



# NPIC

## CASE STUDY

Josh Liu, Production Director  
at NPIC

NPIC is a thriving privately held pet treat manufacturer located in Plano, TX. Established in 1996, the company's original mission was to develop a natural, biodegradable alternative to plastics utilizing vegetable proteins. They soon discovered these same vegetable proteins had a natural application for dog bones too, eliminating the necessity for indigestible materials.

In 1998, they introduced N-Bone®, one of the first completely edible, highly digestible dog bones made with wholesome and functional ingredients. Since then, NPIC has focused on innovation and quality, crafting recipes to fuse the finest ingredients into wholesome, functional pet treats. Providing natural and specially formulated pet treats to meet the dietary needs of dogs, cats, and ferrets, NPIC is committed to putting the health and well-being of pets first.

NPIC has continued to grow, developing a comprehensive line of natural treats that expanded to include offerings to address pet wellness concerns like digestive health, urinary tract health, joint mobility, and puppy teething relief.



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## Packaging Challenges

- NPIC was facing challenges often seen with quickly growing manufacturers:
- The desire to scale up production, but unsure of where to start
- Feeling overwhelmed when thinking about how to standardize a manual process
- Hundreds of different SKUs, with many requiring unique packaging processes
- Dedication a lot of resources to manual labor on their packaging line
- Aging, unreliable equipment

## Automation Solution #1

NPIC was introduced to Viking Masek in January of 2021. Using a consultative approach, we discussed their needs, listened to their concerns, offered tailored solutions, and then invited them to visit our US headquarters.

During our first conversation with NPIC team members, they knew they needed to automate their packaging lines but were feeling overwhelmed by the process and had no idea where to start. So, we simplified things for them from start to finish.

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First, we discerned their most important goals, ensuring that we focused on the highest impact processes. We learned that most of their products were packaged in premade pouches, which were a great fit for our pouch packing machines.

Then we worked together with NPIC to meticulously catalog each of their 100+ SKUs. We narrowed down the packaging automation project scope to the products we felt would work best with a standardized packaging process. This included their ferret chew sticks, puppy teething rings and treats, and dental treats.

As part of our consultative approach, we inquired if NPIC was tracking any metrics related to their packaging line. Josh Liu, Production Director at NPIC, shared some of the most important KPIs: “Some key measurements that we consider include changeover time, machine adaptability to different products or sizes, operational convenience to our workforce, and technical support response time and effectiveness from the OEM.” Viking Masek included consideration for those metrics in our overall packaging system design.

After detailing NPIC's specifications and performance expectations, we prepared a proposal that not only achieved their goals and satisfied their budget, but also provided them with the highest ROI.

Next, we invited NPIC team members to visit our US headquarters in Oostburg, WI. We showed them our facility, demonstrated a premade pouch machine in action, and sat down to do a detailed walkthrough of their proposal.

In July of 2021, NPIC purchased a premade pouch packing system including an 8S-235 premade pouch machine and a multi-head scale.

### Here's how it works:

1. Pet treats are first introduced into the packaging system through a bucket elevator, which conveys the products vertically in a series of buckets.
2. Pet treats are conveyed horizontally to a multi-head scale.
3. The scale precisely weighs the pet treats, depositing an exact amount into the funnel of an 8S-285 premade pouch machine.
4. Premade bags are simultaneously fed into the premade pouch machine using robotics, waiting under the funnel to be filled with pet treats from the scale above.
5. The pouches are sealed and pass by an inkjet printer to receive date and lot codes.
6. Pouches are further conveyed down the line for a quality and safety check through a checkweigher/metal detector combination unit.
7. Simultaneously, cases are being automatically formed adjacent to the packaging line.
8. The formed cases are conveyed to an ergonomically designed loading area where workers pack the finished bags into cases.
9. The filled case enters an automatic case sealer where they are taped shut.

### Automation Solution #2

In late 2023, NPIC decided it was time to replace their existing flow wrapping line.

They were facing challenges with their aging flow wrap equipment, including reliability and inconsistent quality, requiring a team member to always monitor the machine. NPIC manufactures all their products in the United States and runs their pet treat packaging lines 24/7, so needing someone to constantly monitor their existing flow wrapping machine meant that person could not focus on more revenue-driving activities.

Eric Qiu, Mechanical Engineer at NPIC, shared that there always needed to be a team member 'babysitting' the machine to watch for recurring problems. "We always had a maintenance guy keeping an eye on the machine as it's running. We wanted them to be able to focus on something more important than having to always stand there waiting to fix a problem."





And problems there were. The flow wrapper would often continue to create bags even when no product was present. Changing to a different size product was also difficult and required manual adjusting by line operators, which equals downtime, leading to lost production (and lost profit). On top of everything else, support from the flow wrapping machine manufacturer was lacking.

Sometimes the stars just align! It happened that Viking Masek had launched their state-of-the-art flow wrapping line while NPIC was shopping for a new one! After a great experience the first time purchasing their premade pouch packaging system, NPIC again turned to Viking Masek as a trusted partner.

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Despite being new to flow wrapping, Viking Masek's strong reputation in the industry and their track record of success instilled confidence in NPIC. With trust established during their premade pouch system project, NPIC saw choosing Viking Masek for their flow wrapping requirements as a no-brainer, viewing it as an opportunity rather than a risk.

"Our long-term relationship with NPIC made the choice an easy one when they needed to replace their flow wrapping equipment," says Robert Barkley, Business Development Manager at Viking Masek of the continued partnership. "We're excited to support their continued success with our cutting-edge flow wrapping technologies, seeing every challenge as an opportunity for greatness."

After collaborating with Viking Masek's team of pet treat packaging experts, in late 2023 NPIC purchased a flow wrapping system for their puppy teething rings, bones, twin packs of dental treats, and multiple sizes of cat treats.

The flow wrapping machine from Viking Masek will solve many of the problems seen with their existing equipment:

- More than doubling their packaging speeds
- Minimal monitoring and maintenance requirements
- Easy changeover done directly on the machine
- US-based support from direct Viking Masek staff
- Less packaging waste: If no product is detected, no bag is created
- Intuitive, easy-to-use HMI

Here's how their new flow wrapping line will work: Pet treats make their entrance into the automated packaging system through a Synchropack-60 Flow Wrapping Machine. The packaging film is horizontally formed into a tube shape and the pet treats are fed through the middle of the tube, with a hot seal bar and knife sealing and cutting each package after it's completed. The filled bags of pet treats are then conveyed to a thermal transfer printer to receive date/lot codes.

## Results

In 2022, NPIC's entire premade pouch pet treat packaging line was set up, tested, and perfected at Viking Masek's US headquarters in Oostburg, Wisconsin before it was even loaded on a delivery truck.

After delivery to NPIC's plant in Texas, Viking Masek assembled the entire premade pouch packaging system onsite. The new pet treat packaging line fits seamlessly into their packaging configuration, resulting in a precise, ergonomic, and reliable solution.

Viking Masek's Field Service Team spent 3 weeks onsite at NPIC setting up the packaging line, training their workforce, and dialing things in for maximum throughput.

NPIC reports that those KPIs and metrics they track are as high as they've ever been! "With the Viking premade pouch line, our production volume increased by 40%," says Liu. "On the flip side, our labor costs only increased by 15-20% this year. If we were still manually packaging, our labor costs would have increased by much more."

Packaging line speeds also vastly surpassed NPIC's previous throughput. "The pack rate on the Viking line reaches 40 bags per minute versus the old manual packaging line at 10 bags per minute," says Liu of the line's performance. That's a 300% increase! Currently the packaging line is running approximately 70 different products, 24 hours a day.

NPIC's new flow wrapping line is currently being manufactured and configured, with an expected delivery date in May 2024.



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