



U.S. Tsubaki, Inc.

Engineering Chain Division

Amusement Park Chains

Lifting you to new heights

- Longer wear life
- Increased reliability and safety
- Shorter lead times
- Unique solutions for your rides

Links to thrills, chills, and safety



Whether you are designing a new ride or maintaining an existing one, raise your performance expectations with U.S. Tsubaki. We build high-quality chains for

amusement parks: roller coasters and large and small water rides. There's a reason we are the preferred supplier for thousands of parks throughout the United States and Canada: Our high-performance Amusement Park Chains and Products lift you to new heights.



Give your park a real lift

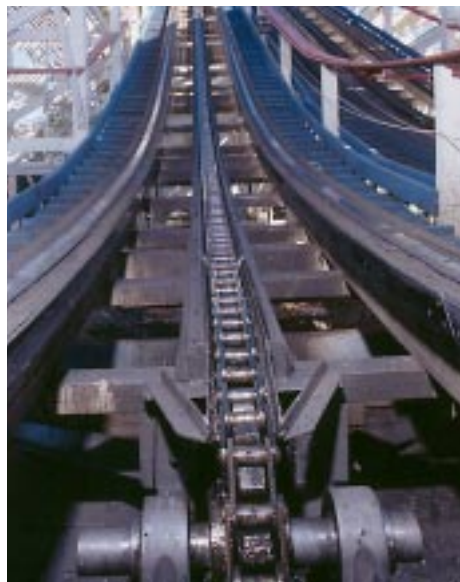
For Lift Hills and Water Rides choose U.S. Tsubaki

- Drive Chains
- Bushed Chains
- Welded Steel Chains
- Sprockets
- Pro-Align™ Laser Alignment System

Drive Chains from U.S. Tsubaki provide high ultimate strength and fatigue resistance. These chains are frequently found on lift hills because they stand up to the toughest environments for long-term uninterrupted service.

Bushed Chains put real splash into water rides. Enhanced bushing design allows for longer chain life and enhanced sprocket-chain interaction. These strong, long-lasting chains handle heavy loads in demanding conditions.

Welded Steel Chains are manufactured for strength, precision, and impact resistance. Machined pins and auto welding create the highest fatigue resistance in the industry. No wonder Welded Steel Chains from U.S. Tsubaki are found on lift hills and water rides.



Stretch Your Profits ... Not Your Chain

Improve your operation and reduce downtime with these related products from U.S. Tsubaki.

SPROCKETS

Amusement Park Chains and Sprockets must work together, so buying them from the same source makes sense. When chains and sprockets articulate correctly, you get longer service life from your chain. That means long-term savings and real value for your application. Chain life is only as good as the sprocket that drives it, so maximize your operation with Sprockets from U.S. Tsubaki.

PRO-ALIGN™ LASER ALIGNMENT SYSTEM

Raise performance standards with the Pro-Align Laser Alignment System from U.S. Tsubaki. Our advanced technology lets you align all power transmission devices faster and more effectively than conventional methods—even over the course of a long lift hill. Available only from U.S. Tsubaki, Pro-Align (patent pending) means laser precision for today's tight design specifications and demanding safety requirements.

Special Options

U.S. Tsubaki builds Amusement Park Chains to your specifications, and we have the expertise to make sure your requirements are met...or exceeded.

Lubrication is an important consideration at every park. That's why we offer a variety of lubricants, including a water-resistant lube that extends the life of water ride chains. We can also build lubrication holes into chains so you can put the lube where it needs to go.

Plating can extend wear life by protecting the base chain from the elements.

U.S. Tsubaki has a wide range, including ULTRA WP®, zinc, nickel, and chromium to stand up to the environment.

Material composition lets you choose the base chain you need. U.S. Tsubaki offers ferrous and stainless steels, depending on your application, to create a long-lasting chain for many different applications.

We build quality in...and check it

We examine every Amusement Park Chain to make sure it meets our expectations—and your specifications. Here are just some of the tests we run to make sure our chain meets or beats your expectations:

- Basic Metallurgy evaluates the composition of the base chain compared to the required specifications.
- Hardness Testing compares all component parts to the specifications.
- Ductility Testing helps eliminate brittle conditions or subsurface defects.
- Pull Testing determines the average ultimate strength, which we compare to the design specifications. We can pull test up to 950,000 lbs. in house.





Call today for a FREE Ride Survey

Whether you are creating a new ride or maintaining an existing one, combine our chain engineering expertise with your ride knowledge so you can select the best chain for your ride. Call **1-800-537-6140** for a free Ride Survey, which includes the following analyses:

Design Considerations

- Force and stress at critical points
- Metallurgic requirements
- Physical limitations
- Lubrication

Maintenance Considerations

- Scrubbing
- Fatigue
- Pitting
- Elongation
- Deflection
- Overload

Wear

- Pin/bushing
- Bushing/roller
- Sidebars for sliding wear

Environment Considerations

- Tracks or troughs
- Water
- Tensioning devices
- Drive systems
- Hookup devices

3 reasons to choose U.S. Tsubaki

The top amusement parks count on Union chain from U.S. Tsubaki. We bring more than 90 years of hands-on knowledge and experience to your challenges.

1. Engineering expertise

No company knows heavy-duty chains like U.S. Tsubaki. Our engineers canvas the field to study existing applications as well as emerging technologies. The result is in-depth understanding of the many factors that can impact your ride.

ISO 9002
Certified

2. Manufacturing methodology

All U.S. Tsubaki Amusement Park Chains are built to last. We start with high-strength carbon or alloy steel, depending on your requirements. Parts are thermal treated for longer wear life. Special techniques ensure tight clearances and maximum press fits. We document every step of the process and can provide you with a detailed paper trail, including certifications, material specifications, and inspection criteria. Our manufacturing methods meet the demands of today's rides.

3. Metallurgic capabilities

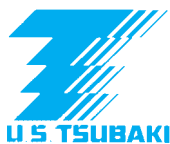
U.S. Tsubaki has certified metallurgists on staff to match base composition to your application. We can also draw on our international team of experts to develop innovative solutions to your design challenges. The rides of tomorrow may require new standards that have not yet been set. Our goal is to lead technology and to stay ahead of the curve.

Our engineering and metallurgic expertise mean

- Quality
- Reliability
- Performance

For the ride of a lifetime...

Count on U.S. Tsubaki Amusement Park Chains



U.S. Tsubaki, Inc.

Corporate Headquarters
301 E. Marquardt Drive
Wheeling, IL 60090
Tel: (800) 323-7790
Tel: (847) 459-9500
Fax: (847) 459-9515

Web Site: www.ustsubaki.com

Engineering Chain Division
1010 Edgewater Drive
Sandusky, OH 44870
Tel: (800) 537-6140
Tel: (419) 626-4560
Fax: (419) 626-5194

Distributed by:



NOTE: THE INFORMATION IN THIS BROCHURE IS PROVIDED AS GENERAL GUIDANCE ONLY. AMUSEMENT PARK CHAINS ARE INDIVIDUALLY MANUFACTURED AND TESTED TO MEET YOUR SPECIFICATIONS. THE USER OF THE CHAIN AND THE SERVICING DISTRIBUTOR, IF APPLICABLE, ARE REQUIRED TO SIGN AN INDEMNIFICATION AGREEMENT WITH U.S. TSUBAKI, INC., BEFORE WE ACCEPT AN ORDER. WE WILL SUPPLY SPECIFICATION CERTIFICATION UPON REQUEST.