



VTR Feeder
Solutions

Turning Complex
Feeding Challenges
Into Reliable Solutions



 GLOBAL FEEDERS GROUP

VTRFeederSolutions.com

We Set the Boundaries of What Automated Feeding Can Achieve

Linear Feeders

VTR linear feeders are built for reliable, precise, and long-lasting performance. Each system uses rugged, low-maintenance construction and custom tooling tailored to part geometry, protecting part integrity and ensuring consistent part feeding. Linear feeders can also integrate seamlessly with bowl feeders, robotic flex feeders, and downstream automation. VTR linear feeders help maintain smooth production flow and reduce downtime. Every solution is supported by a team committed to improving performance, and customers are given access to global service and support 24/7.



What is a Linear Feeder

A linear feeder is a type of vibratory feeding system designed to sort, orient, and transport parts along a straight path with precise, controlled motion. Acting as the tooling, buffer, and transfer point between orientation and assembly, it ensures each part arrives at the next stage of automation in the correct position and at the right pace.

Types of Parts Fed in Linear Feeders

Part Material Composition

- Plastic
- Rubber
- Metal
- Composite

Typical Part Size

0.08"–4" (2–100 mm)

Common Parts

- Medical Device Components
 - Injection Molded Parts, Micro-Components Requiring Gentle Handling
- Automotive Components
 - Nuts, Bolts, Caps, Clips
- Electronics
 - Terminals, Connectors

Feed Rate

Linear feeders typically deliver **60–600 parts per minute**, with higher speeds achievable depending on part characteristics such as size, weight, and orientation requirements.

Investing in Linear Feeders – Improving Reliability and Reducing Downtime in Fast-paced Medical Manufacturing.

Case Study

Multi-lane Linear Feeder

Industry	Medical Device Manufacturer
Speed	140 ppm
Location	Indianapolis, USA
Part	Complex Injection Molded
# Lanes/Feeder	4

Operating Hours

Running 24/7 since 2020

Return on Investment

Purchasing a high-quality feeder is a critical step in the decision-making process where initial cost is weighed against reliable production. This is where the value of a VTR Feeder solution demonstrates time and again why our customers keep coming back.

Competitive Feeder Results

Average Downtime = 150 HRS / Month
Lost Parts/Year = 15,000,000

Industry standard bowl solution running the exact same part.

VTR Feeder Results

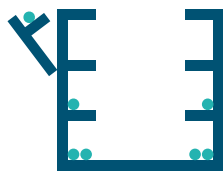
Average Downtime = 2 HRS / Year
Lost Parts/Year = 16,800

VTR Multi-lane Feeder Solution running the same part as the Competitive Feeder

VTR 300 Series stainless steel bowls are electropolished to increase longevity and provide a cleaner finish for pharmaceutical applications.

Traditional Bowl Feeders

Although first developed in the 1930s, traditional bowl feeders remain widely used in manufacturing today. These bowls are typically hand-fabricated from stainless steel or aluminum and are a durable solution well-suited for simple part geometries and general-purpose feeding applications.



Straight Wall Bowls

This legacy vibratory stainless steel bowl feeder is the lowest-cost industry standard and is still used in many automotive and pharmaceutical applications today. Straight-wall bowls typically orient parts using external wall tooling, and while cost-effective, they generally require more maintenance than other bowl types.

Suitable For	Most Geometries (2-4+ resting positions)
Typical Part Size	0.08”–4” (2–102 mm)
Feed Rate	Low–moderate
Typical Output	5–80 ppm



Conical Bowls

Designed for smaller footprints, these stainless steel bowls orient parts along the inner wall, reducing recirculation and part abrasion. This makes them highly suitable for pharmaceutical and cleanroom applications.

Suitable For	Simple Geometries (2-4 resting positions)
Typical Part Size	0.25”–2.5” (6.35–63.5 mm)
Feed Rate	Moderate
Typical Output	30–120 ppm



Rotary (Centrifugal) Bowls

Rotary feeders use centrifugal force to deliver the highest output rates of any bowl design. Built from stainless steel or aluminum, they operate without vibration, are gentle on parts, and provide a single-lane feed.

Suitable For	Simple Geometries (2-4 resting positions)
Typical Part Size	0.25”–12” (6.35–304 mm)
Feed Rate	High
Typical Output	70–700 ppm

Machined Polyamide Bowls

Polyamide bowl feeders deliver clear technical and operational benefits compared to hand-fabricated metal bowls, introducing a new standard of precision and repeatability. Rather than being hand-fabricated, each bowl is CNC machined directly from its 3D CAD model, allowing each bowl to be reproduced with exact precision, enabling consistent performance across multiple lines and global facilities.

These bowls offer long-term durability, reduced noise, and enhanced compatibility with cleanroom and medical environments, making them a preferred alternative to traditional metal bowls.

Key Advantages of Polyamide Bowls

Precision & Consistency

Every bowl is machined from a digital model, ensuring exact duplication from line to line and eliminating the inconsistencies common in hand-fabricated metal bowls.

Exceptional Durability

Polyamide bowls come with a lifetime warranty, reflecting our confidence in the material’s durability.

Quiet by Design

Polyamide bowl feeders operate significantly quieter than traditional metal bowls thanks to their smooth machined surfaces and natural impact-dampening properties. Noise can be reduced even further through acoustic enclosures, vibration isolation, and low-amplitude tuning. Automotive environments especially benefit from these bowls, with dramatic reductions in overall noise levels.

Medical & Cleanroom Capabilities

Polyamide bowl feeders are well-suited for cleanroom, medical, and pharmaceutical use due to their non-porous, chemically resistant surfaces. Stainless steel options with FDA-compliant coatings and washdown enclosures are available for GMP and ISO 13485 compliance.



Parts Suited for Polyamide Bowl Feeding

Part Material Composition

- Plastic
- Rubber
- Metal
- Composite

Common Parts

- Injection Molded
- Surgical Devices
- Fasteners
- Diodes
- Nuclear
- Electronics

Typical Part Size

0.09”-3” (2.3 mm-76 mm)

Typical Output

5–80 ppm (higher possible with small and simple geometries)

Have a Unique Challenge?

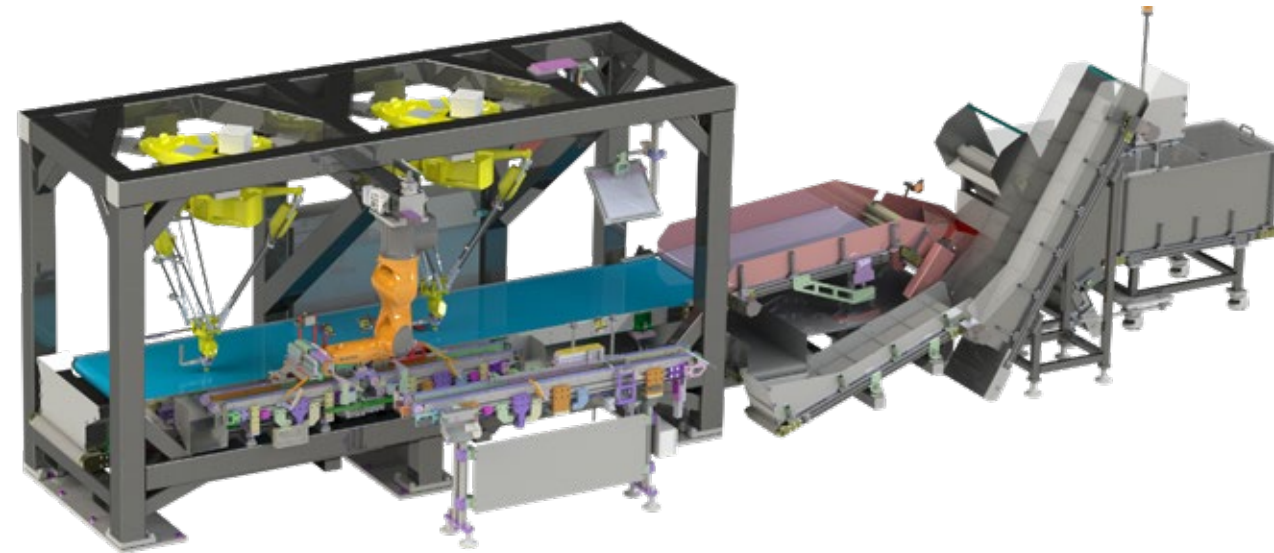
Unique challenges are welcome! We can run in-house testing and create a proof of concept to show what's possible.

Where Precision Creates Possibility

Flex Feeders

Our Robotic Flex Feeders are designed for exceptional adaptability, allowing multiple part types to be fed through a single system. Built for accuracy, stability, and seamless integration with vision systems and robotics, VTR Flex Feeders provide a modern alternative to mechanical feeding, when part complexity, variability, or frequent changeovers make traditional solutions difficult to support.

The vibratory style flex feeder is specifically designed to have different tooling trays that are quick change to feed different types of components that require different containment or manipulation, allowing this style of VTR Flex Feeder to be able to feed more complex components that require some orienting at much higher rates than other solutions.



What is a Flex Feeder?

A Flex Feeder is an automated part-feeding system that can feed a variety of components with different shapes, sizes, and orientations. It's a flexible and adaptable solution that allows quick changeovers between different parts without the need for extensive mechanical retooling. Flex Feeders can also be a good solution for feeding components that lack the required physical attributes for traditional feeding technologies.

Where Flex Feeders Deliver the Most Value

- Irregular, soft, or complex part geometries
- High-mix, low-volume production with frequent part changes
- Lines requiring multiple SKUs on one system
- Parts that are unsuitable for traditional vibratory systems

Types of Parts Fed in Flex Feeders

Part Material Composition

- Plastic
- Rubber
- Composite

Common Parts

- Caps
- Connectors
- Packaged Goods
- Electrical Terminals

Standard Feed Rates

- 5-60 parts per minute (ppm).
- Speeds >60 ppm are possible for specific applications only.

Typical Part Size

- 0.25"-3" (6.4 mm-76 mm)



About VTR

Where Precision Creates Possibility

VTR Feeder Solutions is a leading provider of automated parts feeding systems serving the medical, pharmaceutical, automotive, packaging, and consumer goods industries. VTR designs, manufactures, and assembles linear feeders, robotic flex feeding systems, spring feeders, and vibratory bowl feeders entirely in-house — streamlining the design-build process and simplifying duplication for future production line expansions. With a strong investment in R&D, VTR operates to a world-class standard of excellence. Every system is built to meet the most demanding requirements for long-term reliability and consistent output, earning the continued trust of manufacturers worldwide.

Based in Ontario, Canada, VTR operates alongside its sister company, Performance Feeders in Florida, USA under Global Feeders Group Inc. (GFG). Together, they form North America's largest parts feeding organization, providing unified expertise and a comprehensive range of feeding solutions to integrators and manufacturers worldwide.

Powered By People Who Care

Behind every solution is a team of skilled, dedicated individuals who bring deep expertise and genuine pride to the work we do.

Trusted Across Key Industries



Medical/
Pharmaceutical



Automotive



Packaging



Consumer
Goods

Where We Service Our Customers

VTR supports customers around the world with dependable parts, service, and full lifecycle support. Our systems operate throughout the United States, Canada, France, Italy, and Ireland — an expanding global footprint built on trust, performance, and strong customer relationships.

Our Services

VTR offers global service and support 24/7.



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