



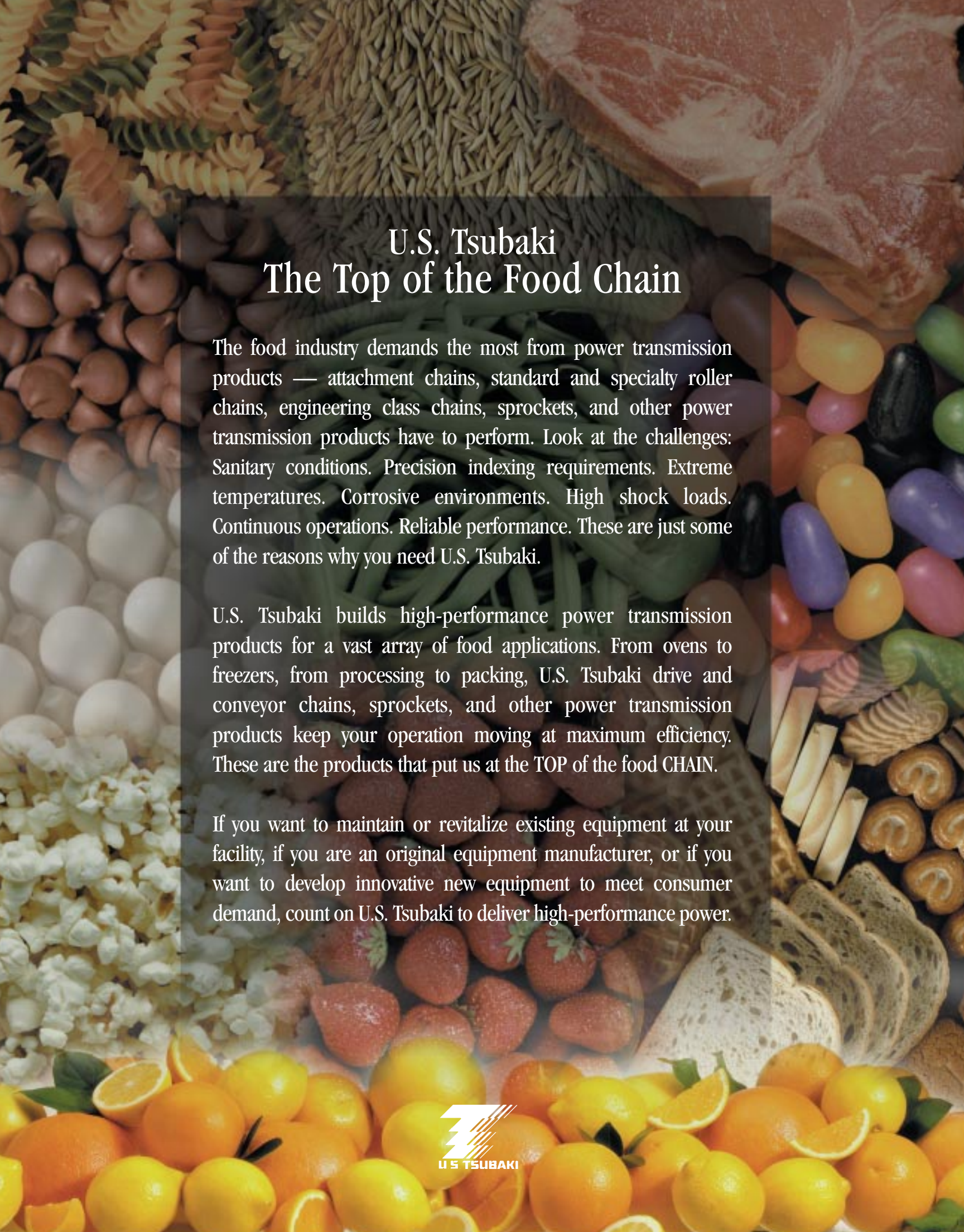
U.S. Tsubaki, Inc.

Food Industry Products

Power and Performance

For the Food Industry





U.S. Tsubaki The Top of the Food Chain

The food industry demands the most from power transmission products — attachment chains, standard and specialty roller chains, engineering class chains, sprockets, and other power transmission products have to perform. Look at the challenges: Sanitary conditions. Precision indexing requirements. Extreme temperatures. Corrosive environments. High shock loads. Continuous operations. Reliable performance. These are just some of the reasons why you need U.S. Tsubaki.

U.S. Tsubaki builds high-performance power transmission products for a vast array of food applications. From ovens to freezers, from processing to packing, U.S. Tsubaki drive and conveyor chains, sprockets, and other power transmission products keep your operation moving at maximum efficiency. These are the products that put us at the TOP of the food CHAIN.

If you want to maintain or revitalize existing equipment at your facility, if you are an original equipment manufacturer, or if you want to develop innovative new equipment to meet consumer demand, count on U.S. Tsubaki to deliver high-performance power.



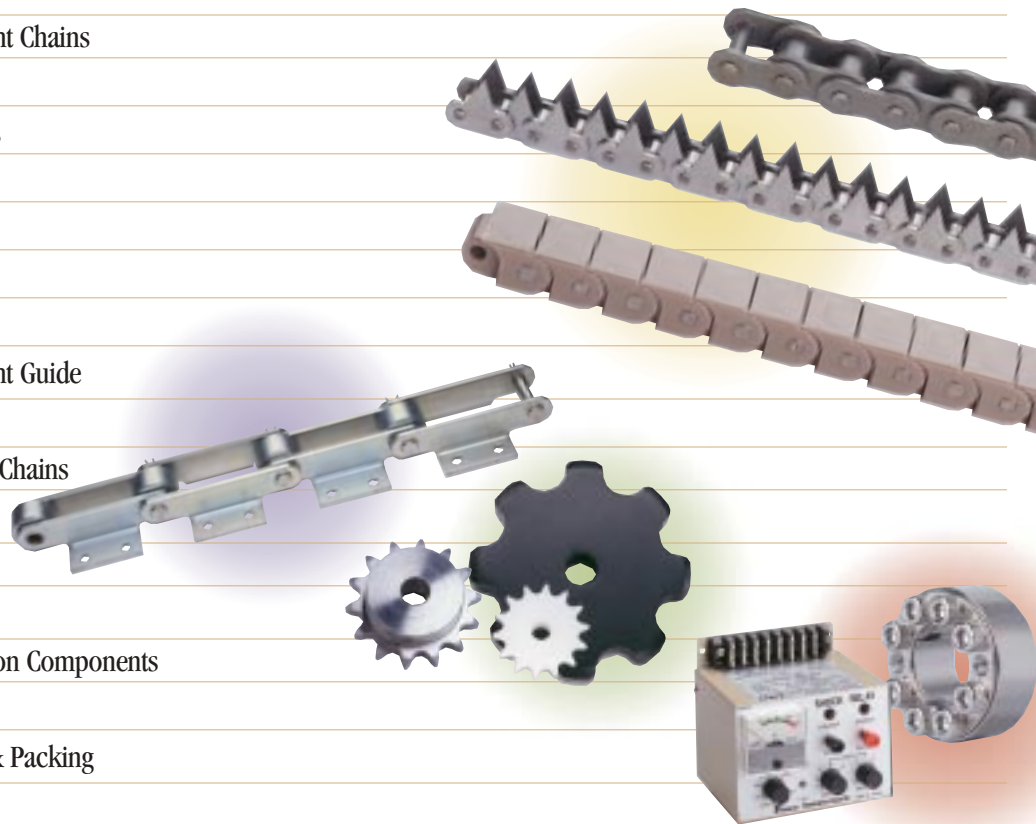
Taking Food Equipment to the Next Level of Performance

U.S. Tsubaki is the top of the food chain. We build reliable, high-performance roller chains, engineering class chains, sprockets, and other power transmission products that you can count on for your operation.

We understand the diverse challenges of the food industry. A sugar refiner and a meat processor have different concerns. Yet they both need reliable performance in demanding conditions. Our products are designed to solve your problems. We focus our technology, our engineers, and our manufacturing processes to address your issues. We maintain large inventories of ready-to-ship products as well as a wide variety of components in stock, ready for assembly for thousands of applications. We design innovative new products that address specific issues. And we can respond quickly to made-to-order and special requirements. You get prompt service and quick turnaround on your orders, reducing your downtime.

Protect your profits with products designed for the food industry from U.S. Tsubaki.

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The U.S. Tsub

Corrosion-Resistant Chains • RS Roller Chains Attachment Chains • Plastic Chains • LAMBDA® Chains Specialty Chains • MTO Capabilities

U.S. Tsubaki Stainless Steel Chains, Roller Chains, Attachment Chains, Plastic Chains, LAMBDA Chains, and Specialty Chains provide real value — lower maintenance costs, fewer replacement charges, increased productivity, and less downtime.

Corrosion-Resistant Chains from U.S. Tsubaki move the food industry. If your application is in highly corrosive environments due to frequent washdowns, exposure to moisture, or direct contact with food, put our innovative, long-lasting Corrosion-Resistant Chains to work.

We offer the widest selection of Corrosion Resistant Chains in the industry — including food-grade stainless steel to meet your requirements:

- 
- 304 (SS) Stainless** High or low temperatures and corrosive environments, including acids and alkalis.
 - 316 (NS) Stainless** For highly corrosive environments, an extended range of low to high temperatures, and nonmagnetic applications.
 - 600 (AS) Stainless** Hardened components provide the highest load capacity and wear resistance in a stainless steel chain.
 - LS Chain** New technology! Lube-free stainless steel chains for long wear life in corrosive environments without additional lubrication.
 - ULTRA WP™** The strength of carbon steel plus corrosion resistance approaching stainless steel in a chain that won't flake or peel.
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Tsubaki Food Chain



U.S. Tsubaki offers the widest range of power transmission products for the food and kindred product processing industries. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

For these conditions...

U.S. Tsubaki has solutions...

High temperatures

Engineering Class Baking Oven Chains
 Engineering Class Proofer Oven Chains
 Engineering Class Roller Conveyor Chains & Sprockets
 Engineering Class Drive Chains & Sprockets
 Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®
 SHOCK RELAY

Direct contact with food

Fish Cake Chains
 Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®



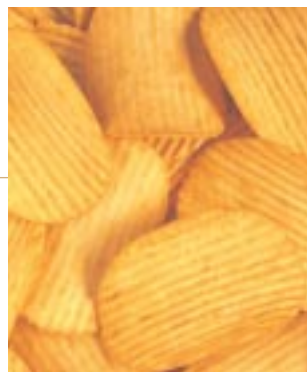
Highly corrosive conditions

Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®
 LS Chains
 Plastic Chains & Sprockets
 DISCO Variator

Requires no lubrication

LAMBDA® Chains
 Plastic Chains & Sprockets
 LS Chains

Frequent washdowns



Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®
 ULTRA WP™ Chains & Sprockets
 LS Chains
 Plastic Chains & Sprockets
 DISCO Variator

High shock loads

RS Roller Chains & Sprockets
 Engineering Class Chains & Sprockets
 Roller Conveyor Chains
 SHOCK RELAY
 POWER-LOCK®

Precise indexing operations

RS Roller Chains & Sprockets
 Attachment Chains
 Apron Chains
 POWER-LOCK®
 SHOCK RELAY

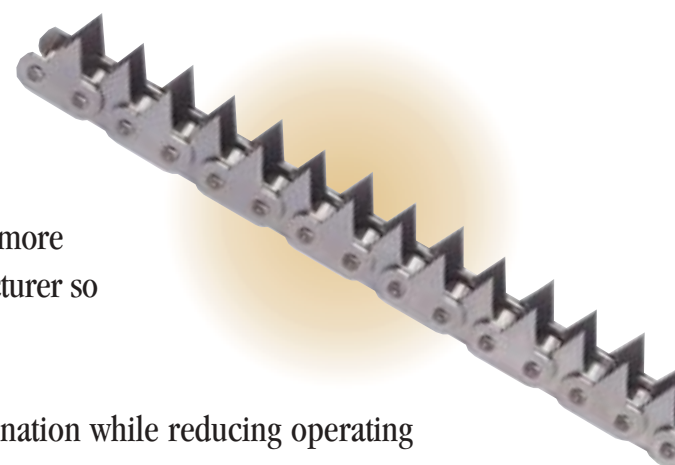


*Engineering Class Sprockets can be made to order for any specialty chain.

The U.S. Tsub



Attachment Chains are our #1 business and we maintain more styles and types — more than 46,000 — than any other manufacturer so you get the chain and attachments you need quickly.



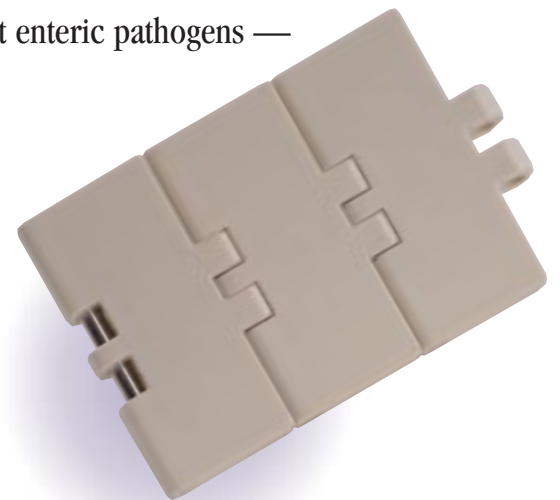
Lightweight **Plastic Chains** that eliminate metallic contamination while reducing operating costs for many food applications.



LAMBDA® Chains require no additional lubrication, so you can use them in any application where lube could interfere with product or processes.

Plus U.S. Tsubaki has hundreds of **Specialty Chains** for thousands of special applications. For example, our **Antimicrobial Chains** feature revolutionary new technology that resist enteric pathogens — including e. coli — in an operation.

Are you still looking for just the right chain for your operation? Then count on U.S. Tsubaki **MTO Capabilities** to design and manufacture a chain to meet your needs. Our team of experienced engineers and manufacturing experts can move quickly to keep an application running at peak performance.



U.S. Tsubaki — The Top of the Food Chain

Tsubaki Food Chain

U.S. Tsubaki offers the widest range of power transmission products for the sugar and confectionery processing industry. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

For these conditions...

U.S. Tsubaki has solutions...

Sugar refining

Bagasse Carriers
Barloop Chains
Drop Forged Rivetless Chains & Sprockets
Welded Steel Chains with Attachments
Cast Combination Chains with Attachments
Kush Kush Conveyors
Cross Feed Wash Station Engineering Chains
Main Cane Carriers



Frequent washdowns

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
Nickel-Plated Chains & Sprockets
Chrome-Plated Chains & Sprockets
ULTRA WP™ Chains & Sprockets
LS Chains
DISCO Variator

Highly corrosive conditions

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
Plastic Chains & Sprockets

Lubrication cannot be applied

LAMBDA® Chains
Plastic Chains & Sprockets
LS Chains



Direct contact with food

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
LS Chains

High shock loads

RS Roller Chains & Sprockets
Engineering Class Chains & Sprockets
SHOCK RELAY
POWER-LOCK®

Extreme temperatures >1100°F

Special Exotic Stainless Steel Chains

Extreme temperatures

Premium Alloy Steel Chains

Variable speeds

Engineering Class Chains & Sprockets
RS Roller Chains & Sprockets
DISCO Variator

Precise indexing applications

RS Roller Chains & Sprockets
Precision Engineering Class Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

*Engineering Class Sprockets can be made to order for any specialty chain.

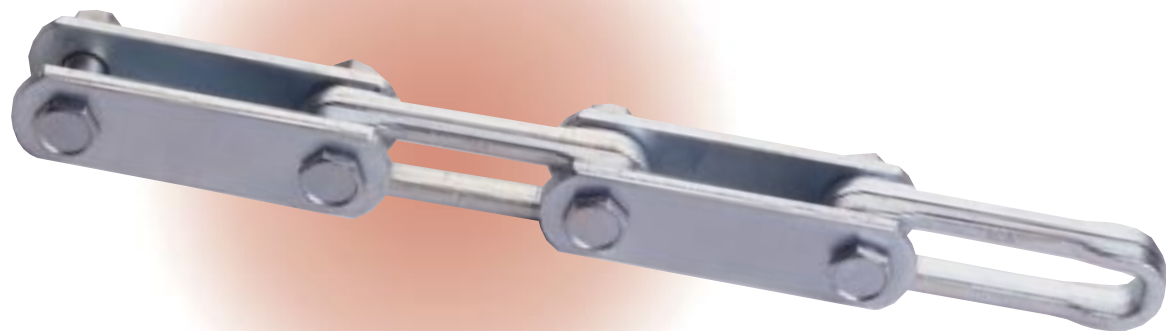
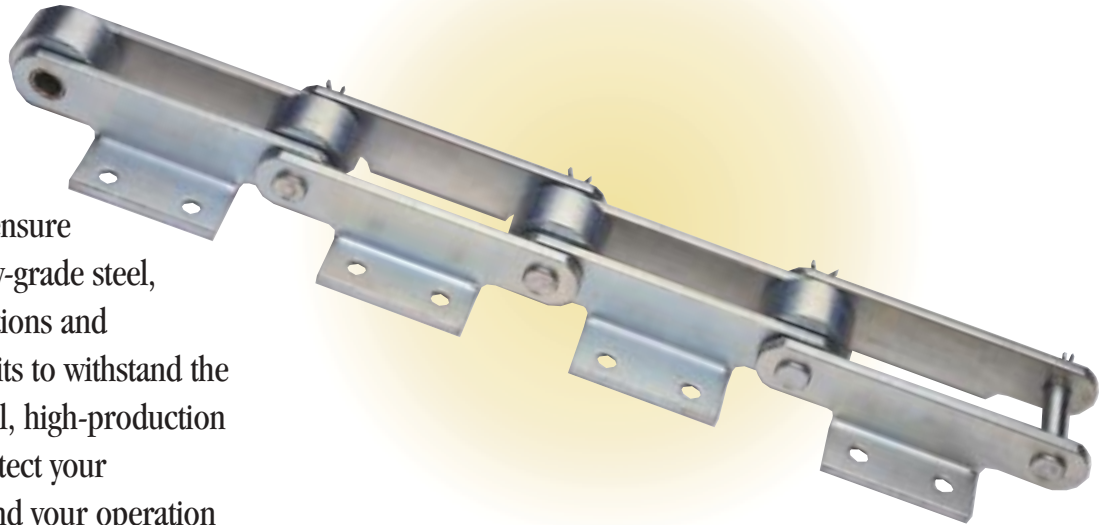
The U.S. Tsub

Engineering Class Chains

U.S. Tsubaki Engineering Class Chains start with the high-performance base materials to ensure increased wear life. We use alloy-grade steel, heat-treated to precise specifications and assembled with accurate press-fits to withstand the requirements of today's powerful, high-production food processing equipment. Protect your investment in your equipment and your operation with U.S. Tsubaki Engineering Class Chains.

Our experienced design engineers understand the particular challenges of the food industry. We offer heavy-duty chains designed specifically to meet the demanding needs of the food processing industry — from drop forged rivetless chain and welded stainless steel chain to a variety of special platings used specifically on bottle washers, red meat packing equipment, and more — all designed to prolong wear life under rigorous operating conditions.

We maintain large inventories of strong, reliable, ready-to-ship products as well as a wide variety of components in stock, ready for assembly. You get prompt service and quick turnaround on your orders, reducing your downtime.



Tsubaki Food Chain

Make your system — and your profits — rise to any occasion. Your profits are on the line every day. Count on U.S. Tsubaki to deliver innovative, cost-effective power transmission products that keep your operation running at maximum capacity.

U.S. Tsubaki offers the widest range of power transmission products for bakery applications. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

For these conditions...

U.S. Tsubaki has solutions...

High temperatures

Engineering Class Baking Oven Chains
 Engineering Class Proofer Oven Chains
 Engineering Class Roller Conveyor Chains & Sprockets
 LAMBDA® Chains
 Stainless Steel Chains & Sprockets
 Steel-Slat Oven Conveyor Chains
 Tray-Type Oven Conveyor Chains
 Roller Conveyor Proofer Chains

Heavy case loads

Engineering Class Chains & Sprockets
 Engineering Class Sprockets
 Bar and Pin Chains
 POWER-LOCK®
 SHOCK RELAY
 DISCO

Vertical configurations



Engineering Class Baking Oven Chains
 Engineering Class Proofer Oven Chains
 Engineering Class Sprockets
 RS Roller Chains & Sprockets
 Small Bucket Elevator Chains & Sprockets
 POWER-LOCK®
 SHOCK RELAY
 DISCO

Frequent changeovers

Engineering Class Chains & Sprockets
 RS Roller Chains & Sprockets
 POWER-LOCK®

Frequent washdowns

Attachment Chains & Sprockets
 Stainless Steel Chains & Sprockets
 Delrin (Acetal) Bushed Conveyor Chains
 Chrome-Plated Chains & Sprockets
 ULTRA WP™ Chains & Sprockets
 Stainless Steel POWER-LOCK®
 Nickel-Plated Chains & Sprockets

Highly corrosive conditions

Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®
 Nickel-Plated Chains & Sprockets
 LS Chains
 Plastic Chains & Sprockets
 DISCO Variator

Lubrication cannot be applied

LAMBDA® Chains
 Plastic Chains & Sprockets
 LS Chains

Direct contact with food

Stainless Steel Chains & Sprockets
 Stainless Steel POWER-LOCK®

*Engineering Class Sprockets can be made to order for any specialty chain.

The U.S. Tsub

Sprockets • Stainless Steel Sprockets ULTRA WP™ Sprockets

Chains and sprockets must work together, so buying them from the same source makes sense. When chains and sprockets articulate correctly, the life of the chain is extended. That means real value and long-term savings for your operation.

U.S. Tsubaki manufactures sprockets that last. We start with strong, carefully selected base materials to ensure long wear life and reliable performance. The result is lower operating costs and improved productivity because downtime for repair and maintenance is reduced.

Conditions in the food industry put special demands on sprockets. U.S. Tsubaki has solutions. If your application is in highly corrosive environments due to frequent washdowns, exposure to moisture, or direct contact with food, put one of our long-lasting Stainless Steel Sprockets to work. Stainless Steel Sprockets are available for food grade or nonfood grade applications. Or choose ULTRA WP™ Sprockets to get the strength of carbon steel



with corrosion resistance approaching stainless steel without flaking or peeling in the most demanding conditions.

U.S. Tsubaki is the only manufacturer in the United States that builds Roller Chains, Engineering Class Chains, and Sprockets. That means you get chains and sprockets that work together every time, reducing operational hassles. You deal with a single, reliable supplier, simplifying everything from deliveries to accounts payable. And you take advantage of our skilled engineering and production teams who can answer your questions and keep your operation running smoothly.

Tsubaki Food Chain



U.S. Tsubaki offers the widest range of power transmission products for the grain mill industry. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

For these conditions...

U.S. Tsubaki has solutions...

Vertical lifting

Bucket Elevator Chains
Engineering Class Roller Conveyor Chains & Sprockets
Engineering Class Drive Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

Heavy case loads

Engineering Class Roller Conveyor Chains & Sprockets
Engineering Class Drive Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

High temperatures

Engineering Class Roller Conveyor Chains & Sprockets
Engineering Class Drive Chains & Sprockets
Stainless Steel Chains & Sprockets
RS Roller Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

Frequent washdowns

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
ULTRA WP™ Chains & Sprockets
ULTRA WP Engineering Class Chains & Sprockets
Nickel-Plated Chains & Sprockets

Highly corrosive conditions

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
Plastic Chains & Sprockets

Lubrication cannot be applied

LAMBDA® Chains
Plastic Chains & Sprockets
LS Chains

Direct contact with food

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®

*Engineering Class Sprockets can be made to order for any specialty chain.

The U.S. Tsub

Meat Processing & Packing U.S. Tsubaki is a Cut Above



Sanitary washdowns, high humidity, caustic or acidic environments, high shock loads — meat processing and packing take a heavy toll on chains and sprockets. Don't let corrosion and premature wear eat away at your profits. We offer thousands of standard, lube-free, and corrosion-resistant chains and sprockets that perform in the most demanding conditions. Our forged chain construction methods reduce surface pitting, eliminating places where pathogens can grow. And our sprockets cut down on chain-joint wear on overhead processing lines, extending the life of the chain and increasing your bottom line.

U.S. Tsubaki delivers:

- **ULTRA WP™ Chains and Sprockets**, which last longer than nickel- or zinc-plated chains and sprockets in sanitary washdowns without flaking or peeling, keeping your lines running longer.
- **LAMBDA® Chains**, which require no additional post-lubrication, making them ideal for operations where the chain cannot be lubed.
- **ULTRA WP™ LAMBDA® Chain** — a U.S. Tsubaki innovation — for super-long-lasting lube-free performance in harsh, wet environments with less chain elongation and longer operating life.
- **600(AS) Stainless Steel Chain** — the strongest stainless steel available — which handles high loads in corrosive environments and keeps your operation running.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in corrosive environments.
- **Extended pitch attachment chains** that resist corrosion from frequent washdowns so you can run vacuum-packing machines longer.
- **Chains and sprockets** that help you meet sanitation goals, HACCP System regulations, and agency inspectors' requirements.
- **Overhead conveyor chains** that resist corrosion and flaking, even after hundreds of washdowns, which means longer wear life.
- **Long-lasting RS Roller Chain** — the best ANSI standard chain in the industry — in the sizes and lengths you need.
- **Thousands of attachment chains** — including specialty chains developed for the meat and poultry industries — in stock and ready for shipment when you need them.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.

Tsubaki Food Chain

For these conditions...

U.S. Tsubaki has solutions...

Extreme heat

Dehydrator Oven Chains
Can Cooker Chains
Dryer Chains
Sterilizer Chains
Stainless Steel Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

Extreme humidity

Can Cooker Chains
Wash Chains
Sterilizer Chains
Stainless Steel Chains & Sprockets
ULTRA WP™ Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

Extreme cold

KT Chains
Ice Cream Bar Processing Chains
Stainless Steel Chains & Sprockets
SHOCK RELAY
POWER-LOCK®

Highly corrosive conditions

Can Cooker Chains
Engineering Steel Roller Chains
Engineering Class Sprockets
Can Closer Chains
Citrus Sorting Chains
Stainless Steel Hollow Pin Chains
Stainless Steel GK1 Attachment Chains
Welded Steel Chains
Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
SHOCK RELAY
DISCO

Heavy case loads

Conveyor Chains & Sprockets
Crate Carrier Chains
SHOCK RELAY

Frequent washdowns

Wash Chains
Corn Washer Chains
Stainless Steel Chains & Sprockets
ULTRA WP™ Chains & Sprockets
LS Chains
DISCO Variator

High speed lines

Conveyor Chains & Sprockets
Double Pitch Steel Roller Chains & Sprockets
Can Feeder Chains
SHOCK RELAY

Continuous operation

RS Roller Chains & Sprockets
POWER-LOCK®
SHOCK RELAY



*Engineering Class Sprockets can be made to order for any specialty chain.

The U.S. Tsub

Dairy Processing Why the Difference and Choose U.S. Tsubaki



Daily washdowns, high temperatures, freezing temperature, precise indexing requirements for filling lines — the dairy industry puts great demands on power transmission components. Keep your operation running at peak capacity even through wet and caustic conditions. Our vast array of high-quality, reliable power transmission products stands up to sanitary washdowns, humidity, extreme temperatures, and filling requirements. Our special manufacturing methods reduce surface pitting, eliminating places where enteric pathogens can grow. We have the products you need to maintain or improve productivity.

U.S. Tsubaki delivers:

- **ULTRA WP™ Chains and Sprockets** provide the strength of carbon steel with corrosion resistance approaching stainless steel for longer wear life in wet conditions.
- **600(AS) Stainless Steel Chains** which meet FDA requirements and *offer 50 percent greater load capacity* than standard 304 stainless for longer wear life and less downtime.
- **Food grade Stainless Steel Sprockets** to meet USDA regulations.
- **UP (Ultra Polymer) POWER-LOCK®** to meet the precise indexing and thrust capability requirements of milk carton filling equipment — USDA approved, it outlasts carbon steel, which corrodes, and stainless steel, which can't handle the torque.
- **ULTRA WP™ Drop Forged Chains** that last longer than standard chain in ground case conveyors where soap and water are used as lubricants.
- **LAMBDA® Chains** for long-lasting, lube-free performance, reducing maintenance costs and unscheduled downtime.
- **A wide range of chains and sprockets** that stand up to temperature extremes — from freezers to pasteurizers — and ultra-high production demands.
- **Huge inventory of strong, long-lasting attachment chains**, roller chains, engineering class chains, and sprockets in stock and ready for quick delivery to keep your lines running at peak performance.
- **Strong corrosion-resistant products** that stand up to a variety of sanitation requirements, frequent washdowns, even exposure to caustics or acids.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.



Tsubaki Food Chain



The dairy industry is moving quickly. Your products — and your profits— are on the line every day. Choose the cream of the crop — U.S. Tsubaki.

U.S. Tsubaki offers the widest range of power transmission products for the dairy industries. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

If your operation involves...

U.S. Tsubaki offers...

Heavy case weights

Dairy Case Conveyor Chains & Sprockets
Roller Conveyor Chains & Sprockets
Engineering Class Chains & Sprockets
POWER-LOCK®
SHOCK RELAY

Extreme hot or cold

Sterilizer Chains
Stainless Steel Chains & Sprockets
Bottle Washer/Pasteurizer Chains
Ice Cream Bar Processing Chains

Variable speeds

DISCO Variator

Frequent washdowns

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
ULTRA WP™ Chains & Sprockets
Nickel-Plated Chains & Sprockets

Highly-corrosive conditions

Sterilizer Chains
Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
Plastic Chains & Sprockets

Lubrication can't be applied

LAMBDA® Chains
Plastic Chains & Sprockets
LS Chains

Direct contact with food

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
LS Chains

*Engineering Class Sprockets can be made to order for any specialty chain.

The U.S. Tsub

Canned and Frozen Foods

To Preserve and Protect Your Operation



Canned and frozen product processing can be tough on conveyor lines — and on profits. That's why you need U.S. Tsubaki. Our chains, sprockets, and power transmission components are built for peak performance under extreme temperatures, pressure, high speeds, and humidity. When applications threaten to destroy your lines, U.S. Tsubaki has the cure.

U.S. Tsubaki delivers:

- **600(AS) Stainless Steel Chains**, which meet FDA requirements and *offer 50 percent greater load capacity* than standard 304 stainless — giving you longer wear life to make the most of every harvest.
- **LAMBDA® Chains** — lube-free for operations where oil could contaminate fruits, vegetables, or finished goods on line, keeping your profits on track.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in corrosive environments.
- **Antimicrobial Chains** to reduce the risk of enteric pathogens in your plant, processes, and products.
- **Strong, reliable Engineering Class Chains** that are treated and press fit to handle maximum-capacity conveying, elevating, and palletizing applications in steam and ice.
- **Roller chains** manufactured to tight tolerances for precise indexing applications, keeping racks in position for uniform labeling.
- **ULTRA WP™ Chains and Sprockets** that combine the strength of carbon steel with corrosion resistance approaching stainless steel for cost-effective performance without flaking and contaminating products on line.
- **Chains with special bushings and bearings** that are engineered to tolerate high heat and steam, moving products through ovens and pressure cookers.
- **Chains and sprockets that engage smoothly** to prevent misalignment on high speed canning lines.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.
- **ONE-TOUCH INSPECTION DOOR®** — for easy access and inspections without stopping a line.

Get the cure for tough applications that can damage your lines — and your profits.

Choose U.S Tsubaki.

U.S. Tsubaki offers the widest range of power transmission products for the canned and frozen product processing industry. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

Tsubaki Food Chain

Your profits are on the line every day. Count on U.S. Tsubaki to deliver innovative, cost-effective power transmission products that keep your operation running at prime capacity.

U.S. Tsubaki offers the widest range of power transmission products for the meat processing and packing industries. Here are just some of the chains, sprockets, and components that can improve your operation — and your bottom line.

For these conditions...

U.S. Tsubaki has solutions...

Frequent washdowns

Delrin (Acetal) Bushed Conveyor Chains
Drop Forged Rivetless Chains & Sprockets
Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
ULTRA WP™ Chains & Sprockets
DISCO Variator
Nickel-Plated Chains & Sprockets
LS Chains

Highly corrosive conditions

Delrin (Acetal) Bushed Conveyor Chains
Drop Forged Rivetless Chains & Sprockets
Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®
Plastic Chains & Sprockets

Lubrication cannot be applied

LAMBDA® Chains
Plastic Chains & Sprockets
LS Chains

Direct contact with food

Stainless Steel Chains & Sprockets
Stainless Steel POWER-LOCK®

High shock loads

RS Roller Chains & Sprockets
Engineering Class Chains & Sprockets
Drop Forged Rivetless Chains & Sprockets
SHOCK RELAY
POWER-LOCK®

Precise speed regulation

DISCO Variator

*Engineering Class Sprockets can be made to order for any specialty chain.



The U.S. Tsub

Grain Mill Products

Reap the Benefits of U.S. Tsubaki



Turning profits on a bumper crop demands equipment that performs. Moving heavy weights. Dusty conditions. Sanitary requirements. Continuous production cycles. High volume operations. You need a power transmission system that keeps its nose to the grindstone. You need U.S. Tsubaki. Our power transmission products are built for productivity — even when dust fills the air.

U.S. Tsubaki delivers:

- **Heavy-duty Engineering Class Chains** that can handle high tonnage requirements to increase your productivity.
- **Bucket Elevator Chains** that optimize an operation: high output with lower power consumption.
- **ULTRA WP™ Chains and Sprockets**, which combine the strength of carbon steel with corrosion resistance of stainless steel, standing up to humidity and temperatures of drying lines better than other chains.
- **LAMBDA® Chains** — the unique patented design provides long wear life without post lubrication to keep your products — and profits — running without oil contamination.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in corrosive environments.
- **A wide range of conveyor chains** to quickly move your products from mill to market.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.
- **Roller chains with greater fatigue strength**, higher horsepower ratings, and less initial stretch for the longest wear life for your dollar.
- **Attachment chains** for cost-effective handling of specialty products that require unique processing.
- **ONE-TOUCH INSPECTION DOOR®** — for easy access and inspections without stopping a line.

Your profits are on the line every day. Count on U.S. Tsubaki to deliver innovative, cost-effective power transmission products that keep your operation running at maximum capacity.



Tsubaki Food Chain

Power Transmission Components



Build reliability into your system with components and accessories from U.S. Tsubaki.

POWER-LOCK® securely attaches sprockets, gears, or cams to shafts without the need for keyways. Eliminate backlash. This easy-to-install unit slides into position and offers a keyless shaft-hub lock. It handles both high torque, shock, and thrust while actually increasing the strength of the shaft. In addition to our standard POWER-LOCK, we offer Stainless Steel POWER-LOCK to lock on sprockets, gears, or cams in corrosive conditions and UP (Ultra Polymer) POWER-LOCK which is USDA approved for food applications. The choice is clear. Put the power of your equipment to work with POWER-LOCK.



SHOCK RELAY, the electronic shear pin, protects against unexpected shock loads that can damage equipment and destroy product. The adjustable device detects a problem before it becomes serious, stopping the line and saving time and money. It resets at the touch of a button, improving efficiency and reducing downtime.



DISCO Variator lets you adjust line speed to meet specific product requirements. The compact design allows easy integration into your system. Combinations of shaft in/shaft out, Nemaflange, or integral motor permit maximum flexibility. Install DISCO Variator where you need to vary the speed.

ONE-TOUCH INSPECTION

DOOR® provides easy access to any conveyor line. These prefabricated steel doors seal out dust and rain but permit line inspections by simply lifting the handle. Improve sanitation procedures on line.

Clear a jam. Pull samples for quality control. Check an operation quickly and easily. You can't build better access to your lines.



The U.S. Tsub

Bakery Products Rise to Any Occasion



In an industry that thrives on freshness, downtime is lost money. You need equipment that performs at peak capacity. Our products are built for versatility. We offer reliable, long-lasting drive chains, conveyor chains, and attachment chains to handle your complete product line of perishable, dry, or frozen baked goods. We have chains and sprockets that can handle extreme temperatures. And our lube-free and corrosion-resistant products stand up to damage caused by salt, seeds, and fines. Our complete line of high-performance power transmission products has the breadth to take you to the top.

U.S. Tsubaki delivers:

- **ULTRA WP™ Chains and Sprockets**, which combine the strength of carbon steel with corrosion resistance of stainless steel, standing up to humidity and temperatures of drying lines better than other chains.
- **LAMBDA® Chains** — lube-free and heat-resistant to reduce maintenance costs and unscheduled downtime. Keep your products — and profits — running at peak capacity.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in corrosive environments.
- **Engineering Class Chains** with press fit sideplates to prevent dust or dirt getting into the rolling mechanism and causing premature wear.
- **Stainless Steel Chains and food-grade Stainless Steel Sprockets** to resist corrosion, even in washdown conditions and high temperatures.
- **Plastic Chains and Sprockets** to eliminate the possibility of product contamination, improving quality in every batch.
- **Stainless Steel Chains with Plastic Sleeves** to reduce chain elongation in high-speed applications.
- **Antimicrobial Chains** to reduce the risk of enteric pathogens in your plant, processes, and products.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.
- **Thousands of attachment chains** — including specialty chains developed for forming and pan/lid conveying applications.
- **Strong, corrosion-resistant products** that stand up to harsh operating conditions, frequent washdowns, and a variety of sanitation requirements.
- **Precision length chain strands** that are matched and tagged to keep double-strand equipment running at optimum performance.
- **ONE-TOUCH INSPECTION DOOR®** — for easy access and inspections without stopping a line.

Tsubaki Food Chain

With U.S. Tsubaki Engineering Class Chains, you get reliable performance day after day and month after month, which means:

- Longer wear life in the most demanding conditions
- Predictability of operation
- Lower replacement costs
- Less downtime for maintenance
- Increased productivity



The U.S. Tsub

Sugar & Confectionery Processing Sweeten Your Profits



U.S. Tsubaki moves the confectionery industry every step of the way — from sugar refineries to final consumer packaging lines. U.S. Tsubaki engineering class chains, roller chains, attachment chains, sprockets, and power transmission components offer the reliable performance you need for sweet deals. And our long line of standard, lube-free, and corrosion-resistant chains and sprockets deliver high-value operations in manufacturing and packaging applications.

U.S. Tsubaki delivers:

- **Engineering Class Chains** with press fit sideplates to prevent dust or dirt getting into the rolling mechanism and causing premature wear while handling the tonnage requirements in modern sugar mills.
- **Stainless Steel Chains and food grade Stainless Steel Sprockets** to resist corrosion, even in wet and sanitary washdown conditions.
- **LAMBDA® Chains** — lube-free operation when oil could contaminate products or ruin packaging on line.
- **Antimicrobial Chains** to reduce the risk of enteric pathogens in your plant, processes, and products.
- **ULTRA WP™ Chains and Sprockets**, which combine the strength of carbon steel with corrosion resistance of stainless steel, standing up to humidity and temperatures better than other chains.
- **Plastic Chains and Sprockets** to eliminate the possibility of product contamination, improving quality in every batch.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in sanitary applications.
- **Easy-to-install carrier slats** that let you maximize a sugar harvest by minimizing downtime.
- **Roller chains** built for precision performance at fast line speeds to ensure consistency in indexing applications.
- **Thousands of attachment chains** — including specialty chains developed for delicate molding, packaging, and indexing drives.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.
- **ONE-TOUCH INSPECTION DOOR®** — for easy access and inspections without stopping a line.

Sweeten your production capabilities — and your profits. Your profits are on the line every day. Count on U.S. Tsubaki to deliver innovative, cost-effective power transmission products that keep your operation running at maximum capacity.

aki Food Chain

Corrosion Resistance Guide

1. HIGHLY CORROSION RESISTANT
2. PARTIALLY CORROSION RESISTANT
3. NOT CORROSION RESISTANT

Substance	Concentration	Temp. °F	AS	SS	NS	TI	PC	PC-SY
Acetic Acid	10%	68	1	1	1	1	1	1
Acetone		68	1	1	1	1	1	3
Alcohol			1	1	1	1	1	1
Aluminum Sulfate	Saturation	68	3	1	1	1	—	—
Ammonia Water		68	1	1	1	1	1	1
Ammonium Chloride	50%	Boiling	3	2	1	1	—	—
Ammonium Nitrate		Boiling	1	1	1	1	2	1
Ammonium Sulfate	Saturation	Boiling	2	1	1	1	—	—
Beer		68	1	1	1	1	1	1
Benzene		68	1	1	1	1	1	1
Boric Acid	50%	Boiling	1	1	1	1	—	—
Butyric Acid		68	1	1	1	1	1	—
Calcium Chloride	Saturation	68	3	2	1	1	2	1
Calcium Hydroxide	20%	Boiling	1	1	1	1	1	1
Calcium Hypochlorite	11-14%	68	3	1	1	1	3	1
Carbolic Acid			1	1	1	1	3	1
Carbon Tetrachloride (dry)		68	1	1	1	1	1	1
Chlorinated Water			3	3	1	1	3	—
Chlorine Gas (dry)		68	3	2	2	1	—	1
Chlorine Gas (moist)		68	3	3	2	1	—	1
Chromic Acid	5%	68	2	1	1	1	3	1
Citric Acid	50%	68	1	1	1	1	—	1
Coffee		Boiling	1	1	1	1	1	1
Creosote		68	1	1	1	1	—	—
Developing Solution		68	2	1	1	1	1	1
Ethyl Ether		68	1	1	1	1	1	1
Ferric Acid	50%	68	1	1	1	1	3	1
Ferric Chloride	5%	68	3	2	2	1	—	—
Formalin	40%	68	1	1	1	1	—	—
Formic Acid	50%	68	1	1	1	1	3	1
Fruit Juice		68	2	1	1	1	1	1
Gasoline		68	1	1	1	1	1	1
Glycerol		68	1	1	1	1	1	1
Honey			1	1	1	1	1	1
Hydrochloric Acid	2%	68	3	3	3	1	3	1
Hydrogen Peroxide	30%	68	2	1	1	1	3	1
Hydrogen Sulfide (dry)			1	1	1	1	1	1
Hydrogen Sulfide (wet)			3	3	3	1	3	—
Hydroxybenzene		68	1	1	1	1	3	—
Kerosene		68	1	1	1	1	—	—
Ketchup		68	1	1	1	1	1	1
Lactic Acid	10%	68	2	1	1	1	1	1
Lard			1	1	1	1	—	—
Linseed Oil	100%	68	2	1	1	1	1	—
Malic Acid	50%	Boiling	1	1	1	1	1	1
Mayonnaise		68	2	1	1	1	1	1
Milk		68	1	1	1	1	1	1
Nitric Acid	5%	68	2	1	1	1	3	1
Nitric Acid	65%	68	3	1	1	1	3	1
Nitric Acid	65%	Boiling	3	2	2	1	3	3
Oil (Plant, Mineral)		68	1	1	1	1	1	1
Oleic Acid		68	1	1	1	1	1	—

Substance	Concentration	Temp. °F	AS	SS	NS	TI	PC	PC-SY
Oxalic Acid	10%	68	2	1	1	1	—	1
Paraffin		68	1	1	1	1	1	—
Petroleum		68	1	1	1	1	1	1
Phosphate			1	1	1	1	—	—
Phosphoric Acid	5%	68	2	1	1	1	3	1
Phosphoric Acid	10%	68	2	2	2	1	3	1
Picric Acid	Saturation	68	1	1	1	1	—	—
Potassium	Saturation	68	2	1	1	1	—	—
Potassium Bichromate	10%	68	1	1	1	1	1	—
Potassium Chloride	Saturation	68	2	1	1	1	—	—
Potassium Hydroxide	20%	68	1	1	1	1	1	1
Potassium Nitrate	25%	68	1	1	1	1	1	—
Potassium Nitrate	25%	Boiling	3	1	1	1	—	—
Potassium Permanganate	Saturation	68	1	1	1	1	—	1
Sal Ammoniac	50%	Boiling	3	2	1	1	—	—
Sea-Water		68	3	2	1	1	2	1
Soap-and-Water-Solution		68	1	1	1	1	1	—
Sodium Carbonate	Saturation	Boiling	1	1	1	1	—	—
Sodium Chloride	5%	68	2	1	1	1	1	1
Sodium Cyanide		68	—	1	1	1	—	—
Sodium Hydrocarbonate		68	1	1	1	1	1	1
Sodium Hydroxide	25%	68	1	1	1	1	1	—
Sodium Hypochlorite	10%	68	3	3	1	1	3	1
Sodium Perchlorate	10%	Boiling	3	1	1	1	—	—
Sodium Sulfate	Saturation	68	1	1	1	1	—	—
Sodium Thiosulfate	25%	Boiling	1	1	1	1	—	—
Soft Drink		68	1	1	1	1	1	1
Stearic Acid	100%	Boiling	3	3	1	1	3	—
Sugar Solution		68	1	1	1	1	1	1
Sulfuric Acid	5%	68	3	3	1	1	3	1
Sulfur Dioxide		68	3	1	1	1	—	—
Synthetic Detergent			1	1	1	1	1	1
Syrup			1	1	1	1	1	1
Tartaric Acid	10%	68	1	1	1	1	1	1
Turpentine		95	1	1	1	1	—	1
Varnish			1	1	1	1	—	1
Vegetable Juice		68	1	1	1	1	1	1
Vinegar		68	3	2	1	1	2	1
Water			1	1	1	1	1	1
Whiskey		68	1	1	1	1	1	1
Wine		68	1	1	1	1	1	1
Zinc Chloride	50%	68	3	2	2	1	2	1
Zinc Sulfate	25%	68	1	1	1	1	—	1

Key:
AS: 600 AS Series
SS: 304 SS Series
NS: 316 NS Series
TI: Titanium TI Series
PC: Poly-Steel Chain
PC-SY: Poly Steel
Anti-Chemical Series

The U.S. Tsub

Other Food & Kindred Products

From snack chips to pasta to seafood processing, there are hundreds of unique applications that deserve special consideration. Your products and your profits are on the line every day. Make the most of both. U.S. Tsubaki manufactures a complete line of power transmission products designed to maximize efficiency, productivity, and profits. That's a powerful alliance for your facility.



U.S. Tsubaki delivers:

- **Stainless Steel Chains and food grade Stainless Steel Sprockets** that resist corrosion, even in wet and washdown conditions.
- **LAMBDA® Chains** — the unique patented design provides long wear life without post lubrication to keep your products — and profits — running without oil contamination.
- **Plastic Chains and Sprockets** to eliminate the possibility of product contamination, improving quality in every batch.
- **Stainless Steel Chains with Plastic Sleeves** to reduce chain elongation in high-speed applications.
- **Antimicrobial Chains** to reduce the risk of enteric pathogens in your plant, processes, and products.
- **LS Chain** — lube-free stainless steel chain — for maintenance-free performance in corrosive environments.
- **ULTRA WP™ Chains and Sprockets**, which combine the strength of carbon steel with corrosion resistance of stainless steel, standing up to humidity and temperatures of drying lines better than other chains.
- **Thousands of attachment chains** — including specialty chains developed for packaging, and indexing drives — designed especially for your application.
- **Special products that stand up to extreme temperature ranges** — from flash freezers to deep fryers — and ultra-high production demands.
- **Strong, corrosion-resistant products that stand up to harsh operating conditions**, frequent washdowns, and a variety of sanitation requirements.
- **Shock Relay** — the electronic shear pin — that protects products and equipment from shock load damage.
- **ONE-TOUGH INSPECTION DOOR®** — for easy access and inspections without stopping a line.

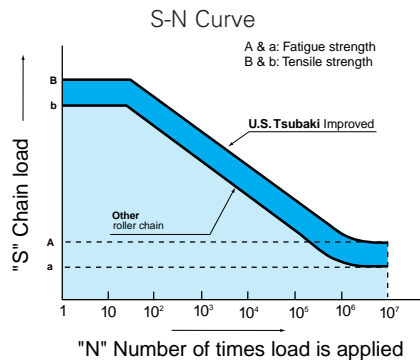
Choose a kindred company to keep your operation rolling along. Count on U.S. Tsubaki to deliver innovative, cost-effective power transmission products that keep your operation running at maximum capacity.

Tsubaki Food Chain

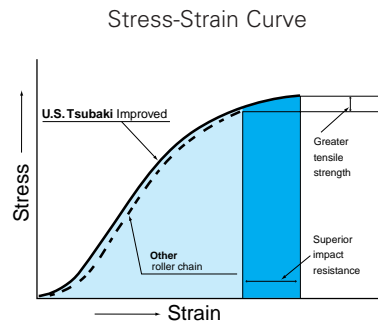
RS Roller Chains from U.S. Tsubaki are designed to last longer for cost-effective, maximum performance. When you choose RS Roller Chain, you get much more than ANSI Standards:

- 25 percent higher horsepower ratings to give you more power in the plant and to handle variable shock loads.
- 30 percent longer wear life in nonlubricated applications (pre-lube only), driving down your replacement and maintenance costs.
- Increased shock resistance and higher tensile strength for long-lasting performance in the most demanding conditions.

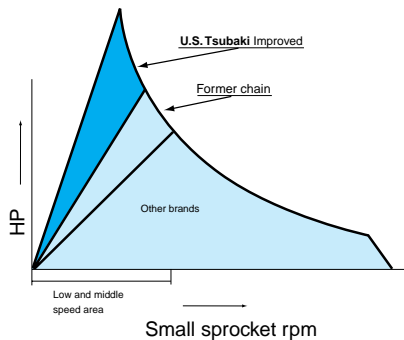
Superior Impact Resistance



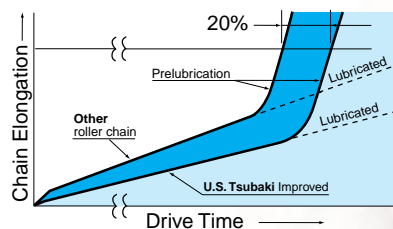
Greater Fatigue Strength



Higher Horsepower Ratings



Improved Performance and Ease of Use



Top *of the* Food Chain

Strong, Long-Lasting Products *for Your Application*

- Durable construction for longer wear life and lower maintenance costs
- Superior, reliable performance in sanitary environments
- Reliable performance for improved productivity in the toughest applications
- Value-enhanced products for innovative solutions to real operating challenges
- Complete conveyor and drive components — chains and sprockets — for 100 percent compatibility and performance



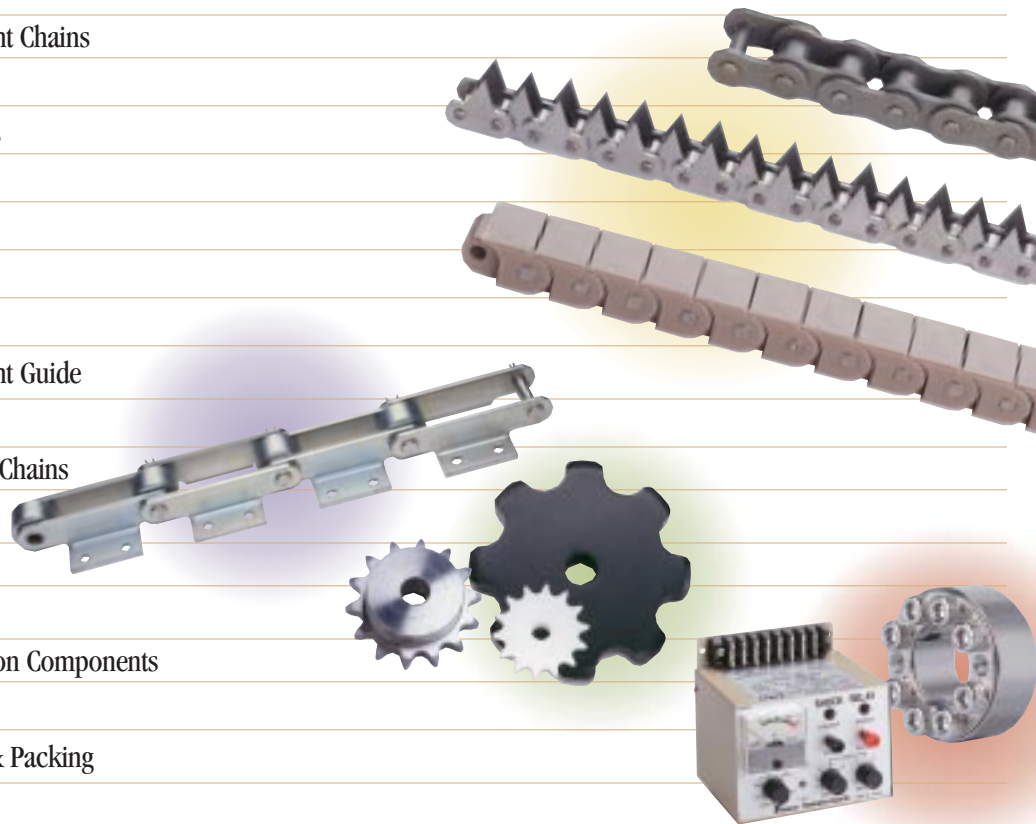
Taking Food Equipment to the Next Level of Performance

U.S. Tsubaki is the top of the food chain. We build reliable, high-performance roller chains, engineering class chains, sprockets, and other power transmission products that you can count on for your operation.

We understand the diverse challenges of the food industry. A sugar refiner and a meat processor have different concerns. Yet they both need reliable performance in demanding conditions. Our products are designed to solve your problems. We focus our technology, our engineers, and our manufacturing processes to address your issues. We maintain large inventories of ready-to-ship products as well as a wide variety of components in stock, ready for assembly for thousands of applications. We design innovative new products that address specific issues. And we can respond quickly to made-to-order and special requirements. You get prompt service and quick turnaround on your orders, reducing your downtime.

Protect your profits with products designed for the food industry from U.S. Tsubaki.

Pg.	Contents
2	Corrosion-Resistant Chains
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4	Attachment Chains
4	Plastic Chains
4	LAMBDA® Chains
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20	Sugar & Confectionery Processing
22	Other Food & Kindred Products

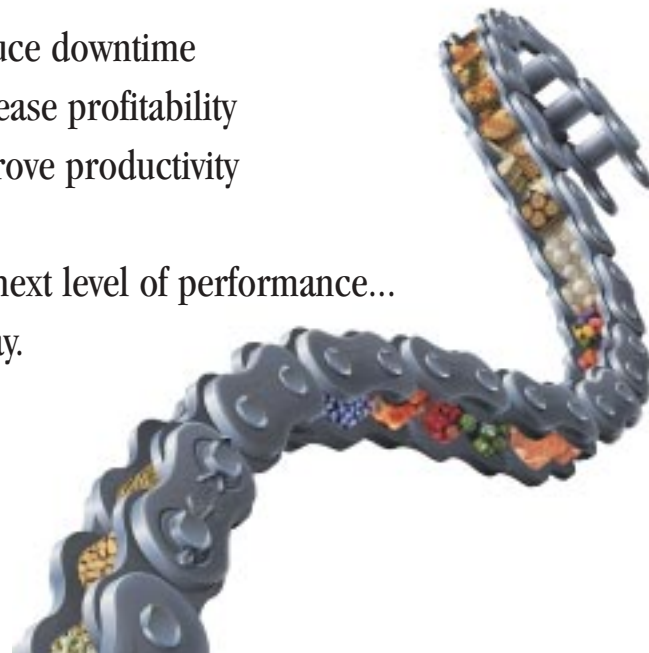




U.S. Tsubaki—Top of the Food Chain

- Reduce downtime
- Increase profitability
- Improve productivity

For the next level of performance...
Call today.



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