SJ3™ Series Engineering Class Chains
Patented Sealed Joint Technology
Tsubaki’s patented SJ3 Sealed Joint Technology effectively protects and defends a chain’s bearing areas by impeding the infiltration of aggressive fine and sticky particulate. In doing so, the risks of premature elongation, joint lockage and/or dry cavitation are greatly reduced, thus allowing for more effective chain performance and extended life.

The Tsubaki SJ3 design, made in the U.S.A., utilizes a unique combination of three distinct seals (a barrier, a polymer face and a stainless steel inner ring) to create an innovative labyrinth structure that effectively hinders the infiltration of foreign matter without compromising any strength or dynamic performance. Depending on the temperature and severity of the application, seal materials and selection can be custom tailored. Please contact your local Tsubaki Representative or Tsubaki Engineering to discuss your specific application in detail and schedule an onsite technical analysis.

The performance results presented above are actual field documented cases for Tsubaki’s patented SJ3 sealed chain. Additional information on each of these cases can be obtained by contacting your local Tsubaki Sales Representative or the Tsubaki Engineering Chain Division. It is important to note that each and every application is unique and performance results may vary depending on site/material/application specific characteristics, dynamics and maintenance practices.
Understanding the SJ3’s Unique Labyrinth Structure - Three Distinct Seals for Ultimate Protection

1. **Extended Bushing Barrier Seal**
The chain bushings are extended beyond the inside sidebars to minimize the clearance between the outside bars and the bushings. This in turn creates a solid physical barrier that effectively obstructs abrasive and/or sticky material from entering and/or residing in the critical pin/bushing area.

2. **Polymer Wide Face Seal**
Constructed of a high temperature engineered polymer, this seal encircles and resides on the outer race of the extended bushing. Upon assembly, this seal is compressed between the inner and outer side plates to engage a second barrier of protection for the critical pin/bush area. Tsubaki maintains a well-diversified portfolio of polymeric options that can accommodate temperatures up to 400 degrees Fahrenheit. Please contact Tsubaki Engineering for further assistance in selecting the correct material for your application.

3. **Stainless Steel Internal Ring/Labyrinth Seal**
This patented seal holds tight to the pin and rotates freely within a specially machined groove in the bushing, creating an intricate internal labyrinth that successfully hinders the progression of aggressive fine particulate within the bearing area.

*Tsubaki’s SJ3 technology has demonstrated outstanding performance in demanding environments including:*

- Coal
- Gypsum
- Pet Coke
- Clay
- Fly Ash
- Cement/Clinker
- Potash & Fertilizers
- Grain & Seeds
- Sugar/Baggasse
Innovative Solutions for Harsh Environments

Build reliability into your system with sprockets and power transmission components from Tsubaki.

SMART TOOTH™ Sprockets
Tsubaki’s SMART TOOTH sprockets with patented Wear Indicator technology offer users the ability to identify and schedule drive system maintenance before critical component failure occurs. The result is extended chain life and reduced downtime for increased productivity. Tsubaki’s long history of designing innovative chain and sprocket products assures you will receive the best system solution.

One-Touch Inspection® Doors
Save time and money with Tsubaki’s One-Touch Inspection Doors. Tsubaki’s patented prefabricated units are, economical, in stock and easy to install.
- Available in carbon or stainless steel
- Dust and rain tight
- Polyethylene, Epichlorohydrin and Silicon gaskets available
- Lockable

Backstops & Overrunning Clutches
Tsubaki’s complete and versatile offering of one-way cam clutch products sets the standard for the industry. Whether your application calls for indexing, general over-running, or backstopping type units, Tsubaki has you covered. Incorporating Tsubaki cam clutch products offers a simple and cost effective means to drive and protect capital equipment that is critical to your operation. These innovative products can be used in conveyor, hoist, bucket elevator, pumping systems, and dual drive systems to improve efficiency and protect your operation.