

THE NITTA ADVANTAGE



**NITTA CORPORATION
OF AMERICA**
CORPORATE GUIDE

NITTA CORPORATION OF AMERICA

ABOUT US

History

Founded in 1885 in Japan, Nitta Corporation has been an integral part of the U.S. belting market since the 1970s.

In 1980, Nitta established Nitta Corporation of America, which expanded in 1988 into a 67,000 sq. ft. facility located in Duluth, Georgia. Furthering Nitta's commitment to the American market, NCA moved into a new 85,000 sq. ft. facility in Suwanee, Georgia, beginning in the fall of 1998. By spring 1999, all manufacturing and fabrication in the U.S. had been transferred to this facility. It has since served as the headquarters for Nitta in the Western Hemisphere.

In early 2010, NCA absorbed Nitta Moore America as part of Nitta Group's global streamlining of Nitta Moore's operations. This introduced high-quality Linemate thermoplastic hose and connectors, along with pneumatic tubing and fittings, to NCA's product line.

Beginning in 2011, NCA's product offering expanded again to include Nitta's complete line of industrial wipers (slide seals).

End User Focus – “The NITTA Advantage”

Working with its distributors, NCA develops demand for Nitta products by doing the right thing for the end user. For belting customers, the first step is to identify performance problems with current belts. NCA's experienced sales and technical teams then work with management and installers to find the best belt for the application, plus help to correct maintenance and installation procedure problems such as tracking, tension, and proper splicing techniques. Nitta's goal: to show a measurable overall cost savings on total belting-related performance at each end user location, focusing on reduced downtime, higher speeds, and less quality issues with finished products.

- 85,000 sq. ft. state-of-the-art facility located in Suwanee, Georgia
- Only worldwide belting company to manufacture nylon core and aramid cord belting in the U.S.
- Fully registered to ISO 9001:2008 standard, including design of belting
- Highly technical fabrication methods
- Full product line – total belting solution plus hose, tubing/fittings, and wipers
- Long product life, high reliability
- Dedicated R&D
- Testing programs
- Sales network throughout the Americas
- Customer Service and Technical teams



Printing & Bookbinding



Folder-Gluer & Corrugated



Paper Converting



Mail Processing



Textile



Material Handling



“Nitta’s goal is to show a measurable overall cost savings on total belting-related performance at each end user location, focusing on reduced downtime, higher speeds, and less quality issues with finished products.”

Quality Control

Nitta Corporation of America’s management team and employees have a deep-rooted commitment to providing the highest quality products in the industry. This focus on quality is one of the strengths separating Nitta from its competition. Through testing, training, inspection, SPC techniques, and in-process quality checks, NCA is able to deliver reliable, high-quality products to its customers.

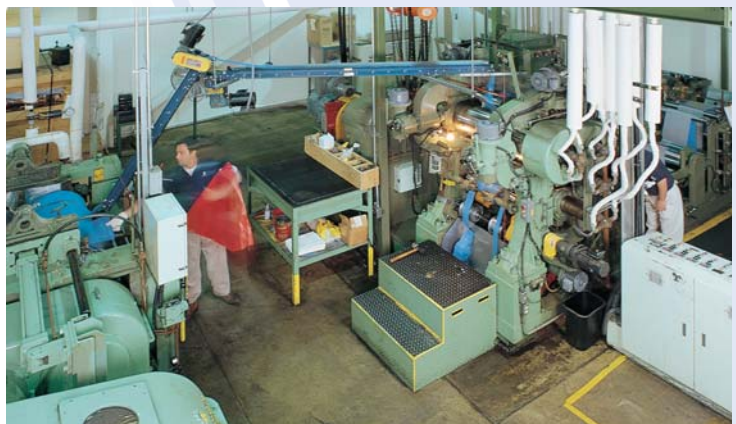
To help maintain this high level of quality, NCA has a sophisticated on-site laboratory for testing finished goods and raw materials.

In December of 2002, Nitta Corporation of America’s Quality Management System successfully met the registration requirements for ISO-9001:2000. In August of 2009, we were registered to the ISO-9001:2008 standard. NCA registered with no exclusions, and the scope of our registration includes the design of belting. In 2011, our registration expanded to include hose and tubing.

We feel confident that this high standard will give our customers the added assurance that we have a quality system in place that will help us in continuing to meet their needs and expectations.



In-process quality inspections ensure final product is top-quality.



Various rubber mixtures are compounded for PolyBelt covers.



Here, the layers of PolyBelt are permanently bonded together.

NCA Quality Policy

Nitta Corporation of America will strive to provide products that meet our customers’ needs and expectations.

NCA will vigorously pursue continuous improvement in the areas of:

- **Quality Products •**
- **Customer Satisfaction •**
- **Innovative Technology •**

BELTING PRODUCTS

NITTA – A Complete Single Source for Belting

In today's highly competitive economy, speed, volume, and precision are all critical to the bottom line. Although belts are a simple tool, they are essential for even the most advanced equipment. They provide the force that keeps industry moving by transmitting power, processing materials, and conveying finished products. Nitta belting is designed around the needs of the end user. Nitta's R&D engineers have worked extensively with real-world applications to ensure that Nitta belts are of the highest possible quality and optimized for the tasks they will perform. This ongoing process continues to bring new products and added value to Nitta customers.

Nitta offers a full-line belting solution for industrial applications. This includes PolyBelt nylon core skive-splice, PolySprint finger-splice, Carryflex aramid cord, SEB seamless belts, and conveyor belting, as well as joining tools.

PolyBelt™

- Nylon core, skive splice
- Manufactured in Suwanee, Ga.
- Power transmission, machine tapes
- Many applications throughout many industries



PolySprint™

- Polyester core or elastic type
- Finger splice
- Power transmission, machine tapes
- Printing, paper converting, mail processing

Carryflex™

- Aramid cord, finger splice
- Made in Suwanee, Ga., and Japan
- Tangential drive, live roller, overhead conveyor
- Textile, material handling systems, printing



SEB™

- Many carcass/cover options, such as PES/NBR
- Seamless (truly endless)
- Precision drive, feeder belts
- ATM, mail processing, box folding

Conveyor

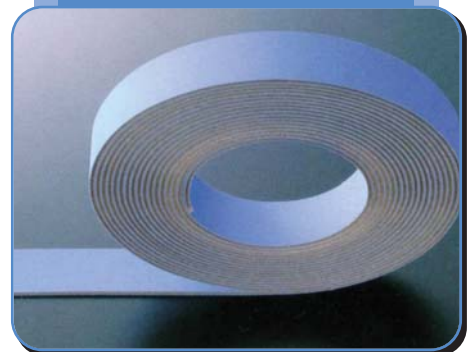
- PVC, TPU, and many other cover options
- Many splicing and finishing options available
- In-plant conveyance of unit loads, processing
- Conveyor applications across many industries



PolyBelt™



PolySprint™



Carryflex™



SEB™



Conveyor

Overview

PolyBelt features a rubber-covered nylon core and is used for power transmission belting, carrier belts, and machine tapes. PolyBelt is available in nine cover thicknesses and fifteen nylon strengths to meet horsepower ratings, abrasion- and wear-resistance, and pulley diameters required in a variety of applications.

Nitta is the **only** vertically integrated domestic manufacturer of nylon core belting, proudly making all PolyBelt products in the USA. By manufacturing these products in its Suwanee, Georgia, facility, NCA can offer quicker delivery, price stability, and greater flexibility in the design and production of specialty or custom belts.

With super-strong nylon core, extended-life skived joining, and high operating duty cycles, PolyBelt outperforms all competitive products.

Features

High Strength, Long Life – Superior resistance to flexing fatigue, rugged design for heavy-duty applications. Strong, durable pre-set nylon core accommodates shock loads. Highly abrasion-resistant covers – with up to **6 times** the abrasion resistance of competitors' belts – provide long, dependable service.

Industry-Leading Splices and Ply Adhesion – Unitized construction and manufacturing know-how eliminate delamination and splice problems.

Quick Splice Option – Many styles can be joined in just three minutes, plus four for cooling, with Nitta's quick skive-splice option.

Electrically Conductive – Materials with anti-static properties provide permanent conductivity, eliminating electrostatic build-up.

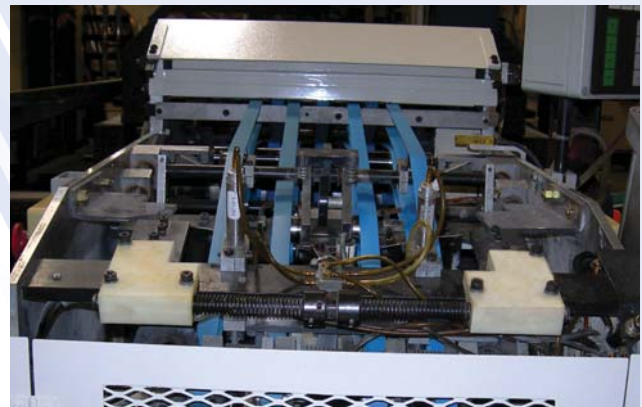
Environmental Resistance – Oil- and chemical-resistant rubber covers. Selected materials are not susceptible to oil contamination, demonstrating high energy efficiency and friction resistance.

Applications

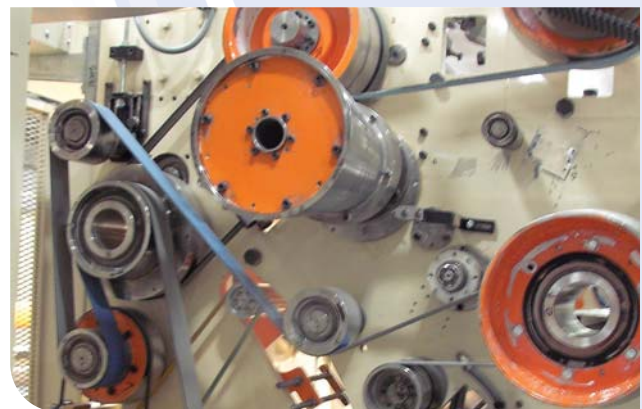
- Paper Manufacturing and Converting, Tissue, Tube Winders
- Textile Machines
- Mail Processing
- Printing
- Corrugated and Folder-Gluer
- Flour Milling
- Woodworking
- Other General Power Transmission



Dip tank bonds PolyBelt halves together, forming the belt's nylon core.



Stacker application using PolyBelt in printing facility.



PolyBelt running on machinery used in the tissue industry.



Nitta offers tools for making PolyBelt endless, including skivers, presses, and bonding solutions.

Overview

PolySprint is Nitta's line of finger-spliceable polyester core and elastic belting, featuring high-strength polyester tension members, quick-melt thermoplastic members, and easy installation.

Requiring no adhesives to join, PolySprint greatly reduces costly downtime as a quick and easy-to-replace alternative to skived products. It outperforms all competitive finger-splice materials and is available in many styles, primarily for use in printing and graphic arts, paper converting, and mail processing.

PolySprint is made with a variety of tension members and covers to suit a wide range of applications. Nitta offers non-elastic types with a polyester core and elastic types with/without reinforcement, plus surface options in TPU, rubber, and fabric with various COFs.

Nitta also offers a complete selection of durable, high-quality tools for joining PolySprint. Single-action and indexed Nitta cutters eliminate mismatched and non-aligned joints, presetters ensure alignment during splicing, heat presses with programmable digital temperature readouts yield high accuracy, and cooling clamps hold presetters in place as belts cool for use.

Features

Ease of Joining – Quick and easy belt replacement means minimal downtime and no need to disassemble machine. Nitta cutters punch consistent fingers for precise alignment. QuikFlex finger-splice system requires no adhesives and minimal training. Nitta presetters ensure straight, strong splices.

Dimensional Stability – Polyester fabric tension member provides high dimensional stability and flexibility. Much lower permanent elongation than competitive products.

Abrasion Resistance – High-temperature, friction-resistant covers and fabrics, many designed exclusively for printing and paper. Long service life.

Environmental Resistance – Selected materials are temperature- and humidity-tolerant. Polyester core does not expand or contract as humidity changes.

Applications

- **Printing**
 - Transport
 - Stackers
 - Bookbinding
 - Sheetters
 - Folders
- **Paper Converting**
 - Folder-Gluers
 - Corrugated
 - Multiwall Bag
- **Mail Processing**
- **Other Printing and Paper Converting Functions**



PolySprint running on folder-gluer machine.



Folder application using PolySprint in printing facility.



Nitta's line of PolySprint tools makes it quick and easy to replace broken belts. Finger punchers, presetters, heating and cooling presses, and complete kits are available.

Overview

Carryflex (CF) is high-strength, finger-spliceable belting. Aramid filament is twisted into a cord as a tension member, and then it is covered with high-friction rubber or polyurethane. Carryflex's integrity is unmatched by competitive products. Manufactured in Suwanee, Georgia, and in Japan. Joining tools are also available.

Features

Ease of Joining – Quick-melt finger splice (no adhesive).

Dimensional Stability – Low-stretch aramid cord yields constant tension for more consistent spindle speeds and longer belt life.

High Strength, Durability – Flexible, rugged design for heavy-duty use. No edge fraying with fully encapsulated aramid cord. Highly abrasion-resistant rubber covers for maintaining spindle speeds. Polyurethane covers with molded-in v-guide (CFTG-18G belts) designed for continuous use on small, high-speed pulleys.

Environmental Resistance – High energy efficiency. Resistant to oil, temperature, friction, and humidity.

Applications

- Tangential Drive for Textile
- Live Roller Conveyor
- Overhead Conveyor for Printing (CFTG-18G)



Nitta is the only international belting company to manufacture aramid cord belting in the U.S.



Overhead conveyor using Carryflex CFTG-18G.

SEB™

Overview

SEB (Super Endless) is a seamless belt manufactured in tubular form to be truly endless. SEB offers the best performing covers in the industry for wear resistance and pickoff rates. It is used where the precision of the drive is critical. NBR covers on polyester carcasses are among the many available options, and stringent quality procedures ensure all SEB meets the tightest tolerances for dimensional consistency and stability. Nitta welcomes R&D for new applications and can custom-design for large potential applications.

Features

High Performance and Durability – Seamless construction for high-speed transmission, maximum rotation accuracy, and dimensional consistency. Excellent flexibility and abrasion resistance. Thin, light, maintenance-free.

Many Options – More than 100 types. Rigid, semi-elastic or elastic carcasses, from polyester (cord or woven/knitted fabric) to glass. Covers include NBR, neoprene, hypalon, natural rubber, and other compounds.

Environmental Resistance – Broad temperature range ensures top performance in hot and cold environments. Excellent ozone resistance.

Applications

- Box Folding
- ATM
- Mail Processing
- Office Equipment
- Other Applications Requiring Feeder Belts, Sandwich Conveyors, or Small Pulley Power Transmission Belts



SEB feeder belts on folder-gluer.



Vacuum feed in mail processing.

Conveyor Belting

Overview

NCA stocks, fabricates, and sells multiple conveyor product lines, along with modification options such as guides, cleats, and perforations. With hundreds of configurations and a wide variety of surface types, Nitta can match the requirements of almost any customer, from the largest distribution centers to the smallest in-plant conveyor systems.

Nitta's global manufacturing base allows NCA to carry a complete range of material. Thermoplastic European-style PVC and polyurethane belting is manufactured at Nitta's facility in Alkmaar, Holland. High-duty belts (for difficult applications) are designed and manufactured in Japan. And nylon conveyor, part of the PolyBelt line, is manufactured in Suwanee, Georgia.

Features

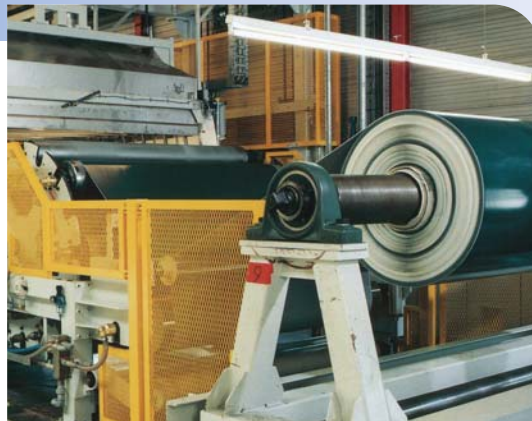
All Nitta conveyor is lightweight, high-strength, non-toxic, odorless, and resistant to oils, chemicals, and wear. Each line includes products with anti-static properties. Maximum width varies by product type: most European-style belting comes in widths up to 2 or 3m; other types are offered in narrower widths. Specific features of each product line include:

- **PVC/Polyurethane (European-style) – Made in Holland**
 - Polyester carcass – fabric options vary by application
 - Strengths from 5 N/mm to 48 N/mm
 - One-, two- and three-ply construction
 - PVC or TPU covers – variety of colors, durometers, profiles
 - Bare or impregnated fabric
 - Selected products USDA/FDA approved
- **High-Duty – Made in Japan**
 - Mostly polyester
 - Very high quality
 - More precise fabrics
 - Wide cover range: PVC, TPU, NBR, EPDM, Teflon, silicone
 - Problem-solver belts for sticky products, tough conditions, or applications requiring resistance to heat or chemicals
- **Nylon Conveyor (PolyBelt) – Made in Suwanee, Georgia**
 - Strong nylon core of a power transmission belt, but with an uncovered pulley side for use over slider beds
 - Extended-life skived joining, high operating duty cycles
 - Good in shock load situations
 - "Made in the USA" means quicker delivery, price stability, custom belts possible



Applications

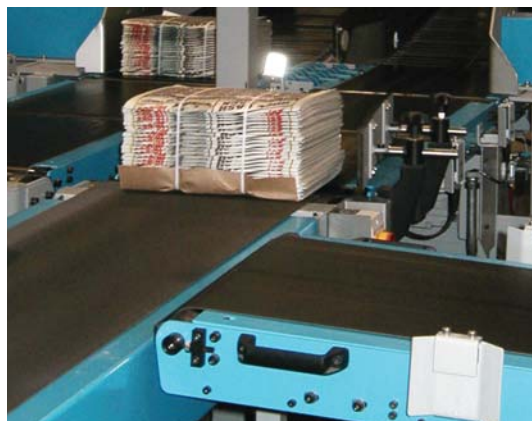
Conveyor belts are used across many industries. Their primary use is for in-plant conveyance of unit loads, but they often perform processing tasks in addition to their conveying function. They can be found in any facility where material handling or transport of goods is performed.



PVC conveyor belt manufactured by Nitta Holland.



NCA fabricates conveyor to the highest standards.



Newspaper printer using conveyor belt for transport.



Conveyor used in compression on folder-gluer.

OTHER PRODUCTS

*More top-quality products
available from NCA with
“The NITTA Advantage” ...*

Linemate® Thermoplastic Hose, Couplings, Adapters

NCA offers low- and high-pressure Linemate thermoplastic hydraulic hose products manufactured in Japan. These durable, lightweight hoses are clean and eco-friendly and allow for easy piping due to small OD and tight bend radius. Assembly is quick and simple with swage or exclusive push-one “Campucka” couplings. Linemate’s high build quality and ease of use minimize downtime: installs are shorter, and systems stay up and running.

- **Long Life** – Up to four times longer life in flex and impulse applications.
- **Superior Abrasion Resistance** – Outlasts rubber up to ten times.
- **Clean Core Tubes** – Unlike rubber, core remains clean after cut. Smooth ID means no harmful contaminants in system. Cleanliness ISO 18/16/13.
- **Wide Chemical Range** – Thermoplastic superior to rubber.
- **Lightweight by Design** – 50% lighter than rubber.
- **Small OD** – Smooth outer cover. Small bend radius means easy routing through tight or confined spaces.
- **Easy to Connect** – Swage, reusable, Campucka coupling options. Nitta exclusive “push to connect” Campucka couplings allow for fast repairs or new assemblies **without special equipment**, just common hand tools. (“Campucka” is short for **C**ut, **A**ttend, **M**ark, **P**Ush, **C**heckK, **A**ssembly.)



Nitta Linemate hydraulic hose.



Push-one “Campucka” couplings.

Pneumatic Tubing and Fittings

Nitta’s pneumatic tubing products come in inch and metric versions, with types including polyurethane, nylon, polyolefin, fluorocarbon, and flame-resistant. Fitting options include Push-One, Chemifit (for use in ultrapure applications), QuickSeal, and QDC.

- **Environmental Durability** – Excellent oil and chemical resistance.
- **Flexibility** – Very flexible and tight bend radius without kinking.
- **Ease of Use** – Easy to route and install in confined spaces.
- **Pure Options** – Clean tubing available, Chemifit line US FDA approved.



Many time- and cost-saving tubing and fitting options are available.

Industrial Wiper Products (Slide Seals)

Nitta industrial wipers are used in single- and multi-axis machining centers to protect bearings and slide beds on these precision machines from metal chips and coolant, and also to contain and wipe chips and coolant from sliding door surfaces and internal compartments. Available in 16 different standard types, including: Slide Seals, Lip Seals, Telescopic Seals, and Door/Cover Wiper Seals, plus Custom Cast Seals made to specifications for a perfect seamless seal with reduced installation time and cost savings.

- **Highly Effective Sealing**
- **Easy Mountability**
- **High Durability**
- **Excellent Oil and Abrasion Resistance**



Nitta offers a wide variety of wiper products used on CNC machines.

PRODUCTION

Vertically Integrated Manufacturing



PolyBelt™ & Carryflex™ – Truly American-Made Nylon Core and Aramid Cord Power Transmission Belting

Nitta Corporation of America made a major commitment to the American marketplace in 1988 when it opened its manufacturing facility for nylon core power transmission belting in Moncks Corner, South Carolina.

In 1998, production was transferred from this factory to NCA's new corporate office and manufacturing center in Suwanee, Georgia. NCA's state-of-the-art Suwanee facility creates rubber- and fabric-covered nylon core power transmission belting by taking raw materials to a finished product. **Nitta belting truly qualifies for "Made in America" status.**

In December of 2000, NCA expanded its capabilities by installing a new Carryflex series manufacturing line for the production of low-stretch CF aramid cord belting. These belts are used in both power transmission and conveying applications where short take-ups and extreme load handling characteristics are required in a belting product.

By manufacturing both **nylon core** and **aramid cord power transmission belting** in one location in America, NCA takes pride in the fact that this makes **Nitta Corporation** the **only worldwide belting company to manufacture these products in the domestic United States**. This status allows Nitta to respond to the needs of its customers in the Americas in a very quick and technically proficient manner regarding new product design and delivery.

Fabrication

The development of highly technical methods of fabricating is a specialty at NCA. At our Suwanee, Georgia, facility, Nitta PolyBelt, PolySprint, Carryflex, and conveyor belting can all be fabricated as endless or with ends prepared. We have also established hose and tubing assembly lines.

Diamond head rotary skivers are state-of-the-art for fabricating PolyBelt. The consistently flawless skives they create guarantee the quality and consistency required in many applications, such as tube winder and flour mill belting.

In 2009, NCA installed a set of PolySprint work cells, further upgrading the facility's capacity to produce fabricated PolySprint finger-splice belts. Utilizing a water tank with chiller as part of a closed system, the new cell dramatically conserves water. This "green initiative" project exemplifies Nitta's strong commitment both to its customers' needs and to environmental and community responsibility.



PolyBelt™ curing with impression fabric



Rolling Carryflex™ after manufacturing



NCA is well-stocked with belting options



State-of-the-art belting fabrication

GLOBAL SUPPORT



Distribution and Sales in the Western Hemisphere

Distributor Coverage in All Regions

Nitta Corporation of America's extensive international distribution network ensures that customers throughout the Americas have easy access to Nitta products, service, and support. NCA works with local, national, and multinational distributors across the U.S., Canada, Mexico, South America, and Central America. Many of these distributors stock and fabricate Nitta products and provide on-site technical expertise.

Knowledgeable, Experienced Sales Force

NCA's sales representatives are trained in all aspects of Nitta's diverse product line and are positioned throughout North America to respond quickly to customer needs. Along with Nitta of Brazil's sales team in South America, they are ready to answer all questions and provide knowledgeable recommendations regarding Nitta's complete range of belting, as well as hose, tubing and fittings, and industrial wiper products.

NITTA Locations

Nitta Corporation is based in Osaka, Japan, and is represented in the Americas by Nitta Corporation of America and its South American counterpart, Nitta of Brazil. Other locations for Nitta Corporation can be found throughout Europe and Asia:



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Superior Product • Superior Quality • Superior Service

THE NITTA ADVANTAGE

Industrial Belting • Hydraulic Hose • Pneumatic Tubing • Wipers

“The Nitta Advantage” brings better overall product performance and value to the customer (end user):

- **Highest Quality Products** •

Rugged, durable, long-lasting, and quick to install

- **Dedicated Research** •

Nitta R&D has developed exclusive products for industries served, along with continued development of nylon core belting

- **Adaptability and Problem Solving** •

Nitta's experts can look at trouble spots on-site, improving efficiency by finding the right product for each application, and ensuring correct endless procedures and installation

- **Testing Programs** •

To prove value and establish baselines

- **Guaranteed Performance Program** •

To demonstrate Nitta products are superior

- **Very Knowledgeable and Helpful Support** •

Nitta's high level of customer commitment doesn't just stop once the sale is made

- **End User Focus** •

Developing demand for Nitta products by doing the right thing for the end user

- **Locally Made** •

Nitta is the only worldwide belting company with nylon core and aramid cord production in the U.S.

- **Best Value** •

Nitta shows a measurable overall cost savings on total performance at each location as a direct result of using Nitta products, focused on reduced downtime, higher speeds, and less quality issues with finished goods

These are all things the competition doesn't do or doesn't have.



**NITTA CORPORATION
OF AMERICA**