



# AGRICULTURE INDUSTRY



**AGRI-TUFF**

# STANDARD DRIVE CHAIN

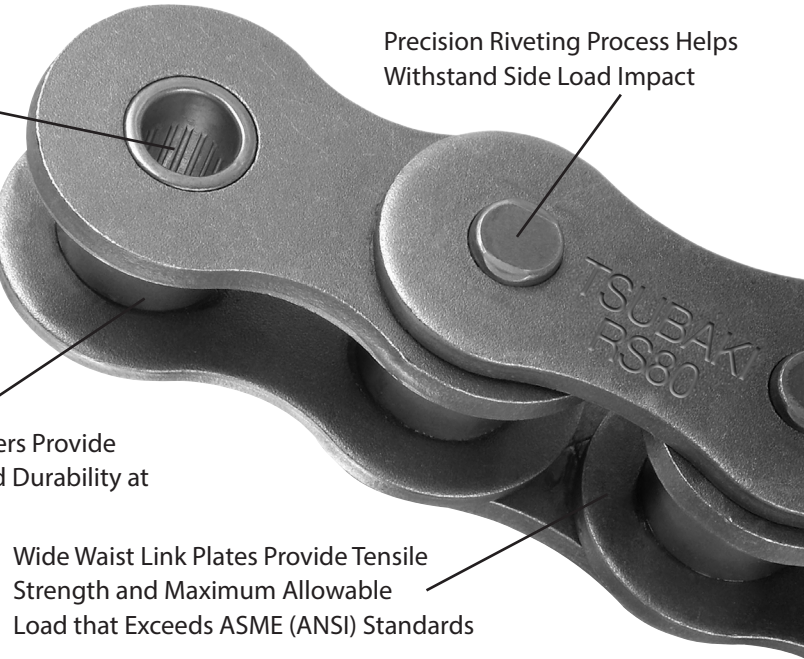
Tsubaki's Patented Ring Coining Generates Unsurpassed Connecting Link Strength



Tsubaki's Patented Lube Groove Bushing Extends Wear Life and Performance

Long Lasting Solid Rollers Provide Greater Fatigue Life and Durability at High Speeds

Precision Riveting Process Helps Withstand Side Load Impact



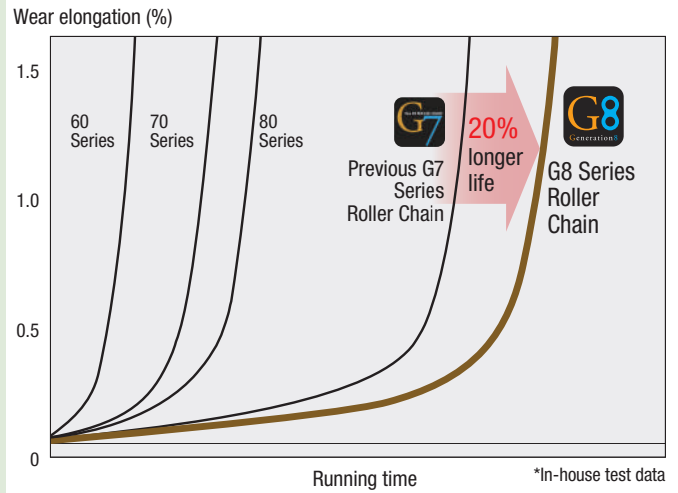
Wide Waist Link Plates Provide Tensile Strength and Maximum Allowable Load that Exceeds ASME (ANSI) Standards

## PERFORMAX™ BUSHINGS – THE SCIENCE BEHIND TSUBAKI

**G8 Series Roller Chain**  
**20% longer wear life**  
**(compared to G7 Series)**  
 Anti-rust lubrication minimizes tackiness and increases handleability!



Evolution of Chain Wear Life



### Tsubaki PerforMax™ Bushings.

Advanced technology allows us to combine the reliability of a solid bushing with our patented lube groove on the inner surface. Available in sizes 80 to 140, you get outstanding performance in your application.



## AGRI-TUFF DRIVE CHAIN

# AGRI-TUFF

*An Important Link For Your Crop*

## Chains + Components

### FEATURES INCLUDE:

- Quad-riveted pins for sideplate security
- Extra heat treatment of pins for longer chain life
- Available in “heavy duty” constructions

### AVAILABLE SIZES

- 40, 50, 60, 60H, 80, C2040, C2050, C2060 single strand
- 50, 60, 60H double strand

### Get “Agri-Tuff” Performance!!

Drawing heavily on over 100 years of design experience and over 40 years of agriculture experience worldwide, TSUBAKI has developed our innovative “**AGRI-TUFF**” series roller chain. Especially designed for agriculture applications, unique new features and materials improve the reliability and life of your agricultural chain drive.

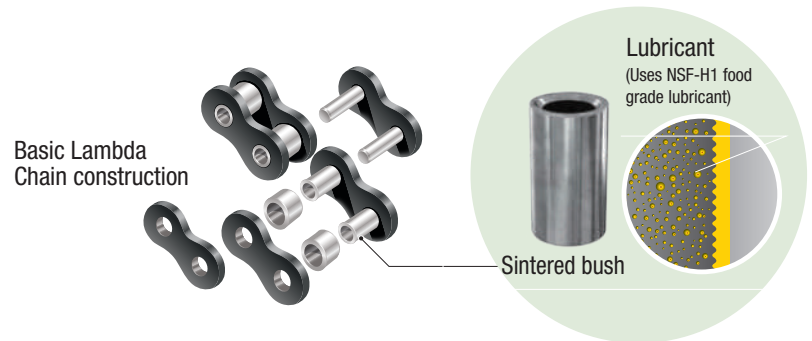


# LAMBDA SELF-LUBRICATING DRIVE CHAIN



## G8 Series Lambda Chain increases productivity and saves money.

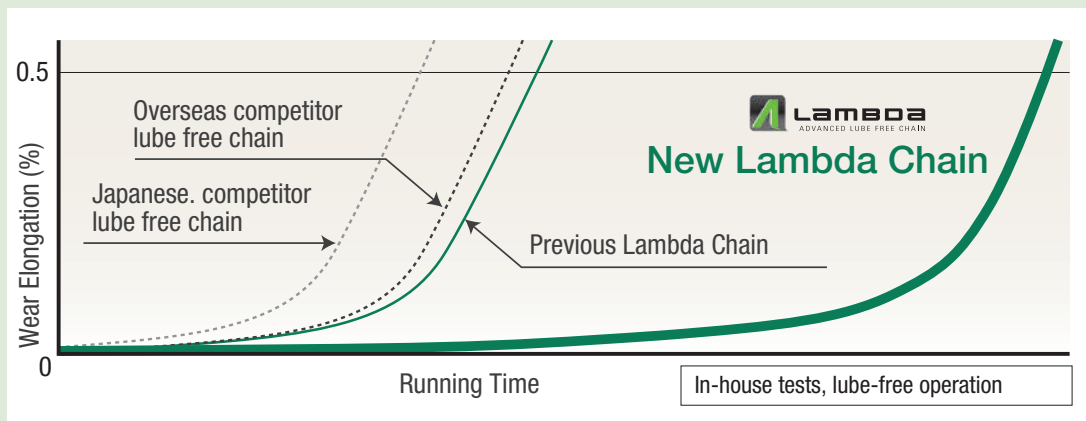
Lambda chains use special oil-impregnated bushes to provide lubrication and to prolong wear life.



Lube-free, long life, and eco-friendly.

## Improved material and lubricant for major performance gains! Now with Twice the wear life.

Performance in Ambient Temperatures (-10°C to 60°C)



## Tsubaki Lambda Chain

Tsubaki is a pioneer in the industry, being the first to develop a roller chain that uses special oil impregnated bushes. Since first being introduced in 1988, Lambda Chain has gained an outstanding reputation in a variety of industries and applications. It is capable of meeting a wide range of customer needs for long life in a lubrication-free environment, resulting in reduced overall long-term costs. Lambda Chain uses NSF-H1 lubricant, so it is safe to use on food equipment.

# TITAN DRIVE CHAIN

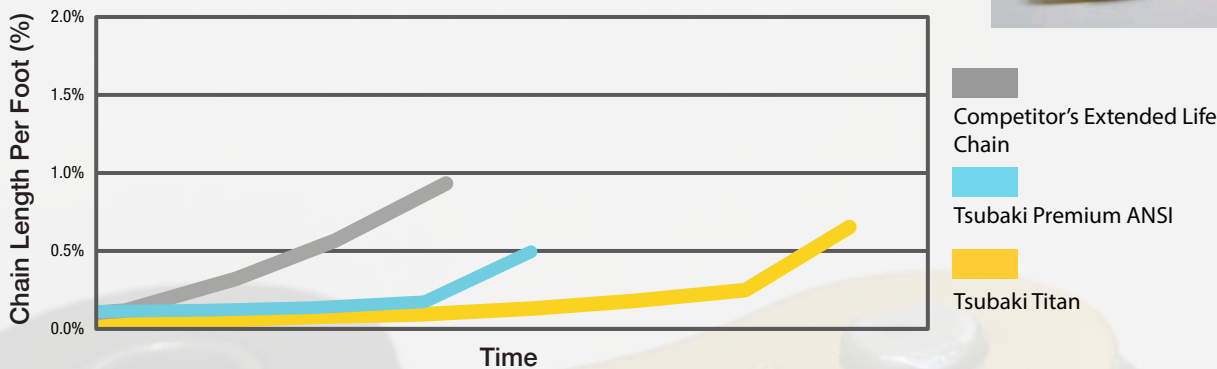
# TITAN

## Hold your Application to a Gold Standard

Titan chain integrates the latest advancements from Tsubaki's research and development to increase the wear life of roller chains in high speed and harsh environments. Our Titan chain incorporates the best features of our standard ASME/ANSI chain, coupled with new and unique features that will outperform competitors' extended life chains. Titan chain delivers the ultimate in strength and extended wear life.



## Competitive Testing Wear Results



## Titan Chain Construction

- 1. Special Coated Pins** - Provide an extra hard, low friction surface limiting the wear between the pin and bushing area, significantly extending wear life, and providing robust performance even in high debris environments.
- 2. Zinc Coated Pin Link Plates and Black Oxide Roller Link Plates** - Provide an additional layer of protection for corrosion resistance
- 3. Solid Lube Groove Bushing** - Tsubaki's patented PerforMax™ bushings are cold formed from a solid piece of steel providing seamless construction. The solid construction and round shape means better surface contact between the pin and bushing while lube grooves on the inner surface of the bushing retain oil at the point of contact further increasing wear life. The PerforMax bushing is offered in sizes 80-140.
- 4. Ring Coined Connecting Links** - Tsubaki's patented ring-coining process increases fatigue strength and durability of the connecting links. The unique process causes positive compressive stresses around the pitch holes to counteract shock loads. This provides

Titan Series Chains are available in a variety of options for your drive chain applications, including:

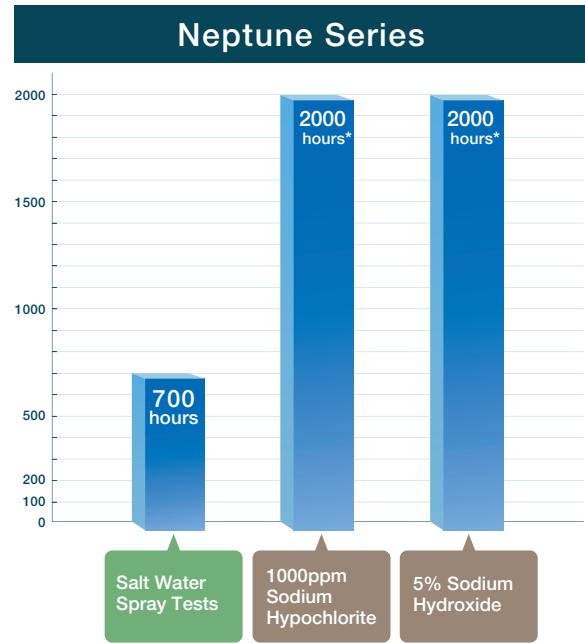
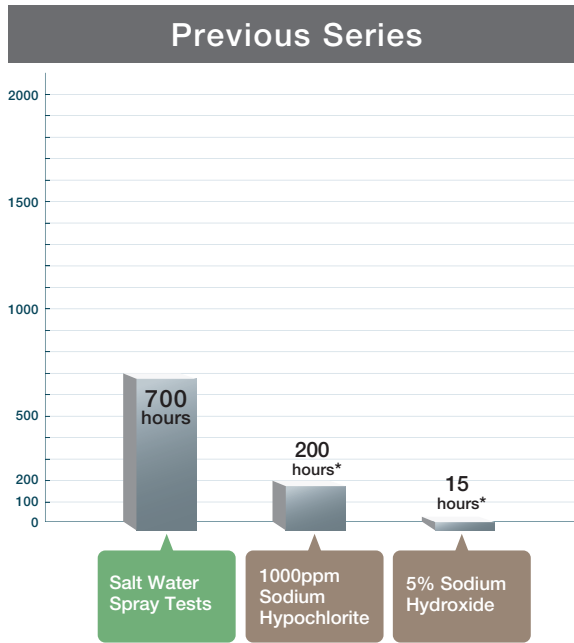
- Single and Multi-Strand
- Attachment
- Made-to-Order
- Sizes 35-240

\*Other Tsubaki products are also a great compliment to our Titan Series Chains. For more information on all of our offerings, visit [www.tsubaki.ca](http://www.tsubaki.ca)

# NEPTUNE DRIVE CHAIN







## Tough against water and alkalis

### Corrosion Resistant Chain



\*In-house test comparison

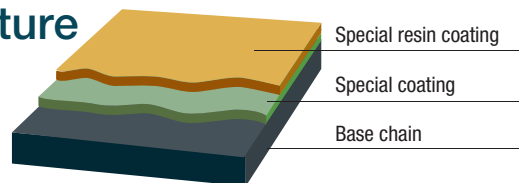
## Superb Corrosion Resistance

	Corrosion Resistance	Chemical Resistance	
	Salt water spray tests*	1000ppm sodium hypochlorite	5% sodium hydroxide
Neptune	700 hours 	2000 hours 	2000 hours 
Previous series	700 hours 	200 hours 	15 hours 

\*Salt water spray tests in accordance with JIS-Z-2371.

## New Surface Treatment Structure

Combines Tsubaki's uniquely developed special coating and special resin coating for superb corrosion (rust) and chemical resistance.



# SUPER SERIES CHAIN

## New and Improved!

Tsubaki offers SUPER Series roller chains for applications that exceed the capabilities of Tsubaki ASME (ANSI) Standard Roller Chain. These heavy duty conditions include the following:

1. Severe operating conditions such as heavy shock loads.
2. Applications with limited space. SUPER Series Chains will often deliver the same tensile strength of a larger size of ASME (ANSI) Standard Roller Chain.
3. Operating conditions that require higher horsepower ratings, maximum allowable load and tensile strength.



### Super-H Chain

60% higher maximum allowable load than Tsubaki premium chain.



### Super Chain

40% higher maximum allowable load than Tsubaki premium chain.



### HT Chain

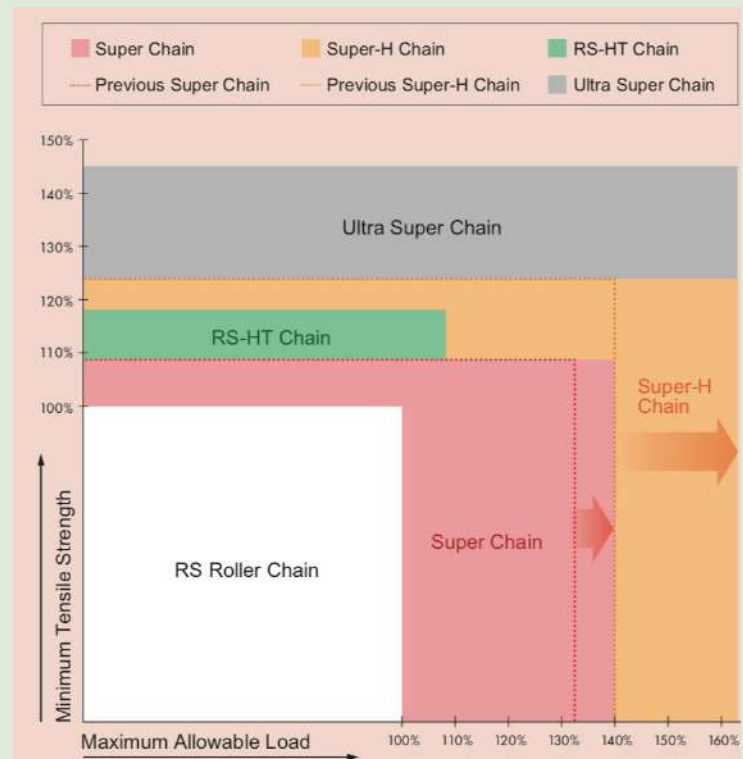
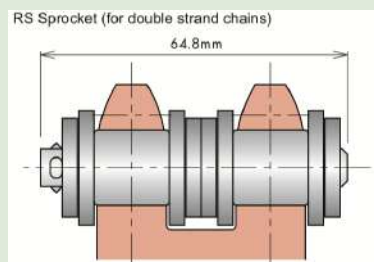
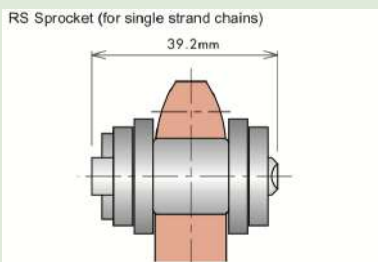
20% higher tensile strength than Tsubaki premium chain.

## Super Series Chain saves you space and money!

Reduce costs by using smaller chains & sprockets



### A smaller chain means a smaller sprocket



A smaller chain & sprocket means more compact parts for your equipment!

# ROLLER CONVEYOR STYLE AGRICULTURE GRADE CHAIN



## 81X STYLE - 2.609 PITCH

- Available in 81XTSU, 81XHDTSU, 81XHHTSU Carbon Steel Chain.
- Also available in 81XSSTSU Stainless Steel.
- 81XHDTSU and 81XHHTSU are both quad riveted pins for heavy side loading strength.
- All Tsubaki 81X chain have shot peened side plates for additional fatigue strength.

Tier	Key Features
81XTSU	A standard version that meets the general need of non-timed applications.
81X Premium	Building upon the strength of the 81X design, Premium offers better performance on multi-strand timed conveyors where relative length tolerance and rate of stretch is critical. <ul style="list-style-type: none"> <li>• Features Performax Bushing with patented lube grooves</li> <li>• Improved material &amp; heat treatment</li> <li>• Precision and consistency of fabrication &amp; assembly</li> </ul>
81X Lambda <sup>1</sup>	Oil impregnated sintered metal bushing for lube-free operation. <ul style="list-style-type: none"> <li>• 7-14 times longer life than unlubricated chain</li> <li>• Same precision of material, heat treatment, fabrication and assembly as 81X Premium.</li> </ul>

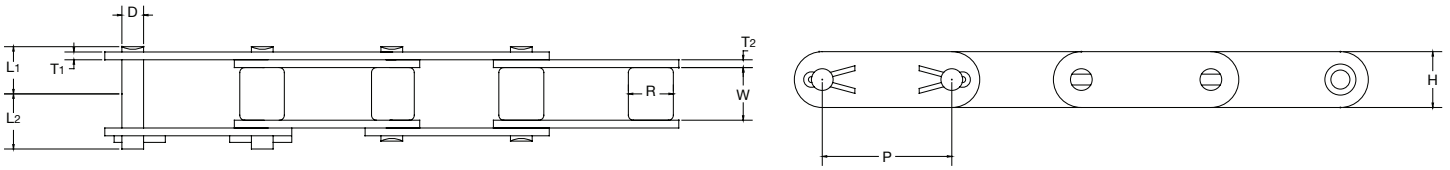
<sup>1</sup> Note that 81X Lambda chain has a slighter wider profile than Premium or TSU.



Patented lube groove bushings standard on 81XPremium



# 81X Chain



All 81X series chain can run on the same sprocket.

All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Diameter R	Width Between Inner Link Plates W	Link Plate			Pin				Average Tensile Strength (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T1	Thickness T2	Height H	Diameter D	Length L1 + L2	Length L1	Length L2		
81XTSU	2.609	0.906	1.060	0.157	0.157	1.125	0.437	2.063	0.951	1.112	24,000	2.42
81XHDTSU	2.609	0.906	1.060	0.220	0.315	1.260	0.437	2.536	1.181	1.355	42,000	4.12
81XHHTSU	2.609	0.906	1.062	0.299	0.299	1.250	0.437	2.763	1.268	1.495	41,000	4.40
81X PREMIUM	2.609	0.906	1.060	0.157	0.157	1.125	0.437	2.063	0.951	1.112	24,000	2.42
81X PREMIUM NEP	2.609	0.906	1.060	0.157	0.157	1.125	0.437	2.063	0.951	1.112	24,000	2.42
81XHD PREMIUM	2.609	0.906	1.060	0.220	0.315	1.260	0.437	2.536	1.181	1.355	42,000	4.12
81X LAMBDA	2.609	0.906	1.060	0.157	0.189	1.125	0.437	2.146	0.998	1.148	24,000	2.42
81XSS	2.609	0.906	1.060	0.157	0.157	1.125	0.437	2.063	0.951	1.112	11,000	2.42



81XTSU



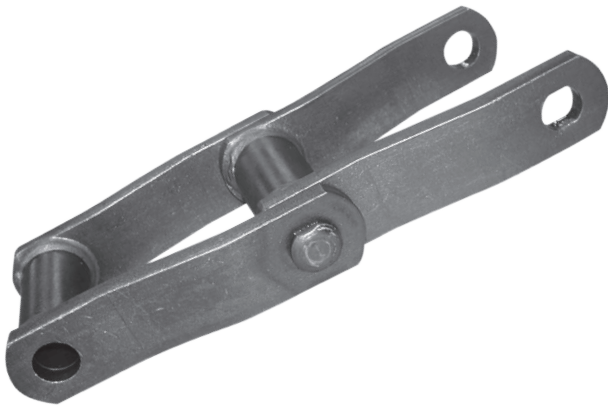
81XHDTSU



81XHHTSU



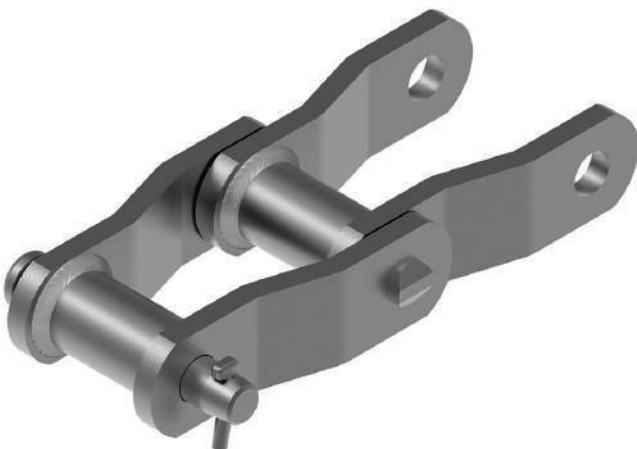
# WELDED STEEL CHAIN



## MILL TYPE SERIES

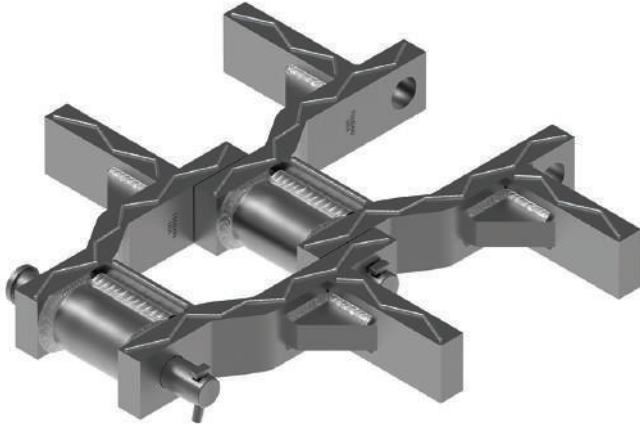
### WH Series

- Designed for heavy duty conveyor service.
- Heat treated side bar edges for better wear resistance.
- Side bars and barrels are shot peened for additional fatigue strength.
- Pins are precision tapered press fit, with double flat end mating to sidebar. Increases wear resistance.
- High quality pitch holes.
- Readily handles shock loads and abrasive conditions.
- Standard as carbon steel and stainless steel on request.
- Replaces cast pindle style and combination dog-bone chains.
- WH series - cottered connection pins available to join chain every 10ft. Available in stock for most sizes.
- Comes standard in 10ft sections and also available in custom length upon request.
- Other options include:
  - IBR - Induction Hardened Barrels & Pins
  - SSPIN- High Grade Stainless Steel Pins available as special order



### WHX Series

- Heat treated side bar edges for better wear resistance
- Full round press fit pins for better fatigue resistance and strength
- Side bars and barrels are shot peened for additional fatigue strength.
- Induction hardened pins are standard on all WHX series
- WHX is available in riveted (standard) and cottered chain construction
- WHX series has to be ordered if mating cottered to riveted chain
- Fully cottered chain is typically used for take up sections, and uses different color paddle for easy maintenance for removal of chain links (No Hot permit required.)

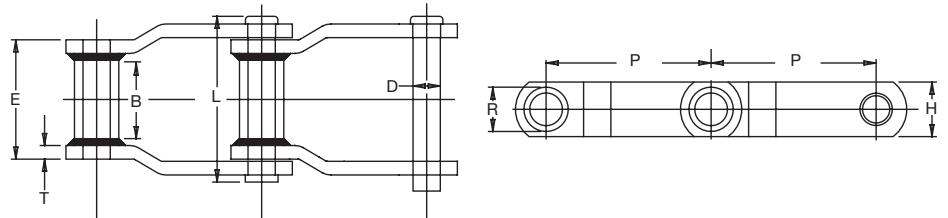


## HEAVY DUTY HARD FACED SERIES

### WHX-HDHF Series

- Designed and manufactured to offer superior strength, wear and impact resistance.
- Ideal for demanding applications in abrasive and hot conditions.
- Full round press fit pins for better fatigue resistance and strength.
- Induction-hardened pins to resist abrasive wear.
- Hard-faced welding on the chain's sliding surfaces increases wear life .

## OFFSET SIDEBAR MILL CHAIN



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Sidebars		Pin Dia. D	Chain Width		Effective Distance Between Welds B	Barrel Dia. R	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
		Thickness T	Height H		Overall L	Length of Bearing E					
WH78	2.609	0.250	1.25	0.50	3.00	2.00	1.00	0.84	33,000	5,500	4.2
WH78XHD	2.636	0.380	1.25	0.56	3.37	2.00	1.00	1.00	54,000	6,000	6.2
WH82	3.075	0.250	1.25	0.56	3.24	2.25	1.13	1.00	36,000	6,000	5.0
WH82XHD	3.075	0.380	1.50	0.75	3.75	2.38	1.13	1.25	57,100	9,500	8.5
WHC131	3.075	0.380	1.50	0.75	3.56	2.24	1.13	1.25	57,000	8,400	8.4
WH124	4.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	57,000	9,500	8.0
WH124XHD	4.063	0.500	2.00	1.00	4.87	3.00	1.50	1.75	122,000	20,400	14.8
WH111	4.760	0.375	1.75	0.75	4.80	3.36	2.25	1.25	60,200	12,000	9.2
WHC111	4.760	0.375	1.75	0.75	4.81	3.38	1.75	1.25	50,400	8,400	8.0
WH106	6.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	60,250	12,000	6.6
WH106XHD	6.050	0.500	2.00	1.00	4.87	3.00	1.50	1.75	122,000	20,400	12.2
WH132	6.050	0.500	2.00	1.00	6.14	4.41	2.75	1.75	122,000	20,300	14.2
WH132XHD	6.050	0.630	2.00	1.00	6.75	4.67	2.75	1.75	123,650	20,400	16.5
WH157	6.050	0.623	2.50	1.13	6.625	4.63	2.75	1.75	175,350	29,225	20.0

NOTE: Options for IBR and PINCP (cotted connector pin) are available on request

# PADDLE CHAIN ASSEMBLY

## CUSTOM DRAG CHAIN ASSEMBLIES FROM TSUBAKI®

- Tsubaki proudly offers an extensive portfolio of custom, Made-to-Order drag chain assemblies.
- Designed to drop in to virtually any OEM piece of equipment.
- Base chains are typically carbon steel, stainless steel or a combination of both.
- Flat bar, angle iron, or customer specified wing attachments are available.
- Paddles are standard as premium grade white UHMW. Also available in various grades and colors upon request.
- High temperature UHMW paddles available.

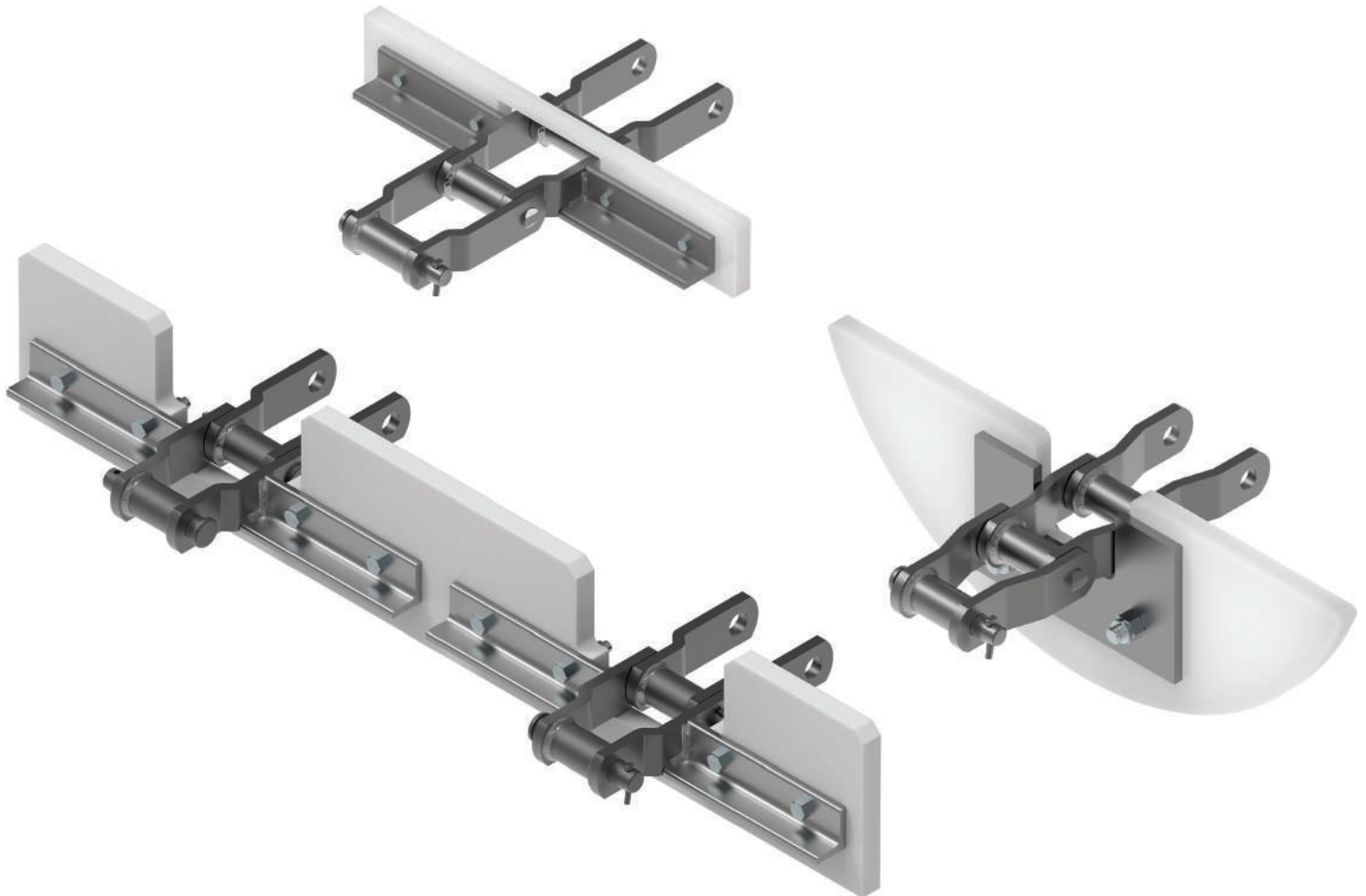
## DRAG CHAIN QUOTATION PROCESS

- Tsubaki's Drag Chain Assembly quotation process is as easy as 1, 2, 3 using the forms on the following pages:

**Step 1: Identify the Base Chain**

**Step 2: Identify Attachment Style, Spacing and Size**

**Step 3: Detail the UHMW Paddle Size and Type**



# STEP 1: BASE CHAIN IDENTIFICATION

Surveyor

Title/Company



Date

## CONVEYOR INFORMATION

Application Name

Conveyor Manufacturer

## CHAIN INFORMATION

Chain Length (in feet)

Base Chain Type  
(ex. WHX-132, 81-X, etc.)

Material:  Carbon  Stainless  Combo

Pin Style (rivet / cotter)

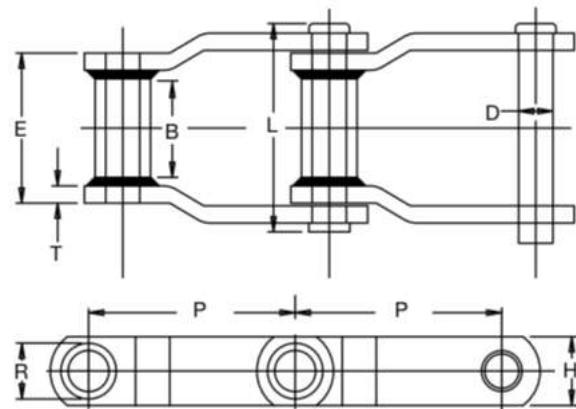
Paddle Style (see paddle sheet)  Plain  Wiper  Rounded

Paddle Spacing

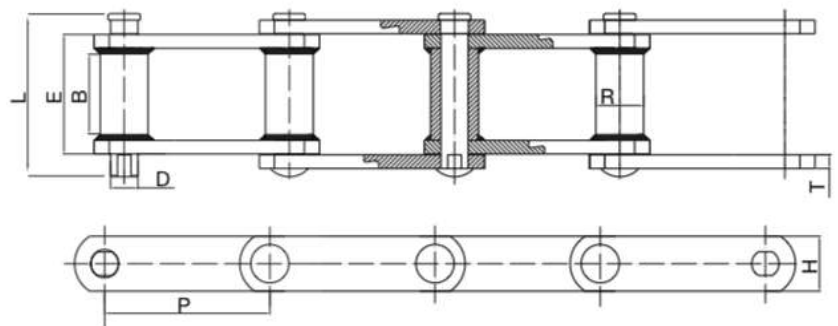
Number of Strands of Chain

Multi-Strand Centers

OFFSET SIDEBAR STYLE



STRAIGHT SIDEBAR STYLE



Offset Sidebar Style			Straight Sidebar Style		
	Description	Measurement (in inches)		Description	Measurement (in inches)
P	Pitch		P	Pitch	
T	Sidebar Thickness		T	Sidebar Thickness	
H	Sidebar Height		H	Sidebar Height	
D	Pin Diameter		D	Pin Diameter	
L	Overall Length		L	Overall Length	
E	Length of Bushing		E	Length of Bushing	
B	Effective Distance Between Welds		B	Effective Distance Between Welds	
R	Barrel Diameter		R	Barrel Diameter	

# STEP 2: WING ATTACHMENT DETAILS

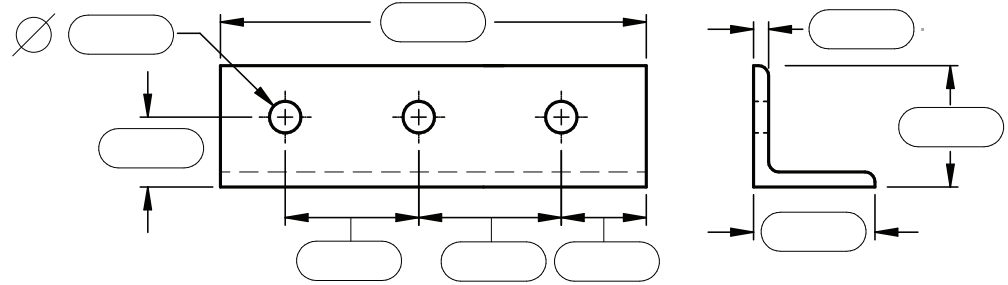
Surveyor

Title/Company

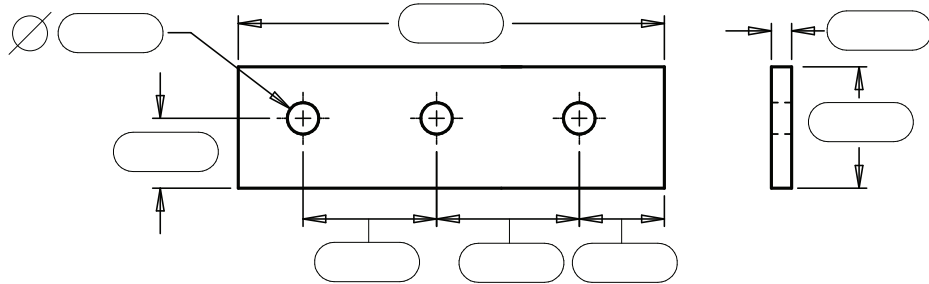


Date

## ANGLE ATTACHMENT



## FLAT BAR ATTACHMENT



## OTHER



# STEP 3: PADDLE DETAILS

Surveyor

Title/Company



Date

## PADDLES

Material

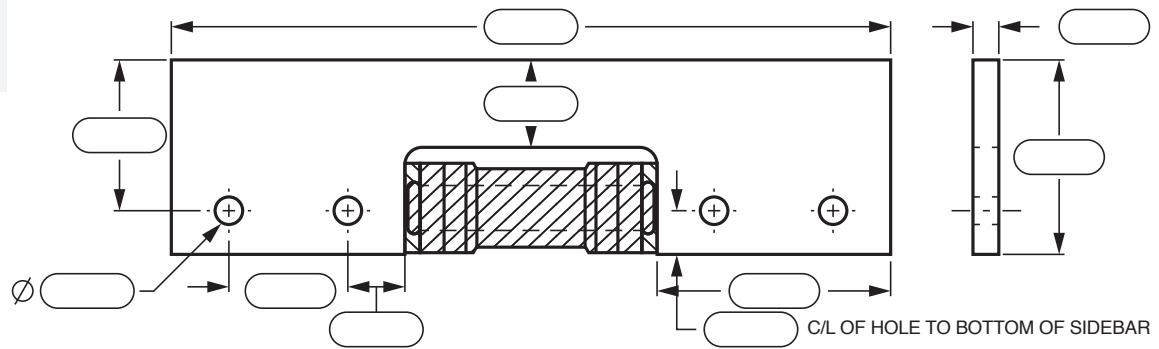
Application Temperature

Degrees C

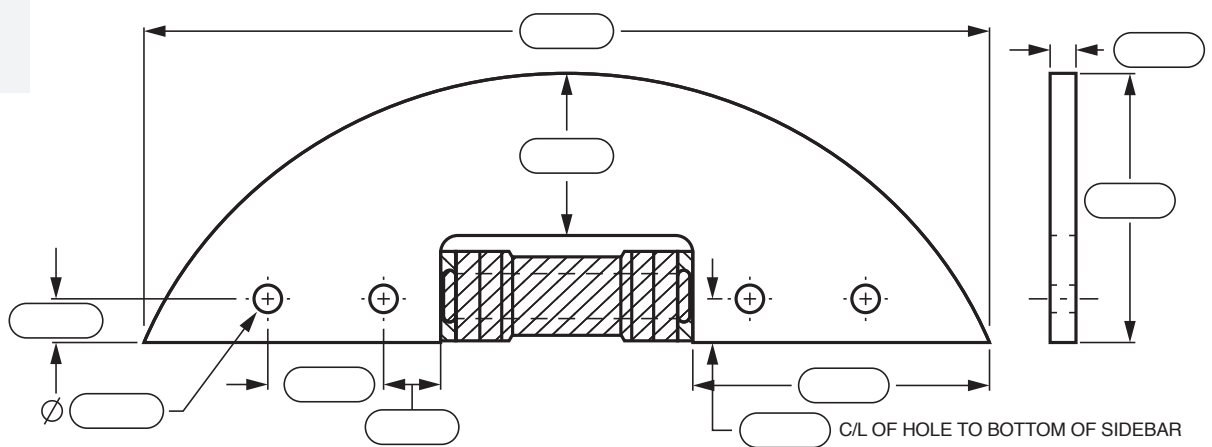
Degrees F

Color

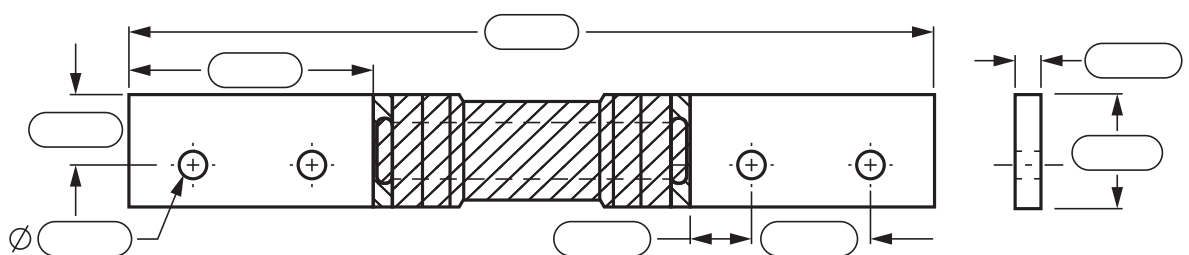
### WIPER PADDLE



### ROUNDED PADDLE



### STANDARD PADDLE

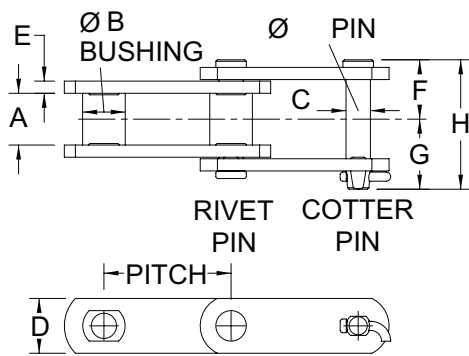


Notes

Blank area for notes.

# STEEL BUSHED CHAINS

**Excellent for severe working conditions, particularly those with grit or abrasive particulate. Utilizes premium steels throughout and proprietary, precisely controlled heat treatments.**



## PINS

- Alloy or premium grade carbon steel.
- Heat treated for superior strength and toughness.
  - ▲ Core – Through hardened for superior impact resistance.
  - ▲ Surface – Case or Induction hardened for extended wear resistance.
- Precision manufactured to maintain high interference fit with sidebars.
  - ▲ Prevents pin rotation and subsequent sidebar wear.

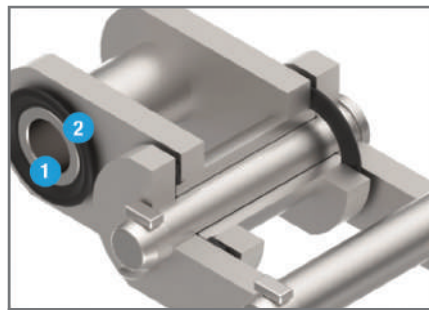
## BUSHINGS

- Alloy or premium grade carbon steel.
- Heat treated for superior strength.
  - ▲ Core – Through hardened for toughness/impact resistance.
  - ▲ Surface – Case hardened for ultimate/extended wear resistance.
- Precision machined to maintain smooth bearing surfaces and high interference fit with sidebars.
  - ▲ Favorable residual stresses resist fatigue and allow for extended life.

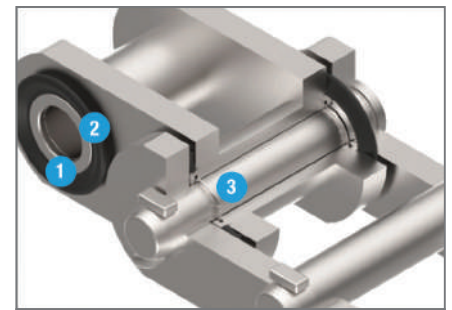
## SIDEBARS

- Alloy or premium grade carbon steel.
- Through hardened for superior strength, toughness and fatigue resistance.
- Proprietary manufacturing processes ensure consistent hole quality and precise pitch control.
  - ▲ Favorable residual stresses resist fatigue and allow for extended life.

Chain Number	Pitch	Dimensions								AUS (lbs.)	Max Working Load (lbs.)
		Inside A	Bushing B	Pin C	Sidebar D	Sidebar E	Pin F	Pin End G	Overall H		
188	2.609	1.06	0.88	0.50	1.13	0.25	1.22	1.44	2.66	25,000	2,750
131	3.075	1.31	1.25	0.63	1.50	0.38	1.59	1.88	3.47	40,000	4,500
102B	4.000	2.13	1.00	0.63	1.50	0.38	2.00	2.28	4.28	40,000	6,300
102-1/2	4.040	2.25	1.38	0.75	1.75	0.38	2.06	2.47	4.53	50,000	8,850
111	4.760	2.63	1.44	0.75	2.00	0.38	2.28	2.66	4.94	50,000	8,850
110	6.000	2.13	1.25	0.63	1.50	0.38	2.00	2.28	4.28	40,000	6,300
150X	6.050	3.31	1.75	1.00	2.50	0.50	2.94	3.37	6.31	100,000	15,100



**SJ2™** 1. Extended Bushing Barrier Seal  
2. Polymeric Gasket Seal



**SJ3™** 1. Extended Bushing Barrier Seal  
2. Polymeric Gasket Seal  
3. Patented Stainless Steel Labyrinth Seal



# BUCKETS

## PREMIUM TSUBAKI® BUCKETS

- Tsubaki maintains a market leading portfolio of cast, fabricated and polymeric buckets
- Standard and full custom designs available to fit virtually any OEM system.
- Metallic buckets typically produced in Carbon Steel, Stainless Steel, AR or Ductile Iron
- Polymer buckets are available in Nylon, Urethane, Polyethylene or FDA Nylon
- Full design and engineering resources are available to assist with proper selection, issue resolution and potential optimization/enhancement.

## TSUBAKI® CHAIN AND BUCKET ASSEMBLIES

- Tsubaki will securely fasten buckets to the chain at the factory to assure proper fit and in turn save installation time and money in the field.
- Assemblies typically ship in 10 foot, palletized strands, but custom options/packageing available upon request.

### TYPICAL APPLICATIONS

- Bucket Elevators
- Incline Elevators/Conveyors



# GRAIN HANDLING SPROCKETS

## Most Common Types of Sprockets for the Grain Handling Markets:

- 81X, Welded Steel Chain and Engineered Class Chain Sprockets.
- 81X, 81XHD and 81XHH Chains all use standard **81X Sprockets**.
- For grain handling sprockets, we recommend **hardened teeth** to improve sprocket and chain wear life. This must be requested at time of order.
- All sprockets come standard as C1045 **material**, other materials are available on request: AR400, AR500, AR600, 4140, and stainless steel.
- **Low Profile Teeth** are standard in the grain handling industry, so as to not protrude above chain height and interfere with a paddle attachment.
- **Split Sprockets** are recommended and available for all grain handling sprockets. Tsubaki uses **SN hubs** which have a recessed knurled head socket cap hex drive bolt that threads internally from one half of the hub to the other. This feature allows for a full 360 degree weld to the plates, it provides greater strength versus a nut and bolt style.
- Typically in Grain Handling, **“C” hubs** are preferred for good balance and alignment of sprockets. B and A hubs are also available.
- **Bore Options:**
  - Plain & Finished
  - Bushing Style including Split Taper, QD and Taper Lock
  - Keyless Locking Device/Power Lock
  - Spline, idler including bronze, bearing, plastic, hex bore, square bore.
- **Lightening holes** are available on request. These are utilized to reduce weight on large sprockets and allow for efficient and safe handling and installation.
- **Locating tabs** are available on request. These are used to assist in lining up the 2 halves of a split sprocket to make bolt installation easy.
- Tsubaki **SMART TOOTH** sprockets are available on request.

*To maximize chain life, Tsubaki recommends that new sprockets be installed when installing new chain. When sprockets are not changed together with the chain it can lead to as much as a 25% reduction in chain life for each additional installation on the same sprockets.*

## Sprocket Nomenclature:

<b>H</b>	<b>81X</b>	<b>C</b>	<b>19</b>	<b>F</b>	<b>3G</b>	<b>SPLIT</b>	<b>H81XC19F-3G-SPLIT</b>
Hardened	Chain Type	Hub	Tooth Count	Finished Bore	3-7/16" bore	Split Type	PART NUMBER

<b>H</b>	<b>124</b>	<b>C</b>	<b>14</b>	<b>F</b>	<b>2R</b>	<b>SPLIT</b>	<b>ST</b>	<b>H124C14F-2R-SPLIT-ST</b>
Hardened	Chain Type	Hub	Tooth Count	Finished Bore	2-15/16" bore	Split Type	Smart Tooth	PART NUMBER

# SMART TOOTH

## When FAILURE is not an option

**Tsubaki SMART TOOTH** offers users the ability to identify and schedule drive system maintenance before critical component failure occurs. Strategic placement of our patented Wear Indicator pins on one or more sprocket teeth provides visual indication that a sprocket is still within the allowable wear tolerance, or that it needs to be replaced. When factoring in the cost of critical drive system components, implementation of Tsubaki Wear Indicator technology makes sense for applications that are driven by capital equipment, or where non-scheduled downtime is simply not acceptable.

### Availability

- ANSI 80 through 240 pitch sprockets
- British Standard & Double Pitch sprockets (1" pitch & over)
- Engineering Class sprockets
- Carbon steel sprockets
- Hardened and non-hardened teeth
- Type A (no hub extension)  
Type B (one-sided hub extension)  
Type C (two-sided hub extension)
- Taper-Lock®, XT®, QD® and Split-Taper® style sprockets

### Value

- Extended chain life through predictable maintenance
- Eliminates the guesswork associated with worn sprockets
- Reduces overall cost of equipment ownership
- Provides warning of catastrophic drive failure
- Provides the opportunity to schedule maintenance based on sprocket wear rate



## Comparison – New (1) vs. Worn Sprocket (2)

These images provide a comparison and example of a new and used sprocket with the use of a Smart Tooth Wear Indicator. Notice the difference in tooth wear surface and proximity of indicator pins. Once the brass pins are exposed due to tooth surface wear, this is a visual indicator to replace the sprockets on the application.



# SPROCKETS CONSTRUCTION TYPES



## Solid

- Solid plate, welded to solid hub.
- A basic, economic construction.



## Split

- Split plate, split hub.
- A split construction designed for easy installation without removing the shaft and bearings



## Segmented / Split

- A split plate/hub with bolt on segments.
- Ultimate flexibility – Segment or hub body can be easily serviced/replaced without removing shaft.



## Traction Rim / Wheel

- Essentially a sprocket without teeth.
- Available as a solid, segmented or a segmented/split design.
- Ideal for single strand bucket elevators and/or abrasive conveyor applications.
- Coefficient of friction must be great enough to allow the wheel to drive.
- Key Benefit – Allows the chain to slip in an overload or obstructed condition.



## Hunting Tooth

- A unique construction that allows for extended service life.
- Hunting tooth sprockets have an odd number of teeth and are half the pitch of the mating chain. Every time the sprocket makes a revolution, the chain engages with one set of teeth, ahead of the previously engaged set. Hence, each sprocket tooth only sees engagement every other rotation.



## Double Duty

- An innovative construction that allow for extended service life.
- Double Duty sprockets are double cut and have an even number of teeth. Utilizing strategic, manual indexing, this design can provide extended service life, somewhat similar to a hunting design for an even tooth setup.



SNC3 Hub

# GRAIN HANDLING SPROCKETS QUOTATION DATA SHEET

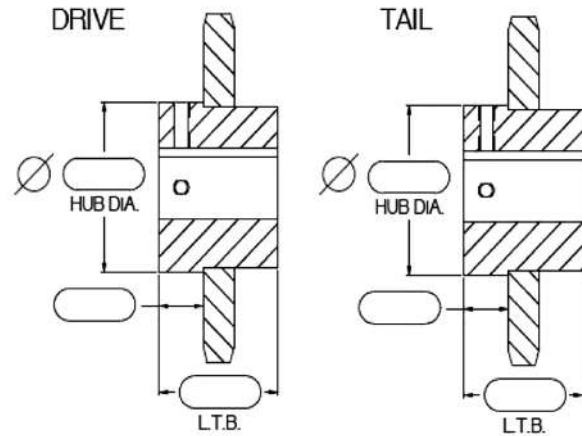
Name/Surveyor		Customer Name	
Site/Location		Application Type	
Customer Name		Phone	

## MOUNTING CONFIGURATIONS

	Drive	Tail
Rough Stock Bore	<input type="checkbox"/>	<input type="checkbox"/>
Plain Bore	<input type="checkbox"/>	<input type="checkbox"/>
Keyway & 2 Set Screws	<input type="checkbox"/>	<input type="checkbox"/>
Bronze Bushing	<input type="checkbox"/>	<input type="checkbox"/>
Power Lock	<input type="checkbox"/>	<input type="checkbox"/>
Taper-lock Bushing	<input type="checkbox"/>	<input type="checkbox"/>
QD Bushing	<input type="checkbox"/>	<input type="checkbox"/>
ER Bushing	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify below)	<input type="checkbox"/>	<input type="checkbox"/>

## CONSTRUCTION DETAILS

	Drive	Tail
A-Plate	<input type="checkbox"/>	<input type="checkbox"/>
B-HUB	<input type="checkbox"/>	<input type="checkbox"/>
C-HUB	<input type="checkbox"/>	<input type="checkbox"/>
Split HUB	<input type="checkbox"/>	<input type="checkbox"/>
Segmented	<input type="checkbox"/>	<input type="checkbox"/>
Hunting Tooth	<input type="checkbox"/>	<input type="checkbox"/>
Double Duty	<input type="checkbox"/>	<input type="checkbox"/>
Chain Saver	<input type="checkbox"/>	<input type="checkbox"/>
Traction Rim / Wheel	<input type="checkbox"/>	<input type="checkbox"/>
Octagonal Wheel	<input type="checkbox"/>	<input type="checkbox"/>
Lightening Holes	<input type="checkbox"/>	<input type="checkbox"/>



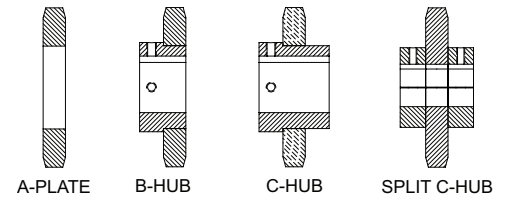
Notes

Drive Shaft Diameter

Drive Number of Teeth

Tail Shaft Diameter

Tail Number of Teeth



Notes

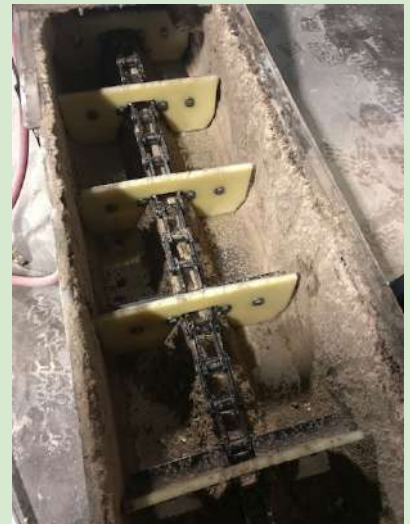
# GRAIN HANDLING APPLICATIONS

## GRAIN HANDLING DRAG CONVEYORS

### Challenges - Drag Conveyors

Paddles bend due to excess material build up. Space limitations and time constraints make sprocket change out difficult. Measuring wear on sprockets in the field is complicated.

Solutions	Size Range for Application
Replacing flat bar with angle iron reinforces the paddle and resists bending forces	WSC, 81X, 81XHD, 81XHH, Steel bushed chain
Split sprockets eliminate the need for full shaft disassembly	Split Sprockets
Tsubaki Smart Tooth provides a clear visual indicator of when sprockets are worn and need to be replaced	ANSI 80 Pitch and above, all WSC, 81X, Mill Chain sprockets



# RAIL CAR PROGRESSIONER

## Challenges - Rail Car Progressioner

Elongation and premature wear from dust and exposure to the elements

### Solutions

### Size Range for Application

Tsubaki G8 roller chain comes standard with Performax bushings and ring coined connecting links

80-240 riveted chain

Tsubaki Titan chain provides wear resistance through case hardened and hard chrome plated pins

40-160 riveted chain

Tsubaki Lambda chain provides a lube free option

40-120 riveted chain



# GRAIN HANDLING APPLICATIONS

## CANOLA CRUSHING

### Challenges - Canola Crushing

Different demanding applications such as high dust, heat, wet load require different solutions

#### Solutions

Tsubaki has a diverse range of products to deal with specific application challenges such as Hard Chrome Plated Pins, Stainless Steel construction, Induction Hardened materials

Diverse range of attachment styles and materials such as Virgin White, Black, Blue Food Grade and High Heat

#### Size Range for Application

WSC, 81X, Engineered Class Steel Bushed Chain

WSC, 81X, Engineered Class Steel Bushed Chain





# POTATO PICKERS

## Challenges - Potato Pickers

Wear from dusty, high shock environment but requires cost effective throw away solutions

### Solutions

Tsubaki AgriTuff has through hardened pins, quad riveted construction and it is offered at a discount to Tsubaki Premium chain.

### Size Range for Application

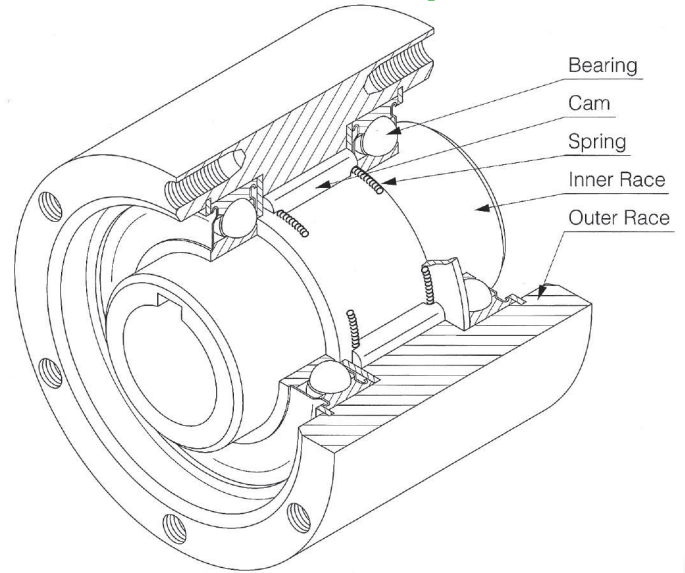
40, 50, 60, 60H,80 riveted, 2050, 2060, 40-2, 50-2, 60-2, 60-2H



# CAM CLUTCH

## Tsubaki offers an extensive inventory of Overrunning and Indexing Clutches and Backstops

Tsubaki is bringing over 50 years of global experience in the design and manufacture of clutch products. The product variations shown below feature a series of unique cam designs to maximize the torque rating, achieve low speed lift-off to minimize wear in the overrunning condition and provide long maintenance free service. Simple and cost effective, Tsubaki clutches transmit the load in one direction (freewheel) and stop and hold any reversing loads to prevent damage.



### Backstopping



**BS/BS-F**



**BSEU**

### High Speed Backstopping



**BR-HT**

### Long-Life Modular Design



**BREU**

### Indexing

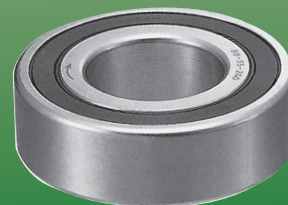


**MIUS**



**MZEU**

### One-Way Bearing



**BB**

# PROBLEM SOLVING PRODUCTS



**Shock Relay**

**KabelSchlepp  
Steel Cable Carrier**



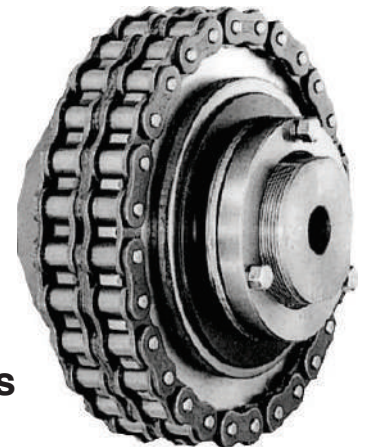
**Power Cylinder**



**Torque Limiter**



**Couplings**



**Power-Lock**



**Continuous-Flex  
Cables**





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## CAT-AGRICULTURE

Note: In accordance with the policy of Tsubaki of Canada Limited to consistently improve its products, the specifications in this catalogue are subject to change without notice. Please contact Tsubaki for current prices.

