

**APPLIED SCIENCE
SOLUTIONS
FOR CANNABIS
PACKAGING**



NITROTIN

CANNABIS PACKAGING EXPERTS

QUALITY

— Nitrogen replaces oxygen in premium steel cans to preserve quality.

FRESHNESS

— Terpene levels are preserved for optimum freshness.

BRANDING

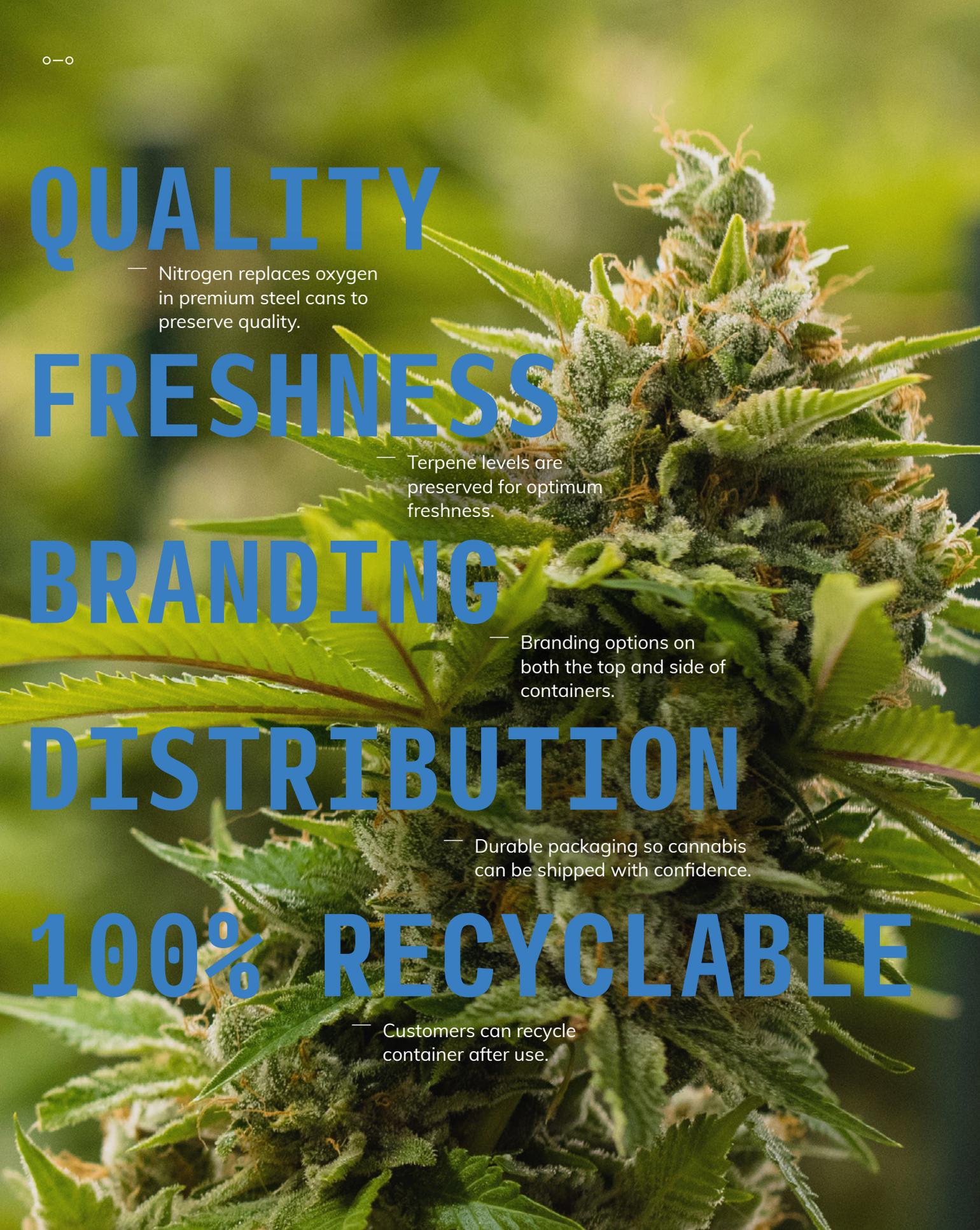
— Branding options on both the top and side of containers.

DISTRIBUTION

— Durable packaging so cannabis can be shipped with confidence.

100% RECYCLABLE

— Customers can recycle container after use.



2019 CATALOGUE

WELCOME TO NITROTIN	1
About Us	2
Nitrotin Benefits	3
APPLIED SCIENCE	4
Cannabis Chemistry & Nitrogen Application	5
Packaging Materials	6
Supply Chain Management	7
EQUIPMENT & AUTOMATION	8
Equipment Catalogue	10
Recyclable Nitrotin	15
CUSTOMER SERVICE POLICY	16
Customer Service Procedure	17
Warranty Policy	18



WELCOME

TO

Nitrocin is a Canadian-owned company with a long history in the cannabis industry. From production to processing to distribution and consumption, we have in-depth knowledge about cannabis. We take great pride in supplying quality products to our customers.

A desire for quality cannabis has motivated us to develop packaging solutions that we call Nitrocin.

Cannabis quality naturally breaks down over time, especially if exposed to the elements when not properly sealed. The flower reacts negatively to oxygen and dries out if air is allowed to leak through.

With Nitrocin process applies nitrogen to premium-grade cans to push the oxygen out and keep cannabis fresh.

We have engineered this process for cannabis and developed a fully automated packaging line. Our equipment is efficient, durable, user-friendly, and Canadian Standards Association (CSA) approved.

NITRO TIN



ABOUT US

NITROTIN HAS LOCATIONS ACROSS CANADA WITH OFFICES AND PRODUCTION LINES IN VICTORIA AND KELOWNA, BRITISH COLUMBIA AND IN TRURO, NOVA SCOTIA.

We have spent years in Western Canada working within the cannabis industry. As legalization approached, it became clear our industry needed improved solutions for cannabis packaging. Inferior quality packaging negatively impacts cannabis and can result in product recalls.

Our team has set out to make a difference by taking applied science from the food industry and implementing it in the cannabis industry. After designing CSA-approved equipment, sourcing materials, and building our team, we are ready to launch Nitrotin to the world!

COMPANY FOCUS

We consider ourselves the “Cannabis Packaging Experts”. Your success is ours and we take immense pride in providing world class service.

We have a dedicated team to help guide you through this process, from selecting the best packaging plan for your needs, to purchase/installation, and daily operations.

Our approach focuses on attention to detail, providing value, and working as a partner in your business.

Our purpose is to supply a packaging solution designed for product quality and environmental sustainability.



NITROGEN PRESERVATION STAY FRESH

NITROGIN BENEFITS

One of the greatest advantages of nitrogen packaging is the ease of implementation. Our Nitrocin system is designed to help companies make a quick transition to a more efficient and higher quality packaging system.

In addition to ease of implementation, we have identified 7 key benefits with Nitrocin packaging:



QUALITY

By replacing oxygen with nitrogen and then sealing it in a steel package, cannabis' shelf life is extended from months to years.

FRESHNESS

Terpene levels and aroma are preserved, giving customers a fresh experience each time they open a can.

MARKET MANAGEMENT

Companies can strategically play the market, managing demand and supply.

STORAGE & TRANSPORT

Products can be moved around the globe without being damaged, crushed or broken.

TRACKING

A bar code system and chip tracking can be embedded in each of the containers.

BRANDING

Branding options are possible on both the sides and the top of the containers which helps with managing supply and sales.

100% RECYCLABLE

Customers can recycle the container after use.

APPLIED SCIENCE

CANNABIS CHEMISTRY & NITROGEN APPLICATION

THE CANNABIS FLOWER HAS A WIDE RANGE OF ACTIVE INGREDIENTS THAT ARE SUBJECT TO DEGRADATION DURING AND AFTER PACKAGING.

To deliver a high quality, consistent product to consumers, we have taken steps to improve stability and shelf life for cannabis flowers, concentrates, and other products.

CANNABIS CHEMISTRY

Many of the critical flavour and fragrance components within cannabis are highly susceptible to oxidation reactions. For example, Myrcene is a highly desirable monoterpene found in cannabis products. It autoxidizes (becomes a different molecule) but also polymerizes due to its functional groups (isoprene). This process of oxidation can cause toxic growths like mold, yeast, and harmful bacteria that could prove dangerous.

NITROGEN

Nitrogen is an inexpensive material for inert atmosphere processing and packaging, particularly if other operations at a given facility use liquid nitrogen. Nitrogen packaging not only reduces oxidation of chemical components, it also inhibits the growth of mold, yeast, and aerobic bacteria. This will improve the consumer experience even after these products spend months in the distribution system.



MODIFIED ATMOSPHERE PACKAGING (MAP)

Managing the atmosphere levels for cannabis is a crucial part of producing a high quality and safe product. This is especially true during cannabis processing and packaging. The inert atmosphere can be dry or humidified to achieve the best storage conditions for a range of products.

All extraction, processing, and packaging operations work best at low temperatures, between 4°C and 20°C, and in low humidity. Human comfort and practicality determine requirements for climate at each step in the processing and packaging chain.

Our Nitrofin team has extensive experience and expertise in cannabis packaging; we will provide direction on optimal atmosphere levels based on bud composition.

TECHNOLOGIES

Nitrofin employs specialized technologies for container coating, and uses dedicated equipment specifically designed for atmosphere control.

Both technologies work together to deliver a premium and cost-effective packaging solution.

PACKAGING MATERIALS



The main purpose for packaging products is to preserve its quality and integrity. Careful consideration must be taken to ensure products are protected between packaging and consumption.

When it comes to packaging, you have the options of plastic, glass or metal. Specific regulations must be met in accordance with Health Canada's guidelines and standards.

PACKAGING SAFETY

Product leaching is a significant issue with many forms of packaging. Chemical compounds in the packaging and flower can react with each other, which can cause breakdown of both the flower and the package.

Food grade cans are designed so they cannot be opened without the seal being broken.

Child and pet resistant lids are placed on the top of each can to meet Health Canada regulations. These safety lids operate in the same way as a standard pill bottle.

SUPPLY CHAIN MANAGEMENT

NITROTIN IS APPLYING A PROVEN METHOD OF FOOD PACKAGING TO THE CANNABIS INDUSTRY.

Nitrotin's supply chain management system addresses customers' needs and requirements.

Our supply chain management processes:

PLAN

We plan with each customer's unique needs in mind.

SOURCE

Packaging materials are customized based on each individual order and specifications.

EXECUTE

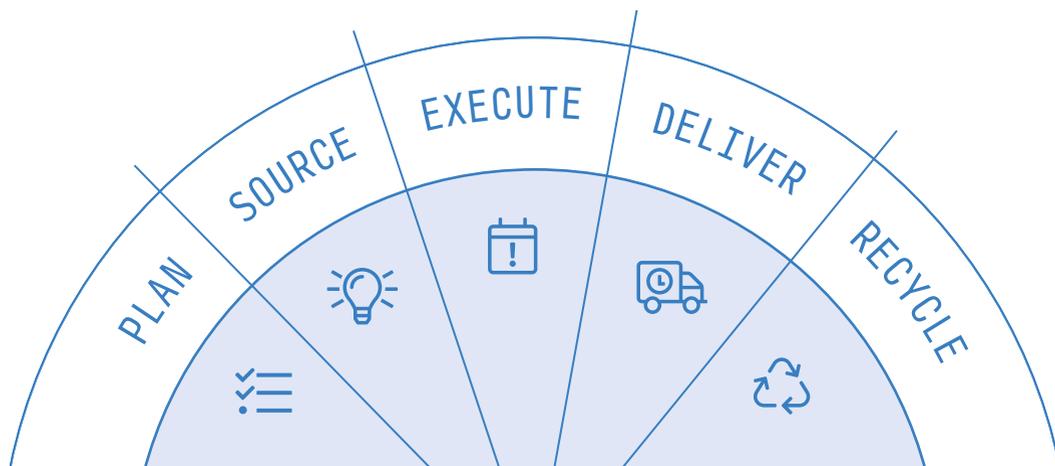
We work quickly, to ensure our customers can meet their daily business needs carefully and accurately.

DELIVERY

We guarantee punctual delivery of supplies.

RECYCLE

We care for the environment. Nitrotin packaging is 100% recyclable which is clearly indicated on the labelling of each can.



EQUIPMENT & AUTOMATION

Nitrofin has developed a fully automated equipment line designed for cannabis and pharmaceutical grade products.

It has been engineered for durability, efficiency, and most importantly, for maintaining product quality. All equipment parts meet CSA certification.

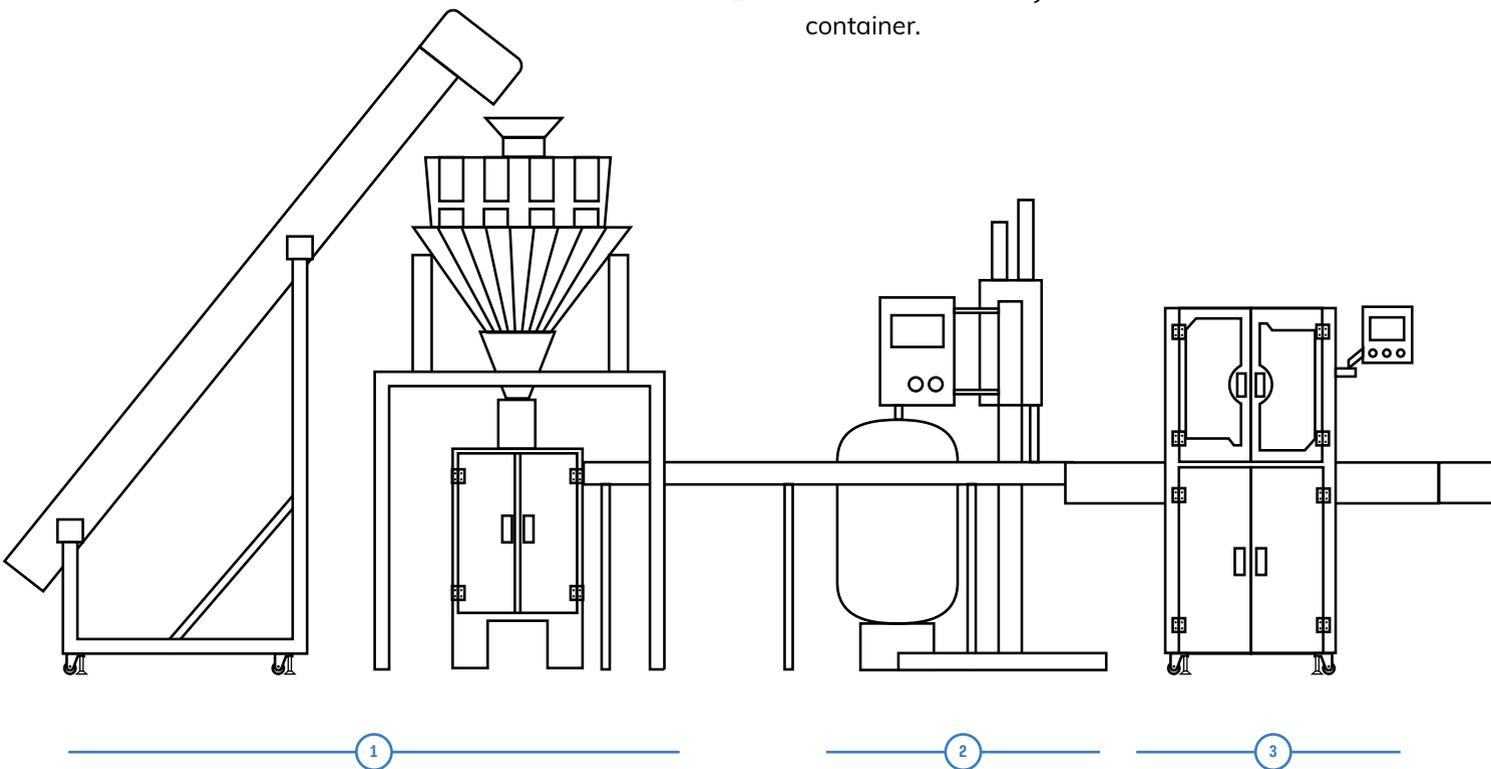
NO MATTER WHAT THE SIZE OF YOUR OPERATION, WE HAVE EQUIPMENT OPTIONS TO SUIT YOUR NEEDS.

When packaging cannabis, there are typically seven stages that are required:

1 A manual or custom filling system sorts the cannabis by weight and then fills individual cans.

2 A doser applies a drop of nitrogen to each can, displacing oxygen.

3 A seamer applies the lid to the can and securely seals the container.





AUTOMATION OPTIONS

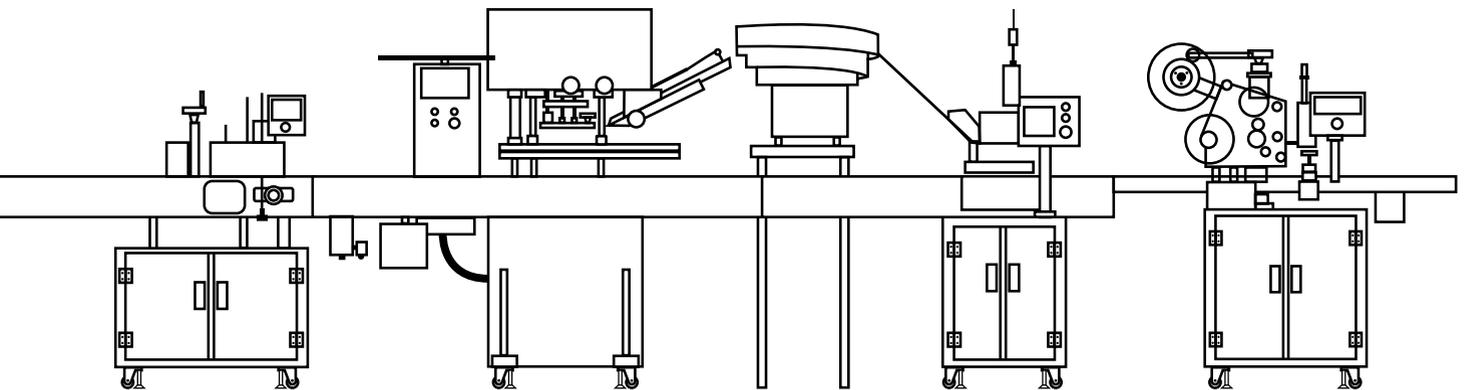
Nitrofin's automated production line is rated to process 70kgs in a 10 hour shift with 4 to 5 employees. For safety, units have a standard user-friendly touch screen display.

4 A side label applicator applies a label to the side of each can.

5 A child resistant lid capper is applied as the top casing for each can.

6 A label is applied to the top of each can by a top label applicator machine.

7 Cans exit the machine and are packed into boxes by staff.



4

5

6

7



NITROTIN

CANNABIS PACKAGING EXPERTS

EQUIPMENT

A FULLY AUTOMATED PRODUCT LINE

CATALOGUE

DESIGNED FOR CANNABIS



FILLING EQUIPMENT

We source filling equipment based on our customers' requirements. Cannabis fillers are the most expensive part of a production line; however, they are a vital component addition to address volume requirements.

NITROGEN DOSER

Sensored dosers have been designed to add a drop of nitrogen to every can, displacing oxygen.



HV CANNING SEAMER

Our high volume seamer processes 30 to 50 cans per minute and, with a replaceable head, it can handle a variety of can sizes.



SIDE LABEL APPLICATOR

After passing through the seamer, this unit adds a label to the side of each can.

CHILD RESISTANT (CR) LID CAPPER

This unit securely applies the child resistant ring lid to each can.



TOP LID APPLICATOR

After the CR lid has been applied, a top lid is applied to connect them both together.



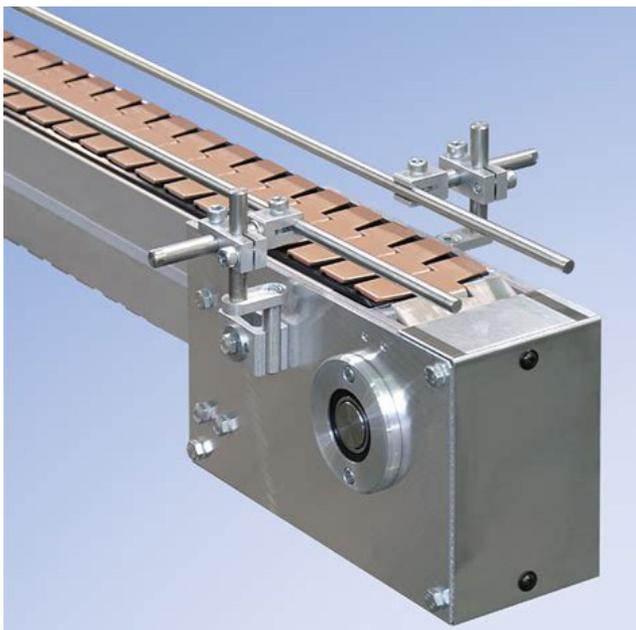


TOP LABEL APPLICATOR

The top label applicator precisely labels each lid.

90° TURN CONVEYOR

Space constraints often create a need to turn the production line.



CONVEYOR LINE EXTENSION

Conveyor extensions can be useful to extend production lines.



ROUND ACCUMULATION TABLE

To maintain production speeds, accumulation tables help to smooth out each run and increase efficiency.

SQUARE ACCUMULATION TABLE

To maintain production speeds, accumulation tables help to smooth out each run and increase efficiency.



RECYCLABLE NITROTIN

Companies and consumers are becoming increasingly concerned about the life cycle of packaging and products. By recycling, we save energy, reduce carbon dioxide emissions, preserve our natural resources, and limit the amount of waste headed to landfills.

Manufacturing reusable products empowers everyone to protect our planet by reducing waste. Nitrotin's core values are based on product quality and environmental sustainability. Our packaging material has been selected with these two values in mind. Our cans are 100% recyclable, made of a high grade tinplate steel. The plastic, childproof tops are made of recyclable plastic. Both parts are clearly labelled so customers will know not to discard in their garbage.

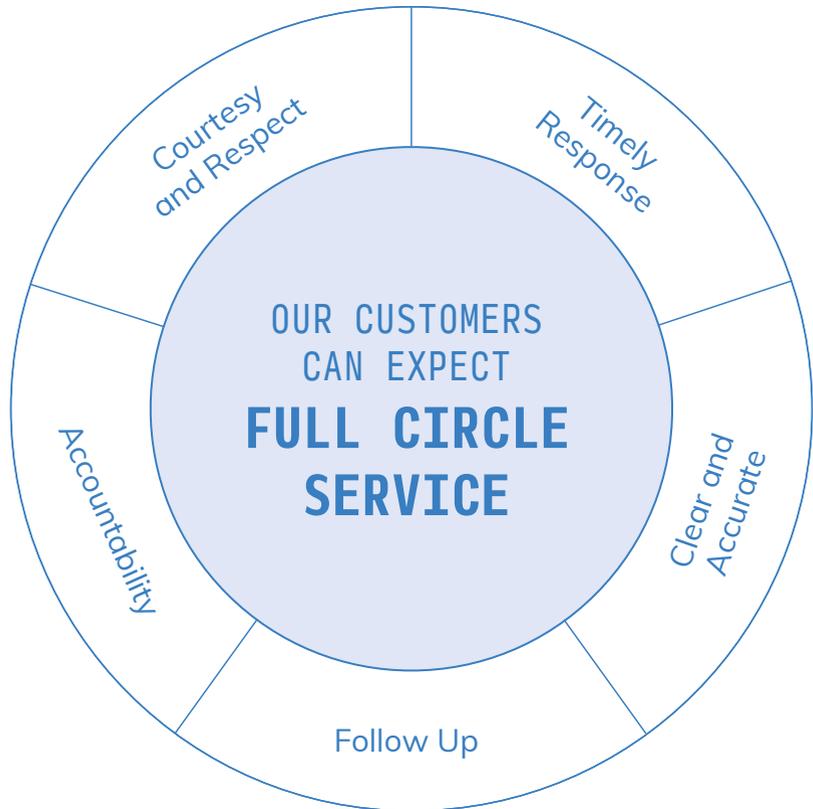


CUSTOMER SERVICE POLICY

Nitrofin is committed to delivering service excellence to our customers. We are considered the cannabis packaging experts, specializing in the vertical integration of cannabis to end users. We provide service that customers can count on.

Our specialists work in partnership with our customers, before and after implementation. Best management practices have been developed for every Nitrofin unit, the full production line, our supply chain management system, and the customer's product distribution.

Our policy ensures that we provide our customers with the help they need to keep their packaging solutions running smoothly. We understand that the packaging component of your business is vital to your operation. By dealing with issues efficiently, we will save you time and money so you can focus on your business.



CUSTOMER SERVICE PROCEDURE

If an issue arises within your Nitrotin production line and you and your team cannot resolve it, here are the steps to follow as part of our customer service policy:



- 1** Contact your Nitrotin service representative. We are available 24 / 7 to troubleshoot any issues you're experiencing.
- 2** If the problem cannot be solved over the phone, we will send a service technician from our Nitrotin team.
- 3** We will restart the machinery, set up a protocol so the problem will not arise again, and train for preventive maintenance.
- 4** We will monitor the equipment afterwards to ensure the issue has been corrected properly and will be on standby in the short-term, should the problem continue.

WARRANTY POLICY

Nitrocin equipment has been modified from existing industries such as food and pharmaceuticals, which have been proven durable and reliable. Before leaving the factory, each unit must pass a CSA certification, the Canadian standard within the food industry.

Nitrocin applies an installation warranty to full equipment line purchases which begin on the date when installation by our technicians is complete.

The Installation Warranty includes:

- 12 month warranty on all parts
- 6 month warranty for service labour
- 24 month warranty on all units servo motors

The Installation Warranty is subject to certain limitations, including damage caused by misuse or alterations of the products. In order to maintain warranty, customers are required to perform preventative maintenance service requirements.

Nitrocin also offers:

- Extended warranty service plans up to five years
- Custom warranties are available on custom orders



APPLIED SCIENCE SOLUTIONS FOR CANNABIS PACKAGING



CONTACT NITROTIN

✉ info@nitrotin.ca