”

Sundial’s Anbari says the investment in automated pre-rolling was necessary to remain competitive.

“These machines enable us to do several things: improve product quality, improve throughput, and reduce our manufacturing costs,” he says. “Today, in order to remain competitive, automation is not

optional.”

Anbari says Sundial Growers chose to go with Paxiom due its vast experience in the CPG (consumer packaged goods industry) and in the fast-growing cannabis industry.

“We wanted to partner with a company that had a proven technology,” Anbari says. “We also needed strong after-sales technical support.

“We also wanted to partner with a company based in Canada,” he adds, “because it’s our desire to support local businesses.”

**CANNABIS
PACKAGING**



A front-to-end view of Paxiom's jar packaging line used for packaging Sundial's dry flower products.

The *JuanaRoll* pre-roll packaging system has already generated significant operational efficiencies for the Sundial Growers plant.

"Compared to the previous line of equipment, we've achieved between 30- to 50-percent increase in output, and we have achieved that with a reduction in our workforce," Anbari says. "That machine has been running well."

"It has a user-friendly interface and we've been able to develop several of our leaders on the production site to be very confident with the machine."

"We have a good understanding on how to operate that machine, and it has been reliable," he adds.

The *JuanaRoll* system automatically dispenses the finished cones after it accurately weighs, fills, compacts, tamps, twists and trims joints faster than any other solution on the market, according

to Paxiom.

The *JuanaRoll* system features a straight-line design that is available in four-, six- and eight-channel models, based on desired production rates from 1,200 to 4,000 cones per hour. The flexible system allows for multiple cannabis strains to be run simultaneously, as well as cone sizes, with the flexibility to run some or all channels at a time.

Additional advantages to this design is that it is pre-engineered to be able to add additional assemblies in the future—including second compaction for higher rates or trimming—offering immense flexibility for cannabis LPs of all sizes.

Having been producing and selling cannabis for about two-and-a-half years, Sundial already employs some 300 people, or 500 if one includes staff employed at the **Spiritleaf** cannabis retail franchises.

Anbari says his company will continue to invest in all aspects of its operations to ensure its success, including packaging.

"At Sundial, at a high level, we continue to be committed to cultivation excellence," he says. "We are also committed to premium inhalables for the cannabis space and brand promise to consumers," he says, "and we are very excited to see some new genetics coming."

"There's a lot of innovation in the cannabis space, and packaging is very tightly connected to that innovation," Anbari concludes. "We'll continue to look at that innovation and integrate additional packaging innovations that delight our consumers."

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