



# Biofuel Conveyor Chain Assemblies

Driving Excellence In Your Operation



[www.ustsubaki.com](http://www.ustsubaki.com)



# Biofuel

## Biofuel Means Opportunity

Your industry creates jobs, decrease reliance on foreign oil, enhances national and energy security, and has the potential to improve public health and reduce pollutants.

From the time your raw commodity arrives, U.S. Tsubaki will supply chain and power transmission solutions to move and improve your operation.

## U.S. Tsubaki Keeps the World Moving

In biorefineries, every step of production feeds the next. A chain failure in any part of the facility can be catastrophic, meaning total shutdown. For you to stay in production, your chain and power transmission components should not have to be a concern. You have a business to run.



For our economy's pressing concerns, the biofuel industry is providing solutions.

U.S. Tsubaki wants to be yours.

# Why Tsubaki?

## Manufacturing and Materials

U.S. Tsubaki's materials are of the highest grade. But that's only the beginning, because inferior chain can be made with fine materials. It takes the addition of our superb manufacturing controls through every part of the process to produce the kind of chain on which you can depend.

## On-site and On-call Engineering Assistance

U.S. Tsubaki's commitment to service is rare. Our district sales force and application engineers travel the country to problem solve, retrofit and customize for you. Or you can simply call us for technical assistance regarding your system and chain requirements.

## Wear and Failure Analyses

We discover important information about your systems when we analyze your chain samples. Whether it is determination of current elongation, or wear or interference issues, our analysis will help you determine where to focus your attention to enhance your chain life in the future. U.S. Tsubaki performs analysis on our chains as well as our competitors as part of our package.

## Welding Capabilities

U.S. Tsubaki insists on best welding practices and tests them to produce not only strong, durable weldments, but chain that will take punishing loads and conditions.

## Perfect-fit Attachments and Paddles

U.S. Tsubaki offers attachments, paddles, and chain designed to work together. Whether you need a standard attachment and UHMW paddles, or a customized solution for a particular need, we will outfit you with a complete chain package.

## All Chain Looks the Same

It takes time and use to reveal the difference. Our three-part formula – the finest materials, meticulous manufacturing processes, and unparalleled support – produces exceptional chain and attachments that keep on working for you.

# Grain Handling Chain

## Welded Steel Chain

### Versatility and Strength

Prized for its versatility and ability to withstand punishing shock loads and abrasive elements, U.S. Tsubaki's welded steel line is available in three material configurations to afford you the best choice for your conditions and unique needs. Each component is engineered to close tolerances. Our mill chains including the industry popular 124 and 132, as well as many other base chains, are offered in cottered or riveted construction. They are found throughout the world in industries where severe applications require strength and reliability.

Whether U.S. Tsubaki chain is used in your dry or wet mill processing areas, we offer welded steel chain that will keep on working for you.

### All Carbon

- Excellent in drier conditions, when corrosion isn't a problem
- Durable and strong
- Economical

### Carbon Sidebars and 17-4 Stainless Steel Joints

- A hybrid that offers the corrosion-fighting characteristics of stainless steel on pins and bushings and the economy of carbon
- Increased hardness and tensile levels; outstanding resistance to stress corrosion cracking
- Value

### All Stainless Steel: 316 Stainless Steel Sidebars; 17-4 Stainless Steel Joints

- Exceptional protection against corrosive and chemical attacks
- Resists industrial chemicals, process agents and environmental hazards
- Heat treatable pins and bushings
- Excellent strength, hardness, and resistance to stress corrosion cracking
- Superior wearability

## Roller Conveyor Chain

For moving lighter-duty workloads, roller conveyor chain alternatives, such as 81XHH are available. Our roller conveyor chains feature strong, long-lasting pins made for rugged conditions and is manufactured with best practices to ensure both proper fit in the sidebars and a smooth bearing surface. Pitch and hole size are carefully controlled in every sidebar to ensure our chains and sprockets articulate flawlessly, extending the life of both chain and sprockets. Our roller conveyor chains are typically utilized in paddle configurations. A wide variety of attachments are available to partner with your system.

Delivery on chain with attachments and UHMW flights is 4 weeks. Freight policy is 1000# and over freight prepaid within the USA.



# Chain Integrity

## A Chain is Only as Strong as its Weakest Link

You invest in new chain and attachments and you expect your operation to run smoothly. For that to happen, here's what you should know: Proper welding is paramount. The integrity of a chain's welds is critical to the success of your operation. A catastrophe at the refinery should not let you know it wasn't done right in the first place.

Chain that's created with improper welding techniques will reveal a fatigue factor and will fail before its time. The tensile strength of the entire chain is reduced just because of its weakest weld. Weld penetration – filling the seam of the metals being joined to its greatest depth – is the most important aspect of consistent welding practice.

But you can't always see improper weld penetration by looking.

At U.S. Tsubaki we do it right the first time by offering pre- and post-heat process on all heat-treated sidebars prior to welding, reducing the potential for cracking on the surfaces and subsurfaces and high-hardness zones that result in brittle or fatigue failure.

Then we put our welds to punishing failure tests – during every manufacturing run.



Our welds are tested for proper weld penetration, to ensure that each weld has achieved optimum strength and each link will provide maximum durability.

That's our Tsubaki promise to you.

## Sprockets



When chains and sprockets articulate correctly, your operations are enhanced, resulting in longer life from your chain. It is our goal to offer you the real value and long-term savings this represents. U.S. Tsubaki offers a wide variety of engineering class sprockets to complete all your power transmission needs.

# Paddles & Attachments



Paddles and attachments are an art all their own and are as essential to your production as chain. Goodness of fit and precise interface between chain and attachments offers the biofuel industry an opportunity for unmatched power transmission solutions.

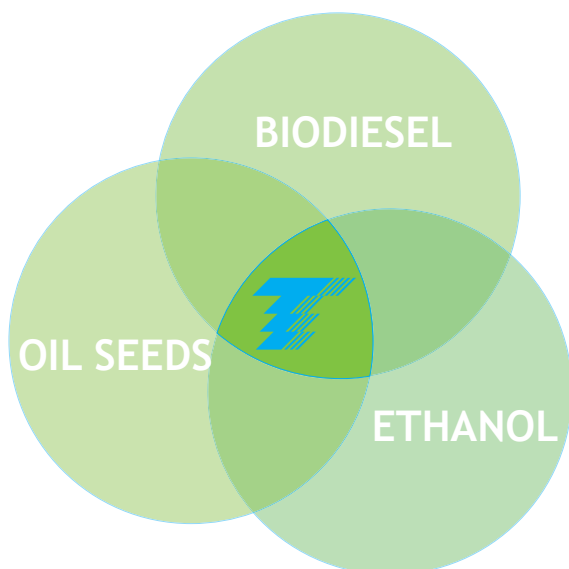
U.S. Tsubaki has designed attachments that feature fluid interactions with our chain for peerless operations and longer service life.

We stock perfect-fit:

- UHMW paddles with hardware
- Angle iron attachments in carbon and stainless
- Flat bar attachments in carbon and stainless

We can also customize your attachments to suit your requirements.

UHMW paddles are available in different color combinations to highlight chain connections. UHMW is cut to match all chain requirements at time of order and are utilized to minimize friction.



*More Selections*

*More Solutions*

*Tsubaki: The choice for chain™*

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CATALOGUE NUMBER: L0820500  
Printed in U.S. 5/08